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ANNUAL REPORT ON STRONG-MOTION EARTHQUAKE RECORDS
IN JAPANESE PORTS (1988)
by Eiichi KURATA, and Susumu IAI

港灣地域強震觀測年報 (1988)

倉 田 榮 一
井 合 進

運輸省港灣技術研究所



ANNUAL REPORT ON STRONG-MOTION EARTHQUAKE RECORDS IN JAPANESE PORTS (1988)

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Abbreviations used above:

- AR: Analog record (computer plots of digitized records)
- IR: Integrated velocities and displacements (computer plots of digitized records)
- FS: Fourier spectra
- NR: Numerical tables of response spectra
- LO: Loci of accelerations, velocities and displacements

港湾地域強震観測年報(1988)

倉田 栄 一*

井合 進**

要 旨

港湾地域における強震観測は昭和37年より港湾技術研究所が中心となり、のちに示す港湾関係諸機関が協力して実施してきた。1988年12月現在、港湾地域強震観測網には84台の強震計が55港に設置されていた。このうち63台が地盤上、15台が構造物上に、6台が地中に設置されていた。使用している強震計は大別するとSMAC-B2強震計とERS強震計である。SMAC-B2型強震計は機械構造を主体としたもので強震計開発委員会で設計された強震計である。ERS強震計は港湾技術研究所地盤震動(旧耐震構造)研究室が開発した強震計である。これには動コイル型換振器の受感部にもち電磁オシログラフでアナログ記録する方式のB、C、D型と、サーボ型換振器を受感部にもち、固体メモリでデジタル記録する方式のF型がある。ERS-B型は地震動の水平2成分を記録し、ERS-C、D型は鉛直成分を含めた3成分を記録する。ERS-B、C型は地表および構造物上における観測用として、D型は地中観測用に使用される。デジタル強震計の場合は同一換振器が地中、地表、構造物のいずれを対象とした観測にも使用される。

この年報は、前記観測網で1988年に得られた記録について報告する。年報は本文および観測結果からなり、観測結果は、強震観測表、記録波形、速度、変位波形、フーリエスペクトル、応答スペクトル、デジタル記録、水平面内の加速度、速度および変位軌跡からなる。

強震観測表(Strong-Motion Earthquake Observation Results)には、対象期間中に得られたすべての記録を地震ごとに分類し、地震の資料と最大成分加速度等を示した。ただし、成分の最大加速度が20ガル以下で対応する地震が確認できないものは除いてある。地震資料(Earthquake data)に示すものは、震度(Intensities)を除き、気象庁地震津波監視課発行の「地震月報」によっている。しかし、この年報を編集する時点で地震月報が刊行されていない地震については、地震津波監視課が速報的に発表する「地震火山概況」によっている。その場合には、そのことが地震資料に注記されている。記録番号は記録が港湾技術研究所に到着した順序で付され、Sで始まる番号の記録はSMAC-B2強震計、Mで始まる番号の記録はアナログ記録方式のERS強震計、Fで始まる番号の記録はデジタル記録方式のERS強震計で得られたものである。

記録波形は最大加速度が20ガル以上の記録について示した。これはデジタル記録に関連して後に説明されている手法により記録を数字化し、これを電子計算機により図化したものである。

最大加速度が約20~50ガルの範囲の記録については水平2成分の波形を、50ガル以上の記録については水平2成分と上下成分の計3成分の波形を示した。ただし、ERS-B強震計は鉛直成分を含まないで、この強震計の記録では常に水平2成分の波形のみが示される。最大加速度によって振幅の目盛の尺度を変えることがあるので注意されたい。水平成分の方向は真北を基準にして示して

* 構造部 地盤震動研究室

** 構造部 地盤震動研究室長

ある。これは、SMAC-B2強震計の場合、地震動の周期が地震計の振子の固有周期よりも十分に長いときに、地盤の加速度の方向を示すように定めたものである。ERS強震計の場合には、地震動の周期が強震計の振子の固有周期付近であるときに地盤の加速度の方向を示すように定めたものである。

デジタル記録は次のようにして作られたものである。SMAC-B2強震計の記録の場合には、マイラーベースの感光フィルムを用いて密着印画を作り、これを数字化装置により時間軸に対し、0.1 mm（これは時間にして0.01秒に対応するが、後記のように円弧誤差を含んでいるので厳密な0.01秒でない）ごとに振幅を読み取り数字化する。数字化装置の読取範囲の関係から、記録は30～45 cmごとに区切って数字化される。数字化された記録は読取区間ごとにゼロ線が設定され、各区間の記録が接続され一本の記録とされる。この際に、円弧誤差、記録紙送り誤差（記録開始時に記録紙の送り速度が徐々に一定値に近づく立上り誤差を含む）、記録ペンの軸が加速度ゼロのときに紙送り方向に平行になっていないことによる誤差が補正される。このような補正のために、記録の数字化においては各成分の波形の他に、2本の基線、各成分の記録の前にある点検時に記録した円弧も数字化される。また、記録ごとに記録紙の送り速度が読取られる。円弧補正後の記録の数値の時間間隔は一定値とはなっていないが、直線補間により0.01秒間隔の記録に直される。

このようにして得られたものが、この年報でSMAC-B2強震計のデジタル記録として示されている。

ERS-B.C.D強震計の記録の場合には、原記録を用いて、数字化装置により時間軸0.1mm間隔に振幅を読み取り数字化する。ERS-B強震計の記録紙の送り速度（仕様値）は2 cm/sでERS-C.D強震計のそれは4 cm/sである。したがって、読取時間間隔はそれぞれ0.005秒および0.0025秒である。数字化は約70cmの区間ごとに行われる。各成分の波形の他に基線が1本数字化される。また、記録紙の送り速度が読取られる。得られた記録に区間ごとにゼロ線の設定をおこなった後、記録の一本化、時間間隔の補正、平滑化を行い、0.01秒間隔の記録とする。このようにして得られたものが、この年報でERS-B.C.D強震計のデジタル記録として示されている。

デジタル記録の作表様式は表-8のデジタル記録の例に示されているとおりである。数値の配列順序は行の左から右へ、ページの左半分から右半分へと進む。ある数値が記録の先頭から何番目の数値であるかを知るには、その数値を含む行の左端のNo.の値と、その数値の欄の最上行にある（ ）内の数値を加えればよい。1行には10個の数値が含まれており、各データは空白を含めて6字となっている。これはデジタル記録を80欄カードにさん孔するときの便利さを考慮して定めたものである。カード1枚のうち60欄をデータに、残り20欄をカードの判別記号（地震番号、成分、カード番号等）に用いれば1行がカード1枚にさん孔できる。小数点は印字されていないが、数値の末尾にあるとすれば、数値の単位は0.1ガルとなる。

以上のようにして得られた等時間間隔のデジタル記録をフーリエ変換し、計器特性を補正する。その結果にフィルター操作を加える。フィルターは2種類のものを用いる。ひとつは、フィルターの定数が固定されているもの（以後固定フィルターと書く）で、他は、フィルターの定数が記録波形のフーリエ変換の特性により修正されているもの（以後パラメタ付フィルターと書く）である。

フィルター操作後、速度および変位に対するフーリエ変換を求め、それぞれのフーリエ逆変換を求めて、補正加速度、速度、変位の波形とした。本報告では、パラメタ付フィルターにより求めた加速度波形を補正加速度波形として示した。また、2種類のフィルターを用いて求めた速度、変位の波形も示した。両フィルターの特性等は本文または別報を参照されたい。³⁵⁾

2種類のフィルターを用いた結果を並列して示している理由は次の通りである。第1に、現在のところどのような特性のフィルターが最適であるかを決め難いこと、第2に、求まる速度および変位の波形はフィルターの特性に著しく依存するが、単一の方法による結果を示した場合には無批判に利用されるおそれがあること、第3に、両フィルターがそれぞれ特長を有していること、などである。

ERS強震計はSMAC-B2強震計に比し、より高い振動数まで感度が一樣になっている。そのため、両強震計の記録波形をそのまま比較することは適切でないことがある。それ故、ERS強震計の記録については、SMAC-B2強震計が同一地点にあった場合に求まるであろう波形を求め、これをSMAC-B2等価加速度波形として示してある。

本年報に示されている応答スペクトルは、パラメタ付フィルターによる操作後の補正加速度波形を用いて求めたものである。前記のように、本年報に示すデジタル記録は計器補正の前段階におけるものである。したがって、デジタル記録をそのまま用いて応答スペクトルを計算しても、本年報に示されているものと同一とはならない。また、1975年以前の年報では、ここに示す記録の補正方法と異なった処理によるデジタル記録および応答スペクトル等が示されていることに留意する必要がある。なお速度、変位波形の計算およびスペクトルの計算において、SMAC-B2強震計の記録の場合は最初の1秒間を無視した。これは、記録紙送りの立上り補正は行っていないが、記録の最初の部分における微小な誤差が記録の極く最初の部分の補正に与える影響が大きいことを考慮しての処置である。

本年報に示されているフーリエスペクトルは、高速フーリエ変換により加速度記録の全長に対しフーリエスペクトルを求めた後、このスペクトル値に時間長を乗じて加速度のディメンジョンとし、さらにバンド幅が1ヘルツのParzenウィンドウを用いて平滑化したものである。フーリエスペクトルも応答スペクトルと同様に、それぞれの強震計の計器特性の補正を行った加速度波形から求めたものである。

本年報に示される水平画面内の加速度、速度および変位の軌跡は、各波形の水平2成分を合成したベクトルの先端の移動軌跡を描いたものである。軌跡を描くのに用いた波形の時間長は、その全長とし、長い記録では、記録の先端部および後端部の振幅の小さい部分を除いたものとしている。用いる区間長の選定は観察によって行っている。軌跡を描くのに用いた加速度波形および変位波形は強震計の計器特性の補正を行ない、パラメタ付フィルターで求めたものである。図中のNは真北を示す。

キーワード：強震観測、数値化加速度記録、応答スペクトル

1988年における港湾地域強震観測には以下の諸機関が関係した。関係機関の協力で謝意を表する。

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北海道開発局港湾部	大阪市港湾局
沖縄開発庁沖縄総合事務局	

本年報は強震観測担当者の努力に負うところが非常に大きく、これら担当者の努力はこの年報の著者に準ずるものである。担当者各位に敬意と謝意を表する。なお、各観測地点で強震計の点検ならびに記録の取扱いは強震観測担当者によりなされているのでこれら担当者に対し将来、記録について問い合わせたい事項等が発生した時に備えるため、全担当者を以下に示す。

昭和63年 強震観測担当者

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野沢邦雄

金野 勇，東 志郎，中山学之，荒井直人，
本間久雄

井出正夫，佐藤良雄，井上芳郎，前田宗文

伊藤千尋，大塚寿浩

大沼松蔵，小谷野喜二，藤田謙二，中島 靖

梶原利雄，金子義則，小山良明

佐藤利春，大倉正憲，中嶋雄一，北川国広，

川村和彦

窪内 篤，川田 貢

沖縄総合事務局

那 覇 港工事事務所

平 良 港 “

石 垣 港 “

田仲康時，前川 進，生果 武，知念 直

大村 誠，田中 敏

二瓶 章，当銘正秀，与那嶺和史，田仲康時

その他

東京都港湾局

大阪市港湾局

静岡県田子ノ浦港管理事務所

宮崎県日向土木事務所

室井孝仁，清水恵助，小菅和英

山本忠正，廣田知夫

渡辺尚樹

山本祐一，奥松秀樹

ANNUAL REPORT ON STRONG-MOTION EARTHQUAKE RECORDS IN JAPANESE PORTS (1988)

Eiichi KURATA*
Susumu IAI**

Synopsis

In the major ports in Japan, strong-motion earthquakes and earthquake responses of structures have been observed since 1962; and as of December 1988, 3652 accelerograms were accumulated and analysed at the Earthquake Resistant Structures Laboratory. The observation network consisted of 84 strong-motion accelerographs; the 63 accelerographs were on the ground, the 6 accelerographs were in the ground and the rest on the structures. Two types of accelerographs, the SMAC-B2 accelerograph and the ERS accelerograph are being used. This report presents all the records obtained in 1988, which are listed in the tables with their maximum accelerations, being classified in accordance with earthquakes. The accelerograms of ground motions with maximum accelerations exceeding 20 Gals are reproduced in form of computer plots. For the ground acceleration records with maximum accelerations greater than 50 Gals, digitized records, Fourier spectra, response spectra, integrated velocities and displacements, and loci of accelerations, velocities and displacements in horizontal plane are presented.

Key Words: Strong-Motion Earthquake Observation, Digitized Acceleration Records, Response Spectra

1. Introduction

The observation of the strong-motion earthquake in major ports was started in 1962 in Japan by the Geotechnical Earthquake Engineering Laboratory of the Port and Harbour Research Institute. The observation network was expanded year by year; and as of December 1988, 84 accelerographs had been installed in 55 ports. Two types of accelerographs were being used, namely the SMAC-B2 accelerograph and the ERS accelerograph.

Until the end of 1988, 3635 accelerograms had been obtained in the network; 2163 accelerograms were obtained in the SMAC-B2 accelerographs and 1472 accelerograms, in the ERS accelerographs. They were collected in the Laboratory for preliminary processing and analyses which would be explained later on. The records from 1963 to 1975 had been published in the preceding annual reports which had similar format to the present one. (1~11)

In 1968, there occurred an earthquake of large magnitude, the 1968 Tokachi-Oki Earthquake, and large number of aftershocks followed. The damage took place to buildings, roads, port facilities and many other types of structures. The largest acceleration was recorded at Hachinohe Port, which was 259 Gals. Because of the large magnitude of the earthquake and the damage to structures, the records were of great interest and importance. Therefore, the authors published a report of similar format to the annual report. (23) Digitized data of

* Member of Geotechnical Earthquake Engineering Laboratory, Structures Division

** Chief of Geotechnical Earthquake Engineering Laboratory, Structures Division

vertical components were not included in those reports; however, the data were reported separately. ¹²⁾ In the annual report for the records of 1976 and 1977, a new data processing procedure was introduced, and accelerations after instrument correction, integrated velocities and displacements, and response spectra calculated with the instrument corrected accelerations were included. ¹³⁾ In 1978, Japan was hit by two great earthquakes, the 1978 Izu-Oshima-Kinkai Earthquake (Magnitude 7.0) in January and 1978 Miyagi-Ken-Oki Earthquake (Magnitude 7.4) in June. Records of these earthquakes are compiled respectively into two special reports by the new data processing of similar format to the annual report. ^{24,25)} Port structures were damaged by the 1982 Urakawa-Oki Earthquake and records of the earthquake are also compiled into special report. ²⁶⁾ The 1983 Nipponkai-Chubu Earthquake (Magnitude 7.7) brought about serious damage to port facilities in Akita port and records of the earthquake are compiled into special report. ²⁷⁾ In 1984, an earthquake (Magnitude 7.1) occurred in Hyuga-nada; off east coast of Kyushu and brought slight damages on port facilities. Records of the earthquake are also compiled into special report. ²⁸⁾ In 1987, an earthquake (Magnitude 6.7) hit the metropolitan area and caused some damages on houses and civil engineering structures such as bridges and embankments reclaimed lands in port area also liquefied slightly by this earthquake. Records of the earthquake are compiled into special report. ²⁹⁾

The records and the results of the preliminary analyses in those reports have been used very effectively for analyses of the earthquake damage, for analyses of earthquake response of structures and also for designing large piers; and the usefulness of the strong-motion earthquake observation has been perfectly proved. ³⁹⁾

The present report consists of the Strong-Motion Earthquake Observation Results, reproduced accelerograms, digitized records, response spectra, Fourier spectra, integrated velocities and displacements, and loci of acceleration and displacement in horizontal plane. All the records in 1983 are listed in the Strong-Motion Earthquake Observation Results with their maximum accelerations. The computer plots of digitized records are prepared for the ground acceleration records with maximum accelerations exceeding 20 Gals, and the digitized records and the spectra are provided on records exceeding 50 Gals.

Following organizations are being cooperated with the Port and Harbour Research Institute in the strong-motion earthquake observation:

- The Bureau for Ports and Harbours of the Ministry of Transport;
- The Regional Bureaus for Port Construction of the Ministry of Transport;
- The Port and Harbour Division, Hokkaido Development Bureau of the Hokkaido Development Agency;
- The Okinawa General Office of the Okinawa Development Agency;
- The Harbour Sections of Shizuoka, and Miyazaki Prefectural Governments; and The Harbour Bureaus of Tokyo and Osaka Municipal Governments.

2. Network and Instruments

(1) Network

The network of the Port and Harbour Research Institute was covering the coast-line of Japan with 84 strong-motion accelerographs in 1988, the location of ports where the accelerographs are installed, are shown in Fig. 1. The numbers attached to the ports in Fig. 1 are corresponding to the numbers in Table 1. In Table 1, being classified in accordance with the ports, the stations are listed with the type of accelerograph, the installation condition, and

the reference number. The reference number is showing the number of the Technical Note of the Port and Harbour Research Institute in which the site condition of each station is described. 30 ~ 34)

The accelerographs at the 52 stations out of the 84 stations were the SMAC-B2 accelerographs and the rest, the ERS accelerographs.

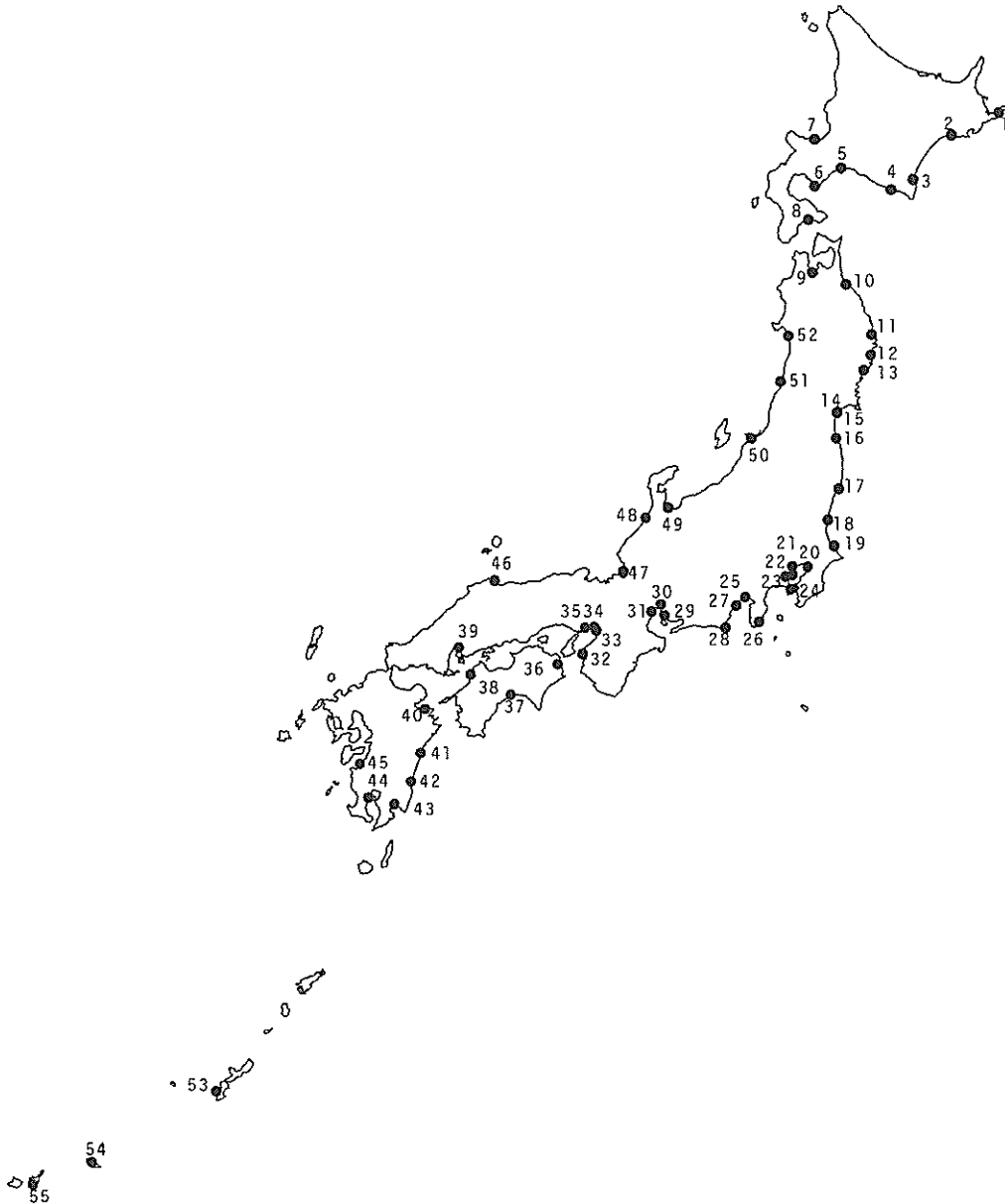


Fig. 1 Location of ports where the accelerographs are installed.
(The numbers to each port are corresponding to the numbers in Table 1)

Table 1 List of Strong-Motion Earthquake Stations of the Port and Harbour Research Institute

No. of port*	Name of port	Name of station	Type of accelerograph	Installation condition	Ref. No.**
1	Hanasaki	Hanasaki-M	ERS-C	on ground	298
2	Kushiro	Kushiro-ji-S	SMAC-B2	on ground	
3	Tokachi	Tokachi-M	ERS-C	on ground	298
4	Urakawa	Urakawa-S	SMAC-B2	on ground	
5	Tomakomai	Tomakomai-S	SMAC-B2	on ground	107
6	Muroran	Muroran-S	SMAC-B2	on ground	34,107
7	Otaru	Otaru-S	SMAC-B2	on ground	107
8	Hakodate	Hakodate-M	ERS-C	on ground	298
		Hakodate-FB	ERS-F	in ground	
		Hakodate-F	ERS-F	on ground	
		Hakodate-FR	ERS-F	on structure	
9	Aomori	Aomori-S	SMAC-B2	on ground	107,156
10	Hachinohe	Hachinohe-ji-S	SMAC-B2	on ground	34,107
11	Miyako	Miyako-S	SMAC-B2	on ground	34,107
12	Kamaishi	Kamaishi-M	ERS-C	on ground	351
		Kamaishi-MB	ERS-D	in ground	351
13	Ofunato	Ofunato-bochi-S	SMAC-B2	on ground	34,107
		Ofunato-bo-S	SMAC-B2	on structure	34,107
		Ofunato-mound-M	ERS-C	on structure	
14	Shiogama	Shiogama-kojyo-S	SMAC-B2	on ground	34,107,156
15	Sendai	Sendai-M	ERS-C	on ground	351
		Sendai-MB	ERS-D	in ground	351
16	Soma	Soma-S	SMAC-B2	on ground	
17	Onahama	Onahama-ji-S	SMAC-B2	on ground	351
18	Hitachinaka	Hitachinaka-F	ERS-F	on ground	
19	Kashima	Kashima-zokan-S	SMAC-B2	on ground	156
20	Chiba	Chiba-S	SMAC-B2	on ground	107
21	Tokyo	Shinagawa-S	SMAC-B2	on ground	34,107
		Shinagawa-MB	ERS-D	in ground	
22	Kawasaki	Kawasaki-FB	ERS-F	in ground	
		Kawasaki-F	ERS-F	on ground	
		Kawasaki-FR	ERS-F	on structure	
23	Yokohama	Keihin-ji-S	SMAC-B2	on ground	34
		Yamashita-hen-S	SMAC-B2	on ground	34
		Yamashita-hen-M	ERS-C	on ground	298

No. of port*	Name of port	Name of station	Type of accelerograph	Installation condition	Ref. No.**
		Yamashita-dai6-S	SMAC-B2	on structure	34
		Yamashita-FB	ERS-F	in ground	
		Yamashita-F	ERS-F	on ground	
		Yamashita-FR	ERS-F	on structure	
24	Yokosuka	Koken-S	SMAC-B2	on ground	34
		Koken-M	ERS-C	on ground	34
25	Tagonoura	Tagonoura-S	SMAC-B2	on ground	107
26	Shimoda	Shimoda-F	ERS-F	on ground	
27	Shimizu	Shimizu-kojyo-S	SMAC-B2	on ground	34,156
		Okitsu-S	SMAC-B2	on ground	34,156
		Shimizu-miho-S	SMAC-B2	on ground	298
28	Omaezaki	Omaezaki-M	ERS-C	on ground	351
29	Kinuura	Kinuura-ji-S	SMAC-B2	on ground	298
30	Nagoya	Nagoya-zokan-S	SMAC-B2	on ground	34, 156
		Nagoya-inae-S	SMAC-B2	on structure	34
		Inae-sanbashi-M	ERS-B	on structure	34
		Inae-yaita-M	ERS-B	on structure	34
31	Yokkaichi	Yokka.-chitose-S	SMAC-B2	on ground	107
		Yokka.-sekita-M	ERS-B	on structure	34
		Yokka.-dai2-M	ERS-B	on structure	34
32	Wakayama	Wakayama-S	SMAC-B2	on ground	298
33	Osaka	Osaka-ji-S	SMAC-B2	on ground	34
		Osaka-chuo-S	SMAC-B2	on structure	34
34	Amagasaki	Amagasaki-S	SMAC-B2	on ground	156
35	Kobe	Kobe-ji-S	SMAC-B2	on ground	34
		Kobe-dai6-S	SMAC-B2	on structure	34
		Kobe-dai8-S	SMAC-B2	on structure	34
		Kobe-maya-M	ERS-C	on ground	298
		Maya-dai1-M	ERS-B	on structure	34
		Maya-dai2-M	ERS-B	on structure	34
36	Komatsujima	Komatsujima-S	SMAC-B2	on ground	107
37	Kochi	Kochi-ji-S	SMAC-B2	on ground	298
38	Matsuyama	Matsuyama-S	SMAC-B2	on ground	156
39	Hiroshima	Hiroshima-ji-S	SMAC-B2	on ground	
40	Oita	Oita-S	SMAC-B2	on ground	156
41	Hososhima	Hososhima-S	SMAC-B2	on ground	34
42	Miyazaki	Miyazaki-M	ERS-C	on ground	298

No. of port*	Name of port	Name of station	Type of accelerograph	Installation condition	Ref. No.**
43	Shibushi	Shibushi-S	SMAC-B2	on ground	
44	Kagoshima	Kagoshima-S	SMAC-B2	on ground	34
45	Minamata	Minamata-M	ERS-C	on ground	351
46	Sakaiminato	Sakaiminato-ji-S	SMAC-B2	on ground	
47	Tsuruga	Tsuruga-S	SMAC-B2	on ground	34
48	Kanazawa	Kanazawa-S	SMAC-B2	on ground	107
49	Toyama	Toyama-S	SMAC-B2	on ground	34
50	Niigata	Niigata-ji-S	SMAC-B2	on ground	298
51	Sakata	Sakata-S	SMAC-B2	on ground	34
52	Akita	Akita-S	SMAC-B2	on ground	34,351
53	Naha	Naha-zokan-S	SMAC-B2	on ground	298
54	Hirara	Hirara-S	SMAC-B2	on ground	298
55	Ishigaki	Ishigaki-S	SMAC-B2	on ground	298

* The number correspond to those in Fig. 1.

** The number correspond to those of the Technical Note of the Port and Harbour Research Institute, in which the site condition of the station is given.

(2) Servicing

The installation and the servicing of the instruments have been made by the port construction offices of the previously described organizations under the direction of the Geotechnical Earthquake Engineering Laboratory. It is directed that the instrument should be checked at least twice a month and after an earthquake larger than the intensity II as soon as possible. The accelerogram is sent carefully to the Geotechnical Earthquake Engineering Laboratory by post or in hand, without any treatment or reading in the station, to eliminate possible danger to damage the accelerogram by unaccustomed persons to handle it.

The Geotechnical Earthquake Engineering Laboratory has been offering every year a training course of about 5 days to the persons who take care of the accelerographs at the stations. During the course, the trainees are instructed proper procedure to maintain the instruments and to handle the accelerograms, by the experts from the manufacturing companies of the accelerographs. They also attend introductory lectures to the earthquake engineering by the instructors inside and outside of the Institute.

(3) Stations

In the network, there are three kinds of stations; the first is to record acceleration of the ground surface, the second to record acceleration in the ground, and the third to record the earthquake response of structures. The station to record the earthquake response is always accompanied with another station to record the ground acceleration in its vicinity.

In the stations recording the ground acceleration independently, one of the horizontal components of the instrument is directed to the due north except a few number of instruments which have been installed in parallel with the structures. It is the reason that in the ports where the instruments are installed in parallel to the structures, there are many quay-walls or piers parallel each other, and that it is desirable to record components of the ground acceleration in parallel and perpendicular to the axes of the structures. At the stations recording structural response and the accompanying stations recording the ground acceleration, the instruments are installed parallel to the structures whose earthquake response is needed. Because two horizontal components of the accelerographs are always named NS and EW, the direction of the NS-component makes an angle to the due north direction in some of the accelerographs in the network.

Each station in the network has its own abbreviated name which implies its location, the type of its accelerograph and installation condition, on the ground or on the structure. For instance, the station in Hachinohe Port is named Hachinohe-S in which Hachinohe is the name of the place where the station is located and the capital letter S at the end of the abbreviated name is showing that the accelerograph in the station is the SMAC-B2 accelerograph. If the ERS accelerograph is being used in a station, the name of the place is followed by a capital letter M or MB. As this naming is made to distinguish the stations accurately in the network, it may be a little difficult for the people outside the network to imagine the location from its name, especially for the people who does not understand the Japanese language. The detailed publication on the network will help those people to find the location as well as other necessary data of the station.

(4) Accelerographs

i) SMAC-B2 Accelerograph

The SMAC-B2 accelerograph was developed by the Committee for the Standard Strong

Motion Accelerograph. It is a three component mechanical accelerograph which leaves records on a rolled waxed paper. The specifications, inside view and theoretical frequency characteristics are shown in Table 2 and Figs. 2 and 3 respectively.

In the network of the Port and Harbour Research Institute the SMAC-B2 accelerograph is practically one of the standard accelerographs; it is because at the earlier time of the observation the SMAC-B2 accelerograph was one of the most latest models and suitable for the observation condition in port areas. After the SMAC-B2 accelerograph, several types of accelerograph were developed by the Committee. However, it is inconvenient to use many types of accelerograph in a network from view point of instrument characteristics and maintenance; and the number of the SMAC-B2 accelerograph in the network continued to increase.

The triggering levels of the accelerographs in the network are 5 gals in places where ground noise is small and 8 gals in places where ground noise is relatively large because of heavy motor trucks for construction work or cargo transportation. Exceptionally a few number of the accelerographs located beside roads carrying very heavy traffic are triggered at 11 Gals.

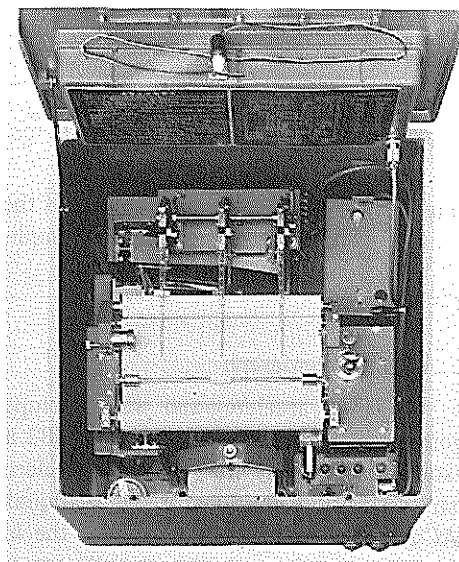


Fig. 2 Inside view of the SMAC-B2 accelerograph

Table 2 Specifications of the SMAC-B2 accelerograph

Component	2 horizontal and 1 vertical
Natural period	0.14 s.
Sensitivity	12.5 Gal/mm
Damping	Critical
Damping mechanism	Air piston
Maximum recording acceleration	500 Gal
Recording speed	10 mm/s.
Recording medium	Waxed paper
Driving mechanism for recorder	Hand-wound spring motor
Recording duration	3 min.
Recording capacity	5 earthquakes/roll
Starter	Electric contact made by vertical motion
Period of starter pendulum	0.3 s.
Starter threshold	5 Gal
Auxiliary starter	Mechanical, works at 100 gal
Time marking	1 s.
Power supply	4 dry cells
Size	54 x 54 x 37 in cm
Net weight	100 kg

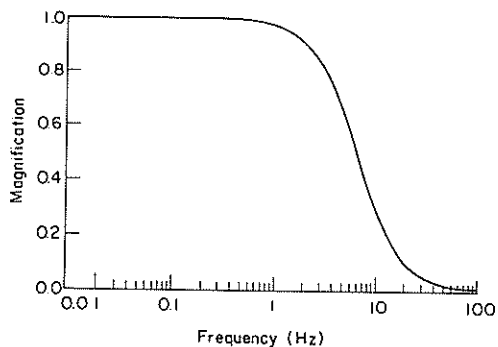


Fig. 3(a) Frequency characteristics of the SMAC-B2 accelerograph (amplitude)

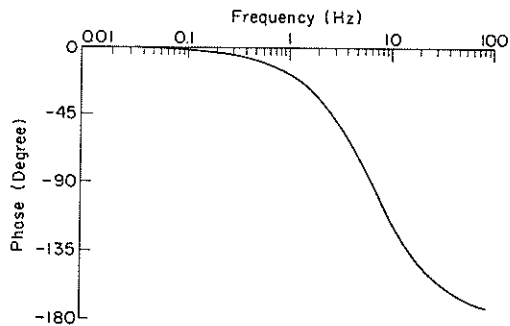


Fig. 3(b) Frequency characteristics of the SMAC-B2 accelerograph (phase)

ii) ERS Accelerograph

The ERS accelerograph was developed by the Geotechnical Earthquake Engineering Laboratory. In the network the SMAC-B2 accelerograph is very widely used. However, there are some places where the SMAC-B2 accelerograph is not convenient to be installed, especially on structures. For instance, if the earthquake response of a pier is going to be measured with the SMAC-B2 accelerograph, a house for the instrument will be constructed on the pier where many motor trucks and cargo handling equipments are working. It is almost always difficult to find a place on a port structure for the house. Then, it is considered that transducers and a recorder are separately installed in a member of a pier and in a house which is located in the vicinity of the transducers but not disturbing the cargo handling work.

The ERS accelerograph consists of transducers of moving coil type and a recorder including power supply. Originally magnetic tape data recorders were used; this type of accelerograph is called the ERS-A accelerograph. After some period of operation the magnetic tape data recorders had been replaced by electro magnetic oscillographs. The model with an electro magnetic oscillograph was named as the ERS-B accelerograph.

A model of similar type, the ERS-C accelerograph, was developed and has been installed at eleven stations in the network. While the ERS-B accelerograph records accelerations in two horizontal components, the ERS-C accelerograph records acceleration of vertical component as well as accelerations of two horizontal ones.

A new model of similar type, the ERS-D accelerograph, was developed for recording acceleration in the ground and accelerographs of this type have been installed at two stations in the network. The transducers of the ERS-D accelerograph are installed in the bore-holes, but they are the same specifications as those of the ERS-C accelerograph.

In the ERS-B, C and D accelerograph the transducers are almost directly connected with galvanometers in the electro magnetic oscillograph; between them there exists only resistor circuits to adjust sensitivity and impedance matching. Non electronic amplifier is used to attain maximum reliability of the instrument. The overall sensitivity is more than 10 mm per Gal and it is easily adjusted by changing resistors of the circuit. Therefore, the ERS-B, C and D accelerograph has advantage to start the observation in its maximum sensitivity and after obtaining some records to readjust the sensitivity into the appropriate one for the strong-motion accelerograph. It will enable for researchers to obtain the record of sufficient amplitude

to analyze although the real acceleration amplitude is rather small and to start analyses from earlier stage of the observation.

The specifications of the ERS-B accelerograph are listed in Table 3, the transducer and the recorder are shown in Fig. 4 and 5. The corresponding information on the ERS-C accelerograph is given in Table 4 and Figs. 7 and 8. The frequency characteristics are shown in Fig. 6.

The triggering levels of the ERS accelerographs are similar to those of the SMAC-B2 accelerographs.

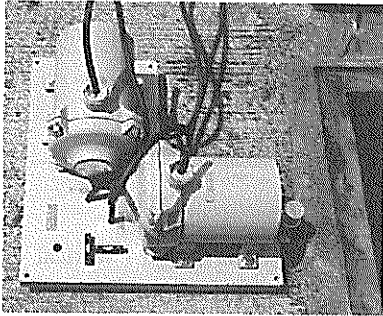


Fig. 4 Transducers of the ERS-A/B accelerograph



Fig. 5 Recorder of the ERS-B accelerograph

Table 3 Specifications of the ERS-B accelerograph

Transducer	
Type	Moving coil type
Component	2 horizontal
Natural period	0.5 s.
Damping factor	17
Damping mechanism	Electro-magnetic
Capacity	250 Gal
Coil impedance	320 ohm
Sensitivity	about 2 mv/gal (circuit open)
Water tightness	over 200 kg/cm ²
Recorder	
Type	Electro magnetic oscillograph
Natural frequency of galvanometer	100 Hz
Sensitivity	166 mm/mA
Recording paper	92 mm (width) x 30 m (length) (visible without processing)
Paper speed	2 cm/s.
Time mark	0.1 s.
Power supply	
Rechargeable battery, charged automatically when it is necessary.	

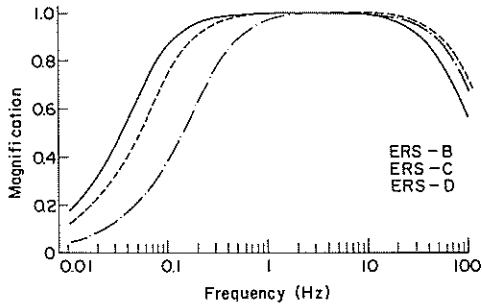


Fig. 6(a) Frequency characteristics of the ERS-B, C, D accelerograph (amplitude)

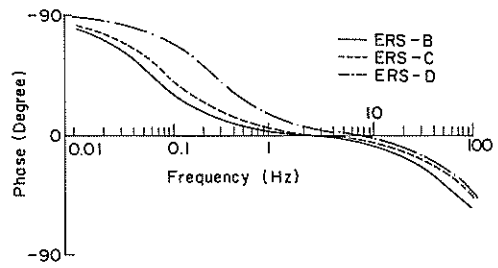


Fig. 6(b) Frequency characteristics of the ERS-B, C, D accelerograph (phase)

Table 4 Specifications of the ERS-C (D) accelerograph

Transducer	
Type	Moving coil type
Component	2 horizontal and 1 vertical
Natural frequency	3 Hz (5 Hz)
Damping factor	17 (10)
Damping mechanism	Electro-magnetic
Capacity	500 Gal
Water tightness	over 20 kg/cm ²
Recorder	
Type	Electro magnetic oscillograph
Natural frequency of galvanometer	270 Hz
Recording paper	198 mm (width) x 30 m (length) (visible without processing)
Paper speed	4 cm/s.
Time mark	0.1 s.
Sensitivity (overall)	2 Gal/mm, or 10 Gal/mm
Power supply	
Rechargeable battery, charged automatically when it is necessary.	

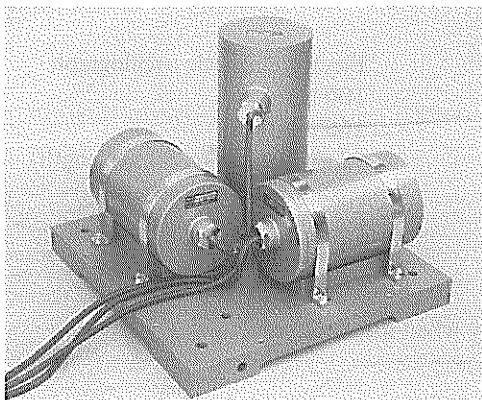


Fig. 7 Transducers of the ERS-C accelerograph



Fig. 8 Recorder of the ERS-C accelerograph

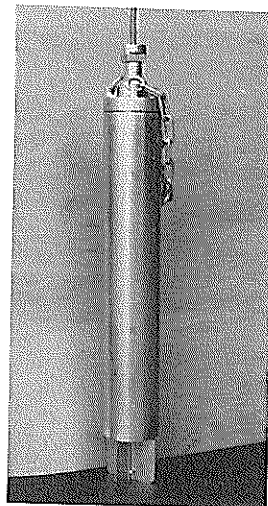


Fig. 9 Transducers of the ERS-D accelerograph

iii) ERS-F Accelerograph

ERS-F Accelerographs are, digital strong-motion accelerographs using non-volatile, solid state magnetic bubble memories. There are several types of the ERS-F Accelerographs: the standard type, as shown in Fig. 10 is a self-contained box type, containing the transducers and the magnetic bubble memories all in one; another has a separate transducer, as shown in Fig. 11, which will be buried in the ground and observe the motion at the base or in the ground; another has a separate transducer, as shown in Fig. 12, which will be attached to the structures.

The recording system of the ERS-F Accelerograph including the magnetic bubble memories is shown in Fig. 13 for the front view. ERS-F Accelerograph is a system shown by the block-diagram in Fig. 14, satisfies the specification shown in Table 5, and has the frequency characteristics shown in Figs. 15, 16.

The main unit of the recording system, shown in Fig. 17, consists of four non-volatile, solid-state magnetic bubble memories and the controlling parts. This unit is contained in a case, shown in Fig. 18, of which dimensions are 240 mm x 240 mm x 35 mm, weighing about one kilogram. The capacity in the memory of the unit is 512 kilobytes. Two of the units can be installed at one recording system, but at present one unit is installed for the accelerographs at Hakodate Port and Hitachinaka Port.

Recording length of the earthquake motions is, at minimum, 65.28 seconds (6528 data/component). The recording length is extended up to 195.84 seconds (19584 data/component) by monitoring the level of the acceleration; the recording length is doubled or trippled if the level of the acceleration monitored after 45 seconds from the triggering is higher than the trigger level of the acceleration. The main unit of the recording system can record, at the maximum, 65.28 seconds in length of three components of ten earthquake motions. If earthquakes occur successively and the earthquake motion data should overflow the recording system, records of the greatest maximum accelerations are secured. One exception to this is

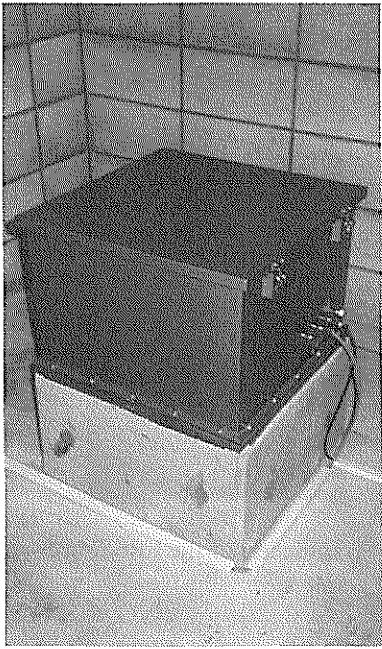


Fig. 10 The ERS-F accelerograph (Standard Type)

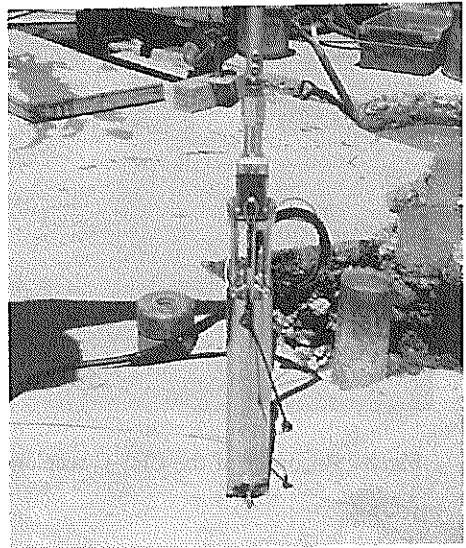


Fig. 11 Transducer installed in bore-hole (the ERS-F accelerograph)

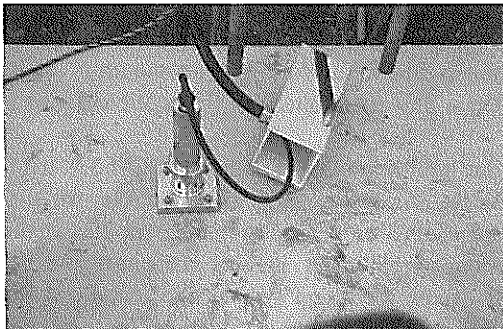


Fig. 12 Transducer attached to structure (the ERS-F accelerograph)

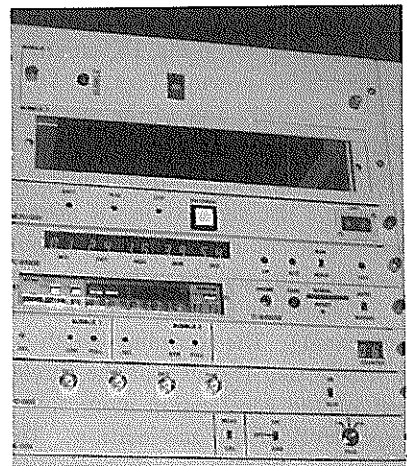


Fig. 13 Recorder of the ERS-F accelerograph

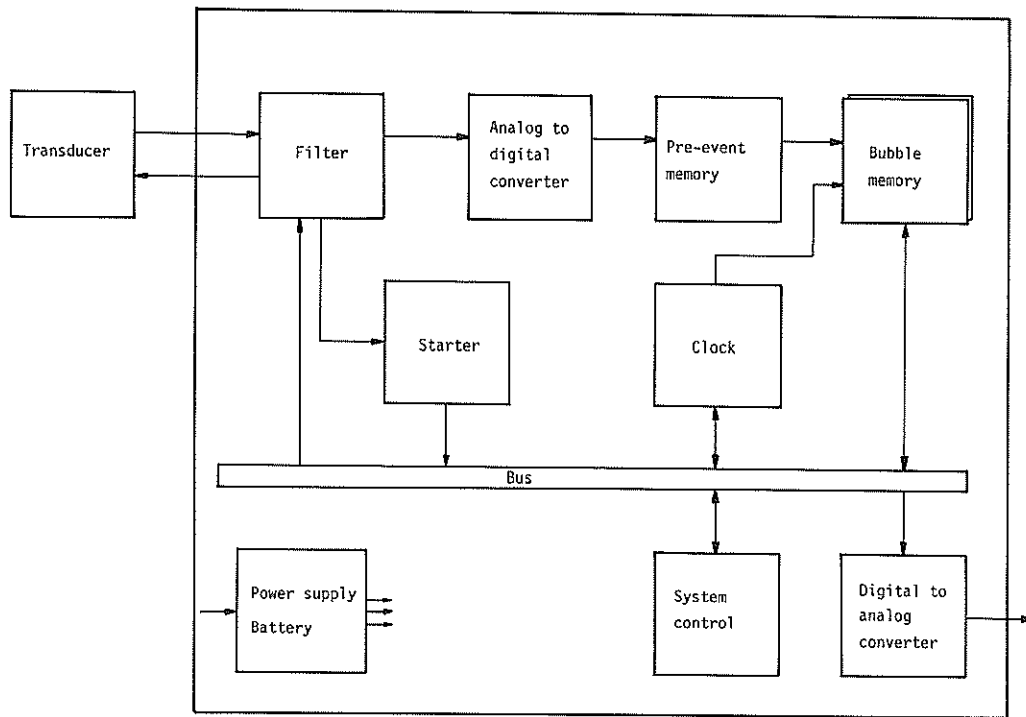


Fig. 14 Block-diagram of the ERS-F accelerograph

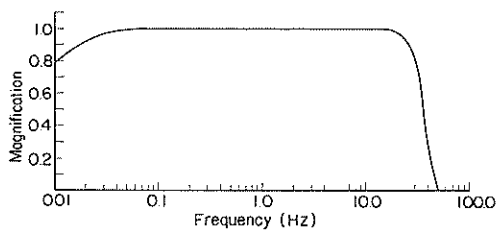


Fig. 15 Frequency characteristics of the ERS-F accelerograph (amplitude)

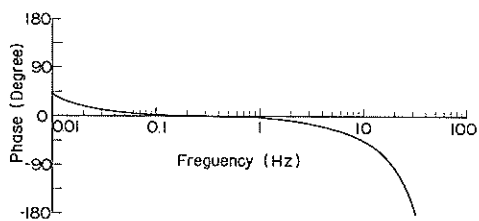


Fig. 16 Frequency characteristics of the ERS-F accelerograph (phase)

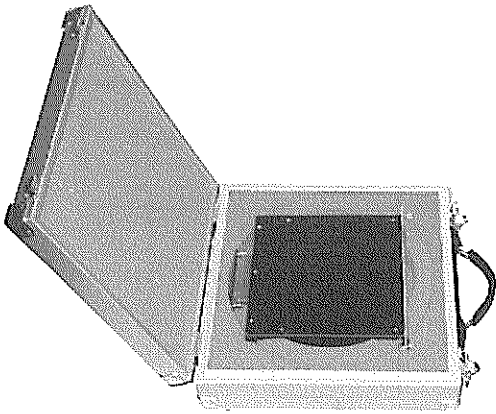


Fig. 17 Inside view of cartridge
(ERS-F accelerograph)

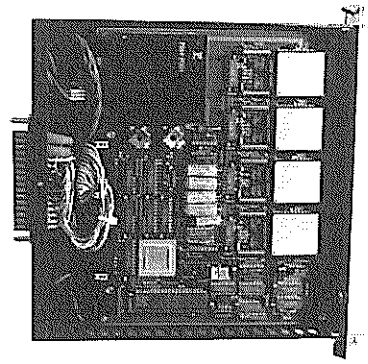


Fig. 18 A container of cartridge
(the ERS-F accelerograph)

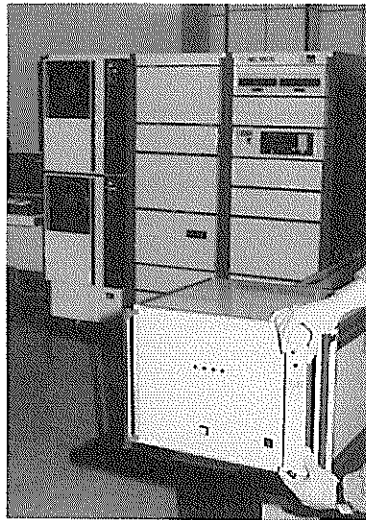


Fig. 19 Reproducer of the ERS-F
accelerograph

Table 5 Specifications of the ERS-F accelerograph

Overall capabilities	Maximum acceleration capacity Frequency characteristics Dynamic range	2G 0.01 – 35 Hz 86 dB over
Transducer	Accelerometer Component Maximum capacity Sensitivity type	2 horizontal, 1 vertical 2G 10^{-5} Force-balance servo
Filter	High pass Low pass	0.007 Hz –6 dB/octave 35 Hz –18 dB/octave
A/D conversion	Resolution Conversion rate	16 bits 100 Hz
Pre-event memory		10 seconds.
Clock		Accuracy of internal clock 1/100 seconds corrected every an hour by NHK time signal
Starter	Trigger levels	0.5, 1, 2% of maximum acceleration
Recorder	No. of channel Memory size Record length Records of greatest maximum acceleration secured	3-9 records, 1 time signal 512 kwords 16 bit/word 1, 2, 3 minutes/record
Related informations		Observation station, Number of records, Start time of each data, Maximum accelerations of each component
Calibration		Overall calibration are possible
Buckup power supply		2 hour after power stopage
Container	Alluminum box, water-proof Size	54(L), 54(W), 38(H) cm

for the records of 195.84 seconds; these records are stored in the first-come first-serve basis.

(5) Foundation and House

All the SMAC-B2 accelerographs in the network are installed on simple shallow foundations which were designed based upon the same idea. It was supposed that the shape and the dimensions of a foundation on which a seismograph is installed affects to the earthquake record obtained by it. However, as there was no convincing idea to design the most suitable foundation, the foundations of almost same size and of same shape were selected for all the accelerographs in the network. This makes it easier to compare accelerograms of an earthquake recorded at several stations. As the most of the harbour structures have shallow foundations and do not rest on bed rock, it was decided to make shallow foundations for the accelerographs, as shown in Fig. 20. The hollow space under the foundation was made to make the bulk density of the foundation equal to that of the soil, so that the disturbance to the records due to the foundation is eliminated.

Usually, no pile is used to support the accelerograph and its foundation, but in the stations on very soft soil or loose sand, concrete piles or wooden piles were used. For example, the foundations in the Hachinohe-S station and the Niigata-S station are supported by piles. The foundation is isolated from a house covering the instrument.

In the network only two ERS-B accelerographs are installed on ground, and the standard

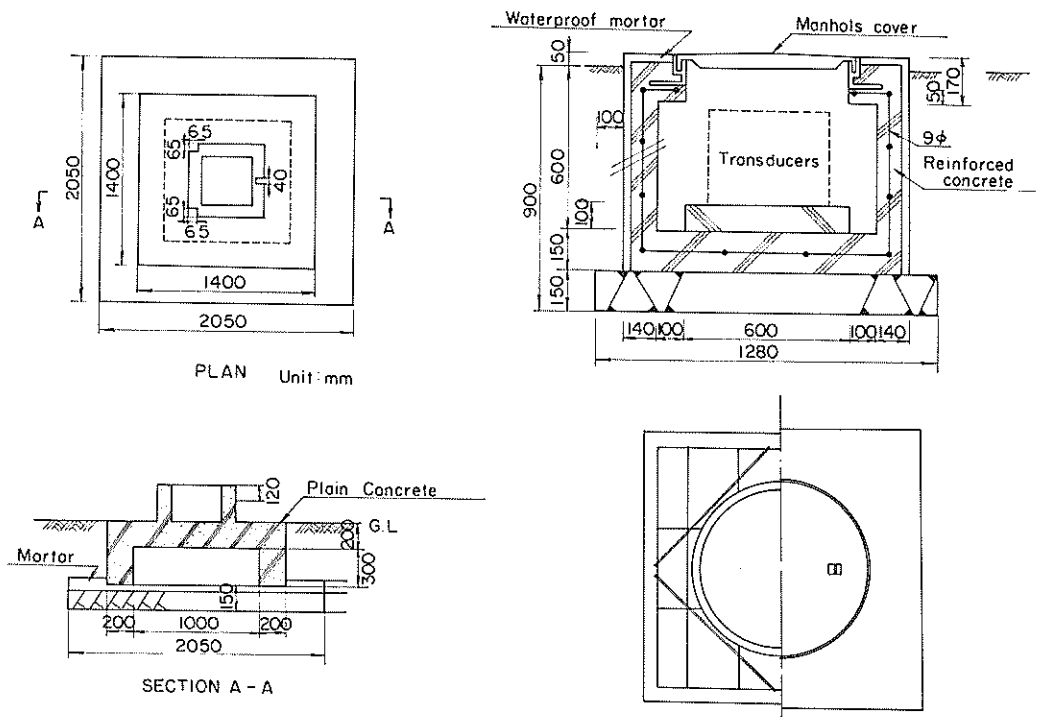


Fig. 20 Foundation for accelerograph (SMAC-B2) Fig. 21 Foundation for transducers of the ERS-C accelerograph



Fig. 22 House of the Onahama-ji-S station

foundation for this accelerograph has not been established. The shapes of the two foundations are shown in the separate reports.^{30~34)} Shape and size of a standard foundation for transducers of the ERS-C accelerograph are illustrated in Fig. 21.

The most of the accelerographs are covered with houses which were built for the instruments. Some of the accelerographs were installed in houses which had been built for other purposes. The house built for the instruments are made of reinforced concrete or concrete blocks; some are prefabricated houses. In Fig. 22 as an example, the house of the Onahama-ji-S station is shown.

3. Accelerogram Processing

(1) Preliminary Processing

The accelerograms collected at the Geotechnical Earthquake Engineering Laboratory will be listed in the table "Strong-Motion Earthquake Observation Results" through the following processing.

At first, each accelerogram is given a record number according to the order of its arrival at the Laboratory. The record number for the accelerogram from the SMAC-B2 accelerograph begins with a capital letter S, and that from the ERS accelerograph, with a capital letter M.

Then, the earthquake corresponding to the accelerogram is confirmed or determined. Most of the accelerograms are sent from the stations with information on the earthquake for which the accelerograms have been obtained. A few of the accelerograms, however, are sent without such information because the accelerograms have been found in the regular servicing, and at the station it is difficult to find the corresponding earthquake. For the accelerogram without the information, the earthquake is determined considering the possible period of the recording and the earthquakes occurred in that period. The determination or the check is made based on the Seismological Bulletin of the Japan Meteorological Agency. As at the time of compilation of the annual report the Seismological Bulletins on the earthquakes in later months in a year are not available because of time lag of the publication after earthquakes, the preliminary reports (Jishin Kazan Gaikyo published by the Japan Meteorological Agency) are used to check the records in those months. Some of the accelerograms are impossible to deter-

mine their corresponding earthquakes even in the Laboratory and they are treated as earthquake unknown. It will be noted that the reliability of the earthquake determination for accelerograms of small acceleration is limited because of such procedure.

In the SMAC-B2 accelerograph, the recording is made on waxed paper which has dark red background. The recording by scratching the waxed paper with a stylus leaves the semi-translucent trace on the paper. As the waxed paper is not stable against scratchings, the original accelerogram is not appropriate to be used for the digitization. The photographic contact print is made from the original accelerogram on a special photographic sheet. The base of the sheet is made of mylar film and very stable against temperature change, humidity, and mechanical distortion.

The sizes of the sheet are 55 cm in length and 30 cm in width. If the significant portion of the record is longer than 30 ~ 45 cm, the copy will be made on two sheets or more; and a portion of about 10 cm of the record at the end of a sheet is overlappedly appearing in the successive sheet. After the processing, the copy has black traces and semi-translucent background. They are in very good contrast for the digitization.

The record from the ERS-B accelerograph is only chemically stabilized before being used for analysis.

From the stabilized original record or the photographic copy, the maximum accelerations of each component are read with the aid of a magnifying glass. In this reading the base-line setting is not so accurate as that made in digitizing the accelerogram, since this is just preliminary processing. The difference between two accuracies in base-line setting may cause a little difference between the maximum accelerations read with the magnifying glass and in the digitized record.

The accelerograms are classified in accordance with the earthquakes, and listed with their maximum accelerations in the tables "Strong-Motion Earthquake Observation Results". The items in the table will be explained in the following sub-sections. The Strong-Motion Earthquake Observation Results are compiled every two months and sent to all the stations. The copy of the accelerogram is also sent with the necessary directions on the maintenance of the instrument to the station where the accelerogram was obtained. The Strong-Motion Earthquake Observation Results are included in the later part of this report.

(2) Earthquake Data

The earthquake data except the remarks in the Strong-Motion Earthquake Observation Results are based upon the Seismological Bulletin of the Japan Meteorological Agency. Because of the reason explained previously regarding the checking of earthquakes, the data on earthquakes in November and December are based upon the preliminary reports. Some of the remarks come from different sources.

The time in the earthquake data refers to the Japan Standard Time (JST) which is earlier than GMT by 9 hours.

The magnitude in the earthquake data is determined using Tsuboi's formula:

$$M = \frac{1}{2} \log (A^2_N + A^2_E) + 1.73 \log \Delta - 0.83 \cdots \cdots \cdots (1)$$

where, M is the magnitude. A_N and A_E are the maximum amplitudes of N- and E-components in micron respectively, and Δ is the epicentral distance in km. Those ground amplitudes are of seismometers with periods of about 5 seconds, and of waves shorter than 5 seconds. The magnitude is the averaged value over magnitudes for every $\sqrt{A^2_N + A^2_E}$ reported by the

stations of JMA.

The intensity of the shock is estimated according to the scale as shown in Table 6.

Table 6 JMA Seismic Intensity Scale (After Ref. 37)

0:	NO FEELING	Shocks too weak to cause human feelings and registered only by a seismograph.
I:	SLIGHT	Extremely feeble shocks only felt by persons at rest or by those who are observant to an earthquake.
II:	WEAK	Shocks felt by most persons, slight shaking of doors and Japanese latticed sliding doors (shoji).
III:	RATHER STRONG	Slight shaking of houses and buildings, rattling of doors and Japanese latticed sliding doors (shoji), swinging of hanging objects like electric lamps, moving of liquids in vessels.
IV:	STRONG	Strong shaking of houses and buildings, overturning of unstable objects, spilling of liquids out of vessels.
V:	VERY STRONG	Cracks in the walls, overturning of gravestones, stone lanterns, etc., damage to chimneys and mud-and-plaster warehouses.
VI:	DISASTROUS	Demolition of houses by less than 30% in total number, landslips, fissures in the ground, etc.
VII:	VERY DISASTROUS	Demolition of houses by more than 30%, intense landslips, large fissures in the ground, faults.

(3) Accelerograph Results

The items in the accelerograph results have been explained previously. The maximum accelerations are those determined by the preliminary processing.

The accelerogram whose earthquake is unknown is not listed in the table, if both of its maximum horizontal accelerations are smaller than 20 Gals. If at least one of the maximum accelerations is larger than 20 Gals, then it is listed in the table, but the earthquake data can not be given.

4. Digitization

(1) Digitizers

Two strong-motion accelerogram digitizers are being used in the Port and Harbour Research Institute; one is for digitization of records by the SMAC-B2 accelerograph and the other for digitization of records by the ERS-B, C, D accelerograph.

a. Digitizer for records by the SMAC-B2 accelerograph

The digitizer being used for the accelerograms obtained by the SMAC-B2 accelerograph is a semiautomatic instrument. The view and the specifications of the digitizer are shown in Fig. 23 and Table 7, respectively.

The digitizer works in the following way. On the digitizer table there is a magnifying glass which can be translated along the Y-axis by rotating a small wheel near the glass. A magnescale is connected to the wheel, and the electric digital output corresponding to the position of the magnifying glass is available from the magnescale. The magnifying glass has a cross mark and a lamp to illuminate the accelerogram within its range. The operator places the cross mark on the trace and pushes a push-switch; then the digital output from the magnescale is displayed on the panel and is stored in the memories of the computer. After this step, the magnifying glass is automatically shifted along the X-axis by 0.1 mm.

b. Digitizer for records by the ERS-B, C, D accelerograph

The records obtained by the ERS-B, C, D accelerograph are processed by an on-line

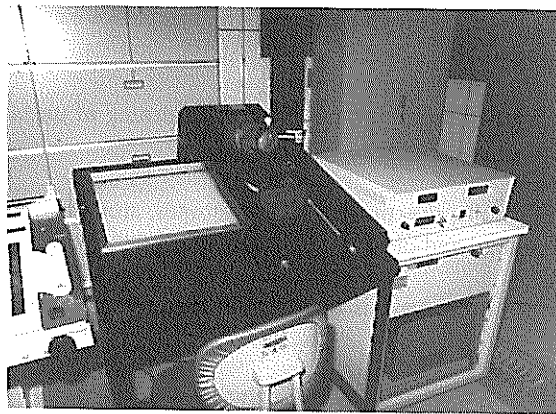


Fig. 23 Digitizer for records by the SMAC-B2 accelerograph

Table 7 Specifications of digitizer for records by the SMAC-B2 accelerograph

Digitizer Table	
Sizes of table to accommodate accelerogram	750 mm (X) x 660 mm (Y)
Effective area	430 mm (X) x 300 mm (Y)
Magnifying glass	5x, with a cross mark and illumination
Translation of magnifying glass	
Y-axis	manual by rotating a wheel
X-axis	automatic, at intervals of 0.1 mm
Analog to Digital Converter and Control	
Resolution (overall)	1000 counts per a millimeter
Indication	
Y-axis	sign and 4 digits
X-axis	4 digits

oscillogram digitizer. The digitizer is connected to a hybrid computer which is combination of a digital and an analog computers. The digitizer and the computer are photographed in Fig. 24 and 25.

The records is placed on the table and an operator traces waves in the records with cursor of the digitizer. The travels of the cursor along X- and Y-axis are digitally counted and at each 0.1 mm increment or decrement of travel along the X-axis, the location counts of the cursor are transferred into memories of the computer. After tracing the necessary segment of the record, digitized values in the memories are processed by appropriate programs. According to the direction given to the computer through the I/O typewriter, output of the digitized records in the memories is available in forms of printed list, magnetic tape and analog reproduction.

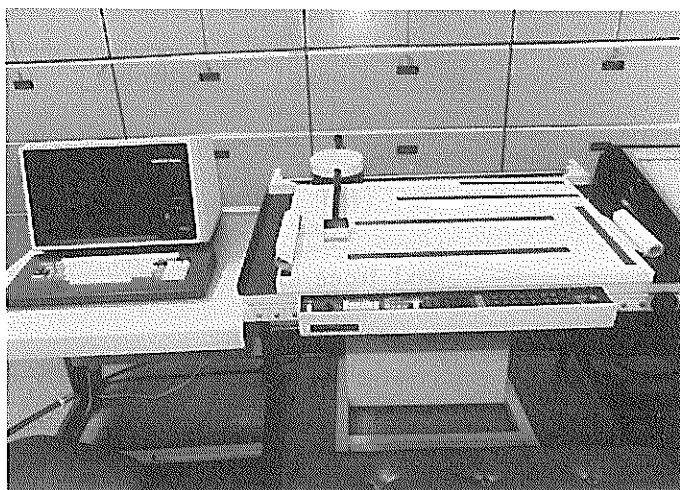


Fig. 24 Digitizer for records by the ERS-B, C, D accelerograph



Fig. 25 Hybrid computer controlling the digitizer

(2) Digitization

The digitization procedure described here is applied for records obtained since 1976.

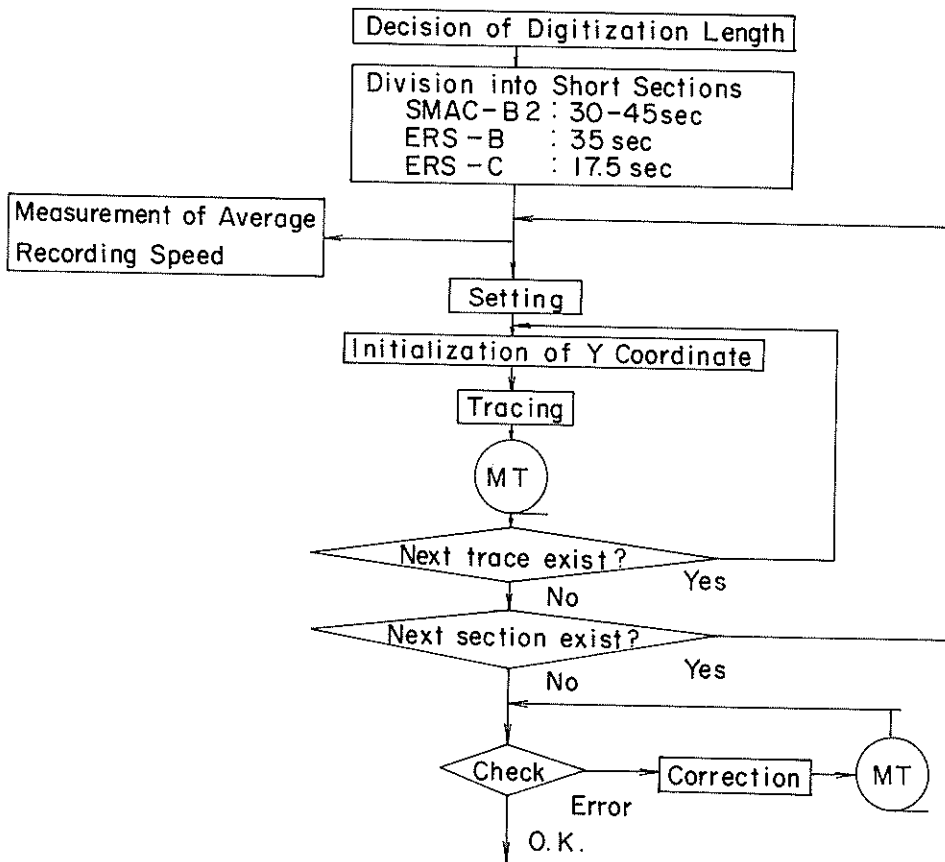


Fig. 26 Digitization procedure

i) Digitization of a record by the SMAC-B2 accelerograph

A record by the SMAC-B2 accelerograph consists of following traces;

Recorded accelerations

Fixed traces

Timing marks

Arc traces

Free vibration traces for calibration of the characteristic periods and damping factors of the accelerograph

The fixed traces are recorded by the pens fixed to the accelerograph frame. The timing marks are pulses at intervals of one second. The arc traces are recorded manually with the recording pens supported by pivots when the paper drive mechanism is stopped. They show offset of the pens from the normal position where the pens are parallel to the direction of paper driving.

Traces to be digitized are the recorded accelerations, the fixed traces, and the arc traces. Digitized fixed traces and digitized arc traces are used for the standard data processing described later. The timing marks are used only to obtain the average recording speed because fluctuation of the timing marks are estimated as small as the digital unit of the digitizer (0.1 mm) according to the results of the tests of the SMAC-B2 accelerographs.³⁵⁾ The average error in the time marking is expected to be less than 1 % and the fluctuation is less than 0.5 % according to the results of the tests of the SMAC-B2 accelerographs.³⁵⁾ In order to obtain the average paper speed, length of intervals of 30 pulses is measured by the digitizer for a record by the ERS-B, C, D accelerograph.

A record is digitized from the starting point of recording. Portion of the record to be digitized is determined so as to include discernible acceleration on the paper. This determination is done by observation of a record to be digitized. The portion of the record to be digitized is divided into some sections because of the limitation of effective area of the digitizer table. Length of each section is about 30 cm to 45 cm which is almost equivalent to 30 second to 45 seconds. Digitization unit in the amplitude is 0.008 mm which is equivalent to 0.1 Gal. Contact prints are made for each section as described previously.

Digitization procedure is summarised as follows.

- (a) Setting of the copy: A copy of a record to be digitized is fixed with the magnets on the table of the digitizer. The table is rotated by an adjusting screw so that the fixed trace on the copy is parallel to X axis of the digitizer. Two points on the fixed trace located on the both ends of the section are used for this adjustment: Y coordinate value of the two points are made to coincide with each other.
- (b) Initialization of Y coordinate: Y coordinate is arbitrarily initialized in the digitization procedure because "Sectional Base-Line Location" described later is to be applied in the standard data processing. Y coordinate of a first point to be digitized is usually set to be zero.
- (c) Tracing: The traces are digitized by an operator in the way described in the preceding section. Three accelerations, two fixed traces, and three arc traces are digitized at intervals of 0.1 mm along X axis. The intervals are almost equivalent to 0.001 s. Accelerations are, however, recorded in a cylindrical coordinate system so that the digitized amplitude values are not corresponding to equal time intervals.
- (d) Recording of Digitized Data: Data punched on a paper tape are recorded in a magnetic tape with such data as record number, component, station, date and time of the earthquake, time intervals, etc.

ii) Digitization of a record by the ERS-B, C, D accelerograph

A record by the ERS-B, C, D accelerograph consists of recorded accelerations, fixed traces, and timing marks. The Fixed traces are recorded by light beams reflected from fixed mirrors attached to the oscillograph frame. They are parallel lines at intervals of 2 mm drawn in the whole breadth of the recording paper. The recorded accelerations and one of the fixed traces located in the center of the oscillogram are digitized.

Portion of the record to be digitized is divided into some sections because of limitation of the effective area of the digitizer table. Length of each section is about 70 cm, which corresponds to about 35 seconds on a record by the ERS-B accelerograph and about 17.5 seconds on a record by the ERS-C/D accelerograph.

Procedure of setting of a record by the ERS-B, C, D accelerograph and the initialization of Y coordinate is similar to that for a record by the SMAC-B2 accelerograph. The record is digitized by an operator in the way described in the preceding section. The accelerations are

digitized at intervals of 0.1 mm, which corresponds to 0.005 s. on a record by the ERS-B accelerograph and about 0.0025 s. on a record by the ERS-C/D accelerograph. The fixed trace is digitized at intervals of about 5 cm, which corresponds to 2.5 seconds on a record by the ERS-B accelerograph and 1.25 seconds on a record by the ERS-C/D accelerograph; then the digitized data are obtained by linear interpolation at intervals of 0.1 mm. The digital unit in the amplitude is 0.1 mm, which corresponds to about 0.1 Gal on a record by the ERS-B accelerograph and about 0.2 Gal or about 1.0 Gal on a record by the ERS-C/D accelerograph. In the case of the ERS-C/D accelerograph, sensitivities of the galvanometers are calibrated for each recording with calibration currents before resetting paper drive.

Timing marks are used only to measure the average recording speed of the record by the ERS-C/D accelerograph because fluctuation of the timing marks is expected as small as the digital unit of the digitizer (0.1 mm) according to the results of the tests of the ERS-C/D accelerographs.³⁵⁾ They are pulses of intervals of 0.1 second generated by a crystal timer. In case of a record by the ERS-B accelerograph, timing marks are not used because accuracy of the timer depends on that of the frequency of the power supply which consists of batteries and a DC-AC inverter.

(3) Standard Data Processing

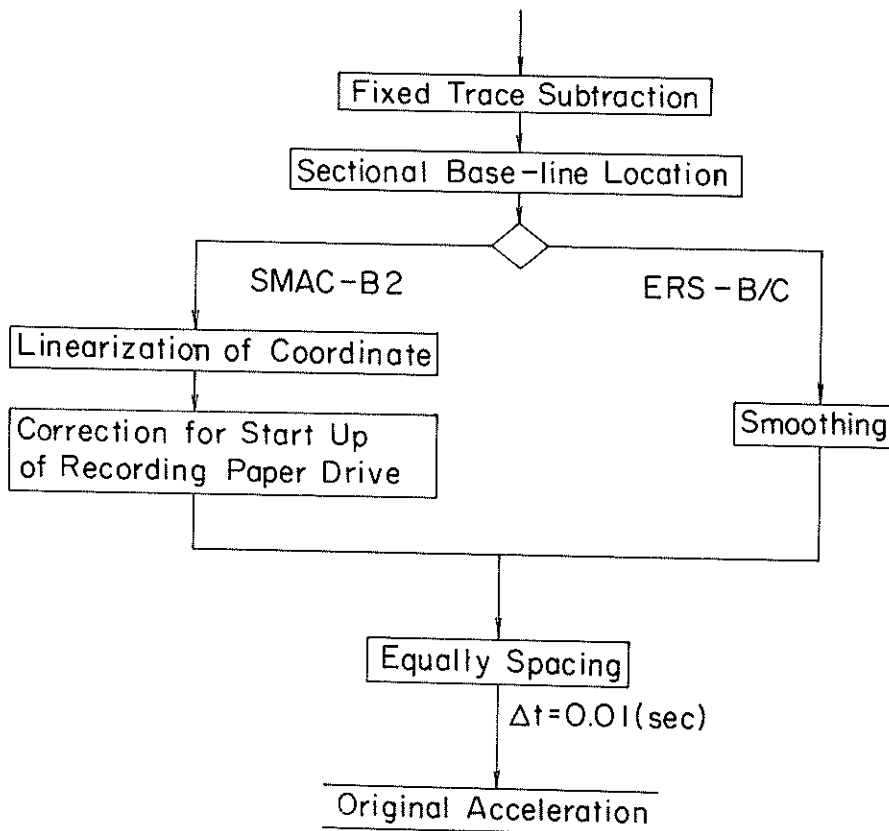


Fig. 27 Procedures of standard data processing

The procedure for the standard data processing described here is applied for records obtained since 1976, although the correction for start up of recording paper drive of the SMAC-B2 accelerograph was slightly modified for the improvement after the preceding annual report had been published. For the detailed description, see a separate report.³⁵⁾ The acceleration processed through the standard data processing will be called "Original Acceleration". The original acceleration is showed in a figure and listed on a table. Data numbers of junctions of sections for digitalization are listed also on the table, if any (See Table 8).

Standard data processing for a record by the SMAC-B2 accelerograph is performed under following procedures.

1. Fixed Trace Subtraction
2. Sectional Base-line Location
3. Linearization of Coordinate
4. Correction for Start up of Recording Paper Drive
5. Equally Spacing

Standard data processing for a record by the ERS-B, C, D accelerograph is performed under following procedures.

1. Fixed Trace Subtraction
2. Sectional Base-line Location
3. Smoothing
4. Equally Spacing

Each correction procedure is described briefly as follows.

i) Fixed Trace Subtraction

This correction is applied in order to eliminate the following errors.

Errors caused by the transverse motion of recording paper in the drive mechanism of the accelerograph

Systematic errors caused by an imperfect mechanical transverse mechanism of the digitizer cross-hair system

Errors of sectional rotation of the record on the table of the digitizer at the setting

The systematic errors of the digitizer cross-hair system were found to be negligible according to the tests with a straight line made of a stretched steel wire and a stretched gut.

Digitized fixed traces are smoothed by a weighted running average scheme before subtracted from the accelerogram. The weight function is defined by

$$w(t) = \begin{cases} \sqrt{\frac{\alpha}{\pi}} \exp[-\alpha t^2] & \text{if } |t| \geq t_0 \\ 0 & \text{otherwise} \end{cases} \dots\dots\dots (2)$$

where

$$\alpha = \left(\frac{\pi}{2}\right)^2$$

$$t_0 = \sqrt{\alpha / 5} = 0.7 \text{ (s.)}$$

At both ends of a section for digitization, α in the equation (2) is redefined by

$$\alpha = 5 / S^2 \dots\dots\dots (3)$$

where S is distance from the end of a section.

This weighted running average corresponds to a low pass filter of the cut off frequency of about 0.5 Hz.

The smoothed fixed traces are subtracted from the accelerogram. In the case of a record

Table 8 Example of digitized record

RECORD - S-1043		COMPONENT - W25N																		
STATION - ONAHAMA-S		DATE AND TIME - 1977-12-17-00-10																		
TOTAL NUMBER OF DATA - 4600		UNIT - 0.1 GAL																		
SAMPLING INTERVAL - 0.010 (SEC)		CORRECTION - ARC. ERR.																		
SIGNAL - GR. ACC.																				
No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	CONTINUED (S-1043 W25N)									
0	15	-15	-15	-15	-15	-14	-14	-14	-14	-14	22	20	15	6	-2	-6	-6	-6	-5	-4
10	-15	-15	-15	-15	-15	-14	-12	-12	-11	-11	5	1	4	20	8	8	16	13	4	2
20	-11	-10	-10	-9	-9	-8	-8	-8	-7	-6	5	9	15	20	20	16	13	6	0	-1
30	-6	-6	-6	-6	-6	-6	-6	-7	-9	-10	34	-28	24	19	10	9	12	19	27	30
40	-9	-8	-7	-7	-8	-9	-10	-12	-14	-14	550	34	29	24	10	2	4	15	-14	34
50	-18	-23	-27	-28	-25	-21	-17	-13	-7	-6	560	-4	0	7	4	3	0	-2	-4	-9
60	-1	1	2	1	0	-3	-6	-8	-11	-14	570	-11	-10	-6	2	14	22	28	27	21
70	-19	-26	-30	-30	-28	-25	-22	-15	-6	-1	580	13	8	0	-4	-13	-19	-18	-16	-16
80	-3	6	1	7	6	3	0	2	5	8	590	-20	-27	-27	-26	-23	-17	-11	-5	-2
90	5	3	-1	8	-10	-8	-2	1	-1	-1	600	6	15	22	21	25	24	21	18	14
100	1	8	6	6	7	13	13	12	8	3	610	4	6	12	19	23	20	18	16	12
110	-1	-4	-6	2	3	3	1	-1	-2	3	620	15	-6	16	16	14	10	6	1	-4
120	-4	-4	3	10	10	9	3	3	3	3	630	-2	-2	-4	1	8	1	-4	-7	-4
130	0	-4	3	2	0	-4	-8	-6	-6	-6	640	11	11	3	-4	-15	-21	-22	-22	-19
140	5	4	3	2	0	-9	-10	-12	-14	-18	650	8	0	12	23	26	27	23	28	13
150	-8	-12	-15	-12	-12	-9	-10	-12	-15	-8	660	6	10	12	13	16	19	23	26	26
160	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	670	26	26	26	26	27	24	16	3	-16
170	0	8	18	24	23	15	13	9	7	4	680	26	26	26	26	27	24	16	3	-16
180	0	8	18	24	23	15	13	9	7	4	690	-40	-47	-53	-56	-49	-43	-30	-20	-27
190	7	4	-10	-11	-9	-4	1	0	0	-7	700	-65	-91	-134	-157	-211	-249	-292	-309	-325
200	8	9	9	11	12	12	9	4	0	-7	710	-358	-357	-344	-335	-329	-328	-324	-320	-292
210	-3	3	3	1	1	7	13	13	10	7	720	-238	-210	-153	-99	-48	4	59	118	175
220	0	1	4	1	1	7	13	13	10	7	730	254	277	293	322	382	439	467	507	535
230	4	-1	-7	-6	-3	-3	-14	-27	-30	-24	740	522	502	483	471	462	460	465	472	482
240	9	9	8	3	3	6	11	11	8	5	750	467	441	396	315	220	143	96	70	65
250	-10	-6	-3	1	3	6	11	11	8	5	760	62	55	46	31	5	-1	11	66	135
260	5	1	-6	-9	-6	-8	-11	-15	-21	-21	770	201	223	200	142	62	-90	-278	-393	-485
270	-16	-10	-5	-1	0	5	6	2	0	9	780	-801	-728	-605	-446	-241	-4	215	368	444
280	20	14	16	23	17	12	9	7	4	-2	790	492	500	452	372	239	3	102	-236	-505
290	-11	-25	-25	-20	-19	-23	-23	-18	-12	-4	800	-696	-711	-700	-676	-601	-508	-397	-253	-105
300	3	6	12	21	30	29	27	25	22	17	810	135	177	184	176	130	54	-8	-75	-156
310	10	1	-4	-10	-19	-25	-24	-18	-11	-2	820	-234	-239	-215	-168	-103	-31	33	106	177
320	1	-1	0	0	0	4	8	12	16	17	830	246	257	239	202	165	135	113	102	97
330	19	27	28	24	17	14	6	1	-2	-9	840	138	151	152	120	65	17	-10	-58	-93
340	-16	-15	-15	-12	-7	0	3	1	2	-1	850	-140	-139	-119	-58	-10	45	93	156	229
350	0	-1	2	11	11	11	13	10	6	17	860	328	344	355	342	320	250	182	118	45
360	-2	-12	-30	-32	-30	-32	-30	-25	-20	-15	870	-44	-70	-94	-108	-94	-63	-32	10	72
370	-16	-16	-17	-17	-14	-7	0	5	3	3	880	150	163	151	128	95	62	35	11	-15
380	-9	-4	-4	-10	-16	-26	-26	-26	-26	-26	890	-40	-41	-53	-70	-92	-103	-134	-143	-155
390	-9	-4	-4	-10	-16	-26	-26	-26	-26	-26	900	-148	-136	-123	-113	-107	-103	-103	-102	-90
400	-6	-3	0	4	2	5	5	6	13	15	910	-22	-24	-4	7	9	14	18	22	31
410	17	13	10	10	11	11	11	10	7	6	920	82	122	153	176	194	206	211	196	161
420	9	15	16	14	13	11	11	10	7	6	930	87	48	9	-18	-36	-44	-34	-24	-12
430	2	-3	-10	-13	-10	-8	-4	4	11	12	940	-7	-13	-22	-32	-40	-40	-41	-41	-34
440	14	14	8	5	5	0	0	-3	-4	-4	950	-34	-37	-43	-44	-47	-54	-64	-62	-58
450	0	5	8	13	16	17	18	14	8	5	960	-48	-42	-36	-30	-20	-15	-12	-13	-19
460	4	6	6	5	2	-1	-6	-10	-21	-20	970	-73	-100	-117	-129	-137	-130	-112	-94	-78
470	-29	-29	-26	-20	-15	-9	-3	5	16	23	980	-23	2	22	36	46	52	55	52	37
480	25	24	20	15	5	-17	-27	-35	-32	-32	990	3	-12	-24	-18	4	21	35	50	53
490	-27	-22	-16	-12	-6	-1	10	4	4	1	1000	134	91	107	125	146	164	181	189	176
500	-2	-11	-13	-10	-6	1	6	8	12	18	1010	70	58	87	70	58	61	71	86	95
											1020	88	55	7	-72	-113	-150	-176	-200	-216
											1030	-226	-224	-212	-207	-188	-179	-173	-164	-142
											1040	-132	-120	-106	-89	-46	-16	28	70	100

TO BE CONTINUED

TO BE CONTINUED

by the SMAC-B2 accelerograph, subtraction is made as follows;

An upper trace is corrected with an upper fixed trace.

A lower trace is corrected with a lower fixed trace.

A center trace is corrected with an average of an upper fixed trace and lower one.

In the case of a record by the ERS-B, C, D accelerograph, one fixed trace is subtracted from all the components of accelerogram.

ii) Sectional Base-line Location

As described previously, base-line is arbitrarily inserted for each section by the initialization of Y coordinate. Sectional translation brings mainly low frequency errors into the accelerogram and produces an unnatural response of a low cut filter for integration around a point of junction of digitized sections.

Base-line is located so as to make an ideal average of acceleration over almost infinite length zero. On the sectional base-line location, the authors assume that low frequency components up to about $1/T$, where T is minimum length of sections, is almost none if calculation of spectrum is done over the infinite length for the accelerogram which have been corrected by the fixed trace subtraction and which have an ideal true base-line for each section. Based on the detailed study of the base-line location in the frequency space, the base-line is located sectionally so as to make a weighted average of each sectional acceleration zero. The weight function is defined by

$$u(t) = \sqrt{\frac{\beta}{\pi}} \exp[-\beta t^2] \dots \dots \dots (4)$$

Where $\beta = 20/T^2$, and T (s.) is length of each section.

The expected error of the location is almost proportional to the quantities of low frequency components up to about $1/T$ (Hz).

Because the authors do not have enough space to describe the detailed study, the authors introduce an example calculation to illustrate the difference between the proposed base-line location and the base-line location of least square fit scheme for each section. A sine wave generated by a computer of 100 Gals, 5 Hz, 5000 data with time intervals of 0.01 sec is divided into two sections; one section is the first 2510 data and the other is the last 2490 data, which are looked upon as a sectionally digitized accelerogram. Sectional base-lines are located by the two methods. Displacements are calculated from the two accelerations by the fixed filter method described later and a portion of the results including the junction of two sections are shown in Fig. 18(a) and (b) respectively. (10.1 sec is the junction in these figures.) These figures indicate that the proposed base-line location is much better in this case because true displacement is a sine wave.

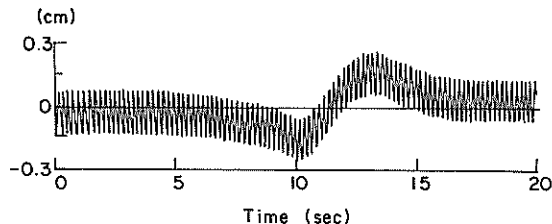


Fig. 28 (a) Integrated displacement from the acceleration with sectionally located base-line by a least square fit scheme

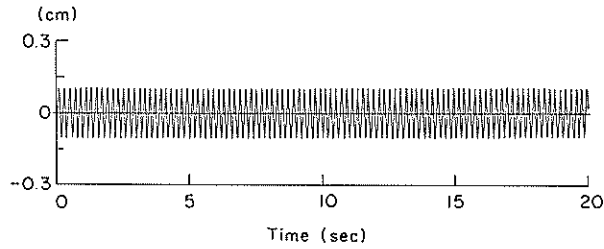


Fig. 28 (b) Integrated displacement from the acceleration with sectionally located base-lines by the proposed method

iii) Linearization of Coordinate

This correction is applied to a record by the SMAC-B2 accelerograph to obtain a corrected X coordinate of each datum. Y coordinate of the pivot of the recording pen is calculated from the digitized arc trace.

Let r (mm) denote the radius of the arc (length of the arm of the recording pen), r (mm) denote Y coordinate of a point whose X coordinate is to be corrected, a (mm) denote Y coordinate of the center of the arc (the pivot of the pen) and e (mm) denote error of X coordinate of the point to be corrected then we have

$$e = r - \sqrt{r^2 - (y - a)^2} \dots \dots \dots (5)$$

Although the arc trace is digitized with arbitrarily determined base-line, the linearization of coordinate is uniformly performed because $(y - a)$ in the equation remains constant for any base-line. a (mm) in the equation will be set to be zero if arc traces are accidentally not drawn or length of the arc trace is short (if maximum difference of X coordinates of the arc trace is less than 0.5 mm.)

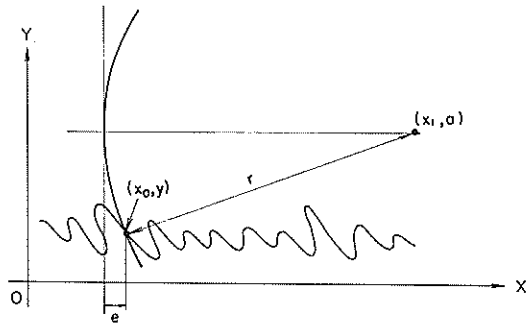


Fig. 29 Linearization of coordinate

iv) Correction for start up of recording paper drive

The variation of recording paper speed of the SMAC-B2 accelerograph is represented by the following equation which is based on the tests made by the authors.

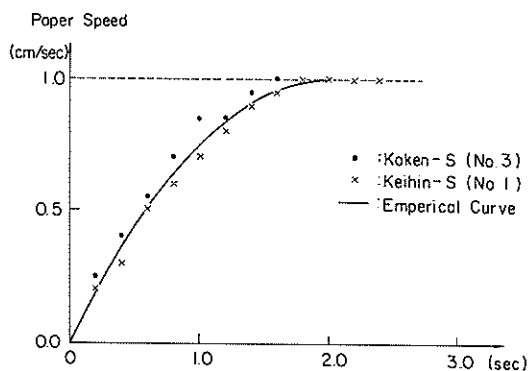


Fig. 30 Variable recording speed on start up of recording paper drive

$$v = \left[1 - \frac{1}{b^2} (t - t_0)^2 \right] \cdot v_a \quad \text{if } 0 \leq t \leq t_0 \dots\dots\dots(6)$$

$$v = v_a \quad \text{if } t_0 < t \dots\dots\dots(7)$$

Where; v : paper speed at time t (cm/s.)

v_a : paper speed after reaching constant speed (cm/s.)

t : time after triggering (s.)

t_0 : constant (s.)

b : constant (s.)

If t_0 and b are given, the correction for the start up of recording paper drive is simple problem.

For the correction of the digitized records in the preceding annual report, $t_0 = 2.0$ s. and $b = 2.0$ s. were used. After the annual report had been published, it was found that more appropriate correction would be possible with a slight modification of t_0 value. For the correction of the most of the digitized records in this report, $t_0 = 1.9$ s. was used.

v) Smoothing

Smoothing is applied to a record by the ERS-B, C, D accelerograph. A record by the ERS-B, C, D accelerograph is digitized at intervals of 0.1 mm which corresponds to about 0.005 s. on a record by the ERS-B accelerograph and corresponds to about 0.0025 s. on a record by the ERS-C/D accelerograph. Frequency components higher than about 50 Hz are eliminated because there are almost no significant components of seismic acceleration over 50 Hz for the most of the record of ground according to the records obtained by the ERS-B, C, D accelerograph so far.

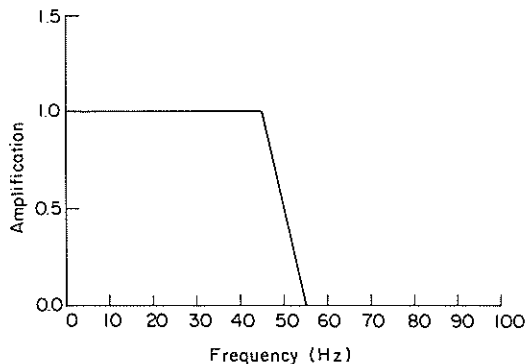


Fig. 31 Filter for the smoothing

The weight function is defined by

$$g(t) = \begin{cases} \frac{f_0 + f_1}{2} & \text{if } t = 0 \\ \frac{\cos(2\pi f_0 t) - \cos(2\pi f_1 t)}{(2\pi t)^2} & \text{if } 0 < |t| \leq \dots \dots (8) \\ 0 & \text{otherwise} \end{cases}$$

where $f_0 = 45$ (Hz) and $f_1 = 55$ (Hz)

The filter corresponding to this weighted running average is approximately expressed as follows. (Errors of the approximation is less than 0.3%)

$$G(f) = \begin{cases} 1 & \text{if } |f| \leq f_0 \\ \frac{f_1 - |f|}{f_1 - f_0} & \text{if } f_0 < |f| \leq f_1 \dots \dots (9) \\ 0 & \text{if } |f| > f_1 \end{cases}$$

where $f_0 = 45$ (Hz) and $f_1 = 55$ (Hz)

vi) Equally Spacing

Data are equally spaced at intervals of 0.01 s. by means of linear interpolation.

A record by the SMAC-B2 accelerograph is digitized at intervals of 0.1 mm and is processed through the linearization of coordinate. The data processed through the linearization of coordinate are unequally spaced data, whose intervals of data are longer than 0.01 s. on portions of accelerogram where absolute value of acceleration decreases and intervals of data are shorter than 0.01 s. else where.

A record by the ERS-B, C, D accelerograph is digitized at intervals of 0.1 mm, which corresponds to about 0.005 s. on a record by the ERS-B accelerograph and about 0.0025 s. on a record by the ERS-C/D accelerograph. There is no possibility of aliasing by the equally spacing at intervals of 0.01 sec because their high frequency components over 50 Hz are eliminated by the smoothing. High density of sampling at digitization enables us to separate high frequency components which are possibly contaminated by digitization errors and assures us much accuracy of the interpolation.

(4) Processing of the Data obtained by the ERS-F Accelerograph

The main unit of the recording system, which has recorded the earthquake motions, is drawn out from the box of the recording system of the ERS-F Accelerograph and replaced by the another main unit ready for recording the coming earthquakes. The drawn out unit is packed in a case, shown in Fig. 18, with a static eliminator on the connector of the unit and sent to the Earthquake Resistant Structures Laboratory in the Port and Harbour Research Institute by mail.

In the Geotechnical Earthquake Engineering Laboratory, the unit is set on the reproducer, shown in Fig. 19, which is connected to a computer, and digital time histories of the earthquake motions are reproduced. Absolute time at the trigger of the record is also obtained from the record of the time signal.

As mentioned in Table 5, the recording system has digital delay memory for ten seconds. If the recording started well enough before the first motion of the earthquake, some

of the portion of the record preceding the first motion is omitted.

Data processing and the preliminary analyses for the records by the ERS-F Accelerograph is almost the same as the standard data processing and the preliminary analyses for the record by ERS-B/C/D Accelerograph. The differences are as follows:

- i) No smoothing is applied for the data at the standard data processing.
- ii) As an instrument correction at the preliminary analyses, correction for the phase is applied but no correction is applied for the amplitude. Low pass filter with cut-off frequency of 25 Hz and roll-off frequency of 40 Hz are applied by using a digital filter of "cosine" shape in frequency domain.
- iii) As the high pass filtering at the preliminary analyses, parameter E for the Variable Filter in Eq. (19) is determined by the following equation;

$$E = (p \times 0.001) \times 0.02236 \quad (10)$$

in which p ($1000 \text{ Gal}/2^{15}$) is the sensitivity of ERS-F accelerograph.

The factors in Eq. (10) was obtained by the study on the noise level obtained by the power spectra of the noise under the conditions with connectors of signal conditioner in short circuit.

Details of the ERS-F Accelerograph and the data processing will be reported in a separate report.

5. Preliminary Analyses

The Standard procedures of preliminary analyses described here is applied for records obtained since 1976. For the detailed description, see separate reports.^{35,36}) The standard procedures of preliminary analyses consist of filtering for instrument correction, filtering for correction of low or high frequency components, integration, calculation of response spectra and Fourier spectra (Fig. 32).

(1) The Method of Correction and Integration

Instrument correction, filtering, integration is applied in frequency space. FFT is applied for the accelerogram which is extended with a section of zero outside the digitized portion in order to avoid link effect. The length of section of zero L (s.) is determined so as to meet the following condition.

$$L > \max \left[\frac{2}{3}T, 10.0 \right] \quad \dots \dots \dots (11)$$

where T (s.) is the minimum length of sections made by the division of an accelerogram for the digitization. This condition is based on the examination of impulse responses of the high pass filters for integration to be described later. Length of the section of zero L is decided so as to make calculation time of FFT short as much as possible in the given memory size of the given computer.

- i) The Filter for Instrument Correction and the Supplementary Filter
 - (a) Filters for a Record by the SMAC-B2 Accelerograph
The filter for instrument correction $A_G(f)$ is defined by

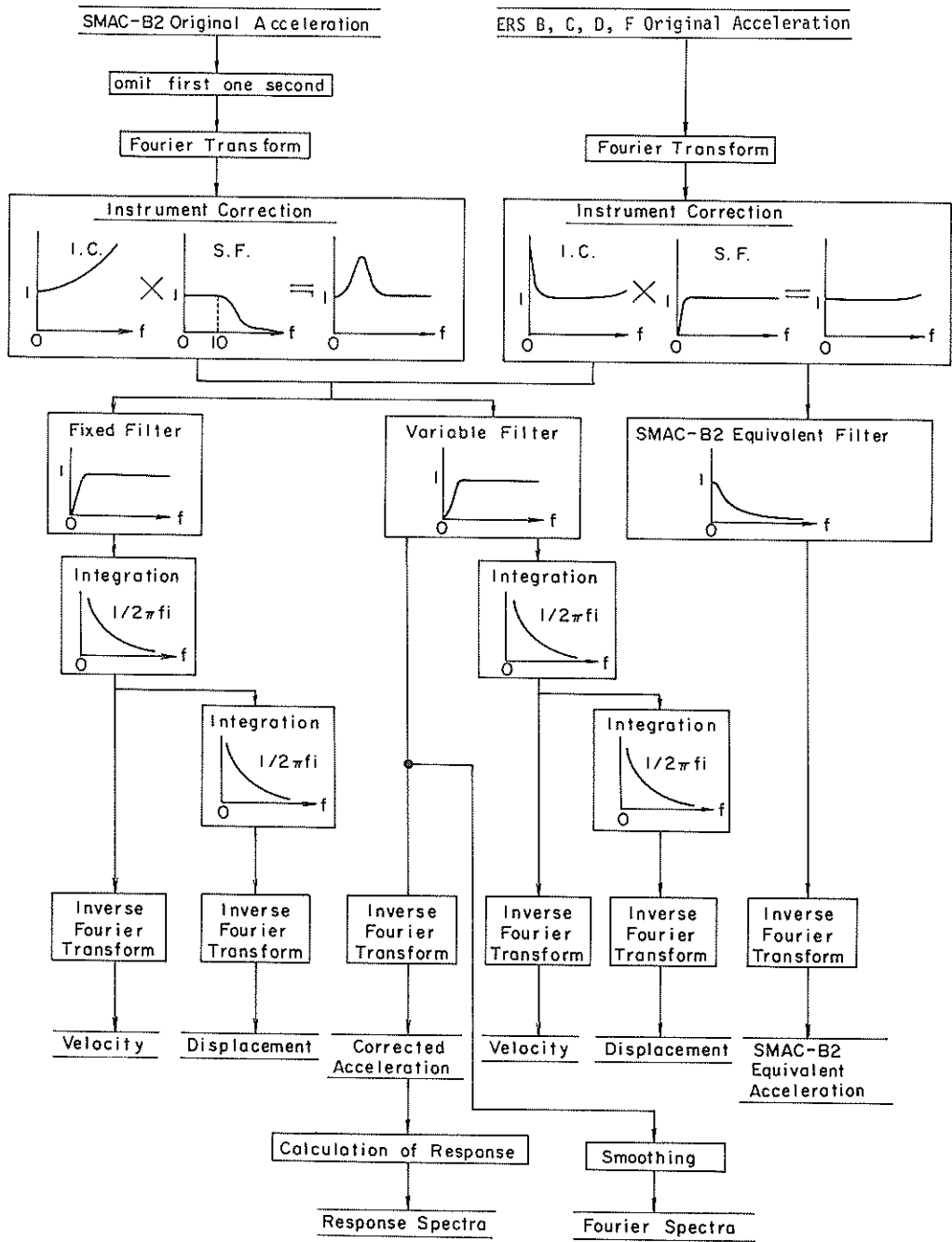


Fig. 32 Procedures of Preliminary Analyses

$$A_S(f) = 1 - \left(\frac{f}{f_S}\right)^2 + 2h_S \left(\frac{f}{f_S}\right) i \quad \dots\dots\dots (12)$$

where $f_S = 1/0.14$ (Hz) and $h_S = 1.0$

The supplementary filter $B_S(f)$ is defined by

$$B_S(f) = \begin{cases} 1 & \text{if } |f| \leq f_0 \\ \left[1 + (|A_S(f)| - 1) \exp \left\{ -\frac{(|f| - f_0)^2}{20} \right\} \right] \frac{1}{|A_S(f)|} & \text{otherwise} \end{cases} \quad \dots (13)$$

where $f_0 = 10$ (Hz)

The supplementary filter is designed to suppress high frequency digitization noise and at the same time preserve high frequency components of an accelerogram in order to lessen an abnormal response of the filter to discontinuities at both ends of digitized portion of the accelerogram.

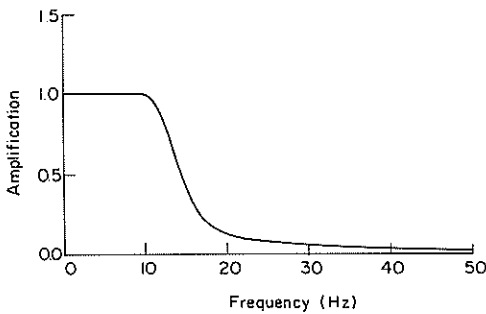


Fig. 33 The Supplementary Filter for a record by the SMAC-B2 accelerograph

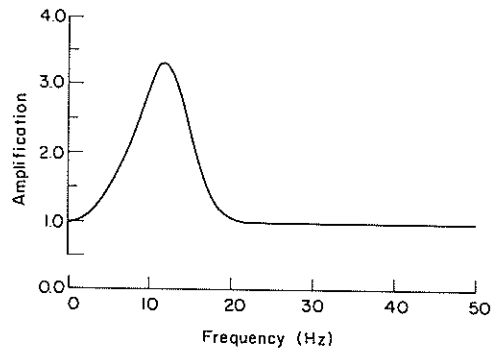


Fig. 34 Combined frequency characteristics of the filter for instrument correction and the supplementary filter for records by the SMAC-B2 accelerograph

(b) Filters for a Record by the ERS-B, C, D Accelerograph

The filter for the instrument correction $A_E(f)$ is defined by

$$A_E(f) = A_P(f) \cdot A_G(f)$$

$$A_P(f) = 1 + \frac{i}{2h_P} \left(\frac{f}{f_P} - \frac{f_P}{f} \right) \quad \dots\dots\dots (14)$$

$$A_G(f) = 1 - \left(\frac{f}{f_G}\right)^2 + 2h_G \left(\frac{f}{f_G}\right) i$$

where for a record by the ERS-B accelerograph

$$f_p = 2.0 \text{ (Hz)}, h_p = 17, f_G = 100 \text{ (Hz)} \text{ and } h_G = 0.7$$

and for a record by the ERS-C accelerograph

$$f_p = 3.0 \text{ (Hz)}, h_p = 17, f_G = 250 \text{ (Hz)} \text{ and } h_G = 0.7$$

and for a record by the ERS-D accelerograph

$$f_p = 5.0 \text{ (Hz)}, h_p = 10, f_G = 100 \text{ (Hz)} \text{ and } h_G = 0.7$$

$1/A_p(f)$ is frequency characteristics of the pick up of the accelerograph and $1/A_G(f)$ is those of the galvanometer.

The supplementary filter $B_E(f)$ is defined by

$$B_E(f) = \begin{cases} 1 / |A_p(f)| & \text{if } |f| \leq f_p \\ 1 & \text{otherwise} \end{cases} \dots \dots \dots (15)$$

where $A_p(f)$ is the filter for the instrument correction of the pick up and f_p is the characteristic frequency of the instrument defined above for each type of accelerograph. The supplementary filter is designed to suppress low frequency digitization errors.

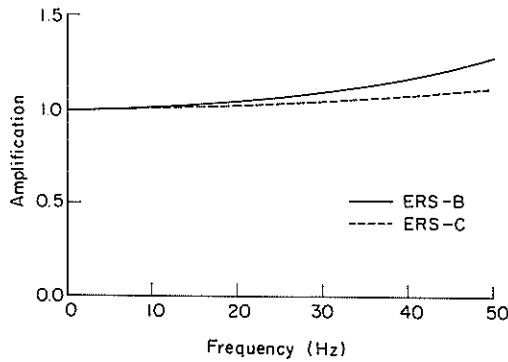


Fig. 35 The Combined Filter of Instrument Correction and Supplementary Filtering for a Record by the ERS-B, C, D Accelerograph

ii) SMAC-B2 Equivalent Filter

Frequency characteristics of SMAC-B2 accelerograph are different from that of ERS-B, C, D, F accelerograph. In order to make it easy to compare the accelerograms by these different types of accelerographs each other, a filter defined in the following equation is applied for a record by the ERS-B, C, D, F accelerograph.

$$S(f) = \frac{1}{1 - (\frac{f}{f_S})^2 + 2h_S(\frac{f}{f_S})i} \dots \dots \dots (16)$$

where $f_S = 1/0.14 \text{ (Hz)}$ and $h_S = 1.0$

The filter has the same frequency characteristics as those of the SMAC-B2 accelerograph.

The filter is applied for the acceleration processed through the filter for instrument correction and the supplementary filter. Acceleration processed through this filter will be called "SMAC-B2 Equivalent Acceleration". This acceleration can be compared with the original acceleration by the SMAC-B2 accelerograph.

iii) The High Pass Filters for Integration

Processed through the preliminary correction procedure, a digitized accelerogram is expected to have only such errors as random digitization errors and errors of sectional base-line location. Errors of sectional base-line location affect mainly to frequency components lower than about $1/T$ where T is length of a section of an accelerogram divided for digitization.

As a result of the examination of random digitization errors, frequency characteristics of SN ratio calculated for each frequency are found to be similar to those of digitized acceleration. In other words, ratio of digitized acceleration to digitization errors calculated for each frequency is large if the corresponding frequency components of the digitized acceleration is large. For the frequency components higher than about $1/T$, the result of the examination of digitization errors may remain valid. The result implies that SN ratio of a frequency component varies with the frequency characteristics of accelerogram to be digitized.

The cut-off frequency of a high pass filter for integration of a digitized accelerogram should be varied in accordance with frequency characteristics of an accelerogram from such a point of view that SN ratio should be kept higher than some constant level for every frequency component and at the same time the physically real signals should be preserved as much as possible. On the other hand, cut-off frequency of the filter should be kept constant for any accelerograms from such a point of view that the preserved real seismic signals should be filtered out by the same filter for the purpose of comparison between two or more velocities or displacements even if integrated errors are more or less included in them.

In order to satisfy a wide range of applications of the strong-motion records from the

0.552) deployed by the Japan Meteorological Agency of Ministry of Transport. Cut-off frequency (3 dB down) of this filter is 0.154 Hz.

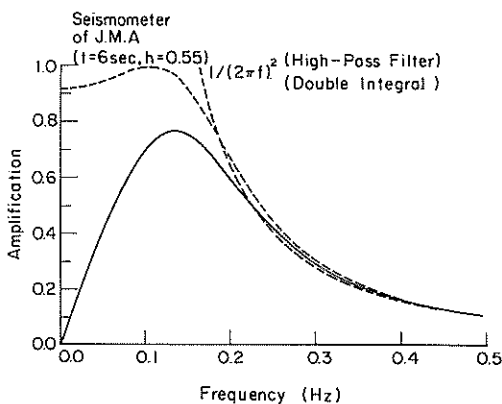


Fig. 36 Combined Frequency Characteristics of the Fixed Filter and Double Integral

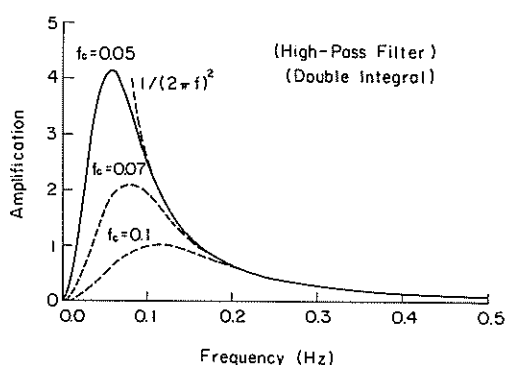


Fig. 37 Combined Frequency Characteristics of the Variable Filter and Double Integral

various view points, the authors proposed two methods of correction of an accelerogram to obtain velocities and displacements; one is a method with a fixed filter and another is a method with a variable filter.

(a) Fixed Filter

This filter is defined by

$$H_1(f) = \frac{1}{1 - (\frac{f_0}{f})^2 - 2h(\frac{f_0}{f})i \cdot \sqrt{1 + (\frac{f_1}{f})^2}} \dots \dots \dots (17)$$

where $f_0 = 1/6$ (Hz), $h = 0.552$ and $f_1 = 0.1$ (Hz)

This filter is designed to make it easy to compare the integrated displacement with records obtained by the one magnification strong-motion seismometer ($T = 6$ s. and $h =$

(b) Variable Filter

This filter is defined by

$$H_2(f) = [1 - \exp \left\{ -(\frac{f}{f_C})^2 \right\}]^2 \dots \dots \dots (18)$$

The parameter f_C in the equation varies so as to make σ equal to E , where σ is defined by

$$\sigma^2 = \frac{1}{M} \int_{-\infty}^{\infty} |X(f)|^2 \cdot [1 - \exp \left\{ -(fT)^2 \right\}]^4 \cdot [1 - H_2(f)]^2 df \dots \dots \dots (19)$$

where M is length of whole digitized portion
 T is a minimum length of a section of accelerogram
 $X(f)$ is Fourier Transform of the original acceleration

and E is the value listed below;

$E = 0.5$ (Gal) for a record by the SMAC-B2 accelerograph

$E = 0.05p$ (Gal) for a record by the ERS-B, C, D accelerograph

where p (Gal/mm) is the sensitivity of ERS-B, C, D accelerograph.

$E = (p \times 0.001) \times 0.02236$ (Gal) for a record by the ERS-F accelegraph

where p (1000 Gal/2¹⁶) is the sensitivity of ERS-F accelegraph.

Cut-off frequency (3 dB down) of this filter is $1.36 f_C$.

Decision procedure of f_C is simply illustrated in Fig. 38. f_C is fundamentally determined so as to filter out some constant amount of low frequency components of an accelerogram higher than about $1/T$. The greater low frequency components of an accelerogram are, the lower f_C should be. Because the greater low frequency components of an accelerogram are, the higher SN ratio of these components are. Low frequency components lower than about $1/T$ are eliminated for the decision procedure of f_C because they are possible to be contaminated by the errors at sectional base-line location and the relation between the SN ratio and the quantity of a frequency component of an accelerogram is afraid no longer remaining valid.

This decision procedure of f_C is, however, a compromise between such a view point as

to keep SN ratio over some constant level for every frequency component and such a view point as to keep f_C to be a constant. The reason why we proposed such a compromised method is that the compromise makes decision procedure of f_C more stable against possible fluctuation of the relation between quantity of a frequency component of an accelerogram and the SN ratio. The relation may, to some extent, depend on frequency characteristics of an accelerogram to be digitized, digitized length of an accelerogram non-stationarity of an accelerogram, etc. and the relation itself is valid only in a stochastic sense.

The reason why the authors proposed a fixed low pass supplementary filter instead of a variable one for a record by the SMAC-B2 accelerograph was that the possible fluctuation of the relation is expected to be greater for high frequency components.

Slope of both of the high pass filters proposed here are designed to be mild in order to lessen an artificial predominant frequency component around the cut-off frequency.

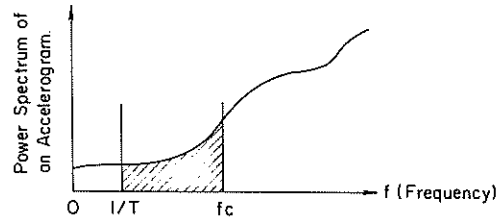
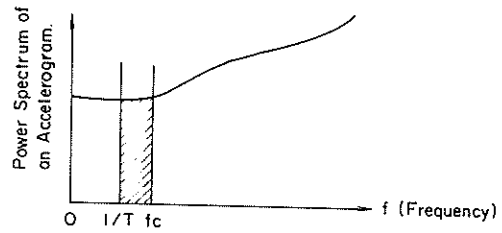


Fig. 38 Simplified illustration of decision procedure of f_C

(2) Corrected Acceleration, SMAC-B2 Equivalent Acceleration, Integrated Velocities and Integrated Displacement

A portion of first one second of the original acceleration of the SMAC-B2 accelerograph is omitted for the instrument correction and the integration because even a slight difference of start up of recording paper drive between SMAC-B2 accelerographs and even a small difference of selection of starting point of digitization may sensitively affect accuracy of the portion of first short section processed through the correction of start up of the recording paper drive. In the case of the original acceleration of the ERS-B, C, D, F accelerograph, no data is omitted. These accelerations are processed by the methods of correction and integration described previously. The calculated results are shown in figures and their maximum values are listed in a table.

“Corrected acceleration” denotes acceleration processed through the variable filter. “SMAC-B2 equivalent acceleration” denotes acceleration obtained by the SMAC-B2 equivalent filter. Integrated velocities and displacements are calculated with the fixed filter and the variable filter. The parameter f_C of the variable filter is also shown on the figures and the table.

The corrected acceleration of the different types of accelerographs can not necessarily be compared with each other freely because the difference of the supplementary filters produces difference mainly on the high frequency components over 10 Hz of the filtered accelerations. Instead of comparison of the corrected accelerations, “SMAC-B2 equivalent acceleration” can be freely compared with the original acceleration of the SMAC-B2 accelerograph except for the low frequency components lower than about 0.1 Hz.

(3) Response Spectra

Response spectra are calculated for the corrected acceleration, which is an acceleration processed through the variable filter as described previously.

The response spectra in the previous annual reports before 1968 were calculated from the digitized records by a digital computer using the Runge-Kuta-Gill method to integrate numerically the equation of motion of the oscillator. The response spectra in the present report were calculated with a step by step calculation of the exact solution to the governing differential equation.³¹⁾ No significant difference was seen in the results calculated by the both methods, according to the trial calculations.

The time interval of each step of the calculation is 0.01 second for the oscillators of natural periods longer than 0.2 second. For the oscillators of shorter periods, the small time intervals are selected so that one cycle of the undamped free oscillation of the oscillator is covered at least by 20 steps of the numerical calculation to maintain the necessary accuracy. In these calculation, the digitized records at smaller time intervals are made by means of the interpolation in the computer. The response spectra are provided in numerical tables as well as in the figures.

To calculate the response spectrum, entire length of the record is not necessary; the last part of the record after the maximum response have appeared is practically meaningless in the response calculation. Besides, the shorter record is more preferable from view point of the calculation time. On some long records, their beginning parts of small acceleration are not used in the calculation so far as it is thought that the neglected parts do not affect the results of the calculation. The length of the record used for the calculation and the length of the beginning part which is not used are shown in the numerical table as the time length and the skipped length respectively.

Response spectra of the period longer than about $1/f_C$ is influenced by the high pass filter ($1.36/f_C$ is the period of 3 dB down of the filter.); i.e., calculated response spectra is true if real seismic signals do not exist on the period longer than about $1/f_C$ and calculated response spectra are smaller than the true value if real seismic signals do exist. In the case of the corrected acceleration by the SMAC-B2 accelerograph, response spectra of the period shorter than about 0.1 sec is also influenced by the low pass filter. Users of the response spectra should be careful about these characteristics of the response spectra calculated for the corrected acceleration and difference between the response spectra for the corrected acceleration and those for the uncorrected acceleration which had been calculated so far.

(4) Fourier Spectrum

The Fourier spectra are calculated by the Fast Fourier Transform for whole length of the record, which are directly obtained at the filtering process with the variable filter. But, the spectra in this report are multiplied by the whole length of the record and then smoothed with the Parzen window of 1 Hz band width.

(5) Loci of Acceleration and Displacement

The loci of acceleration and displacement in horizontal plane are included in this report. The records used for calculation are acceleration without instrument correction and displacement processed by the variable filter.

6. Summary of Observation

Since 1962, 3635 records were obtained in the network of the Port and Harbour Research Institute, and most of the important records were analysed by the authors. In Table 9, a statistical summary of the observation is given. In Table 10, record numbers of accelerograms of which the digitized records and the spectra have been published are shown. The number in the parentheses behind each record number is showing the number of the Technical Note of the Port and Harbour Research Institute in which the digitized record appeared.

Table 9

STATION	TOTAL NUMBER OF RECORDS	NUMBER OF RECORDS EX- CEEDING 20 GALS IN MAX.	NUMBER OF RECORDS EX- CEEDING 50 GALS IN MAX.
AKITA-S	30	7	2
AMAGASAKI-S	8	1	0
AOMORI-S	39	13	5
CHIBA-S	77	15	4
HACHINOHE-S*	111	17	5
HACHINOHE-JI-S	7	3	2
HAKODATE-FB	3	0	0
HAKODATE-F	3	0	0
HAKODATE-FR	3	0	0
HAKODATE-M	43	12	3
HANASAKI-M	32	18	6
HIRARA-S	4	1	0
HIROSHIMA-S*	9	5	4
HIROSHIMA-JI-S	4	0	0
HITACHINAKA-F	86	43	13
HOSOSHIMA-S	54	19	7
ISHIGAKI-S	4	1	0
INAE-S	15	6	0
INAE-SANBASHI-M	13	6	1
INAE-YAITA-M	20	10	2
KAGOSHIMA-S	26	4	0
KAMASHI-M	23	7	1
KAMASHI-MB	22	1	1
KANAZAWA-S	8	2	0
KASHIMA-S*	32	9	3
KASHIMA-JI-S*	30	6	3
KASHIMA-ZOKAN-S	106	22	7
KAWASAKI-CHI-M*	187	22	2
KAWASAKI-KO-M*	107	28	6
KAWASAKI-FB	14	3	2
KAWASAKI-F	14	3	2
KAWASAKI-FR	14	5	3
KEIHIN-JI-S	116	17	2
KINUURA-S*	8	4	2
KINUURA-JI-S	16	4	0
KOBE-DAI6-S	11	3	0
KOBE-DAI8-S	15	2	1
KOBE-JI-S	13	4	0
KOBE-MAYA-DAI1-M	14	5	2
KOBE-MAYA-DAI2-M	17	5	0
KOBE-MAYA-M	20	4	1
KOCHI-S*	21	3	1
KOCHI-JI-S	13	3	0
KOKEN-M	59	5	0
KOKEN-S	30	5	1
KOMATSUJIMA-S	15	2	0
KUSHIRO-S*	49	16	6
KUSHIRO-JI-S	5	3	2
MATSUYAMA-S	25	4	2
MINAMATA-M	3	0	0
MIYAKO-S	39	24	11
MIYAZAKI-M	38	9	4
MURORAN-S	66	14	6
NAGOYA-ZOKAN-S	21	5	2
NAHA-S*	1	0	0
NAHA-ZOKAN-S	2	1	0

(to be continued)

(Table 9, continued)

STATION	TOTAL NUMBER OF RECORDS	NUMBER OF RECORDS EX- CEEDING 20 GALS IN MAX.	NUMBER OF RECORDS EX- CEEDING 50 GALS IN MAX.
NIIGATA-S*	12	1	0
NIGATA-JI-S	5	1	0
OFUNATO-S*	21	3	2
OFUNATO-BOCHI-S	59	14	5
OFUNATO-BO-S	95	32	18
OFUNATO-MOUND-M	44	12	4
OITA-S	13	7	4
OKITSU-S	27	4	0
OMAEZAKI-M	19	1	0
ONAHAMA-S*	67	13	4
ONAHAMA-JI-S	24	20	6
OSAKA-CHUO-S	7	1	0
OSAKA-JI-S	9	1	0
OTARU-S	11	0	0
SAKAIMINATO-S*	0	0	0
SAKAIMINATO-JI-S	8	2	0
SAKATA-S	46	6	0
SENDAI-M	63	13	2
SENDAI-MB	62	1	0
SHIBUSHI-S	10	0	0
SHIMIZU-KOJYO-S	24	7	3
SHIMIZU-MIHO-S	25	4	1
SHIMI.-SEKITAN-M	23	11	4
SHIM.-SEKITAN-S*	10	5	2
SHINAGAWA-M*	1	1	1
SHINAGAWA-MB	39	1	0
SHINAGAWA-S	79	25	6
SHIOGAMA-S*	19	1	0
SHIOGAMA-KOJYO-S	83	16	5
SHIMODA-F	1	0	0
SOMA-S	37	10	5
TAGONOURA-S	59	8	0
TOKACHI-M	70	39	15
TOMAKOMAI-S	21	7	4
TOYAMA-S	6	2	1
TSURUGA-S	28	3	1
URAKAWA-S	44	7	1
WAKA.-GANPEKI-S*	7	2	0
WAKAYAMA-S	31	14	3
WAKAYAMA-JI-S*	12	5	4
WAKA.-SUMIKIN-S*	0	0	0
YAMASHITA-DAI7-M	81	6	1
YAMASHITA-DAI6-S	102	31	11
YAMASHITA-HEN-M	194	18	4
YAMASHITA-FB	27	2	0
YAMASHITA-F	27	7	2
YAMASHITA-FR	27	11	7
YAMASHITA-HEN-S	119	24	8
YOKKA.-CHITOSE-S	8	5	1
YOKKA.-DAI2-M	16	2	2
YOKKA.-SEKITAN-M	43	7	2
YOKKAICHI-JI-S*	5	2	0
TOTAL	3635	846	266
ERS	1472	318	93
SMAC	2163	528	173

Table 10

STATION	RECORDS WHICH HAVE BEEN DIGITIZED (REF. NO.)			
AKITA-S	S-655 (160) S-1586 (458)	S-1200 (319)	S-1567 (458)	S-1585 (458)
AOMORI-S	S-235 (80) S-670 (160)	S-264 (80) S-1192 (319)	S-304 (80) S-1573 (458)	S-400 (80) S-1592 (458)
CHIBA-S	S-1195 (319) S-2107 (619)	S-1378 (374)	S-1545 (487)	S-1884 (547)
HACHINOHE-S*	S-252 (80) S-857 (202)	S-310 (80) S-1202 (319)	S-401 (80) S-1453 (426)	S-669 (160) S-1575 (458)
HACHINOHE-JI-S	S-1968 (618)			
HAKODATE-M	M-357 (374)	M-523 (442)	M-630 (458)	M-639 (458)
HANASAKI-M	M-106 (287) M-1014 (588)	M-262 (338) M-1017 (588)	M-496 (426)	M-887 (547)
HIROSHIMA-S*	S-364 (98)	S-1306 (338)	S-1623 (487)	
HITACHINAKA-F	F-12 (588) F-36 (618) F-174 (649)	F-15 (588) F-43 (618)	F-19 (588) F-46 (618)	F-34 (618) F-107 (649)
HOSOSHIMA-S	S-213 (98) S-1231 (338)	S-453 (100) S-1625 (487)	S-544 (116) S-1729 (503)	S-545 (116)
KASHIMA-S*	S-196 (64)	S-612 (136)	S-647 (136)	
KASHIMA-JI-S*	S-770 (181)	S-813 (202)	S-845 (202)	S-882 (202)
KASHIMA-ZOKAN-S	S-1206 (319) S-1910 (588)	S-1506 (446) S-1957 (588)	S-1678 (519) S-2110 (619)	S-1867 (547)
KAWASAKI-CHI-M*	M-186 (317)	M-220 (319)	M-406 (374)	
KAWASAKI-F	F-98 (619)	F-123 (649)		
KEIHIN-JI-S	S-1188 (319)	S-1390 (374)	S-2112 (619)	
KINUURA-S*	S-480 (100)	S-585 (136)		
KOBE-MAYA-M	M-704 (487)			
KOCHI-S*	S-211 (98)			
KOCHI-JI-S	S-1730 (503)			
KOKEN-S	S-1046 (317)	S-2106 (619)		
KOKEN-M	M-170 (317)			
KUSHIRO-S*	S-98 (62) S-733 (181)	S-369 (98) S-741 (181)	S-634 (136)	S-674 (160)
KUSHIRO-JI-S	S-1976 (618)	S-2171 (649)		
MATSUYAMA-S	S-1303 (338)	S-1731 (503)	S-1624 (487)	
MIYAKO-S	S-236 (80) S-420 (98) S-1317 (338)	S-271 (80) S-537 (116) S-1972 (618)	S-312 (80) S-1204 (319)	S-273 (98) S-1104 (338)
MIYAZAKI-M	M-228 (338)	M-877 (547)	M-1107 (618)	
MURORAN-S	S-234 (80) S-1474 (442)	S-241 (80) S-1571 (458)	S-399 (80) S-1599 (458)	S-1425 (426) S-1979 (618)

(to be continued)

(Table 10, continued)

STATION	RECORDS WHICH HAVE BEEN DIGITIZED (REF. NO.)			
NAGOYA-ZOKAN-S	S-1 (55)	S-20 (55)	S-578 (136)	
NIIGATA-S*	S-107 (62)			
NIIGATA-JI-S	S-1203 (319)			
OFUNATO-S*	S-140 (64)	S-282 (98)	S-361 (98)	
OFUNATO-BOCHI-S	S-554 (116) S-1120 (338)	S-786 (181)	S-1022 (287)	S-1210 (319)
OITA-S	S-924 (236)	S-1629 (487)	S-1734 (503)	S-2021 (618)
OKITSU-S	S-1071 (317)			
ONAHAMA-S*	S-111 (62)	S-1043 (287)	S-1191 (317)	
ONAHAMA-JI-S	S-1330 (338) S-1946 (588)	S-1505 (446)	S-1602 (487)	S-1633 (487)
SAKATA-S	S-1568 (458)			
SENDAI-M	M-1127 (618)			
SHIMIZU-KOJYO-S	S-74 (62)	S-1063 (317)	S-1064 (317)	
SHIMIZU-MIHO-S	S-1066 (317) S-1069 (317)			
SHINAGAWA-S	S-192 (64) S-1885 (547)	S-340 (98) S-2111 (619)	S-1394 (374) S-2130 (649)	S-1787 (519)
SHIOGAMA-S*	S-138 (64)			
SHIOGAMA-KOJYO-S	S-782 (181) S-2029 (618)	S-1118 (338)	S-1201 (319)	S-2006 (618)
SOMA-S	S-1872 (547) S-2096 (618)	S-2001 (618)	S-2031 (618)	S-2051 (618)
TAGONOURA-S	S-1055 (317)			
TOKACHI-M	M-125 (287) M-340 (338) M-522 (442) M-911 (547) M-1242 (649)	M-145 (287) M-341 (374) M-540 (446) M-972 (547)	M-247 (338) M-439 (426) M-636 (487) M-1078 (618)	M-260 (338) M-521 (442) M-703 (487) M-1200 (649)
TOMAKOMAI-S	S-877 (202)	S-1418 (426)	S-1472 (442)	S-1977 (618)
TOYAMA-S	S-1892 (547)			
TSURUGA-S	S-1549 (487)			
URAKAWA-S	S-1978 (618)			
WAKAYAMA-S	S-945 (236)	S-1028 (287)		
WAKAYAMA-JI-S*	S-187 (64)	S-265 (98)	S-266 (98)	S-788 (181)
YAMASHITA-F	F-95 (619)	F-168 (649)		
YAMASHITA-HEN-S	S-412 (98) S-1362 (374)	S-658 (160) S-1386 (374)	S-1058 (317) S-1614 (487)	S-1189 (319) S-2113 (619)
YAMASHITA-HEN-M	M-217 (319) M-1183 (619)	M-403 (374) M-1195 (649)	M-1022 (588) M-1226 (649)	M-1056 (588)
YOKKA-CHITOSE-S	S-577 (136)			

*OBSERVATION OF THE STATIONS HAD ALREADY BEEN STOPPED.

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**Observation Results
and
Preliminary Analyses**

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

04:03 JAN. 1, 1988

IYONADA SETONAIKAI

EPICENTER : 33°30.6'N 132°20.4'E

DEPTH : 59.1KM MAGNITUDE : 4.7

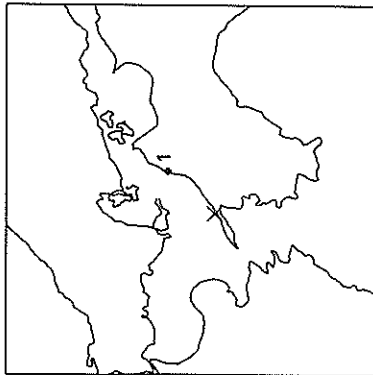
JMA INTENSITIES

II : UWAJIMA/MATSUYAMA,

SHIMONOSEKI

I : OITA,YAMAGUCHI,

HIROSHIMA



STATION	CONDITION	RECORD NUMBER	MAX.ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 MATSUYAMA-S	ON GROUND	S-2119	3 3 2	51

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

21:42 JAN. 2, 1988

KAMIKAWA-SORACHI REGION

EPICENTER : 43°13.8'N 142°29.9'E

DEPTH : 174.6KM MAGNITUDE : 6.4

JMA INTENSITIES

III : URAKAWA,OFUNATO,

HACHINOHE,KUSHIRO,

AOMORI,HIROO,MORIOKA,

MUTSU

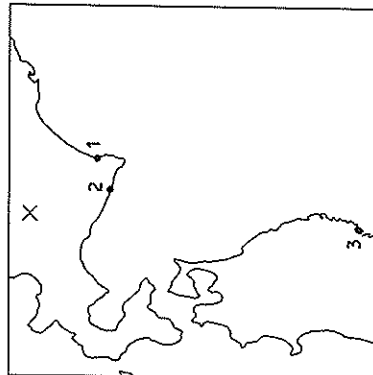
II : NEMURO,HAKODATE,MURORAN,

OTARU,TOMAKOMAI,MIYAKO

I : SAPPORO,YAMAGATA,

ISHINOMAKI,SAKATA,

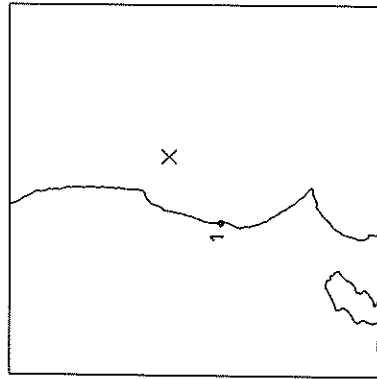
ONAHAMA,MITO,CHIBA



STATION	CONDITION	RECORD NUMBER	MAX.ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 TOKACHI-M	ON GROUND	M-1185	40 43 19	124
2 URAKAWA-S	ON GROUND	S-2118	14 16 7	120
3 OFUNATO-ROUND-M	ON STRUC.	M-1186	4 5 3	472
3 OFUNATO-BO-S	ON STRUC.	S-2120	6 11 1	472
3 OFUNATO-BOCHI-S	ON GROUND	S-2121	2 2 1	473

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

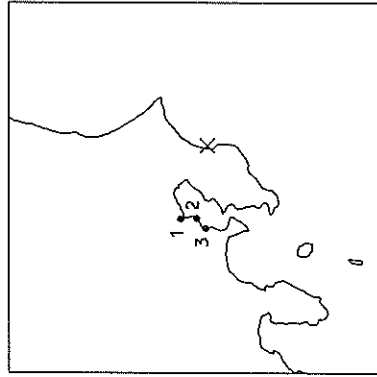
04:12 JAN. 4 /1988
 E OFF IBARAKI PREF
 JMA INTENSITIES II : ONAHAWA,MITO
 I : FUKUSHIMA,UTSUNOMIYA
 DEPTH : 43.4KM MAGNITUDE : 4.4



STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F- 104	9 7 4	68

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

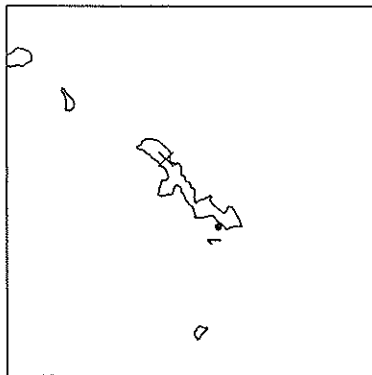
20:42 JAN. 16/1988
 KUJUKURI COAST BOSO PEN
 JMA INTENSITIES III : TOKYO,TATEYAMA,KATSUURA,
 CHIBA,YOKOHAMA
 II : KUNAGAYA,AJIRO,
 MIYAKEJIMA,OSHIMA
 I : MAEBASHI,MITO,
 UTSUNOMIYA,MISHIMA,
 CHOSHI,HACHIJOJIMA
 DEPTH : 47.6KM MAGNITUDE : 5.2



STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST. (KM)
1 SHINAGAWA-MB	IN GROUND	M-1187	3 2 3	64
1 SHINAGAWA-S	ON GROUND	S-2122	8 13 2	64
2 KAWASAKI-FR	ON STRUC.	F- 115	18 16 4	60
2 KAWASAKI-F	ON GROUND	F- 114	16 9 5	60
2 KAWASAKI-FB	IN GROUND	F- 113	6 4 2	60
3 YAMASHITA-FR	ON STRUC.	F- 127	100 30 4	67
3 YAMASHITA-F	ON GROUND	F- 126	18 9 6	67
3 YAMASHITA-FB	IN GROUND	F- 125	7 2 2	67
3 YAMASHITA-DA16-S	ON STRUC.	S-2125	21 8 2	68
3 YAMASHITA-HEN-M	ON GROUND	M-1188	14 9 5	68
3 YAMASHITA-HEN-S	ON GROUND	S-2124	4 3 3	68
3 KEIHN-JI-S	ON GROUND	S-2123	4 6 3	71

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

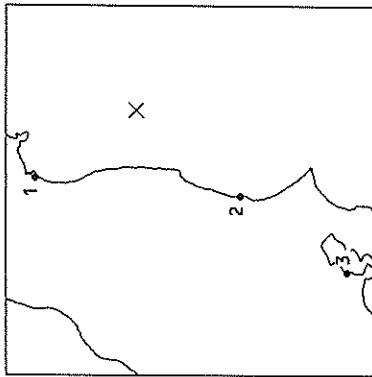
23:15 JAN. 24, 1988
 NEAR OKINAWAJIMA ISLAND
 JMA INTENSITIES
 III : MAHA-NAGO
 II : NAZE, KUMEJIMA,
 OKINOERABUJIMA
 I : MIYAKOJIMA
 EPICENTER : 26°39.4'N 128°11.8'E
 DEPTH : 75.7KM MAGNITUDE : 6.0



STATION	CONDITION	RECORD NUMBER	MAX.-ACC. (GAL) (NS) (EH) (UD)	DIST. (KM)
1 MAHA-ZOKAN-S	ON GROUND	S-2126	23 32 9	69

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

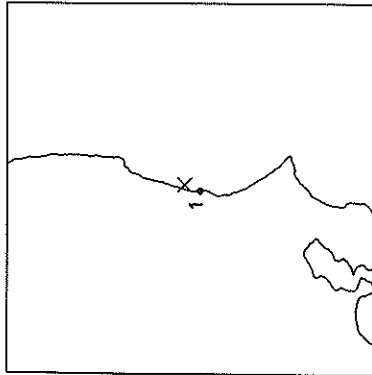
05:20 JAN. 26, 1988
 E OFF FUKUSHIMA PREF
 JMA INTENSITIES
 II : FUKUSHIMA, MORIOKA,
 SENDAI, ISHINOHAKI,
 MIYAKO, ONAHAMA,
 UTSUNOMIYA, MITO, TOKYO,
 YOKOHAMA
 I : OFUNATO, CHOSHI, KUMAGAYA,
 TATEYAMA, CHIBA
 EPICENTER : 37°17.3'N 141°42.0'E
 DEPTH : 34.2KM MAGNITUDE : 5.6



STATION	CONDITION	RECORD NUMBER	MAX.-ACC. (GAL) (NS) (EH) (UD)	DIST. (KM)
1 SENDAI-MB	IN GROUND	M-1190	3 4 4	125
1 SENDAI-M	ON GROUND	M-1189	12 15 5	125
2 HITACHINAKA-F	ON GROUND	F-105	13 11 5	139
3 YAMASHITA-HEN-M	ON GROUND	M-1191	4 4 2	274

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

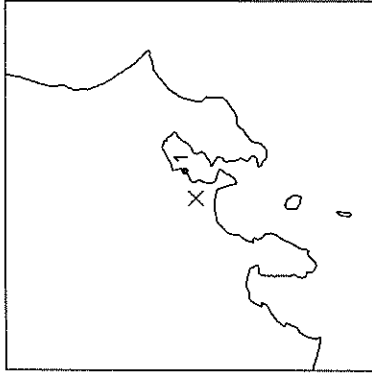
15:59 JAN. 26, 1988
 NORTHERN IBARAKI PREF
 JMA INTENSITIES
 II : MITO
 I : FUKUSHIMA, UTSUNOMIYA,
 KATSUURA, KUMAGAYA
 EPICENTER : 36°29.8'N 140°40.9'E
 DEPTH : 89.0KM MAGNITUDE : 4.5



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F- 106	33 36 16	13

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

01:58 JAN. 28, 1988
 KANAGAWA PREF
 JMA INTENSITIES
 II : TOKYO, CHIBA, UTSUNOMIYA,
 TATEYAMA
 I : KUMAGAYA, YOKOHAMA,
 OSHIMA, MIYAKEJIMA,
 KANAGUCHIKO, AJIRO
 EPICENTER : 35°26.6'N 139°30.3'E
 DEPTH : 122.9KM MAGNITUDE : 4.6

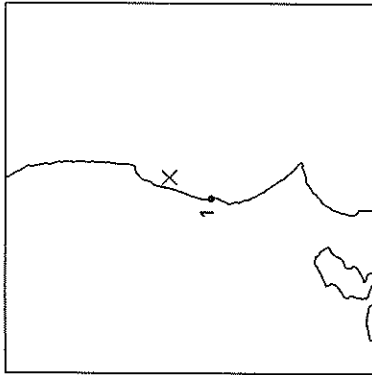


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 KAWASAKI-FR	ON STRUC.	F- 118	12 15 2	23
1 KAWASAKI-F	ON GROUND	F- 117	10 9 4	23
1 KAWASAKI-FB	IN GROUND	F- 116	4 4 1	23

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

06:18 JAN. 30, 1988
 E OFF IBARAKI PREF
 EPICENTER : 36°41.1'N 140°49.9'E
 DEPTH : 61.5KM MAGNITUDE : 4.9

JMA INTENSITIES
 III : MITO
 II : ONAHAMA, UTSUNOMIYA
 I : FUKUSHIMA, KUMAGAYA,
 TOKYO, YOKOHAMA, CHIBA

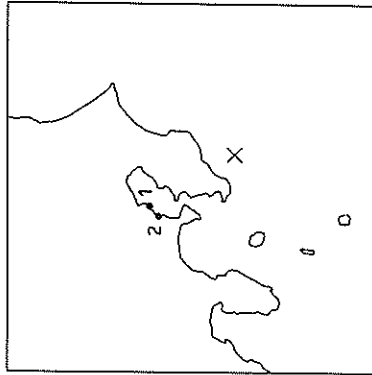


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EH) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F-107	62 38 22	38

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

14:43 FEB. 3, 1988
 SE OFF BOSO PERINSULA
 EPICENTER : 34°51.4'N 140°10.1'E
 DEPTH : 74.1KM MAGNITUDE : 5.0

JMA INTENSITIES
 III : TATEYAMA, KATSUURA
 II : TOKYO, YOKOHAMA, CHIBA,
 OSHIMA, AJIRO
 I : MITO, UTSUNOMIYA,
 MIYAKEJIMA, KAMAGUCHIKO

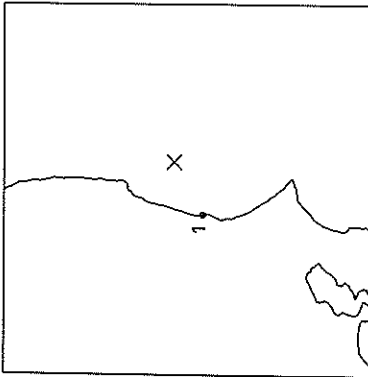


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EH) (UD)	DIST. (KM)
1 KAWASAKI-FR	ON STRUC.	F-121	12 16 2	81
1 KAWASAKI-F	ON GROUND	F-120	11 10 4	81
1 KAWASAKI-FB	IN GROUND	F-119	4 4 1	81
2 YAMASHITA-FR	ON STRUC.	F-130	13 14 2	79
2 YAMASHITA-F	ON GROUND	F-129	7 9 3	79
2 YAMASHITA-FB	IN GROUND	F-128	2 2 1	79
2 YAMASHITA-HEN-M	ON GROUND	M-1192	8 9 5	79
2 KEIHIN-JI-S	ON GROUND	S-2128	3 3 2	82

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

19:11 FEB. 3, 1988
 E OFF IBARAKI PREF
 JMA INTENSITIES
 III : MITO
 II : ONAHAMA-KAKIOKA
 I : TOKYO, FUKUSHIMA,
 CHICHIBU

EPICENTER : 36°33.9'N 141°6.7'E
 DEPTH : 56.5KM MAGNITUDE : 4.5

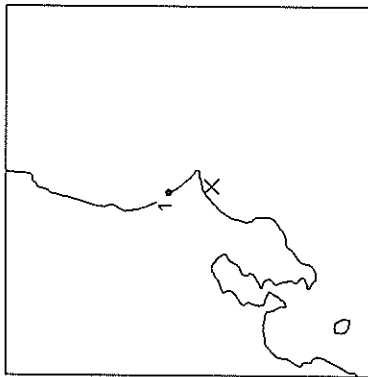


STATION	CONDITION	RECORD NUMBER	MAX.-ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F- 108	45 19 10	48

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

01:20 FEB. 13, 1988
 NEAR CHOSHI CITY
 JMA INTENSITIES
 III : CHOSHI
 II : KAKIOKA, CHIBA, MITO,
 TATEYAMA
 I : TOKYO, YOKOHAMA, AJIRO

EPICENTER : 35°37.0'N 140°43.3'E
 DEPTH : 61.3KM MAGNITUDE : 5.1

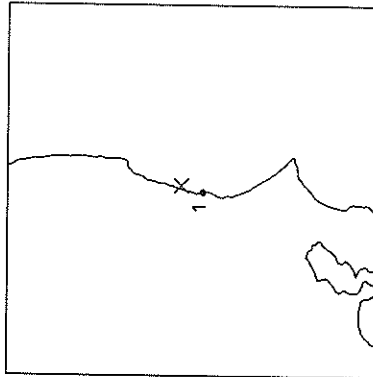


STATION	CONDITION	RECORD NUMBER	MAX.-ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 KASHIMA-ZOKAN-S	ON GROUND	S-2127	4 4 1	34

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

01:18 FEB. 20, 1988
 NORTHERN IBARAKI PREF
 EPICENTER : 36°32.5'N 140°41.6'E
 DEPTH : 49.8KM MAGNITUDE : 3.7

JMA INTENSITIES
 II : MITO

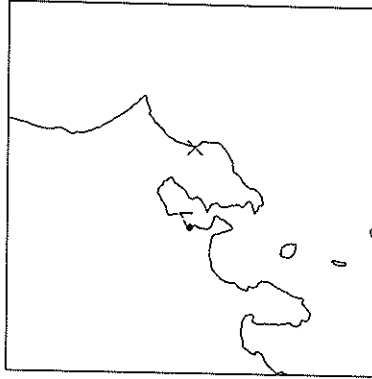


STATION	CONDITION	RECORD NUMBER	MAX-ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F-109	13 12 6	18

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

17:06 FEB. 25, 1988
 KUJUKURI COAST BOSO PEN
 EPICENTER : 35°22.1'N 140°22.1'E
 DEPTH : 37.9KM MAGNITUDE : 4.1

JMA INTENSITIES
 III : CHIBA
 I : TOKYO, YOKOHAMA



STATION	CONDITION	RECORD NUMBER	MAX-ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1194	6 6 3	64

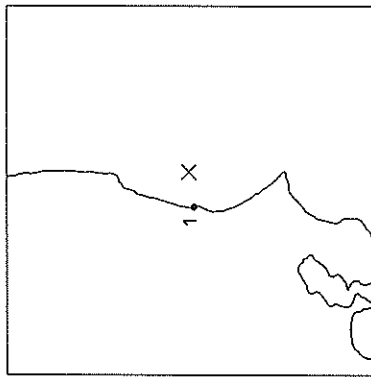
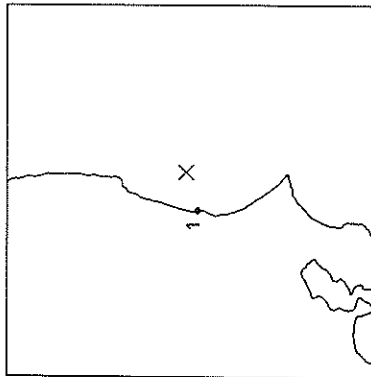
STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

00:30 MAR. 1 1988
 E OFF IBARAKI PREF
 EPICENTER : 36°26.8'N 140°58.0'E
 DEPTH : 43.3KM MAGNITUDE : 3.9

19:51 MAR. 8 1988
 E OFF IBARAKI PREF
 EPICENTER : 36°24.4'N 140°56.2'E
 DEPTH : 42.1KM MAGNITUDE : 3.8

JMA INTENSITIES
 II : MITO
 I : KAKIOKA

JMA INTENSITIES
 II : MITO
 I : KAKIOKA

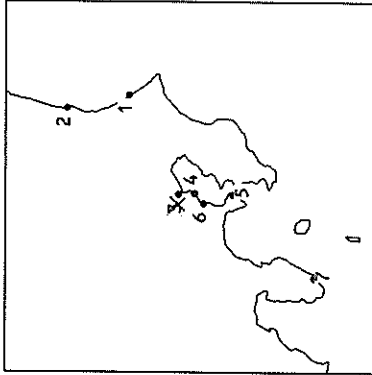


STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST. (KM)
1	ON GROUND	F- 110	15 31 14	31

STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST. (KM)
1	ON GROUND	F- 111	12 14 5	28

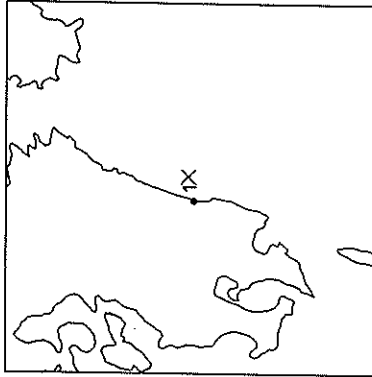
STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

05:34 MAR. 18,1988 JMA INTENSITIES
 TOKYO PREF IV : UTSUNOMIYA,TATEYAMA,
 CHIBA
 III : ONAHAMA,MITO,YOKOHAMA,
 CHOSHI
 II : FUKUSHIMA,KATSUJURA
 I : MIYAKO,OFUNATO,SENDAI,
 NIIGATA,SHIZUOKA



STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

23:36 MAR. 20,1988 JMA INTENSITIES
 HYUGANADA REGION II : MIYAZAKI
 EPICENTER : 31°56.5'N 131°39.9'E
 DEPTH : 44.8KM MAGNITUDE : 3.8



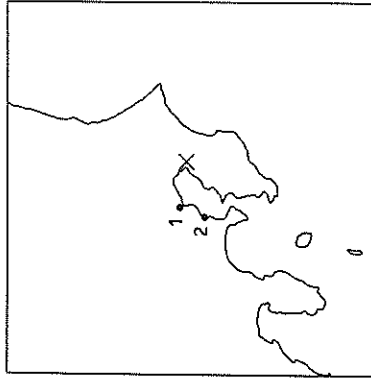
STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST.(KM)
1 KASHIMA-ZOKAN-S	ON GROUND	S-2131	7 8 4	99
2 HITACHINAKA-F	ON GROUND	F-112	21 20 10	118
3 SHINAGAWA-MB	IN GROUND	M-1193	19 19 10	11
3 SHINAGAWA-S	ON GROUND	S-2130	82 41 18	11
4 KAWASAKI-FR	ON STRUC.	F-124	236 180 50	20
4 KAWASAKI-F	ON GROUND	F-123	164 100 40	20
4 KAWASAKI-FB	IN GROUND	F-122	93 56 16	20
5 KOKEN-M	ON GROUND	M-1196	12 13 7	48
5 KOKEN-S	ON GROUND	S-2129	2 3 1	48
6 YAMASHITA-FR	ON STRUC.	F-133	39 59 14	24
6 YAMASHITA-F	ON GROUND	F-132	29 48 21	24
6 YAMASHITA-FB	IN GROUND	F-131	12 16 6	24
6 YAMASHITA-DAIG-S	ON STRUC.	S-2134	30 43 8	24
6 YAMASHITA-HEN-M	ON GROUND	M-1195	45 43 11	24
6 YAMASHITA-HEN-S	ON GROUND	S-2132	24 21 5	24
6 KEIHN-JI-S	ON GROUND	S-2133	28 25 10	22
7 SHIMODA-F	ON GROUND	F-137	5 6 4	127

STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST.(KM)
1 MIYAZAKI-M	ON GROUND	M-1197	4 4 3	20

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

07:22 APR. 1, 1988
 CENTRAL CHIBA PREF
 EPICENTER : 35°33.3'N 140°10.0'E
 DEPTH : 74.9KM MAGNITUDE : 4.6

JMA INTENSITIES
 II : CHIBA-YOKOHAMA, TOKYO
 I : TATEYAMA-AJIRO, MITO,
 MIYAKEJIMA, CHOSHI,
 OSHIMA-KATSUURA

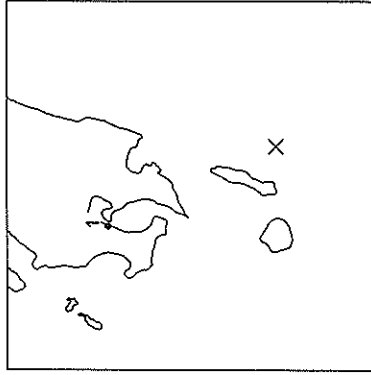


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 SHINAGAWA-MB	IN GROUND	M-1198	1	37
1 SHINAGAWA-S	ON GROUND	S-2136	3 2 2	37
2 YAMASHITA-FR	ON STRUC.	F- 136	11 9 3	46
2 YAMASHITA-F	ON GROUND	F- 135	12 8 5	46
2 YAMASHITA-FB	IN GROUND	F- 134	3 2 1	46
2 YAMASHITA-HEN-M	ON GROUND	M-1199	8 5 2	47

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

00:43 APR. 5, 1988
 NEAR TANEGASHIMA ISLAND
 EPICENTER : 30°21.4'N 131°15.5'E
 DEPTH : 36.4KM MAGNITUDE : 5.6

JMA INTENSITIES
 III : KAGOSHIMA
 II : TANEGASHIMA, ABURATSU
 I : NAZE

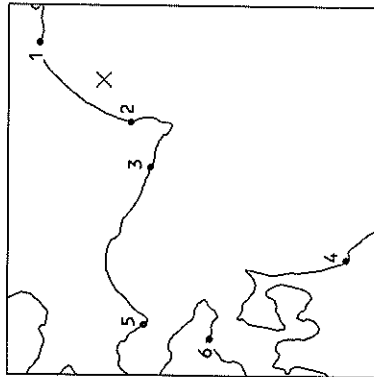


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 KAGOSHIMA-S	ON GROUND	S-2135	2 3 2	151

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

10:59 MAY 7, 1988
 SE OFF TOKACHI
 EPICENTER : 42°29.3'N 143°51.2'E
 DEPTH : 92.8KM MAGNITUDE : 6.4

JMA INTENSITIES
 IV : KUSHIRO, HIROO
 III : URAKAWA, AOMORI,
 HACHINOHE, MORIOKA
 II : NEMURO, HAKODATE,
 TOMAKONAI, MIYAKO,
 OFUNATO
 I : AKITA, SAKATA, NIIGATA,
 YOKOHAMA, CHIBA

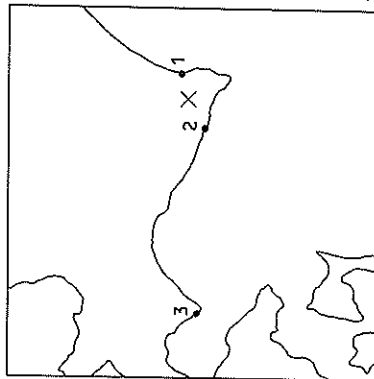


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 KUSHIRO-JI-S	ON GROUND	S-2142	19 43 8	69
2 TOKACHI-M	ON GROUND	M-1200	84 115 43	48
3 URAKAWA-S	ON GROUND	S-2137	23 11 6	95
4 HACHINOHE-JI-S	ON GROUND	S-2138	4 6 3	291
5 MURORAN-S	ON GROUND	S-2139	11 11 3	238
6 HAKODATE-FR	ON STRUC.	F-142	5 6 3	269
6 HAKODATE-F	ON GROUND	F-141	7 7 4	269
6 HAKODATE-FB	IN GROUND	F-140	3 3 2	269

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

07:44 MAY 9, 1988
 HIDAKA MOUNTAINS REGION
 EPICENTER : 42°15.6'N 143°4.5'E
 DEPTH : 68.8KM MAGNITUDE : 5.2

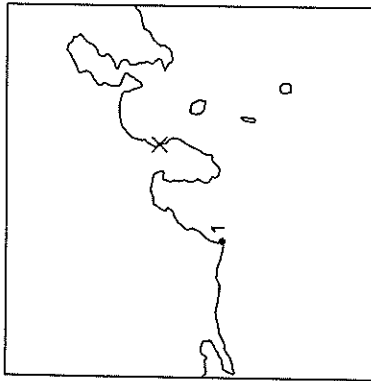
JMA INTENSITIES
 II : KUSHIRO, OBIHIRO,
 TOMAKONAI
 I : MURORAN, SAPPORO, OTARU



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 TOKACHI-M	ON GROUND	M-1201	49 50 26	20
2 URAKAWA-S	ON GROUND	S-2140	38 33 7	26
3 MURORAN-S	ON GROUND	S-2141	4 4 1	174

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

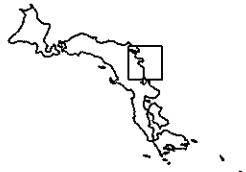
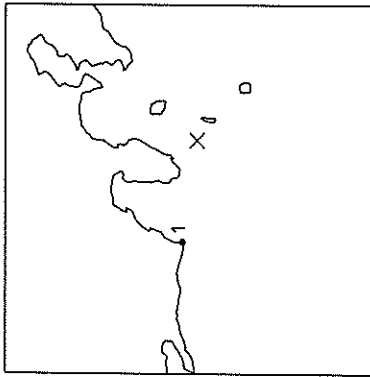
11:21 MAY 11, 1988
 E OFF IZU PENINSULA
 JMA INTENSITIES
 I : AJIRO
 EPICENTER : 35°1.6'N 139°6.3' E
 DEPTH : 2.7KM MAGNITUDE : 2.5



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EH) (UD)	DIST. (KM)
1 OMAEZAKI-M	ON GROUND	M-1202	2 2 2	93

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

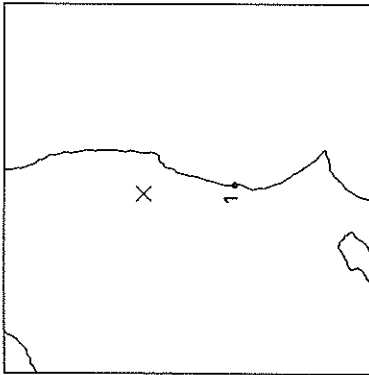
00:44 MAY 12, 1988
 NEAR NIJIMA ISLAND
 JMA INTENSITIES
 II : OSHIMA, NIJIMA
 I : OMAEZAKI, IROZAKI
 EPICENTER : 34°27.4'N 139°6.4' E
 DEPTH : 15.5KM MAGNITUDE : 4.1



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EH) (UD)	DIST. (KM)
1 OMAEZAKI-M	ON GROUND	M-1203	3 3 2	83

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

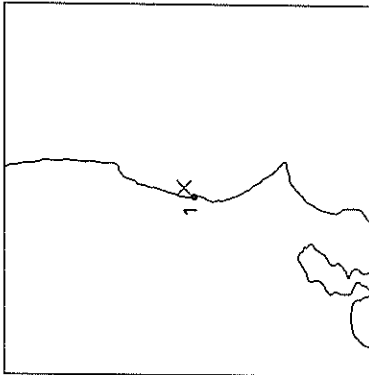
02:32 MAY 20, 1988
 MID FUKUSHIMA PREF
 EPICENTER : 37°3.6'N 140°35.8'E
 DEPTH : 80.1KM MAGNITUDE : 4.3
 JMA INTENSITIES
 II : UTSUNOMIYA
 I : FUKUSHIMA, ONAHAMA, MITO,
 SHIRAKAWA, KAKIOKA



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F-173	11 13 8	74

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

19:45 MAY 30, 1988
 NORTHERN IBARAKI PREF
 EPICENTER : 36°27.6'N 140°42.2'E
 DEPTH : 49.0KM MAGNITUDE : 4.7
 JMA INTENSITIES
 III : CHOSHI, ONAHAMA, MITO,
 KAKIOKA
 II : UTSUNOMIYA
 I : TOKYO, YOKOHAMA, CHICHIBU

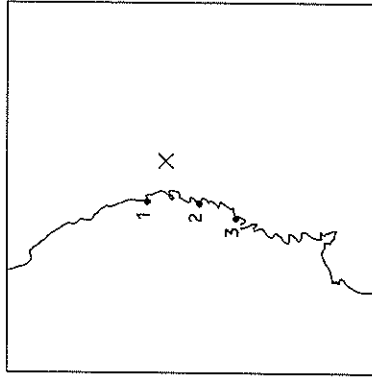
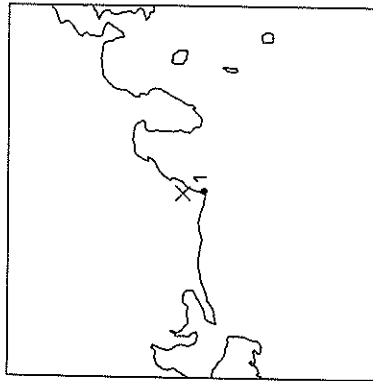


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F-174	130 106 41	11

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

18:09 JUNE 1, 1988
 CENTRAL SHIZUOKA PREF
 EPICENTER : 34°45.8'N 138°12.5'E
 DEPTH : 32.3KM MAGNITUDE : 4.1

17:56 JUNE 5, 1988
 E OFF IWATE PREF
 EPICENTER : 39°28.9'N 142°20.6'E
 DEPTH : 50.5KM MAGNITUDE : 4.7



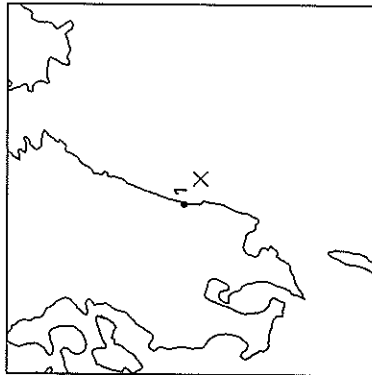
STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST. (KM)
1 OMAEZAKI-M	ON GROUND	M-1204	19 16 10	17

STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST. (KM)
1 MIYAKO-S	ON GROUND	S-2172	9 14 3	36
2 KAMAISHI-MB	IN GROUND	M-1206	4 4 3	44
2 KAMAISHI-M	ON GROUND	M-1205	8 9 6	44
3 OFUNATO-WOUND-M	ON STRUC.	M-1207	4 3 2	73
3 OFUNATO-BO-S	ON STRUC.	S-2144	5 6 3	73
3 OFUNATO-BOCHI-S	ON GROUND	S-2143	2 3 1	74

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

20:34 JUNE 25, 1988
 HYUGANADA REGION
 EPICENTER : 31°47.0'N 131°40.5'E
 DEPTH : 27.3KM MAGNITUDE : 3.7

JMA INTENSITIES
 II : MIYAZAKI
 I : ABURATSU

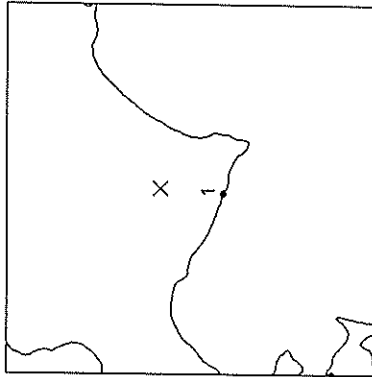


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 MIYAZAKI-M	ON GROUND	M-1210	5 5 9	24

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

17:41 JUNE 28, 1988
 HIDAKA MOUNTAINS REGION
 EPICENTER : 42°37.1'N 142°53.1'E
 DEPTH : 52.0KM MAGNITUDE : 4.4

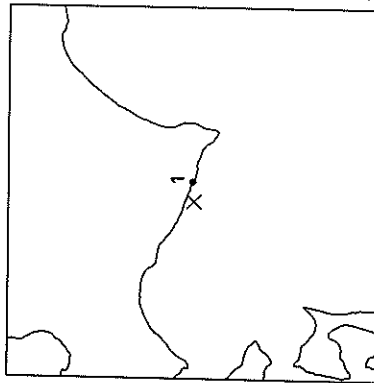
JMA INTENSITIES
 II : URAKAWA-OBHIRO, HIROO



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 URAKAWA-S	ON GROUND	S-2145	4 4 2	51

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

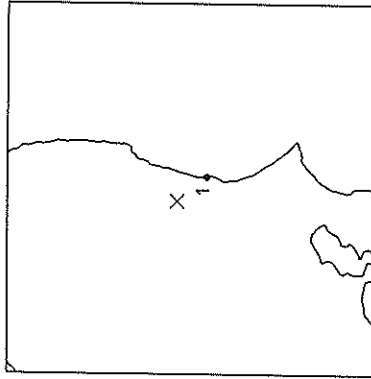
12:03 JUNE 29, 1988
 S OFF URAKAWA
 JMA INTENSITIES
 III : URAKAWA
 II : HIROO
 I : OBIHIRO
 EPICENTER : 42°10.1'N 142°34.8'E
 DEPTH : 66.0KM MAGNITUDE : 4.6



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 URAKAWA-S	ON GROUND	S-2146	11 8 5	16

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

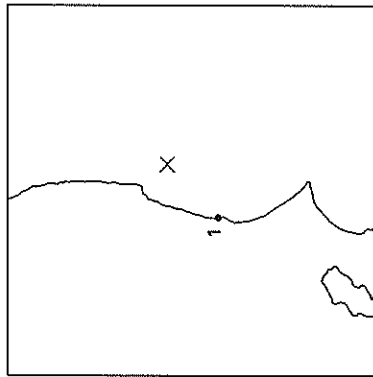
05:45 JUNE 30, 1988
 NORTHERN IBARAKI PREF
 JMA INTENSITIES
 II : UTSUNOMIYA-MITO-KAKIOKA
 I : ONAHAMA
 EPICENTER : 36°37.2'N 140°24.8'E
 DEPTH : 51.6KM MAGNITUDE : 4.2



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F-175	28 17 10	31

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

10:42 JULY 3, 1988
 E OFF IBARAKI PREF
 EPICENTER : 36°43.7'N 141°8.1' E
 DEPTH : 45.2KM MAGNITUDE : 4.0

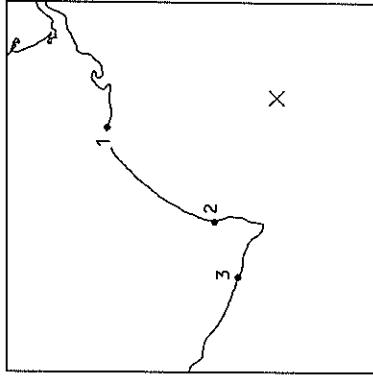


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F-176	11 11 9	59

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

00:54 JULY 7, 1988
 SE OFF TOKACHI
 EPICENTER : 41°44.1'N 144°27.4' E
 DEPTH : 59.4KM MAGNITUDE : 6.2

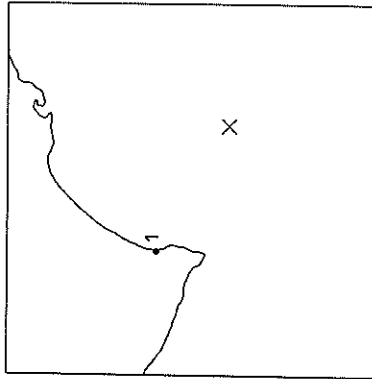
JMA INTENSITIES
 III : KUSHIRO,URAKAWA,HIROO
 II : OBIHIRO,TOMAKOMAI
 I : MURORAN,NEMURO,HAKODATE,
 MORIOKA,AOMORI,
 ISHINOMAKI



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 KUSHIRO-JI-S	ON GROUND	S-2147	4 6 2	140
2 TOKACHI-M	ON GROUND	M-1208	43 50 17	111
3 URAKAWA-S	ON GROUND	S-2148	6 6 3	146

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

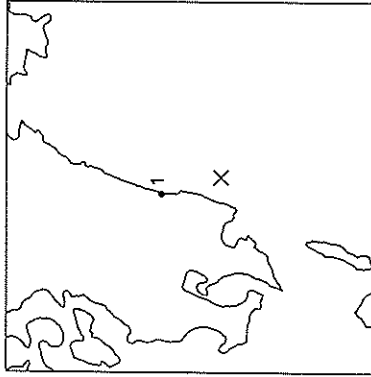
01:55 JULY 7, 1988
 SE OFF TOKACHI
 JMA INTENSITIES
 II : KUSHIRO, OBIHIRO
 I : URAKAWA, HIROO
 EPICENTER : 41°39.6'N 144°27.1'E
 DEPTH : 70.0KM MAGNITUDE : 5.7



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 TOKACHI-M	ON GROUND	M-1209	10 10 5	116

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

15:52 JULY 12, 1988
 HYUGANADA REGION
 JMA INTENSITIES
 III : ABURATSU
 EPICENTER : 31°28.0'N 131°36.5'E
 DEPTH : 47.8KM MAGNITUDE : 3.9

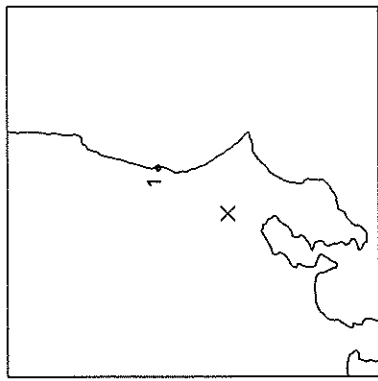


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 MIYAZAKI-M	ON GROUND	M-1211	4 2 6	50

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

03:17 JULY 15, 1988
 SOUTHERN IBARAKI PREF
 EPICENTER : 35°54.3'N 140°9.7 'E
 DEPTH : 75.7KM MAGNITUDE : 4.2

JMA INTENSITIES
 II : UTSUNOMIYA, MITO, KAKIOKA
 I : TOKYO

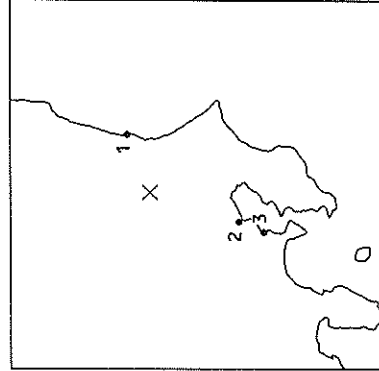


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F- 177	7 9 2	67

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

09:50 JULY 15, 1988
 SW IBARAKI PREF
 EPICENTER : 36°15.6'N 140°4.8 'E
 DEPTH : 58.6KM MAGNITUDE : 4.4

JMA INTENSITIES
 III : CHICHIBU, KAKIOKA
 II : UTSUNOMIYA, KUMAGAYA, MITO, CHIBA
 I : ONAHAMA, MAEBASHI, YOKOHAMA, TOKYO

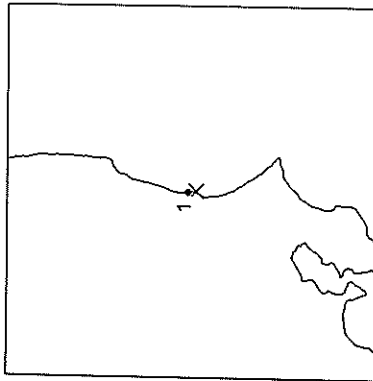


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F- 178	10 14 5	50
2 SHINAGAWA-MB	IN GROUND	M-1212		76
2 SHINAGAWA-S	ON GROUND	S-2149	2 3 1	76
3 YAMASHITA-HEN-M	ON GROUND	M-1213	6 5 2	98

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

13:09 JULY 16, 1988
 NORTHERN IBARAKI PREF
 EPICENTER : 36°19.8'N 140°37.4'E
 DEPTH : 62.0KM MAGNITUDE : 3.6

JMA INTENSITIES
 II : MITO
 I : KAKIOKA-UTSUNOMIYA

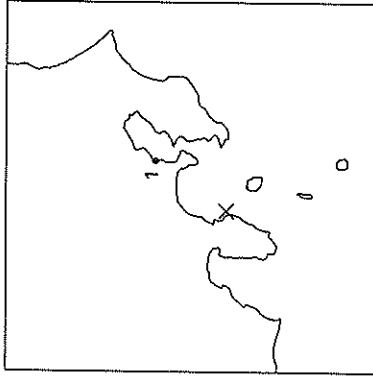


STATION	CONDITION	RECORD NUMBER	MAX-ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F- 179	25 44 15	6

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

05:27 JULY 27, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°56.9'N 139°11.1'E
 DEPTH : 8.9KM MAGNITUDE : 4.2

JMA INTENSITIES
 III : AJIRO
 II : TATEYAMA/OSHIMA
 I : YOKOHAMA-MISHIMA



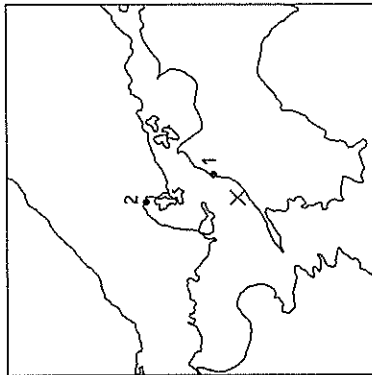
STATION	CONDITION	RECORD NUMBER	MAX-ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-FR	ON STRUC.	F- 145	3 5 2	70
1 YAMASHITA-F	ON GROUND	F- 144	4 7 3	70
1 YAMASHITA-FB	IN GROUND	F- 143	1 2 1	70

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

18:59 JULY 29, 1988
 IYONADA SETONAIKAI
 EPICENTER : 33°40.7'N 132°30.5'E
 DEPTH : 53.1KM MAGNITUDE : 5.1

JMA INTENSITIES

Ⅲ : MATSUYAMA-KURE
 Ⅱ : KOCHI-UWAJIMA
 Ⅰ : HIROSHIMA-YAMAGUCHI-OITA



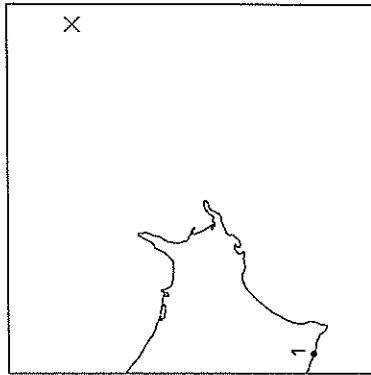
STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 MATSUYAMA-S	ON GROUND	S-2150	8 13 4	27
2 HIROSHIMA-JI-S	ON GROUND	S-2152	5 7 3	74

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

06:07 JULY 31, 1988
 SE OFF ETOROFU
 EPICENTER : 44°45.9'N 149°31.0'E
 DEPTH : 10.0KM MAGNITUDE : 5.7

JMA INTENSITIES

Ⅰ : KUSHIRO-URAKAWA

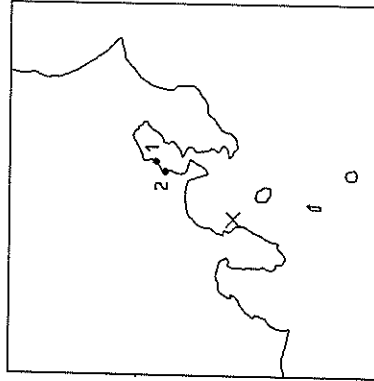


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 URAKAWA-S	ON GROUND	S-2151	3 2 1	615

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

08:40 JULY 31, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°57.8'N 139°13.0'E
 DEPTH : 5.1KM MAGNITUDE : 5.2

JMA INTENSITIES
 IV : AJIRO
 III : OSHIMA, YOKOHAMA,
 TATEYAMA
 II : TOKYO, CHIBA, MIYAKEJIMA
 I : KUMAGAYA, SRIZUOKA,
 CHOSHI, KAWAGUCHIKO

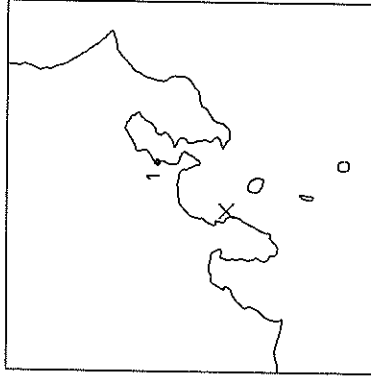


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 KAWASAKI-FR	ON STRUC.	F- 160	8 15 2	77
1 KAWASAKI-F	ON GROUND	F- 159	6 7 2	77
1 KAWASAKI-FB	IN GROUND	F- 158	2 3 1	77
2 YAMASHITA-FR	ON STRUC.	F- 148	9 34 6	67
2 YAMASHITA-F	ON GROUND	F- 147	8 33 9	67
2 YAMASHITA-FB	IN GROUND	F- 146	2 8 3	67
2 YAMASHITA-HEN-M	ON GROUND	M-1214	3 3 1	66

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

13:31 JULY 31, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°57.6'N 139°12.2'E
 DEPTH : 7.1KM MAGNITUDE : 4.4

JMA INTENSITIES
 III : AJIRO, OSHIMA
 II : YOKOHAMA, TATEYAMA
 I : CHIBA, MISHIMA

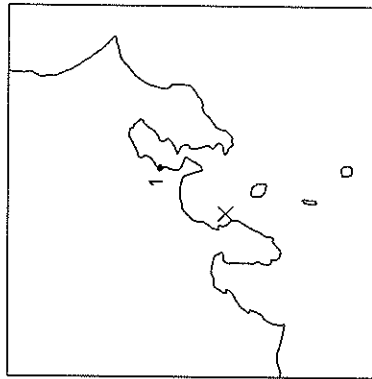


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-FR	ON STRUC.	F- 151	4 9 2	68
1 YAMASHITA-F	ON GROUND	F- 150	3 7 3	68
1 YAMASHITA-FB	IN GROUND	F- 149	1 2 1	68
1 YAMASHITA-HEN-M	ON GROUND	M-1215	5 3 1	67

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

14:54 JULY 31, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°59.0'N 139°13.0'E
 DEPTH : 7.8KM MAGNITUDE : 4.4

JMA INTENSITIES
 III : AJIRO-OSHIMA
 II : YOKOHAMA
 I : CHIBA, TATEYAMA, MISHIMA

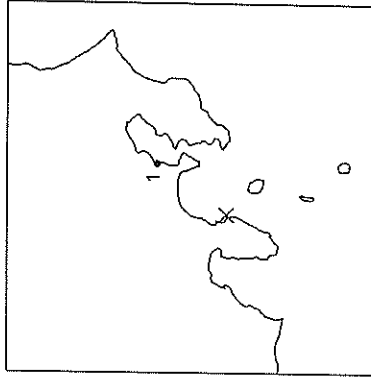


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-FR	ON STRUC.	F- 154	5 9 3	65
1 YAMASHITA-F	ON GROUND	F- 153	4 9 4	65
1 YAMASHITA-FB	IN GROUND	F- 152	2 3 1	65
1 YAMASHITA-HEN-M	ON GROUND	M-1216	8 19 5	64

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

10:39 AUG. 1, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°57.8'N 139°10.0'E
 DEPTH : 5.4KM MAGNITUDE : 4.8

JMA INTENSITIES
 IV : AJIRO
 III : YOKOHAMA, TATEYAMA, MISHIMA, OSHIMA
 II : TOKYO, IROZAKI
 I : KAWAGUCHIKO, KATSUURA, CHIBA



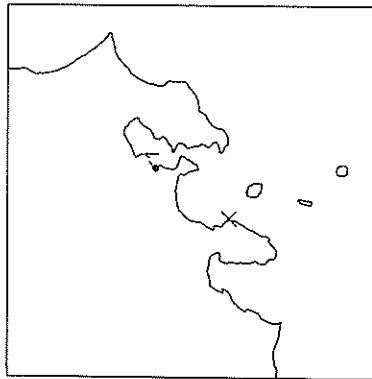
STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-FR	ON STRUC.	F- 157	16 9 2	70
1 YAMASHITA-F	ON GROUND	F- 156	13 9 5	70
1 YAMASHITA-FB	IN GROUND	F- 155	3 3 1	70
1 YAMASHITA-HEN-M	ON GROUND	M-1217	5 4 1	69

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

17:14 AUG. 2, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°55.9'N 139°10.2'E
 DEPTH : 3.2KM MAGNITUDE : 3.7

JMA INTENSITIES

II : AJIRO
 I : OSHIMA, TATEYAMA



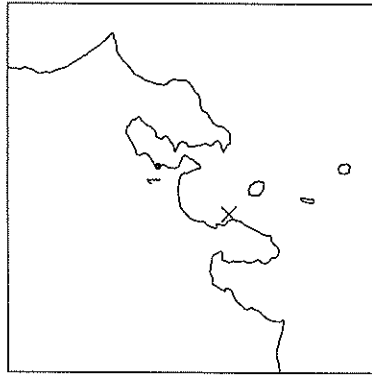
STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1220	1 1 1	72

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

20:16 AUG. 2, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°56.7'N 139°12.1'E
 DEPTH : 2.4KM MAGNITUDE : 5.2

JMA INTENSITIES

III : OSHIMA, TATEYAMA, TOKYO,
 YOKOHAMA, AJIRO, MISHIMA
 II : CHIBA, IROZAKI
 I : KUMAGAYA, KOFU,
 MIYAKEJIMA, UTSUNOMIYA,
 KATSUURA

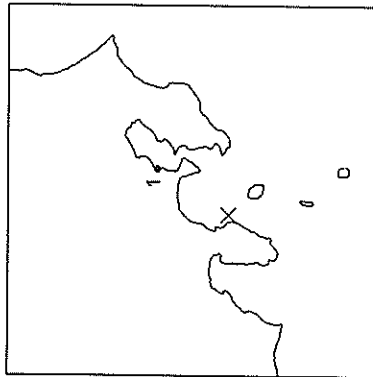


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-FR	ON STRUC.	F-163	9 22 4	69
1 YAMASHITA-F	ON GROUND	F-162	7 16 4	69
1 YAMASHITA-FB	IN GROUND	F-161	3 5 2	69
1 YAMASHITA-HEN-M	ON GROUND	M-1221	8 6 2	69
1 KEIHN-JI-S	ON GROUND	S-2156	3 5 2	69

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

23:08 AUG. 2, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°56.6'N 139°12.9'E
 DEPTH : 3.7KM MAGNITUDE : 4.6

JMA INTENSITIES
 III : OSHIMA/AJIRO
 II : TATEYAMA/YOKOHAMA
 I : TOKYO/MIYAKEJIMA,
 MISHIMA

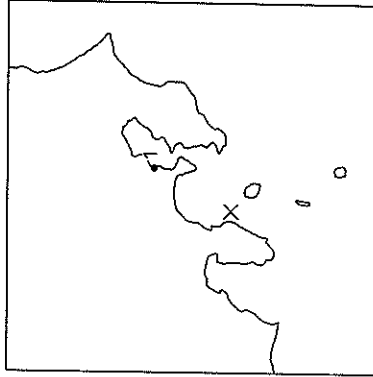


STATION	CONDITION	RECORD NUMBER	MAX.ACC. (NS) (EW) (UD)	MAX.ACC. (GAL) (EW) (UD)	DIST. (KM)
1 YAMASHITA-FR	ON STRUC.	F- 166	7 12 3	3 69	69
1 YAMASHITA-F	ON GROUND	F- 165	6 17 4	4 69	69
1 YAMASHITA-FB	IN GROUND	F- 164	2 5 1	1 69	69
1 YAMASHITA-HEN-M	ON GROUND	M-1222	9 11 4	4 68	68

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

06:02 AUG. 3, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°53.8'N 139°14.2'E
 DEPTH : 0.0KM MAGNITUDE : 3.9

JMA INTENSITIES
 II : IROZAKI/OSHIMA
 I : AJIRO/YOKOHAMA

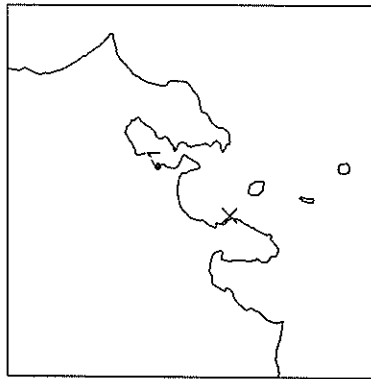


STATION	CONDITION	RECORD NUMBER	MAX.ACC. (NS) (EW) (UD)	MAX.ACC. (GAL) (EW) (UD)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1223	1 1 1	1 71	71

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

17:06 AUG. 4 /1988
 E OFF IZU PENINSULA
 EPICENTER : 34°56.4'N 139°10.9'E
 DEPTH : 6.1KM MAGNITUDE : 4.7

JMA INTENSITIES
 III : AJIRO, OSHIMA
 II : YOKOHAMA, TATEYAMA,
 MISHIMA
 I : TOKYO, CHIBA

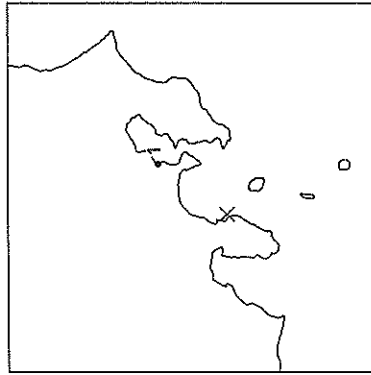


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1224	3 2 2	70
1 KEIHIN-JI-S	ON GROUND	S-2157	2 2 2	70

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

03:47 AUG. 5 /1988
 E OFF IZU PENINSULA
 EPICENTER : 34°57.9'N 139°10.0'E
 DEPTH : 1.9KM MAGNITUDE : 4.1

JMA INTENSITIES
 II : AJIRO, OSHIMA
 I : YOKOHAMA, TATEYAMA,
 MISHIMA

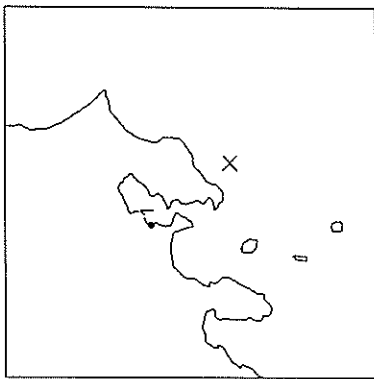
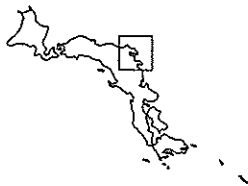
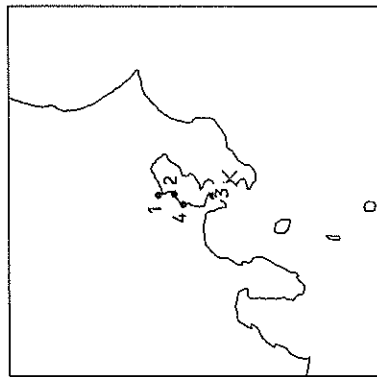


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1225	8 4 2	69

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

14:14 AUG. 12, 1988
 SOUTHERN BOSO PENINSULA
 EPICENTER : 35°5.7 'N 139°52.0' E
 DEPTH : 69.4KM MAGNITUDE : 5.3

JMA INTENSITIES
 IV : TATEYAMA, TOKYO, YOKOHAMA
 III : CHIBA, OSHIMA, MIYAKEJIMA,
 KAWAGUCHI, KATSUURA,
 AIRO, NISHIMA
 II : KOFU, MITO, KUMAGAYA,
 UTSUNOMIYA, HACHIJIJIMA,
 MAEBASHI
 I : SHIZUOKA, MIIJIMA

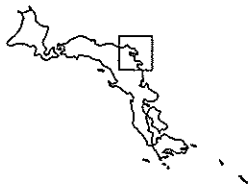
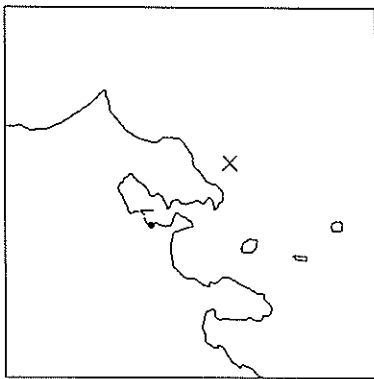


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 SHINAGAWA-MB	IN GROUND	M-1219	4 4 5	59
1 SHINAGAWA-S	ON GROUND	S-2154	41 25 6	59
2 KAWASAKI-FR	ON STRUC.	F-172	49 91 16	46
2 KAWASAKI-F	ON GROUND	F-171	40 47 12	46
2 KAWASAKI-FB	IN GROUND	F-170	16 21 7	46
3 KOKEN-M	ON GROUND	M-1218	11 8 5	19
3 KOKEN-S	ON GROUND	S-2153	14 13 6	19
4 YAMASHITA-FR	ON STRUC.	F-169	147 107 23	42
4 YAMASHITA-F	ON GROUND	F-168	75 72 19	42
4 YAMASHITA-FB	IN GROUND	F-167	24 17 7	42
4 YAMASHITA-HEN-M	ON GROUND	M-1226	106 69 16	42
4 YAMASHITA-HEN-S	ON GROUND	S-2155	94 51 9	42
4 KEIHIN-JI-S	ON GROUND	S-2158	24 23 11	45

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

03:58 AUG. 15, 1988
 SE OFF BOSO PENINSULA
 EPICENTER : 34°49.9'N 140°9.3' E
 DEPTH : 79.6KM MAGNITUDE : 4.2

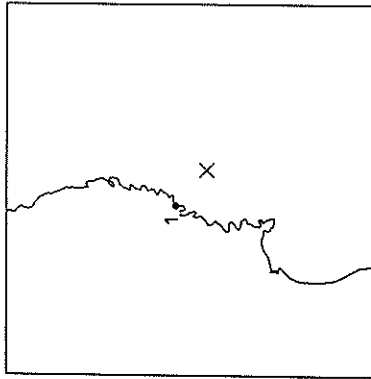
JMA INTENSITIES
 I : YOKOHAMA, TATEYAMA,
 OSHIMA



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1227	2 1 1	81

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

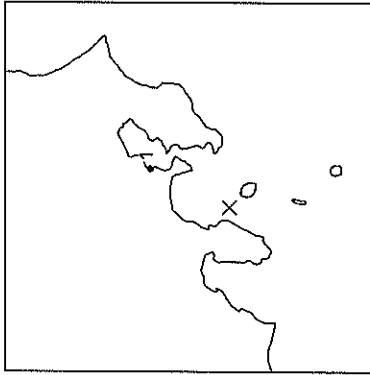
12:57 AUG. 28, 1988
 KINKAZAN REGION
 JMA INTENSITIES
 III : OFUNATO
 I : ISHINAKAKI, MORIOKA,
 MIYAKO
 EPICENTER : 38°46.0'N 142°2.9'E
 DEPTH : 59.4KM MAGNITUDE : 4.0



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UP)	DIST. (KM)
1 OFUNATO-BO-S	ON STRUC.	S-2160	3 2 1	38
1 OFUNATO-BOCHI-S	ON GROUND	S-2159	1 1 1	38

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

00:30 SEP. 3, 1988
 E OFF IZU PENINSULA
 JMA INTENSITIES
 II : OSHIMA, TATEYAMA
 I : AJIRO, YOKOHAMA
 EPICENTER : 34°52.8'N 139°16.0'E
 DEPTH : 9.2KM MAGNITUDE : 4.0

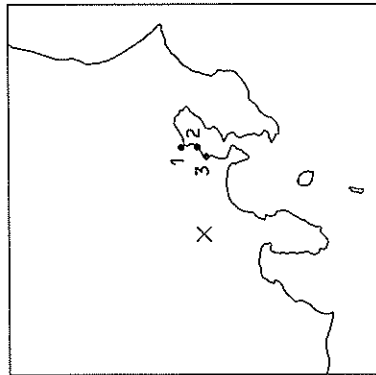


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UP)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1229	3 2 2	71

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

00:49 SEP. 5, 1988
 EASTERN YAMANASHI PREF
 EPICENTER : 35°29.8'N 138°59.2'E
 DEPTH : 29.6KM MAGNITUDE : 5.6

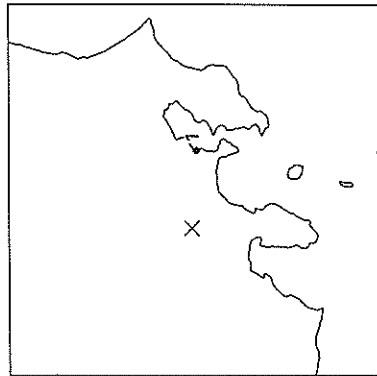
JMA INTENSITIES
 IV : KOFU, KAWAGUCHIKO
 III : TOKYO, YOKOHAMA, AJIRO,
 MISHIMA, SHIZUOKA, OSHIMA,
 UTSUNOMIYA
 II : KAKIOKA, MITO, MATSUMOTO,
 TATEYAMA
 I : NAGANO, KARUIZAWA,
 ONAHAMA, CHICHIBU, TSU,
 CHIBA, MIYAKEJIMA



STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

07:31 SEP. 5, 1988
 EASTERN YAMANASHI PREF
 EPICENTER : 35°30.7'N 138°58.6'E
 DEPTH : 31.8KM MAGNITUDE : 4.2

JMA INTENSITIES
 I : KOFU, KAWAGUCHIKO, TOKYO,
 YOKOHAMA, TATEYAMA,
 OSHIMA, CHIBA



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 SHINAGAWA-MB	IN GROUND	M-1228	2 2 2	71
1 SHINAGAWA-S	ON GROUND	S-2161	9 16 4	71
2 KAWASAKI-FR	ON STRUC.	F-185	27 25 5	69
2 KAWASAKI-F	ON GROUND	F-184	18 12 5	69
2 KAWASAKI-FB	IN GROUND	F-183	7 4 2	69
3 YAMASHITA-FR	ON STRUC.	F-200	55 76 9	61
3 YAMASHITA-F	ON GROUND	F-199	23 39 11	61
3 YAMASHITA-FB	IN GROUND	F-198	7 10 4	61
3 YAMASHITA-HEN-M	ON GROUND	M-1230	24 21 5	61
3 KEIHN-JI-S	ON GROUND	S-2162	4 5 4	58

STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1231	3 4 2	62

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

13:18 SEP. 7, 1988

S OFF URAKAWA

EPICENTER : 41°57.8'N 142°16.1'E

DEPTH : 69.4KM MAGNITUDE : 4.9

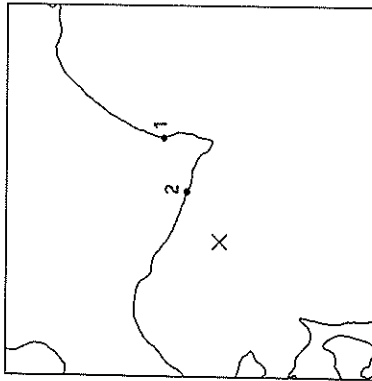
JMA INTENSITIES

III : URAKAWA

II : HIROO, TOMAKOMAI

I : OBIHIRO, KUSHIRO, SAPPORO,

MURORAN, MUTSU, HACHINOHE



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 TOKACHI-M	ON GROUND	M-1232	25 36 13	94
2 URAKAWA-S	ON GROUND	S-2163	17 14 4	47

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

20:53 SEP. 7, 1988

SHIKOKU BASIN

EPICENTER : 30°16.2'N 137°47.1'E

DEPTH : 513.6KM MAGNITUDE : 6.8

JMA INTENSITIES

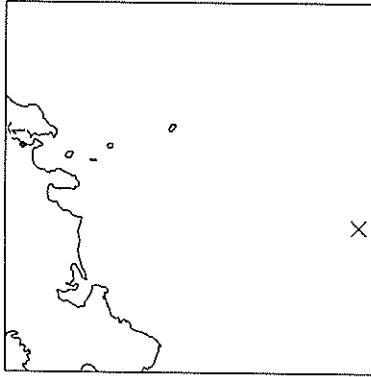
II : TOKYO, YOKOHAMA,

UTSUNOMIYA, CHICHIJIMA

I : OSHIMA, TATEYAMA,

HACHIJOJIMA, MAEBASHI,

CHIBA, MITO

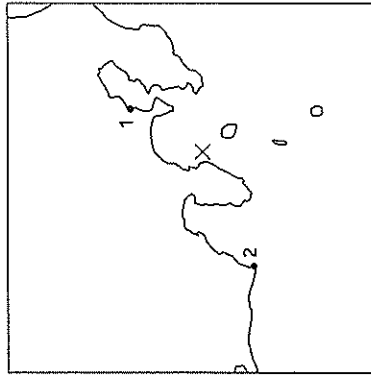


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1233	4 4 2	601

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

12:16 SEP. 10, 1988
 E OFF IZU PENINSULA
 EPICENTER : 34°56.1'N 139°14.7'E
 DEPTH : 13.3KM MAGNITUDE : 4.2

JMA INTENSITIES
 III : IROZAKI, OSHIMA
 II : YOKOHAMA, TATEYAMA, AJIRO
 I : TOKYO, MIYAKEJIMA

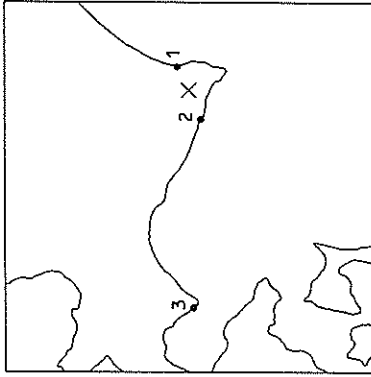


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-FR	ON STRUC.	F-203	3 6 2	68
1 YAMASHITA-F	ON GROUND	F-202	3 7 3	68
1 YAMASHITA-FB	IN GROUND	F-201	1 2 1	68
2 ONAEZAKI-M	ON GROUND	M-1253	3 2 2	100

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

05:11 SEP. 15, 1988
 HIDAKA MOUNTAINS REGION
 EPICENTER : 42°13.7'N 143°4.7'E
 DEPTH : 69.8KM MAGNITUDE : 4.9

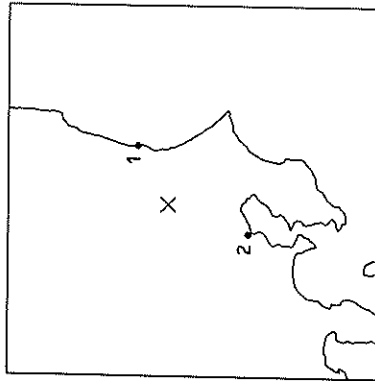
JMA INTENSITIES
 III : URAKAWA, HIROO
 II : OBIHIRO, KUSHIRO, TOMAKOMAI
 I : IWAMIZAWA



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 TOKACHI-M	ON GROUND	M-1234	36 29 20	21
2 URAKAWA-S	ON GROUND	S-2164	12 10 4	25
3 MURORAN-S	ON GROUND	S-2166	4 5 1	175

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

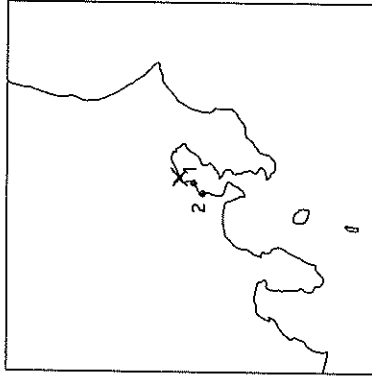
03:18 SEP. 16, 1988
 SW IBARAKI PREF
 JMA INTENSITIES
 III : UTSUNOMIYA-KAKIOKA
 II : KUMAGAYA-MITO
 I : TOKYO, TATEYAMA, CHIBA,
 NIKKO



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EH) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F- 180	16 17 8	53
2 SHINAGAWA-MB	IN GROUND	M-1235		69
2 SHINAGAWA-S	ON GROUND	S-2165	2 3 1	69

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

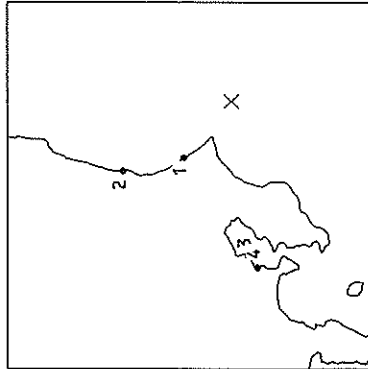
00:17 SEP. 20, 1988
 TOKYO PREF
 JMA INTENSITIES
 II : YOKOHAMA-MIYAKEJIMA
 I : MITO, UTSUNOMIYA-KAKIOKA,
 KOFU, TOKYO, OSHIMA, CHIBA



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EH) (UD)	DIST. (KM)
1 KAWASAKI-FR	ON STRUC.	F- 188	11 18 2	11
1 KAWASAKI-F	ON GROUND	F- 187	10 8 3	11
1 KAWASAKI-FB	IN GROUND	F- 186	4 4 1	11
2 YAMASHITA-FR	ON STRUC.	F- 206	12 6 3	22
2 YAMASHITA-F	ON GROUND	F- 205	6 5 4	22
2 YAMASHITA-FB	IN GROUND	F- 204	2 2 1	22
2 YAMASHITA-HEN-M	ON GROUND	M-1238	11 6 2	22

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

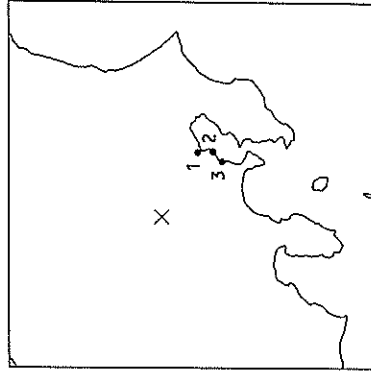
17:23 SEP. 26, 1988
 NEAR CHOSHI CITY
 JMA INTENSITIES
 IV : CHOSHI
 III : CHIBA, TOKYO, MITO, KAKIOKA
 II : OSHIMA, TATEYAMA, YOKOHAMA, ONAHAWA, KATSUURA
 I : MAEBASHI, UTSUNOMIYA, NAGANO, FUKUSHIMA, SAKATA, CHICHIBU, WASHIMA



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EW) (UD)	(GAL)	DIST. (KM)	
1 KASHIMA-ZOKAN-S	ON GROUND	S-2167	30	32	7	61
2 HITACHINAKA-F	ON GROUND	F-181	12	15	5	106
3 KAWASAKI-FR	ON STRUC.	F-191	5	8	2	128
3 KAWASAKI-F	ON GROUND	F-190	4	6	2	128
3 KAWASAKI-FB	IN GROUND	F-189	1	2	2	128
4 YAMASHITA-HEN-M	ON GROUND	M-1239	4	2	1	138

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

17:23 SEP. 29, 1988
 WESTERN SAITAMA PREF
 JMA INTENSITIES
 IV : CHICHIBU
 III : TOKYO, KUMAGAYA, MAEBASHI, YOKOHAMA
 II : CHIBA, MITO, UTSUNOMIYA, KOFU, CHOSHI, KAWAGUCHIKO, KARUIZAWA
 I : OSHIMA, MATSUMOTO, TATEYAMA, AJIRO

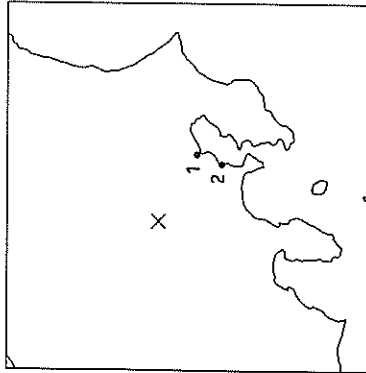


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EW) (UD)	(GAL)	DIST. (KM)	
1 SHINAGAWA-MB	IN GROUND	M-1236	2	3	3	61
1 SHINAGAWA-S	ON GROUND	S-2168	16	18	5	61
2 KAWASAKI-FR	ON STRUC.	F-194	14	15	8	68
2 KAWASAKI-F	ON GROUND	F-193	12	9	7	68
2 KAWASAKI-FB	IN GROUND	F-192	4	4	3	68
3 YAMASHITA-FR	ON STRUC.	F-209	10	13	5	67
3 YAMASHITA-F	ON GROUND	F-208	8	12	6	67
3 YAMASHITA-FB	IN GROUND	F-207	3	3	3	67
3 YAMASHITA-HEN-M	ON GROUND	M-1240	16	15	3	67

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

D2:38 SEP. 30, 1988
 WESTERN SAITAMA PREF
 EPICENTER : 35°56.4'N 139°11.2'E
 DEPTH : 15.9KM MAGNITUDE : 4.5

JMA INTENSITIES
 III : KUMAGAYA-CHICHIBU
 II : YOKOHAMA-UTSUNOMIYA/
 TOKYO-KOFU
 I : CHIBA-OSHIMA-MITO,
 KAKIOKA

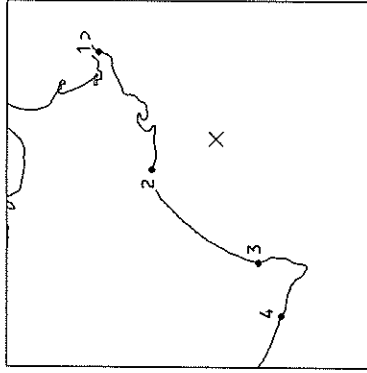


STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EW) (UD)	DIST. (KM)
1 SHINAGAWA-MB	IN GROUND	M-1237	1 1 1	62
1 SHINAGAWA-S	ON GROUND	S-2169	3 3 1	62
2 YAMASHITA-FR	ON STRUC.	F-212	16 7 2	70
2 YAMASHITA-F	ON GROUND	F-211	7 5 3	70
2 YAMASHITA-FB	IN GROUND	F-210	2 1 1	70
2 YAMASHITA-HEH-M	ON GROUND	M-1241	10 13 2	69

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

14:52 OCT. 10, 1988
 KUSHIRO OKI
 EPICENTER : 42°30.0'N 144°35.0'E
 DEPTH : 78.0KM MAGNITUDE : 6.0

JMA INTENSITIES
 IV : NEMURO-KUSHIRO
 III : OBIHIRO-HIROO-HACHINOHE
 II : ABASHIRI-URAKAWA-AOMORI,
 MIYAKO-OFUNATO
 I : HAKODATE-MURORAN,
 TOMAKOMAI-MORIOKA,
 FUKUSHIMA



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EW) (UD)	DIST. (KM)
1 HANASAKI-M	ON GROUND	M-1243	21 15 7	119
2 KUSHIRO-JI-S	ON GROUND	S-2171	45 60 21	58
3 TOKACHI-M	ON GROUND	M-1242	58 71 25	106
4 URAKAWA-S	ON GROUND	S-2170	7 4 3	153

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

09:08 OCT. 19, 1988

FUKUSHIMAKEN OKI

EPICENTER : 37°2.0 'N 141°51.0'E

DEPTH : 33.0KM MAGNITUDE : 5.8

* JISHIN KAZAN GAIKYO *

JMA INTENSITIES

III : ONAHAMA

II : WAKAMATSU, MORIOKA,

SHIRAKAWA, SENDAI, MITO,

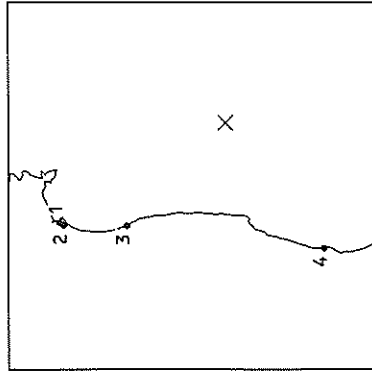
ISHINOMAKI, FUKUSHIMA,

MIYAKO

I : OFUNATO, YAMAGATA, SAKATA,

NIIGATA, UTSUNOMIYA,

TOKYO, YOKOHAMA, CHIBA



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 SHIOGAMA-KOJYO-S	ON GROUND	S-2174	7 14 4	159
2 SENDAI-MB	IN GROUND	M-1245	2 4 2	157
2 SENDAI-M	ON GROUND	M-1244	8 9 3	157
3 SOMA-S	ON GROUND	S-2173	12 10 3	117
4 HITACHINAKA-F	ON GROUND	F-182	8 9 4	131

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

15:13 OCT. 28, 1988

CHIBAKEN TOHO OKI

EPICENTER : 35°7.0 'N 140°16.0'E

DEPTH : 77.0KM MAGNITUDE : 5.1

* JISHIN KAZAN GAIKYO *

JMA INTENSITIES

III : YOKOHAMA, CHIBA, KATSUURA

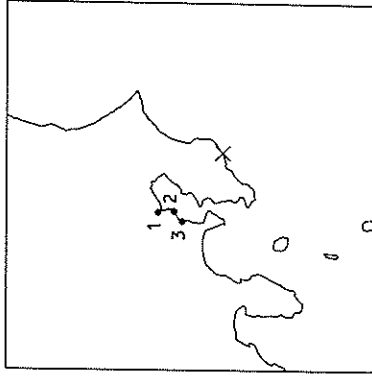
II : TOKYO, KOFU, TATEYAMA,

UTSUNOMIYA, KUMAGAYA,

MITO, OSHIMA, CHOSHI

I : MAEBASHI, AJIRO,

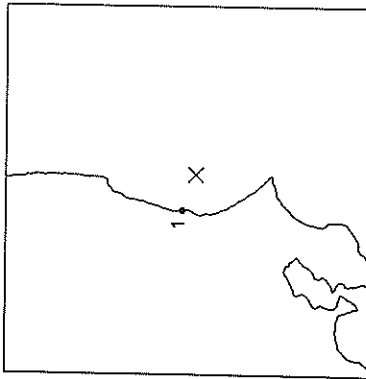
MIYAKEJIMA



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 SHINAGAWA-MB	IN GROUND	M-1246	2 2 1	72
1 SHINAGAWA-S	ON GROUND	S-2175	6 5 3	72
2 KAWASAKI-FR	ON STRUC.	F-197	29 25 6	63
2 KAWASAKI-F	ON GROUND	F-196	17 13 6	63
2 KAWASAKI-FB	IN GROUND	F-195	10 6 2	63
3 YAMASHITA-FR	ON STRUC.	F-215	21 54 5	65
3 YAMASHITA-F	ON GROUND	F-214	11 24 8	65
3 YAMASHITA-FB	IN GROUND	F-213	3 5 2	65
3 YAMASHITA-HEN-M	ON GROUND	M-1247	13 15 6	66
3 YAMASHITA-HEN-S	ON GROUND	S-2176	4 4 3	66

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

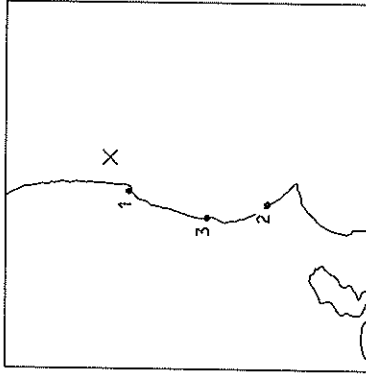
17:28 NOV. 4, 1988
 IBARAKIKEN OKI
 JMA INTENSITIES
 II : MITO
 I : KAKIOKA
 EPICENTER : 36°16.0'N 140°56.0'E
 DEPTH : 36.0KM MAGNITUDE : 4.1
 * JISHIN KAZAN GAIKYO *



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1	HITACHINAKA-F	F-216	11 13 6	31

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

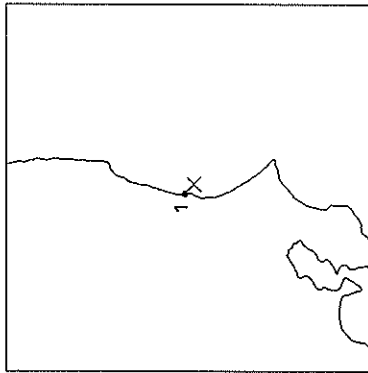
13:08 NOV. 23, 1988
 FUKUSHIMAKER OKI
 JMA INTENSITIES
 II : FUKUSHIMA-ONAHAMA-MITO,
 KAKIOKA
 I : SHIRAKAWA-SENDAI,
 UTSUNOMIYA
 EPICENTER : 37°4.0'N 141°14.0'E
 DEPTH : 52.0KM MAGNITUDE : 4.7
 * JISHIN KAZAN GAIKYO *



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1	ONAHAMA-JI-S	S-2177	38 28 19	31
2	KASHIMA-ZOKAN-S	S-2178	1 2 1	135
3	HITACHINAKA-F	F-217	10 10 4	93

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

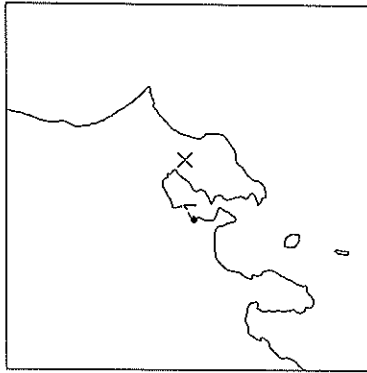
23:55 DEC. 13, 1988 JMA INTENSITIES
 KASHIMANADA I : MITO-KAKIOKA
 EPICENTER : 36°19.0'N 140°42.0'E
 DEPTH : 45.0KM MAGNITUDE : 3.7
 * JISHIN KAZAN GAIKYO *



STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F-218	21 21 7	10

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

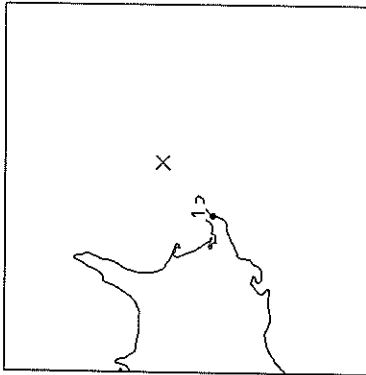
02:51 DEC. 16, 1988 JMA INTENSITIES
 CHIBAKEN CHUBU I : TOKYO-OSHIMA-AJIRO
 EPICENTER : 35°29.0'N 140°12.0'E
 DEPTH : 78.0KM MAGNITUDE : 4.1
 * JISHIN KAZAN GAIKYO *



STATION	CONDITION	RECORD NUMBER	MAX.ACC.(GAL) (NS) (EW) (UD)	DIST. (KM)
1 YAMASHITA-HEN-M	ON GROUND	M-1251	3 3 1	49

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

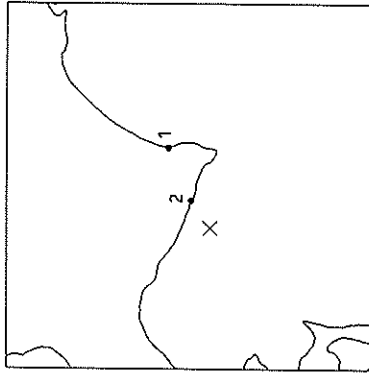
19:18 DEC. 20, 1988
 KUNASHIRIJIMA FUKIN
 JMA INTENSITIES
 III : NEMURO
 II : KUSHIRO
 DEPTH : 118.0KM MAGNITUDE : 5.2
 * JISHIN KAZAN GAIKYO *



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EW) (UD)	MAX. ACC. (GAL)	DIST. (KM)
1 HANASAKI-M	ON GROUND	M-1248	13 10 5	5	60

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

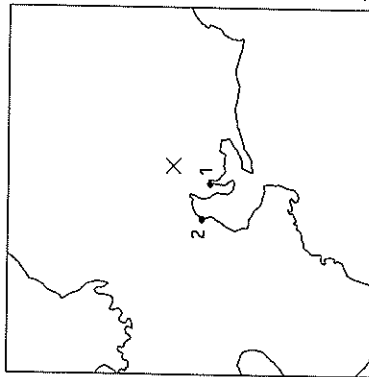
19:53 DEC. 21, 1988
 URAKAWA OKI
 JMA INTENSITIES
 III : URAKAWA
 II : IWAMIZAWA, OBIHIRO,
 MURORAN, HIROO, TOMAKOMAI,
 HACHINOHE
 I : KUSHIRO, OTARU, SAPPORO,
 HAKODATE



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (NS) (EW) (UD)	MAX. ACC. (GAL)	DIST. (KM)
1 TOKACHI-M	ON GROUND	M-1249	13 17 5	5	74
2 URAKAWA-S	ON GROUND	S-2179	9 14 5	5	27

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

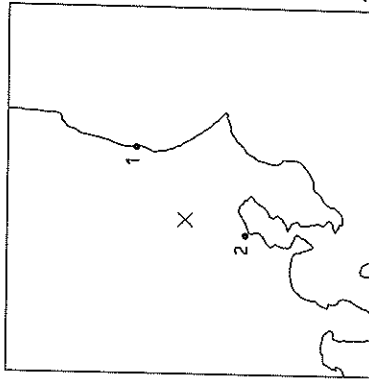
18:42 DEC. 22, 1988
 AICHIKEN CHUBU
 JMA INTENSITIES
 III : NAGOYA
 II : GIFU, TSU, YOKKAICHI
 I : IIDA, IRAKO, AJIRO
 * JISHIN KAZAN GAIKYO *



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 KINUURA-JI-S	ON GROUND	S-2180	11 17 5	33
2 YOKKA.-SEKITAN-M	ON STRUC.	N-1250	3 5	49

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

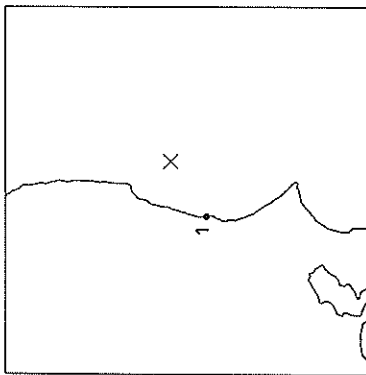
18:02 DEC. 28, 1988
 IBARAKIKEN NANSEIBU
 JMA INTENSITIES
 III : UTSUNOMIYA, KAKIOKA
 II : MITO, MAEBASHI, YOKOHAMA
 I : TOKYO, KUMAGAYA
 * JISHIN KAZAN GAIKYO *



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F-220	11 16 5	70
2 SHINAGAWA-MB	IN GROUND	M-1252	1 1 1	51
2 SHINAGAWA-S	ON GROUND	S-2181	3 3 2	51

STRONG-MOTION EARTHQUAKE OBSERVATION RESULTS

04:10 DEC. 30, 1988
 IBARAKI-KEN OKI
 JMA INTENSITIES
 III : MITO
 II : KAKIOKA, CHICHIBU
 I : FUKUSHIMA, ONAHAMA,
 MAEBASHI, UTSUNOMIYA,
 CHOSHI, TOKYO
 * JISHIN KAZAN GAIKYO *



STATION	CONDITION	RECORD NUMBER	MAX. ACC. (GAL) (NS) (EW) (UD)	DIST. (KM)
1 HITACHINAKA-F	ON GROUND	F- 221	26 20 12	54

RECORD NUMBER
STATION

F-107
HITACHINAKA-F

EARTHQUAKE DATA

 DATA AND TIME
 LOCATION OF HYPOCENTER
 EPICENTRAL REGION
 LATITUDE
 LONGITUDE
 DEPTH
 MAGNITUDE

6:18 JAN.30,1988
 E OFF IBARAKI PREF
 36°41.1' N
 140°49.9' E
 61.5KM
 4.9

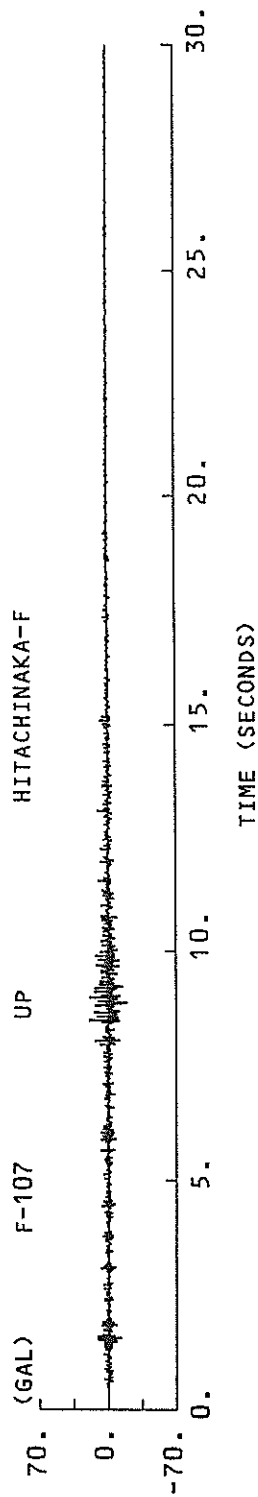
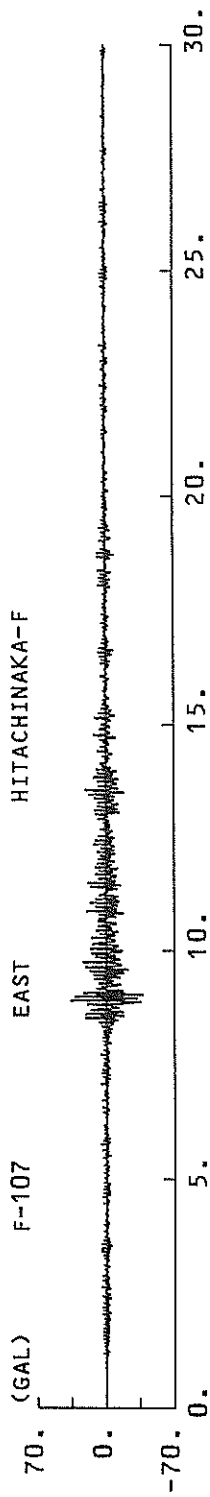
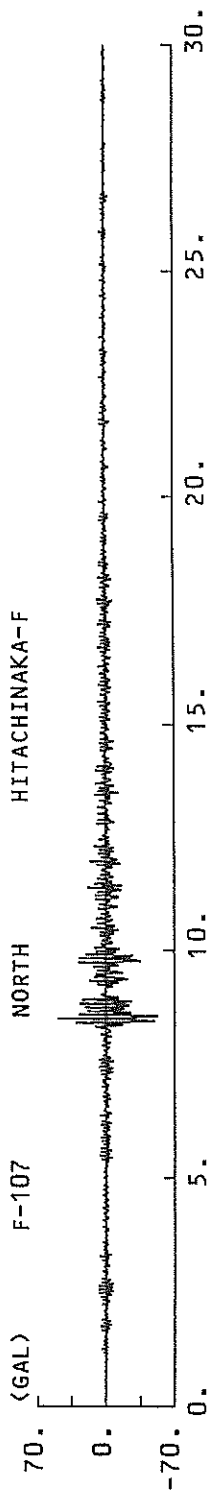
PEAK VALUES OF COMPONENTS

 N S E W U D HORIZONTAL*

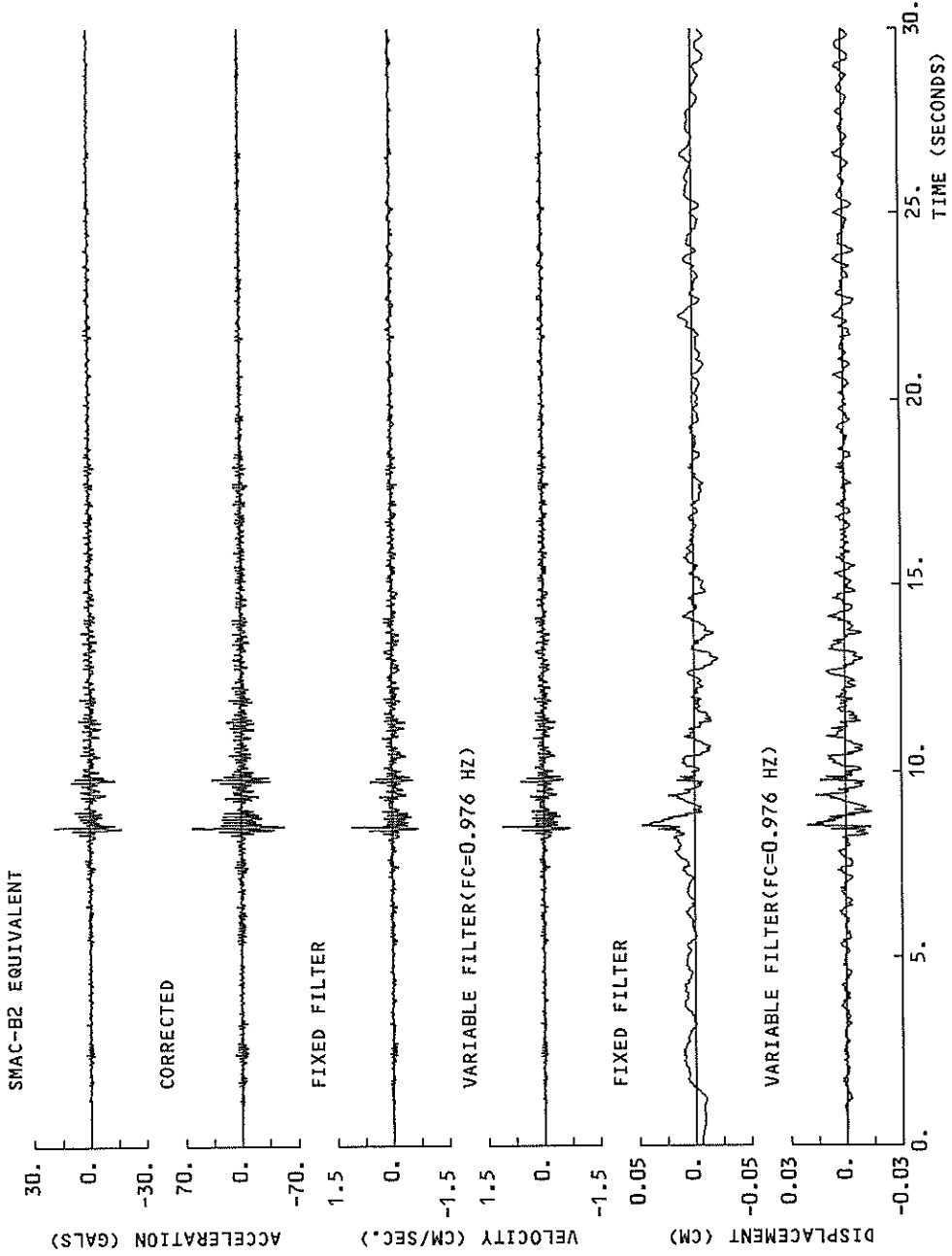
PARAMETER OF THE VARIABLE FILTER

FC (HZ)	0.976	0.927	1.171		
MAXIMUM ACCELERATION (GAL)					
SMAC-B2 EQUIVALENT	20.7	11.5	4.6	20.9	
ORIGINAL	61.5	38.1	21.9	61.5	
CORRECTED	61.4	36.5	23.1	61.4	
MAXIMUM VELOCITY (CM/SEC)					
FIXED FILTER	1.10	0.57	0.25	1.11	
VARIABLE FILTER	1.10	0.51	0.25	1.11	
MAXIMUM DISPLACEMENT (CM)					
FIXED FILTER	0.049	0.038	0.020	0.053	
VARIABLE FILTER	0.023	0.023	0.008	0.028	

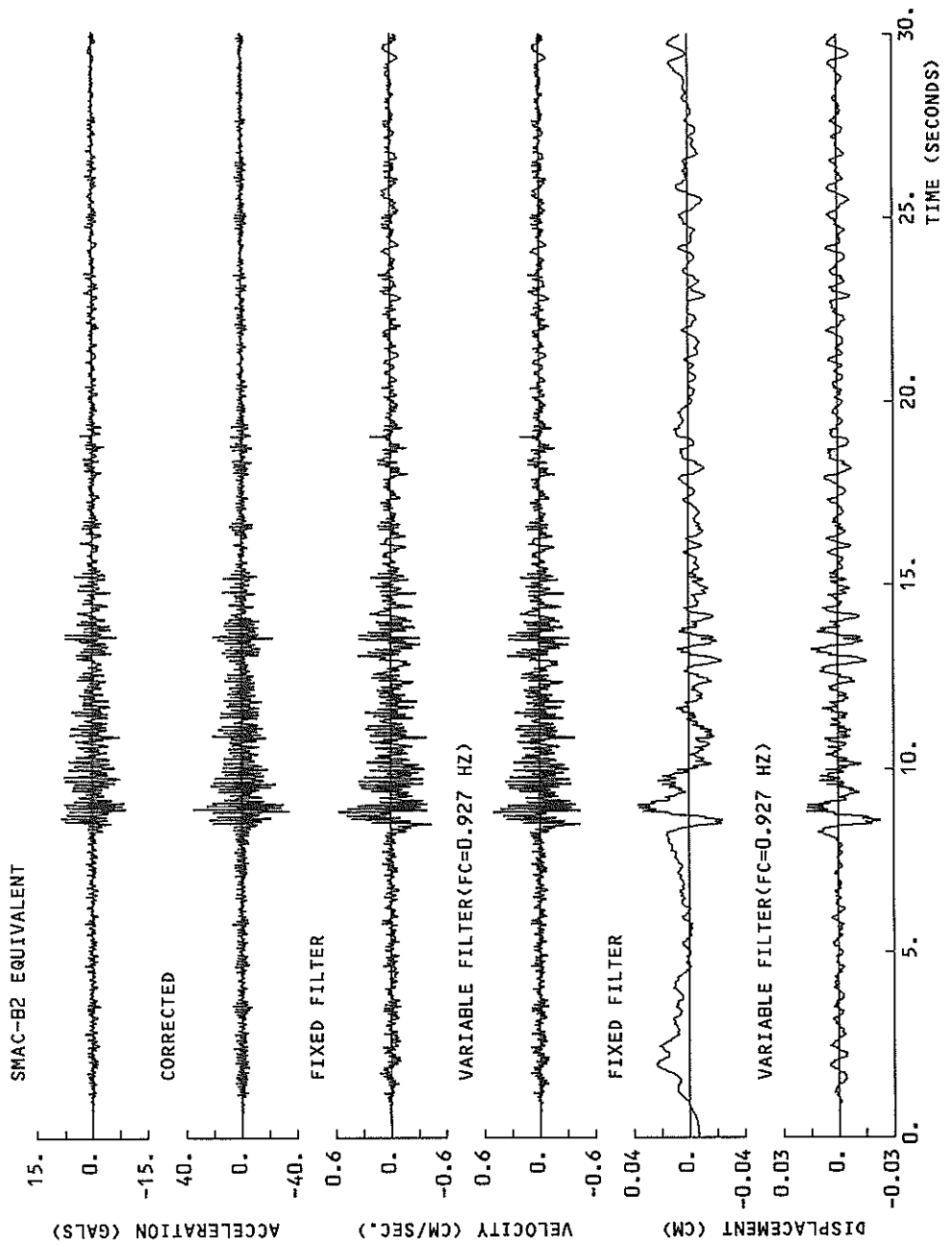
* RESULTANT OF HORIZONTAL COMPONENTS

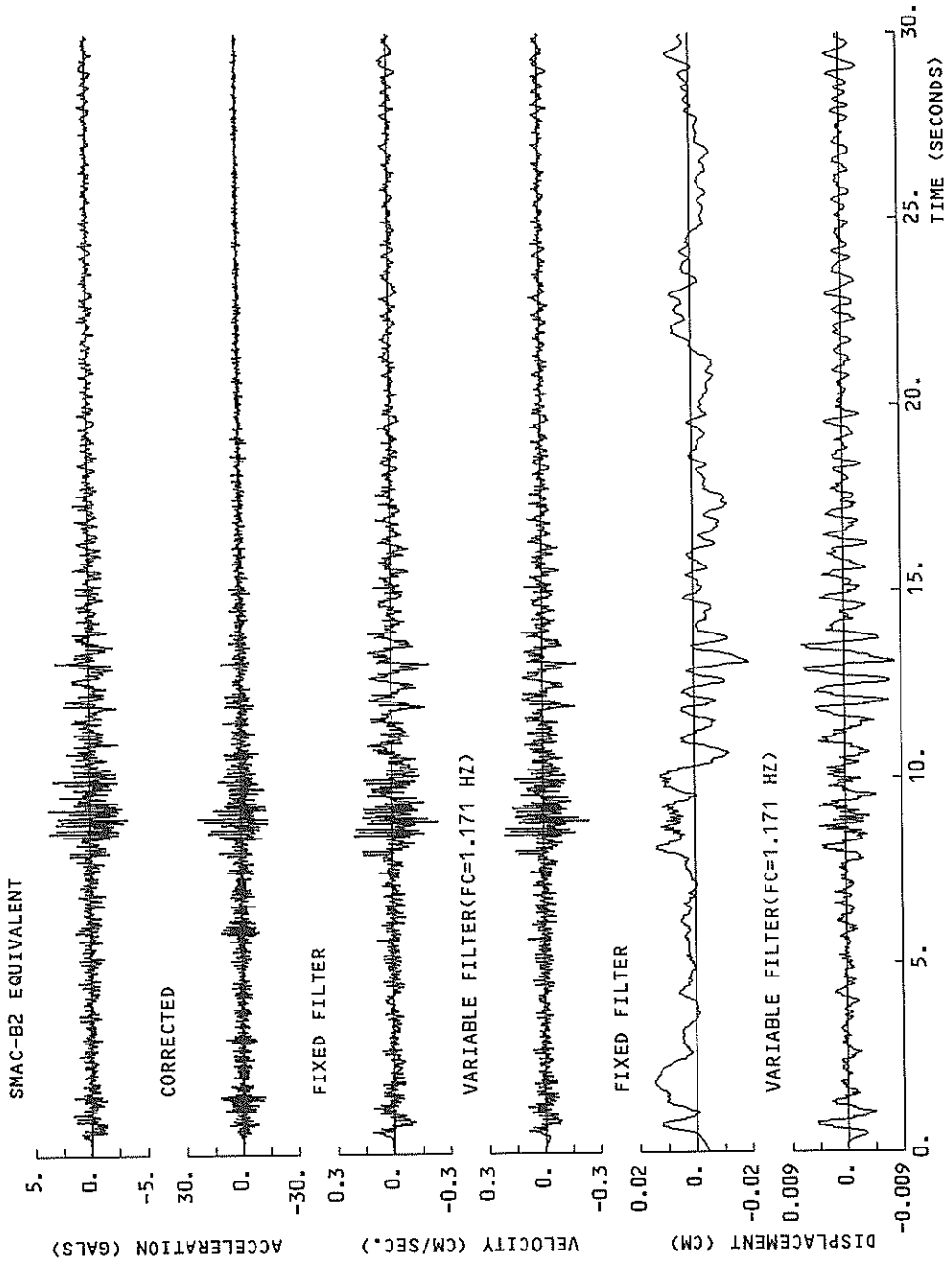


F-107 NORTH HITACHINAKA-F

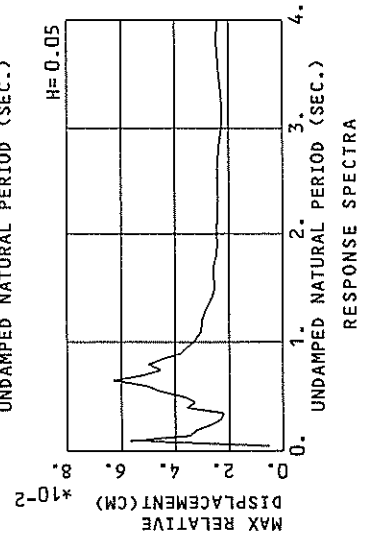
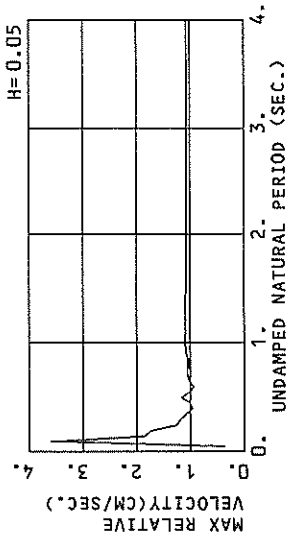
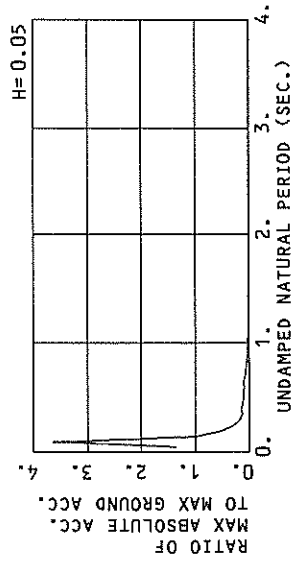


F-107 EAST HITACHINAKA-F

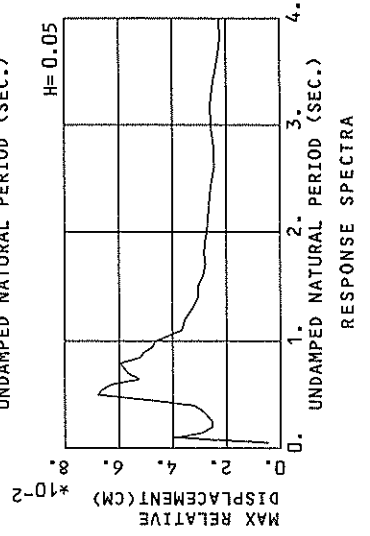
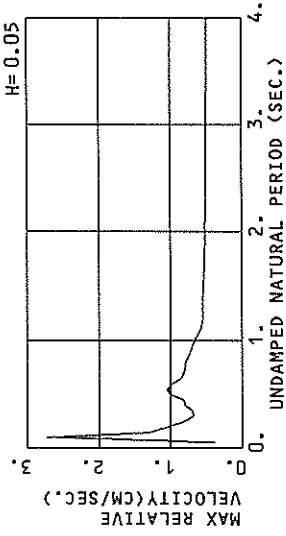
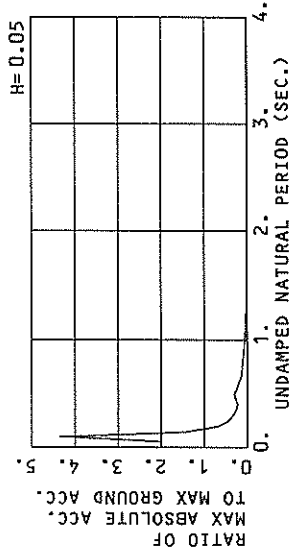




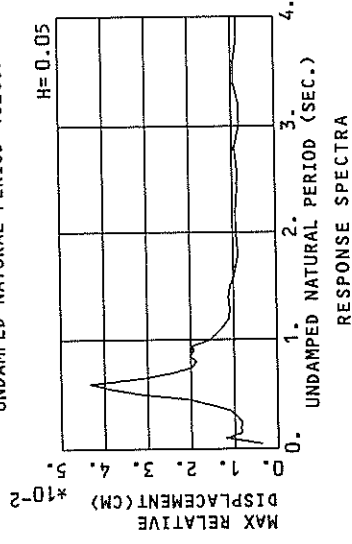
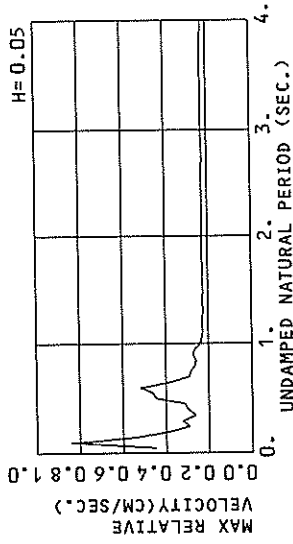
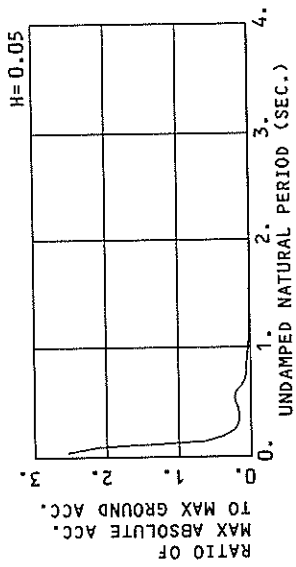
F-107 NORTH HITACHINAKA-F
(1/FC=1.02 SEC.)



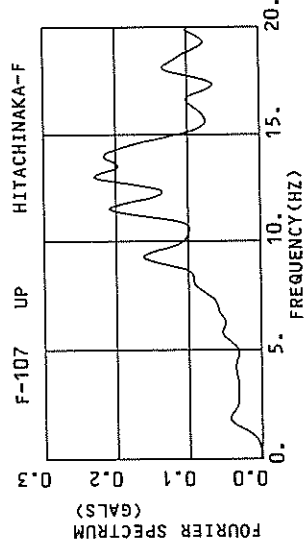
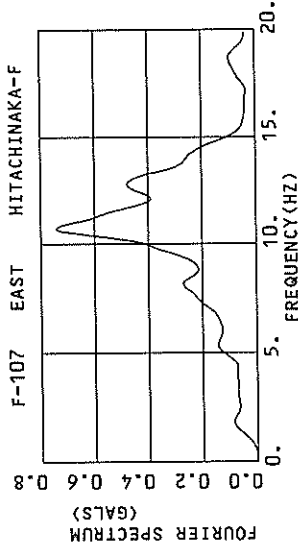
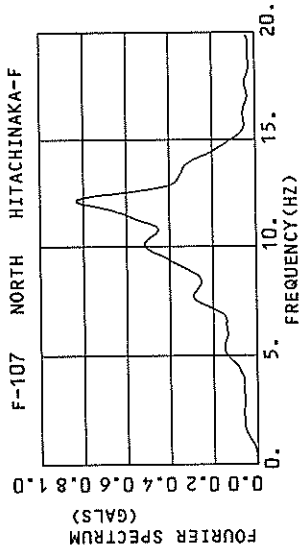
F-107 EAST HITACHINAKA-F
(1/FC=1.08 SEC.)



F-107 UP HITACHINAKA-F
(1/FC=0.85 SEC.)



RESPONSE SPECTRA



RESPONSE SPECTRUM

RECORD = F-107		COMPONENT = NORTH		SIGNAL = GR. ACC.		CORRECTION =		STATION = HITACHINAKA-F				
DATE AND TIME = 1988-1-30-6-19		SAMPRING INTERVAL = 0.0100(SEC)		INTERVAL = 0.0100(SEC)		MAX. GROUND ACC. = 61.38 (GAL)						
TIME LENGTH = 29.99 (SEC)		SKIPPED LENGTH =		LENGTH =		(SEC)						
DAMPING = 0.		DAMPING = 0.025		DAMPING = 0.050		DAMPING = 0.100		DAMPING = 0.250				
PER	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	104.2	0.76	0.007	83.6	0.36	0.005	83.3	0.36	0.005	83.1	0.36	0.005
0.10	595.6	9.56	0.151	264.6	4.38	0.067	223.9	3.61	0.057	175.7	2.73	0.043
0.15	148.6	3.56	0.085	67.7	2.03	0.039	59.6	1.84	0.034	55.5	1.66	0.031
0.20	83.0	2.75	0.084	42.5	1.87	0.043	31.4	1.73	0.032	29.4	1.58	0.028
0.25	23.3	1.30	0.037	17.8	1.25	0.028	17.3	1.24	0.027	17.0	1.23	0.024
0.30	31.9	1.50	0.073	11.2	1.20	0.025	10.5	1.19	0.023	9.6	1.14	0.020
0.35	16.4	1.12	0.051	7.3	1.09	0.022	7.6	1.08	0.022	7.9	1.05	0.022
0.40	31.6	2.00	0.128	11.5	1.16	0.047	9.0	0.96	0.036	7.4	0.95	0.027
0.45	17.1	1.24	0.088	7.3	1.01	0.037	6.8	1.01	0.033	6.6	1.00	0.028
0.50	25.8	2.11	0.164	7.7	1.29	0.048	5.9	1.18	0.037	5.2	1.08	0.029
0.55	13.0	1.21	0.099	7.7	0.99	0.059	6.1	1.02	0.046	4.7	1.03	0.043
0.60	23.7	2.28	0.216	6.6	0.99	0.060	5.7	0.94	0.046	4.7	0.99	0.043
0.65	9.5	1.22	0.102	7.1	1.07	0.075	6.1	1.03	0.063	5.2	1.01	0.048
0.70	9.8	1.25	0.084	5.1	1.07	0.063	4.4	1.06	0.052	4.1	1.04	0.042
0.75	7.5	1.10	0.107	3.8	1.06	0.055	3.4	1.06	0.045	2.9	1.04	0.036
0.80	9.7	1.22	0.157	4.5	1.04	0.072	3.1	1.04	0.050	2.7	1.04	0.034
0.85	5.3	1.01	0.097	3.2	1.04	0.058	2.5	1.05	0.045	2.5	1.05	0.033
0.90	2.4	1.13	0.049	2.1	1.09	0.042	1.9	1.08	0.038	2.4	1.06	0.032
0.95	2.1	1.09	0.049	1.7	1.09	0.039	1.7	1.09	0.036	2.2	1.07	0.031
1.00	1.5	1.13	0.038	1.4	1.11	0.035	1.5	1.10	0.033	2.0	1.08	0.031
1.10	1.2	1.07	0.035	1.1	1.08	0.032	1.1	1.08	0.030	1.7	1.08	0.029
1.20	1.0	1.09	0.035	0.9	1.09	0.032	1.1	1.08	0.030	1.5	1.08	0.029
1.30	0.7	1.10	0.028	0.7	1.10	0.029	0.9	1.09	0.028	1.3	1.08	0.028
1.40	0.5	1.10	0.026	0.6	1.09	0.026	0.8	1.09	0.026	1.2	1.08	0.027
1.50	0.4	1.08	0.023	0.5	1.08	0.024	0.7	1.08	0.025	1.1	1.08	0.026
1.60	0.4	1.07	0.026	0.5	1.08	0.026	0.6	1.08	0.026	1.0	1.08	0.026
1.70	0.4	1.09	0.027	0.4	1.08	0.026	0.6	1.08	0.026	0.9	1.08	0.026
1.80	0.3	1.08	0.023	0.4	1.08	0.024	0.5	1.08	0.025	0.8	1.07	0.025
1.90	0.3	1.07	0.023	0.4	1.07	0.024	0.5	1.07	0.024	0.8	1.07	0.025
2.00	0.2	1.07	0.025	0.3	1.07	0.024	0.4	1.07	0.024	0.7	1.07	0.025
2.20	0.2	1.08	0.024	0.3	1.07	0.024	0.4	1.07	0.024	0.7	1.07	0.024
2.40	0.2	1.07	0.023	0.2	1.07	0.024	0.3	1.07	0.024	0.6	1.07	0.024
2.60	0.1	1.07	0.025	0.2	1.07	0.025	0.3	1.07	0.024	0.5	1.07	0.024
2.80	0.1	1.07	0.024	0.2	1.07	0.024	0.3	1.07	0.024	0.5	1.07	0.024
3.00	0.1	1.07	0.021	0.2	1.07	0.022	0.3	1.07	0.023	0.4	1.07	0.024
3.20	0.1	1.07	0.021	0.2	1.07	0.022	0.2	1.07	0.022	0.4	1.07	0.023
3.40	0.1	1.06	0.023	0.1	1.06	0.023	0.2	1.06	0.023	0.4	1.07	0.024
3.60	0.1	1.06	0.025	0.1	1.06	0.024	0.2	1.06	0.024	0.4	1.06	0.024
3.80	0.1	1.07	0.026	0.1	1.07	0.025	0.2	1.07	0.024	0.4	1.07	0.024
4.00	0.1	1.07	0.025	0.1	1.07	0.024	0.2	1.07	0.024	0.3	1.07	0.024

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

STATION = HITACHINAKA-F
MAX. GROUND ACC. = 36.52 (GAL)

CORRECTION =
GR. ACC. = 0.0100 (SEC)
SAMPLING INTERVAL = 0.00 (SEC)
SKIPPED LENGTH = 0.00 (SEC)

COMPONENT = EAST
1-30- 6-19
DATE AND TIME = 1988-
TIME LENGTH = 28.99 (SEC)

RECORD = F-107
DATE AND TIME = 1988-
TIME LENGTH = 28.99 (SEC)

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	147.3	0.99	0.009	84.5	0.46	0.005	72.6	0.38	0.005	62.1	0.34	0.004	54.8	0.26	0.003
0.10	514.5	8.21	0.130	214.0	3.59	0.034	159.7	2.73	0.040	106.8	1.80	0.027	59.7	0.92	0.012
0.15	103.4	2.54	0.059	63.1	1.82	0.016	51.8	1.30	0.029	37.3	1.00	0.021	25.4	0.70	0.013
0.20	55.8	1.85	0.057	30.7	1.04	0.031	24.9	1.04	0.025	18.4	0.83	0.018	13.9	0.57	0.011
0.25	53.8	2.16	0.085	21.4	1.04	0.036	16.0	0.86	0.027	12.5	0.67	0.019	10.9	0.54	0.014
0.30	25.9	1.19	0.059	16.0	0.87	0.036	11.8	0.68	0.029	8.6	0.53	0.021	8.0	0.52	0.015
0.35	24.0	1.39	0.074	11.6	0.84	0.041	9.5	0.69	0.029	7.1	0.53	0.021	7.6	0.54	0.015
0.40	40.7	2.57	0.165	10.1	0.93	0.041	8.2	0.80	0.032	7.1	0.70	0.026	7.6	0.59	0.019
0.45	9.0	0.95	0.046	10.1	0.86	0.052	9.4	0.81	0.048	7.8	0.75	0.037	6.8	0.56	0.022
0.50	20.8	1.67	0.132	13.1	1.17	0.083	10.8	1.00	0.068	7.6	0.84	0.046	5.8	0.71	0.026
0.55	18.5	1.65	0.142	12.1	1.19	0.092	8.7	1.05	0.066	6.5	0.88	0.047	5.1	0.74	0.027
0.60	24.8	2.37	0.226	9.3	1.10	0.095	6.9	0.98	0.062	5.0	0.89	0.044	4.6	0.75	0.029
0.65	10.3	1.21	0.110	6.1	0.96	0.065	5.0	0.85	0.052	4.4	0.82	0.042	4.2	0.73	0.030
0.70	15.0	1.70	0.186	5.6	0.93	0.069	4.6	0.81	0.056	3.8	0.75	0.045	3.8	0.71	0.030
0.75	7.3	1.04	0.103	5.0	0.86	0.071	4.2	0.79	0.058	3.5	0.74	0.046	3.4	0.68	0.030
0.80	11.8	1.60	0.192	4.7	0.86	0.078	3.8	0.79	0.059	3.1	0.71	0.045	3.1	0.65	0.032
0.85	5.6	0.92	0.102	3.5	0.77	0.063	3.9	0.75	0.052	2.8	0.70	0.045	2.9	0.62	0.033
0.90	4.4	0.86	0.090	2.9	0.73	0.058	2.6	0.72	0.051	2.5	0.68	0.044	2.7	0.59	0.034
0.95	3.1	0.76	0.071	2.4	0.72	0.054	2.2	0.70	0.047	2.3	0.67	0.043	2.6	0.59	0.034
1.00	2.5	0.73	0.063	2.1	0.69	0.051	2.0	0.67	0.047	2.1	0.64	0.042	2.4	0.58	0.034
1.10	1.1	0.56	0.033	1.2	0.57	0.036	1.4	0.58	0.037	1.6	0.59	0.037	2.1	0.56	0.033
1.20	1.1	0.58	0.041	1.1	0.56	0.037	1.1	0.55	0.035	1.3	0.55	0.034	1.9	0.54	0.031
1.30	0.8	0.57	0.033	0.8	0.56	0.033	0.9	0.55	0.033	1.1	0.53	0.031	1.7	0.53	0.030
1.40	0.7	0.57	0.034	0.7	0.56	0.032	0.7	0.55	0.030	0.9	0.53	0.029	1.5	0.51	0.028
1.50	0.6	0.56	0.035	0.6	0.55	0.032	0.6	0.54	0.031	0.8	0.52	0.028	1.4	0.50	0.027
1.60	0.4	0.53	0.028	0.5	0.53	0.029	0.5	0.53	0.029	0.7	0.52	0.028	1.2	0.49	0.026
1.70	0.4	0.53	0.027	0.4	0.53	0.028	0.4	0.52	0.028	0.6	0.51	0.027	1.1	0.49	0.025
1.80	0.4	0.53	0.030	0.4	0.52	0.029	0.4	0.52	0.028	0.5	0.51	0.027	1.0	0.49	0.025
1.90	0.3	0.52	0.030	0.3	0.52	0.029	0.4	0.52	0.028	0.5	0.51	0.027	1.0	0.49	0.025
2.00	0.3	0.51	0.027	0.3	0.51	0.027	0.3	0.51	0.027	0.4	0.51	0.027	0.9	0.49	0.025
2.20	0.2	0.51	0.027	0.2	0.51	0.027	0.3	0.51	0.027	0.4	0.50	0.026	0.8	0.49	0.025
2.40	0.2	0.50	0.027	0.2	0.50	0.026	0.3	0.51	0.026	0.3	0.50	0.025	0.7	0.49	0.024
2.60	0.1	0.50	0.023	0.2	0.50	0.024	0.2	0.50	0.025	0.3	0.50	0.025	0.6	0.49	0.024
2.80	0.1	0.50	0.024	0.1	0.50	0.024	0.2	0.50	0.025	0.3	0.50	0.025	0.6	0.49	0.024
3.00	0.1	0.50	0.027	0.1	0.50	0.026	0.1	0.50	0.026	0.2	0.49	0.025	0.5	0.49	0.024
3.20	0.1	0.50	0.028	0.1	0.50	0.027	0.1	0.49	0.025	0.2	0.49	0.025	0.5	0.49	0.024
3.40	0.1	0.49	0.025	0.1	0.49	0.025	0.1	0.49	0.025	0.2	0.49	0.024	0.5	0.49	0.024
3.60	0.1	0.49	0.022	0.1	0.49	0.022	0.1	0.49	0.022	0.2	0.49	0.023	0.5	0.49	0.024
3.80	0.1	0.49	0.021	0.1	0.49	0.022	0.1	0.49	0.022	0.2	0.49	0.023	0.4	0.49	0.024
4.00	0.1	0.50	0.022	0.1	0.49	0.022	0.1	0.49	0.022	0.2	0.49	0.023	0.4	0.49	0.024

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = F-107
 DATE AND TIME = 1988-1-30-6-19
 TIME LENGTH = 29.99 (SEC)

COMPONENT = UP
 SIGNAL = GR. ACC.
 SAMPRING INTERVAL = 0.0100(SEC)
 SKIPPED LENGTH = 0.00 (SEC)

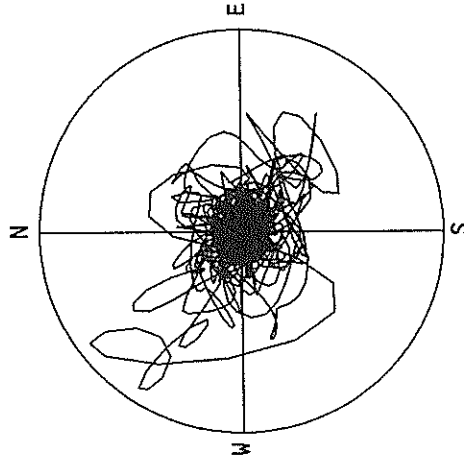
CORRECTION =
 MAX.GROUND ACC. = 23.14 (GAL)

STATION = HITACHINAKA-F

PER	DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250					
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD			
0.05	225.7	1.79	0.014	74.9	0.54	0.005	59.1	0.45	0.004	48.6	0.36	0.003	36.8	0.22	0.002
0.10	83.2	1.33	0.021	58.8	1.02	0.015	48.5	0.84	0.012	34.1	0.59	0.008	21.6	0.39	0.005
0.15	62.4	1.49	0.036	18.5	0.59	0.011	14.7	0.54	0.008	12.7	0.47	0.007	12.0	0.36	0.005
0.20	23.1	0.73	0.023	9.6	0.41	0.010	8.5	0.38	0.008	7.5	0.37	0.007	6.8	0.34	0.006
0.25	17.6	0.69	0.028	6.8	0.32	0.011	5.2	0.29	0.008	4.8	0.28	0.007	4.9	0.29	0.006
0.30	15.6	0.76	0.036	4.6	0.36	0.011	4.1	0.32	0.009	3.2	0.29	0.007	3.6	0.24	0.005
0.35	12.1	0.66	0.037	4.3	0.29	0.013	3.5	0.26	0.011	2.7	0.26	0.008	2.6	0.24	0.005
0.40	11.6	0.73	0.047	5.1	0.39	0.021	3.7	0.30	0.015	2.8	0.26	0.011	2.3	0.23	0.008
0.45	7.6	0.56	0.039	5.0	0.39	0.026	3.0	0.31	0.015	2.9	0.26	0.015	2.2	0.23	0.008
0.50	12.8	1.04	0.081	6.1	0.49	0.039	5.0	0.44	0.031	3.5	0.36	0.022	2.2	0.22	0.010
0.55	10.5	0.93	0.080	6.3	0.59	0.048	5.1	0.46	0.039	3.5	0.38	0.026	2.1	0.25	0.013
0.60	15.0	1.44	0.137	6.5	0.68	0.060	4.8	0.52	0.043	3.2	0.35	0.028	1.8	0.24	0.013
0.65	3.6	0.45	0.039	3.1	0.40	0.033	2.9	0.37	0.031	2.4	0.31	0.024	1.7	0.21	0.014
0.70	2.9	0.36	0.031	2.3	0.33	0.028	2.0	0.29	0.024	1.7	0.26	0.019	1.5	0.22	0.014
0.75	2.9	0.40	0.041	1.6	0.40	0.022	1.4	0.28	0.020	1.3	0.26	0.016	1.4	0.25	0.014
0.80	2.0	0.35	0.032	1.3	0.27	0.021	1.1	0.26	0.018	1.1	0.26	0.016	1.2	0.23	0.013
0.85	2.5	0.34	0.045	1.3	0.28	0.023	1.1	0.26	0.020	0.9	0.25	0.016	1.1	0.24	0.013
0.90	1.1	0.28	0.023	1.1	0.29	0.023	1.0	0.27	0.019	0.9	0.24	0.016	1.1	0.23	0.013
0.95	1.5	0.34	0.034	1.1	0.29	0.024	0.9	0.27	0.020	0.8	0.24	0.016	1.0	0.23	0.013
1.00	0.9	0.29	0.023	0.7	0.26	0.019	0.6	0.24	0.015	0.7	0.23	0.014	0.9	0.23	0.012
1.10	0.4	0.24	0.012	0.5	0.23	0.014	0.4	0.23	0.013	0.5	0.23	0.011	0.8	0.23	0.011
1.20	0.5	0.25	0.019	0.4	0.23	0.013	0.3	0.23	0.011	0.4	0.23	0.010	0.7	0.23	0.011
1.30	0.3	0.24	0.015	0.3	0.23	0.012	0.3	0.22	0.011	0.4	0.23	0.011	0.6	0.23	0.011
1.40	0.2	0.23	0.011	0.2	0.23	0.011	0.3	0.22	0.011	0.3	0.23	0.011	0.5	0.23	0.010
1.50	0.2	0.24	0.013	0.2	0.23	0.011	0.2	0.22	0.011	0.3	0.23	0.010	0.5	0.23	0.010
1.60	0.2	0.23	0.010	0.2	0.23	0.009	0.2	0.23	0.010	0.3	0.23	0.010	0.5	0.23	0.010
1.70	0.1	0.23	0.010	0.1	0.23	0.009	0.2	0.23	0.009	0.2	0.23	0.010	0.4	0.23	0.010
1.80	0.1	0.23	0.010	0.1	0.23	0.009	0.1	0.23	0.009	0.2	0.23	0.009	0.4	0.23	0.010
1.90	0.1	0.23	0.010	0.1	0.23	0.009	0.1	0.23	0.009	0.2	0.23	0.009	0.4	0.23	0.010
2.00	0.1	0.23	0.010	0.1	0.23	0.009	0.1	0.23	0.009	0.2	0.23	0.009	0.4	0.23	0.009
2.20	0.1	0.23	0.010	0.1	0.23	0.009	0.1	0.23	0.009	0.2	0.23	0.009	0.3	0.23	0.009
2.40	0.1	0.23	0.009	0.1	0.23	0.009	0.1	0.23	0.009	0.1	0.23	0.009	0.3	0.23	0.009
2.60	0.1	0.23	0.010	0.1	0.23	0.009	0.1	0.23	0.009	0.1	0.23	0.009	0.3	0.23	0.009
2.80	0.1	0.22	0.011	0.1	0.22	0.010	0.1	0.22	0.009	0.1	0.23	0.009	0.3	0.23	0.009
3.00	0.0	0.23	0.010	0.0	0.23	0.008	0.1	0.23	0.008	0.1	0.23	0.009	0.2	0.23	0.009
3.20	0.0	0.23	0.010	0.0	0.23	0.009	0.1	0.23	0.008	0.1	0.23	0.009	0.2	0.23	0.009
3.40	0.0	0.23	0.011	0.0	0.23	0.010	0.1	0.23	0.009	0.1	0.23	0.009	0.2	0.23	0.009
3.60	0.0	0.23	0.011	0.0	0.23	0.010	0.1	0.23	0.009	0.1	0.23	0.009	0.2	0.23	0.009
3.80	0.0	0.23	0.009	0.0	0.23	0.009	0.0	0.23	0.009	0.1	0.23	0.008	0.2	0.23	0.009
4.00	0.0	0.22	0.011	0.0	0.23	0.009	0.0	0.23	0.009	0.1	0.23	0.008	0.2	0.23	0.009

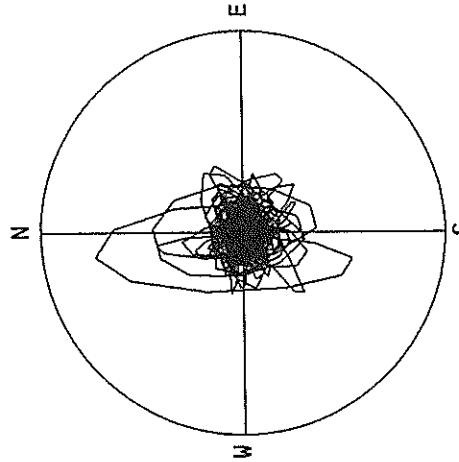
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

F-107 HITACHINAKA-F



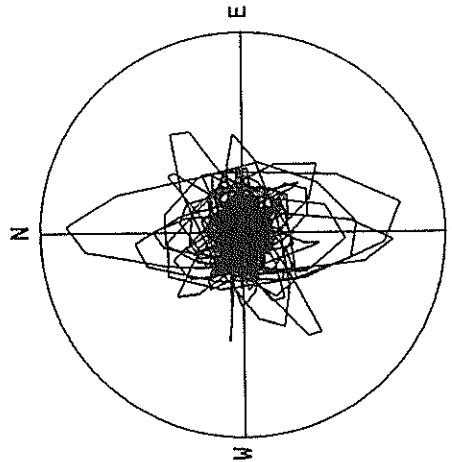
DISPLACEMENT
R=0.03 CM
MAX=0.03 CM

F-107 HITACHINAKA-F



VELOCITY
R=1.5 CM/SEC.
MAX=1.1 CM/SEC.

F-107 HITACHINAKA-F



ACCELERATION
R=70.0 GAL
MAX=61.4 GAL

RECORD NUMBER S-2130
 STATION SHINAGAWA-S

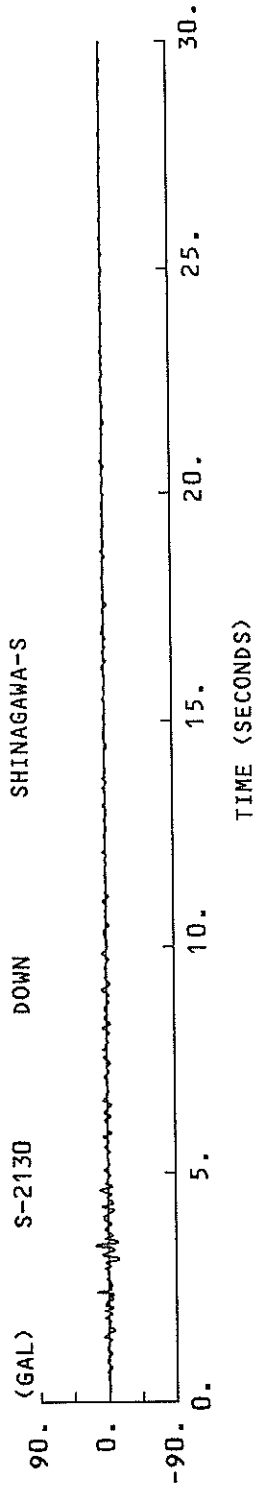
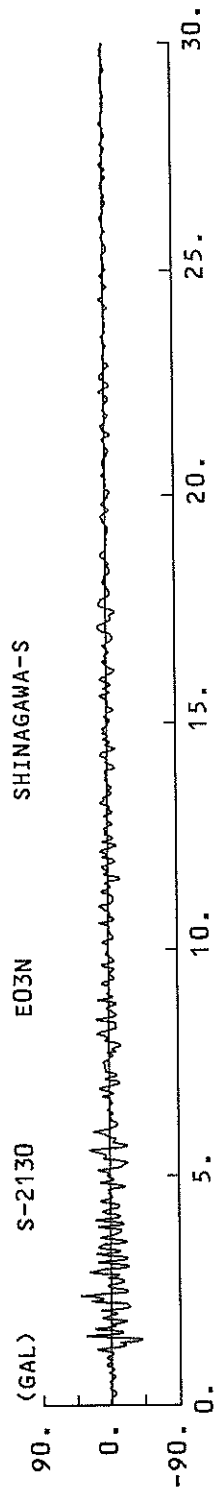
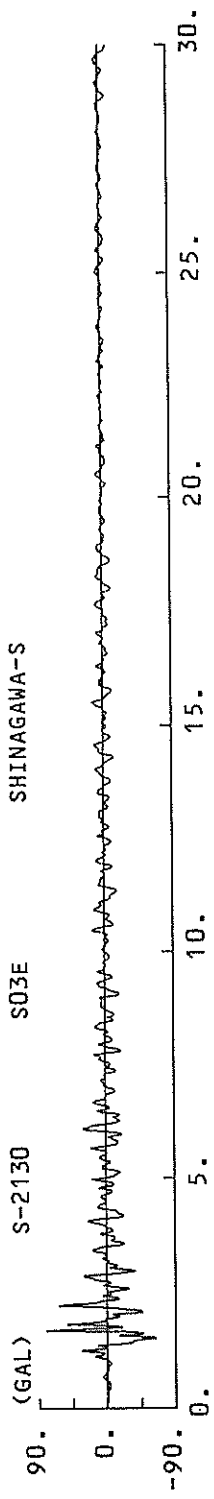
EARTHQUAKE DATA

 DATA AND TIME 5:34 MAR.18,1988
 LOCATION OF HYPOCENTER
 EPICENTRAL REGION TOKYO PREF
 LATITUDE 35°39.7' N
 LONGITUDE 139°38.8' E
 DEPTH 96.1KM
 MAGNITUDE 6.0

PEAK VALUES OF COMPONENTS

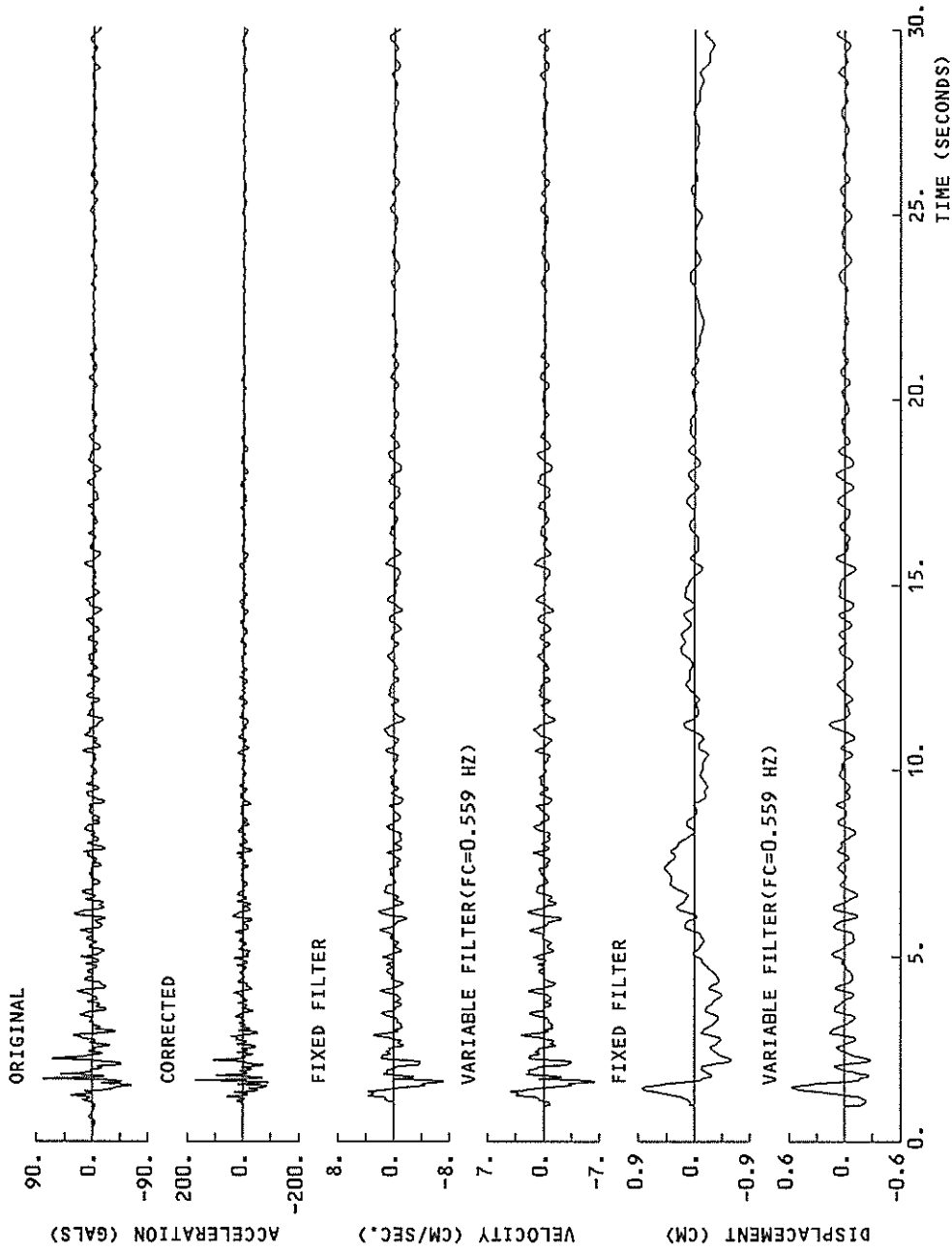
PARAMETER OF THE VARIABLE FILTER	N S	E W	U D	HORIZONTAL*
FC (HZ)	0.559	0.694	1.512	
MAXIMUM ACCELERATION (GAL)				
ORIGINAL	82.3	41.4	17.6	82.5
CORRECTED	190.2	65.1	32.6	190.7
MAXIMUM VELOCITY (CM/SEC)				
FIXED FILTER	7.48	3.41	0.91	7.48
VARIABLE FILTER	6.62	2.83	0.91	6.64
MAXIMUM DISPLACEMENT (CM)				
FIXED FILTER	0.837	0.654	0.260	0.858
VARIABLE FILTER	0.573	0.201	0.035	0.573

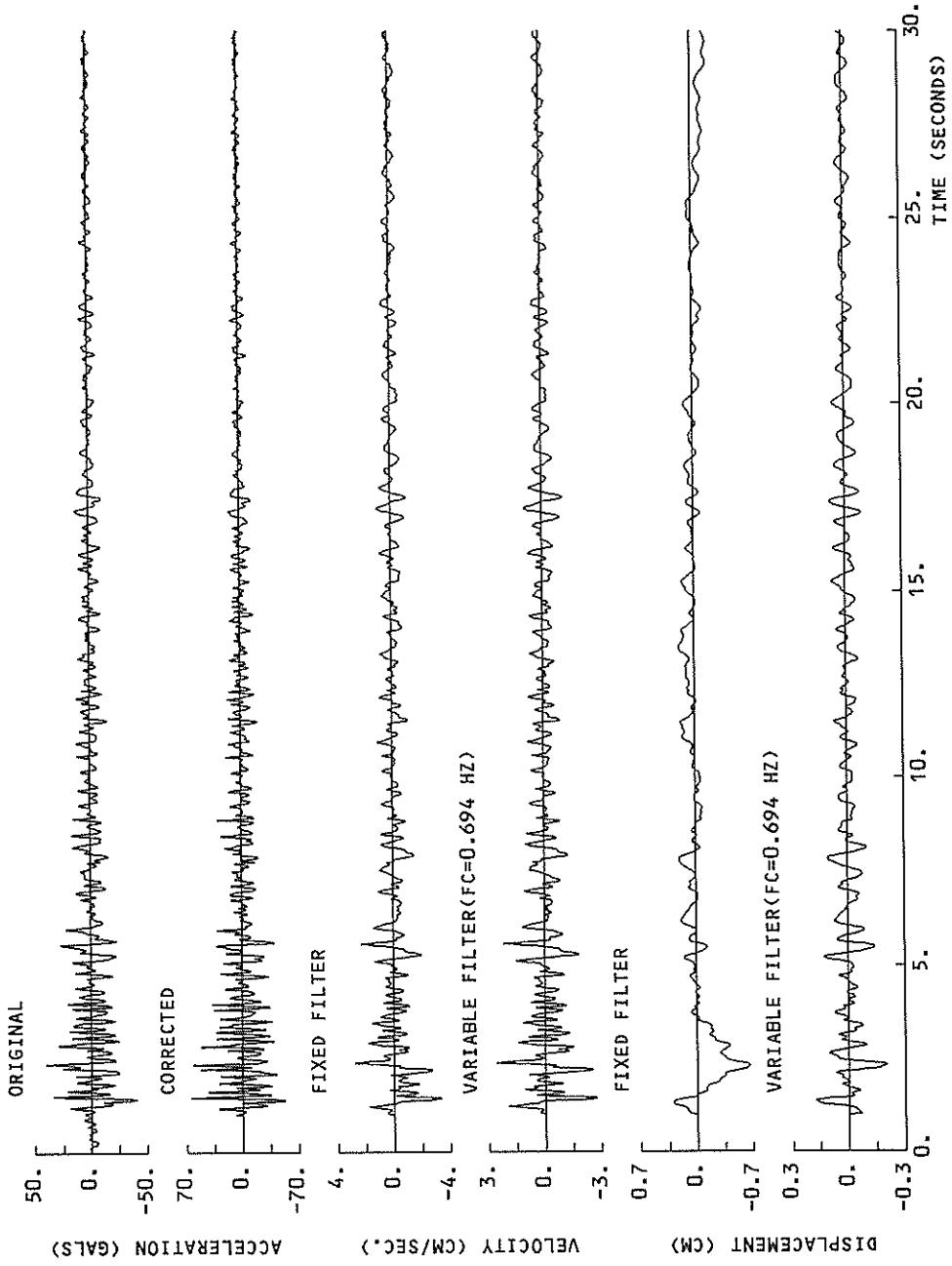
* RESULTANT OF HORIZONTAL COMPONENTS



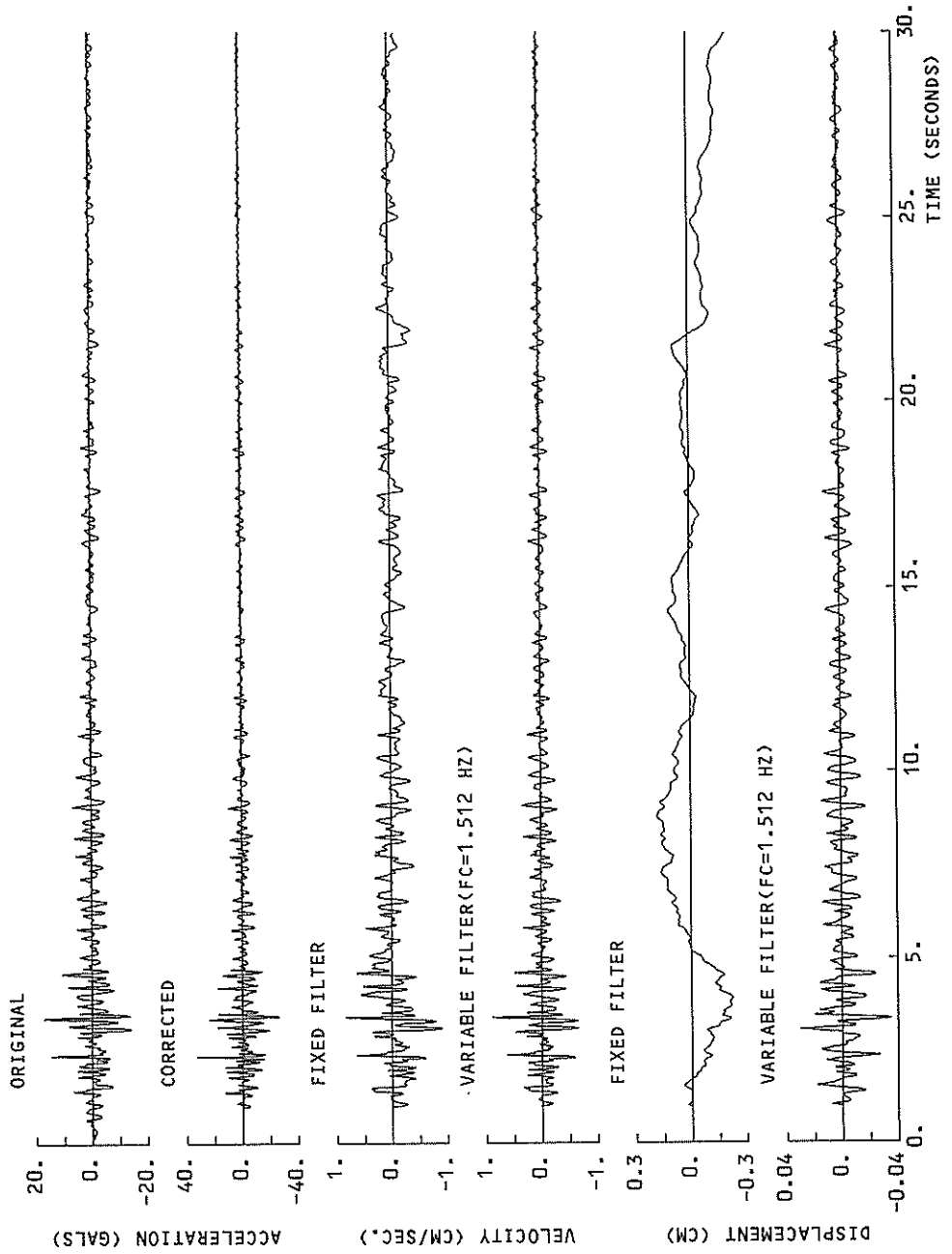
— — — — —

S-2130 S03E SHINAGAWA-S

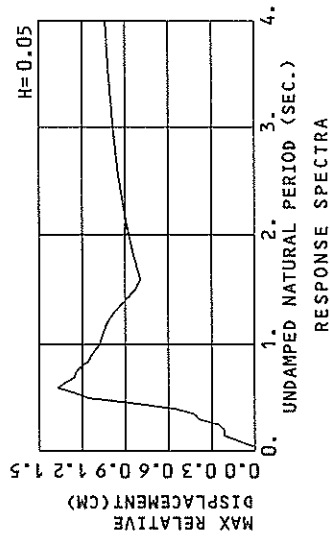
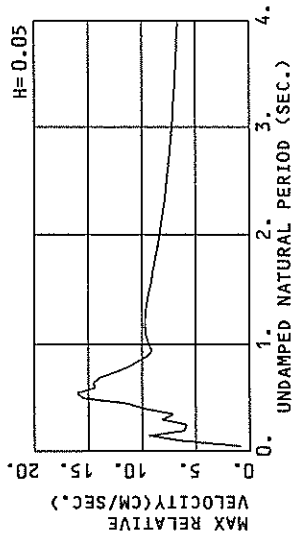
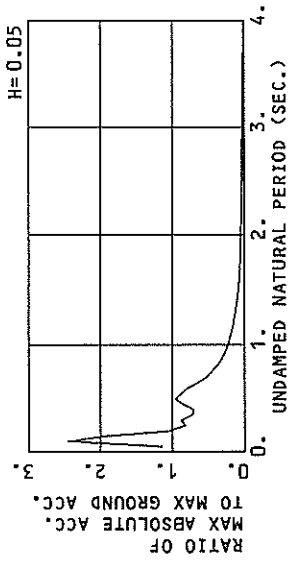




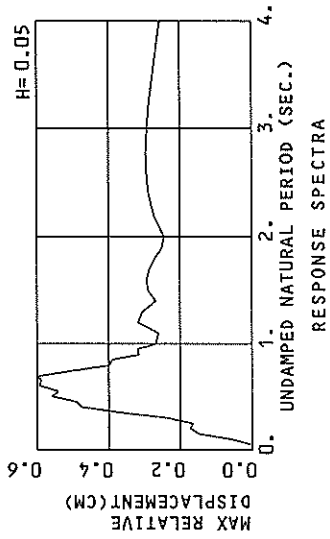
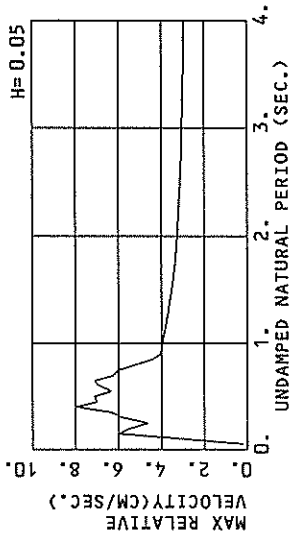
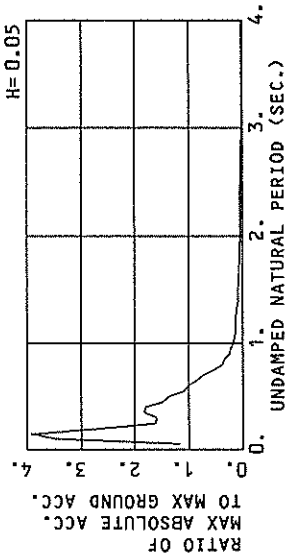
S-2130 DOWN SHINAGAWA-S



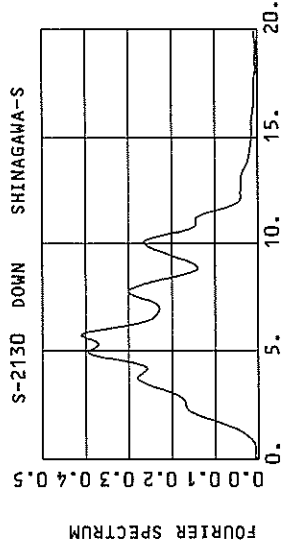
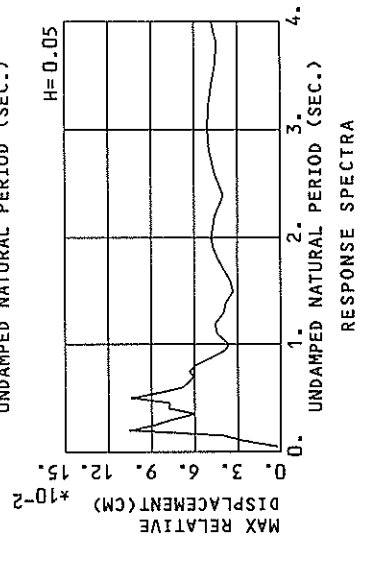
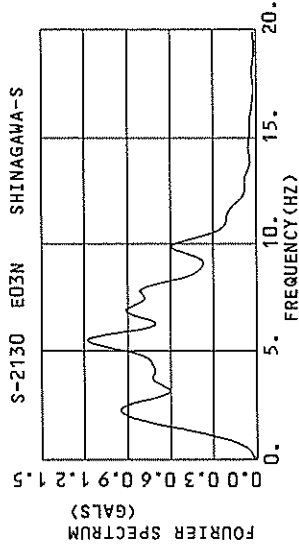
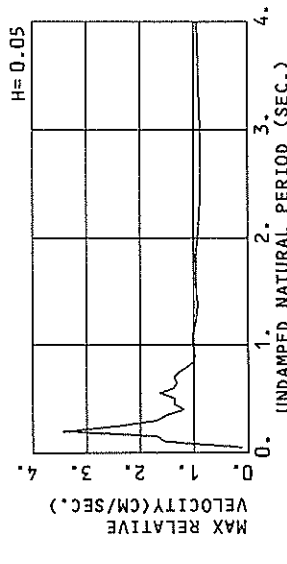
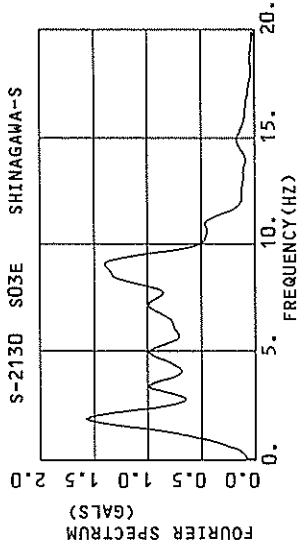
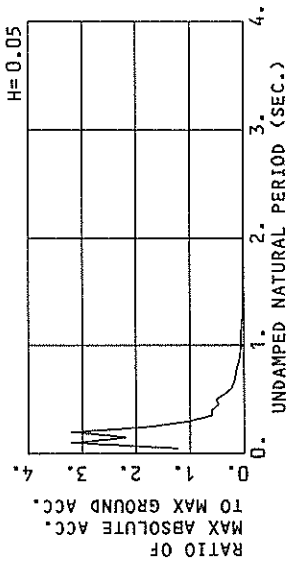
S-2130 S03E SHINAGAMA-S
(1/FC=1.79 SEC.)



S-2130 E03N SHINAGAMA-S
(1/FC=1.44 SEC.)



S-2130 DOWN SHINAGAWA-S
($1/FC=0.66$ SEC.)



RESPONSE SPECTRUM

RECORD = S-2130
 DATE AND TIME = 1988-3-18-5-34
 TIME LENGTH = 29.99 (SEC)
 COMPONENT = S05E
 SIGNAL = GR. ACC.
 SAMPRING INTERVAL = 0.0100 (SEC)
 SKIPPED LENGTH = 0.00 (SEC)
 CORRECTION = MAX. GROUND ACC. = 190.21 (GAL)
 STATION = SHINAGAWA-S

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	219.3	8.93	0.014	218.9	0.87	0.014	218.1	0.84	0.014	217.5	0.79	0.014	215.4	0.67	0.013
0.10	582.3	8.55	0.147	515.8	7.41	0.130	468.1	6.54	0.119	400.2	5.32	0.099	293.5	3.20	0.069
0.15	776.9	18.22	0.443	461.0	10.98	0.263	376.8	9.37	0.216	287.6	7.18	0.158	221.3	4.57	0.111
0.20	647.1	20.40	0.656	276.3	8.74	0.278	201.9	6.06	0.206	174.3	5.36	0.173	157.2	4.28	0.135
0.25	401.6	15.89	0.636	189.6	7.14	0.299	156.3	5.88	0.247	144.8	4.83	0.226	126.4	4.39	0.171
0.30	674.8	32.75	1.538	245.9	11.37	0.560	168.0	8.14	0.381	136.3	6.24	0.305	114.9	5.04	0.217
0.35	158.7	6.72	0.492	143.6	7.27	0.444	136.3	7.15	0.418	123.6	6.90	0.371	105.5	6.12	0.262
0.40	352.5	22.30	1.428	147.3	10.04	0.595	135.5	9.61	0.545	117.4	8.87	0.462	91.8	7.23	0.300
0.45	286.2	19.98	1.468	188.9	13.58	0.927	163.2	11.44	0.833	128.0	10.32	0.644	81.7	8.05	0.364
0.50	351.3	27.95	2.225	241.1	19.78	1.522	183.0	15.51	1.151	135.4	12.22	0.835	81.7	8.40	0.458
0.55	687.1	60.46	5.265	217.5	19.04	1.663	165.1	16.06	1.256	126.2	12.48	0.948	79.7	8.47	0.526
0.60	221.7	18.37	1.750	141.6	16.86	1.579	151.6	14.44	1.372	119.5	10.87	1.056	73.1	8.18	0.590
0.65	163.5	14.37	1.250	124.2	15.27	1.513	124.2	14.49	1.317	99.3	11.72	1.021	71.1	7.63	0.666
0.70	224.2	25.10	2.783	112.1	13.88	1.389	101.7	13.88	1.255	85.4	11.46	1.035	69.1	7.21	0.722
0.75	198.6	24.12	2.830	96.6	13.93	1.375	87.7	12.55	1.242	74.9	10.50	1.027	65.9	7.48	0.767
0.80	99.3	12.95	1.610	82.8	11.92	1.339	74.9	11.28	1.209	68.3	10.11	1.041	62.1	7.50	0.797
0.85	98.7	13.44	1.807	70.2	10.94	1.281	64.2	10.42	1.159	61.6	9.51	1.049	58.0	7.34	0.813
0.90	100.3	14.76	2.058	58.3	9.86	1.192	56.5	9.47	1.139	55.1	8.77	1.042	54.2	7.06	0.823
0.95	61.4	10.24	1.404	51.1	9.09	1.113	49.8	9.09	1.113	49.8	8.26	1.027	50.4	6.83	0.822
1.00	47.2	10.28	1.196	44.6	9.81	1.126	43.6	9.37	1.081	43.6	8.56	1.000	46.7	6.84	0.814
1.10	71.1	12.47	2.180	36.6	10.05	1.118	34.8	9.67	1.055	34.3	8.95	0.943	40.1	7.18	0.784
1.20	68.5	13.59	2.499	29.8	9.02	1.027	28.6	9.73	0.973	27.0	9.11	0.929	34.4	7.51	0.742
1.30	26.1	10.20	1.117	23.9	9.92	1.018	23.3	9.65	0.975	22.2	9.13	0.892	29.7	7.72	0.691
1.40	21.7	9.94	1.076	19.1	9.72	0.941	18.8	9.50	0.907	18.4	9.06	0.843	25.9	7.83	0.675
1.50	18.9	9.67	1.077	15.2	9.49	0.858	15.2	9.31	0.833	15.2	8.94	0.784	22.7	7.88	0.649
1.60	14.9	9.40	0.966	12.6	9.26	0.816	12.5	9.11	0.795	12.6	8.81	0.755	20.0	7.89	0.656
1.70	12.4	9.14	0.904	11.5	9.03	0.839	11.4	8.91	0.818	11.8	8.66	0.778	17.8	7.87	0.679
1.80	10.8	8.90	0.883	10.5	8.81	0.860	10.5	8.71	0.838	10.9	8.51	0.799	15.0	7.84	0.700
1.90	8.67	8.67	0.905	9.7	8.60	0.879	9.6	8.52	0.858	10.1	8.36	0.818	14.4	7.99	0.719
2.00	9.1	8.46	0.919	8.9	8.41	0.896	8.8	8.35	0.875	9.3	8.22	0.835	13.1	7.73	0.736
2.20	7.7	8.10	0.947	7.6	8.07	0.926	7.6	8.04	0.905	8.1	7.95	0.866	11.0	7.61	0.768
2.40	6.7	7.80	0.972	6.9	7.79	0.951	6.9	7.77	0.930	7.1	7.73	0.893	9.5	7.48	0.795
2.60	5.8	7.55	0.991	6.0	7.55	0.971	6.0	7.55	0.952	6.3	7.53	0.915	8.3	7.37	0.820
2.80	5.1	7.34	1.007	5.0	7.35	0.988	5.0	7.36	0.970	5.7	7.36	0.934	7.6	7.26	0.842
3.00	4.5	7.16	1.020	4.4	7.18	1.002	4.5	7.19	0.985	5.1	7.21	0.951	7.0	7.16	0.861
3.20	4.0	7.01	1.032	4.0	7.04	1.014	4.0	7.06	0.997	4.6	7.08	0.965	6.5	7.07	0.878
3.40	3.6	6.89	1.042	3.6	6.91	1.025	3.6	6.94	1.008	4.2	6.97	0.977	6.1	6.98	0.893
3.60	3.2	6.78	1.050	3.2	6.81	1.034	3.3	6.83	1.018	3.9	6.87	0.987	5.7	6.91	0.907
3.80	2.9	6.69	1.057	2.9	6.72	1.042	3.0	6.74	1.027	3.6	6.78	0.997	5.3	6.84	0.919
4.00	2.6	6.61	1.063	2.6	6.64	1.048	2.7	6.66	1.034	3.3	6.71	1.006	5.0	6.78	0.930

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = S-2130
 DATE AND TIME = 1988-3-18- 5-34
 TIME LENGTH = 29.99 (SEC)
 COMPONENT = E03N
 SIGNAL = GR. ACC.
 SAMPLING INTERVAL = 0.0100 (SEC)
 SKIPPED LENGTH = 0.00 (SEC)
 CORRECTION =
 MAX. GROUND ACC. = 85.11 (GAL)
 STATION = SHINAGAWA-S

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	85.5	0.38	0.005	77.8	0.21	0.005	76.3	0.20	0.005	75.6	0.19	0.005	74.5	0.18	0.005
0.10	662.5	10.22	0.168	302.2	4.38	0.076	286.3	3.06	0.057	267.8	2.19	0.039	104.4	0.95	0.025
0.15	731.8	17.16	0.417	318.4	7.65	0.181	256.7	6.06	0.146	183.5	4.13	0.102	119.7	2.20	0.060
0.20	500.9	15.85	0.508	218.4	7.45	0.222	170.2	5.46	0.171	119.0	3.79	0.119	85.1	2.42	0.077
0.25	264.6	10.67	0.419	129.4	5.15	0.204	104.7	4.65	0.166	92.4	3.77	0.143	74.9	2.69	0.102
0.30	238.5	11.20	0.544	121.5	6.76	0.276	104.7	5.81	0.237	84.8	4.40	0.189	63.4	3.30	0.120
0.35	277.9	15.40	0.860	140.9	7.56	0.437	118.5	6.34	0.365	90.2	5.17	0.274	60.6	3.58	0.169
0.40	272.9	17.35	1.106	142.3	9.71	0.578	118.2	8.03	0.475	88.6	5.93	0.350	59.0	3.60	0.207
0.45	360.6	25.64	1.850	130.1	9.50	0.667	96.0	7.00	0.490	68.1	4.94	0.342	50.2	3.41	0.217
0.50	192.2	15.84	1.217	111.9	9.19	0.707	89.0	7.13	0.561	62.1	5.25	0.385	42.9	3.19	0.226
0.55	251.1	22.11	1.924	98.3	9.09	0.753	71.0	6.34	0.539	52.2	4.83	0.387	39.0	3.05	0.245
0.60	177.9	12.27	1.075	80.1	8.38	0.728	65.6	6.91	0.589	48.1	5.34	0.422	36.2	3.34	0.265
0.65	171.9	18.59	1.840	75.7	8.43	0.809	55.2	7.15	0.589	42.2	5.43	0.436	32.9	3.65	0.277
0.70	67.7	7.71	0.840	56.6	6.91	0.702	48.3	6.26	0.595	37.0	5.32	0.446	28.6	3.85	0.272
0.75	77.1	9.05	1.089	39.4	6.46	0.559	35.0	5.99	0.494	29.3	5.23	0.397	24.3	3.91	0.256
0.80	76.5	9.97	1.240	29.4	5.50	0.477	24.7	5.24	0.396	21.7	4.81	0.329	21.8	3.71	0.234
0.85	54.2	7.40	0.992	28.1	4.48	0.513	21.5	4.42	0.391	17.6	4.28	0.301	19.7	3.71	0.223
0.90	26.0	4.52	0.534	16.9	4.21	0.345	15.6	4.04	0.316	13.7	3.89	0.269	17.8	3.57	0.216
0.95	61.2	9.32	1.399	22.0	4.00	0.501	14.0	4.00	0.319	11.6	3.86	0.237	16.2	3.48	0.209
1.00	17.0	4.09	0.431	13.9	4.02	0.352	10.7	3.95	0.269	10.1	3.82	0.236	14.8	3.48	0.201
1.10	17.2	3.96	0.527	10.8	3.91	0.329	8.6	3.86	0.260	8.3	3.75	0.236	12.5	3.47	0.187
1.20	17.3	4.55	0.632	11.4	3.98	0.414	8.8	3.67	0.317	7.1	3.67	0.234	10.7	3.44	0.182
1.30	12.8	3.72	0.547	9.1	3.70	0.386	7.3	3.67	0.307	6.0	3.60	0.242	9.4	3.41	0.180
1.40	8.3	3.62	0.414	5.8	3.61	0.268	5.4	3.58	0.268	5.2	3.54	0.236	8.3	3.38	0.183
1.50	6.6	3.54	0.374	5.5	3.51	0.290	5.1	3.51	0.290	4.6	3.47	0.254	7.4	3.34	0.187
1.60	6.6	3.47	0.431	4.9	3.46	0.335	4.6	3.45	0.335	4.2	3.42	0.260	6.7	3.31	0.182
1.70	7.1	3.46	0.520	4.2	3.41	0.304	4.0	3.39	0.287	3.7	3.37	0.256	6.1	3.28	0.183
1.80	4.5	3.41	0.399	3.8	3.37	0.311	3.4	3.34	0.271	3.2	3.33	0.244	5.6	3.25	0.180
1.90	1.80	3.41	0.322	3.1	3.31	0.281	2.8	3.30	0.251	3.2	3.29	0.228	5.2	3.23	0.185
2.00	3.5	3.26	0.306	2.5	3.26	0.256	2.6	3.26	0.245	3.1	3.25	0.227	4.8	3.21	0.194
2.20	2.4	3.18	0.299	2.3	3.19	0.284	2.4	3.19	0.273	2.8	3.19	0.253	4.4	3.17	0.211
2.40	2.1	3.13	0.311	2.1	3.13	0.299	2.1	3.13	0.288	2.5	3.14	0.268	4.1	3.13	0.225
2.60	1.8	3.08	0.316	1.8	3.09	0.305	1.8	3.09	0.295	2.3	3.10	0.276	3.8	3.10	0.234
2.80	1.6	3.05	0.314	1.6	3.05	0.300	1.6	3.06	0.296	2.0	3.07	0.278	3.5	3.08	0.240
3.00	1.4	3.01	0.308	1.3	3.02	0.300	1.4	3.03	0.292	1.8	3.04	0.278	3.2	3.05	0.242
3.20	1.2	2.99	0.290	1.2	3.00	0.292	1.2	3.00	0.287	1.7	3.02	0.275	3.0	3.03	0.243
3.40	1.0	2.97	0.280	1.0	2.98	0.285	1.1	2.98	0.280	1.5	2.98	0.270	2.8	3.02	0.242
3.60	0.9	2.95	0.260	0.9	2.96	0.276	1.0	2.96	0.272	1.4	2.98	0.264	2.6	3.00	0.241
3.80	0.7	2.93	0.269	0.8	2.94	0.267	0.9	2.95	0.264	1.3	2.96	0.257	2.4	2.99	0.238
4.00	0.6	2.92	0.259	0.7	2.93	0.258	0.8	2.93	0.255	1.2	2.95	0.251	2.3	2.97	0.235

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = S-2130
 DATE AND TIME = 1988-3-18-5-34
 TIME LENGTH = 29.99 (SEC)

COMPONENT = DOWN
 3-18-5-34
 SAMPRING INTERVAL = 0.0100(SEC)
 SKIPPED LENGTH = 0.00 (SEC)

SIGNAL = GR. ACC.
 CORRECTION = MAX. GROUND ACC. = 32.58 (GAL)

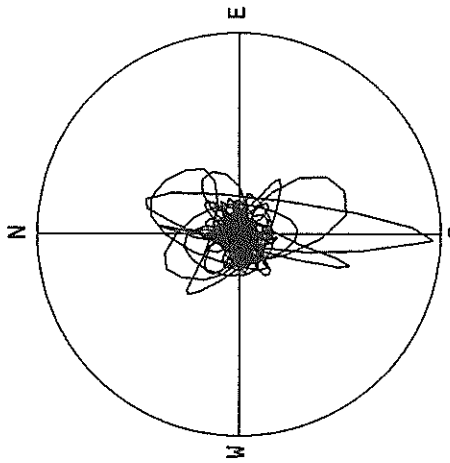
STATION = SHINAGAWA-S

DAMPING = 0.025 DAMPING = 0.050 DAMPING = 0.100 DAMPING = 0.250

PER	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	46.0	0.20	0.003	40.9	0.13	0.003	40.0	0.12	0.003	39.2	0.11	0.002
0.10	309.4	4.73	0.078	131.7	2.04	0.034	104.6	1.54	0.026	92.0	0.63	0.012
0.15	141.7	3.28	0.081	86.1	1.97	0.049	71.4	1.68	0.040	51.0	1.05	0.026
0.20	360.0	11.47	0.365	134.8	4.35	0.136	105.0	3.45	0.106	44.5	1.43	0.039
0.25	119.7	5.04	0.190	75.0	3.16	0.118	56.3	2.41	0.088	30.5	1.28	0.041
0.30	82.0	3.91	0.187	45.8	2.28	0.105	34.0	1.72	0.077	19.5	1.07	0.035
0.35	60.0	3.35	0.186	23.4	1.62	0.073	19.6	1.50	0.060	15.0	0.94	0.035
0.40	72.5	4.66	0.294	28.4	1.84	0.115	19.3	1.19	0.078	13.2	0.95	0.040
0.45	28.0	2.11	0.144	18.3	1.51	0.094	15.2	1.37	0.078	12.5	0.91	0.047
0.50	27.2	2.13	0.172	19.9	1.61	0.125	16.7	1.36	0.105	11.6	1.00	0.052
0.55	27.9	2.53	0.214	13.6	1.83	0.104	11.1	1.63	0.084	10.2	1.07	0.053
0.60	11.2	1.29	0.102	9.0	1.36	0.082	7.5	1.38	0.068	8.6	1.11	0.049
0.65	11.7	1.49	0.126	7.6	1.32	0.081	6.0	1.37	0.064	7.3	1.12	0.045
0.70	8.8	1.56	0.109	6.2	1.45	0.076	5.0	1.28	0.061	6.2	1.10	0.041
0.75	6.5	1.38	0.092	5.1	1.32	0.073	4.6	1.28	0.064	5.4	1.10	0.037
0.80	5.1	1.06	0.082	4.1	1.09	0.067	3.8	1.12	0.060	4.7	1.08	0.037
0.85	3.5	0.88	0.063	3.1	0.96	0.057	2.9	1.00	0.052	4.2	1.06	0.037
0.90	3.2	0.90	0.065	2.5	0.94	0.051	2.3	0.98	0.045	3.8	1.04	0.037
0.95	2.0	0.98	0.046	1.7	0.99	0.039	1.8	1.00	0.038	3.5	1.02	0.037
1.00	1.4	1.06	0.037	1.4	1.04	0.035	1.5	1.03	0.036	3.3	1.01	0.036
1.10	1.6	1.05	0.050	1.6	1.04	0.047	1.5	1.02	0.044	2.9	1.00	0.037
1.20	1.4	0.96	0.051	1.3	0.97	0.048	1.3	0.97	0.045	2.6	0.98	0.037
1.30	1.0	0.90	0.045	1.0	0.92	0.041	1.0	0.94	0.040	2.3	0.97	0.036
1.40	0.8	0.91	0.042	0.8	0.92	0.039	0.8	0.93	0.038	2.1	0.96	0.036
1.50	0.6	0.94	0.034	0.6	0.94	0.033	0.7	0.95	0.033	2.0	0.96	0.036
1.60	0.5	0.97	0.038	0.6	0.96	0.035	0.6	0.96	0.034	1.8	0.95	0.036
1.70	0.5	0.97	0.039	0.6	0.97	0.039	0.6	0.96	0.039	1.7	0.95	0.036
1.80	0.6	0.97	0.047	0.6	0.96	0.045	0.6	0.96	0.043	1.6	0.94	0.037
1.90	0.6	0.95	0.052	0.6	0.95	0.049	0.6	0.95	0.047	1.5	0.94	0.038
2.00	0.5	0.93	0.054	0.5	0.93	0.051	0.6	0.93	0.048	1.4	0.94	0.038
2.20	0.4	0.89	0.050	0.4	0.89	0.048	0.5	0.90	0.046	1.3	0.92	0.037
2.40	0.3	0.87	0.042	0.3	0.87	0.041	0.4	0.88	0.040	1.2	0.92	0.036
2.60	0.3	0.86	0.050	0.3	0.87	0.048	0.3	0.88	0.045	1.1	0.91	0.036
2.80	0.3	0.87	0.054	0.3	0.88	0.052	0.3	0.88	0.049	1.0	0.91	0.038
3.00	0.2	0.88	0.056	0.3	0.89	0.053	0.3	0.89	0.050	1.0	0.91	0.038
3.20	0.2	0.90	0.055	0.2	0.90	0.052	0.3	0.90	0.050	0.9	0.91	0.039
3.40	0.2	0.91	0.052	0.2	0.91	0.050	0.2	0.91	0.048	0.9	0.91	0.038
3.60	0.1	0.93	0.048	0.2	0.92	0.047	0.2	0.92	0.045	0.8	0.92	0.038
3.80	0.1	0.93	0.047	0.2	0.93	0.045	0.2	0.93	0.043	0.8	0.92	0.038
4.00	0.1	0.94	0.050	0.1	0.94	0.049	0.2	0.94	0.047	0.7	0.93	0.040

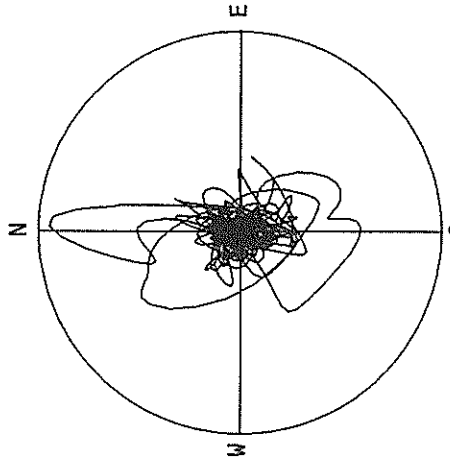
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

S-2130 SHINAGAWA-S



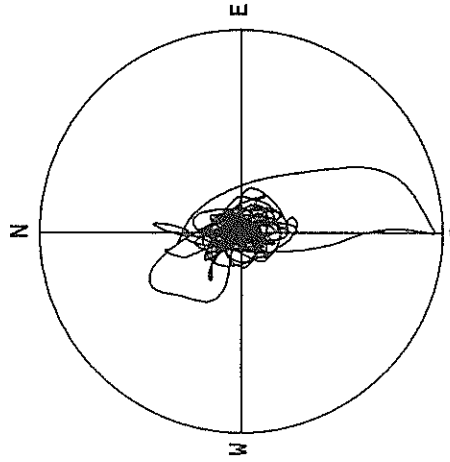
ACCELERATION
R=200.0GAL
MAX=190.7GAL

S-2130 SHINAGAWA-S



VELOCITY
R=7.0 CM/SEC.
MAX=6.6 CM/SEC.

S-2130 SHINAGAWA-S



DISPLACEMENT
R=0.60 CM
MAX=0.57 CM

RECORD NUMBER
STATION

F-123

KAWASAKI-F

EARTHQUAKE DATA

DATA AND TIME
LOCATION OF HYPOCENTER
EPCENTRAL REGION
LATITUDE
LONGITUDE
DEPTH
MAGNITUDE

5:34 MAR.18,1988

TOKYO PREF

35°39.7' N

139°38.8' E

96.1KM

6.0

PEAK VALUES OF COMPONENTS

N S E W U D HORIZONTAL*

PARAMETER OF THE VARIABLE FILTER

FC (HZ)

0.183 0.183 0.366

MAXIMUM ACCELERATION (GAL)

SMAC-B2 EQUIVALENT

143.0 79.0 25.8 143.6

ORIGINAL

164.2 100.1 40.1 165.5

CORRECTED

162.8 99.0 39.2 165.3

MAXIMUM VELOCITY (CM/SEC)

FIXED FILTER

20.46 7.40 3.14 20.94

VARIABLE FILTER

18.86 7.06 3.16 19.17

MAXIMUM DISPLACEMENT (CM)

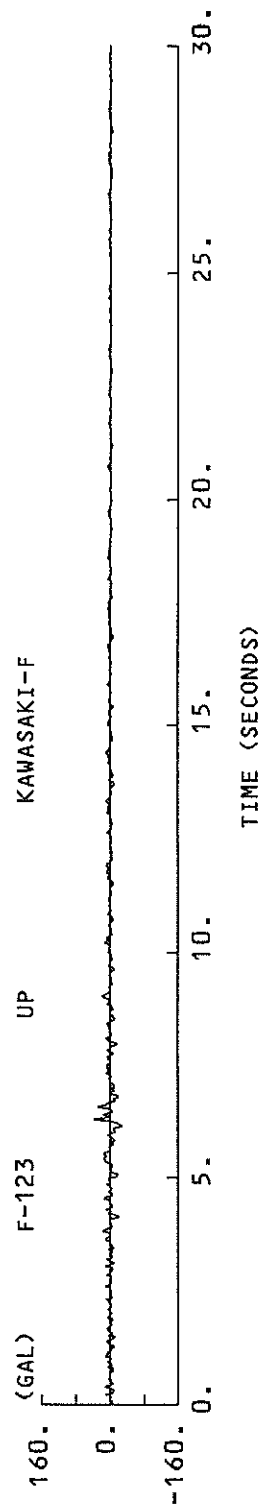
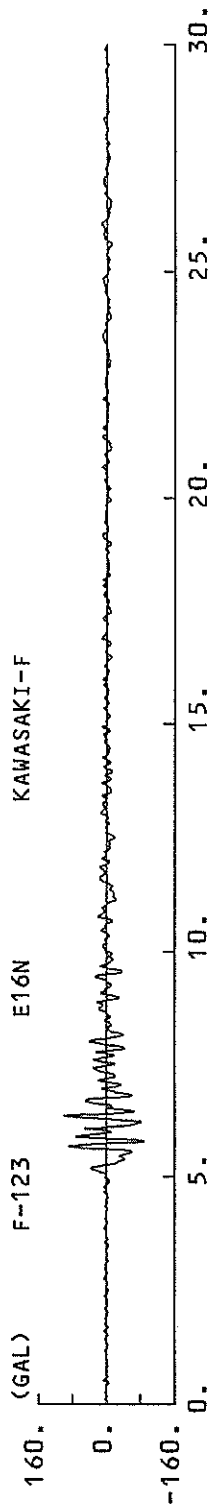
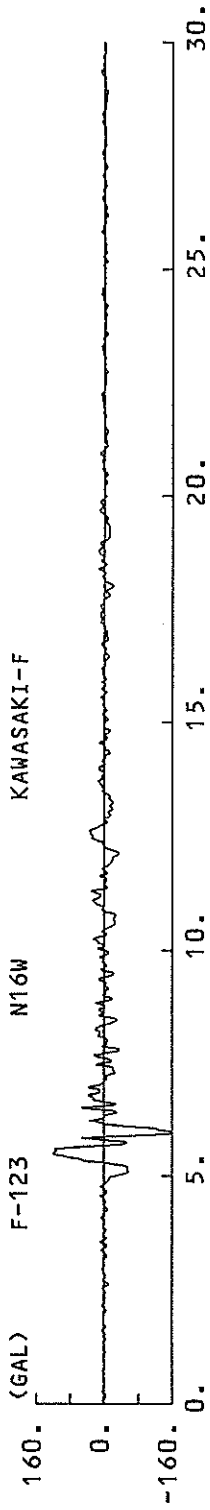
FIXED FILTER

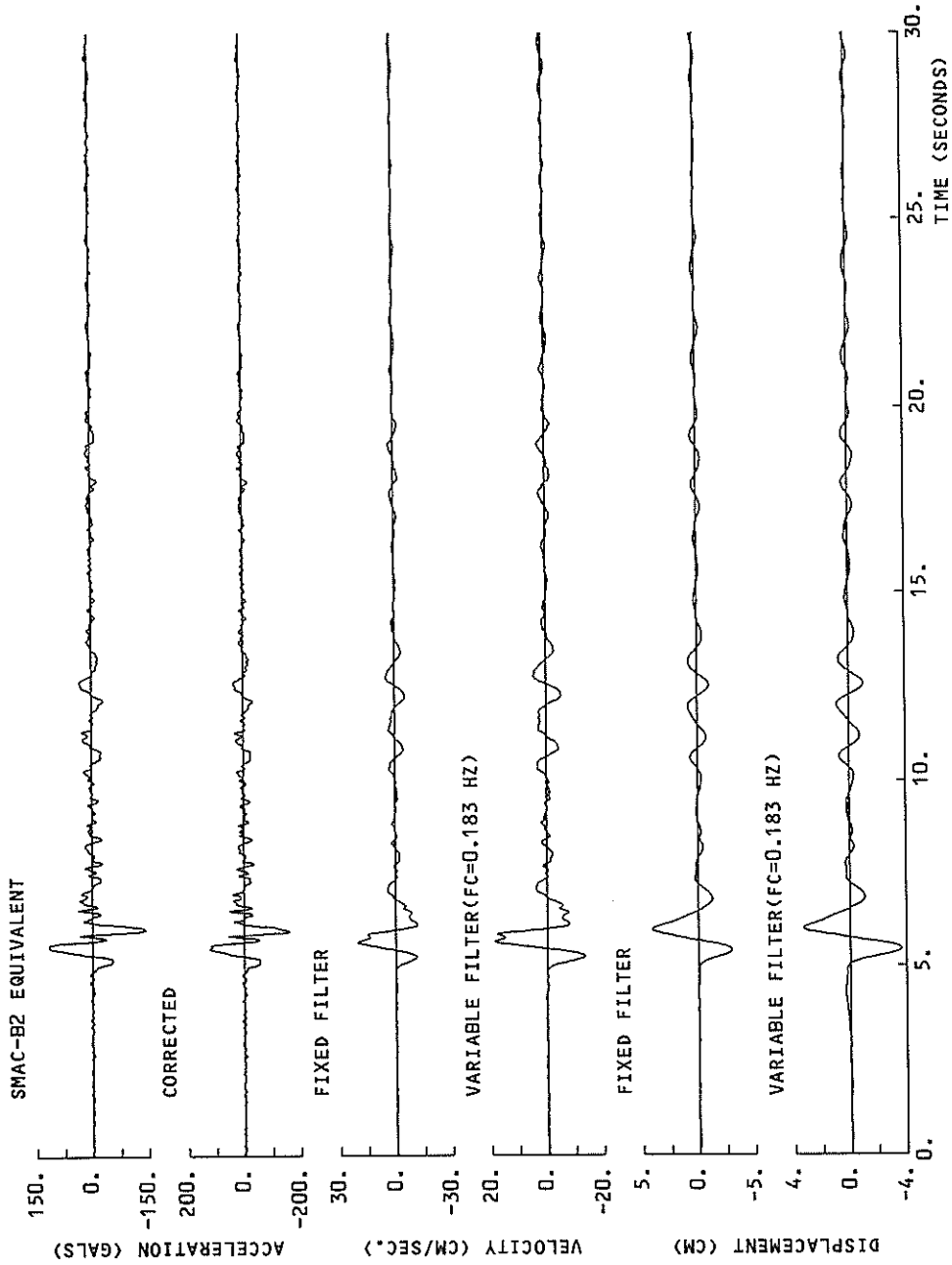
4.114 0.766 0.310 4.151

VARIABLE FILTER

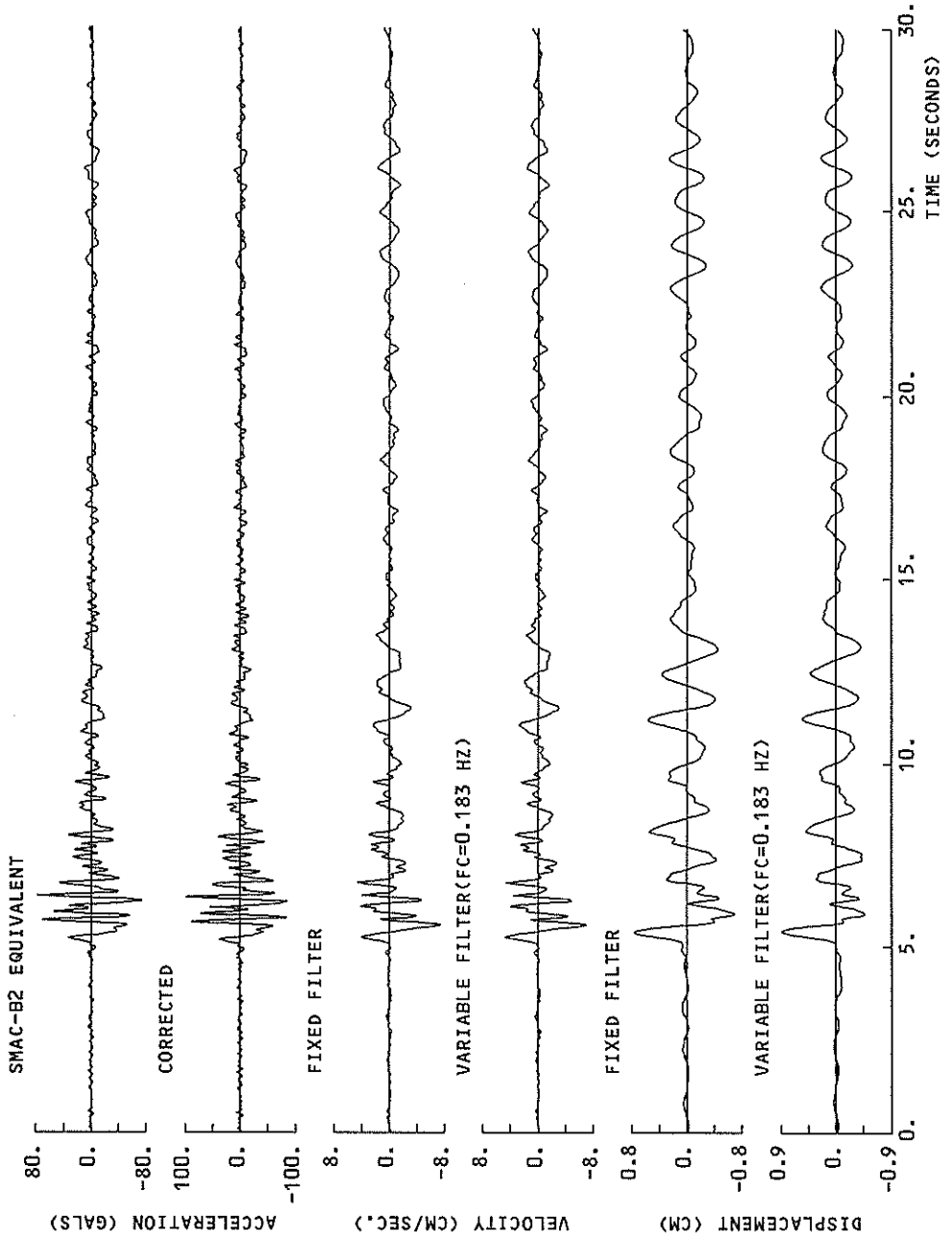
3.678 0.885 0.282 3.774

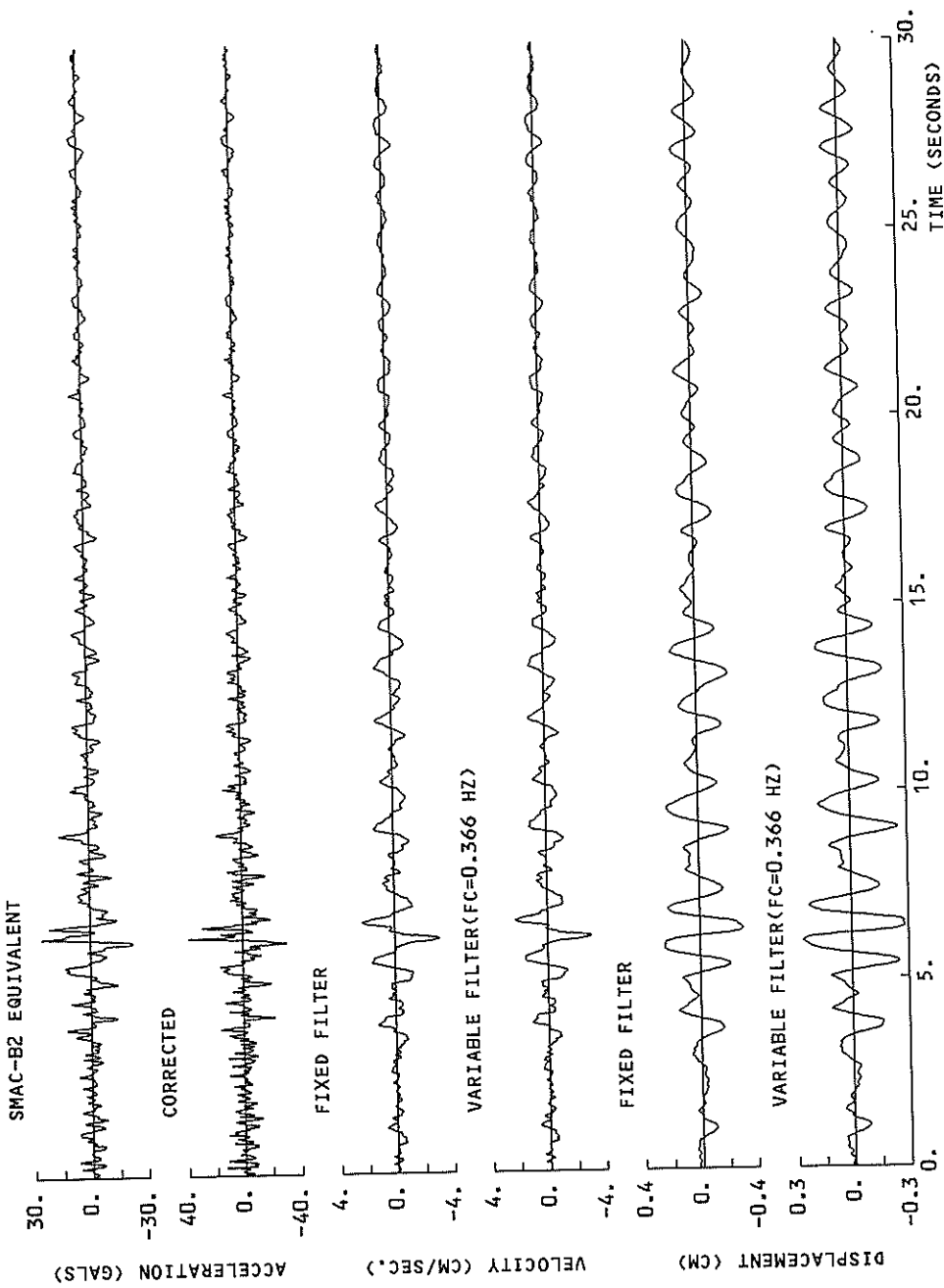
* RESULTANT OF HORIZONTAL COMPONENTS



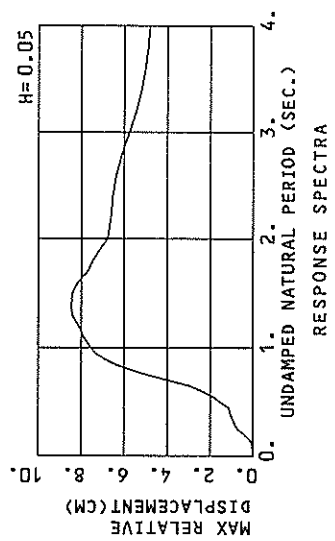
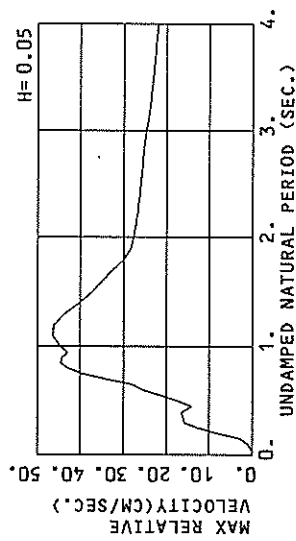
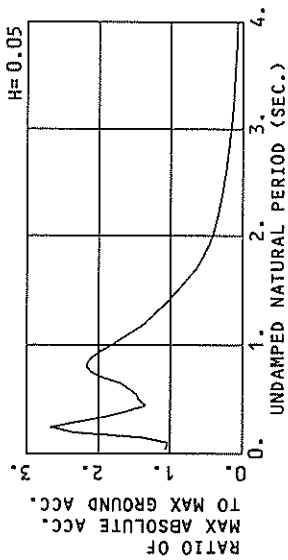


F-123 E16N KAWASAKI-F

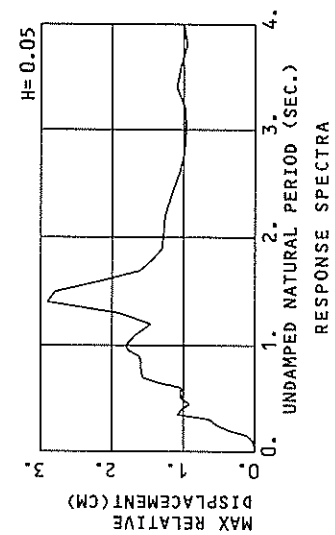
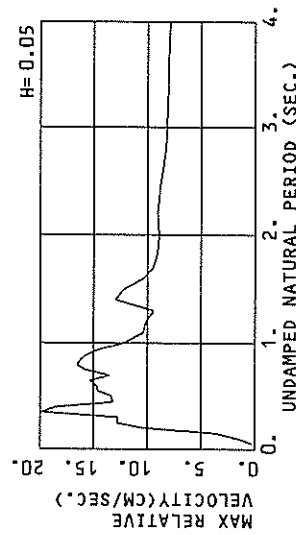
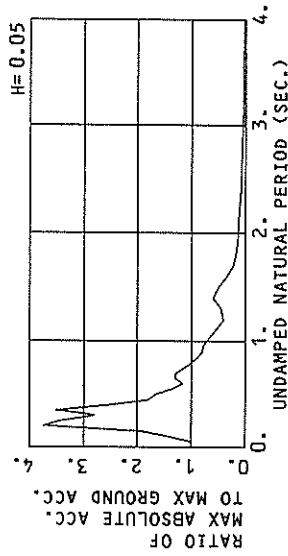




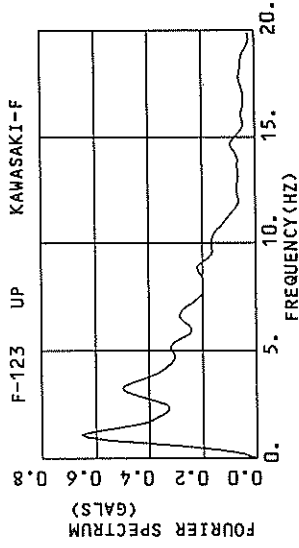
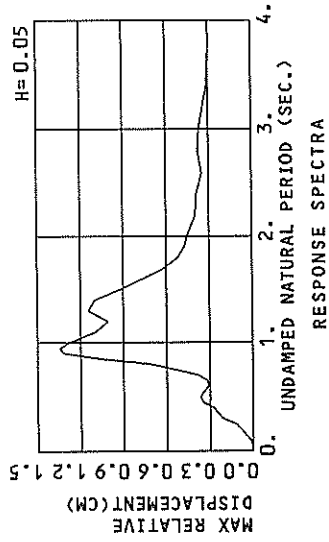
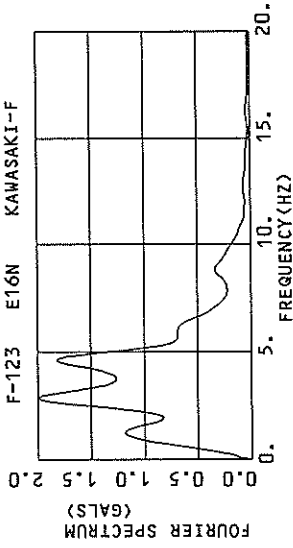
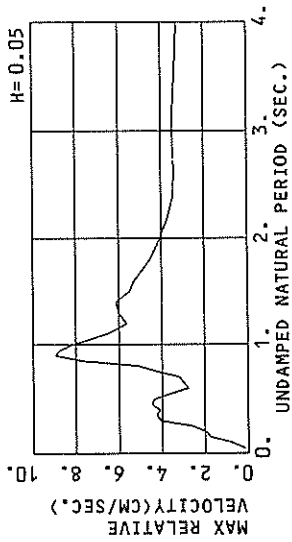
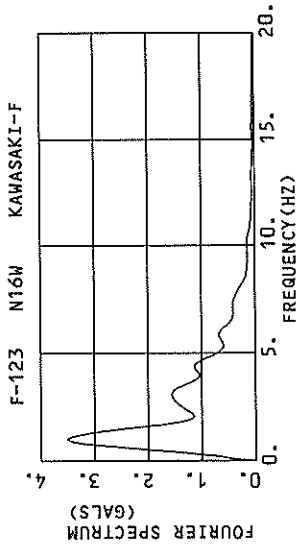
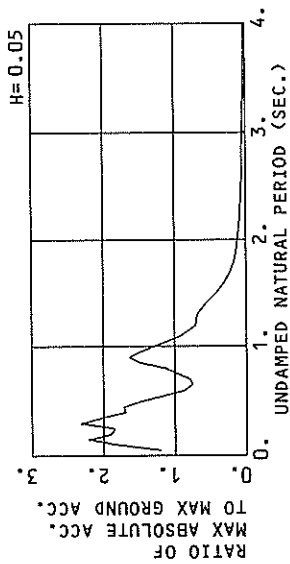
F-123 M16W KAWASAKI-F
(1/FC=5.47 SEC.)



F-123 E16N KAWASAKI-F
(1/FC=5.47 SEC.)



F-123 UP KAWASAKI-F
(1/FC=2.73 SEC.)



RESPONSE SPECTRUM

RECORD = F-123
 DATE AND TIME = 1988- 3-18- 5-34
 TIME LENGTH = 29.99 (SEC)
 COMPONENT = N16W
 SIGNAL = GR. ACC.
 SAMPLING INTERVAL = 0.0100 (SEC)
 SKIPPED LENGTH = 0.00 (SEC)
 CORRECTION = MAX.GROUND ACC. = 162.83 (GAL)
 STATION = KAWASAKI-F

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	178.6	0.35	0.011	173.4	0.25	0.011	170.2	0.22	0.011	168.2	0.20	0.011	168.2	0.20	0.011
0.10	252.0	3.29	0.044	188.5	1.10	0.044	173.0	1.08	0.044	175.9	0.98	0.044	175.9	0.98	0.044
0.15	257.2	5.61	0.147	223.3	2.80	0.128	234.9	2.59	0.133	221.4	2.40	0.122	221.4	2.40	0.122
0.20	433.9	12.14	0.440	382.4	7.75	0.386	340.6	6.75	0.340	262.4	4.61	0.251	262.4	4.61	0.251
0.25	555.9	18.20	0.880	434.4	12.50	0.687	369.1	10.14	0.578	266.8	6.46	0.396	266.8	6.46	0.396
0.30	636.9	30.18	1.452	410.8	17.86	0.933	377.2	15.65	0.857	245.1	7.20	0.522	245.1	7.20	0.522
0.35	517.1	28.43	1.605	338.7	20.01	1.051	305.9	16.16	0.947	217.0	7.85	0.630	217.0	7.85	0.630
0.40	458.8	29.04	1.860	295.1	19.21	1.193	261.1	16.33	1.051	190.0	8.26	0.712	190.0	8.26	0.712
0.45	315.6	21.98	1.619	232.3	16.31	1.191	219.4	14.12	1.123	170.6	9.02	0.835	170.6	9.02	0.835
0.50	270.8	20.34	1.715	246.3	18.51	1.558	233.9	17.14	1.477	179.3	11.23	1.085	179.3	11.23	1.085
0.55	284.5	23.90	2.026	247.7	22.58	1.898	240.1	21.23	1.835	223.6	18.70	1.356	223.6	18.70	1.356
0.60	302.0	30.51	2.754	271.8	27.66	2.478	256.7	25.38	2.334	233.8	21.75	1.643	233.8	21.75	1.643
0.65	466.7	48.15	4.985	304.9	30.54	3.261	274.9	27.94	2.934	239.6	23.68	1.934	239.6	23.68	1.934
0.70	651.5	72.85	8.086	342.1	38.20	4.255	313.5	33.84	3.878	268.3	27.15	2.294	268.3	27.15	2.294
0.75	435.5	52.66	6.205	372.6	44.55	5.305	340.5	39.25	4.829	290.4	31.05	2.713	290.4	31.05	2.713
0.80	561.0	71.18	9.094	388.2	48.84	6.287	353.1	42.78	5.695	299.4	33.50	3.089	299.4	33.50	3.089
0.85	434.1	58.54	7.945	386.2	50.82	7.055	351.2	44.50	6.392	297.3	34.74	3.413	297.3	34.74	3.413
0.90	469.9	67.11	9.642	371.9	50.54	7.616	329.0	44.30	6.915	287.7	34.68	3.663	287.7	34.68	3.663
0.95	430.2	64.77	9.834	350.5	49.21	8.001	320.6	42.97	7.292	273.4	36.95	3.900	273.4	36.95	3.900
1.00	428.2	67.66	10.847	326.7	50.47	8.266	299.7	44.82	7.550	256.7	38.68	3.900	256.7	38.68	3.900
1.10	377.2	66.31	11.561	283.1	49.53	8.666	258.8	46.33	7.893	221.4	40.78	4.260	221.4	40.78	4.260
1.20	572.9	109.19	20.897	257.1	49.12	9.368	222.9	46.08	8.090	189.9	40.93	4.349	189.9	40.93	4.349
1.30	288.3	58.74	12.342	228.5	48.84	9.767	197.4	43.79	8.409	161.8	39.55	4.378	161.8	39.55	4.378
1.40	348.3	77.41	17.292	195.8	43.44	9.709	170.8	40.39	8.475	139.7	37.31	4.396	139.7	37.31	4.396
1.50	332.0	79.33	18.923	170.8	42.49	9.721	148.3	37.41	8.405	122.0	34.99	4.550	122.0	34.99	4.550
1.60	194.4	52.92	12.604	144.6	37.83	9.363	127.0	35.02	8.189	105.9	32.78	4.752	105.9	32.78	4.752
1.70	162.3	41.36	11.879	120.7	35.54	8.824	105.8	32.59	7.702	90.9	30.58	4.948	90.9	30.58	4.948
1.80	133.1	38.38	10.927	99.3	31.95	8.141	91.6	29.85	7.468	80.9	28.36	5.046	80.9	28.36	5.046
1.90	105.2	34.91	9.617	84.6	29.05	7.721	78.6	28.31	7.143	73.4	26.72	5.140	73.4	26.72	5.140
2.00	84.2	30.58	8.527	71.9	28.34	7.268	68.0	27.80	6.784	66.4	26.02	5.209	66.4	26.02	5.209
2.20	59.0	27.33	7.239	55.7	27.08	6.791	55.0	26.80	6.612	54.9	26.11	5.279	54.9	26.11	5.279
2.40	47.5	26.81	6.930	46.3	26.52	6.724	45.8	26.23	6.529	46.2	25.43	5.290	46.2	25.43	5.290
2.60	39.6	26.53	6.788	38.2	26.17	6.574	38.2	25.83	6.381	39.0	25.23	5.256	39.0	25.23	5.256
2.80	32.3	25.04	6.419	31.7	25.62	6.258	31.7	25.31	6.111	33.1	24.77	5.185	33.1	24.77	5.185
3.00	26.1	25.05	5.943	25.9	24.86	5.861	26.2	24.65	5.775	28.1	24.24	5.061	28.1	24.24	5.061
3.20	21.2	24.13	5.509	21.4	24.05	5.489	21.9	23.95	5.458	24.1	23.70	4.995	24.1	23.70	4.995
3.40	17.7	23.33	5.192	18.0	23.34	5.205	18.6	23.30	5.204	21.0	23.20	4.897	21.0	23.20	4.897
3.60	15.2	22.71	4.997	15.5	22.78	5.016	16.1	22.80	5.024	18.5	22.77	4.805	18.5	22.77	4.805
3.80	13.4	22.29	4.891	13.6	22.37	4.899	14.2	22.41	4.902	16.5	22.42	4.719	16.5	22.42	4.719
4.00	11.9	22.01	4.830	12.1	22.08	4.822	12.7	22.12	4.814	14.9	22.15	4.643	14.9	22.15	4.643

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = F-123
 DATE AND TIME = 1988- 3-18- 5-34
 TIME LENGTH = 29.99 (SEC)

COMPONENT = E16N
 SIGNAL = GR. ACC. CORRECTION = MAX. GROUND ACC. = STATION = KAWASAKI-F
 SAMPLING INTERVAL = 0.0100 (SEC)
 SKIPPED LENGTH = 0.00 (SEC)

DAMPING = 0. DAMPING = 0.025 DAMPING = 0.050 DAMPING = 0.100 DAMPING = 0.250

PER	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	112.3	0.35	0.007	101.7	0.28	0.006	100.5	0.26	0.006	101.5	0.24	0.006	102.7	0.21	0.006
0.10	198.7	2.59	0.050	158.6	1.99	0.040	141.0	1.64	0.036	128.2	1.26	0.032	115.3	0.96	0.028
0.15	276.3	6.12	0.157	238.9	4.69	0.136	189.1	3.56	0.106	165.8	2.70	0.094	137.6	2.36	0.075
0.20	614.5	19.12	0.623	464.1	13.57	0.472	370.9	10.51	0.357	266.5	7.35	0.268	169.5	4.54	0.158
0.25	665.1	26.22	1.053	397.3	15.05	0.631	342.7	12.91	0.537	263.0	10.20	0.410	172.8	6.00	0.249
0.30	484.4	23.19	1.104	338.8	15.61	0.773	277.1	12.76	0.626	211.7	10.61	0.473	166.3	6.93	0.338
0.35	853.2	47.93	2.647	454.8	25.32	1.411	347.8	18.91	1.077	248.0	13.43	0.752	157.5	7.82	0.423
0.40	513.6	32.93	2.082	309.1	21.92	1.251	254.2	18.54	1.027	191.1	14.20	0.753	127.1	8.66	0.430
0.45	226.2	17.74	1.160	198.4	15.00	1.017	178.6	13.24	0.912	151.5	10.68	0.755	121.8	8.32	0.484
0.50	202.8	15.95	1.284	181.0	14.51	1.142	163.9	13.39	1.031	138.4	11.60	0.851	100.9	8.36	0.519
0.55	174.6	17.26	1.338	152.7	15.77	1.170	137.1	14.59	1.042	115.2	12.69	0.852	85.7	9.08	0.554
0.60	173.3	19.42	1.581	139.8	16.78	1.273	114.2	14.76	1.036	97.2	12.90	0.867	77.7	9.43	0.645
0.65	166.8	20.41	1.785	144.8	17.62	1.548	127.9	15.45	1.359	104.0	12.53	1.078	76.2	9.43	0.724
0.70	257.2	28.37	3.192	146.2	15.73	1.810	128.0	13.60	1.576	103.0	11.83	1.232	73.1	9.25	0.760
0.75	278.0	32.96	3.951	139.6	17.44	1.988	112.5	15.81	1.588	91.3	13.24	1.247	69.7	9.05	0.844
0.80	185.4	22.76	3.006	131.0	18.16	2.119	98.6	16.54	1.593	74.3	14.04	1.151	65.8	9.00	0.889
0.85	171.9	22.62	3.146	111.6	17.38	2.040	87.9	16.19	1.599	68.2	14.04	1.244	61.9	9.79	0.927
0.90	134.4	19.72	2.757	90.2	16.81	1.847	79.5	15.57	1.621	68.2	13.52	1.365	58.2	9.68	0.957
0.95	116.5	17.14	2.663	85.9	15.53	1.960	77.5	14.34	1.760	65.7	12.58	1.456	54.6	9.39	0.981
1.00	144.8	22.84	3.663	79.4	13.02	2.009	72.0	12.34	1.808	61.3	11.20	1.498	51.1	8.93	0.996
1.10	156.6	27.28	4.800	72.9	12.74	2.232	55.3	10.41	1.676	48.9	9.41	1.430	44.3	7.75	1.003
1.20	99.4	19.38	3.624	46.7	10.63	1.702	40.7	10.13	1.490	36.4	9.38	1.252	38.5	7.72	0.990
1.30	143.1	29.99	6.927	60.1	13.33	2.571	44.7	9.41	1.905	34.8	9.03	1.466	33.7	7.87	0.974
1.40	138.5	31.50	6.878	82.3	17.89	4.083	58.9	12.99	2.905	36.2	8.92	1.749	29.9	7.96	0.959
1.50	118.8	28.50	6.772	67.0	16.35	3.815	49.4	12.22	2.802	33.0	9.06	1.825	26.7	8.07	0.952
1.60	54.2	16.16	3.512	41.2	12.78	2.669	33.6	10.42	2.188	25.4	9.14	1.600	24.1	8.13	0.947
1.70	28.1	9.87	2.058	25.0	9.66	1.822	22.3	9.45	1.609	18.6	9.07	1.298	21.8	8.17	0.903
1.80	20.5	9.18	1.678	19.0	9.19	1.556	17.7	9.14	1.436	15.7	8.93	1.219	19.8	8.18	0.921
1.90	20.7	8.94	1.891	15.9	8.98	1.456	14.3	8.97	1.305	13.8	8.83	1.150	18.1	8.18	0.938
2.00	15.6	9.06	1.585	13.9	9.02	1.403	13.0	8.96	1.289	12.8	8.79	1.164	16.7	8.18	0.951
2.20	21.9	9.37	2.689	12.3	9.18	1.507	10.7	9.02	1.266	10.8	8.77	1.164	14.3	8.16	0.960
2.40	8.7	9.10	1.274	8.3	8.97	1.200	8.4	8.85	1.168	8.9	8.65	1.106	12.4	8.13	0.951
2.60	6.6	8.60	1.129	6.2	8.58	1.053	6.5	8.55	1.033	7.3	8.45	1.034	10.9	8.07	0.932
2.80	6.0	8.26	1.190	5.2	8.30	1.025	5.4	8.30	0.988	6.2	8.28	0.981	9.8	8.01	0.908
3.00	5.9	8.15	1.337	4.6	8.14	1.038	4.6	8.18	0.968	5.3	8.16	0.951	8.8	7.96	0.886
3.20	5.0	8.15	1.285	4.2	8.17	1.084	4.0	8.13	0.979	4.7	8.09	0.927	8.1	7.91	0.863
3.40	4.8	8.16	1.415	4.2	8.13	1.230	3.9	8.10	1.093	4.2	8.04	0.913	7.4	7.86	0.838
3.60	3.9	8.13	1.284	3.5	8.09	1.145	3.3	8.05	1.041	3.7	7.99	0.895	6.9	7.82	0.811
3.80	3.0	8.06	1.101	2.8	8.02	1.017	2.8	7.98	0.952	3.2	7.92	0.912	6.4	7.77	0.823
4.00	2.6	7.94	1.058	2.6	7.91	1.023	2.7	7.89	0.992	3.0	7.85	0.942	5.9	7.72	0.838

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

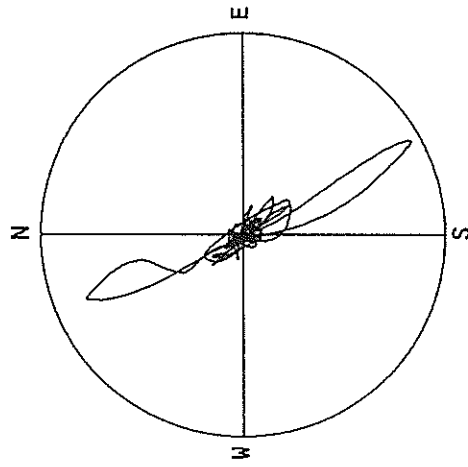
RESPONSE SPECTRUM

RECORD = F-123
 DATE AND TIME = 1988- 3-18- 5-34
 TIME LENGTH = 29.99 (SEC)
 COMPONENT = UP
 SIGNAL = GR. ACC.
 SAMPRING INTERVAL = 0.0100(SEC)
 SKIPPED LENGTH = 0.00 (SEC)
 CORRECTION =
 MAX.GROUND ACC. = 39.24 (GAL)
 STATION = KAWASAKI-F

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	90.7	0.51	0.006	51.8	0.20	0.003	47.1	0.16	0.003	47.1	0.12	0.003	45.9	0.09	0.003
0.10	171.7	2.59	0.043	101.2	0.98	0.058	72.1	0.83	0.048	64.3	0.65	0.016	53.7	0.40	0.013
0.15	204.6	4.78	0.117	80.4	2.11	0.158	87.0	1.73	0.049	66.8	1.19	0.038	52.7	0.40	0.028
0.20	196.7	6.13	0.199	80.5	2.39	0.082	74.5	1.93	0.075	68.9	1.64	0.069	56.8	1.11	0.053
0.25	225.0	8.81	0.356	80.5	2.95	0.127	72.5	2.54	0.114	63.1	1.98	0.098	54.1	1.55	0.077
0.30	272.4	12.88	0.621	109.2	4.96	0.249	91.1	4.04	0.206	65.2	2.95	0.146	50.6	2.03	0.102
0.35	184.5	10.19	0.572	102.0	5.50	0.315	78.9	4.25	0.244	63.6	3.28	0.194	45.3	2.43	0.127
0.40	129.0	8.19	0.523	71.3	4.55	0.289	68.6	4.10	0.269	58.5	3.54	0.233	41.0	2.65	0.153
0.45	82.6	5.79	0.424	75.3	4.94	0.366	67.3	4.47	0.344	55.3	3.79	0.278	37.5	2.68	0.173
0.50	65.5	4.77	0.415	65.9	4.94	0.416	58.0	4.39	0.366	45.8	3.45	0.283	32.7	2.55	0.182
0.55	98.6	8.07	0.756	60.2	4.77	0.460	44.5	3.55	0.340	31.3	2.63	0.235	27.9	2.32	0.185
0.60	96.1	9.11	0.876	36.9	3.47	0.336	33.8	2.78	0.306	28.3	2.35	0.254	24.7	2.20	0.194
0.65	73.4	7.41	0.786	38.2	3.80	0.408	29.7	2.99	0.316	26.6	2.46	0.281	23.3	2.24	0.212
0.70	68.4	7.42	0.849	40.6	4.42	0.508	31.1	3.17	0.383	26.9	2.69	0.327	22.4	2.41	0.241
0.75	52.7	5.75	0.750	44.0	4.80	0.626	37.7	4.18	0.535	29.8	3.40	0.418	22.7	2.75	0.285
0.80	108.2	13.74	1.754	49.7	5.59	0.805	44.6	5.06	0.720	36.2	4.48	0.576	23.0	3.09	0.350
0.85	147.5	19.97	2.700	72.4	9.44	1.353	58.2	7.72	1.061	41.9	5.78	0.756	24.8	3.34	0.417
0.90	170.2	24.48	3.491	82.8	11.92	1.696	64.2	8.92	1.312	44.7	6.36	0.900	25.6	3.47	0.477
0.95	136.6	20.60	3.123	74.2	11.01	1.694	59.2	8.78	1.345	42.7	6.24	0.957	25.6	3.55	0.523
1.00	79.3	13.08	2.008	62.4	10.35	1.578	50.9	8.20	1.282	38.6	6.06	0.956	25.0	3.52	0.554
1.10	103.7	18.04	3.179	41.4	7.38	1.267	36.0	6.61	1.095	29.5	5.44	0.882	22.5	3.27	0.581
1.20	49.8	9.59	1.816	36.1	6.97	1.315	27.8	5.64	1.008	23.7	5.03	0.834	19.5	3.51	0.585
1.30	54.1	15.94	3.172	39.7	8.31	1.509	26.8	6.04	1.143	20.6	5.04	0.847	17.4	3.66	0.569
1.40	77.2	12.76	2.842	29.2	6.90	1.448	22.3	5.14	1.099	16.9	5.13	0.800	15.8	3.68	0.563
1.50	29.7	7.23	1.694	18.3	5.92	1.088	16.4	5.48	0.924	14.1	4.80	0.768	14.1	3.56	0.552
1.60	17.4	6.20	1.131	12.0	5.66	0.826	12.0	5.28	0.770	11.0	4.67	0.686	12.5	3.56	0.527
1.70	10.6	5.21	0.773	8.8	5.07	0.642	8.5	4.90	0.620	8.5	4.52	0.620	11.0	3.62	0.498
1.80	7.4	4.67	0.610	6.6	4.63	0.543	6.4	4.55	0.521	6.7	4.33	0.514	9.7	3.63	0.468
1.90	7.2	4.41	0.654	5.4	4.35	0.496	5.2	4.29	0.473	5.3	4.37	0.454	8.6	3.60	0.441
2.00	5.5	4.18	0.560	4.7	4.13	0.477	4.5	4.08	0.452	4.3	3.97	0.410	7.7	3.56	0.417
2.20	3.6	3.65	0.442	3.4	3.68	0.416	3.3	3.69	0.393	3.2	3.68	0.362	6.4	3.47	0.382
2.40	3.0	3.32	0.434	2.8	3.39	0.407	2.7	3.44	0.385	2.8	3.49	0.362	5.6	3.39	0.362
2.60	2.1	3.32	0.366	2.1	3.36	0.387	2.1	3.38	0.345	2.0	3.41	0.345	4.9	3.35	0.353
2.80	2.0	3.45	0.407	2.0	3.43	0.378	2.0	3.42	0.372	2.4	3.40	0.356	4.5	3.31	0.347
3.00	1.7	3.53	0.396	1.7	3.48	0.378	1.7	3.45	0.366	2.1	3.40	0.352	4.1	3.30	0.341
3.20	1.4	3.51	0.353	1.3	3.47	0.344	1.4	3.44	0.339	1.9	3.39	0.336	3.7	3.28	0.335
3.40	1.2	3.44	0.339	1.1	3.41	0.322	1.1	3.39	0.309	1.6	3.35	0.318	3.4	3.26	0.328
3.60	1.0	3.34	0.336	1.0	3.34	0.320	1.0	3.33	0.308	1.5	3.31	0.304	3.2	3.25	0.323
3.80	0.9	3.27	0.314	0.8	3.27	0.304	0.9	3.28	0.295	1.4	3.28	0.299	3.0	3.23	0.319
4.00	0.8	3.22	0.330	0.8	3.23	0.311	0.8	3.24	0.298	1.3	3.25	0.300	2.8	3.22	0.317

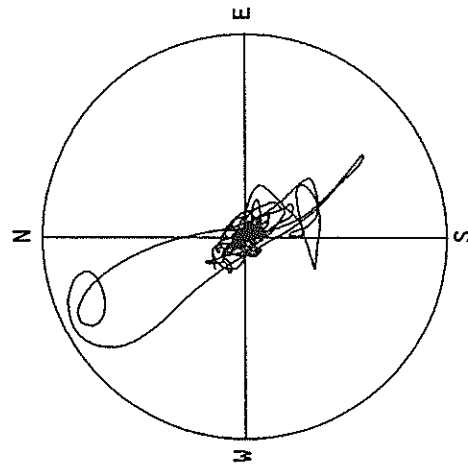
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

F-123 KAWASAKI-F



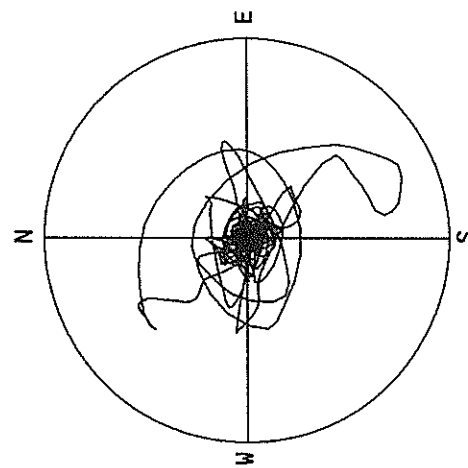
DISPLACEMENT
R=4.00 CM
MAX=3.77 CM

F-123 KAWASAKI-F



VELOCITY
R=20.0 CM/SEC.
MAX=19.2 CM/SEC.

F-123 KAWASAKI-F



ACCELERATION
R=200.0 GAL
MAX=165.3 GAL

RECORD NUMBER M-1195
 STATION YAMASHITA-HEN-M

EARTHQUAKE DATA

 DATA AND TIME 5:34 MAR.18,1988
 LOCATION OF HYPOCENTER
 EPICENTRAL REGION TOKYO PREF
 LATITUDE 35°39.7' N
 LONGITUDE 139°38.8' E
 DEPTH 96.1KM
 MAGNITUDE 6.0

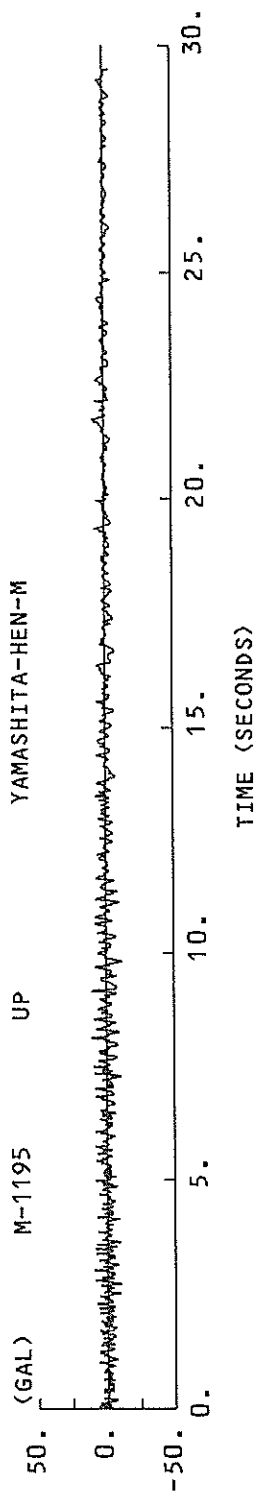
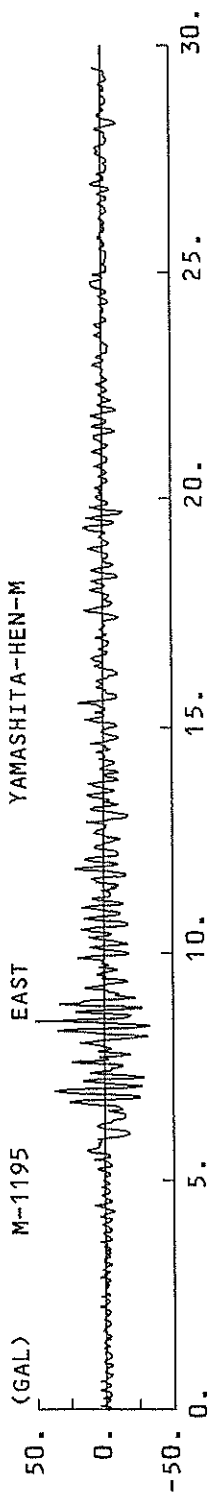
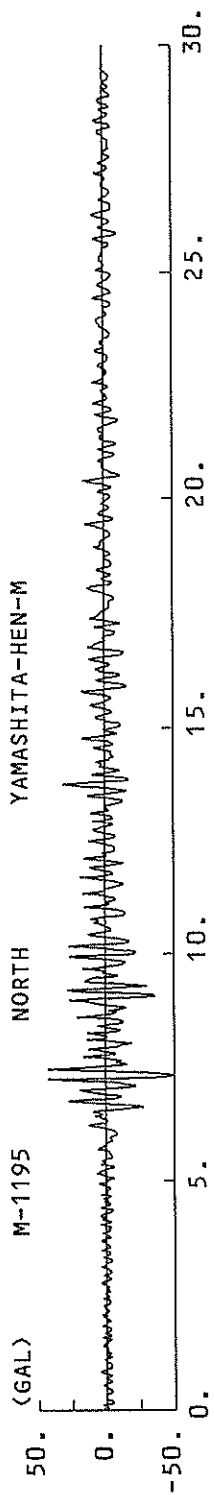
PEAK VALUES OF COMPONENTS

 N S E W U D HORIZONTAL*

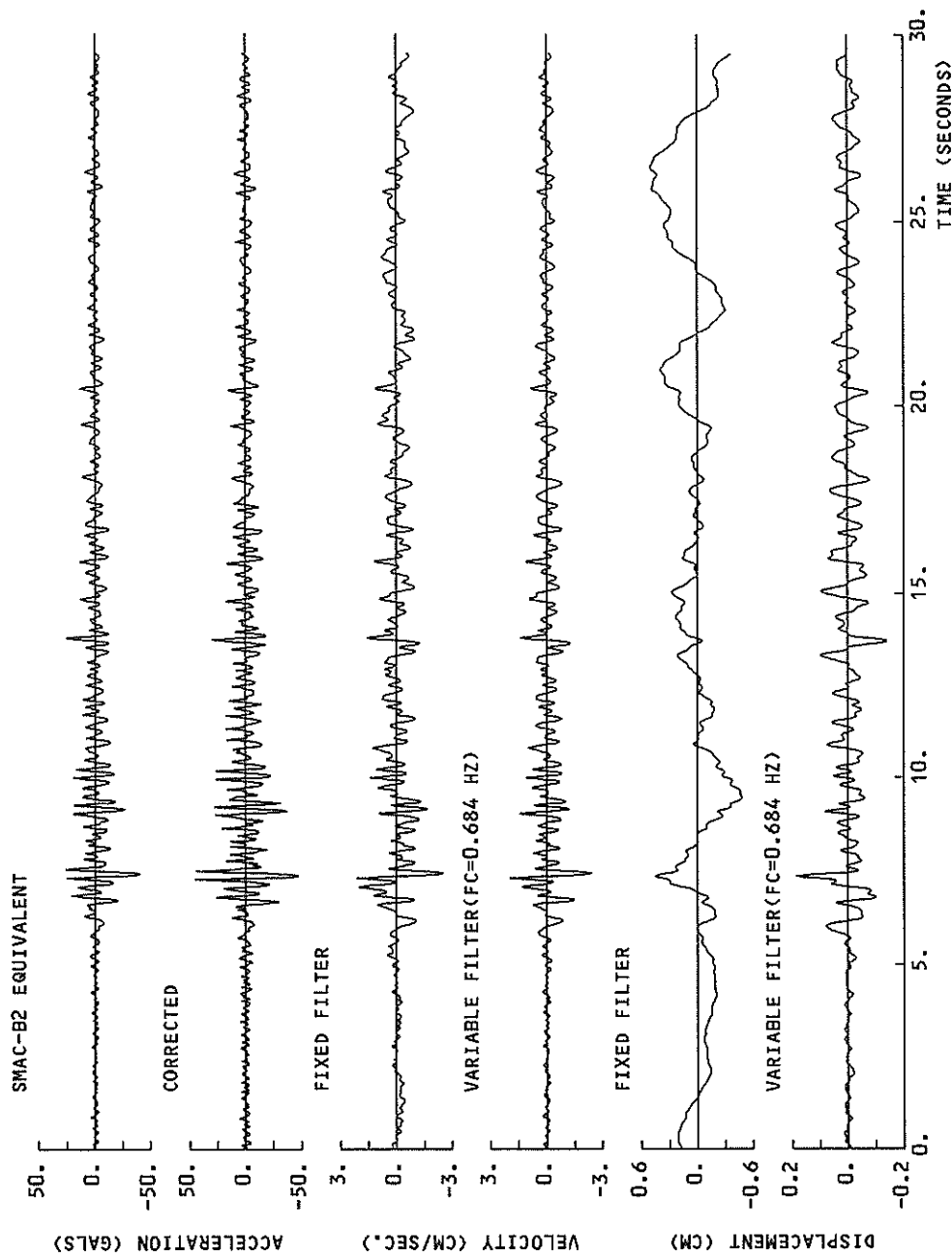
PARAMETER OF THE VARIABLE FILTER

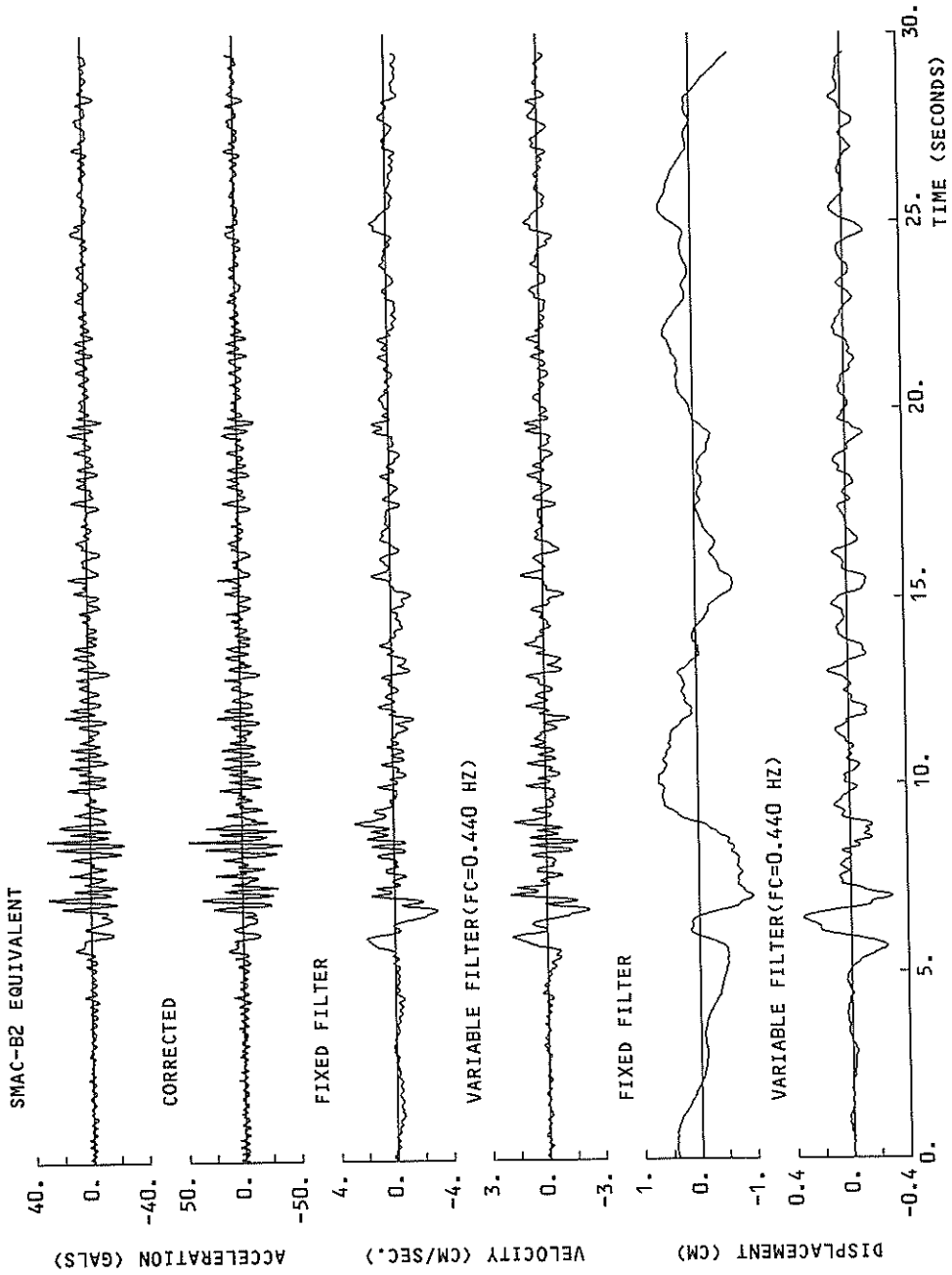
	N S	E W	U D	HORIZONTAL*
FC (HZ)	0.684	0.440	0.610	
MAXIMUM ACCELERATION (GAL)				
SMAC-B2 EQUIVALENT ORIGINAL	40.2	30.3	8.0	40.2
CORRECTED	50.1	50.8	12.6	52.4
MAXIMUM VELOCITY (CM/SEC)	48.2	47.8	13.1	49.4
FIXED FILTER	2.56	3.08	0.88	3.12
VARIABLE FILTER	2.44	2.30	0.62	2.56
MAXIMUM DISPLACEMENT (CM)				
FIXED FILTER	0.502	0.961	0.669	0.962
VARIABLE FILTER	0.187	0.341	0.077	0.344

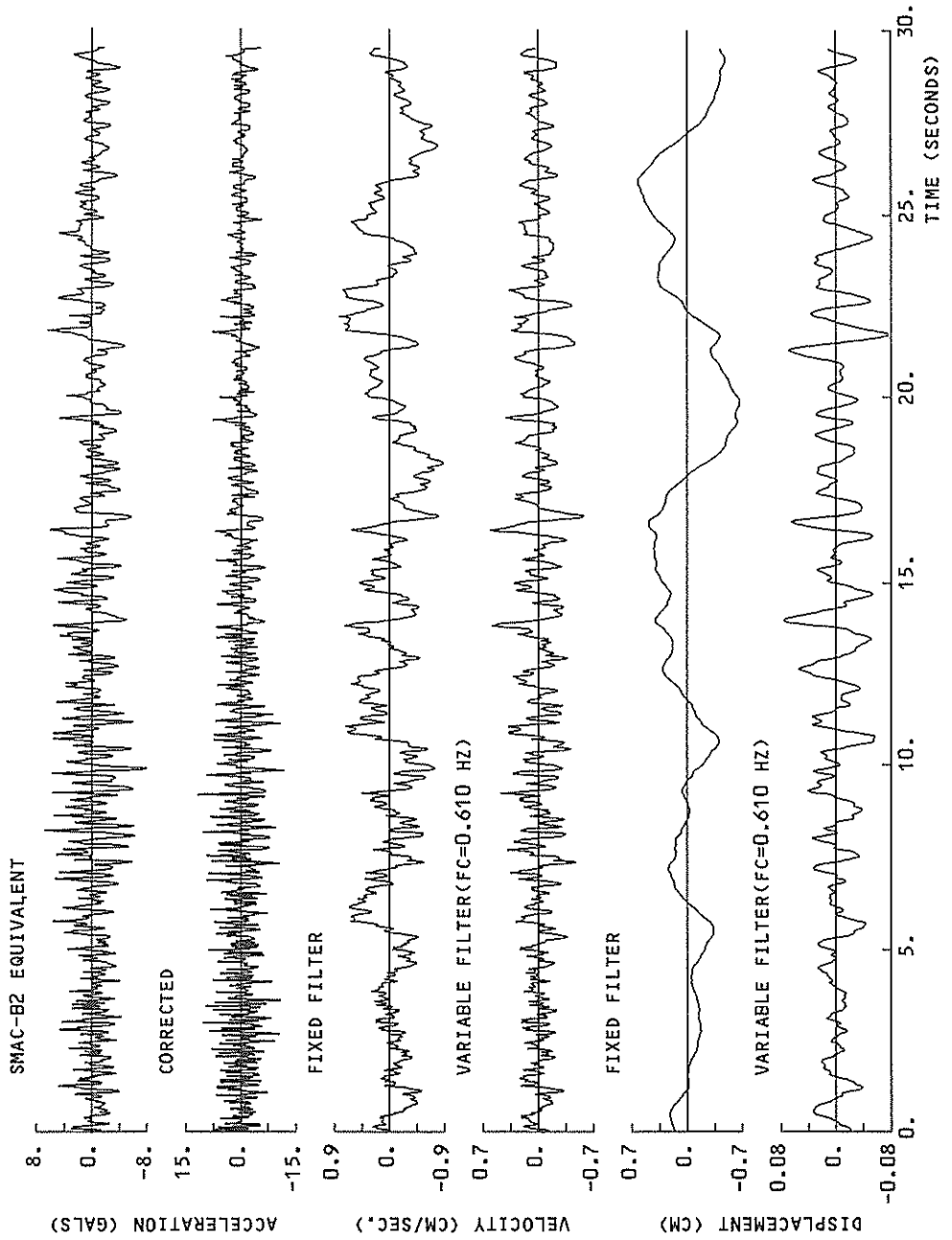
* RESULTANT OF HORIZONTAL COMPONENTS



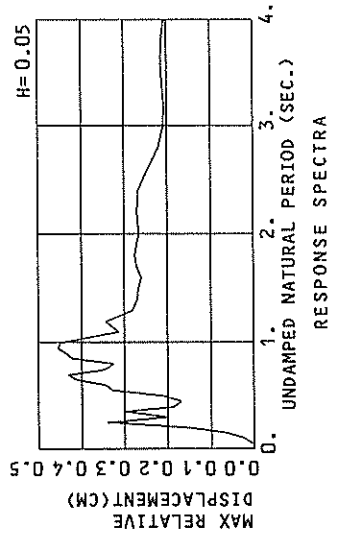
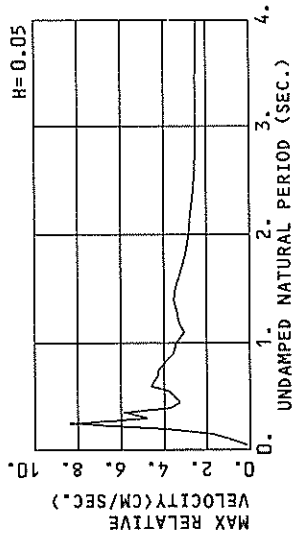
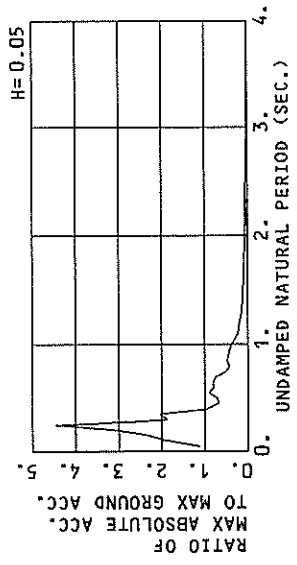
M-1195 NORTH YAMASHITA-HEN-M



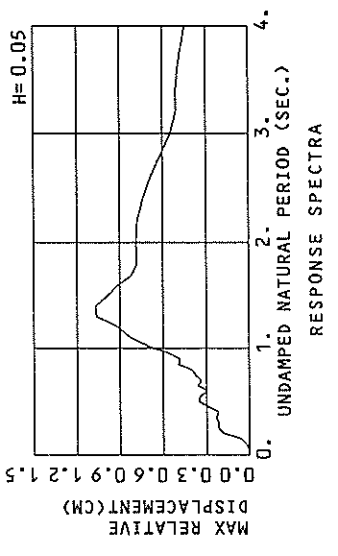
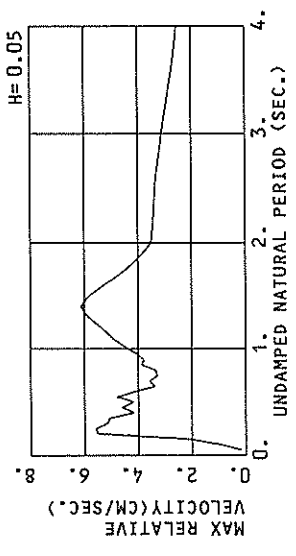
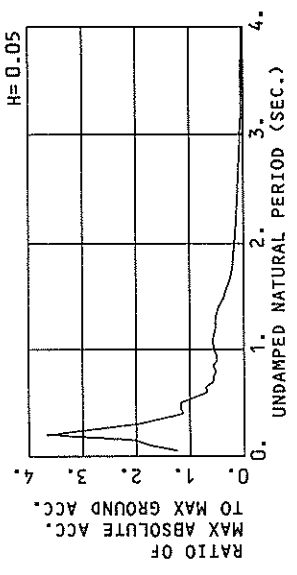




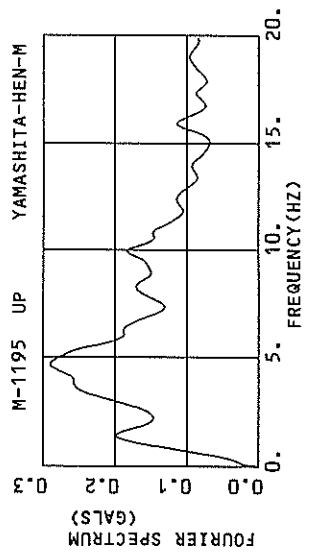
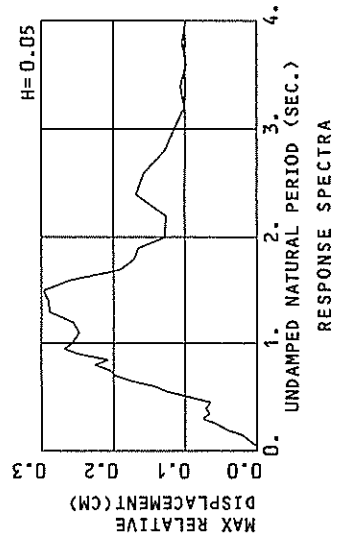
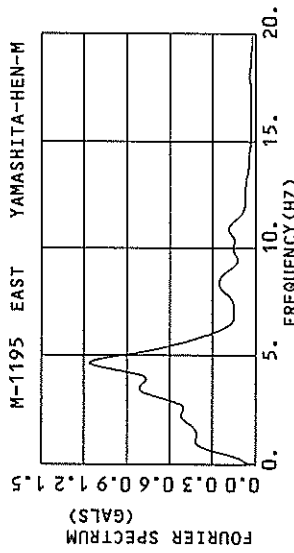
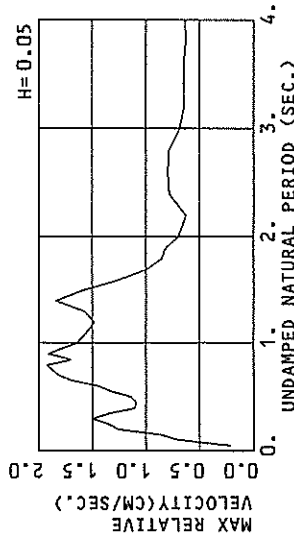
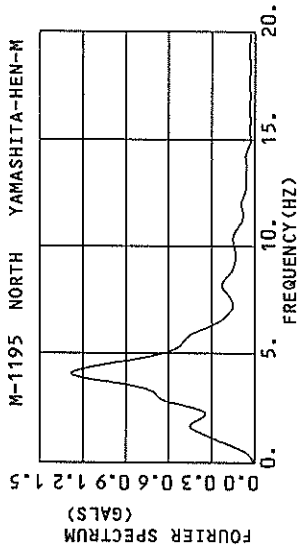
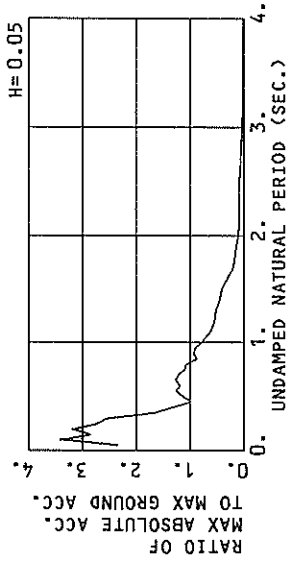
M-1195 NORTH YAMASHITA-HEN-M
(1/FC=1.46 SEC.)



M-1195 EAST YAMASHITA-HEN-M
(1/FC=2.28 SEC.)



M-1195 UP YAMASHITA-HEN-M
(1/FC=1.64 SEC.)



RESPONSE SPECTRUM

RECORD = M-1195 COMPONENT = NORTH SIGNAL = GR. ACC. CORRECTION = STATION = YAMASHITA-HEN-M
 DATE AND TIME = 1988-3-18-5-34 SAMPRING INTERVAL = 0.0100(SEC) MAX.GROUND ACC. = 48.19 (GAL)
 TIME LENGTH = 29.49 (SEC) SKIPPED LENGTH = 0.00 (SEC)

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	101.5	0.71	0.006	53.3	0.21	0.003	53.6	0.17	0.003	53.4	0.13	0.003	52.2	0.12	0.003
0.10	184.7	2.71	0.047	104.0	1.14	0.026	92.6	0.95	0.023	85.3	0.85	0.021	71.9	0.64	0.017
0.15	208.3	4.38	0.119	111.1	1.85	0.063	112.4	1.76	0.063	107.1	1.64	0.060	87.3	1.34	0.047
0.20	204.8	6.38	0.202	152.6	4.49	0.155	147.1	4.05	0.147	130.9	3.41	0.131	93.8	2.29	0.088
0.25	340.4	10.69	0.359	268.9	10.69	0.292	215.1	8.38	0.340	153.3	6.00	0.238	87.0	3.28	0.124
0.30	340.6	16.37	0.777	288.9	16.15	0.625	90.3	4.78	0.304	86.4	4.22	0.207	66.7	3.23	0.134
0.35	415.9	23.21	1.291	328.9	23.21	1.037	98.2	5.87	0.304	86.4	4.22	0.207	53.2	3.05	0.141
0.40	60.5	4.03	0.245	141.2	8.13	0.437	98.2	5.87	0.304	86.4	4.22	0.207	42.3	2.75	0.140
0.45	150.7	10.90	0.773	46.3	3.68	0.237	32.8	3.68	0.186	44.5	3.36	0.174	35.3	2.48	0.136
0.50	85.0	6.97	0.538	44.8	4.02	0.283	33.5	3.49	0.210	27.3	2.80	0.159	28.0	2.40	0.138
0.55	114.3	10.15	0.875	60.3	5.04	0.461	43.1	3.76	0.328	28.0	2.88	0.209	26.4	2.46	0.158
0.60	135.6	12.85	1.237	48.4	5.35	0.442	37.8	4.61	0.343	28.7	3.65	0.251	26.4	2.53	0.188
0.65	96.0	9.92	1.028	43.3	4.94	0.452	38.8	4.43	0.411	31.9	3.60	0.327	25.9	2.46	0.213
0.70	102.7	11.55	1.274	41.4	5.01	0.513	35.7	4.29	0.432	29.0	3.52	0.343	24.4	2.68	0.227
0.75	40.0	4.76	0.570	24.7	4.45	0.351	24.7	4.04	0.326	23.3	3.74	0.314	22.2	2.86	0.229
0.80	30.0	4.63	0.486	23.2	4.26	0.315	20.3	4.04	0.326	18.5	3.60	0.281	19.6	2.96	0.225
0.85	77.5	10.79	1.418	34.0	4.95	0.622	23.1	3.82	0.420	15.4	3.57	0.270	17.8	3.00	0.218
0.90	37.0	5.42	0.759	27.2	4.02	0.557	21.4	3.56	0.436	14.5	3.42	0.290	16.0	3.01	0.212
0.95	47.6	7.41	1.089	25.7	4.44	0.587	20.0	3.48	0.455	13.4	3.28	0.298	15.0	3.00	0.206
1.00	39.8	6.38	1.007	24.1	4.16	0.509	17.9	3.44	0.449	12.2	3.17	0.295	13.3	2.98	0.202
1.10	16.8	2.97	0.516	11.6	2.96	0.354	10.3	3.03	0.313	8.7	3.10	0.254	11.4	2.97	0.197
1.20	17.3	3.54	0.630	12.0	3.36	0.435	9.6	3.29	0.342	7.6	3.20	0.258	10.0	3.00	0.192
1.30	13.9	3.42	0.595	8.4	3.42	0.356	6.7	3.39	0.282	6.1	3.29	0.224	8.8	3.03	0.183
1.40	13.0	3.80	0.644	7.1	3.63	0.350	5.5	3.51	0.270	4.9	3.31	0.219	7.8	3.04	0.169
1.50	8.7	3.67	0.498	5.9	3.56	0.332	4.8	3.46	0.268	4.3	3.32	0.222	6.8	3.01	0.180
1.60	5.0	3.35	0.324	4.4	3.33	0.280	4.2	3.30	0.261	4.2	3.22	0.231	6.0	2.98	0.191
1.70	4.5	3.16	0.329	4.0	3.16	0.288	3.9	3.15	0.272	4.0	3.11	0.244	5.4	2.93	0.200
1.80	4.1	2.99	0.340	3.6	3.00	0.289	3.6	3.01	0.275	3.8	3.01	0.251	4.8	2.89	0.206
1.90	3.4	2.94	0.314	3.1	2.88	0.281	3.2	2.83	0.271	3.5	2.83	0.253	4.4	2.85	0.211
2.00	2.8	2.78	0.281	2.7	2.81	0.272	2.6	2.83	0.267	3.2	2.86	0.253	4.2	2.85	0.211
2.20	2.3	2.73	0.287	2.3	2.60	0.278	2.4	2.74	0.270	2.7	2.75	0.254	3.8	2.78	0.216
2.40	2.0	2.57	0.294	2.0	2.49	0.249	2.1	2.62	0.268	2.4	2.66	0.251	3.4	2.66	0.215
2.60	1.5	2.43	0.253	1.5	2.47	0.216	1.3	2.50	0.220	2.0	2.58	0.237	3.1	2.63	0.211
2.80	1.1	2.48	0.195	1.1	2.49	0.202	1.1	2.50	0.207	1.5	2.53	0.221	2.8	2.60	0.208
3.00	0.9	2.48	0.205	0.9	2.51	0.205	1.0	2.50	0.207	1.4	2.53	0.209	2.4	2.58	0.206
3.20	0.8	2.50	0.213	0.8	2.50	0.213	0.9	2.51	0.211	1.2	2.53	0.209	2.2	2.57	0.204
3.40	0.7	2.50	0.215	0.7	2.49	0.216	0.8	2.49	0.213	1.1	2.51	0.209	2.1	2.55	0.202
3.60	0.6	2.48	0.221	0.6	2.47	0.214	0.6	2.48	0.211	1.1	2.51	0.209	2.1	2.54	0.201
3.80	0.6	2.45	0.218	0.6	2.47	0.214	0.6	2.48	0.211	1.1	2.50	0.207	1.9	2.54	0.201
4.00	0.5	2.44	0.210	0.6	2.45	0.208	0.7	2.47	0.207	1.0	2.49	0.204	1.8	2.53	0.199

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = M-1195 COMPONENT = EAST SIGNAL = GR. ACC. CORRECTION = STATION = YAMASHITA-HEN-M
 DATE AND TIME = 1988-3-18-5-34 SAMPRING INTERVAL = 0.0100(SEC) MAX. GROUND ACC. = 47.82 (GAL)
 TIME LENGTH = 29.49 (SEC) SKIPPED LENGTH = 0.00 (SEC)

PER	DAMPING = 0.025				DAMPING = 0.050				DAMPING = 0.100				DAMPING = 0.250			
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	
0.05	91.1	0.67	0.006	62.4	0.20	0.004	59.5	0.17	0.004	57.4	0.15	0.004	55.0	0.13	0.003	
0.10	367.3	5.77	0.093	109.9	1.33	0.028	83.5	0.95	0.021	64.7	0.71	0.016	62.0	0.51	0.015	
0.20	155.6	3.59	0.089	98.2	2.10	0.056	96.4	2.03	0.055	89.7	1.77	0.051	75.0	1.23	0.040	
0.25	345.2	10.78	0.350	205.8	6.13	0.207	175.8	5.49	0.178	123.7	3.82	0.126	84.3	2.76	0.077	
0.30	333.7	13.28	0.528	167.3	7.06	0.263	137.6	5.59	0.216	107.5	4.48	0.186	89.3	2.76	0.100	
0.35	393.0	18.81	0.896	126.3	6.47	0.288	94.5	5.13	0.215	75.0	3.93	0.167	57.6	2.47	0.116	
0.40	141.9	8.94	0.440	98.1	6.43	0.303	75.1	5.08	0.232	57.7	3.79	0.174	45.3	2.34	0.121	
0.45	152.2	9.73	0.617	61.8	4.58	0.250	53.7	4.16	0.216	42.3	3.37	0.167	33.4	2.24	0.111	
0.50	144.1	10.47	0.739	78.5	5.80	0.403	56.1	4.62	0.286	45.4	3.59	0.228	32.1	2.18	0.141	
	74.7	5.69	0.473	63.5	4.68	0.401	56.1	4.19	0.352	44.7	3.40	0.275	29.9	2.18	0.157	
0.55	87.5	7.76	0.670	52.8	5.50	0.404	44.8	4.80	0.340	35.1	3.81	0.259	25.4	2.42	0.154	
0.60	162.9	15.44	1.485	40.1	4.50	0.365	32.2	4.11	0.292	25.6	3.49	0.227	20.3	2.44	0.152	
0.65	67.7	7.75	0.725	42.8	4.50	0.457	33.6	3.39	0.357	25.8	2.75	0.267	20.6	2.35	0.183	
0.70	95.5	10.53	1.183	37.6	3.83	0.466	27.1	3.57	0.334	22.2	2.80	0.265	20.5	2.24	0.208	
0.75	71.5	8.60	1.018	32.3	3.83	0.460	26.4	3.30	0.374	19.0	2.75	0.263	19.9	2.18	0.228	
0.80	66.4	8.08	1.028	32.8	4.06	0.530	24.5	3.33	0.395	17.1	2.69	0.274	19.3	2.20	0.251	
0.85	63.3	8.88	1.213	38.4	5.36	0.702	27.0	3.87	0.491	17.6	2.75	0.319	19.0	2.30	0.278	
0.90	38.1	6.00	0.782	26.8	4.36	0.550	23.5	3.79	0.479	19.1	3.06	0.385	19.0	2.44	0.307	
0.95	115.4	17.44	2.637	36.4	5.38	0.830	33.4	4.04	0.551	20.7	3.43	0.462	18.9	2.56	0.340	
1.00	69.6	11.08	1.763	31.0	5.43	0.783	26.5	4.38	0.667	21.9	3.78	0.537	18.8	2.65	0.370	
1.10	49.4	8.79	1.514	31.6	6.02	0.966	27.2	4.94	0.827	22.1	4.06	0.651	18.1	2.85	0.421	
1.20	46.6	9.53	1.701	28.1	6.20	1.023	25.1	5.37	0.912	20.7	4.34	0.750	16.6	3.32	0.460	
1.30	42.1	8.89	1.801	28.2	6.61	1.202	25.1	5.85	1.063	20.6	5.05	0.856	14.4	3.69	0.514	
1.40	35.9	8.38	1.780	24.2	6.64	1.200	21.8	6.14	1.071	18.4	5.25	0.814	12.9	3.90	0.534	
1.50	27.8	7.03	1.582	20.7	6.21	1.180	17.4	5.86	0.938	15.1	5.25	0.818	11.8	3.98	0.543	
1.60	39.7	10.24	2.577	18.3	5.55	1.188	14.2	5.34	0.916	12.5	4.93	0.764	11.0	3.86	0.560	
1.70	25.8	7.90	1.889	15.2	4.97	1.108	11.4	4.75	0.818	10.8	4.54	0.742	10.2	3.86	0.565	
1.80	18.5	5.55	1.577	10.5	4.38	0.855	9.6	4.25	0.781	9.4	4.16	0.712	9.4	3.73	0.563	
1.90	9.5	4.31	0.873	9.1	3.92	0.829	8.1	3.84	0.784	8.1	3.83	0.697	8.6	3.57	0.563	
2.00	10.8	3.79	1.096	8.2	3.65	0.829	7.9	3.51	0.787	7.3	3.53	0.705	7.9	3.42	0.542	
2.20	7.1	3.67	0.866	6.7	3.55	0.820	6.5	3.43	0.778	6.2	3.20	0.705	6.7	3.12	0.529	
2.40	5.5	3.60	0.808	5.3	3.49	0.773	5.2	3.39	0.740	5.1	3.15	0.679	5.6	2.86	0.531	
2.60	4.3	3.49	0.730	4.2	3.40	0.706	4.2	3.31	0.682	4.2	3.15	0.637	4.8	2.70	0.520	
2.80	3.3	3.36	0.649	3.2	3.29	0.632	3.3	3.22	0.615	3.4	3.08	0.585	4.2	2.70	0.560	
3.00	2.4	3.23	0.557	2.5	3.17	0.550	2.6	3.11	0.542	2.8	3.00	0.528	3.6	2.68	0.416	
3.20	2.2	3.07	0.561	2.1	3.03	0.531	2.0	2.99	0.504	2.3	2.90	0.471	3.2	2.65	0.451	
3.40	1.6	2.89	0.591	1.8	2.88	0.531	1.8	2.85	0.505	1.9	2.80	0.460	2.8	2.62	0.427	
3.60	1.5	2.73	0.541	1.6	2.73	0.515	1.5	2.73	0.492	1.6	2.71	0.453	2.6	2.58	0.407	
3.80	1.4	2.60	0.505	1.3	2.62	0.487	1.3	2.63	0.470	1.4	2.63	0.439	2.3	2.54	0.390	
4.00	1.1	2.50	0.462	1.1	2.53	0.451	1.1	2.54	0.441	1.2	2.56	0.420	2.2	2.51	0.377	

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

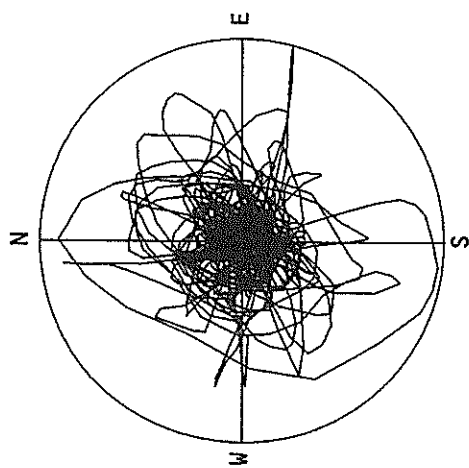
RESPONSE SPECTRUM

RECORD = M-1195
 DATE AND TIME = 1988- 3-18- 5-34
 TIME LENGTH = 29.49 (SEC)
 COMPONENT = UP
 SIGNAL = GR. ACC.
 SAMPRING INTERVAL = 0.0100(SEC)
 SKIPPED LENGTH = 0.00 (SEC)
 CORRECTION = MAX. GROUND ACC. = 13.06 (GAL)
 STATION = YAMASHITA-HEN-M

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	154.6	1.22	0.010	42.3	0.32	0.003	30.5	0.22	0.002	21.2	0.15	0.001	15.1	0.09	0.001
0.10	486.3	7.88	0.128	68.0	1.09	0.027	44.7	0.70	0.011	29.2	0.44	0.007	20.8	0.23	0.005
0.15	129.8	3.06	0.074	48.7	1.12	0.018	37.2	0.86	0.021	25.8	0.59	0.014	16.9	0.34	0.009
0.20	223.7	7.13	0.227	54.2	1.63	0.055	41.8	1.25	0.042	28.0	0.97	0.043	15.3	0.42	0.014
0.25	93.2	3.64	0.148	42.6	1.82	0.067	35.4	1.36	0.056	27.4	0.97	0.043	16.9	0.51	0.024
0.30	106.9	5.13	0.244	44.7	2.15	0.102	33.2	1.51	0.075	25.7	1.13	0.050	13.8	0.65	0.028
0.35	98.2	5.56	0.305	29.4	1.77	0.091	21.7	1.34	0.067	15.7	1.02	0.048	10.3	0.67	0.028
0.40	34.3	2.16	0.139	20.9	1.27	0.085	17.8	1.10	0.072	12.6	0.92	0.051	8.4	0.61	0.031
0.45	31.6	2.24	0.162	16.6	1.35	0.085	12.9	1.09	0.066	10.0	0.78	0.031	8.0	0.54	0.031
0.50	49.3	3.28	0.312	20.8	1.60	0.132	14.9	1.14	0.094	11.1	0.87	0.069	7.8	0.59	0.044
0.55	30.1	2.80	0.231	19.5	1.70	0.149	16.5	1.32	0.126	12.7	1.03	0.095	8.1	0.64	0.058
0.60	37.6	3.68	0.343	21.4	2.01	0.195	15.5	1.44	0.141	12.2	1.13	0.109	8.5	0.72	0.071
0.65	33.9	3.35	0.362	18.0	1.83	0.193	16.6	1.69	0.176	12.4	1.33	0.130	8.6	0.78	0.083
0.70	39.4	4.35	0.489	22.7	2.53	0.281	16.0	1.81	0.197	12.0	1.38	0.145	8.4	0.81	0.092
0.75	23.4	3.07	0.333	19.2	2.41	0.273	14.5	1.87	0.205	10.7	1.27	0.143	8.0	0.81	0.098
0.80	51.3	6.48	0.831	20.5	2.79	0.331	14.1	1.92	0.227	9.7	1.26	0.153	7.4	0.78	0.101
0.85	27.2	3.16	0.425	15.0	2.04	0.274	11.4	1.70	0.208	8.6	1.28	0.154	6.7	0.80	0.101
0.90	29.6	5.46	0.778	17.2	2.47	0.352	12.2	1.92	0.248	8.8	1.37	0.177	6.0	0.82	0.100
0.95	29.8	4.61	0.534	14.6	2.19	0.334	11.8	1.80	0.268	8.7	1.36	0.194	5.4	0.84	0.100
1.00	21.9	3.39	0.555	12.3	1.92	0.310	10.2	1.65	0.257	8.0	1.34	0.196	4.8	0.86	0.101
1.10	15.5	2.82	0.476	9.4	1.60	0.287	8.1	1.55	0.247	6.5	1.20	0.194	4.2	0.86	0.109
1.20	23.2	4.49	0.848	10.2	2.10	0.373	7.1	1.49	0.256	5.2	1.11	0.182	3.1	0.85	0.112
1.30	12.1	2.76	0.518	8.4	1.96	0.361	6.8	1.57	0.289	4.7	1.23	0.197	3.1	0.88	0.113
1.40	12.4	2.87	0.614	7.4	2.20	0.366	5.9	1.85	0.290	4.4	1.37	0.210	2.8	0.90	0.118
1.50	12.2	3.18	0.693	7.3	2.09	0.417	5.3	1.59	0.298	3.6	1.12	0.195	2.5	0.87	0.117
1.60	6.1	1.95	0.396	4.8	1.34	0.313	4.1	1.26	0.260	3.2	1.07	0.195	2.3	0.82	0.117
1.70	4.1	1.30	0.202	3.0	1.13	0.219	2.6	0.98	0.190	2.4	0.92	0.167	2.1	0.77	0.119
1.80	2.9	1.07	0.236	2.2	0.87	0.183	2.1	0.85	0.171	1.8	0.85	0.145	1.9	0.76	0.118
1.90	3.5	1.33	0.318	2.2	0.92	0.198	1.8	0.81	0.165	1.6	0.79	0.140	1.8	0.74	0.115
2.00	2.0	0.88	0.200	1.4	0.74	0.146	1.3	0.70	0.128	1.3	0.73	0.128	1.6	0.72	0.114
2.20	1.6	0.82	0.182	1.2	0.65	0.141	1.1	0.63	0.126	1.1	0.66	0.122	1.4	0.69	0.112
2.40	1.5	1.03	0.240	1.3	0.87	0.194	1.2	0.78	0.168	1.1	0.70	0.140	1.2	0.67	0.112
2.60	1.2	0.91	0.234	1.0	0.84	0.176	0.9	0.80	0.158	0.9	0.72	0.134	1.1	0.67	0.108
2.80	0.7	0.66	0.151	0.8	0.68	0.129	0.7	0.79	0.129	0.7	0.72	0.111	1.0	0.67	0.102
3.00	0.7	0.56	0.153	0.6	0.67	0.114	0.5	0.69	0.115	0.5	0.68	0.106	0.8	0.66	0.099
3.20	0.6	0.47	0.125	0.4	0.67	0.112	0.4	0.65	0.101	0.5	0.64	0.102	0.8	0.65	0.098
3.40	0.4	0.70	0.125	0.4	0.67	0.112	0.3	0.65	0.099	0.4	0.64	0.102	0.7	0.65	0.096
3.60	0.3	0.70	0.095	0.3	0.66	0.093	0.3	0.64	0.099	0.3	0.64	0.099	0.6	0.65	0.095
3.80	0.4	0.67	0.130	0.3	0.64	0.112	0.3	0.63	0.104	0.3	0.64	0.098	0.6	0.64	0.093
4.00	0.3	0.64	0.115	0.3	0.63	0.104	0.3	0.64	0.109	0.3	0.64	0.094	0.5	0.64	0.091

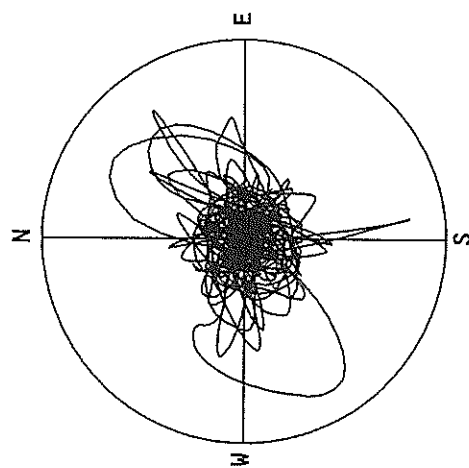
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

M-1195 YAMASHITA-HEN-M



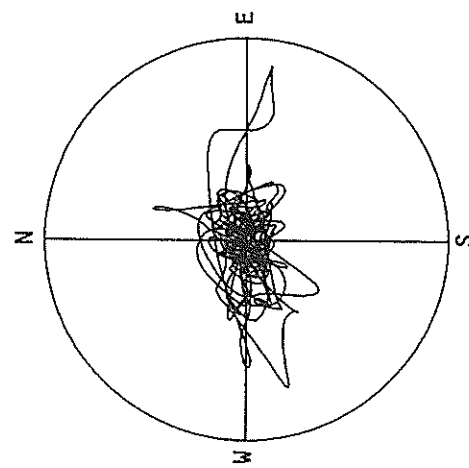
ACCELERATION
R=50.0 GAL
MAX=49.4 GAL

M-1195 YAMASHITA-HEN-M



VELOCITY
R=3.0 CM/SEC.
MAX=2.6 CM/SEC.

M-1195 YAMASHITA-HEN-M



DISPLACEMENT
R=0.40 CM
MAX=0.34 CM

RECORD NUMBER
STATION

M-1200 TOKACHI-M

EARTHQUAKE DATA

DATA AND TIME
LOCATION OF HYPOCENTER
EPCENTRAL REGION
LATITUDE
LONGITUDE
DEPTH
MAGNITUDE

10:59 MAY 7, 1988

SE OFF TOKACHI
42°29.3' N
143°51.2' E
92.8KM
6.4

PEAK VALUES OF COMPONENTS

N S E W U D HORIZONTAL*

PARAMETER OF THE VARIABLE FILTER

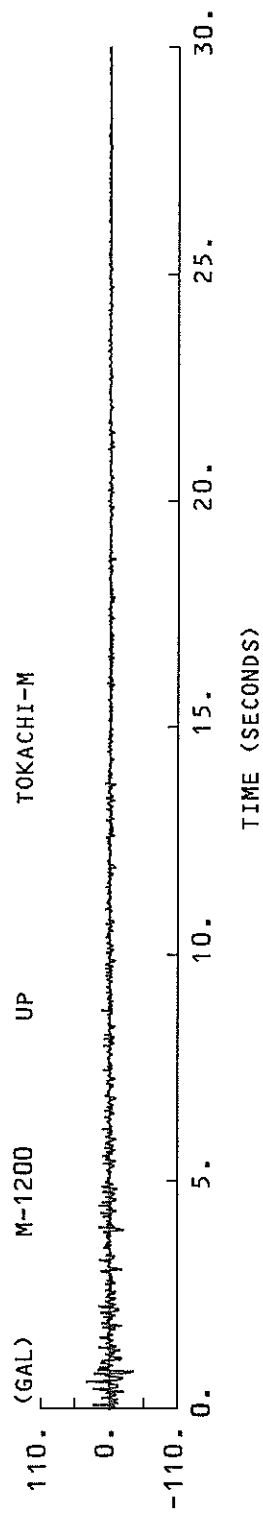
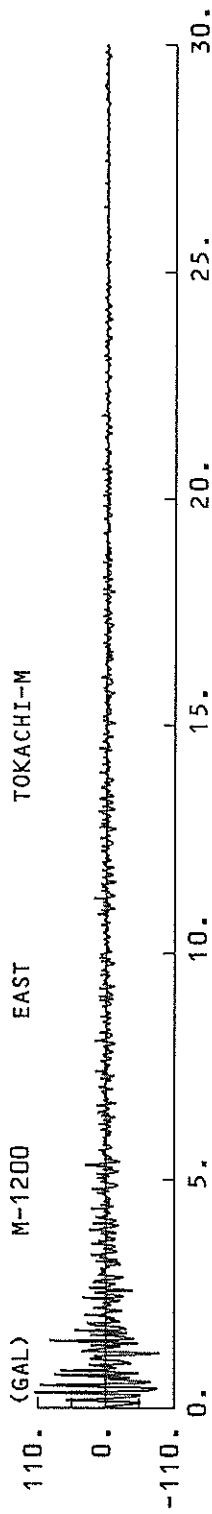
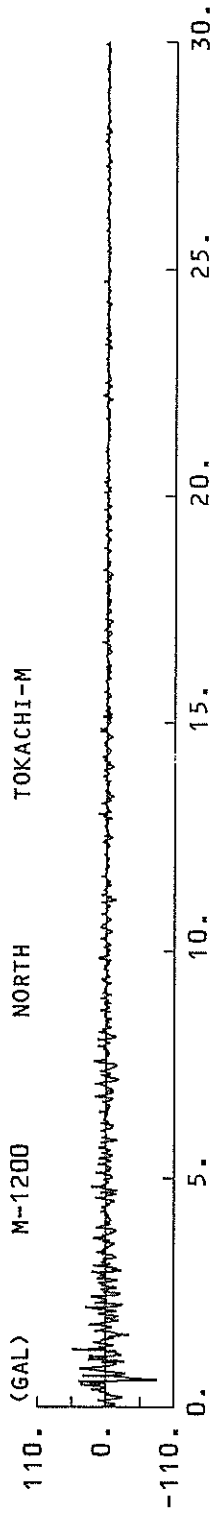
FC (HZ) 1.120 0.681 1.584
MAXIMUM ACCELERATION (GAL)

SMAC-B2 EQUIVALENT 42.3 68.0 19.5 71.0
ORIGINAL 83.9 114.8 42.7 115.1
CORRECTED 81.7 116.9 43.1 117.2
MAXIMUM VELOCITY (CM/SEC)

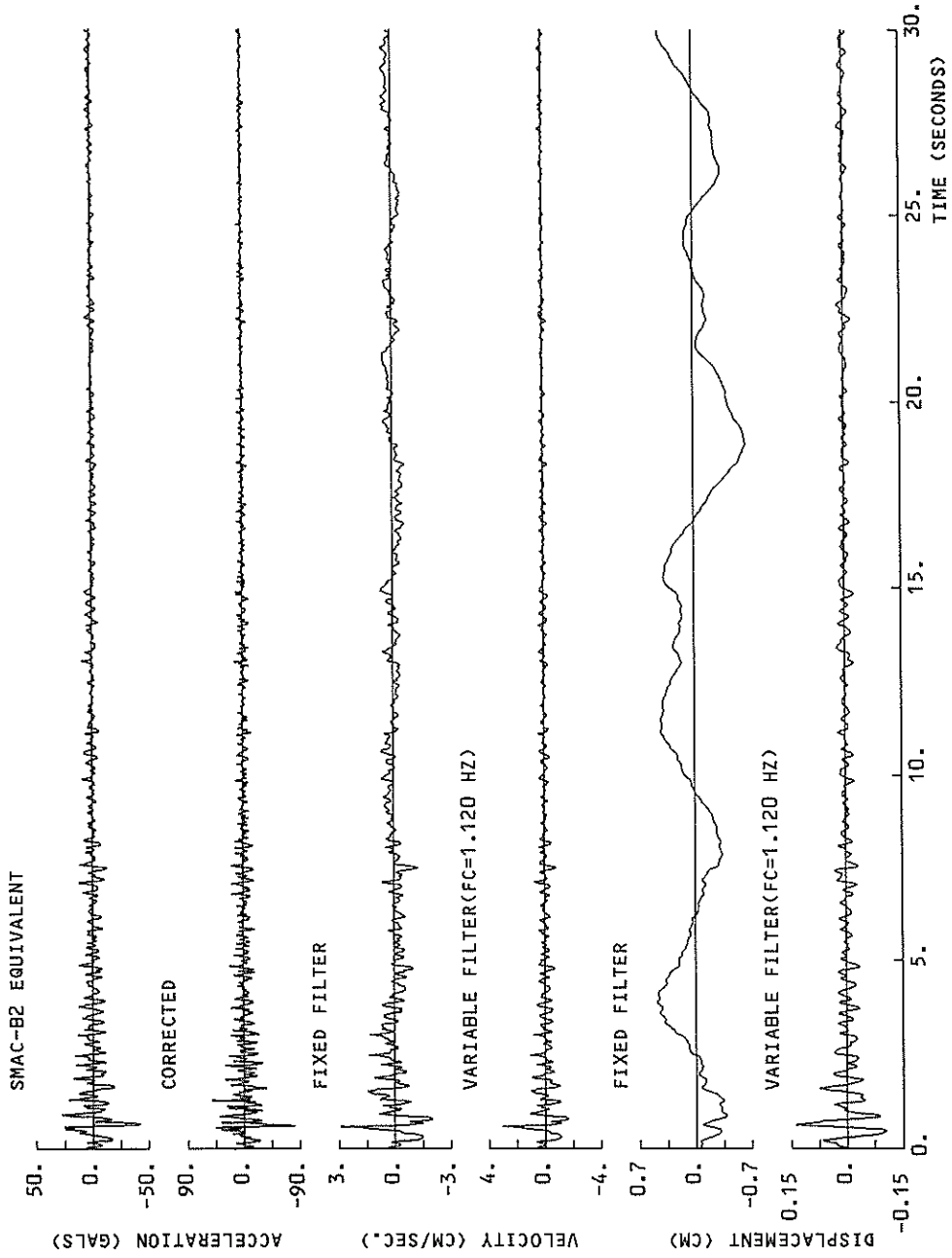
FIXED FILTER 2.93 3.37 1.08 3.70
VARIABLE FILTER 3.06 3.09 0.93 3.45
MAXIMUM DISPLACEMENT (CM)

FIXED FILTER 0.655 0.874 0.665 1.038
VARIABLE FILTER 0.141 0.164 0.028 0.180

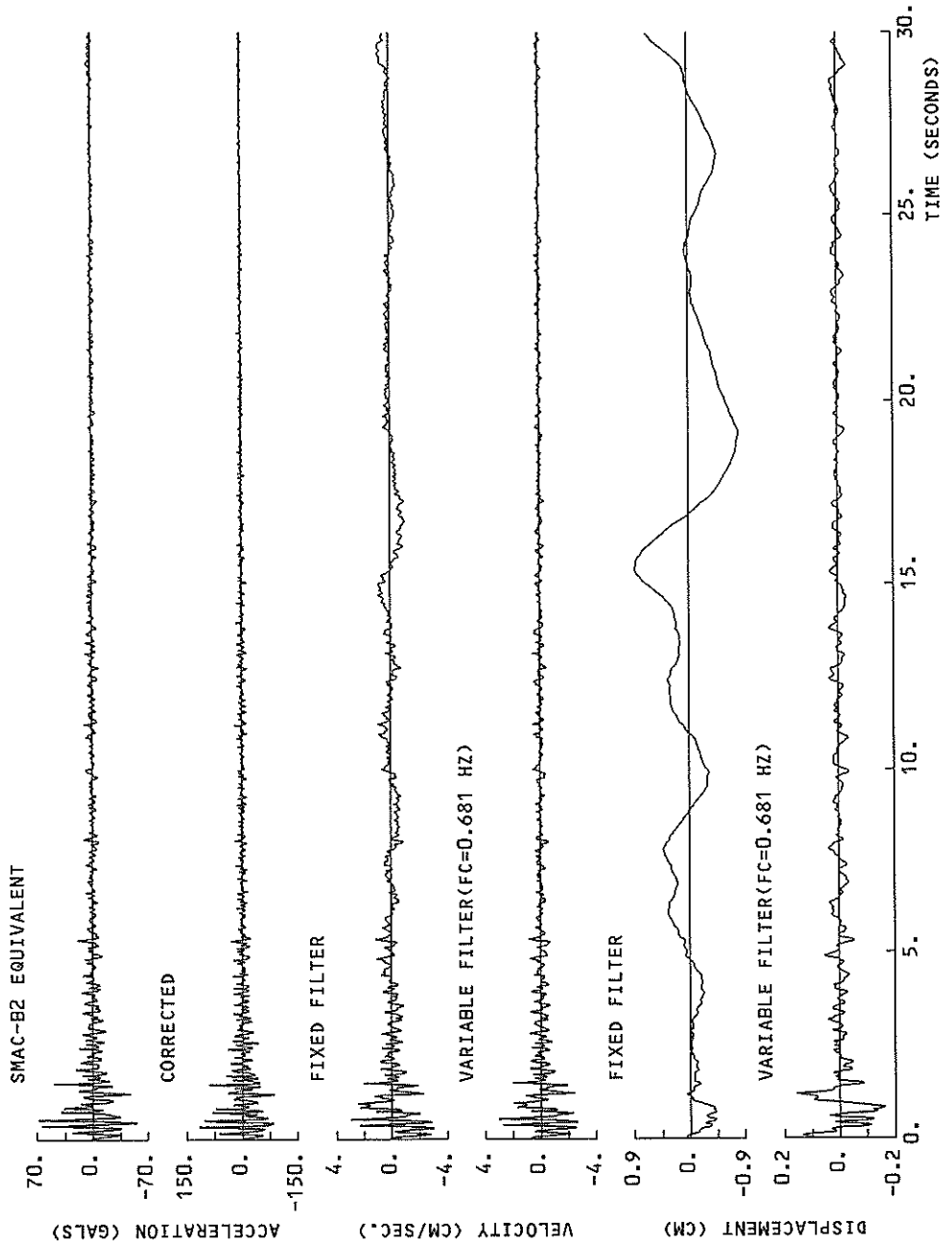
* RESULTANT OF HORIZONTAL COMPONENTS

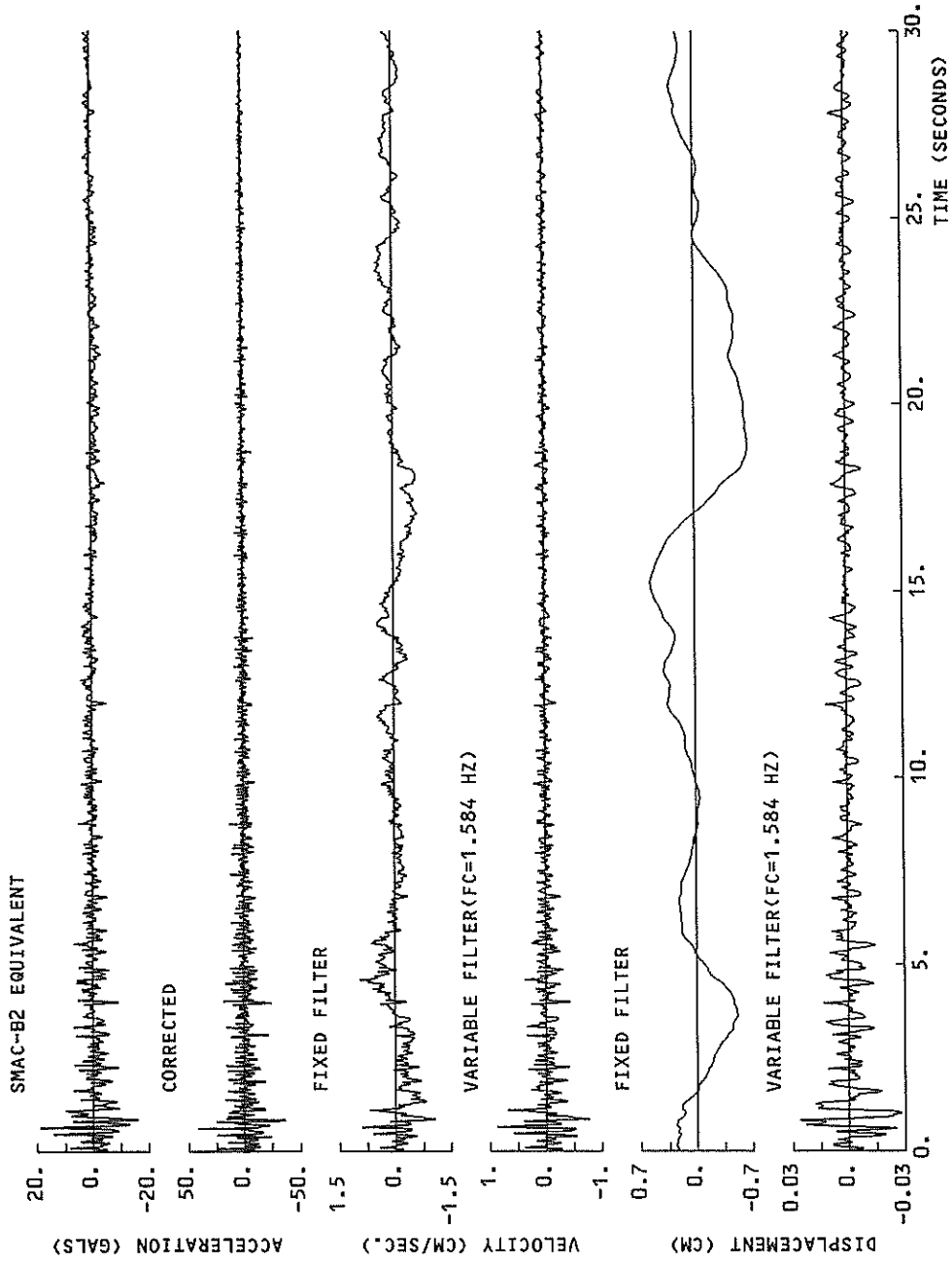


M-1200 NORTH TOKACHI-M

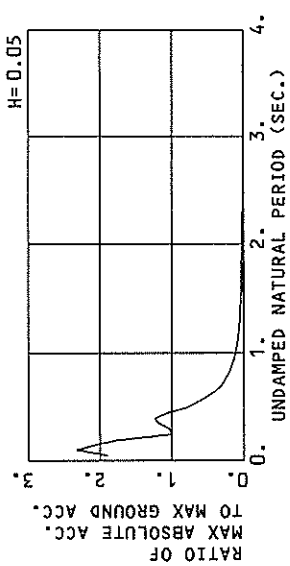


M-1200 EAST TOKACHI-M

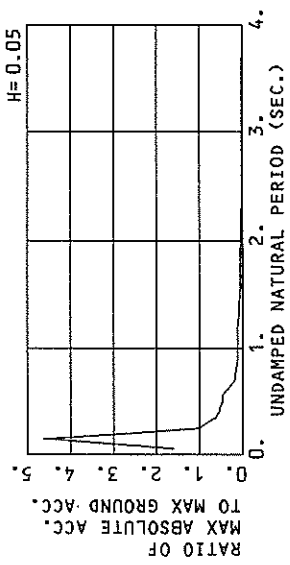




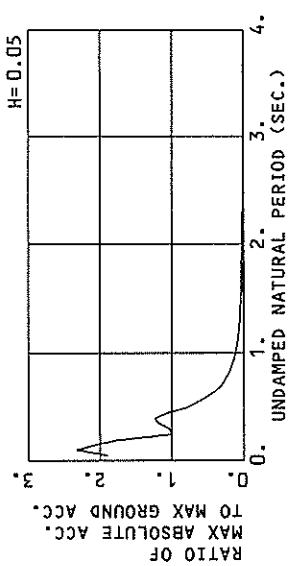
M-1200 NORTH TOKACHI-M
(1/FC=0.89 SEC.)



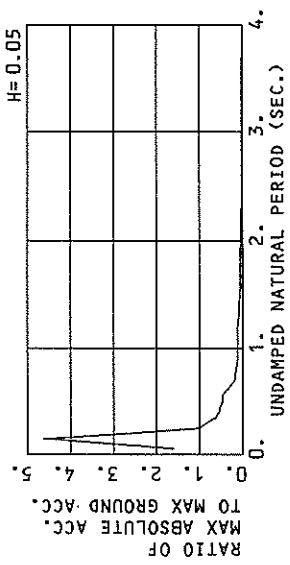
M-1200 EAST TOKACHI-M
(1/FC=1.47 SEC.)



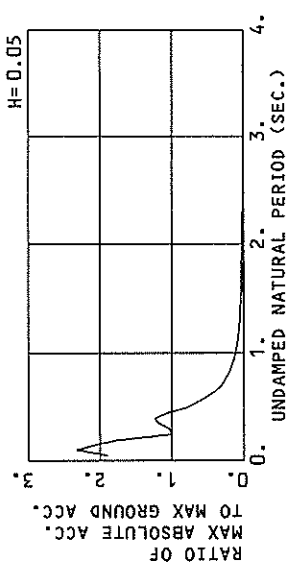
M-1200 NORTH TOKACHI-M
(1/FC=0.89 SEC.)



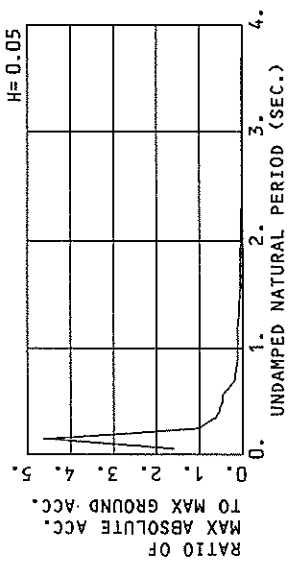
M-1200 EAST TOKACHI-M
(1/FC=1.47 SEC.)



M-1200 NORTH TOKACHI-M
(1/FC=0.89 SEC.)



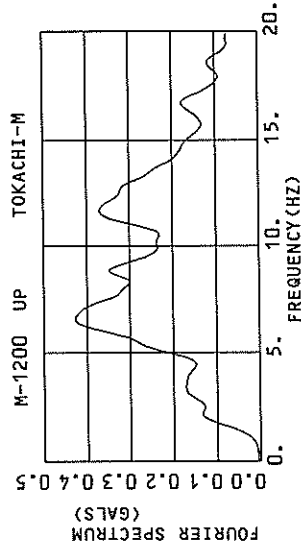
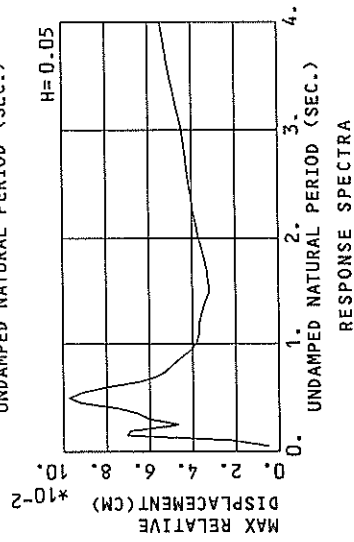
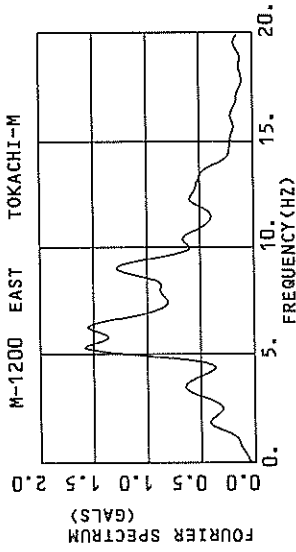
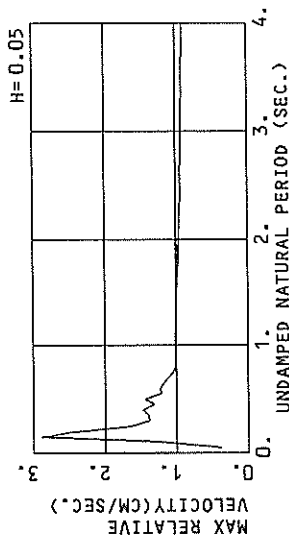
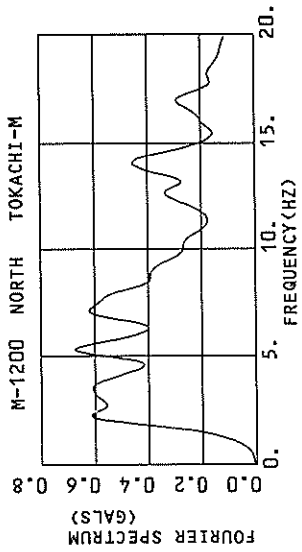
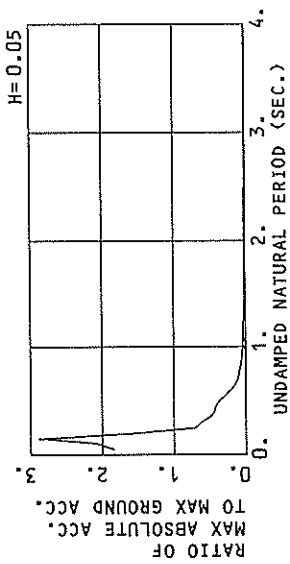
M-1200 EAST TOKACHI-M
(1/FC=1.47 SEC.)



RESPONSE SPECTRA

RESPONSE SPECTRA

M-1200 UP TOKACHI-M
(1/FC=0.63 SEC.)



RESPONSE SPECTRUM

RECORD = M-1200		COMPONENT = NORTH		SIGNAL = GR. ACC.		CORRECTION =		STATION = TOKACHI-M						
DATE AND TIME = 1988- 5- 7-10-59		SAMPLING INTERVAL = 0.0100(SEC)		MAX. GROUND ACC. = 81.68 (GAL)										
TIME LENGTH = 29.99 (SEC)		SKIPPED LENGTH = 0.00 (SEC)												
PER	DAMPING = 0.025		DAMPING = 0.050		DAMPING = 0.100		DAMPING = 0.250		RD					
	AA	RV	AA	RV	AA	RV	AA	RV						
0.05	317.8	2.50	150.0	0.76	0.010	155.5	0.67	0.010	154.1	0.71	0.010	133.6	0.62	0.008
0.10	386.7	6.01	203.5	2.74	0.051	190.2	2.40	0.048	164.6	1.94	0.041	128.5	1.30	0.030
0.15	275.3	6.50	191.8	4.27	0.109	170.0	3.60	0.096	130.4	2.56	0.074	101.5	1.80	0.053
0.20	284.8	9.22	176.6	5.57	0.180	143.4	4.67	0.144	121.5	3.73	0.120	91.5	2.38	0.084
0.25	125.5	4.87	95.0	3.69	0.151	82.7	3.25	0.131	62.8	2.69	0.128	76.2	2.46	0.106
0.30	122.3	6.10	87.2	4.23	0.198	83.9	3.51	0.189	78.0	3.12	0.173	67.1	2.79	0.132
0.35	152.4	8.51	113.7	6.35	0.353	97.6	5.50	0.300	80.4	4.24	0.245	59.8	3.23	0.154
0.40	146.0	9.56	114.8	7.59	0.465	101.1	6.52	0.408	81.0	4.96	0.321	51.4	3.56	0.179
0.45	201.8	14.51	116.5	8.78	0.597	86.8	6.53	0.442	67.3	5.47	0.337	42.9	3.71	0.187
0.50	193.6	15.45	84.9	7.52	0.537	66.0	6.22	0.414	53.1	5.24	0.330	36.5	3.67	0.208
0.55	68.6	6.44	56.9	5.55	0.435	52.4	5.16	0.398	45.2	4.52	0.337	34.5	3.54	0.220
0.60	48.4	4.96	44.1	4.41	0.407	41.7	3.99	0.376	36.9	3.82	0.324	31.9	3.31	0.224
0.65	45.7	4.93	33.7	4.14	0.358	31.8	3.86	0.337	29.5	3.95	0.297	29.3	3.05	0.231
0.70	27.3	4.08	26.3	3.86	0.325	25.6	3.64	0.312	25.3	3.29	0.289	26.7	2.80	0.233
0.75	22.9	4.04	21.9	3.86	0.311	21.5	3.71	0.300	21.6	3.42	0.280	24.2	2.75	0.231
0.80	21.7	4.04	18.2	3.90	0.294	18.0	3.76	0.286	18.5	3.50	0.269	21.9	2.87	0.229
0.85	19.8	4.02	15.2	3.89	0.276	15.1	3.77	0.270	15.9	3.54	0.257	19.9	2.75	0.224
0.90	18.3	3.97	12.7	3.86	0.260	12.8	3.76	0.254	13.7	3.56	0.245	18.1	3.02	0.218
0.95	10.8	3.92	10.7	3.82	0.243	10.9	3.70	0.240	11.9	3.56	0.233	16.5	3.07	0.212
1.00	9.1	3.85	9.1	3.78	0.228	9.3	3.70	0.225	10.4	3.54	0.221	15.2	3.10	0.205
1.10	6.5	3.73	6.6	3.67	0.201	6.9	3.61	0.201	8.1	3.49	0.199	12.9	3.13	0.192
1.20	4.8	3.62	4.9	3.58	0.178	5.2	3.53	0.179	6.5	3.44	0.180	11.2	3.14	0.180
1.30	3.9	3.52	3.8	3.49	0.162	4.1	3.46	0.161	5.4	3.38	0.164	9.8	3.14	0.169
1.40	3.4	3.44	3.3	3.42	0.164	3.3	3.39	0.160	4.5	3.33	0.153	8.7	3.13	0.159
1.50	3.0	3.37	2.9	3.35	0.166	2.9	3.33	0.162	3.9	3.24	0.155	7.8	3.12	0.150
1.60	2.6	3.31	2.6	3.30	0.168	2.6	3.28	0.164	3.4	3.24	0.157	7.1	3.10	0.142
1.70	2.4	3.22	2.3	3.25	0.169	2.3	3.23	0.165	3.1	3.21	0.159	6.5	3.09	0.141
1.80	2.1	3.22	2.1	3.21	0.169	2.1	3.20	0.166	2.8	3.17	0.160	6.0	3.07	0.141
1.90	1.9	3.15	1.9	3.17	0.170	1.9	3.15	0.167	2.5	3.14	0.161	5.5	3.05	0.145
2.00	1.7	3.15	1.7	3.14	0.171	1.7	3.13	0.168	2.3	3.12	0.162	5.2	3.05	0.147
2.20	1.4	3.09	1.4	3.09	0.172	1.4	3.09	0.169	2.0	3.08	0.164	4.5	3.02	0.150
2.40	1.2	3.05	1.2	3.05	0.173	1.2	3.05	0.170	1.7	3.04	0.166	4.1	3.00	0.152
2.60	1.0	3.02	1.0	3.02	0.173	1.1	3.02	0.171	1.5	3.02	0.171	3.7	2.99	0.154
2.80	0.9	3.00	0.9	3.00	0.174	1.0	3.00	0.172	1.4	2.99	0.168	3.4	2.97	0.156
3.00	0.8	2.98	0.8	2.98	0.174	0.9	2.98	0.172	1.3	2.98	0.168	3.1	2.95	0.157
3.20	0.7	2.96	0.7	2.96	0.174	0.8	2.96	0.173	1.2	2.96	0.169	2.9	2.95	0.159
3.40	0.6	2.95	0.7	2.95	0.181	0.8	2.95	0.178	1.1	2.95	0.173	2.7	2.94	0.160
3.60	0.6	2.94	0.6	2.94	0.185	0.7	2.94	0.182	1.0	2.94	0.177	2.5	2.94	0.163
3.80	0.5	2.93	0.6	2.93	0.189	0.7	2.93	0.186	1.0	2.93	0.180	2.4	2.92	0.163
4.00	0.5	2.92	0.5	2.92	0.192	0.6	2.92	0.189	0.9	2.92	0.183	2.3	2.92	0.170

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = M-1200 COMPONENT = EAST SIGNAL = GR. ACC. STATION = TOKACHI-M
 DATE AND TIME = 1988-5-7-10-59 SAMPRING INTERVAL = 0.0100(SEC) MAX. GROUND ACC. = 116.93 (GAL)
 TIME LENGTH = 29.99 (SEC) SKIPPED LENGTH = 0.00 (SEC)

DAMPING = 0. DAMPING = 0.025 DAMPING = 0.050 DAMPING = 0.100 DAMPING = 0.250

PER	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD			
0.05	266.1	2.01	0.017	198.3	1.19	0.013	187.1	0.94	0.012	173.4	0.72	0.011	152.3	0.58	0.009
0.10	1005.3	16.01	0.255	439.0	6.75	0.111	364.9	5.49	0.092	273.4	3.85	0.069	179.7	2.16	0.043
0.15	508.2	21.99	0.518	660.3	14.83	0.376	542.1	12.18	0.307	389.4	8.90	0.217	232.8	4.68	0.121
0.20	642.0	21.96	0.650	393.2	13.60	0.400	306.4	9.92	0.306	227.1	8.18	0.224	166.9	5.17	0.143
0.25	292.1	11.67	0.462	129.2	6.60	0.204	117.5	6.25	0.184	103.9	5.55	0.162	93.9	4.50	0.119
0.30	260.7	12.47	0.594	119.9	7.10	0.272	95.2	5.97	0.214	73.1	4.87	0.161	63.5	4.17	0.115
0.35	177.5	6.92	0.364	177.8	4.92	0.240	72.2	4.72	0.223	62.7	4.40	0.189	48.8	3.76	0.118
0.40	117.1	5.29	0.314	67.8	4.04	0.276	63.2	4.81	0.254	54.8	4.41	0.215	44.2	3.72	0.132
0.45	83.5	6.40	0.428	71.0	5.73	0.364	61.6	4.81	0.314	47.9	4.34	0.239	39.7	3.53	0.147
0.50	118.8	9.24	0.740	53.0	6.01	0.398	53.3	5.35	0.335	43.5	4.45	0.270	35.0	3.58	0.165
0.55	128.9	11.33	0.988	67.5	6.14	0.496	55.2	4.95	0.419	41.7	4.27	0.306	30.5	3.75	0.181
0.60	94.1	8.92	0.858	51.7	6.19	0.471	43.9	5.39	0.397	34.3	4.37	0.300	27.9	3.86	0.187
0.65	50.1	6.20	0.536	36.0	5.68	0.384	31.3	5.22	0.333	24.9	4.48	0.256	24.7	3.92	0.185
0.70	43.2	4.91	0.537	22.0	4.62	0.272	20.9	4.53	0.254	19.9	4.37	0.225	22.1	3.95	0.179
0.75	24.0	4.58	0.342	20.1	4.51	0.285	19.2	4.44	0.267	18.5	4.31	0.238	21.0	3.93	0.166
0.80	18.9	4.44	0.307	17.9	4.39	0.288	17.1	4.34	0.272	16.7	4.23	0.242	19.7	3.93	0.161
0.85	16.4	4.34	0.301	15.6	4.26	0.283	15.0	4.22	0.267	14.9	4.14	0.241	18.3	3.89	0.152
0.90	16.3	4.44	0.324	14.5	4.33	0.297	13.2	4.22	0.266	13.0	4.05	0.233	16.9	3.85	0.179
0.95	25.0	4.50	0.512	14.5	4.39	0.330	12.8	4.28	0.288	11.3	4.10	0.237	15.6	3.80	0.183
1.00	19.9	4.51	0.504	13.4	4.41	0.338	12.7	4.32	0.316	11.8	4.15	0.279	14.4	3.77	0.203
1.10	16.2	4.46	0.497	14.8	4.39	0.451	13.7	4.31	0.411	12.4	4.17	0.349	12.2	3.83	0.235
1.20	15.7	4.53	0.573	13.5	4.35	0.488	12.6	4.24	0.445	11.5	4.13	0.375	11.0	3.85	0.249
1.30	17.9	4.40	0.768	10.8	4.25	0.455	10.3	4.15	0.420	9.7	4.07	0.361	10.3	3.84	0.246
1.40	9.4	4.12	0.459	8.2	4.08	0.383	7.9	4.05	0.383	7.8	3.99	0.342	9.0	3.81	0.260
1.50	9.9	3.96	0.584	7.3	3.97	0.412	7.0	3.94	0.389	7.0	3.90	0.349	8.0	3.77	0.266
1.60	8.4	3.97	0.526	6.6	3.86	0.424	6.2	3.84	0.394	6.2	3.81	0.346	8.4	3.73	0.271
1.70	6.5	3.76	0.477	6.1	3.75	0.444	5.8	3.74	0.413	5.7	3.73	0.361	7.5	3.68	0.280
1.80	5.8	3.65	0.478	5.5	3.65	0.448	5.3	3.65	0.419	5.2	3.65	0.369	7.1	3.63	0.287
1.90	5.1	3.56	0.468	4.9	3.56	0.439	4.7	3.57	0.414	4.6	3.58	0.368	7.1	3.58	0.293
2.00	4.4	3.47	0.448	4.2	3.48	0.423	4.2	3.49	0.400	4.5	3.51	0.359	6.7	3.53	0.299
2.20	3.2	3.32	0.389	3.1	3.34	0.373	3.3	3.36	0.357	4.0	3.38	0.338	6.0	3.44	0.309
2.40	2.7	3.20	0.394	2.7	3.22	0.383	3.0	3.24	0.372	4.0	3.28	0.353	5.5	3.36	0.317
2.60	2.4	3.19	0.409	2.4	3.16	0.398	2.4	3.15	0.388	3.2	3.19	0.369	5.0	3.29	0.323
2.80	2.1	3.22	0.421	2.0	3.19	0.401	2.4	3.15	0.401	2.9	3.11	0.383	4.6	3.22	0.334
3.00	1.9	3.24	0.435	2.0	3.21	0.421	2.2	3.18	0.412	2.6	3.12	0.394	4.3	3.17	0.347
3.20	1.8	3.26	0.464	1.8	3.23	0.447	2.0	3.20	0.432	2.4	3.15	0.404	4.0	3.12	0.358
3.40	1.7	3.27	0.491	1.7	3.24	0.474	1.9	3.22	0.458	2.3	3.17	0.429	3.7	3.07	0.368
3.60	1.6	3.29	0.513	1.6	3.26	0.497	1.7	3.23	0.481	2.1	3.18	0.452	3.5	3.05	0.379
3.80	1.5	3.29	0.533	1.5	3.27	0.517	1.6	3.25	0.501	2.0	3.20	0.472	3.3	3.07	0.398
4.00	1.4	3.30	0.550	1.4	3.28	0.534	1.5	3.26	0.519	1.8	3.21	0.490	3.1	3.08	0.417

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = M-1200
 DATE AND TIME = 1988- 5 7-10-59
 TIME LENGTH = 29.99 (SEC)

COMPONENT = UP
 SIGNAL = GR. ACC. CORRECTION = STATION = TOKACHI-M
 SAMPRING INTERVAL = 0.0100(SEC) MAX. GROUND ACC. = 43.07 (GAL)

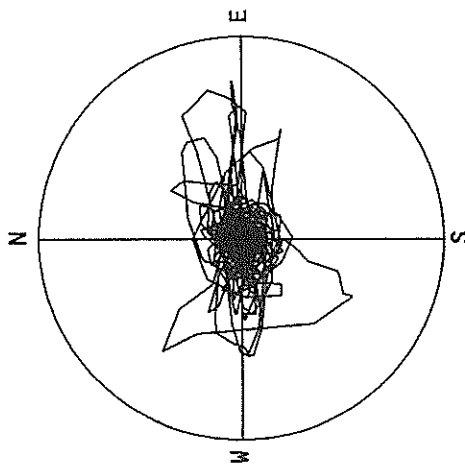
SKIPPED LENGTH = 0.00 (SEC)

DAMPING = 0.025 DAMPING = 0.050 DAMPING = 0.100 DAMPING = 0.250

PER	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	293.1	2.33	0.019	77.0	0.38	0.005	79.2	0.38	0.005	76.5	0.37	0.005
0.10	378.5	6.03	0.096	101.7	1.42	0.026	89.7	1.27	0.023	71.9	1.05	0.018
0.15	388.6	9.32	0.221	162.4	3.84	0.092	124.6	2.89	0.071	94.3	2.23	0.052
0.20	144.8	4.59	0.147	78.7	2.77	0.080	69.3	2.49	0.069	58.1	2.05	0.058
0.25	65.4	2.47	0.104	31.3	1.68	0.050	30.2	1.64	0.047	27.8	1.56	0.043
0.30	84.2	4.03	0.192	31.5	1.68	0.071	26.8	1.38	0.060	20.8	1.33	0.046
0.35	62.2	3.58	0.193	23.4	1.56	0.072	21.2	1.39	0.065	17.5	1.22	0.053
0.40	35.5	2.32	0.144	21.9	1.66	0.088	18.5	1.47	0.074	15.9	1.16	0.063
0.45	51.7	3.75	0.265	20.6	1.49	0.105	18.0	1.31	0.082	15.4	1.11	0.076
0.50	42.5	3.37	0.289	18.5	1.82	0.117	15.5	1.44	0.097	13.2	1.01	0.080
0.55	28.6	2.58	0.219	14.7	1.41	0.113	11.9	1.21	0.091	10.5	1.06	0.076
0.60	14.7	1.49	0.134	10.4	1.31	0.095	8.9	1.22	0.080	7.9	1.09	0.067
0.65	14.1	1.52	0.151	6.9	1.23	0.073	6.1	1.18	0.057	5.8	1.07	0.057
0.70	6.4	1.19	0.080	4.8	1.15	0.059	4.7	1.11	0.057	4.6	1.03	0.053
0.75	4.9	1.08	0.070	3.9	1.06	0.055	3.8	1.04	0.053	3.8	1.01	0.050
0.80	3.6	1.04	0.059	3.3	1.03	0.052	3.1	1.02	0.050	3.1	1.00	0.046
0.85	4.1	1.02	0.075	2.7	1.02	0.046	2.6	1.01	0.047	2.6	1.00	0.043
0.90	2.5	1.02	0.051	2.2	1.02	0.046	2.2	1.01	0.044	2.2	1.00	0.041
0.95	1.9	1.02	0.043	1.9	1.02	0.042	1.8	1.01	0.041	2.0	1.01	0.038
1.00	2.2	1.02	0.056	1.6	1.02	0.039	1.6	1.02	0.038	1.8	1.01	0.037
1.10	1.3	1.02	0.040	1.3	1.02	0.038	1.3	1.01	0.037	1.5	1.01	0.035
1.20	1.4	1.01	0.051	1.1	1.01	0.037	1.1	1.01	0.036	1.3	1.00	0.034
1.30	0.9	1.01	0.038	0.9	1.00	0.035	1.0	1.00	0.034	1.1	1.00	0.033
1.40	0.7	0.99	0.036	0.7	1.00	0.034	0.7	0.99	0.032	0.9	0.99	0.032
1.50	0.6	0.98	0.034	0.6	0.99	0.033	0.7	0.99	0.032	0.9	0.99	0.031
1.60	0.5	0.98	0.034	0.5	0.98	0.033	0.6	0.98	0.033	0.8	0.98	0.032
1.70	0.5	0.98	0.034	0.5	0.98	0.034	0.6	0.98	0.033	0.8	0.98	0.032
1.80	0.4	0.97	0.036	0.5	0.97	0.035	0.5	0.97	0.034	0.7	0.97	0.033
1.90	0.4	0.96	0.037	0.5	0.96	0.036	0.5	0.96	0.034	0.6	0.96	0.033
2.00	0.4	0.96	0.038	0.4	0.96	0.038	0.5	0.96	0.037	0.6	0.96	0.035
2.20	0.3	0.94	0.041	0.4	0.95	0.040	0.4	0.95	0.039	0.5	0.95	0.037
2.40	0.3	0.94	0.042	0.4	0.94	0.041	0.4	0.94	0.041	0.5	0.94	0.039
2.60	0.3	0.93	0.044	0.3	0.93	0.043	0.3	0.93	0.042	0.4	0.93	0.041
3.00	0.2	0.92	0.045	0.3	0.92	0.044	0.3	0.92	0.043	0.4	0.92	0.042
3.20	0.2	0.92	0.046	0.2	0.92	0.045	0.3	0.92	0.044	0.4	0.92	0.043
3.40	0.2	0.91	0.049	0.2	0.91	0.048	0.2	0.91	0.047	0.3	0.91	0.045
3.60	0.2	0.91	0.051	0.2	0.91	0.050	0.2	0.91	0.049	0.3	0.91	0.048
3.80	0.2	0.90	0.053	0.2	0.91	0.052	0.2	0.91	0.051	0.3	0.91	0.049
4.00	0.1	0.90	0.055	0.2	0.90	0.054	0.2	0.91	0.053	0.3	0.91	0.051
4.00	0.1	0.90	0.057	0.1	0.90	0.055	0.2	0.90	0.054	0.3	0.91	0.052

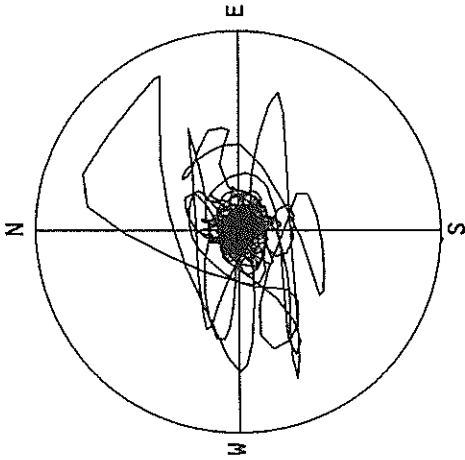
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

M-1200 TOKACHI-M



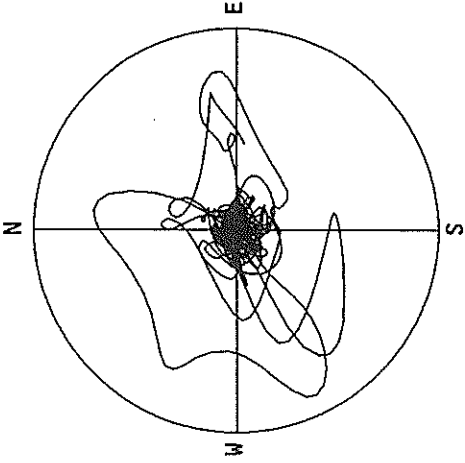
ACCELERATION
R=150.0GAL
MAX=117.2GAL

M-1200 TOKACHI-M



VELOCITY
R=4.0 CM/SEC.
MAX=3.5 CM/SEC.

M-1200 TOKACHI-M



DISPLACEMENT
R=0.20 CM
MAX=0.18 CM

RECORD NUMBER
STATION

F-174

HITACHINAKA-F

EARTHQUAKE DATA

 DATA AND TIME 19:45 MAY 30,1988
 LOCATION OF HYPOCENTER
 EPICENTRAL REGION NORTHERN IBARAKI PREF
 LATITUDE 36°27.6' N
 LONGITUDE 140°42.2' E
 DEPTH 49.0KM
 MAGNITUDE 4.7

PEAK VALUES OF COMPONENTS

 N S E W U D HORIZONTAL*

PARAMETER OF THE VARIABLE FILTER

FC (HZ) 0.695 0.573 0.744
 MAXIMUM ACCELERATION (GAL)

 SMAC-B2 EQUIVALENT 55.3 50.2 10.6 61.3
 ORIGINAL 129.6 106.4 40.8 138.0
 CORRECTED 132.4 107.8 41.0 140.4

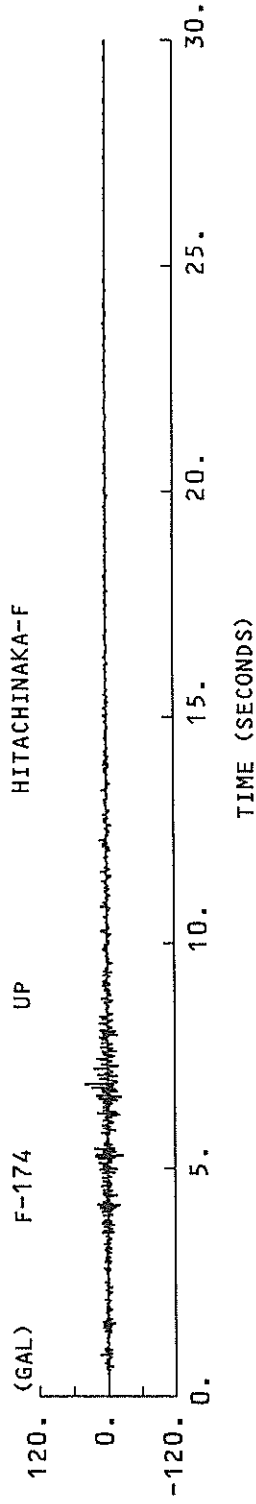
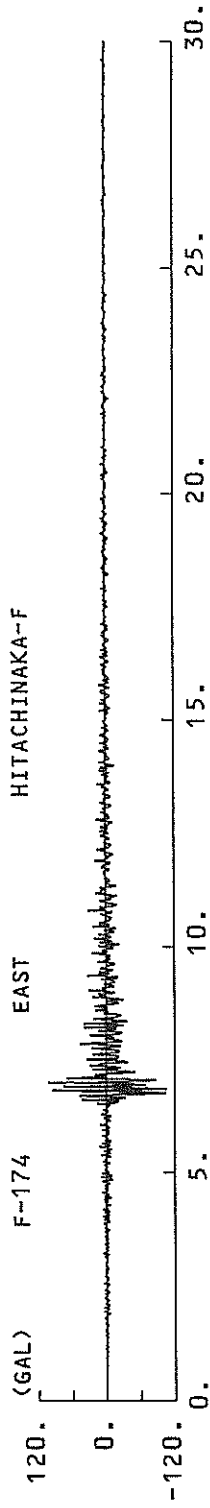
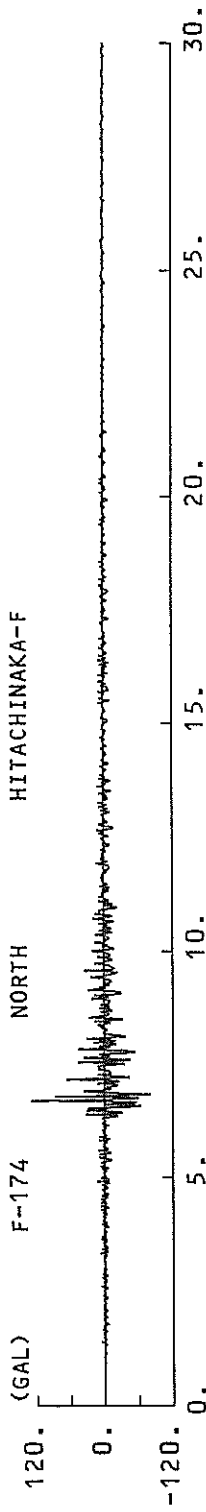
 MAXIMUM VELOCITY (CM/SEC)

 FIXED FILTER 2.74 2.67 0.60 2.80
 VARIABLE FILTER 2.82 2.52 0.58 2.84

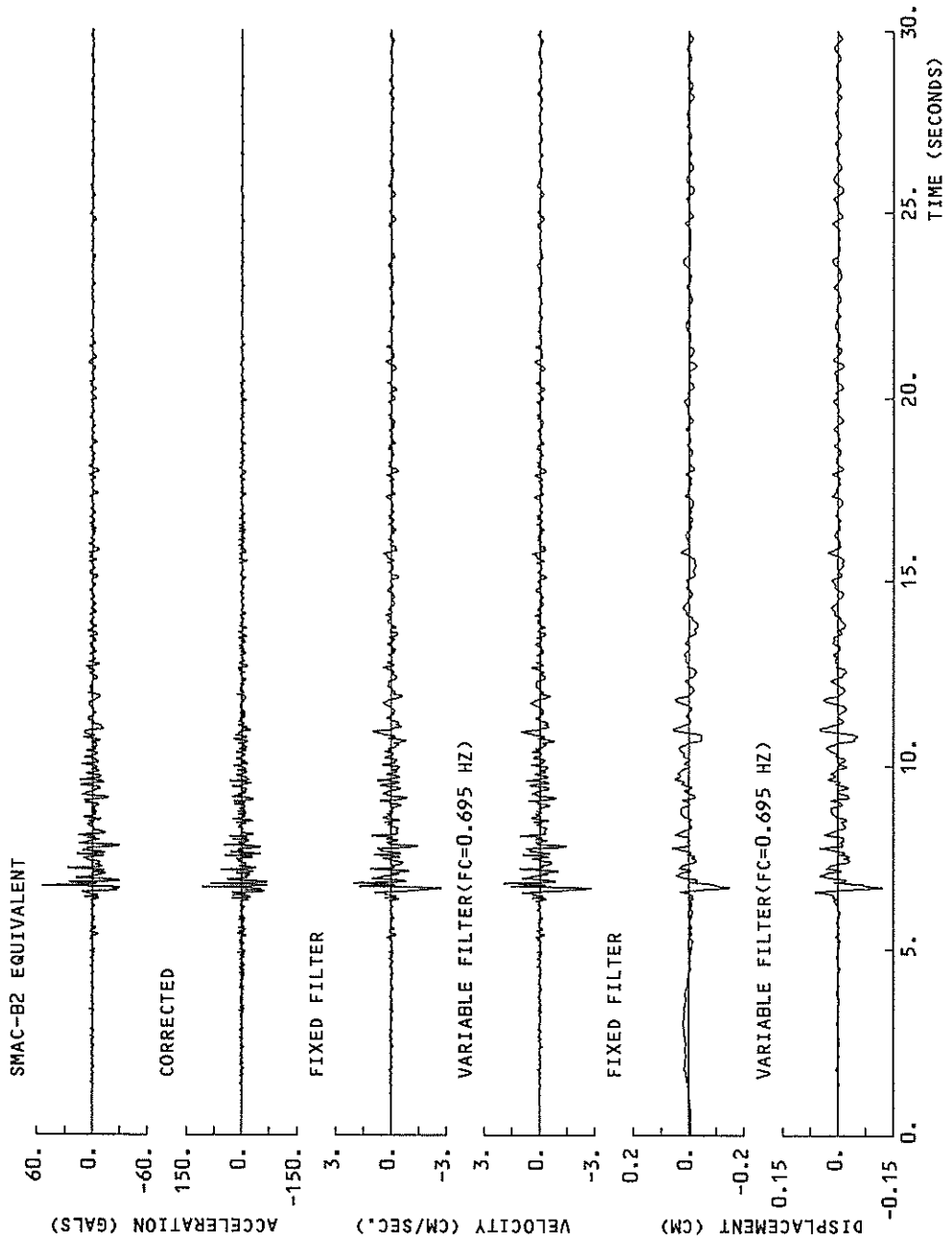
 MAXIMUM DISPLACEMENT (CM)

 FIXED FILTER 0.150 0.168 0.050 0.190
 VARIABLE FILTER 0.120 0.153 0.029 0.168

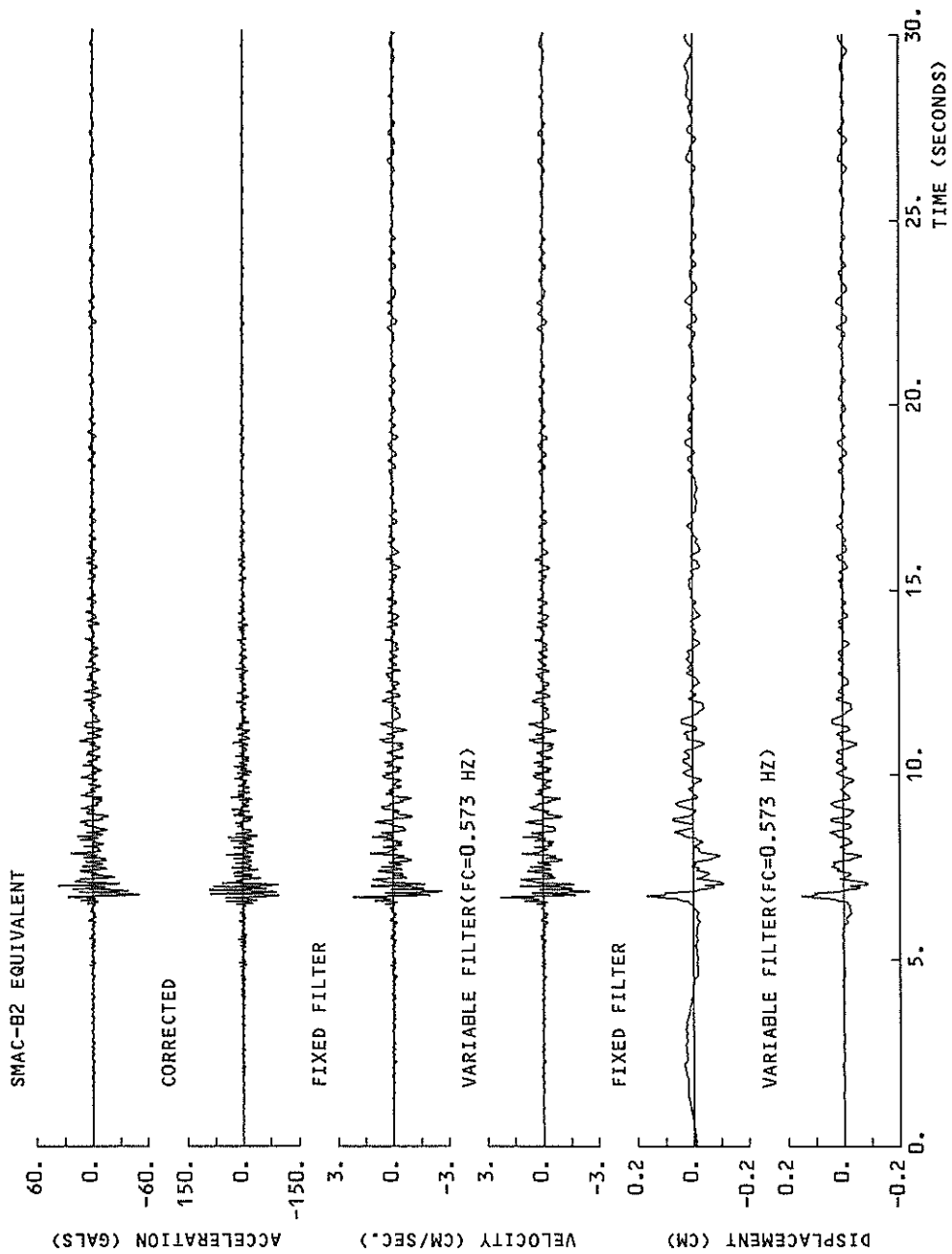
* RESULTANT OF HORIZONTAL COMPONENTS

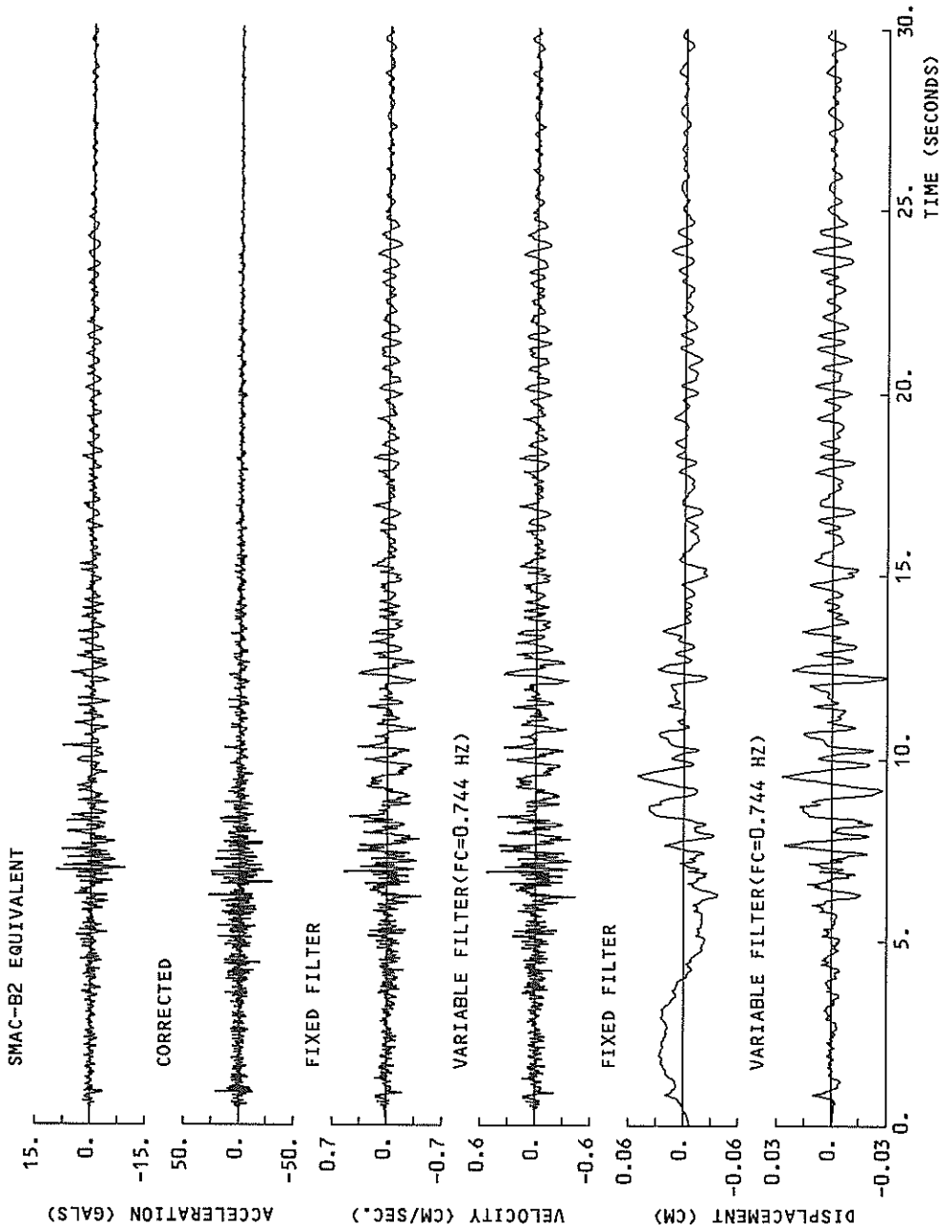


F-174 NORTH HITACHINAKA-F

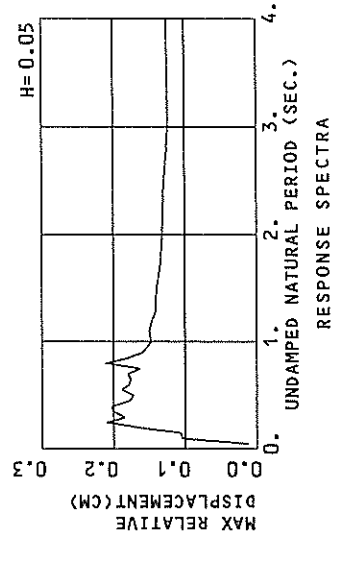
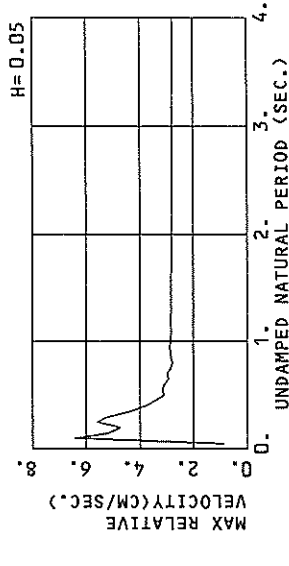
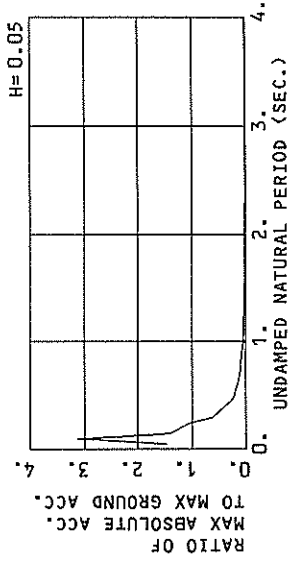


F-174 EAST HITACHINAKA-F



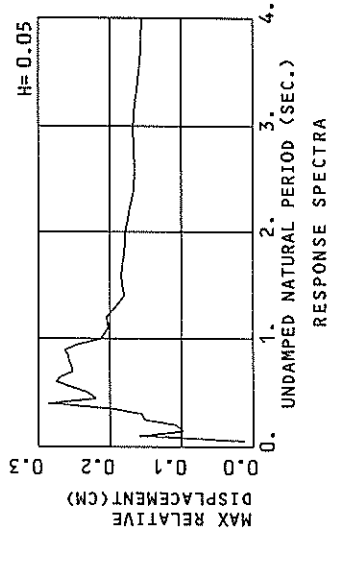
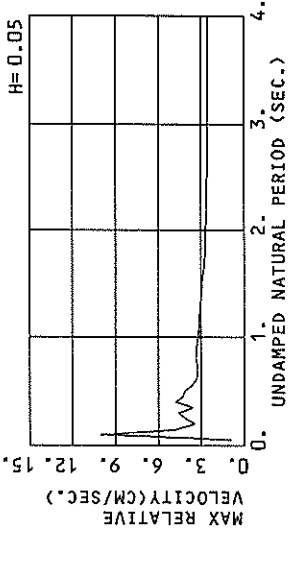
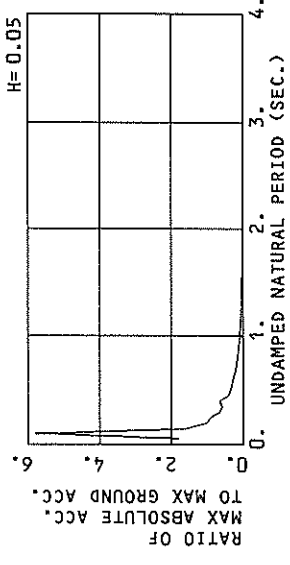


F-174 NORTH HITACHINAKA-F
(1/FC=1.44 SEC.)



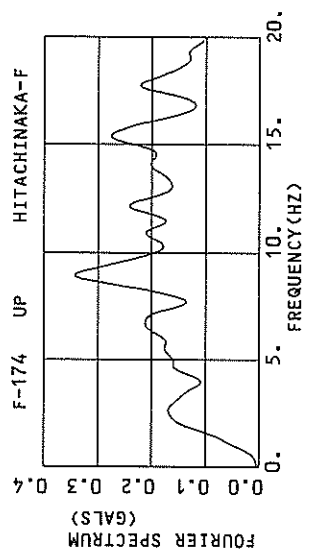
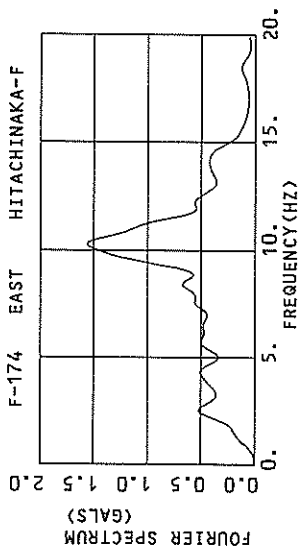
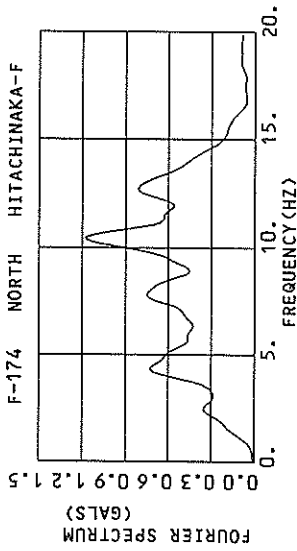
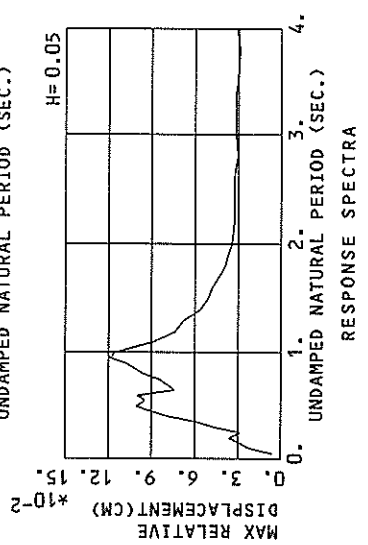
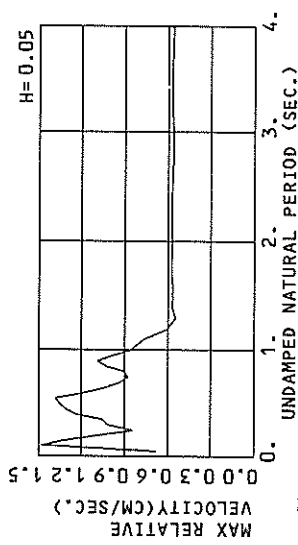
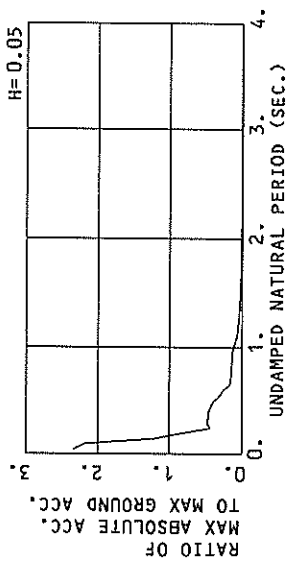
RESPONSE SPECTRA

F-174 EAST HITACHINAKA-F
(1/FC=1.75 SEC.)



RESPONSE SPECTRA

F-174 UP HITACHINAKA-F
(1/FC=1.34 SEC.)



RESPONSE SPECTRUM

RECORD = F-174
 DATE AND TIME = 1988-5-30-19-45
 TIME LENGTH = 29.99 (SEC)
 COMPONENT = NORTH
 SIGNAL = GR. ACC.
 SAMPRING INTERVAL = 0.0100(SEC)
 SKIPPED LENGTH = 0.00 (SEC)
 CORRECTION =
 MAX. GROUND ACC. = 132.35 (GAL)
 STATION = HITACHI NAKA-F

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	214.2	1.62	0.014	201.6	1.00	0.013	194.4	0.87	0.012	184.7	0.73	0.012	170.7	0.57	0.010
0.10	864.5	13.80	0.219	531.5	8.19	0.135	415.4	6.46	0.105	305.3	4.59	0.076	174.4	2.43	0.040
0.15	315.6	7.76	0.180	210.2	5.71	0.121	187.4	5.18	0.106	169.4	4.40	0.093	140.3	3.00	0.071
0.20	291.6	6.98	0.295	184.3	5.82	0.186	162.2	4.74	0.165	149.4	4.31	0.143	118.4	3.40	0.100
0.25	411.1	16.32	0.652	185.1	6.98	0.245	134.6	5.99	0.210	105.6	5.03	0.164	84.5	3.95	0.106
0.30	104.1	6.28	0.237	92.1	5.70	0.210	82.1	5.27	0.185	67.5	4.63	0.152	55.8	3.93	0.098
0.35	78.4	5.04	0.243	69.6	4.43	0.214	65.7	4.37	0.201	58.9	4.20	0.176	45.8	3.68	0.122
0.40	160.8	10.39	0.652	58.9	3.91	0.239	50.9	3.80	0.202	46.9	3.73	0.180	41.0	3.43	0.131
0.45	108.1	7.92	0.554	47.7	3.72	0.244	35.0	3.42	0.177	34.2	3.24	0.165	29.6	3.00	0.131
0.50	31.6	3.30	0.200	29.9	3.15	0.189	27.4	3.11	0.173	25.9	2.96	0.153	29.0	3.00	0.127
0.55	49.9	4.45	0.382	29.1	3.26	0.223	25.0	3.16	0.193	21.6	2.96	0.156	25.4	2.83	0.130
0.60	42.7	4.26	0.389	24.5	3.17	0.222	19.8	3.08	0.178	18.4	2.92	0.149	22.7	2.69	0.133
0.65	46.7	4.99	0.300	21.0	3.00	0.224	16.6	2.95	0.176	15.9	2.85	0.148	20.5	2.57	0.135
0.70	25.3	3.58	0.314	17.7	3.26	0.219	14.7	2.98	0.180	14.1	2.79	0.150	18.6	2.51	0.138
0.75	20.2	3.28	0.298	13.5	2.99	0.193	11.7	2.86	0.184	12.7	2.75	0.153	17.1	2.49	0.139
0.80	31.5	4.15	0.511	17.0	2.85	0.275	13.2	2.80	0.211	11.6	2.70	0.155	15.7	2.47	0.141
0.85	19.4	3.50	0.355	13.3	2.87	0.243	10.1	2.82	0.182	10.5	2.77	0.156	14.6	2.51	0.141
0.90	11.5	2.99	0.235	8.2	2.92	0.168	8.5	2.86	0.160	9.5	2.77	0.154	12.6	2.54	0.142
0.95	6.7	3.00	0.153	6.0	2.93	0.153	7.4	2.87	0.153	8.5	2.78	0.151	12.6	2.56	0.142
1.00	7.2	2.90	0.183	6.0	2.88	0.146	6.5	2.85	0.148	7.8	2.78	0.148	11.8	2.58	0.141
1.10	5.1	2.87	0.157	5.2	2.85	0.153	5.5	2.83	0.150	6.6	2.78	0.147	10.4	2.61	0.140
1.20	4.1	2.94	0.149	4.2	2.89	0.148	4.6	2.85	0.146	5.7	2.79	0.144	9.3	2.63	0.139
1.30	3.2	2.87	0.136	3.4	2.86	0.139	3.9	2.84	0.141	5.0	2.79	0.141	8.4	2.65	0.138
1.40	2.9	2.85	0.142	3.0	2.84	0.141	3.4	2.82	0.140	4.5	2.79	0.140	7.6	2.66	0.137
1.50	2.5	2.87	0.143	2.6	2.84	0.141	3.0	2.82	0.140	4.0	2.79	0.139	7.0	2.67	0.136
1.60	2.1	2.86	0.138	2.3	2.84	0.138	2.7	2.82	0.138	3.6	2.79	0.137	6.5	2.68	0.135
1.70	1.8	2.85	0.135	2.0	2.84	0.135	2.4	2.82	0.135	3.3	2.79	0.135	6.0	2.69	0.134
1.80	1.6	2.84	0.134	1.8	2.83	0.134	2.1	2.81	0.134	3.0	2.78	0.134	5.6	2.69	0.133
1.90	1.4	2.83	0.132	1.5	2.82	0.132	1.9	2.81	0.133	2.8	2.78	0.133	5.3	2.70	0.133
2.00	1.3	2.83	0.131	1.5	2.82	0.131	1.8	2.80	0.132	2.6	2.78	0.132	5.0	2.70	0.132
2.20	1.1	2.82	0.131	1.2	2.81	0.131	1.5	2.80	0.131	2.3	2.78	0.131	4.4	2.71	0.131
2.40	0.9	2.82	0.131	1.0	2.81	0.131	1.3	2.80	0.130	2.0	2.78	0.130	4.0	2.72	0.130
2.60	0.7	2.82	0.128	0.9	2.81	0.128	1.2	2.80	0.128	1.8	2.77	0.128	3.7	2.72	0.128
3.00	0.6	2.81	0.124	0.8	2.80	0.125	1.0	2.79	0.125	1.6	2.77	0.125	3.4	2.72	0.127
3.20	0.5	2.80	0.122	0.7	2.79	0.123	0.9	2.79	0.124	1.5	2.77	0.125	3.1	2.73	0.127
3.40	0.5	2.79	0.122	0.6	2.79	0.123	0.8	2.78	0.124	1.4	2.77	0.125	2.9	2.73	0.127
3.60	0.4	2.79	0.124	0.6	2.78	0.124	0.8	2.78	0.124	1.3	2.77	0.125	2.7	2.73	0.126
3.80	0.4	2.79	0.126	0.5	2.78	0.125	0.7	2.78	0.125	1.2	2.77	0.125	2.6	2.73	0.125
4.00	0.3	2.79	0.125	0.5	2.78	0.125	0.6	2.78	0.125	1.1	2.77	0.124	2.4	2.73	0.125
4.20	0.3	2.79	0.125	0.4	2.78	0.125	0.6	2.78	0.124	1.0	2.77	0.124	2.3	2.74	0.124

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = F-174 COMPONENT = EAST SIGNAL = GR ACC. CORRECTION = STATION = HITACHINAKA-F
 DATE AND TIME = 1988-5-30-19-45 SAMPRING INTERVAL = 0.0100(SEC) MAX.GROUND ACC. = 107.76 (GAL)
 TIME LENGTH = 29.99 (SEC) SKIPPED LENGTH = 0.00 (SEC)

PER	DAMPING = 0.025				DAMPING = 0.050				DAMPING = 0.100				DAMPING = 0.250			
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	
0.05	252.2	1.34	0.016	209.7	13.69	0.013	191.6	10.08	0.012	171.2	0.80	0.011	148.1	0.65	0.009	
0.10	160.6	25.41	0.405	869.2	5.16	0.219	626.0	4.82	0.159	397.5	6.23	0.099	202.5	2.92	0.046	
0.15	514.7	12.22	0.293	217.5	3.68	0.121	112.5	3.44	0.097	150.2	4.29	0.083	729.5	3.14	0.065	
0.20	151.5	5.02	0.153	115.3	4.87	0.189	108.1	4.08	0.108	98.7	3.17	0.098	91.4	2.66	0.078	
0.25	245.5	9.75	0.389	120.4	5.10	0.187	97.8	4.61	0.156	70.9	3.85	0.106	59.5	2.84	0.085	
0.30	175.8	8.19	0.401	82.3	3.63	0.214	63.3	3.57	0.196	58.4	3.44	0.154	44.4	3.02	0.104	
0.35	180.3	10.08	0.560	69.4	6.95	0.429	71.1	4.81	0.286	44.2	3.61	0.174	37.7	3.00	0.121	
0.40	205.0	13.47	0.835	106.4	4.79	0.428	43.0	4.28	0.220	36.1	3.88	0.174	35.0	3.00	0.136	
0.45	85.0	6.64	0.430	56.2	4.33	0.288	36.7	4.14	0.231	31.5	3.81	0.185	31.8	3.08	0.146	
0.50	50.5	4.56	0.320	42.8	4.33	0.270	36.7	4.14	0.231	31.5	3.81	0.185	31.8	3.08	0.146	
0.55	37.0	3.81	0.284	35.6	3.75	0.272	33.2	3.69	0.252	28.6	3.53	0.213	28.6	3.02	0.151	
0.60	56.3	5.38	0.504	33.5	3.45	0.305	30.6	3.36	0.276	26.6	3.22	0.232	26.6	2.90	0.152	
0.65	40.8	4.33	0.437	27.2	3.30	0.291	25.6	3.25	0.270	23.0	3.10	0.233	22.9	2.80	0.158	
0.70	29.3	4.15	0.364	24.2	3.38	0.299	20.7	3.29	0.263	19.2	3.14	0.222	20.5	2.76	0.158	
0.75	27.9	4.15	0.398	21.7	3.67	0.308	17.9	3.29	0.254	15.5	3.18	0.204	18.5	2.82	0.155	
0.80	33.9	4.40	0.549	18.5	3.44	0.298	16.1	3.35	0.258	14.0	3.21	0.206	16.7	2.87	0.163	
0.85	27.1	3.42	0.404	16.3	3.40	0.298	14.2	3.34	0.259	12.6	3.22	0.207	15.2	2.90	0.163	
0.90	27.8	4.04	0.571	14.8	3.41	0.302	13.0	3.33	0.264	11.3	3.21	0.207	13.8	2.92	0.164	
0.95	19.3	3.44	0.441	11.8	3.36	0.268	10.9	3.30	0.243	10.0	3.19	0.199	12.7	2.93	0.165	
1.00	10.0	3.24	0.254	9.1	3.26	0.259	8.7	3.22	0.213	8.9	3.16	0.193	11.6	2.93	0.164	
1.10	7.5	3.22	0.230	7.0	3.20	0.214	6.9	3.17	0.202	7.3	3.11	0.184	9.9	2.93	0.159	
1.20	6.4	3.24	0.234	6.0	3.19	0.217	6.0	3.14	0.205	6.1	3.08	0.184	8.6	2.92	0.153	
1.30	4.7	3.08	0.202	4.7	3.07	0.197	4.8	3.06	0.191	5.2	3.02	0.178	7.6	2.89	0.150	
1.40	3.8	2.99	0.187	3.8	2.98	0.184	4.0	2.98	0.180	4.7	2.96	0.173	6.7	2.87	0.154	
1.50	3.4	2.93	0.193	3.4	2.92	0.188	3.6	2.91	0.184	4.3	2.90	0.176	6.2	2.84	0.157	
1.60	3.0	2.84	0.194	3.0	2.84	0.189	3.2	2.85	0.183	3.9	2.84	0.177	5.8	2.81	0.160	
1.70	2.6	2.77	0.188	2.7	2.78	0.185	2.6	2.79	0.183	3.5	2.80	0.177	5.4	2.78	0.161	
1.80	2.2	2.73	0.184	2.4	2.74	0.182	2.6	2.75	0.180	3.2	2.76	0.175	5.1	2.75	0.162	
1.90	2.0	2.67	0.184	2.1	2.71	0.182	2.4	2.71	0.180	3.0	2.72	0.175	4.8	2.73	0.162	
2.00	1.8	2.67	0.185	1.9	2.67	0.181	2.1	2.68	0.179	2.7	2.70	0.174	4.5	2.71	0.163	
2.20	1.4	2.60	0.176	1.6	2.61	0.174	1.8	2.63	0.173	2.4	2.65	0.171	4.0	2.67	0.162	
2.40	1.1	2.57	0.165	1.3	2.59	0.166	1.5	2.60	0.167	2.4	2.65	0.167	4.0	2.67	0.162	
2.60	1.0	2.57	0.165	1.1	2.58	0.166	1.3	2.58	0.166	1.8	2.60	0.165	3.3	2.62	0.161	
2.80	0.9	2.56	0.170	1.0	2.57	0.168	1.2	2.57	0.167	1.5	2.58	0.165	3.0	2.61	0.161	
3.00	0.8	2.54	0.171	0.9	2.55	0.169	1.1	2.55	0.167	1.5	2.56	0.165	2.8	2.59	0.160	
3.20	0.6	2.52	0.168	0.7	2.53	0.166	0.9	2.54	0.165	1.3	2.55	0.163	2.6	2.58	0.159	
3.40	0.5	2.51	0.162	0.6	2.52	0.162	0.8	2.52	0.162	1.2	2.54	0.161	2.3	2.57	0.158	
3.60	0.5	2.50	0.157	0.6	2.51	0.158	0.8	2.52	0.158	1.1	2.53	0.158	2.3	2.56	0.158	
3.80	0.4	2.50	0.154	0.5	2.51	0.155	0.7	2.52	0.156	1.1	2.53	0.157	2.1	2.55	0.157	
4.00	0.4	2.51	0.153	0.5	2.51	0.154	0.6	2.52	0.155	1.0	2.52	0.157	2.0	2.55	0.157	

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

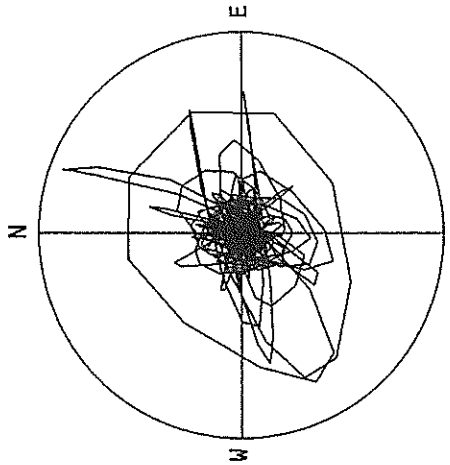
RESPONSE SPECTRUM

RECORD = F-174 COMPONENT = UP SIGNAL = GR. ACC. CORRECTION = STATION = HITACHINAKA-F
 DATE AND TIME = 1988-5-30-19-45 SAMPLING INTERVAL = 0.0100(SEC) MAX. GROUND ACC. = 41.01 (GAL)
 TIME LENGTH = 29.99 (SEC) SKIPPED LENGTH = 0.00 (SEC)

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	188.6	1.50	0.012	105.7	0.79	0.007	95.7	0.68	0.006	75.4	0.53	0.005	53.2	0.33	0.003
0.10	226.9	3.53	0.057	113.7	1.81	0.029	89.3	1.48	0.023	68.9	1.04	0.017	40.7	0.59	0.010
0.15	184.0	4.42	0.105	66.9	1.64	0.038	49.9	1.34	0.029	39.6	1.02	0.023	28.3	0.64	0.014
0.20	77.4	2.41	0.078	43.4	1.34	0.044	36.0	1.12	0.036	26.1	0.89	0.025	19.3	0.64	0.016
0.25	48.9	2.00	0.077	23.2	1.00	0.037	18.0	0.84	0.028	14.3	0.77	0.022	12.4	0.64	0.015
0.30	49.0	2.39	0.112	27.0	1.37	0.062	20.0	1.02	0.045	14.1	0.67	0.031	10.5	0.61	0.020
0.35	63.7	3.58	0.198	25.1	1.47	0.078	19.1	1.06	0.059	14.1	0.76	0.043	10.2	0.59	0.026
0.40	73.1	4.67	0.296	28.3	1.79	0.114	19.2	1.24	0.077	12.9	0.93	0.051	9.1	0.60	0.030
0.45	51.4	3.75	0.264	23.0	1.70	0.118	17.7	1.31	0.090	12.3	0.94	0.062	8.6	0.66	0.034
0.50	50.4	4.08	0.319	23.0	1.86	0.148	16.0	1.35	0.101	11.0	0.97	0.068	7.5	0.68	0.038
0.55	20.1	1.99	0.154	15.4	1.63	0.118	12.5	1.38	0.095	8.9	1.07	0.066	6.1	0.67	0.039
0.60	42.1	4.02	0.384	15.8	1.58	0.143	11.0	1.19	0.100	7.8	1.01	0.069	5.4	0.70	0.041
0.65	9.5	1.21	0.102	7.5	1.12	0.080	7.0	1.03	0.074	6.1	0.91	0.063	4.9	0.72	0.042
0.70	13.0	1.55	0.162	7.2	1.03	0.090	6.4	0.94	0.079	5.6	0.85	0.068	4.6	0.71	0.044
0.75	13.6	1.66	0.193	5.9	0.91	0.084	6.0	0.88	0.084	5.3	0.74	0.072	4.2	0.69	0.045
0.80	10.1	1.38	0.163	6.9	1.04	0.111	6.0	0.90	0.096	4.9	0.74	0.075	3.7	0.67	0.044
0.85	10.4	1.45	0.191	6.7	1.15	0.122	5.6	1.03	0.101	4.1	0.84	0.074	3.1	0.64	0.043
0.90	7.9	1.42	0.162	6.1	1.24	0.126	5.3	1.09	0.108	4.1	0.88	0.083	2.7	0.63	0.047
0.95	10.1	1.58	0.232	6.2	1.11	0.140	5.2	0.99	0.119	4.1	0.83	0.090	2.5	0.61	0.051
1.00	10.3	1.74	0.260	5.3	1.11	0.133	4.6	0.86	0.115	3.7	0.72	0.090	2.5	0.60	0.052
1.10	5.0	1.15	0.153	3.4	0.90	0.103	2.9	0.77	0.088	2.6	0.62	0.074	2.1	0.59	0.050
1.20	2.0	0.60	0.074	2.1	0.62	0.075	2.0	0.61	0.073	1.9	0.56	0.065	1.7	0.58	0.045
1.30	2.0	0.59	0.086	1.8	0.54	0.075	1.6	0.54	0.068	1.4	0.56	0.060	1.5	0.58	0.043
1.40	1.3	0.60	0.067	1.2	0.58	0.060	1.2	0.57	0.056	1.1	0.57	0.052	1.3	0.57	0.041
1.50	0.9	0.56	0.054	0.9	0.56	0.053	0.9	0.57	0.051	0.9	0.57	0.045	1.2	0.57	0.039
1.60	0.9	0.56	0.056	0.8	0.57	0.051	0.8	0.57	0.048	0.8	0.57	0.044	1.1	0.57	0.037
1.70	0.6	0.58	0.044	0.6	0.58	0.044	0.6	0.57	0.043	0.6	0.57	0.041	1.0	0.57	0.035
1.80	0.5	0.58	0.038	0.5	0.58	0.039	0.5	0.57	0.039	0.5	0.57	0.038	1.0	0.57	0.034
1.90	0.4	0.57	0.039	0.4	0.57	0.037	0.4	0.57	0.037	0.5	0.57	0.036	0.9	0.57	0.032
2.00	0.3	0.56	0.035	0.3	0.57	0.034	0.4	0.57	0.034	0.5	0.57	0.034	0.9	0.57	0.032
2.20	0.3	0.58	0.035	0.3	0.58	0.033	0.3	0.58	0.032	0.4	0.57	0.032	0.8	0.57	0.031
2.40	0.2	0.58	0.036	0.2	0.57	0.034	0.3	0.57	0.032	0.4	0.57	0.032	0.7	0.57	0.030
2.60	0.2	0.56	0.037	0.2	0.56	0.034	0.2	0.57	0.033	0.3	0.57	0.031	0.7	0.57	0.030
2.80	0.2	0.55	0.032	0.2	0.56	0.031	0.2	0.56	0.031	0.3	0.57	0.030	0.6	0.57	0.030
3.00	0.2	0.56	0.035	0.1	0.56	0.033	0.2	0.56	0.031	0.3	0.57	0.030	0.6	0.57	0.029
3.20	0.1	0.57	0.035	0.1	0.57	0.033	0.2	0.57	0.031	0.2	0.57	0.030	0.5	0.57	0.029
3.40	0.1	0.58	0.035	0.1	0.57	0.033	0.2	0.57	0.031	0.2	0.57	0.030	0.5	0.57	0.029
3.60	0.1	0.57	0.032	0.1	0.57	0.030	0.1	0.57	0.030	0.2	0.57	0.029	0.5	0.57	0.029
3.80	0.1	0.57	0.030	0.1	0.57	0.028	0.1	0.57	0.029	0.2	0.57	0.029	0.5	0.57	0.029
4.00	0.1	0.56	0.033	0.1	0.56	0.032	0.1	0.56	0.031	0.2	0.57	0.030	0.4	0.57	0.029

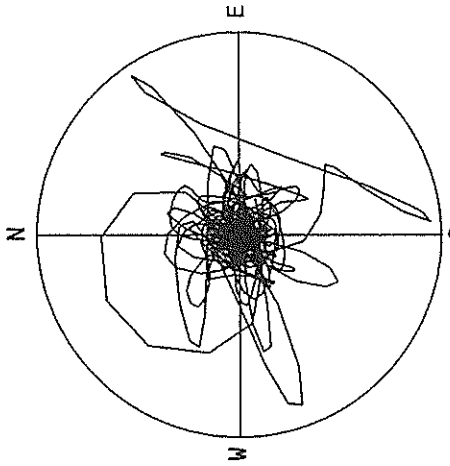
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

F-174 HITACHINAKA-F



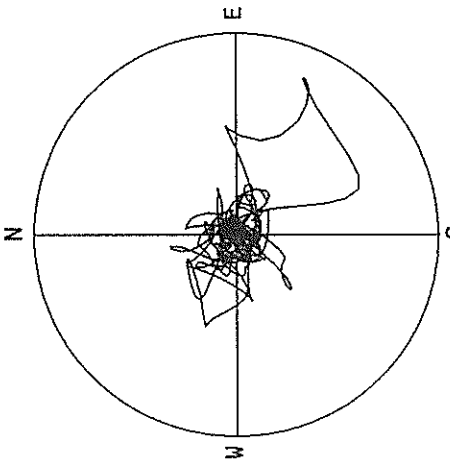
ACCELERATION
R=150.0GAL
MAX=140.4GAL

F-174 HITACHINAKA-F



VELOCITY
R=3.0 CM/SEC.
MAX=2.8 CM/SEC.

F-174 HITACHINAKA-F



DISPLACEMENT
R=0.20 CM
MAX=0.17 CM

RECORD NUMBER M-1226
 STATION YAMASHITA-HEN-M

EARTHQUAKE DATA

 DATA AND TIME *****
 14:14 AUG.12,1988 *****
 LOCATION OF HYPOCENTER *****
 EPICENTRAL REGION *****
 LATITUDE *****
 35° 5.7' N *****
 LONGITUDE *****
 139° 52.0' E *****
 DEPTH *****
 69.4KM *****
 MAGNITUDE *****
 5.3 *****

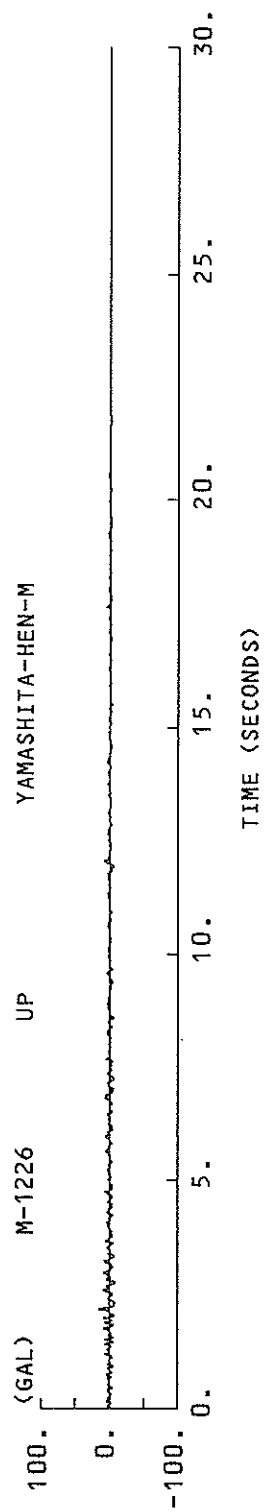
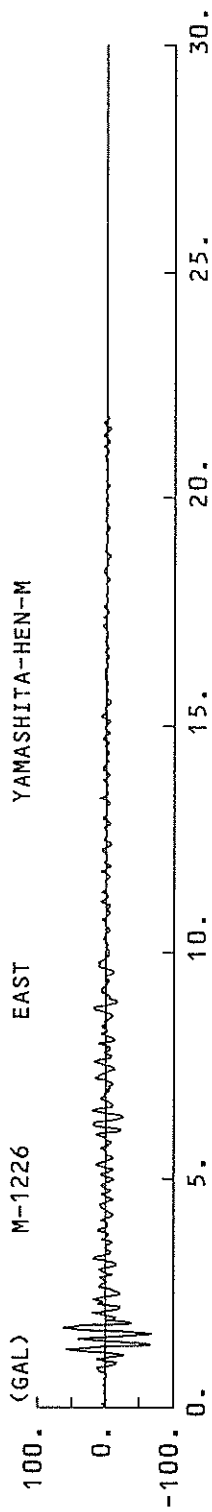
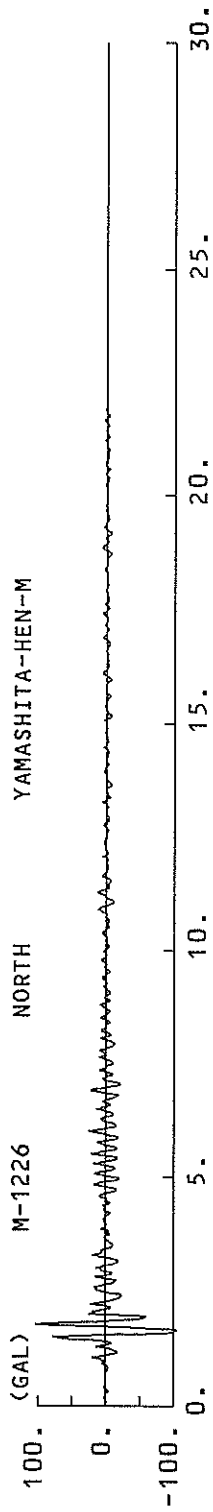
PEAK VALUES OF COMPONENTS

 N S E W U D HORIZONTAL*

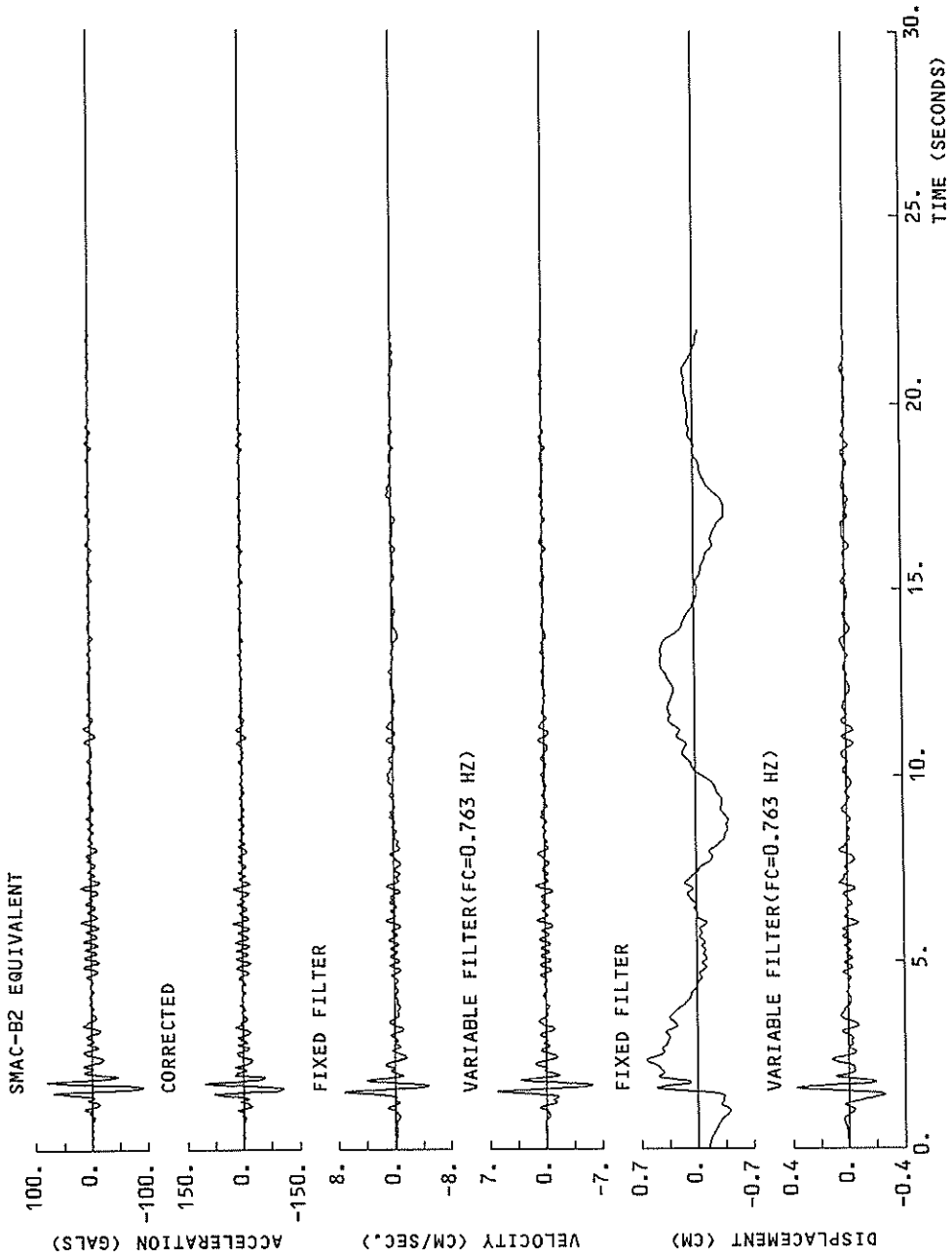
PARAMETER OF THE VARIABLE FILTER

PARAMETER	N	S	E	W	U	D	HORIZONTAL*
FC (HZ)	0.763		0.983		1.203		
MAXIMUM ACCELERATION (GAL)							
SMAC-B2 EQUIVALENT ORIGINAL	91.9		51.4		10.1		96.7
CORRECTED	105.5		68.8		15.7		117.1
MAXIMUM VELOCITY (CM/SEC)	107.0		69.2		15.8		117.1
FIXED FILTER VARIABLE FILTER	7.33		3.80		0.77		7.52
MAXIMUM DISPLACEMENT (CM)	6.22		3.43		0.55		6.34
FIXED FILTER VARIABLE FILTER	0.639		0.573		0.411		0.813
	0.379		0.192		0.025		0.383

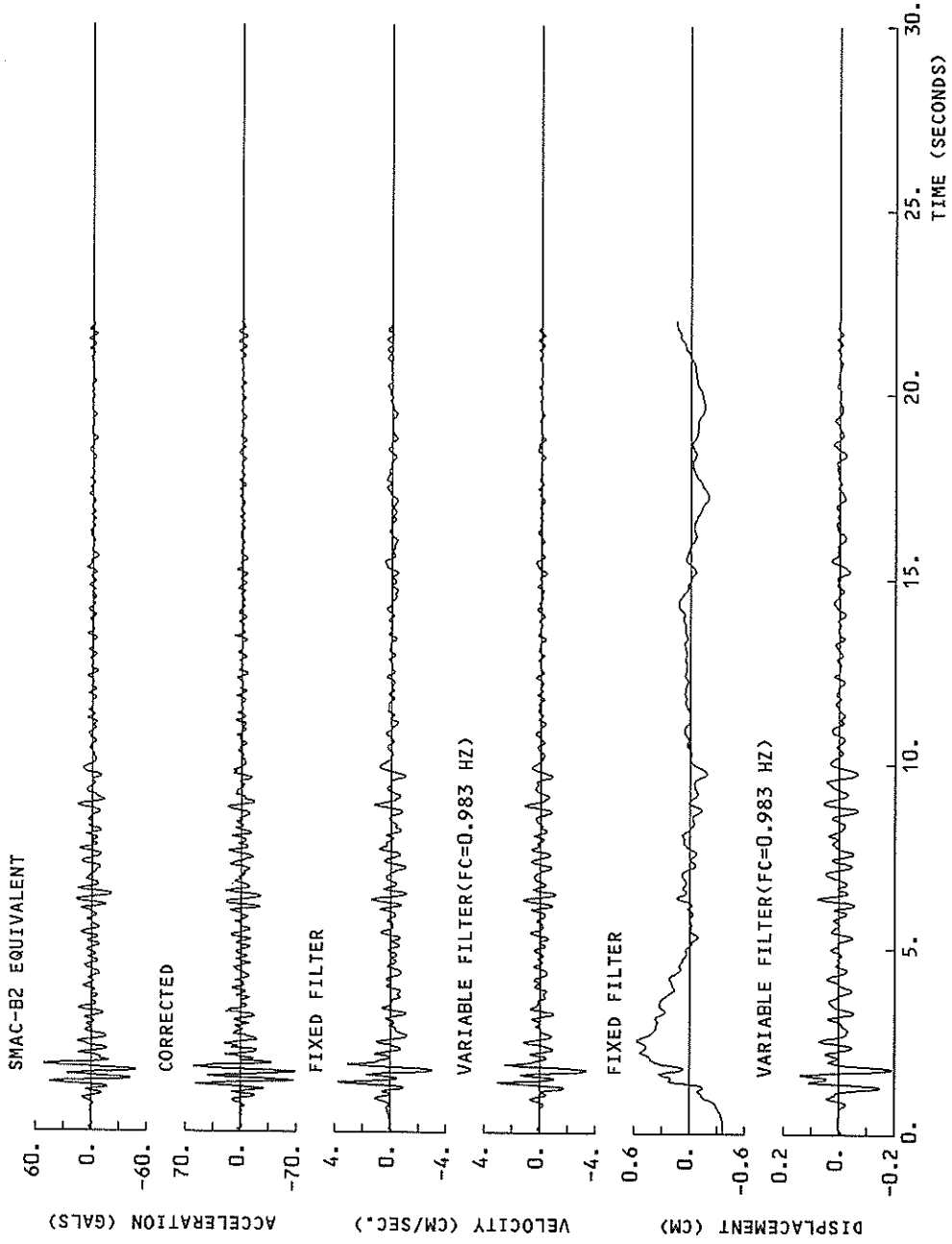
* RESULTANT OF HORIZONTAL COMPONENTS

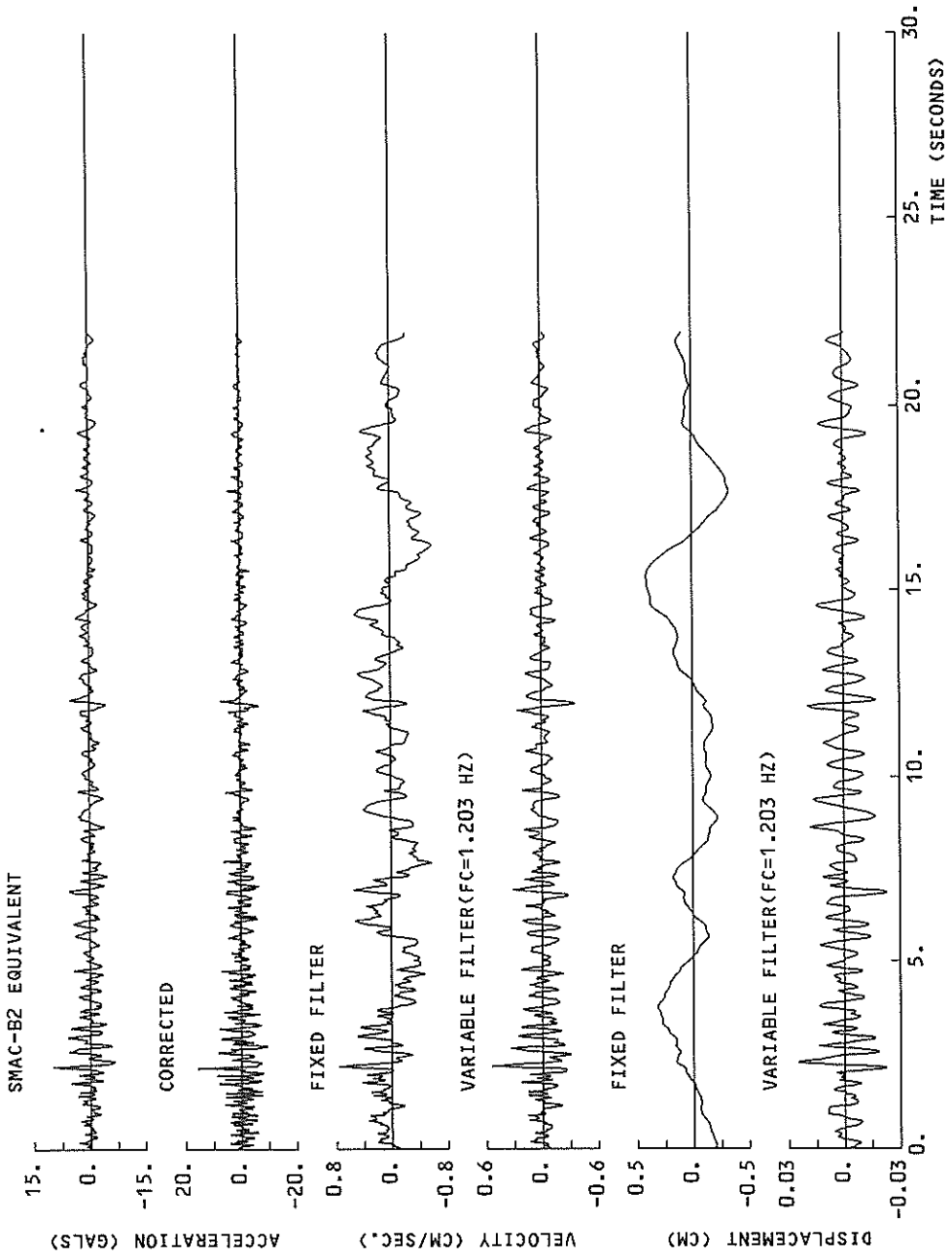


M-1226 NORTH YAMASHITA-HEN-M

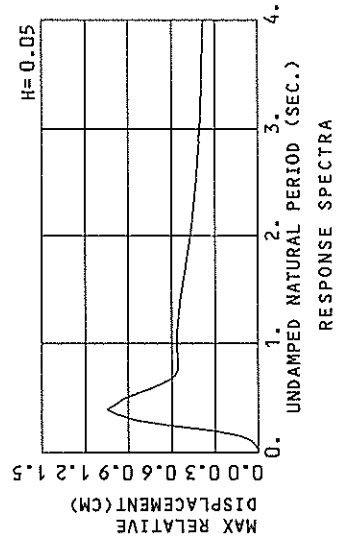
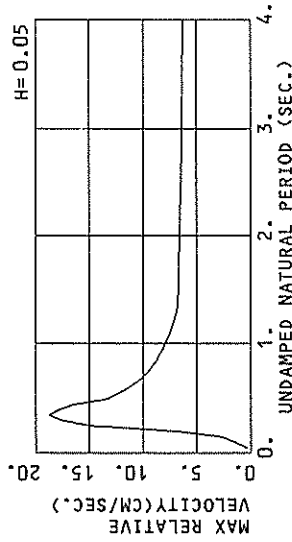
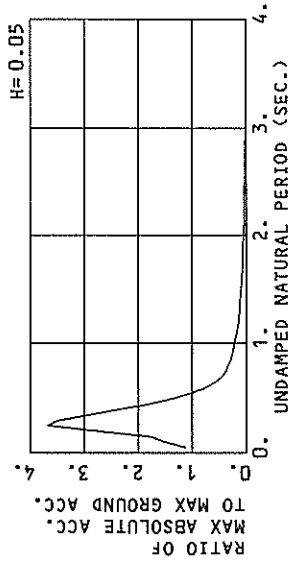


M-1226 EAST YAMASHITA-HEN-M

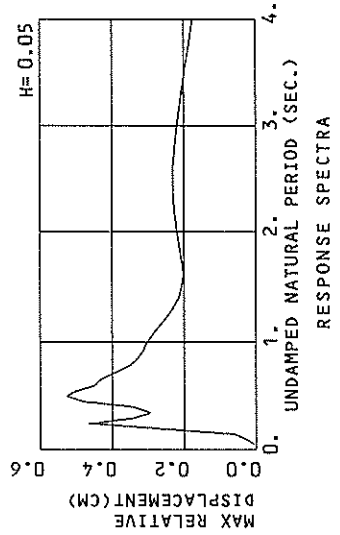
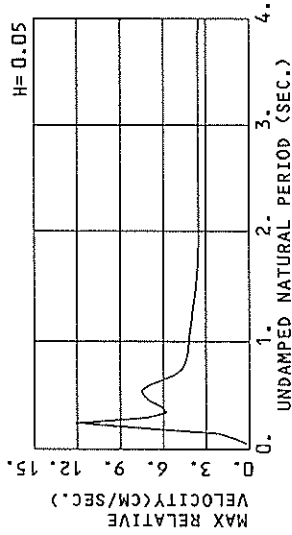
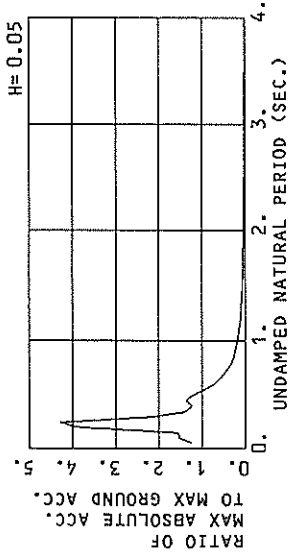




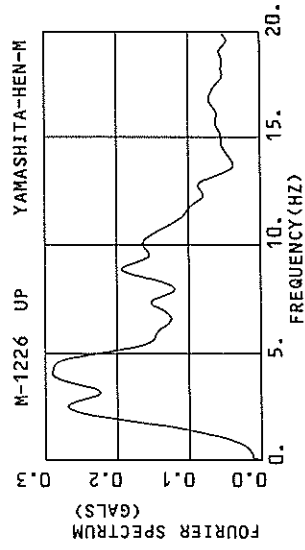
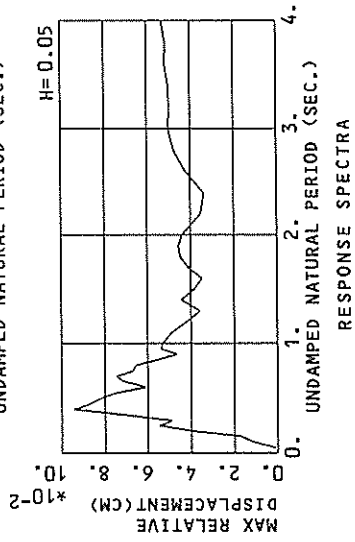
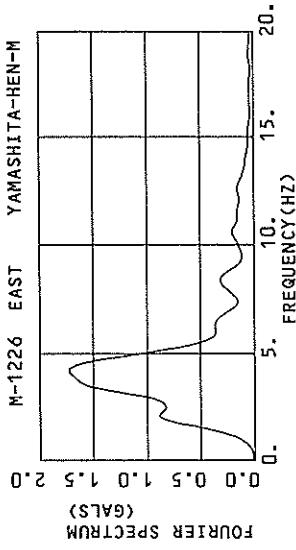
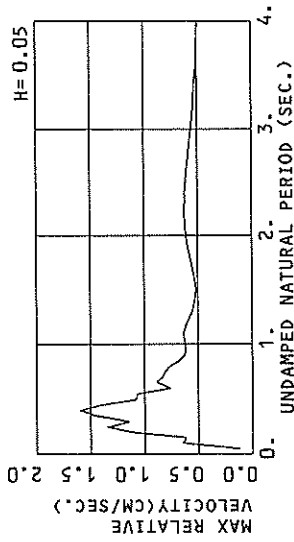
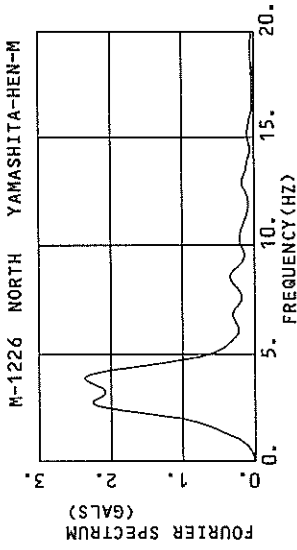
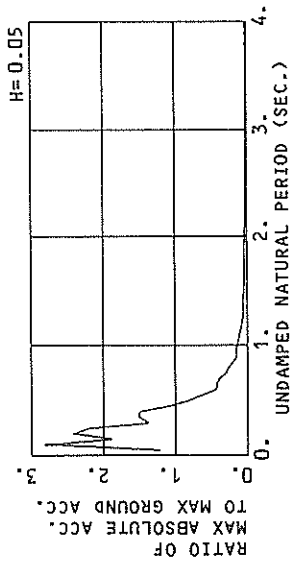
M-1226 NORTH YAMASHITA-HEN-M
(1/FC=1.31 SEC.)



M-1226 EAST YAMASHITA-HEN-M
(1/FC=1.02 SEC.)



M-1226 UP YAMASHITA-HEN-M
(1/FC=0.83 SEC.)



RESPONSE SPECTRUM

RECORD = M-1226 COMPONENT = NORTH SIGNAL = GR. ACC. CORRECTION = YAMASHITA-HEN-M
 DATE AND TIME = 1988-8-12-14-14 SAMPRING INTERVAL = 0.0100(SEC) MAX. GROUND ACC. = 106.96 (GAL)
 TIME LENGTH = 21.99 (SEC) SKIPPED LENGTH = 0.00 (SEC)

PER	DAMPING = 0.025				DAMPING = 0.050				DAMPING = 0.100				DAMPING = 0.250			
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	
0.05	119.5	0.38	0.008	124.5	0.37	0.008	120.0	0.38	0.008	114.2	0.37	0.007	110.3	0.33	0.007	
0.10	184.5	2.32	0.047	167.6	1.73	0.043	162.9	1.51	0.041	153.9	1.25	0.039	135.1	1.04	0.033	
0.15	203.5	4.32	0.116	195.8	3.01	0.112	190.0	2.67	0.108	181.1	2.45	0.102	159.8	2.21	0.087	
0.20	343.8	8.75	0.348	314.6	7.62	0.318	288.9	6.64	0.290	249.7	5.61	0.250	187.5	3.94	0.179	
0.25	1006.9	39.99	1.594	463.3	18.09	0.732	394.7	14.94	0.694	316.5	11.36	0.494	212.9	6.55	0.307	
0.30	658.1	31.37	1.500	431.2	20.49	0.982	375.0	17.58	0.855	300.2	14.03	0.672	205.3	8.61	0.418	
0.35	550.8	30.66	1.709	357.2	21.19	1.108	314.1	18.77	0.973	263.6	14.89	0.801	177.4	9.78	0.479	
0.40	422.2	26.89	1.711	293.7	19.71	1.186	259.9	17.92	1.050	211.8	15.21	0.838	154.0	10.18	0.547	
0.45	260.8	19.60	1.338	208.5	17.86	1.071	193.3	16.36	0.983	169.7	14.06	0.845	134.5	9.78	0.586	
0.50	223.1	17.81	1.413	199.2	14.14	1.004	148.9	13.30	0.937	134.5	11.86	0.821	114.3	8.97	0.593	
0.55	120.6	13.57	0.924	114.7	12.98	0.877	109.7	12.39	0.833	102.8	11.39	0.755	94.7	9.02	0.579	
0.60	85.8	12.13	0.783	83.3	11.75	0.756	81.2	11.42	0.733	78.3	10.72	0.682	79.1	8.88	0.554	
0.65	86.8	11.08	0.929	62.4	10.85	0.666	61.4	10.60	0.649	66.3	10.13	0.618	66.3	8.73	0.523	
0.70	78.7	10.33	0.976	48.1	10.18	0.596	47.8	10.00	0.585	48.4	9.62	0.562	48.1	8.51	0.494	
0.75	43.6	9.77	0.621	40.4	9.66	0.572	40.1	9.53	0.561	40.3	9.22	0.538	48.1	8.30	0.471	
0.80	49.3	9.32	0.799	35.4	9.23	0.570	35.2	9.13	0.559	35.7	8.66	0.538	41.7	8.14	0.475	
0.85	31.8	8.04	0.583	31.4	8.87	0.571	31.2	8.79	0.559	31.9	8.60	0.538	38.1	7.97	0.478	
0.90	28.6	8.59	0.587	28.1	8.54	0.573	28.0	8.48	0.561	28.0	8.34	0.539	32.6	7.82	0.482	
0.95	25.6	8.28	0.586	25.3	8.25	0.574	25.2	8.21	0.563	26.0	8.10	0.541	32.6	7.66	0.485	
1.00	23.1	8.00	0.586	22.8	7.98	0.575	22.8	7.96	0.564	23.7	7.88	0.543	30.3	7.52	0.488	
1.10	19.1	7.51	0.584	18.8	7.52	0.573	18.9	7.52	0.563	19.9	7.50	0.543	26.6	7.26	0.490	
1.20	15.9	7.11	0.578	15.7	7.14	0.567	15.8	7.16	0.557	16.9	7.18	0.539	23.5	7.06	0.490	
1.30	13.3	6.92	0.568	13.2	6.85	0.559	13.4	6.87	0.549	14.6	6.92	0.533	21.1	6.89	0.490	
1.40	11.2	6.90	0.555	11.2	6.82	0.547	11.4	6.76	0.539	12.7	6.70	0.524	19.0	6.74	0.487	
1.50	9.5	6.86	0.540	9.5	6.79	0.534	9.8	6.73	0.528	11.1	6.62	0.515	17.3	6.61	0.484	
1.60	8.1	6.83	0.525	8.2	6.76	0.520	8.5	6.70	0.516	9.8	6.60	0.506	15.8	6.50	0.479	
1.70	7.0	6.79	0.510	7.0	6.73	0.507	7.4	6.67	0.503	8.8	6.58	0.496	14.6	6.41	0.474	
1.80	6.0	6.75	0.496	6.1	6.70	0.494	6.5	6.65	0.491	7.9	6.53	0.486	13.5	6.33	0.468	
1.90	5.3	6.71	0.483	5.4	6.66	0.482	5.8	6.62	0.480	7.1	6.53	0.477	12.6	6.31	0.462	
2.00	4.6	6.67	0.471	4.8	6.63	0.471	5.1	6.59	0.470	6.5	6.51	0.468	11.8	6.31	0.457	
2.20	3.7	6.60	0.450	3.8	6.57	0.451	4.2	6.54	0.452	5.5	6.47	0.452	10.4	6.30	0.446	
2.40	3.0	6.54	0.434	3.1	6.52	0.435	3.6	6.49	0.437	4.8	6.43	0.436	9.3	6.29	0.437	
2.60	2.5	6.49	0.420	2.6	6.47	0.423	3.0	6.45	0.424	4.2	6.40	0.424	8.3	6.27	0.429	
2.80	2.1	6.45	0.410	2.2	6.44	0.412	2.6	6.42	0.414	3.7	6.35	0.418	7.7	6.26	0.422	
3.00	1.8	6.42	0.401	1.9	6.41	0.404	2.3	6.39	0.406	3.4	6.35	0.410	7.1	6.25	0.415	
3.20	1.5	6.39	0.394	1.7	6.38	0.397	2.0	6.36	0.399	3.1	6.33	0.403	6.6	6.24	0.410	
3.40	1.3	6.37	0.388	1.5	6.36	0.391	1.8	6.34	0.393	2.8	6.32	0.397	6.2	6.23	0.405	
3.60	1.2	6.35	0.384	1.3	6.34	0.386	1.6	6.33	0.388	2.6	6.30	0.393	5.8	6.22	0.401	
3.80	1.0	6.33	0.380	1.2	6.32	0.382	1.5	6.31	0.385	2.4	6.29	0.389	5.5	6.21	0.397	
4.00	0.9	6.32	0.376	1.1	6.31	0.379	1.4	6.30	0.381	2.3	6.28	0.385	5.2	6.21	0.394	

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

STATION = YAMASHITA-HEN-M

MAX. GROUND ACC. = 69.16 (GAL)

CORRECTION = 0.0100 (SEC)

SIGNAL = GR. ACC.

COMPONENT = EAST

RECORD = M-1226

DATE AND TIME = 1988-8-12-14-14
 TIME LENGTH = 21.99 (SEC)
 SKIPPED INTERVAL = 0.0100 (SEC)
 SAMPRING INTERVAL = 0.00 (SEC)

DAMPING = 0.025
 DAMPING = 0.050
 DAMPING = 0.100
 DAMPING = 0.250

PER	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	110.9	0.68	0.007	85.9	0.23	0.005	85.9	0.21	0.005	84.4	0.20	0.005	80.0	0.19	0.005
0.10	135.0	2.04	0.034	110.0	1.31	0.028	105.3	1.04	0.027	100.3	0.92	0.025	92.9	0.88	0.023
0.15	232.6	5.45	0.133	104.4	2.21	0.060	106.2	2.09	0.061	110.8	2.02	0.063	105.3	1.51	0.056
0.20	457.4	14.44	0.463	330.7	9.48	0.333	273.1	7.78	0.278	207.5	5.74	0.347	127.2	3.15	0.120
0.25	680.4	27.10	1.077	364.7	14.77	0.576	296.9	12.14	0.467	222.1	8.69	0.347	129.1	4.28	0.186
0.30	841.3	45.51	1.534	202.1	8.62	0.460	150.6	7.14	0.341	127.4	5.88	0.284	100.0	4.04	0.202
0.35	941.2	65.11	0.855	106.6	6.05	0.331	96.0	5.80	0.341	84.0	5.32	0.253	77.4	4.10	0.206
0.40	201.8	12.88	0.818	94.9	6.62	0.385	84.8	6.13	0.341	71.4	5.37	0.280	68.2	4.05	0.233
0.45	171.7	12.33	0.881	109.8	8.01	0.563	94.3	6.93	0.460	79.2	5.43	0.395	62.4	4.18	0.263
0.50	306.9	24.36	1.943	96.1	7.97	0.609	83.6	7.32	0.527	70.3	6.30	0.432	54.5	4.61	0.276
0.55	147.6	13.52	1.131	78.1	8.10	0.596	66.1	7.52	0.504	55.2	6.55	0.413	44.8	4.82	0.268
0.60	69.9	7.92	0.637	56.0	7.43	0.510	49.6	6.99	0.449	43.0	6.26	0.376	36.6	4.80	0.266
0.65	47.7	6.48	0.510	43.8	6.28	0.466	41.1	6.08	0.435	37.5	5.67	0.382	33.7	4.66	0.281
0.70	27.6	5.02	0.714	34.7	5.16	0.429	33.3	5.16	0.408	31.4	5.04	0.369	30.4	4.45	0.286
0.75	27.9	5.02	0.387	27.1	4.83	0.385	26.6	4.66	0.373	25.2	4.51	0.350	27.4	4.22	0.286
0.80	23.9	4.72	0.387	21.8	4.61	0.352	21.7	4.45	0.346	22.0	4.27	0.332	24.6	4.00	0.283
0.85	18.3	4.51	0.335	18.2	4.44	0.322	18.3	4.36	0.328	18.9	4.19	0.317	22.2	3.81	0.278
0.90	15.9	4.39	0.325	15.7	4.34	0.322	15.8	4.27	0.318	16.3	4.13	0.307	20.2	3.70	0.274
0.95	18.8	4.34	0.430	13.8	4.28	0.315	13.9	4.22	0.309	16.5	4.09	0.299	18.4	3.71	0.269
1.00	12.4	4.31	0.313	12.2	4.25	0.307	12.2	4.19	0.301	12.9	4.06	0.291	16.9	3.71	0.265
1.10	12.4	4.24	0.380	9.3	4.18	0.283	9.5	4.12	0.279	10.2	4.00	0.273	14.4	3.69	0.254
1.20	7.0	4.11	0.255	7.1	4.06	0.255	7.3	4.02	0.254	8.2	3.93	0.253	12.5	3.66	0.244
1.30	5.3	3.96	0.225	5.4	3.93	0.229	5.7	3.90	0.231	6.7	3.84	0.235	11.0	3.63	0.235
1.40	4.1	3.81	0.205	4.3	3.80	0.211	4.7	3.79	0.215	5.7	3.76	0.222	9.8	3.60	0.228
1.50	3.4	3.70	0.196	3.6	3.70	0.200	3.9	3.70	0.206	4.9	3.68	0.214	8.8	3.58	0.223
1.60	3.0	3.62	0.195	3.2	3.63	0.200	3.5	3.63	0.204	4.4	3.58	0.211	8.1	3.55	0.217
1.70	2.7	3.57	0.199	2.9	3.58	0.203	3.1	3.58	0.206	4.0	3.58	0.210	7.5	3.53	0.217
1.80	2.5	3.54	0.207	2.6	3.55	0.208	2.9	3.55	0.210	3.7	3.56	0.212	7.0	3.51	0.216
1.90	2.3	3.52	0.214	2.4	3.53	0.214	2.6	3.53	0.215	3.4	3.54	0.215	6.5	3.49	0.216
2.00	2.2	3.52	0.222	2.3	3.53	0.221	2.5	3.53	0.220	3.2	3.53	0.218	6.1	3.49	0.217
2.20	1.9	3.53	0.233	2.0	3.53	0.230	2.2	3.53	0.227	2.8	3.52	0.224	5.5	3.49	0.217
2.40	1.6	3.55	0.237	1.7	3.55	0.234	1.9	3.54	0.231	2.5	3.53	0.226	5.0	3.49	0.217
2.60	1.4	3.57	0.232	1.4	3.56	0.233	1.6	3.55	0.230	2.3	3.53	0.225	4.5	3.49	0.216
2.80	1.2	3.58	0.229	1.2	3.57	0.229	1.4	3.56	0.226	2.0	3.54	0.222	4.2	3.49	0.213
3.00	1.0	3.58	0.224	1.1	3.57	0.222	1.2	3.56	0.220	1.8	3.54	0.217	3.9	3.49	0.210
3.20	0.8	3.59	0.215	0.9	3.57	0.213	1.1	3.56	0.212	1.7	3.54	0.210	3.6	3.49	0.206
3.40	0.7	3.57	0.204	0.8	3.56	0.204	1.0	3.55	0.203	1.5	3.54	0.203	3.4	3.49	0.200
3.60	0.6	3.57	0.194	0.7	3.56	0.194	0.9	3.55	0.194	1.4	3.54	0.195	3.1	3.49	0.195
3.80	0.5	3.56	0.183	0.6	3.56	0.184	0.8	3.54	0.185	1.3	3.53	0.186	3.0	3.49	0.189
4.00	0.4	3.55	0.177	0.5	3.54	0.174	0.7	3.54	0.176	1.2	3.52	0.178	2.8	3.49	0.184

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = M-1226
 DATE AND TIME = 1988-8-12-14-14
 TIME LENGTH = 21.99 (SEC)

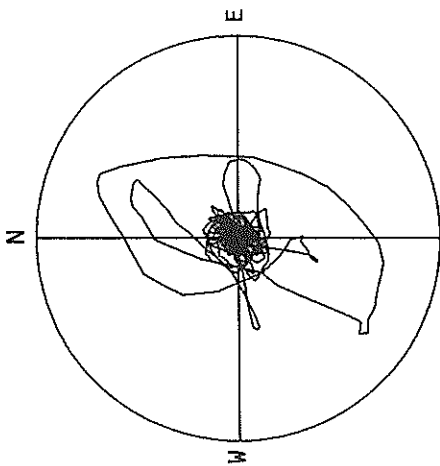
COMPONENT = UP
 SIGNAL = GR. ACC.
 SAMPRING INTERVAL = 0.0100 (SEC)
 SKIPPED LENGTH = 0.00 (SEC)

CORRECTION = MAX. GROUND ACC. = 15.77 (GAL)
 STATION = YAMASHITA-HEN-M

PER	DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250					
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD			
0.05	142.1	1.12	0.009	23.7	0.16	0.002	19.3	0.12	0.001	17.4	0.09	0.001	17.4	0.05	0.001
0.10	150.7	2.34	0.038	58.0	0.86	0.015	44.5	0.64	0.011	32.6	0.43	0.008	21.4	0.22	0.005
0.15	177.7	1.84	0.044	33.9	0.69	0.019	29.8	0.61	0.017	24.1	0.51	0.014	18.3	0.37	0.010
0.20	100.1	3.21	0.101	53.9	1.70	0.054	38.3	1.12	0.039	28.6	0.83	0.029	19.7	0.54	0.018
0.25	98.8	3.94	0.156	44.1	1.67	0.070	34.7	1.35	0.055	27.0	0.98	0.042	17.4	0.60	0.025
0.30	63.3	2.99	0.144	29.6	1.50	0.067	21.7	1.14	0.049	18.8	0.86	0.042	14.3	0.60	0.029
0.35	110.1	6.16	0.342	29.5	1.83	0.091	23.8	1.46	0.073	17.2	1.02	0.052	11.8	0.66	0.031
0.40	53.7	3.43	0.218	28.0	1.99	0.117	23.5	1.60	0.095	16.7	1.12	0.066	10.2	0.69	0.034
0.45	31.4	2.31	0.161	20.6	1.66	0.106	17.0	1.40	0.087	13.1	1.12	0.066	8.6	0.71	0.037
0.50	40.8	3.28	0.259	17.9	1.43	0.113	13.1	1.08	0.082	9.8	0.90	0.059	7.2	0.69	0.039
0.55	34.6	3.22	0.265	14.9	1.55	0.114	9.8	1.06	0.074	6.5	0.75	0.048	6.2	0.66	0.038
0.60	17.2	1.68	0.157	9.3	0.96	0.085	6.8	0.76	0.061	5.9	0.63	0.051	5.2	0.63	0.036
0.65	9.3	1.27	0.100	8.0	1.04	0.085	6.7	0.89	0.071	4.7	0.71	0.049	4.3	0.62	0.033
0.70	14.6	1.60	0.181	7.9	0.98	0.088	6.0	0.83	0.075	4.5	0.67	0.054	3.8	0.62	0.033
0.75	10.4	1.33	0.149	5.5	0.88	0.078	4.7	0.81	0.067	3.9	0.72	0.054	3.5	0.63	0.033
0.80	7.6	0.99	0.123	5.3	0.79	0.066	4.1	0.76	0.065	3.1	0.71	0.049	3.1	0.63	0.033
0.85	4.9	0.71	0.069	3.1	0.67	0.061	3.1	0.68	0.056	2.7	0.67	0.046	2.7	0.63	0.032
0.90	3.8	0.87	0.077	2.3	0.70	0.050	2.3	0.62	0.047	2.2	0.64	0.043	2.5	0.62	0.032
0.95	3.5	0.79	0.080	2.7	0.60	0.051	2.4	0.61	0.054	2.0	0.62	0.044	2.3	0.62	0.031
1.00	4.5	0.70	0.114	2.9	0.62	0.072	2.1	0.62	0.053	1.7	0.62	0.041	2.1	0.61	0.030
1.10	2.6	0.66	0.080	2.0	0.64	0.061	1.6	0.63	0.049	1.4	0.62	0.039	1.8	0.60	0.029
1.20	2.4	0.62	0.087	1.3	0.61	0.048	1.2	0.60	0.042	1.0	0.60	0.036	1.6	0.59	0.028
1.30	1.4	0.54	0.060	1.0	0.55	0.043	0.9	0.56	0.036	0.8	0.57	0.031	1.4	0.58	0.028
1.40	1.5	0.63	0.077	1.1	0.51	0.053	0.9	0.53	0.044	0.8	0.55	0.036	1.3	0.57	0.028
1.50	1.0	0.49	0.054	0.8	0.50	0.043	0.7	0.52	0.038	0.6	0.54	0.034	1.2	0.56	0.028
1.60	0.6	0.51	0.042	0.6	0.52	0.036	0.6	0.53	0.035	0.6	0.54	0.032	1.2	0.56	0.029
1.70	0.6	0.54	0.047	0.6	0.55	0.044	0.6	0.55	0.041	0.6	0.56	0.037	1.1	0.57	0.030
1.80	0.6	0.58	0.053	0.6	0.58	0.048	0.6	0.57	0.045	0.6	0.57	0.039	1.1	0.57	0.031
1.90	0.6	0.61	0.053	0.5	0.60	0.049	0.5	0.59	0.046	0.6	0.58	0.040	1.0	0.57	0.031
2.00	0.5	0.63	0.051	0.5	0.62	0.047	0.5	0.61	0.044	0.5	0.60	0.039	0.9	0.58	0.031
2.20	0.4	0.64	0.047	0.3	0.63	0.037	0.3	0.62	0.035	0.4	0.61	0.033	0.8	0.58	0.029
2.40	0.3	0.63	0.046	0.3	0.62	0.038	0.3	0.62	0.034	0.3	0.61	0.031	0.7	0.58	0.026
2.60	0.3	0.63	0.049	0.3	0.60	0.045	0.3	0.60	0.042	0.3	0.59	0.037	0.7	0.58	0.029
2.80	0.3	0.58	0.056	0.3	0.58	0.051	0.3	0.58	0.048	0.3	0.58	0.042	0.6	0.57	0.031
3.00	0.3	0.55	0.057	0.2	0.56	0.054	0.2	0.56	0.050	0.3	0.56	0.044	0.5	0.56	0.032
3.20	0.2	0.53	0.057	0.2	0.54	0.053	0.2	0.54	0.050	0.2	0.55	0.044	0.5	0.55	0.032
3.40	0.2	0.52	0.058	0.2	0.52	0.054	0.2	0.53	0.050	0.2	0.53	0.044	0.5	0.55	0.032
3.60	0.2	0.50	0.060	0.2	0.51	0.056	0.2	0.51	0.052	0.2	0.52	0.045	0.4	0.54	0.036
3.80	0.2	0.49	0.063	0.2	0.50	0.055	0.2	0.51	0.051	0.2	0.52	0.047	0.4	0.53	0.040
4.00	0.2	0.49	0.067	0.1	0.49	0.057	0.2	0.50	0.053	0.2	0.51	0.049	0.4	0.53	0.042

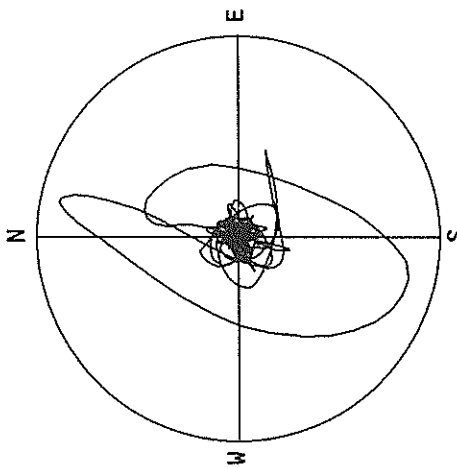
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

M-1226 YAMASHITA-HEN-M



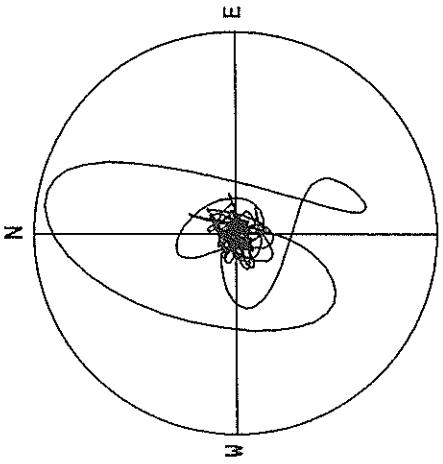
ACCELERATION
R=150.0GAL
MAX=117.1GAL

M-1226 YAMASHITA-HEN-M



VELOCITY
R=7.0 CM/SEC.
MAX=6.3 CM/SEC.

M-1226 YAMASHITA-HEN-M



DISPLACEMENT
R=0.40 CM
MAX=0.38 CM

RECORD NUMBER
STATION

F-168
YAMASHITA-F

EARTHQUAKE DATA

 DATA AND TIME 14:14 AUG.12,1988
 LOCATION OF HYPOCENTER SOUTHERN BOSO PENINSULA
 EPICENTRAL REGION 35° 5.7' N
 LATITUDE 139° 52.0' E
 LONGITUDE 69.4KM
 DEPTH 5.3
 MAGNITUDE

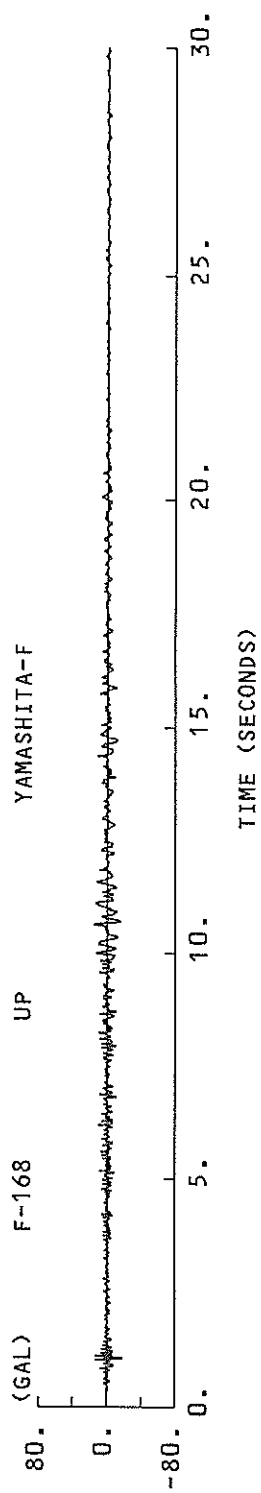
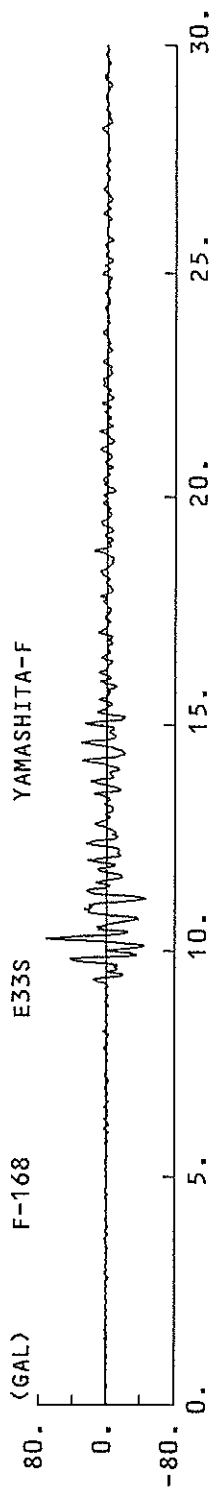
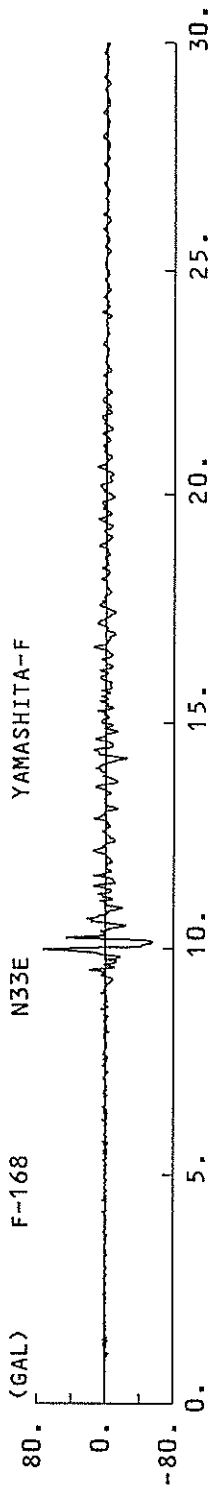
PEAK VALUES OF COMPONENTS

 N S E W U D HORIZONTAL*

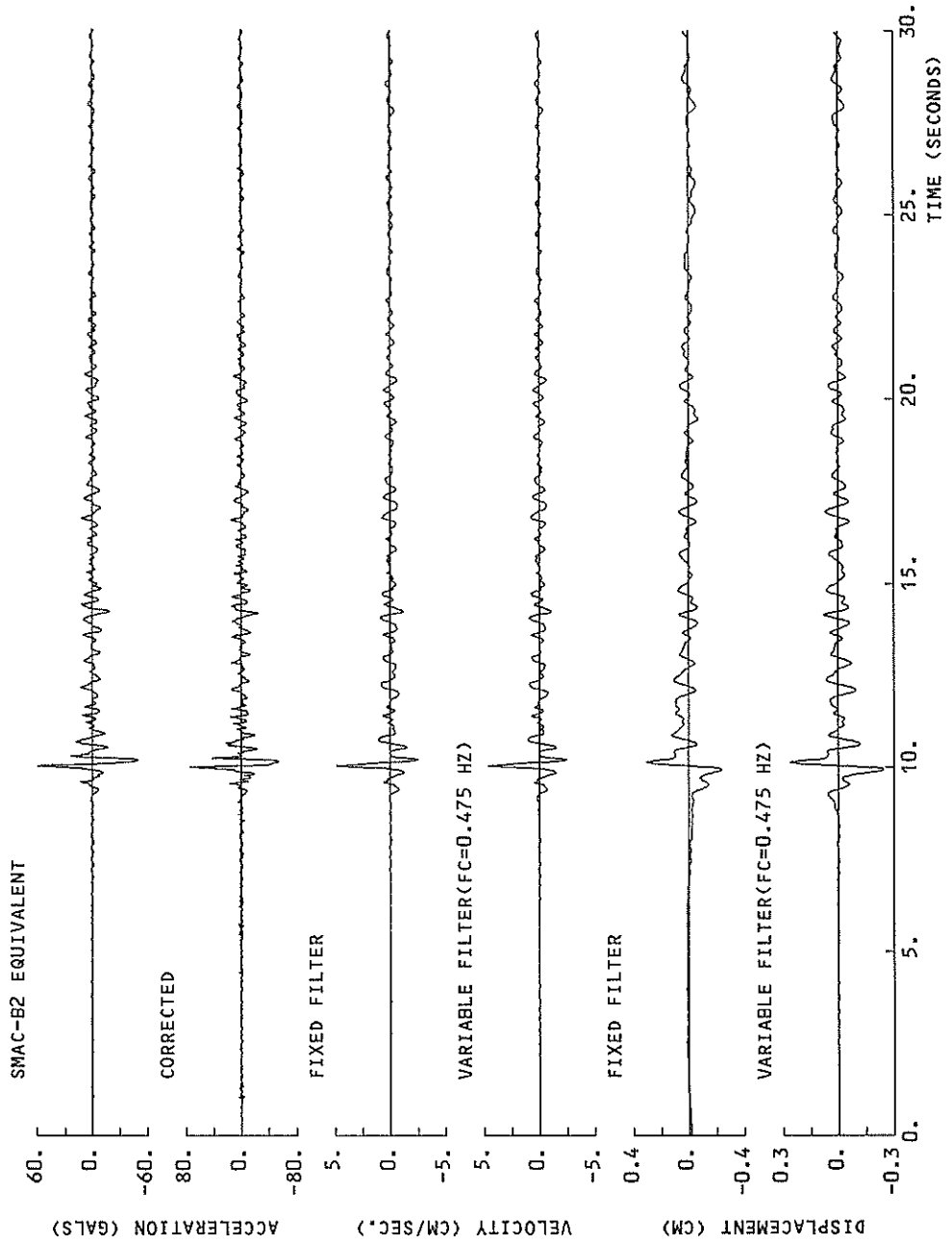
PARAMETER OF THE VARIABLE FILTER

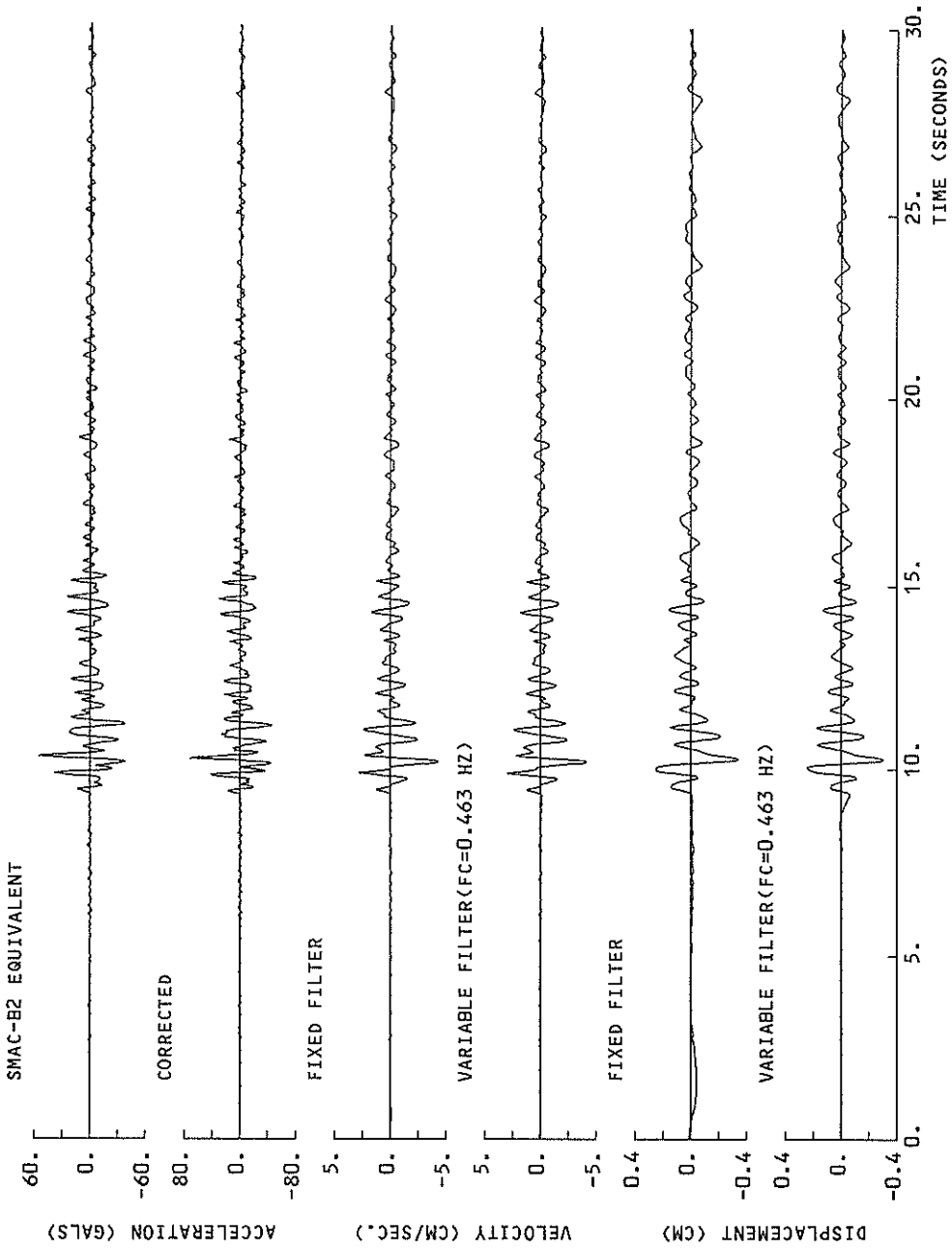
FC (HZ)	0.475	0.463	0.658
MAXIMUM ACCELERATION (GAL)			
SMAC-B2 EQUIVALENT	59.6	56.4	11.3
ORIGINAL	75.4	71.8	18.6
CORRECTED	75.0	71.6	17.4
MAXIMUM VELOCITY (CM/SEC)			
FIXED FILTER	4.88	4.29	0.80
VARIABLE FILTER	4.66	4.20	0.76
MAXIMUM DISPLACEMENT (CM)			
FIXED FILTER	0.307	0.345	0.085
VARIABLE FILTER	0.265	0.309	0.053

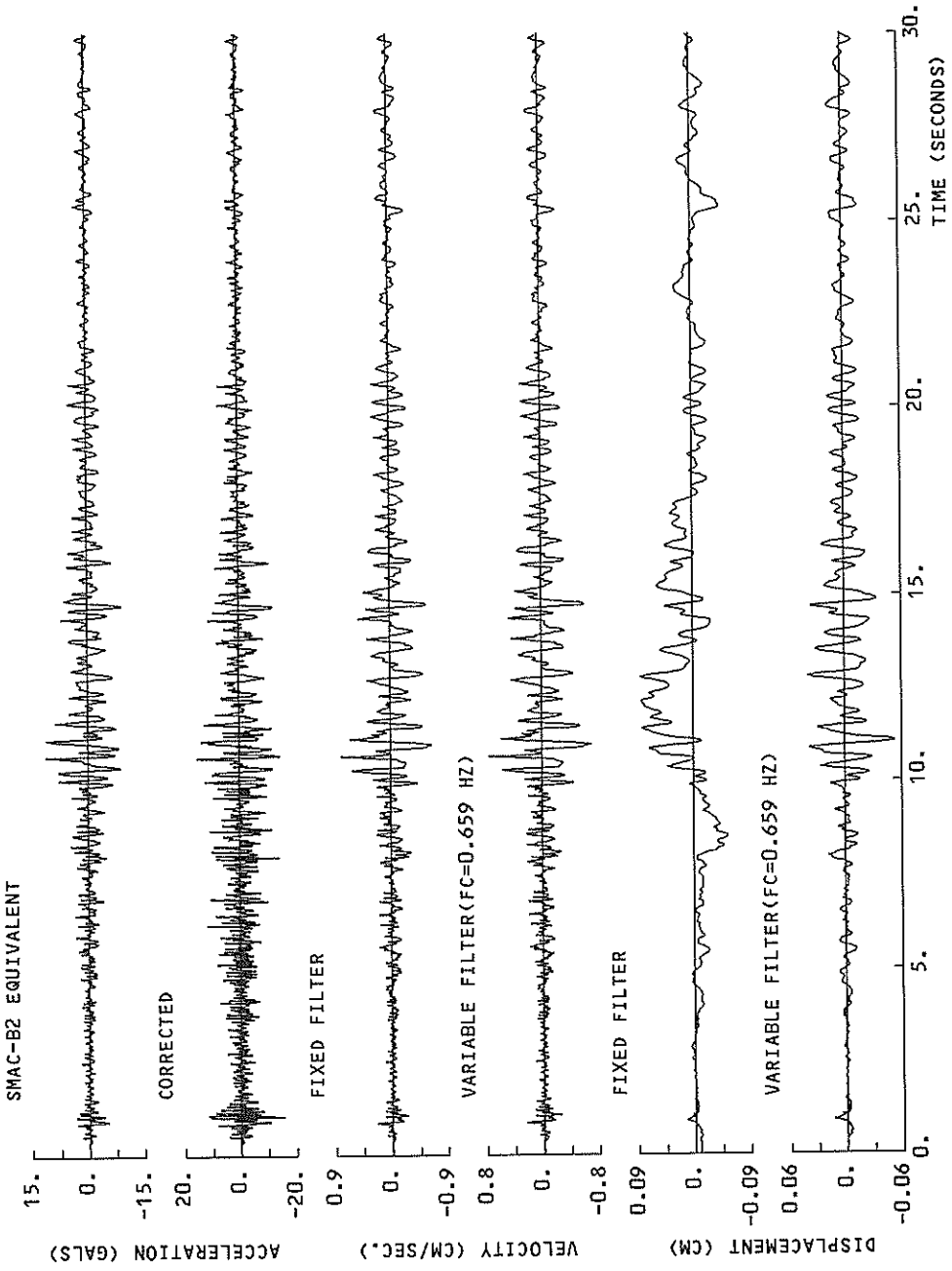
* RESULTANT OF HORIZONTAL COMPONENTS



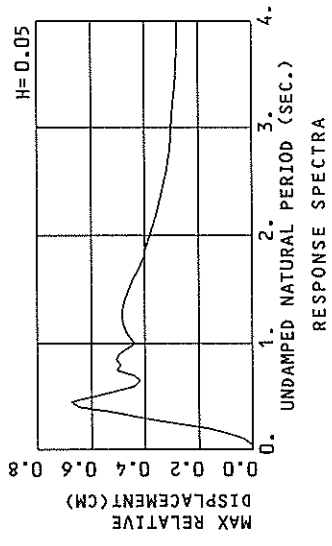
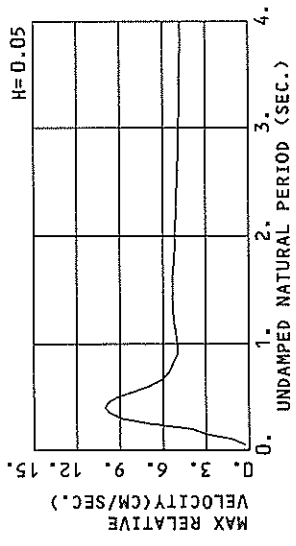
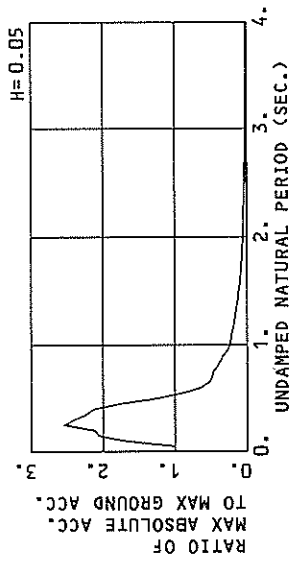
F-168 N33E YAMASHITA-F



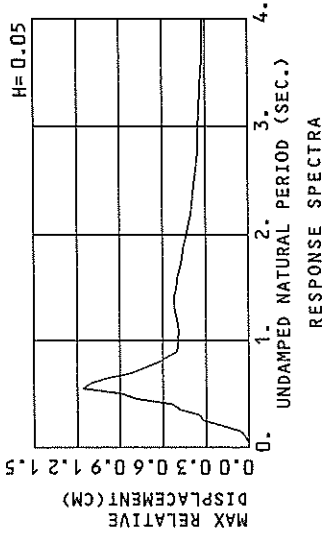
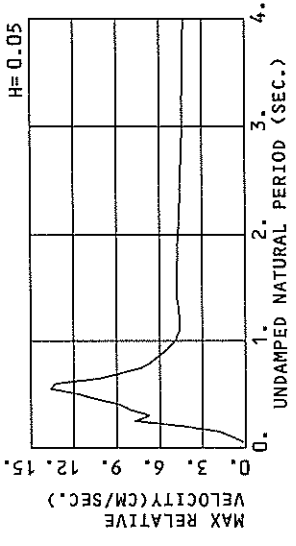
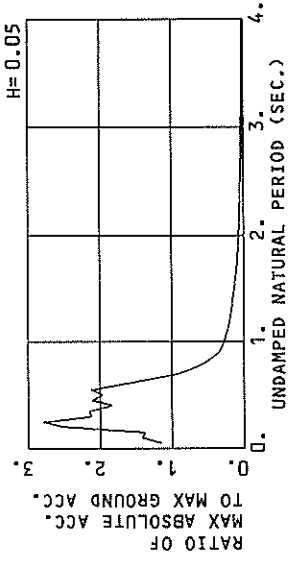




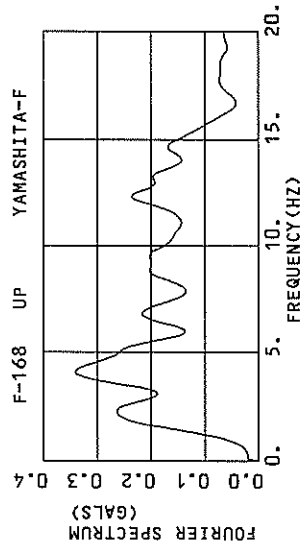
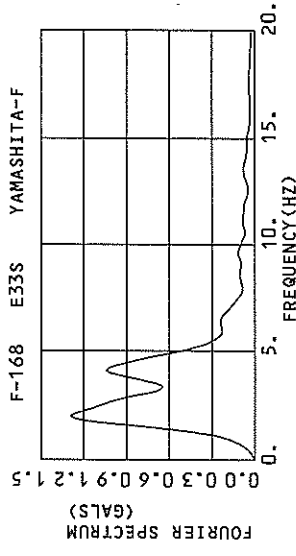
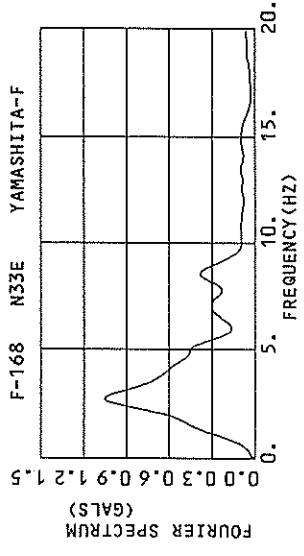
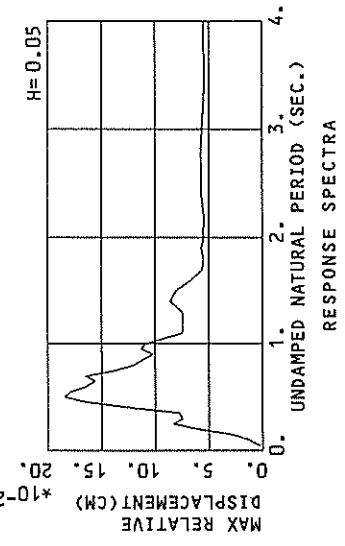
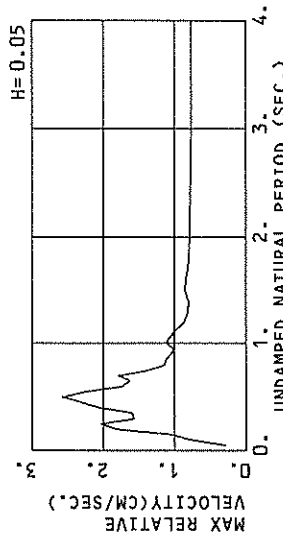
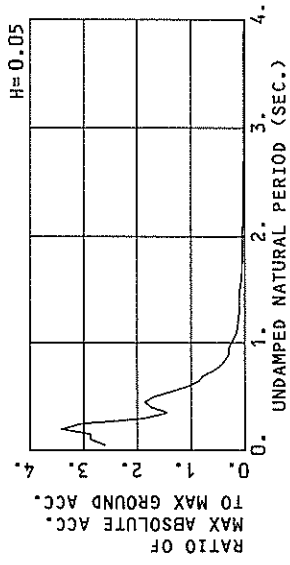
F-168 N33E YAMASHITA-F
(1/FC=2.10 SEC.)



F-168 E33S YAMASHITA-F
(1/FC=2.16 SEC.)



F-168 UP YAMASHITA-F
(1/FC=1.52 SEC.)



RESPONSE SPECTRUM

RECORD = F-168
 DATE AND TIME = 1988-8-12-14-15
 TIME LENGTH = 29.99 (SEC)
 COMPONENT = N33E
 SIGNAL = GR. ACC.
 SAMPRING INTERVAL = 0.0100 (SEC)
 SKIPPED LENGTH = 0.00 (SEC)
 CORRECTION = MAX. GROUND ACC. = 75.05 (GAL)
 STATION = YAMASHITA-F

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	145.3	0.93	0.009	75.5	0.25	0.005	75.9	0.23	0.005	76.2	0.21	0.005	76.8	0.19	0.005
0.10	152.4	1.54	0.039	142.3	1.26	0.036	129.3	1.12	0.033	112.3	1.01	0.028	93.2	0.88	0.023
0.15	210.8	4.67	0.120	172.5	3.24	0.098	154.5	2.91	0.088	131.5	2.51	0.075	105.7	1.88	0.052
0.20	360.7	11.46	0.365	170.4	4.22	0.173	158.8	3.93	0.161	141.2	3.56	0.142	105.7	3.68	0.100
0.25	252.0	10.03	0.400	217.4	8.33	0.345	193.4	7.03	0.303	153.4	5.71	0.240	112.0	4.82	0.166
0.30	327.5	10.31	0.519	200.8	9.59	0.452	181.5	8.93	0.413	150.3	7.54	0.338	113.2	4.82	0.237
0.35	300.5	16.41	0.933	210.3	11.36	0.658	167.4	9.70	0.519	145.3	8.10	0.442	109.3	5.08	0.303
0.40	308.0	19.43	1.248	176.8	11.67	0.717	160.4	10.02	0.645	136.5	7.94	0.539	99.1	5.28	0.348
0.45	305.3	21.89	1.566	148.5	10.77	0.749	132.5	9.83	0.676	126.2	8.35	0.558	84.3	5.70	0.362
0.50	111.0	10.42	0.703	102.8	9.83	0.649	94.3	9.23	0.597	82.8	8.11	0.509	68.3	5.86	0.349
0.55	174.6	15.39	1.338	72.0	8.46	0.551	67.0	8.10	0.511	59.6	7.42	0.447	54.8	5.80	0.336
0.60	97.8	9.46	0.892	50.7	7.17	0.462	48.5	7.04	0.437	46.5	6.71	0.408	47.3	5.62	0.337
0.65	64.0	7.05	0.685	45.8	6.24	0.490	39.2	6.23	0.417	37.7	6.13	0.386	41.2	5.42	0.338
0.70	74.0	8.50	0.918	43.5	5.83	0.539	35.8	5.80	0.442	31.8	5.74	0.376	36.4	5.22	0.339
0.75	95.0	11.34	1.354	48.3	6.22	0.701	35.6	5.56	0.504	27.8	5.48	0.377	32.7	5.04	0.342
0.80	77.4	9.92	1.254	38.2	5.41	0.518	20.5	5.36	0.391	25.3	5.27	0.401	29.7	4.91	0.347
0.85	39.2	5.72	0.718	30.9	5.24	0.565	27.9	5.17	0.506	23.3	5.08	0.414	27.3	4.79	0.353
0.90	29.9	5.10	0.614	26.9	5.03	0.562	24.5	4.98	0.497	20.8	4.90	0.409	25.3	4.67	0.360
0.95	25.4	5.02	0.581	22.9	5.00	0.523	20.8	4.97	0.472	19.2	4.89	0.410	23.6	4.66	0.367
1.00	21.7	5.03	0.550	19.3	5.01	0.488	17.6	4.98	0.438	17.9	4.91	0.421	22.1	4.66	0.374
1.10	28.9	5.19	0.885	15.9	5.12	0.484	15.6	5.08	0.468	15.7	4.98	0.443	19.6	4.73	0.386
1.20	14.9	5.36	0.545	13.8	5.28	0.499	13.6	5.21	0.484	13.7	5.08	0.456	17.6	4.78	0.395
1.30	12.1	5.42	0.520	11.8	5.35	0.501	11.6	5.28	0.485	11.9	5.15	0.459	15.8	4.82	0.399
1.40	10.1	5.48	0.502	9.9	5.39	0.489	9.9	5.32	0.477	10.3	5.19	0.453	14.3	4.85	0.399
1.50	8.5	5.43	0.472	8.4	5.38	0.472	8.4	5.32	0.462	8.9	5.20	0.443	13.0	4.89	0.397
1.60	7.1	5.45	0.463	7.1	5.37	0.453	7.1	5.31	0.444	7.7	5.19	0.430	11.9	4.90	0.392
1.70	5.8	5.36	0.423	5.9	5.31	0.424	6.1	5.26	0.422	6.7	5.17	0.415	10.9	4.91	0.386
1.80	4.9	5.25	0.405	5.0	5.24	0.406	5.2	5.21	0.405	5.9	5.14	0.401	10.1	4.92	0.380
1.90	4.4	5.22	0.400	4.4	5.20	0.396	4.6	5.17	0.393	5.3	5.11	0.389	9.4	4.91	0.373
2.00	3.8	5.20	0.383	3.8	5.17	0.381	4.0	5.14	0.380	4.7	5.08	0.378	8.7	4.91	0.366
2.20	2.9	5.10	0.354	3.0	5.08	0.355	3.2	5.07	0.356	3.9	5.03	0.357	7.7	4.89	0.353
2.40	2.3	5.05	0.335	2.4	5.03	0.335	2.6	5.01	0.336	3.3	4.98	0.339	6.9	4.87	0.341
2.60	1.8	4.97	0.305	1.9	4.96	0.312	2.1	4.95	0.317	2.8	4.93	0.323	6.2	4.85	0.331
2.80	1.5	4.90	0.294	1.6	4.90	0.300	1.8	4.89	0.305	2.5	4.89	0.312	5.6	4.83	0.322
3.00	1.3	4.86	0.296	1.4	4.86	0.298	1.6	4.86	0.300	2.3	4.86	0.305	5.2	4.81	0.315
3.20	1.1	4.85	0.291	1.2	4.84	0.292	1.4	4.84	0.294	2.1	4.83	0.299	4.8	4.80	0.310
3.40	1.0	4.82	0.280	1.0	4.82	0.283	1.2	4.82	0.287	1.9	4.81	0.293	4.5	4.78	0.305
3.60	0.8	4.79	0.270	0.9	4.79	0.276	1.1	4.79	0.281	1.8	4.79	0.288	4.2	4.77	0.301
3.80	0.7	4.76	0.269	0.8	4.77	0.274	1.0	4.77	0.278	1.6	4.77	0.285	4.0	4.75	0.297
4.00	0.7	4.74	0.272	0.7	4.75	0.275	0.9	4.75	0.278	1.5	4.76	0.283	3.7	4.75	0.294

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = F-168
 DATE AND TIME = 1988- 8-12-14-15
 TIME LENGTH = 29.99 (SEC)
 COMPONENT = E333
 SIGNAL = GR ACC
 SAMPRING INTERVAL = 0.0100(SEC)
 SKIPPED LENGTH = 0.00 (SEC)
 CORRECTION =
 MAX. GROUND ACC. =
 STATION = YAMASHITA-F
 71.55 (GAL)

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	95.0	2.33	0.005	83.1	0.17	0.005	82.3	0.15	0.005	81.3	0.14	0.005	78.8	0.12	0.005
0.10	164.7	6.14	0.042	116.5	1.03	0.030	101.1	0.89	0.026	90.9	0.71	0.023	85.8	0.51	0.021
0.15	261.3	10.85	0.149	185.6	2.33	0.086	159.3	1.80	0.056	149.0	1.39	0.050	111.2	0.95	0.050
0.20	341.8	16.81	0.346	203.6	5.22	0.206	179.0	4.41	0.132	160.6	3.90	0.149	113.7	2.17	0.165
0.25	628.3	24.81	0.995	258.6	9.78	0.409	199.9	7.78	0.313	180.6	5.90	0.249	111.2	3.28	0.202
0.30	232.6	10.85	0.530	183.6	7.94	0.417	152.0	6.68	0.346	111.2	5.11	0.249	97.5	3.70	0.253
0.35	347.6	19.02	1.078	188.2	10.14	0.582	154.4	8.01	0.477	110.4	5.77	0.336	91.2	4.11	0.253
0.40	377.2	24.01	1.529	161.1	10.43	0.653	131.2	8.80	0.530	115.0	7.16	0.457	81.0	4.47	0.325
0.45	235.3	16.82	1.207	168.4	11.95	0.664	151.2	10.32	0.772	125.2	7.89	0.628	87.5	5.48	0.329
0.50	361.0	29.15	2.286	194.4	15.62	1.231	141.1	11.70	0.888	114.5	9.32	0.709	78.1	6.22	0.423
0.55	297.8	26.84	2.282	189.2	16.99	1.449	152.6	13.60	1.162	106.2	9.82	0.795	55.9	6.51	0.425
0.60	181.0	18.97	1.650	144.6	15.75	1.315	121.5	13.32	1.102	90.0	9.96	0.801	53.8	6.47	0.411
0.65	133.4	14.23	1.428	108.0	11.73	1.156	93.6	10.18	0.994	72.9	8.07	0.759	47.4	6.23	0.430
0.70	80.2	10.76	0.995	73.4	9.77	0.910	66.9	8.81	0.824	56.4	7.19	0.681	42.7	5.88	0.437
0.75	63.3	8.49	0.902	55.6	7.89	0.790	51.4	7.34	0.727	44.9	6.34	0.621	38.1	5.55	0.438
0.80	45.3	7.25	0.735	41.8	6.97	0.677	39.6	6.64	0.636	35.7	5.98	0.559	34.2	5.24	0.436
0.85	49.4	6.97	0.905	32.7	6.38	0.597	31.0	6.12	0.562	28.6	5.62	0.502	30.9	4.97	0.432
0.90	26.3	5.64	0.539	25.5	5.83	0.523	24.9	5.65	0.500	25.0	5.26	0.476	25.1	4.73	0.430
0.95	23.9	5.60	0.547	22.7	5.43	0.518	21.9	5.38	0.495	22.2	4.97	0.465	25.7	4.53	0.429
1.00	21.0	5.17	0.533	20.4	5.05	0.516	19.7	4.93	0.494	22.0	4.68	0.465	23.7	4.36	0.429
1.10	29.5	5.23	0.905	16.9	4.65	0.515	16.2	4.59	0.489	17.0	4.50	0.471	20.6	4.13	0.432
1.20	18.2	4.70	0.662	14.1	4.65	0.500	14.1	4.60	0.500	14.8	4.50	0.482	18.2	4.16	0.436
1.30	12.6	4.72	0.538	12.4	4.70	0.528	12.4	4.65	0.515	13.0	4.54	0.492	16.3	4.20	0.441
1.40	11.3	4.99	0.562	10.9	4.85	0.537	10.9	4.75	0.520	11.5	4.59	0.494	14.7	4.24	0.442
1.50	9.7	4.89	0.554	9.1	4.83	0.512	9.3	4.77	0.505	10.0	4.62	0.488	13.4	4.27	0.441
1.60	8.1	4.91	0.524	7.9	4.84	0.507	8.0	4.77	0.495	8.8	4.64	0.478	12.2	4.29	0.437
1.70	6.7	4.92	0.487	6.9	4.84	0.484	6.9	4.76	0.478	7.8	4.64	0.466	11.2	4.30	0.432
1.80	5.7	4.81	0.466	5.8	4.77	0.466	6.0	4.73	0.463	6.9	4.63	0.454	10.3	4.31	0.427
1.90	5.1	4.81	0.468	5.1	4.76	0.458	5.3	4.71	0.451	6.2	4.61	0.442	9.5	4.33	0.420
2.00	4.4	4.82	0.441	4.4	4.75	0.437	4.7	4.69	0.434	5.6	4.60	0.429	8.8	4.33	0.414
2.20	3.2	4.65	0.391	3.3	4.63	0.398	3.6	4.61	0.402	4.5	4.55	0.404	7.7	4.33	0.400
2.40	2.7	4.61	0.389	2.7	4.58	0.386	3.0	4.55	0.386	3.8	4.50	0.387	6.8	4.32	0.388
2.60	2.1	4.55	0.352	2.2	4.53	0.359	2.5	4.50	0.364	3.3	4.46	0.370	6.1	4.31	0.378
3.00	1.7	4.45	0.337	1.6	4.45	0.345	2.1	4.44	0.351	2.9	4.42	0.358	5.6	4.30	0.369
3.00	1.5	4.41	0.347	1.6	4.41	0.347	1.9	4.41	0.348	2.6	4.39	0.352	5.1	4.29	0.361
3.20	1.3	4.42	0.346	1.4	4.40	0.344	1.7	4.39	0.344	2.4	4.36	0.345	4.7	4.28	0.365
3.40	1.1	4.40	0.327	1.2	4.39	0.330	1.5	4.37	0.333	2.1	4.35	0.338	4.4	4.27	0.349
3.60	0.9	4.36	0.308	1.1	4.35	0.316	1.3	4.34	0.322	2.0	4.33	0.331	4.1	4.26	0.345
3.80	0.8	4.32	0.303	0.9	4.32	0.311	1.2	4.32	0.318	1.8	4.30	0.327	3.8	4.25	0.341
4.00	0.8	4.29	0.309	0.9	4.29	0.314	1.1	4.29	0.319	1.7	4.29	0.325	3.6	4.24	0.338

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

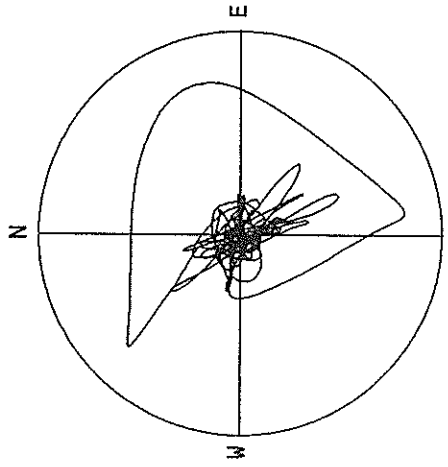
RESPONSE SPECTRUM

RECORD = F-158
 DATE AND TIME = 1988-8-12-14-15
 TIME LENGTH = 29.99 (SEC)
 COMPONENT = UP
 SAMPRING INTERVAL = 0.0100(SEC)
 SKIPPED LENGTH = 0.00 (SEC)
 SIGNAL = GR. ACC.
 CORRECTION = MAX. GROUND ACC. = 17.36 (GAL)
 STATION = YAMASHITA-F

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	109.1	0.80	0.007	49.8	0.33	0.003	45.0	0.29	0.003	38.5	0.22	0.002	29.5	0.15	0.002
0.10	197.5	3.13	0.050	57.4	1.55	0.015	49.9	0.78	0.013	36.1	0.53	0.009	28.2	0.32	0.007
0.15	259.4	6.09	0.148	72.4	2.41	0.042	49.8	1.05	0.028	36.7	0.77	0.021	28.3	0.53	0.015
0.20	179.7	7.84	0.312	82.1	2.86	0.083	59.5	1.82	0.059	38.9	1.27	0.038	23.2	0.77	0.031
0.25	197.4	7.84	0.117	73.5	2.41	0.117	53.0	2.04	0.083	35.3	1.34	0.058	22.2	0.77	0.031
0.30	170.0	3.25	0.160	40.5	1.92	0.092	32.8	1.57	0.075	24.3	1.22	0.054	19.2	0.83	0.040
0.35	54.0	3.18	0.170	34.2	1.86	0.106	25.1	1.60	0.077	20.5	1.36	0.062	17.9	0.93	0.050
0.40	17.0	7.47	0.474	37.7	2.52	0.153	30.3	2.06	0.122	24.9	1.56	0.099	18.5	0.92	0.065
0.45	75.4	5.84	0.387	35.9	2.83	0.189	32.3	2.32	0.164	26.3	1.66	0.131	17.6	1.06	0.077
0.50	85.1	6.84	0.539	36.4	3.11	0.229	29.3	2.58	0.184	21.6	1.92	0.133	15.0	1.21	0.078
0.55	71.0	6.35	0.544	28.8	2.71	0.220	23.5	2.23	0.179	17.5	1.83	0.131	11.9	1.25	0.074
0.60	48.8	4.93	0.445	24.1	2.40	0.219	18.2	1.74	0.165	13.1	1.53	0.115	9.4	1.21	0.072
0.65	35.4	3.72	0.378	20.2	2.18	0.216	14.7	1.62	0.156	9.9	1.27	0.103	8.2	1.15	0.070
0.70	27.1	3.33	0.336	17.5	2.26	0.217	13.3	1.80	0.165	9.2	1.29	0.112	7.0	1.09	0.068
0.75	14.5	2.00	0.207	11.6	1.62	0.139	9.9	1.40	0.139	7.5	1.09	0.104	6.2	1.04	0.067
0.80	19.3	2.55	0.313	9.2	1.38	0.156	7.5	1.13	0.121	5.1	1.03	0.090	5.5	1.01	0.067
0.85	13.4	1.90	0.246	7.2	1.21	0.131	6.2	1.12	0.112	5.1	1.02	0.091	5.0	0.98	0.067
0.90	9.6	1.48	0.197	6.0	1.08	0.123	5.0	1.05	0.102	4.7	1.00	0.091	4.7	0.95	0.068
0.95	11.7	1.79	0.267	5.1	1.14	0.129	5.0	1.00	0.113	4.3	0.96	0.093	4.3	0.92	0.068
1.00	6.7	1.65	0.170	5.1	1.27	0.128	4.4	1.12	0.109	3.7	0.97	0.089	4.0	0.89	0.069
1.10	3.0	1.13	0.090	2.6	1.06	0.080	2.5	1.01	0.075	2.7	0.94	0.074	3.5	0.84	0.068
1.20	2.6	0.81	0.095	2.1	0.84	0.078	2.1	0.86	0.075	2.2	0.86	0.073	3.0	0.80	0.068
1.30	1.5	0.82	0.066	1.7	0.80	0.071	1.8	0.81	0.075	2.0	0.81	0.074	2.7	0.77	0.068
1.40	2.2	0.95	0.109	1.9	0.84	0.094	1.8	0.80	0.086	1.8	0.77	0.077	2.4	0.76	0.067
1.50	1.7	0.93	0.099	1.5	0.88	0.081	1.5	0.85	0.081	1.5	0.80	0.074	2.2	0.76	0.066
1.60	1.5	0.91	0.100	1.0	0.87	0.066	1.1	0.84	0.067	1.3	0.80	0.067	2.0	0.76	0.064
1.70	0.9	0.86	0.066	0.8	0.83	0.058	1.1	0.80	0.056	1.1	0.78	0.061	1.8	0.77	0.062
1.80	0.7	0.82	0.061	0.7	0.81	0.053	0.7	0.80	0.055	0.9	0.79	0.058	1.5	0.77	0.060
1.90	0.7	0.78	0.060	0.6	0.79	0.057	0.7	0.79	0.057	0.8	0.79	0.057	1.5	0.77	0.059
2.00	0.5	0.79	0.054	0.6	0.79	0.055	0.6	0.79	0.055	0.8	0.78	0.056	1.4	0.77	0.058
2.20	0.4	0.79	0.052	0.4	0.79	0.053	0.5	0.79	0.054	0.7	0.78	0.056	1.2	0.77	0.057
2.40	0.4	0.77	0.058	0.4	0.77	0.057	0.4	0.77	0.057	0.6	0.77	0.056	1.1	0.77	0.057
2.60	0.3	0.77	0.056	0.3	0.77	0.057	0.4	0.77	0.057	0.5	0.77	0.057	1.0	0.77	0.056
2.80	0.3	0.76	0.058	0.3	0.76	0.057	0.3	0.76	0.057	0.5	0.76	0.056	0.9	0.76	0.056
3.00	0.3	0.76	0.057	0.3	0.76	0.057	0.3	0.76	0.056	0.4	0.76	0.056	0.8	0.76	0.056
3.20	0.2	0.76	0.054	0.2	0.76	0.055	0.3	0.76	0.055	0.4	0.76	0.055	0.8	0.76	0.055
3.40	0.2	0.76	0.053	0.2	0.76	0.054	0.2	0.76	0.054	0.3	0.76	0.054	0.7	0.76	0.055
3.60	0.2	0.76	0.054	0.2	0.76	0.054	0.2	0.76	0.054	0.3	0.76	0.054	0.7	0.76	0.055
3.80	0.1	0.76	0.055	0.2	0.76	0.055	0.2	0.76	0.054	0.3	0.76	0.054	0.6	0.76	0.055
4.00	0.1	0.76	0.055	0.1	0.76	0.055	0.2	0.76	0.054	0.3	0.76	0.054	0.6	0.76	0.054

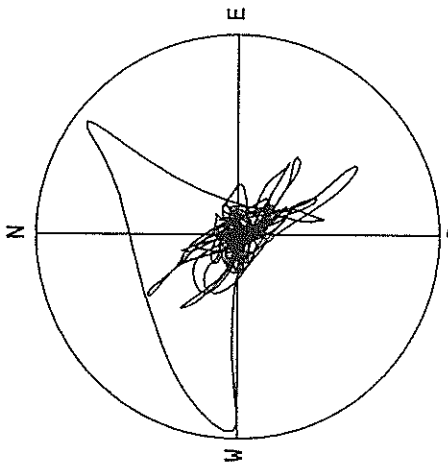
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

F-168 YAMASHITA-F



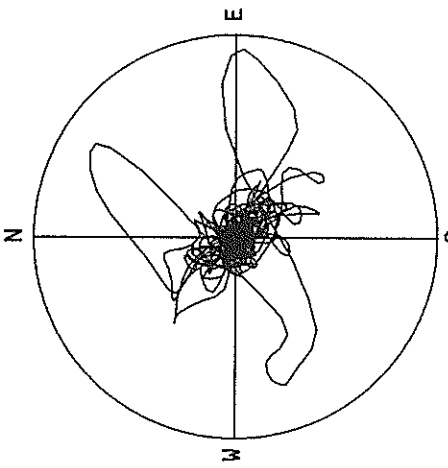
DISPLACEMENT
R=0.40 CM
MAX=0.33 CM

F-168 YAMASHITA-F



VELOCITY
R=5.0 CM/SEC.
MAX=4.8 CM/SEC.

F-168 YAMASHITA-F



ACCELERATION
R=90.0 GAL
MAX=83.6 GAL

RECORD NUMBER
STATION

S-2171
KUSHIRO-JI-S

EARTHQUAKE DATA (JISHIN KAZAN GAIKYO)

DATA AND TIME 14:52 OCT.10,1988
LOCATION OF HYPOCENTER
EPCENTRAL REGION KUSHIRO OKI
LATITUDE 42°30.0' N
LONGITUDE 144°35.0' E
DEPTH 78.0KM
MAGNITUDE 6.0

PEAK VALUES OF COMPONENTS

N S E W U D HORIZONTAL*

PARAMETER OF THE VARIABLE FILTER

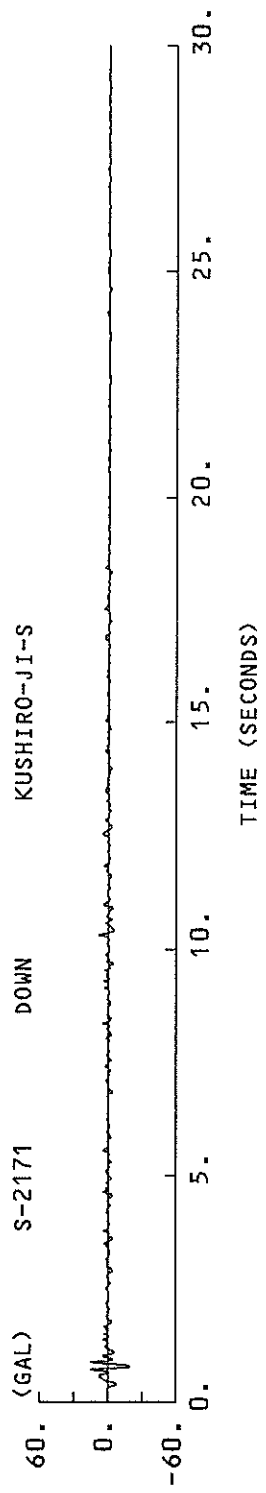
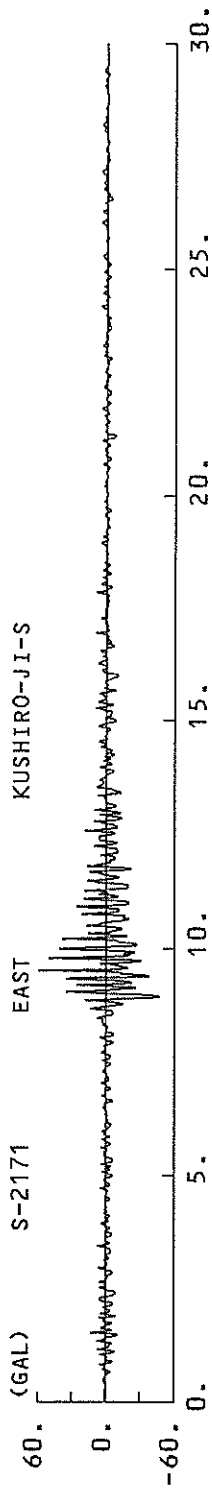
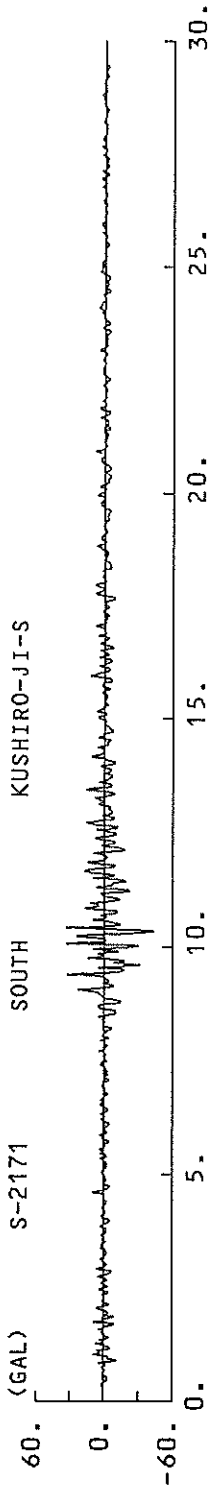
FC (HZ)	0.634	0.683	1.525			
MAXIMUM ACCELERATION (GAL)						

ORIGINAL	45.4	60.0	20.6	61.3		
CORRECTED	84.9	123.3	13.5	123.3		
MAXIMUM VELOCITY (CM/SEC)						

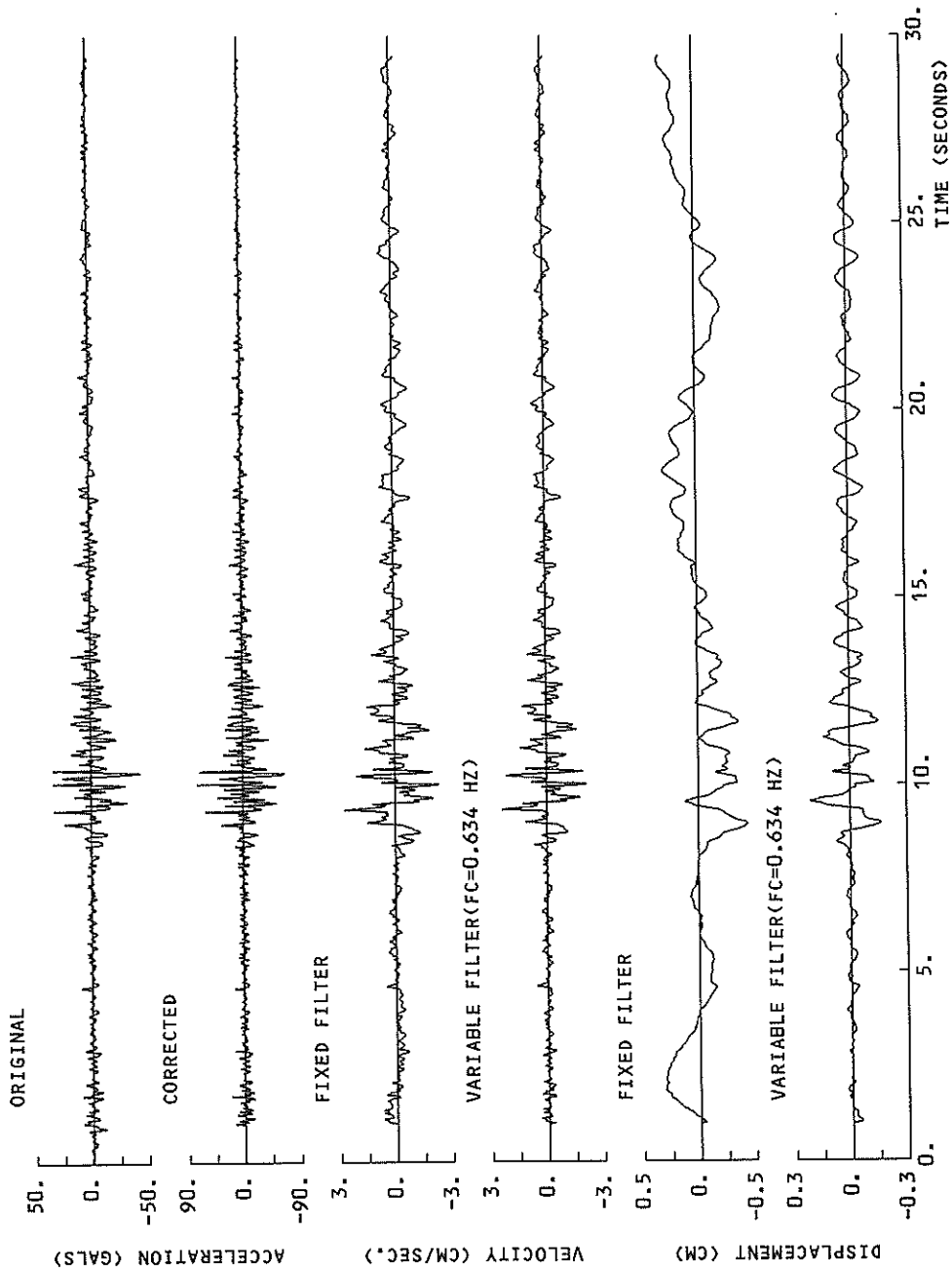
FIXED FILTER	2.72	2.95	0.68	3.32		
VARIABLE FILTER	2.40	2.57	0.44	2.70		
MAXIMUM DISPLACEMENT (CM)						

FIXED FILTER	0.438	0.491	0.239	0.563		
VARIABLE FILTER	0.215	0.192	0.018	0.216		

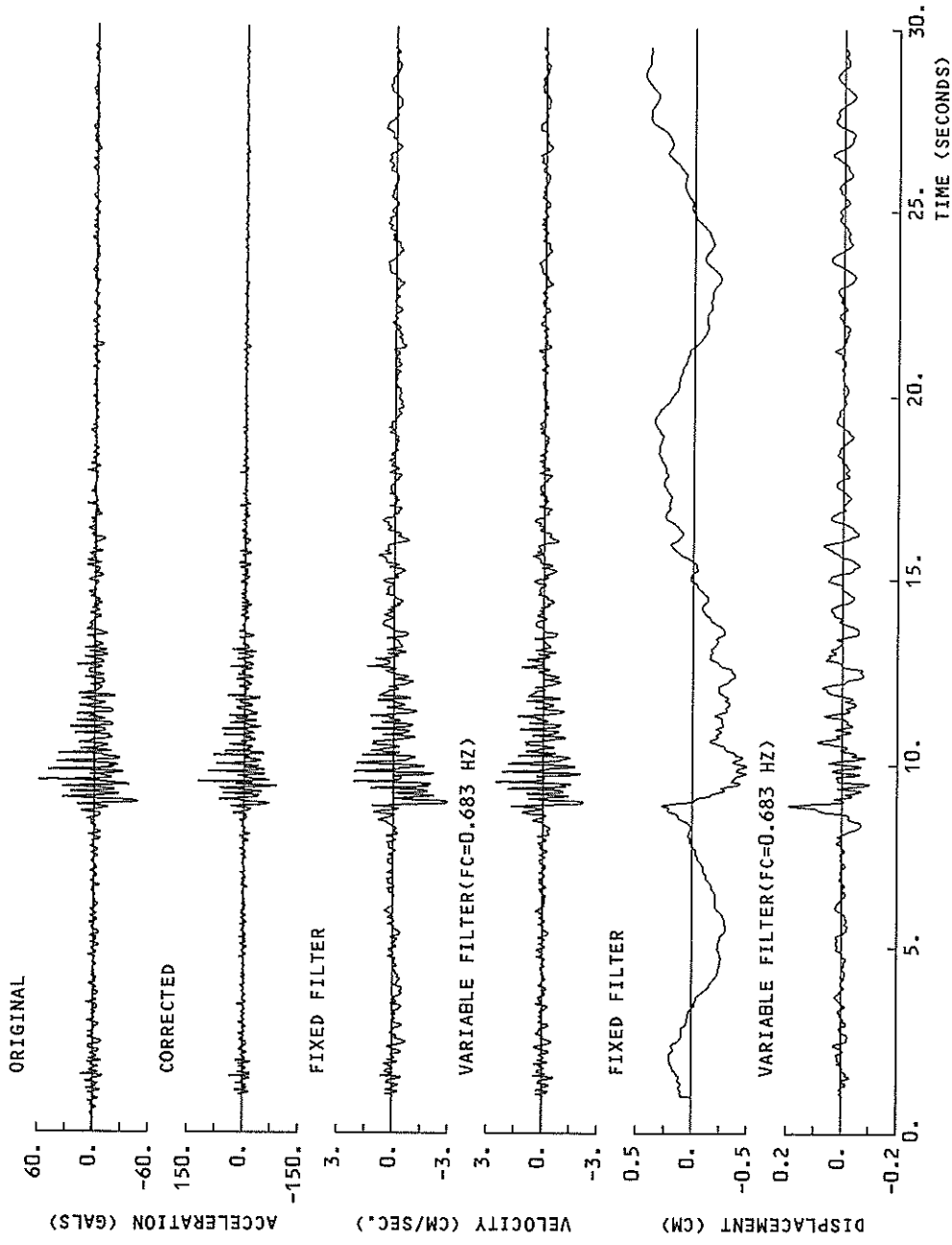
* RESULTANT OF HORIZONTAL COMPONENTS



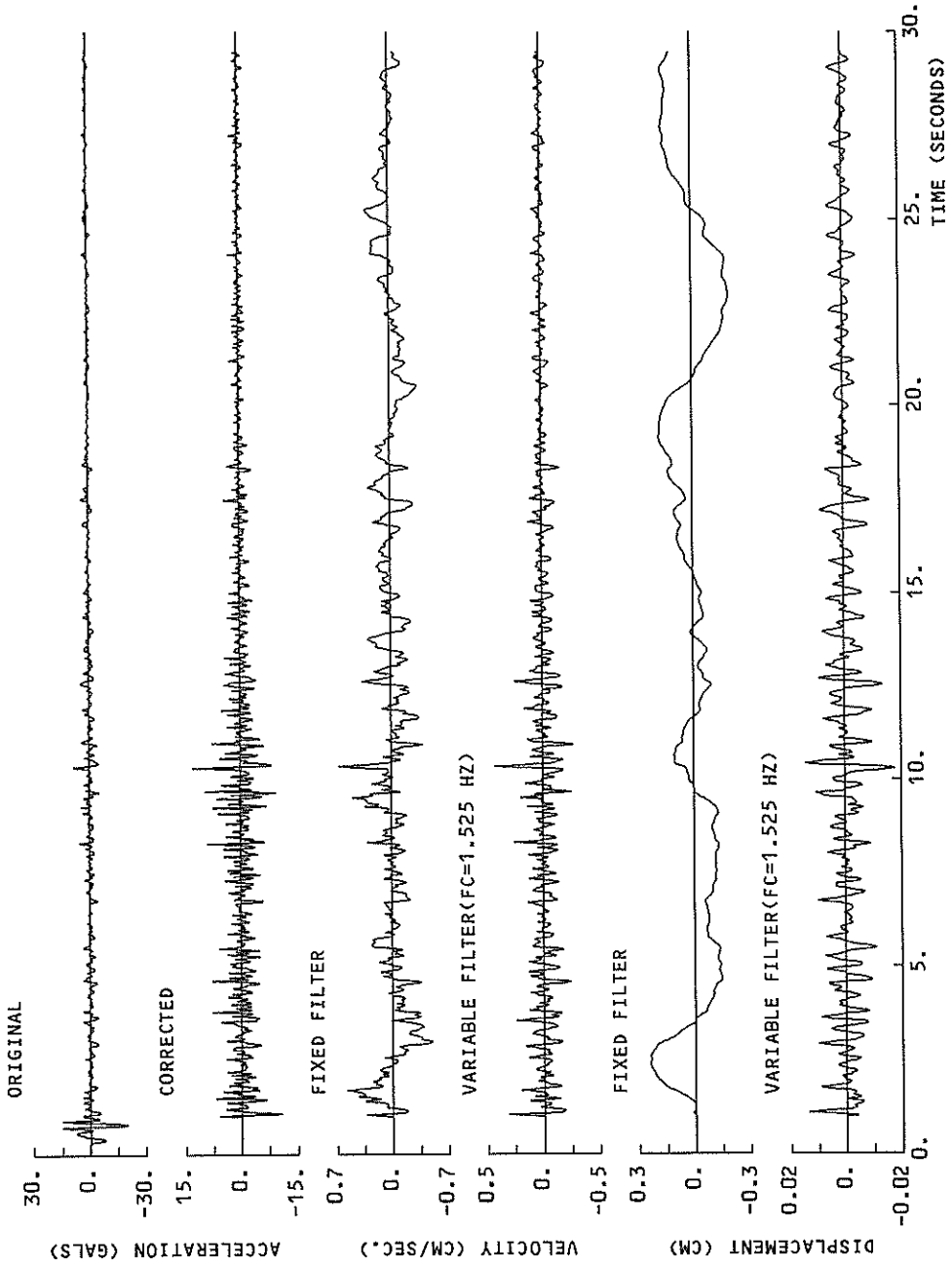
S-2171 SOUTH KUSHIRO-JI-S



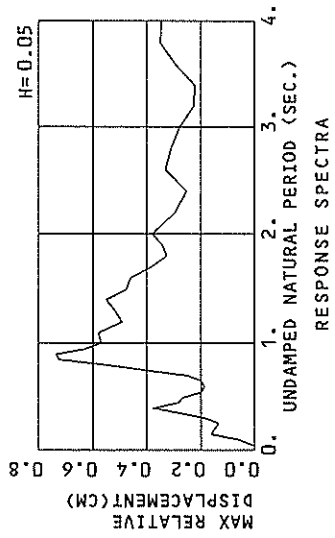
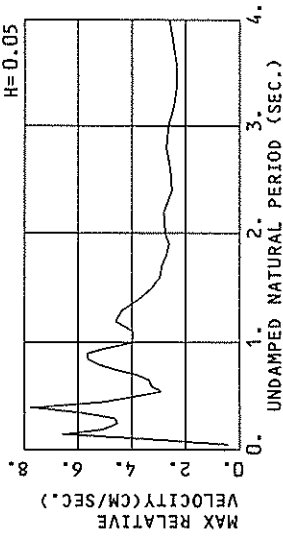
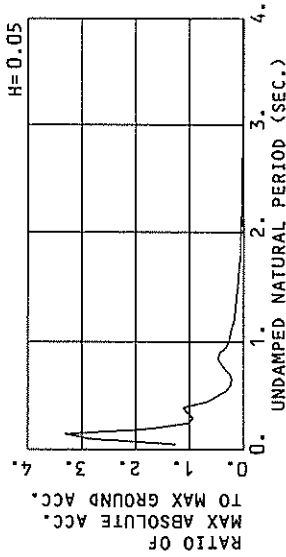
S-2171 EAST KUSHIRO-JI-S



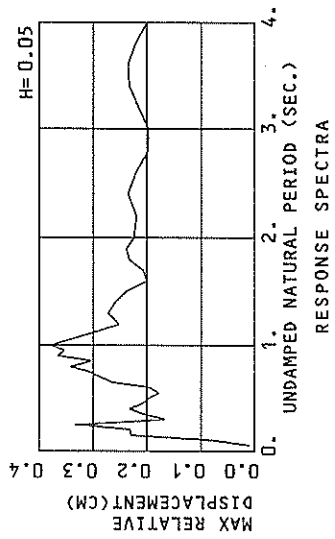
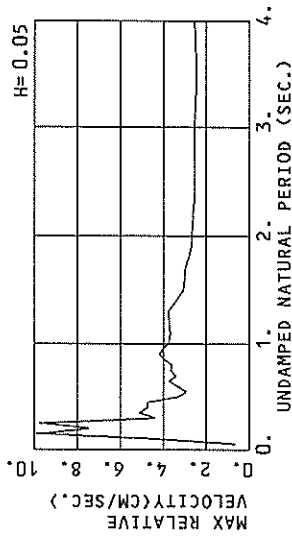
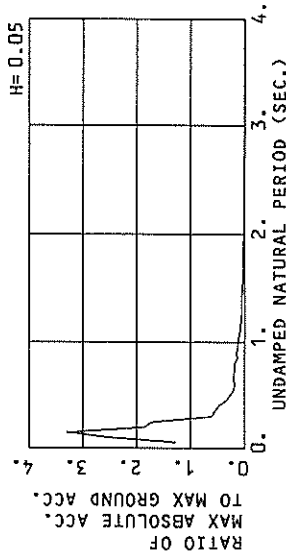
S-2171 DOWN KUSHIRO-JI-S



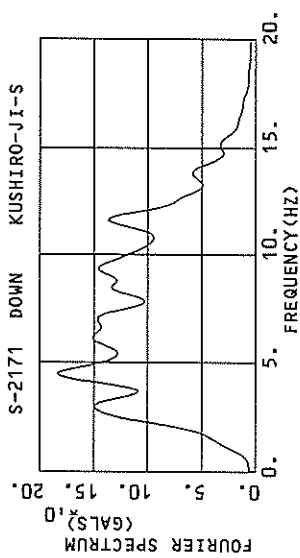
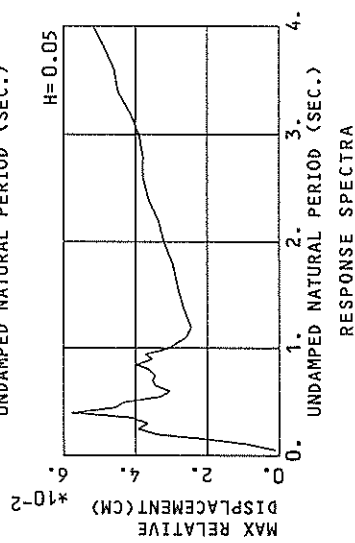
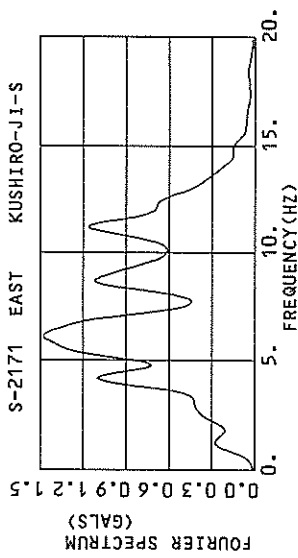
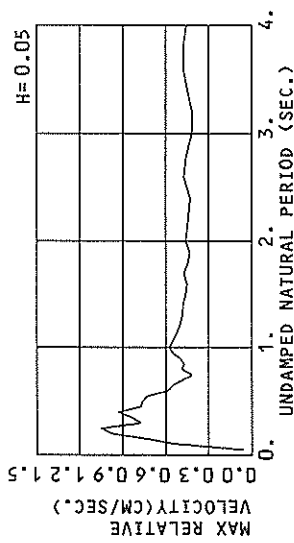
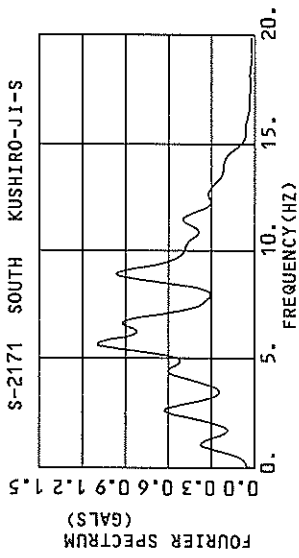
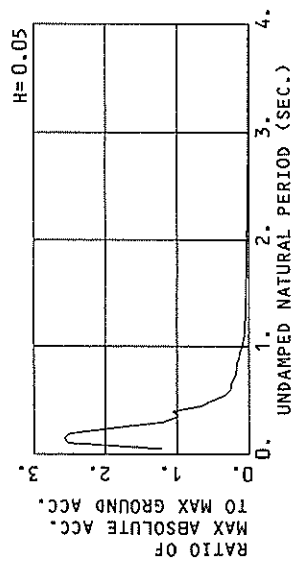
S-2171 SOUTH KUSHIRO-JI-S
(1/FC=1.58 SEC.)



S-2171 EAST KUSHIRO-JI-S
(1/FC=1.46 SEC.)



S-2171 DOWN KUSHIRO-JI-S
(1/FC=0.66 SEC.)



RESPONSE SPECTRUM

RECORD = S-2171 COMPONENT = SOUTH SIGNAL = GR. ACC. CORRECTION = STATION = KUSHIRO-JI-S
 DATE AND TIME = 1988-10-10-14-52 SAMPRING INTERVAL = 0.0100(SEC) MAX. GROUND ACC. = 84.90 (GAL)
 TIME LENGTH = 29.49 (SEC) SKIPPED LENGTH = 0.00 (SEC)

PER	DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250					
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD			
0.05	101.3	0.53	0.006	106.2	0.44	0.007	106.5	0.42	0.007	106.6	0.39	0.007	103.5	0.34	0.006
0.10	614.2	9.05	0.156	316.2	4.41	0.080	244.0	3.35	0.062	187.1	2.57	0.046	138.7	1.63	0.032
0.15	701.4	16.66	0.400	380.6	8.36	0.218	281.1	6.80	0.162	196.9	4.58	0.109	132.4	0.868	0.068
0.20	279.3	8.83	0.283	165.8	5.32	0.167	147.9	5.07	0.150	137.4	4.80	0.136	103.1	3.51	0.090
0.25	245.6	9.77	0.389	99.0	4.59	0.156	84.5	4.54	0.133	84.1	4.34	0.129	79.5	3.31	0.110
0.30	123.2	6.68	0.281	90.1	5.32	0.206	79.0	4.63	0.179	72.1	4.14	0.158	68.6	3.31	0.130
0.35	211.0	13.08	0.655	107.0	7.52	0.332	90.5	4.91	0.279	77.5	4.42	0.232	61.9	3.13	0.156
0.40	215.6	14.92	0.874	121.6	9.78	0.491	93.7	7.77	0.377	68.3	5.72	0.265	50.3	3.63	0.156
0.45	71.7	6.35	0.358	64.1	5.81	0.327	55.2	5.13	0.281	43.7	4.54	0.220	36.8	3.57	0.140
0.50	46.2	4.08	0.293	45.9	4.08	0.290	42.2	4.01	0.264	36.3	3.56	0.223	28.0	3.35	0.157
0.55	32.1	2.86	0.246	25.7	2.91	0.197	26.1	2.91	0.197	26.6	3.04	0.194	25.2	3.23	0.165
0.60	26.3	4.10	0.240	21.1	3.40	0.192	20.5	3.28	0.186	20.7	3.25	0.179	23.0	3.24	0.174
0.65	20.8	3.47	0.222	19.4	3.26	0.208	18.6	3.33	0.198	19.0	3.42	0.192	21.5	3.33	0.187
0.70	29.7	4.10	0.368	22.0	3.80	0.271	20.4	3.78	0.250	19.7	3.75	0.232	20.6	3.45	0.205
0.75	39.2	5.24	0.558	32.1	4.80	0.456	28.2	4.57	0.398	22.5	4.23	0.309	20.1	3.55	0.225
0.80	83.3	10.45	1.351	44.5	5.96	0.720	34.3	5.27	0.553	23.4	4.60	0.378	19.5	3.61	0.243
0.85	104.6	14.09	1.914	54.2	7.33	0.991	39.8	5.62	0.724	26.1	4.69	0.465	18.7	3.59	0.256
0.90	121.1	15.99	2.301	50.6	7.54	1.037	36.1	5.70	0.735	23.5	4.45	0.470	17.6	3.47	0.276
0.95	46.2	7.82	1.086	35.1	6.27	0.802	27.6	5.00	0.629	22.1	3.88	0.479	17.0	3.28	0.298
1.00	84.1	13.58	2.132	30.7	5.24	0.775	22.8	3.99	0.568	20.4	3.28	0.485	16.5	3.08	0.311
1.10	31.9	5.98	0.978	21.8	4.09	0.665	19.3	3.95	0.578	16.8	3.52	0.472	14.7	2.80	0.309
1.20	23.8	5.59	0.867	15.5	5.06	0.563	13.7	4.60	0.492	12.0	3.91	0.388	12.4	2.80	0.280
1.30	25.7	5.53	1.102	15.2	4.72	0.647	12.2	4.37	0.516	9.9	3.86	0.390	10.1	2.89	0.257
1.40	18.0	4.32	0.894	13.1	3.80	0.649	11.3	3.75	0.549	9.2	3.54	0.421	8.3	2.88	0.262
1.50	12.7	3.35	0.724	9.2	3.31	0.523	8.5	3.28	0.474	7.5	3.20	0.385	7.7	2.81	0.261
1.60	10.2	3.59	0.684	8.2	3.08	0.532	7.2	2.95	0.460	6.4	2.90	0.378	7.0	2.72	0.271
1.70	6.2	3.43	0.652	5.6	3.09	0.408	5.4	2.90	0.382	5.2	2.69	0.348	5.5	2.62	0.277
1.80	4.3	2.67	0.353	4.0	2.73	0.329	3.9	2.73	0.326	4.5	2.66	0.331	5.9	2.54	0.280
1.90	4.5	2.88	0.415	3.8	2.57	0.340	3.9	2.63	0.341	4.1	2.64	0.330	5.5	2.47	0.280
2.00	5.0	3.08	0.505	4.2	2.81	0.425	3.9	2.76	0.380	3.8	2.67	0.335	5.1	2.44	0.279
2.20	3.1	3.07	0.381	2.8	2.91	0.308	2.9	2.81	0.295	2.9	2.67	0.299	4.4	2.46	0.273
2.40	2.3	2.52	0.336	1.6	2.42	0.259	1.9	2.51	0.253	2.4	2.56	0.276	3.9	2.46	0.262
2.60	2.5	2.71	0.429	2.2	2.58	0.367	2.1	2.58	0.330	2.2	2.56	0.294	3.5	2.46	0.266
2.80	1.9	3.01	0.383	1.3	2.84	0.338	1.7	2.73	0.309	1.9	2.61	0.279	3.1	2.45	0.256
3.00	1.7	3.08	0.391	1.4	2.70	0.323	1.3	2.64	0.277	1.5	2.56	0.235	2.8	2.45	0.249
3.20	1.4	2.57	0.355	1.1	2.44	0.273	1.0	2.43	0.224	1.3	2.47	0.213	2.6	2.44	0.244
3.40	1.1	2.30	0.336	1.0	2.24	0.266	1.0	2.32	0.223	1.2	2.41	0.231	2.4	2.43	0.243
3.60	1.1	2.53	0.353	1.0	2.40	0.317	1.0	2.35	0.294	1.2	2.41	0.268	2.2	2.43	0.243
3.80	1.3	2.50	0.486	1.1	2.49	0.397	1.1	2.48	0.349	1.1	2.47	0.293	2.2	2.43	0.243
4.00	1.1	2.74	0.455	1.0	2.66	0.391	1.0	2.60	0.345	1.1	2.52	0.289	2.0	2.43	0.240

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = S-2171 COMPONENT = EAST SIGNAL = GR. ACC. CORRECTION = STATION = KUSHIRO-J1-S
 DATE AND TIME = 1988-10-10-14-52 SAMPLING INTERVAL = 0.0100(SEC) MAX. GROUND ACC. = 123.34 (GAL)
 TIME LENGTH = 29.49 (SEC) SKIPPED LENGTH = 0.00 (SEC)

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	165.3	0.63	0.010	153.8	0.65	0.010	157.2	0.67	0.010	159.2	0.66	0.010	155.6	0.57	0.010
0.10	629.8	9.57	0.160	372.3	5.60	0.094	313.1	4.39	0.079	241.2	3.51	0.061	170.1	2.25	0.040
0.15	1120.9	26.89	0.639	566.0	13.24	0.321	408.4	9.92	0.230	265.0	6.41	0.148	151.8	3.22	0.076
0.20	375.2	12.70	0.380	274.6	8.94	0.277	229.0	7.49	0.231	168.3	5.44	0.167	121.9	3.39	0.107
0.25	641.4	25.48	1.016	285.5	12.79	0.451	211.3	9.78	0.334	146.5	6.54	0.225	87.8	3.93	0.116
0.30	150.2	7.71	0.365	92.3	4.73	0.210	73.2	4.38	0.167	68.7	4.31	0.152	59.1	3.53	0.109
0.35	163.6	9.10	0.508	81.9	5.74	0.253	67.0	5.14	0.206	55.2	4.43	0.165	45.4	3.46	0.121
0.40	141.2	9.77	0.572	73.0	5.47	0.296	58.3	4.72	0.233	45.0	4.05	0.177	40.3	3.35	0.158
0.45	88.5	6.17	0.454	44.3	5.15	0.227	41.1	4.72	0.203	37.8	4.12	0.187	35.2	3.35	0.158
0.50	43.3	3.98	0.274	34.4	3.30	0.216	31.4	3.29	0.196	30.3	3.27	0.182	30.7	3.08	0.157
0.55	54.8	4.97	0.420	28.7	3.10	0.219	23.6	2.94	0.178	24.5	2.70	0.177	27.2	2.77	0.165
0.60	35.6	4.21	0.325	27.6	3.82	0.251	21.8	3.36	0.195	22.1	3.03	0.189	24.7	2.70	0.175
0.65	72.4	7.39	0.774	34.7	4.12	0.370	24.8	3.71	0.264	21.9	3.22	0.219	22.9	2.67	0.186
0.70	39.5	4.63	0.490	26.3	3.77	0.324	23.5	3.41	0.286	21.2	2.97	0.244	21.3	2.66	0.195
0.75	51.0	5.92	0.727	30.8	4.18	0.374	23.9	3.66	0.308	19.2	3.05	0.253	19.8	2.74	0.204
0.80	36.3	4.94	0.559	27.3	3.96	0.442	21.3	3.59	0.343	17.3	3.12	0.257	18.4	2.81	0.209
0.85	42.3	6.09	0.774	22.8	4.30	0.417	17.0	3.93	0.304	16.1	3.40	0.269	17.0	2.81	0.209
0.90	64.9	9.36	1.332	24.7	4.62	0.507	18.0	4.17	0.366	14.7	3.53	0.273	15.6	2.88	0.210
0.95	27.9	6.58	0.639	18.4	4.46	0.419	15.2	4.04	0.353	13.1	3.52	0.263	14.3	2.99	0.208
1.00	40.6	6.58	1.030	22.1	4.11	0.558	15.2	3.74	0.381	13.1	3.47	0.250	13.1	3.02	0.196
1.10	19.9	3.78	0.610	13.6	3.74	0.416	10.3	3.67	0.314	8.4	3.46	0.232	10.9	3.02	0.178
1.20	9.0	3.91	0.327	7.6	3.83	0.275	7.2	3.73	0.252	7.2	3.53	0.230	9.2	3.06	0.174
1.30	9.7	4.23	0.417	7.5	3.95	0.317	6.6	3.76	0.272	6.2	3.51	0.224	7.8	3.11	0.170
1.40	10.0	3.46	0.499	6.2	3.44	0.306	5.4	3.41	0.259	4.9	3.33	0.213	6.7	3.09	0.162
1.50	5.0	2.72	0.257	4.6	2.94	0.257	4.5	3.06	0.239	4.4	3.13	0.213	5.9	3.04	0.168
1.60	4.0	3.07	0.257	3.5	3.03	0.226	3.3	3.02	0.209	3.8	3.03	0.203	5.2	3.09	0.174
1.70	4.1	3.12	0.301	3.1	3.02	0.226	3.1	2.98	0.207	3.5	2.95	0.205	4.3	2.99	0.179
1.80	3.7	2.82	0.306	3.1	2.78	0.249	3.1	2.82	0.233	3.3	2.86	0.214	4.3	2.89	0.183
1.90	3.0	2.65	0.277	2.8	2.63	0.254	2.8	2.77	0.238	3.0	2.77	0.216	4.0	2.84	0.187
2.00	2.2	2.53	0.227	2.3	2.63	0.228	2.5	2.67	0.225	2.8	2.72	0.216	3.7	2.80	0.189
2.20	1.8	2.61	0.215	1.9	2.61	0.218	2.0	2.62	0.219	2.4	2.65	0.214	3.3	2.74	0.193
2.40	1.3	2.44	0.266	1.8	2.48	0.247	1.8	2.53	0.235	2.1	2.50	0.219	3.0	2.69	0.194
2.60	1.3	2.49	0.320	1.4	2.52	0.224	1.5	2.54	0.220	1.8	2.58	0.213	2.7	2.65	0.195
2.80	0.9	2.60	0.177	1.0	2.58	0.190	1.2	2.57	0.197	1.6	2.58	0.203	2.6	2.64	0.195
3.00	0.8	2.55	0.181	0.9	2.55	0.191	1.1	2.56	0.197	1.4	2.56	0.202	2.4	2.62	0.196
3.20	0.9	2.43	0.224	0.9	2.48	0.219	1.0	2.50	0.216	1.3	2.54	0.210	2.3	2.61	0.197
3.40	0.8	2.40	0.260	0.9	2.44	0.244	1.0	2.48	0.233	1.2	2.52	0.218	2.1	2.59	0.198
3.60	0.8	2.43	0.264	0.8	2.46	0.247	0.9	2.49	0.235	1.1	2.52	0.218	2.0	2.59	0.198
3.80	0.7	2.51	0.238	0.7	2.51	0.229	0.8	2.52	0.221	1.0	2.54	0.211	1.9	2.59	0.196
4.00	0.5	2.57	0.198	0.6	2.56	0.199	0.7	2.55	0.200	0.9	2.55	0.199	1.8	2.58	0.194

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

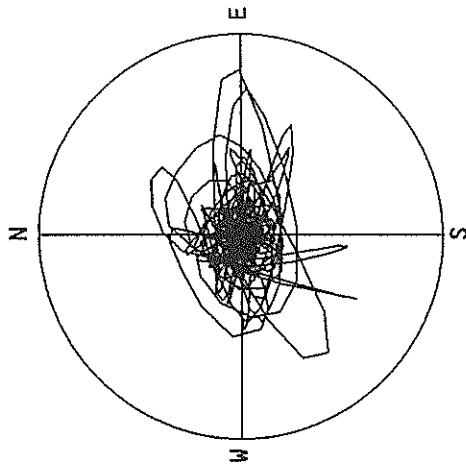
RESPONSE SPECTRUM

RECORD = S-2171 COMPONENT = DOWN SIGNAL = GR. ACC. CORRECTION = MAX. GROUND ACC. = STATION = KUSHIRO-JI-S
 DATE AND TIME = 1988-10-10-14-52 SAMPRING INTERVAL = 0.0100 (SEC) 13.53 (GAL)
 TIME LENGTH = 29.49 (SEC) SKIPPED LENGTH = 0.00 (SEC)

PER	DAMPING = 0.			DAMPING = 0.025			DAMPING = 0.050			DAMPING = 0.100			DAMPING = 0.250		
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	23.9	0.15	0.002	16.2	0.06	0.001	16.5	0.06	0.001	15.4	0.06	0.001	15.9	0.05	0.001
0.10	179.5	2.76	0.045	45.9	0.67	0.012	34.1	0.54	0.009	28.5	0.42	0.007	18.3	0.25	0.004
0.15	128.2	3.06	0.073	48.2	1.06	0.028	34.9	0.73	0.020	26.2	0.53	0.007	17.3	0.34	0.009
0.20	56.1	1.84	0.057	42.2	1.25	0.043	33.8	0.97	0.034	25.7	0.74	0.025	16.7	0.47	0.015
0.25	73.4	2.92	0.116	30.0	1.28	0.047	25.0	1.05	0.039	18.7	0.76	0.029	12.8	0.52	0.018
0.30	65.7	3.10	0.150	22.6	1.07	0.052	16.2	0.77	0.041	12.1	0.65	0.027	9.5	0.49	0.019
0.35	55.1	3.06	0.171	16.0	0.95	0.050	13.3	0.84	0.041	10.5	0.69	0.032	8.0	0.49	0.022
0.40	53.3	3.44	0.216	20.4	1.38	0.063	14.4	0.84	0.058	10.6	0.70	0.042	7.5	0.49	0.025
0.45	20.4	1.52	0.105	9.3	0.84	0.048	9.0	0.77	0.046	8.0	0.63	0.040	6.7	0.50	0.027
0.50	8.5	0.79	0.054	6.6	0.73	0.042	6.9	0.76	0.043	6.3	0.68	0.038	5.7	0.53	0.027
0.55	17.1	1.51	0.131	5.1	0.78	0.039	4.3	0.73	0.033	4.2	0.66	0.031	4.7	0.53	0.026
0.60	6.3	0.94	0.057	3.9	0.61	0.035	3.4	0.58	0.030	3.1	0.58	0.027	3.9	0.52	0.024
0.65	9.4	1.04	0.100	4.4	0.57	0.047	3.3	0.55	0.035	2.9	0.54	0.029	3.3	0.50	0.023
0.70	6.8	0.92	0.085	3.4	0.51	0.043	2.9	0.49	0.035	2.6	0.45	0.030	2.9	0.48	0.022
0.75	3.9	0.50	0.055	2.5	0.46	0.036	2.5	0.41	0.035	2.2	0.45	0.030	2.6	0.48	0.022
0.80	7.8	1.04	0.127	3.0	0.58	0.048	2.3	0.49	0.036	1.9	0.45	0.028	2.4	0.48	0.023
0.85	2.3	1.04	0.141	3.2	0.55	0.058	2.2	0.47	0.040	1.7	0.47	0.027	2.2	0.48	0.023
0.90	2.3	0.61	0.048	2.1	0.52	0.043	1.8	0.50	0.035	1.6	0.49	0.030	2.1	0.48	0.024
0.95	3.1	0.57	0.071	2.0	0.57	0.045	1.7	0.55	0.037	1.5	0.52	0.030	2.1	0.48	0.024
1.00	2.5	0.73	0.064	1.2	0.62	0.031	1.3	0.57	0.031	1.3	0.53	0.028	1.8	0.49	0.023
1.10	1.6	0.64	0.049	1.0	0.56	0.029	0.9	0.54	0.026	0.9	0.52	0.023	1.6	0.49	0.022
1.20	1.0	0.48	0.036	0.7	0.48	0.025	0.7	0.50	0.025	0.7	0.49	0.023	1.4	0.48	0.021
1.30	0.9	0.45	0.037	0.6	0.48	0.027	0.6	0.48	0.026	0.6	0.49	0.024	1.2	0.48	0.020
1.40	0.7	0.52	0.033	0.6	0.49	0.028	0.6	0.48	0.027	0.6	0.49	0.025	1.1	0.47	0.022
1.50	0.6	0.43	0.041	0.5	0.45	0.028	0.5	0.46	0.028	0.5	0.47	0.026	1.0	0.47	0.022
1.60	0.6	0.42	0.038	0.5	0.44	0.029	0.5	0.45	0.028	0.5	0.46	0.027	0.9	0.46	0.023
1.70	0.5	0.55	0.036	0.4	0.50	0.030	0.4	0.47	0.029	0.4	0.46	0.028	0.8	0.46	0.024
1.80	0.5	0.41	0.041	0.4	0.43	0.031	0.4	0.44	0.030	0.4	0.45	0.028	0.8	0.46	0.024
1.90	0.4	0.37	0.040	0.4	0.41	0.032	0.4	0.43	0.031	0.4	0.45	0.029	0.7	0.46	0.025
2.00	0.4	0.50	0.043	0.3	0.47	0.033	0.3	0.46	0.032	0.4	0.45	0.030	0.7	0.45	0.025
2.20	0.4	0.43	0.048	0.3	0.44	0.035	0.3	0.44	0.034	0.3	0.45	0.032	0.6	0.45	0.026
2.40	0.3	0.39	0.044	0.3	0.41	0.040	0.3	0.43	0.036	0.3	0.44	0.033	0.6	0.45	0.028
2.60	0.3	0.52	0.045	0.2	0.49	0.041	0.2	0.47	0.038	0.3	0.45	0.034	0.5	0.45	0.029
2.80	0.3	0.47	0.055	0.2	0.46	0.041	0.2	0.46	0.038	0.2	0.45	0.035	0.5	0.45	0.030
3.00	0.2	0.37	0.050	0.2	0.40	0.042	0.2	0.42	0.039	0.2	0.43	0.037	0.5	0.44	0.031
3.20	0.2	0.37	0.052	0.2	0.40	0.046	0.2	0.41	0.042	0.2	0.43	0.038	0.4	0.44	0.032
3.40	0.2	0.45	0.060	0.2	0.45	0.050	0.2	0.45	0.045	0.2	0.44	0.041	0.4	0.44	0.033
3.60	0.2	0.52	0.059	0.2	0.49	0.050	0.2	0.47	0.046	0.2	0.46	0.043	0.4	0.44	0.035
3.80	0.2	0.52	0.058	0.1	0.49	0.051	0.1	0.48	0.049	0.2	0.46	0.045	0.4	0.44	0.037
4.00	0.2	0.47	0.068	0.1	0.45	0.054	0.1	0.46	0.052	0.2	0.45	0.048	0.3	0.44	0.039

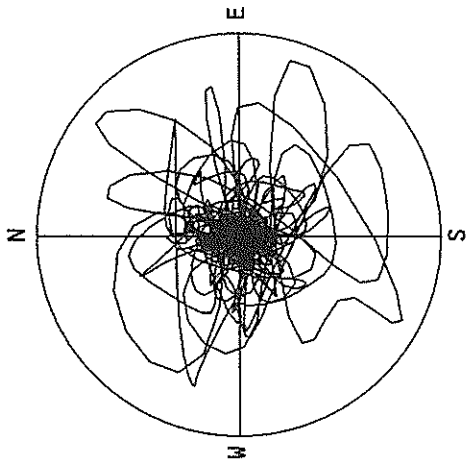
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

S-2171 KUSHIRO-JI-S



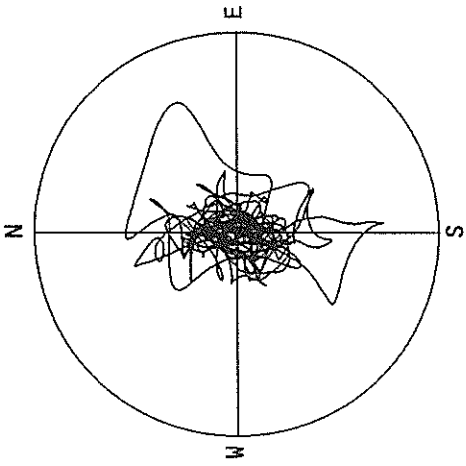
ACCELERATION
R=150.0GAL
MAX=123.3GAL

S-2171 KUSHIRO-JI-S



VELOCITY
R=3.0 CM/SEC.
MAX=2.7 CM/SEC.

S-2171 KUSHIRO-JI-S



DISPLACEMENT
R=0.30 CM
MAX=0.22 CM

RECORD NUMBER
STATION

M-1242
TOKACHI-M

EARTHQUAKE DATA (JISHIN KAZAN GAIKYO)

DATA AND TIME

14:52 OCT. 10, 1988

LOCATION OF HYPOCENTER

KUSHIRO OKI

EPCENTRAL REGION

42° 30.0' N

LATITUDE

144° 35.0' E

LONGITUDE

78.0KM

DEPTH

6.0

MAGNITUDE

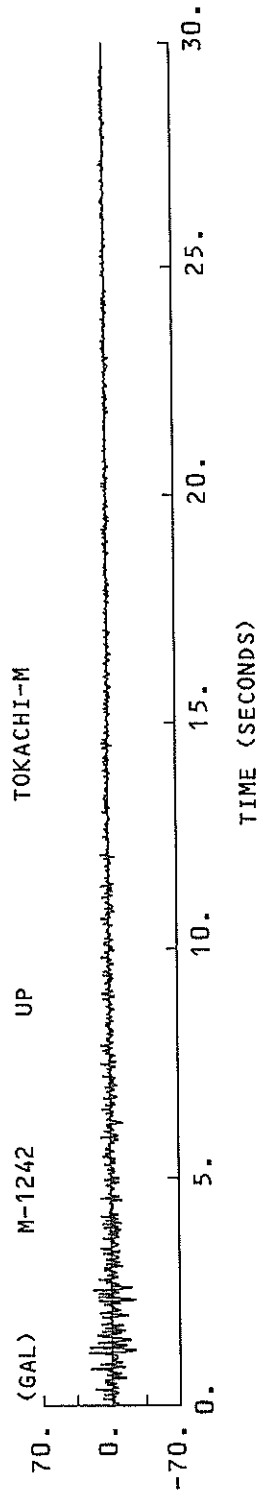
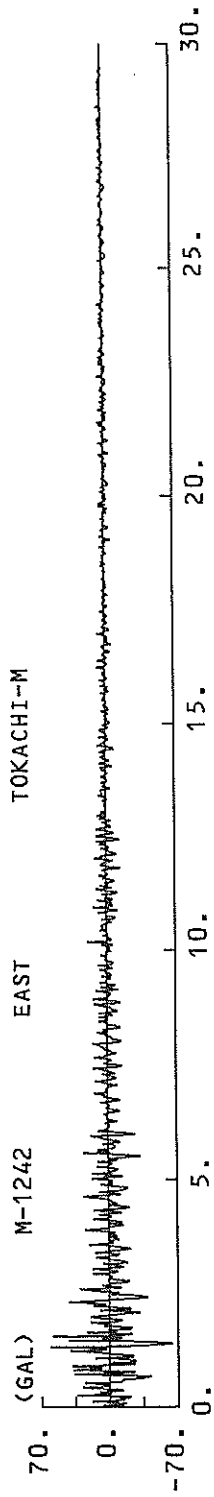
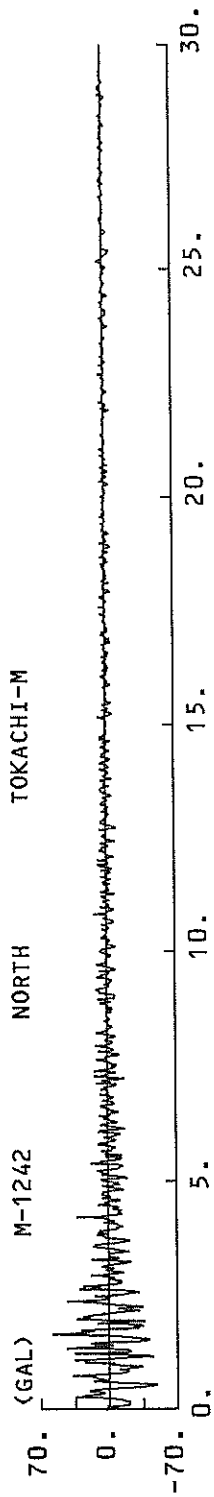
PEAK VALUES OF COMPONENTS

	N	S	E	W	U	D	HORIZONTAL*
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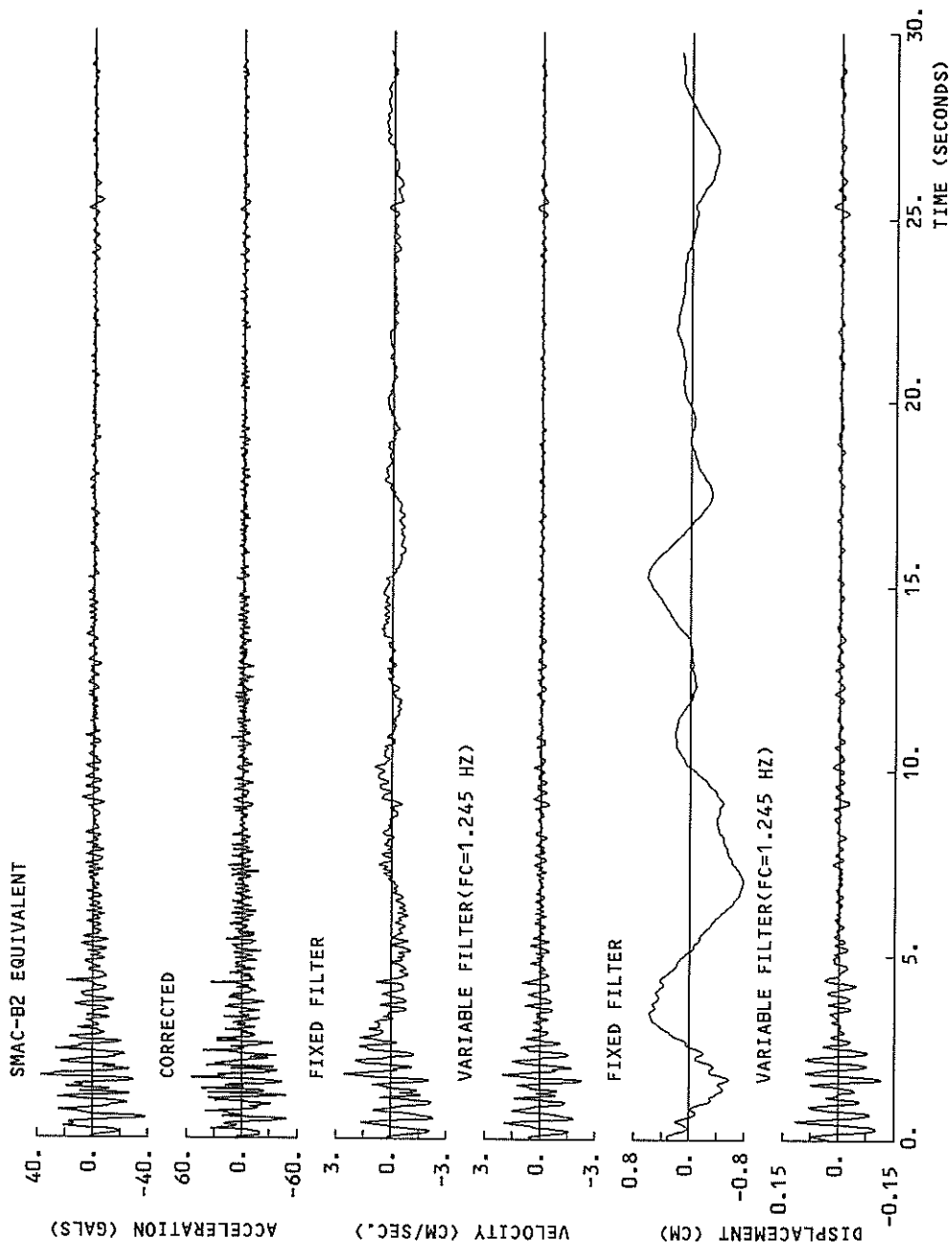
PARAMETER OF THE VARIABLE FILTER

FC (HZ)	1.245	1.001	2.149				
MAXIMUM ACCELERATION (GAL)							
SMAC-B2 EQUIVALENT	39.1	46.8	12.7	47.5			
ORIGINAL	57.7	70.7	24.5	71.0			
CORRECTED	54.8	74.2	25.4	74.6			
MAXIMUM VELOCITY (CM/SEC)							
FIXED FILTER	2.57	3.22	0.98	3.30			
VARIABLE FILTER	2.31	2.62	0.61	2.64			
MAXIMUM DISPLACEMENT (CM)							
FIXED FILTER	0.770	1.001	0.711	1.088			
VARIABLE FILTER	0.118	0.112	0.016	0.121			

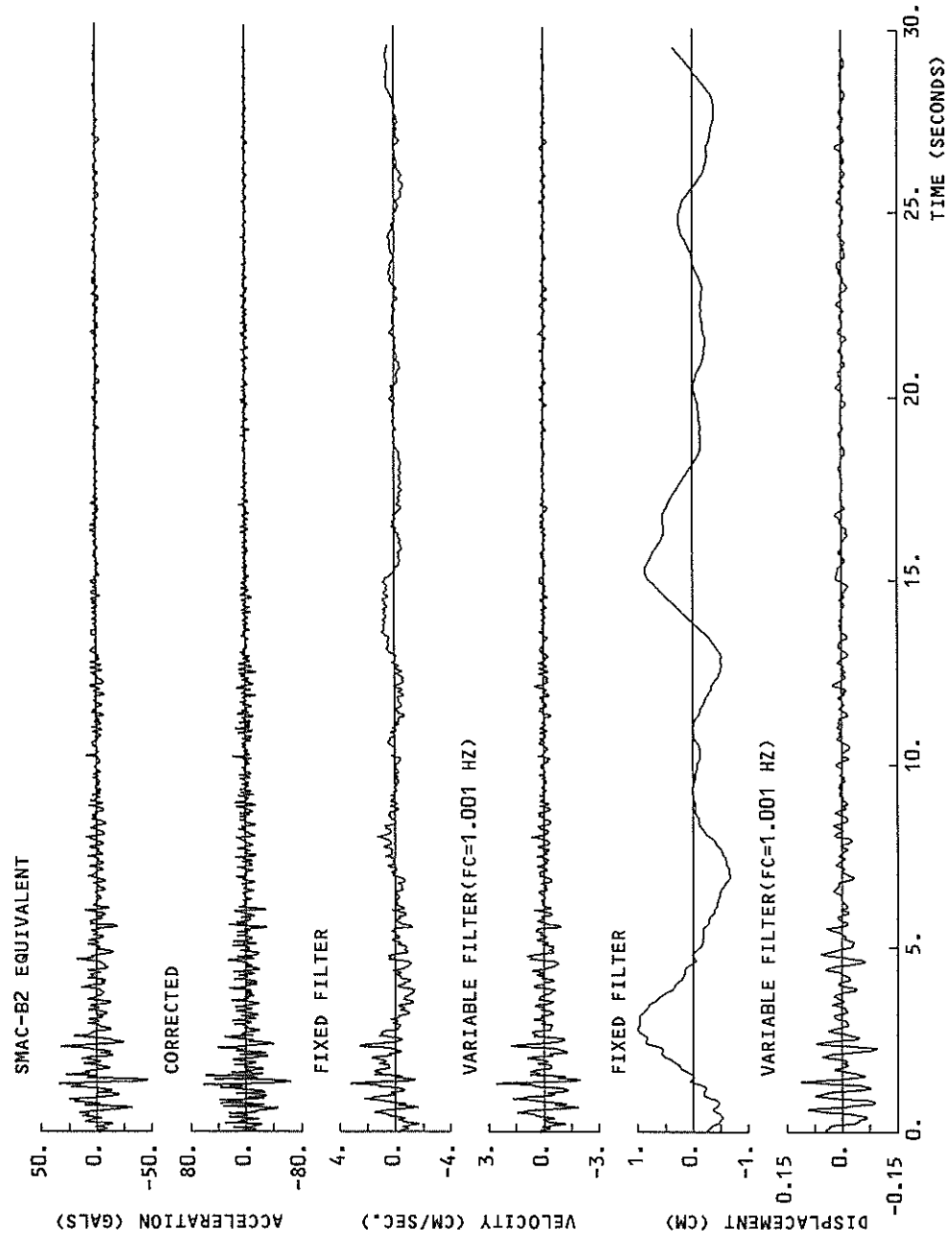
* RESULTANT OF HORIZONTAL COMPONENTS



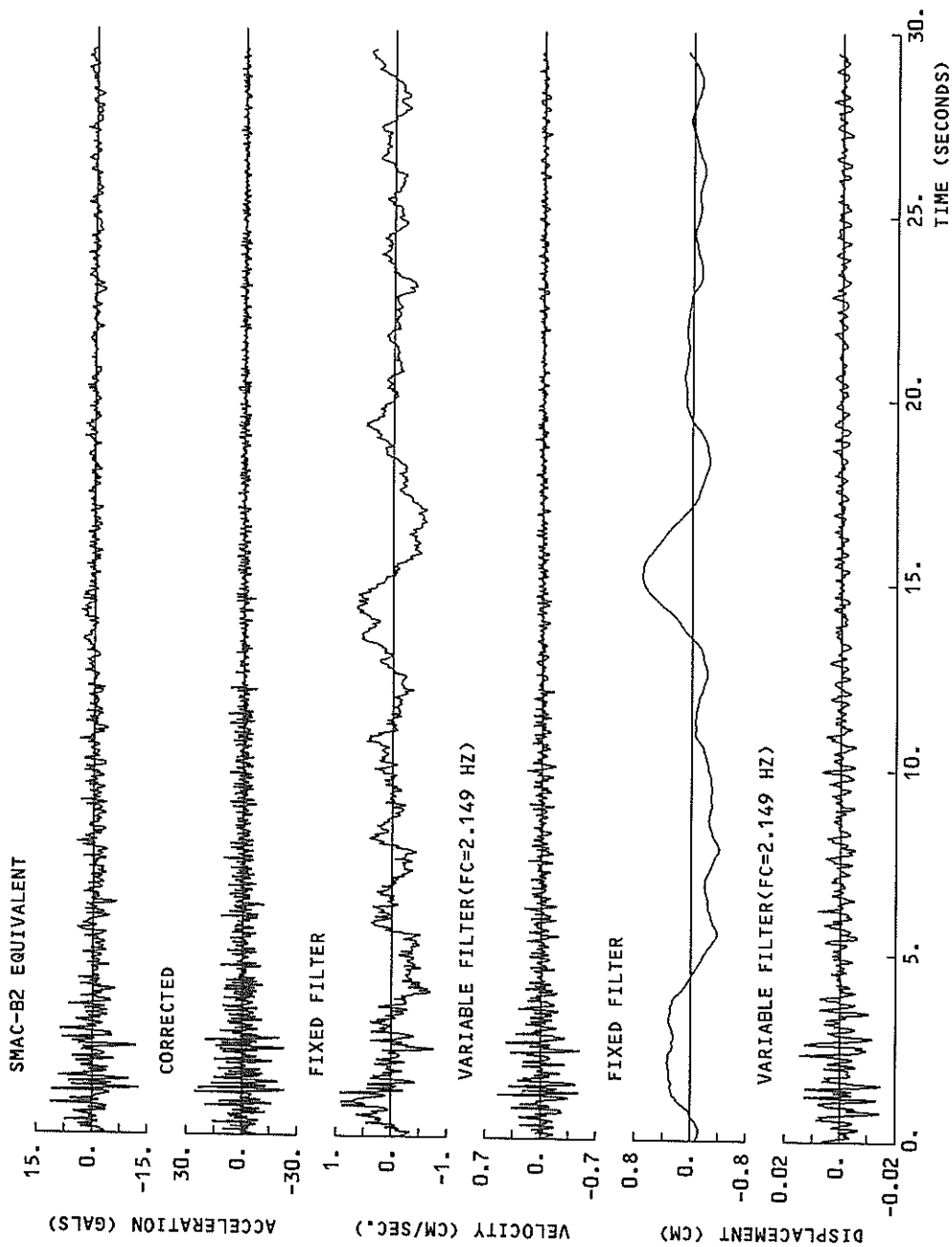
M-1242 NORTH TOKACHI-M



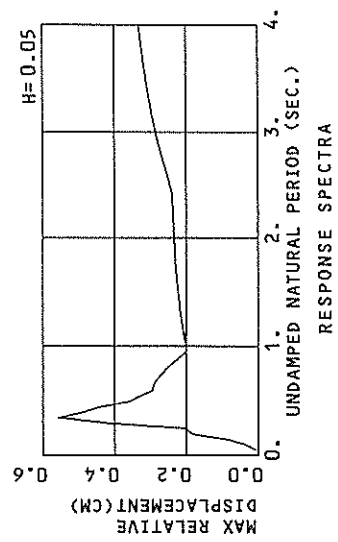
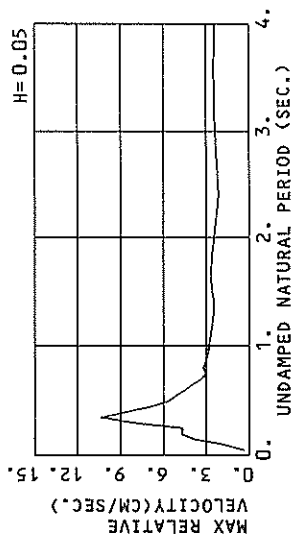
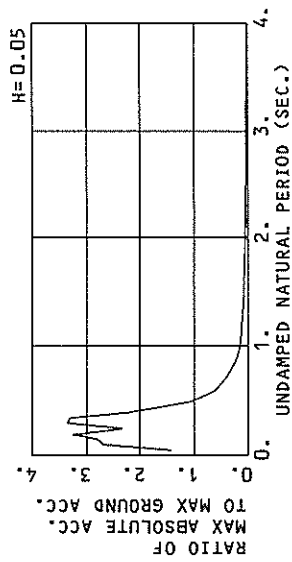
M-1242 EAST TOKACHI-M



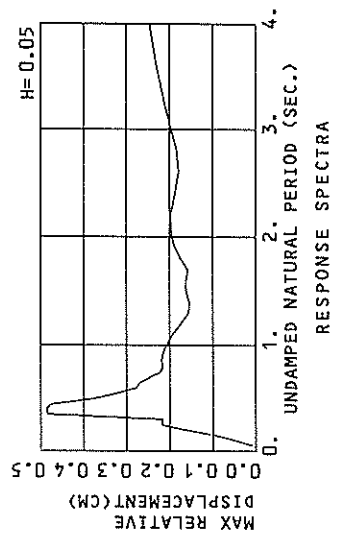
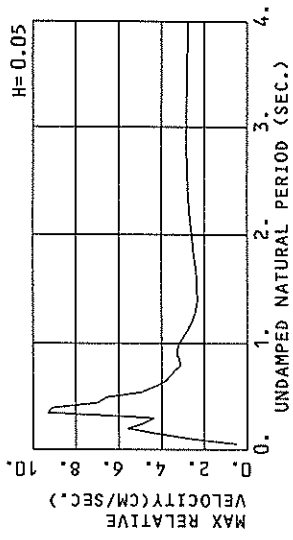
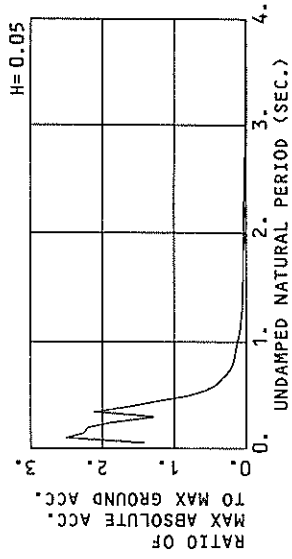
M-1242 UP TOKACHI-M



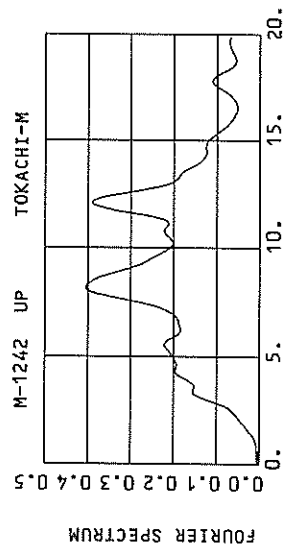
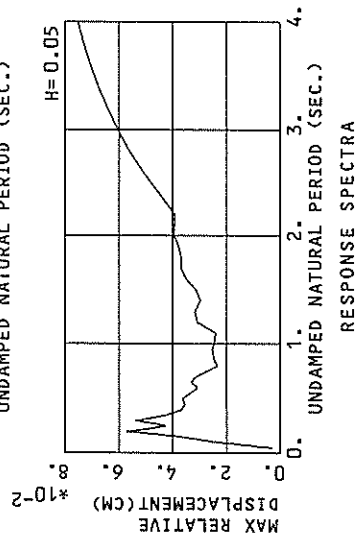
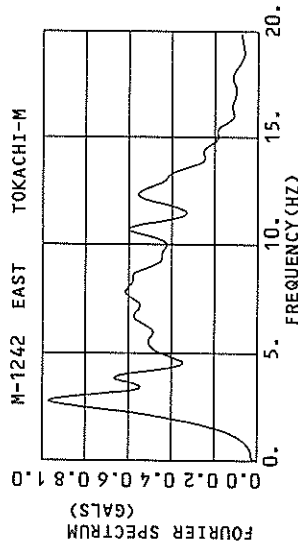
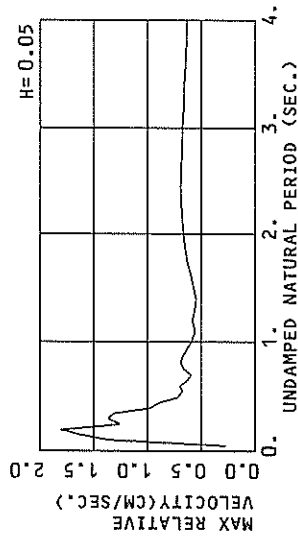
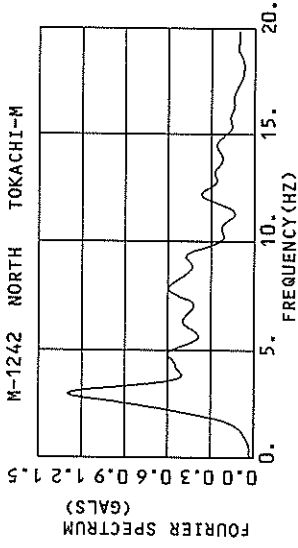
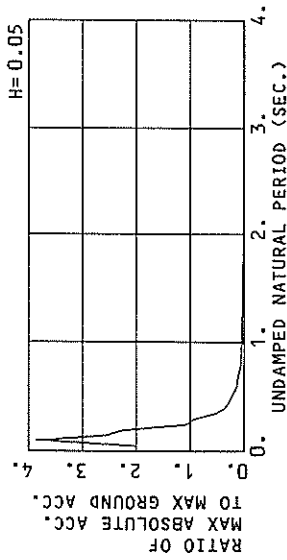
M-1242 NORTH TOKACHI-M
(1/FC=0.80 SEC.)



M-1242 EAST TOKACHI-M
(1/FC=1.00 SEC.)



M-1242 UP TOKACHI-M
(1/FC=0.47 SEC.)



RESPONSE SPECTRUM

RECORD = M-1242 COMPONENT = NORTH SIGNAL = GR. ACC. CORRECTION = STATION = TOKACHI-M
 DATE AND TIME = 1988-10-10-14-52 SAMPRING INTERVAL = 0.0100(SEC) MAX. GROUND ACC. = 54.81 (GAL)
 TIME LENGTH = 29.49 (SEC) SKIPPED LENGTH = 0.00 (SEC)

PER	DAMPING = 0.025				DAMPING = 0.050				DAMPING = 0.100				DAMPING = 0.250			
	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD	
0.05	261.5	1.92	0.017	95.4	0.50	0.006	78.5	0.37	0.005	67.7	0.26	0.004	60.3	0.19	0.004	
0.10	299.0	4.72	0.076	190.2	2.57	0.048	147.4	1.88	0.037	109.5	1.41	0.027	77.2	0.92	0.018	
0.15	519.4	12.33	0.296	205.4	4.95	0.116	153.0	3.84	0.086	108.3	2.67	0.061	86.1	1.61	0.046	
0.20	486.9	15.50	0.486	231.8	6.47	0.235	178.3	4.72	0.182	133.3	3.33	0.132	90.7	2.12	0.084	
0.25	267.8	10.62	0.424	131.8	5.00	0.209	127.8	4.65	0.202	113.4	3.80	0.177	82.3	2.80	0.117	
0.30	266.6	12.12	0.608	218.0	9.38	0.496	184.1	8.06	0.418	136.3	6.15	0.304	76.1	3.48	0.158	
0.35	505.7	28.17	1.569	260.2	14.64	0.804	181.3	10.43	0.557	113.0	6.43	0.343	64.4	3.50	0.174	
0.40	250.5	14.01	0.894	144.7	10.39	0.585	122.3	8.75	0.493	91.0	6.43	0.343	57.6	3.31	0.197	
0.45	164.4	12.62	0.843	113.5	8.93	0.582	85.3	6.87	0.440	66.7	5.41	0.333	47.7	3.61	0.203	
0.50	84.7	7.96	0.536	65.5	6.45	0.413	57.3	5.63	0.360	49.4	4.98	0.305	37.6	3.73	0.200	
0.55	61.9	5.57	0.474	46.6	5.32	0.357	43.1	5.07	0.327	37.6	4.65	0.280	29.2	3.65	0.190	
0.60	36.3	4.76	0.331	34.1	4.63	0.311	32.5	4.49	0.294	30.0	4.21	0.263	26.2	3.51	0.197	
0.65	30.1	4.03	0.322	28.6	3.96	0.306	27.4	3.90	0.290	25.6	3.77	0.263	23.3	3.32	0.201	
0.70	26.0	3.98	0.310	23.9	3.55	0.298	23.0	3.38	0.281	21.8	3.35	0.257	20.7	3.10	0.201	
0.75	20.5	3.50	0.292	19.7	3.23	0.281	19.2	3.04	0.269	18.5	2.98	0.247	18.4	2.89	0.198	
0.80	16.9	3.73	0.273	16.3	3.43	0.263	15.9	3.21	0.254	15.6	2.90	0.236	16.3	2.71	0.193	
0.85	13.8	3.45	0.253	13.4	3.24	0.245	13.2	3.07	0.236	13.2	2.83	0.223	14.5	2.54	0.186	
0.90	11.3	3.09	0.231	11.1	3.00	0.225	11.0	2.92	0.220	11.1	2.76	0.208	12.9	2.41	0.179	
0.95	10.2	3.01	0.233	9.1	2.93	0.208	9.1	2.85	0.202	9.4	2.72	0.194	11.5	2.37	0.170	
1.00	8.4	2.93	0.212	8.2	2.86	0.205	8.1	2.79	0.200	8.3	2.67	0.192	10.4	2.32	0.168	
1.10	7.8	2.77	0.239	6.9	2.72	0.212	6.9	2.68	0.207	7.2	2.58	0.198	8.6	2.31	0.175	
1.20	6.1	2.83	0.221	6.0	2.70	0.217	6.0	2.59	0.212	6.3	2.49	0.203	7.7	2.27	0.181	
1.30	5.3	2.63	0.225	5.2	2.55	0.220	5.2	2.49	0.216	5.5	2.40	0.208	7.0	2.26	0.186	
1.40	4.6	2.57	0.229	4.6	2.51	0.224	4.6	2.46	0.220	4.9	2.39	0.212	6.4	2.30	0.191	
1.50	4.1	2.74	0.231	4.0	2.66	0.227	4.1	2.59	0.223	4.4	2.49	0.215	5.9	2.33	0.195	
1.60	3.6	2.78	0.234	3.6	2.72	0.230	3.6	2.65	0.228	4.0	2.54	0.218	5.5	2.36	0.199	
1.70	3.2	2.80	0.236	3.2	2.71	0.232	3.3	2.65	0.228	3.6	2.54	0.221	5.1	2.35	0.202	
1.80	2.9	2.71	0.238	2.9	2.68	0.234	2.9	2.61	0.230	3.3	2.52	0.223	4.8	2.35	0.205	
1.90	2.6	2.61	0.239	2.6	2.58	0.235	2.7	2.54	0.230	3.1	2.48	0.225	4.5	2.33	0.207	
2.00	2.4	2.50	0.241	2.4	2.48	0.237	2.4	2.46	0.233	2.8	2.42	0.227	4.2	2.31	0.209	
2.20	2.0	2.28	0.243	2.0	2.29	0.240	2.1	2.30	0.236	2.4	2.29	0.230	3.7	2.25	0.214	
2.40	1.8	2.12	0.264	1.7	2.14	0.245	1.8	2.15	0.239	2.1	2.18	0.233	3.4	2.20	0.217	
2.60	1.6	2.27	0.273	1.5	2.24	0.261	1.6	2.21	0.253	1.9	2.18	0.239	3.1	2.15	0.220	
2.80	1.4	2.37	0.287	1.4	2.34	0.278	1.4	2.30	0.270	1.7	2.25	0.256	2.8	2.15	0.222	
3.00	1.3	2.44	0.306	1.3	2.40	0.292	1.4	2.37	0.284	1.5	2.31	0.270	2.6	2.19	0.234	
3.20	1.2	2.48	0.312	1.2	2.44	0.304	1.2	2.41	0.297	1.4	2.35	0.282	2.4	2.22	0.246	
3.40	1.1	2.50	0.323	1.1	2.46	0.315	1.1	2.43	0.307	1.3	2.37	0.293	2.3	2.24	0.257	
3.60	1.0	2.50	0.332	1.0	2.47	0.324	1.0	2.43	0.316	1.2	2.38	0.302	2.2	2.26	0.266	
3.80	0.9	2.48	0.340	0.9	2.46	0.332	1.0	2.43	0.325	1.1	2.38	0.310	2.1	2.26	0.275	
4.00	0.9	2.46	0.347	0.9	2.44	0.339	0.9	2.42	0.332	1.1	2.37	0.318	2.0	2.27	0.282	

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = M-1242
 DATE AND TIME = 1988-10-10-14-52
 TIME LENGTH = 29.49 (SEC)

COMPONENT = EAST
 SAMPRING INTERVAL = 0.0100(SEC)
 SKIPPED LENGTH = 0.00 (SEC)

SIGNAL = GR. ACC.
 CORRECTION = STATION = TOKACHI-M
 MAX. GROUND ACC. = 74.19 (GAL)

DAMPING = 0.025 DAMPING = 0.050 DAMPING = 0.100 DAMPING = 0.250

PER	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	175.9	1.32	0.011	108.1	0.56	0.007	105.1	0.49	0.007	95.6	0.42	0.006
0.10	600.5	9.54	0.152	241.7	3.38	0.061	186.7	2.67	0.047	147.9	2.11	0.037
0.15	429.2	10.29	0.245	222.9	5.49	0.126	168.0	4.14	0.096	129.1	3.21	0.071
0.20	293.5	9.16	0.297	196.2	6.82	0.197	164.1	5.61	0.165	131.3	4.92	0.131
0.25	307.8	13.00	0.514	195.8	7.20	0.309	195.8	4.89	0.219	110.7	3.86	0.171
0.30	158.8	7.54	0.362	101.4	4.70	0.231	95.6	4.37	0.216	87.4	3.64	0.194
0.35	488.8	21.35	1.517	224.1	12.99	0.692	157.5	9.30	0.484	103.8	6.13	0.314
0.40	185.7	12.31	0.763	145.1	10.46	0.586	120.5	9.10	0.487	87.7	7.19	0.350
0.45	130.5	9.76	0.869	108.6	7.74	0.557	93.8	6.97	0.477	73.3	5.85	0.364
0.50	87.1	8.50	0.551	68.9	7.46	0.436	60.2	6.58	0.378	47.6	5.23	0.293
0.55	58.9	5.48	0.451	47.4	5.13	0.362	43.0	4.90	0.327	36.4	4.41	0.270
0.60	56.3	5.53	0.513	33.2	4.58	0.302	30.8	4.29	0.278	27.1	3.79	0.239
0.65	35.7	4.55	0.382	27.8	3.94	0.267	25.6	3.80	0.271	23.0	3.54	0.235
0.70	26.4	4.11	0.328	21.6	3.70	0.256	20.4	3.59	0.249	18.7	3.40	0.220
0.75	17.8	3.45	0.254	16.5	3.41	0.234	15.7	3.34	0.221	15.0	3.22	0.198
0.80	14.9	3.13	0.242	14.1	3.11	0.228	13.5	3.08	0.216	12.6	3.01	0.195
0.85	14.5	3.46	0.266	12.6	3.29	0.229	12.0	3.17	0.218	11.3	2.99	0.198
0.90	13.6	3.58	0.279	11.1	3.41	0.227	10.7	3.27	0.217	10.2	3.07	0.198
0.95	14.7	3.51	0.333	9.8	3.38	0.223	9.5	3.26	0.213	9.1	3.07	0.196
1.00	8.9	3.33	0.226	8.6	3.24	0.217	8.4	3.16	0.208	8.1	3.02	0.192
1.10	7.4	2.88	0.228	6	2.87	0.200	6.5	2.86	0.193	6.4	2.83	0.181
1.20	6.0	2.51	0.217	5.0	2.56	0.180	5	2.59	0.175	5.1	2.63	0.166
1.30	4.1	2.29	0.177	3.8	2.38	0.160	3.8	2.41	0.156	4.0	2.49	0.150
1.40	4.5	2.40	0.224	3.3	2.35	0.163	3.2	2.33	0.154	3.2	2.41	0.139
1.50	3.2	2.45	0.183	3.0	2.40	0.170	3.0	2.36	0.161	3.0	2.39	0.146
1.60	2.8	2.43	0.180	2.7	2.39	0.170	2.6	2.35	0.162	2.8	2.40	0.147
1.70	2.5	2.37	0.181	2.3	2.39	0.165	2.4	2.40	0.158	2.9	2.43	0.145
1.80	2.4	2.46	0.193	2.3	2.47	0.182	2.4	2.47	0.173	2.8	2.48	0.124
1.90	2.3	2.55	0.208	2.2	2.54	0.195	2.4	2.54	0.186	2.7	2.48	0.158
2.00	2.1	2.63	0.217	2.1	2.61	0.205	2.2	2.60	0.194	2.6	2.58	0.168
2.20	1.8	2.74	0.217	1.8	2.72	0.206	1.9	2.69	0.197	2.3	2.66	0.180
2.40	1.4	2.82	0.203	1.4	2.79	0.194	1.5	2.76	0.187	2.0	2.72	0.173
2.60	1.1	2.85	0.187	1.1	2.83	0.183	1.3	2.80	0.179	1.8	2.75	0.172
2.80	1.0	2.87	0.192	1.0	2.84	0.187	1.1	2.82	0.183	1.5	2.77	0.185
3.00	0.9	2.87	0.208	0.9	2.84	0.202	1.0	2.82	0.196	1.3	2.78	0.189
3.20	0.9	2.85	0.221	0.9	2.83	0.215	0.9	2.82	0.209	1.1	2.78	0.198
3.40	0.8	2.83	0.233	0.8	2.82	0.226	0.9	2.80	0.220	1.0	2.77	0.209
3.60	0.7	2.81	0.243	0.8	2.80	0.236	0.8	2.79	0.230	1.0	2.76	0.219
3.80	0.7	2.79	0.252	0.7	2.78	0.245	0.8	2.77	0.239	0.9	2.75	0.228
4.00	0.6	2.76	0.259	0.7	2.76	0.253	0.7	2.75	0.247	0.9	2.73	0.235

PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

RESPONSE SPECTRUM

RECORD = M-1242
 DATE AND TIME = 1988-10-10-14-52
 TIME LENGTH = 29.49 (SEC)

COMPONENT = UP
 SIGNAL = GR. ACC.
 SAMPRING INTERVAL = 0.0100 (SEC)
 SKIPPED LENGTH = 0.00 (SEC)

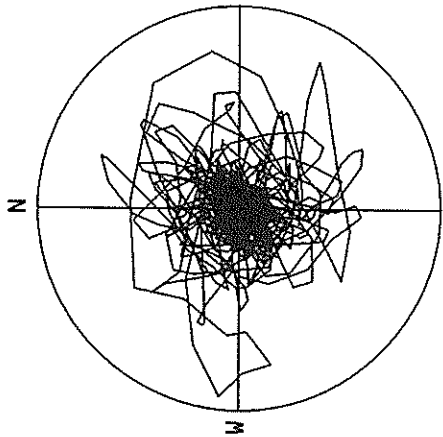
CORRECTION = MAX. GROUND ACC. = 25.38 (GAL)
 STATION = TOKACHI-M

DAMPING = 0.050
 DAMPING = 0.100
 DAMPING = 0.250

PER	AA	RV	RD	AA	RV	RD	AA	RV	RD	AA	RV	RD
0.05	195.7	1.54	0.012	57.1	0.33	0.004	51.4	0.27	0.003	46.6	0.24	0.003
0.10	178.6	2.82	0.045	115.9	1.65	0.029	98.1	1.37	0.025	73.3	1.01	0.018
0.20	139.5	3.35	0.080	75.7	1.89	0.043	65.2	1.63	0.038	53.3	1.41	0.030
0.35	116.2	3.74	0.118	57.0	2.35	0.075	47.3	1.81	0.057	39.6	1.33	0.040
0.50	93.0	2.15	0.084	34.8	1.51	0.055	26.9	1.26	0.043	21.5	1.08	0.033
0.75	47.0	2.29	0.107	27.8	1.55	0.063	23.7	1.37	0.054	19.3	1.14	0.042
1.00	29.1	1.76	0.090	19.1	1.43	0.059	13.8	1.31	0.043	11.9	1.12	0.035
1.25	19.1	1.33	0.077	10.5	1.06	0.042	9.1	0.98	0.037	8.0	0.95	0.031
1.50	16.5	1.27	0.085	7.3	0.91	0.037	7.0	0.88	0.035	6.5	0.85	0.032
1.75	8.6	0.78	0.054	6.5	0.71	0.041	5.9	0.71	0.036	5.3	0.72	0.031
2.00	11.3	1.05	0.087	5.4	0.76	0.041	4.5	0.68	0.034	3.9	0.59	0.027
2.25	4.5	0.89	0.041	3.7	0.77	0.033	3.4	0.70	0.031	3.1	0.62	0.027
2.50	6.6	0.72	0.071	3.4	0.67	0.036	3.1	0.63	0.033	2.9	0.57	0.028
2.75	3.3	0.61	0.041	2.8	0.59	0.034	2.6	0.59	0.031	2.5	0.59	0.028
3.00	2.9	0.70	0.039	2.1	0.68	0.029	2.0	0.66	0.028	2.0	0.63	0.025
3.25	1.7	0.74	0.027	1.5	0.71	0.025	1.5	0.68	0.023	1.6	0.65	0.021
3.50	1.8	0.72	0.033	1.5	0.70	0.026	1.4	0.68	0.024	1.4	0.65	0.021
3.75	1.4	0.68	0.029	1.3	0.67	0.027	1.3	0.66	0.025	1.3	0.64	0.022
4.00	1.4	0.63	0.031	1.2	0.67	0.028	1.2	0.62	0.025	1.2	0.62	0.021
4.25	1.3	0.60	0.033	1.1	0.59	0.027	1.1	0.59	0.025	1.1	0.60	0.021
4.50	1.1	0.59	0.033	0.9	0.57	0.027	0.9	0.56	0.024	0.9	0.56	0.022
4.75	1.0	0.64	0.038	0.9	0.61	0.034	0.9	0.58	0.031	0.9	0.56	0.026
5.00	1.30	0.59	0.039	0.8	0.57	0.035	0.8	0.55	0.032	0.9	0.54	0.027
5.25	1.40	0.57	0.039	0.7	0.56	0.034	0.7	0.55	0.030	0.8	0.56	0.028
5.50	1.50	0.57	0.040	0.6	0.57	0.034	0.6	0.57	0.031	0.8	0.57	0.029
5.75	1.60	0.60	0.041	0.6	0.60	0.038	0.6	0.59	0.035	0.8	0.59	0.031
6.00	1.70	0.63	0.043	0.6	0.62	0.040	0.6	0.62	0.037	0.7	0.61	0.032
6.25	1.80	0.65	0.045	0.5	0.64	0.040	0.5	0.64	0.037	0.7	0.63	0.033
6.50	1.90	0.67	0.045	0.5	0.66	0.041	0.5	0.65	0.038	0.6	0.64	0.034
6.75	2.00	0.69	0.047	0.4	0.68	0.043	0.5	0.67	0.039	0.6	0.65	0.035
7.00	2.20	0.70	0.049	0.4	0.69	0.043	0.4	0.68	0.039	0.5	0.67	0.035
7.25	2.40	0.71	0.048	0.3	0.70	0.047	0.4	0.69	0.045	0.4	0.68	0.042
7.50	2.60	0.70	0.055	0.3	0.70	0.053	0.3	0.69	0.045	0.4	0.68	0.048
7.75	2.80	0.69	0.060	0.3	0.69	0.058	0.3	0.68	0.056	0.3	0.67	0.053
8.00	3.00	0.68	0.065	0.3	0.68	0.062	0.3	0.68	0.060	0.3	0.67	0.057
8.25	3.20	0.67	0.069	0.3	0.67	0.066	0.3	0.67	0.064	0.3	0.66	0.061
8.50	3.40	0.66	0.072	0.3	0.66	0.070	0.3	0.66	0.068	0.3	0.66	0.064
8.75	3.60	0.65	0.075	0.2	0.65	0.072	0.2	0.65	0.070	0.3	0.65	0.067
9.00	3.80	0.64	0.077	0.2	0.64	0.075	0.2	0.64	0.073	0.3	0.64	0.069
9.25	4.00	0.63	0.079	0.2	0.63	0.077	0.2	0.63	0.075	0.3	0.63	0.071

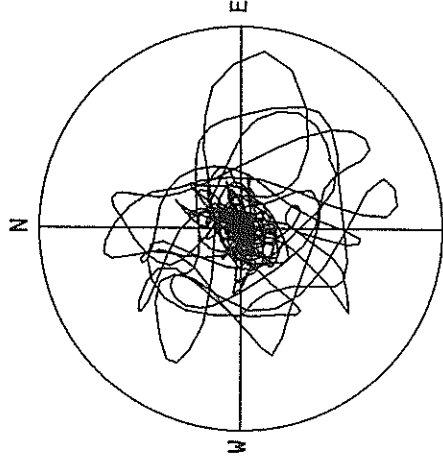
PER = PERIOD (SEC) AA = ABSOLUTE ACC. (GAL) RV = RELATIVE VELOCITY (CM/SEC) RD = RELATIVE DISPLACEMENT (CM)

M-1242 TOKACHI-M



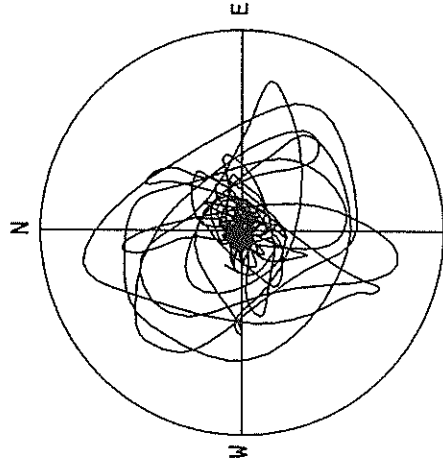
ACCELERATION
R=80.0 GAL
MAX=74.6 GAL

M-1242 TOKACHI-M

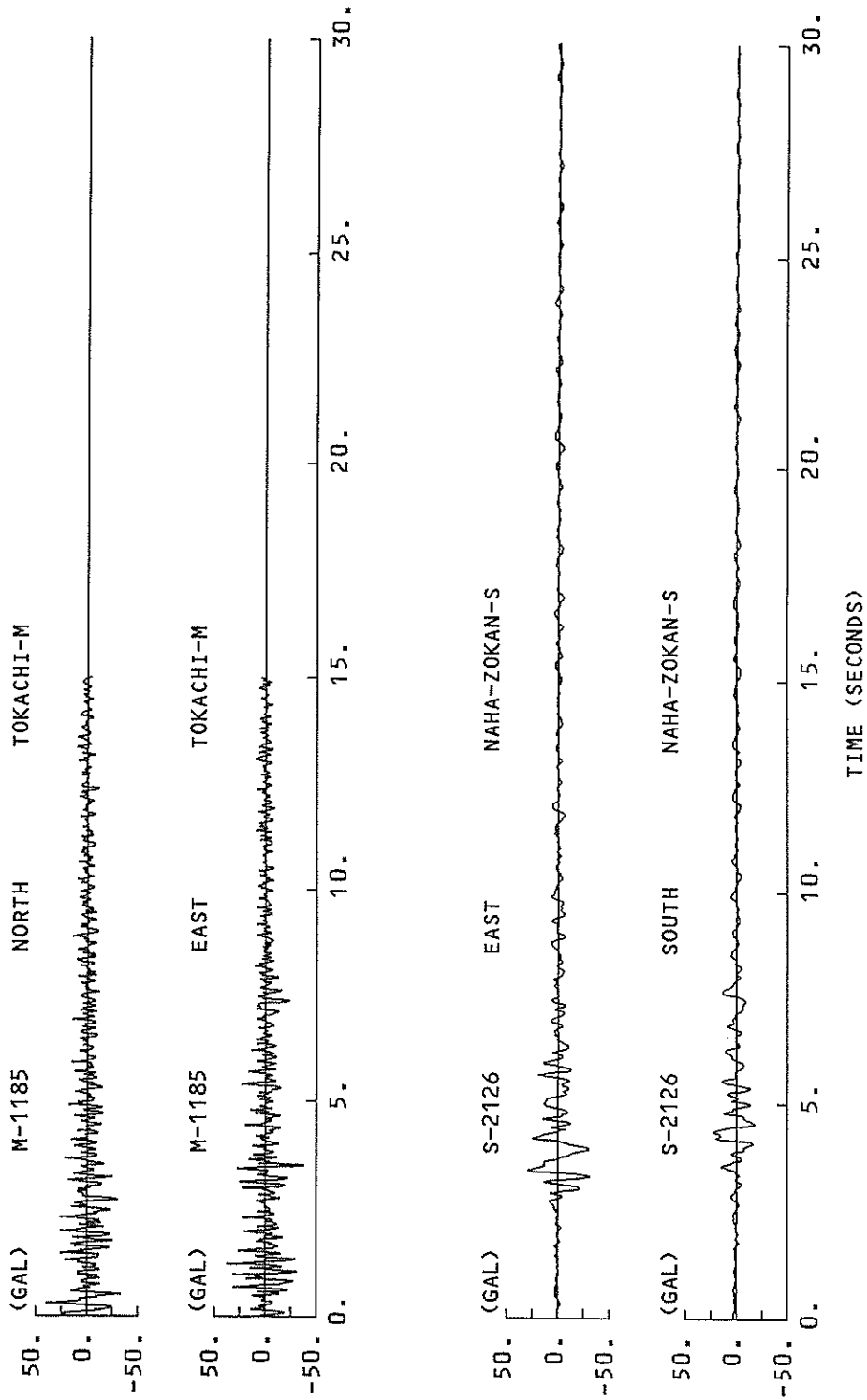


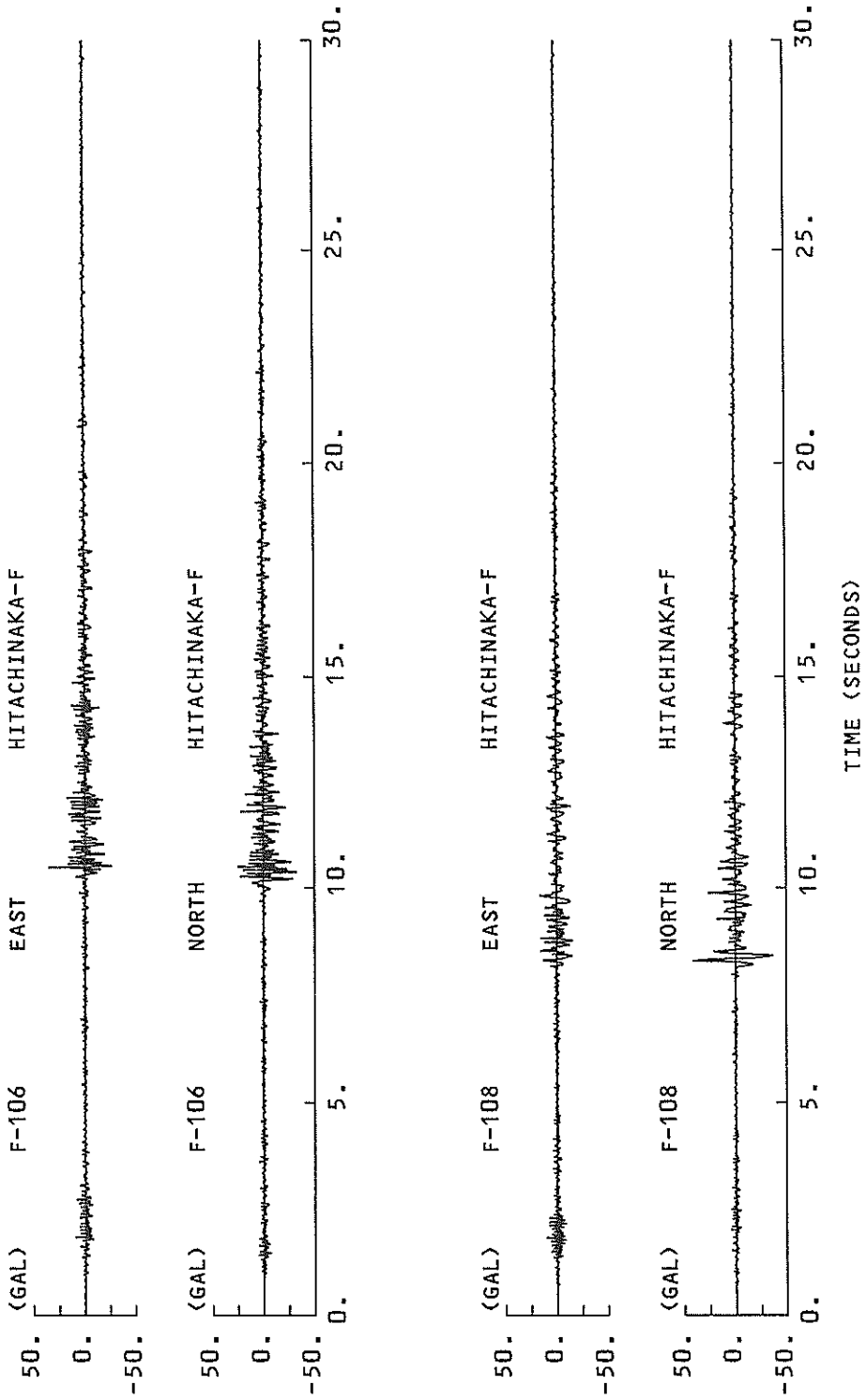
VELOCITY
R=3.0 CM/SEC.
MAX=2.6 CM/SEC.

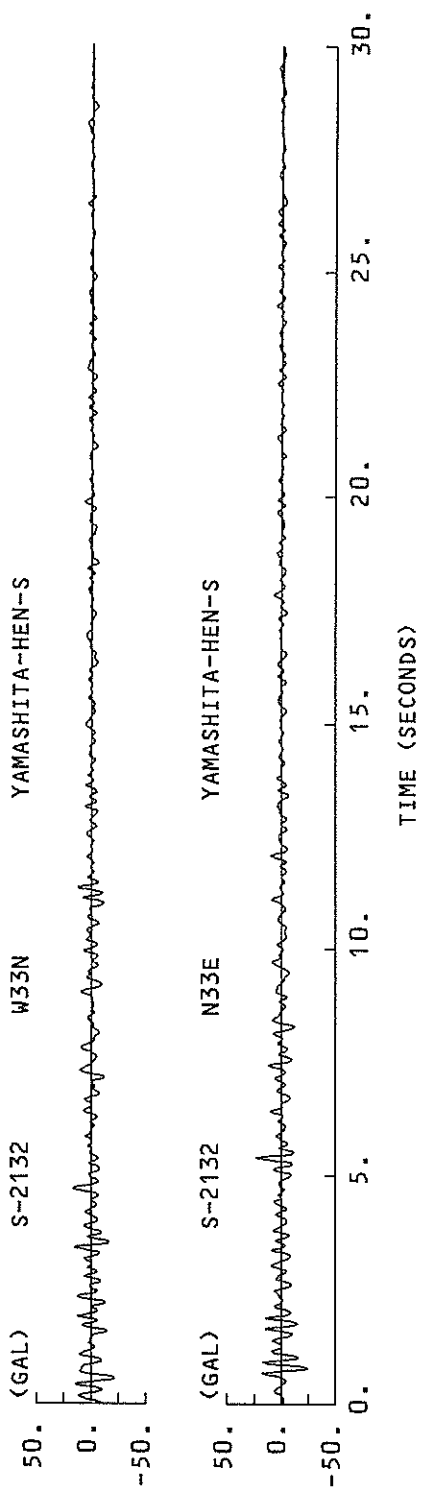
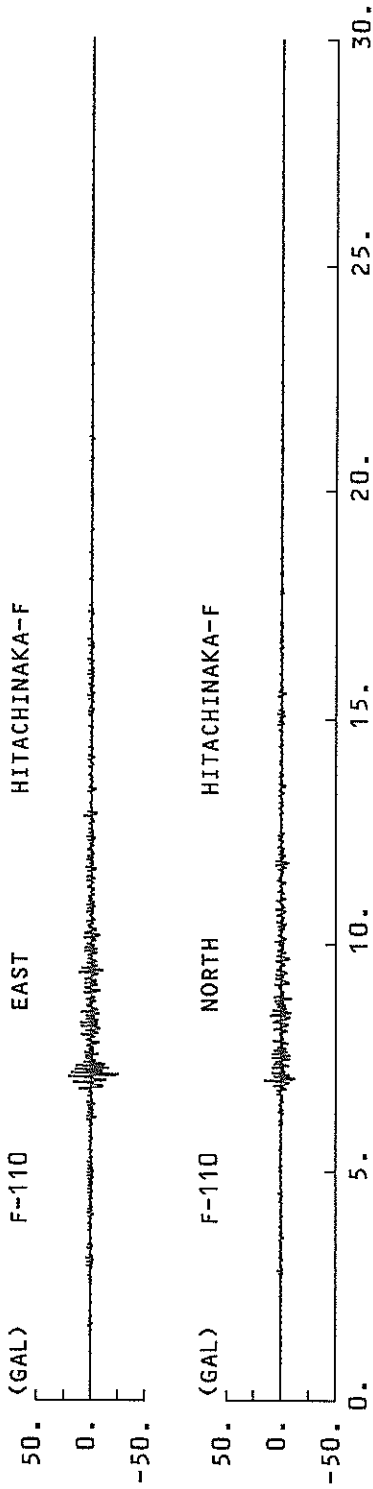
M-1242 TOKACHI-M

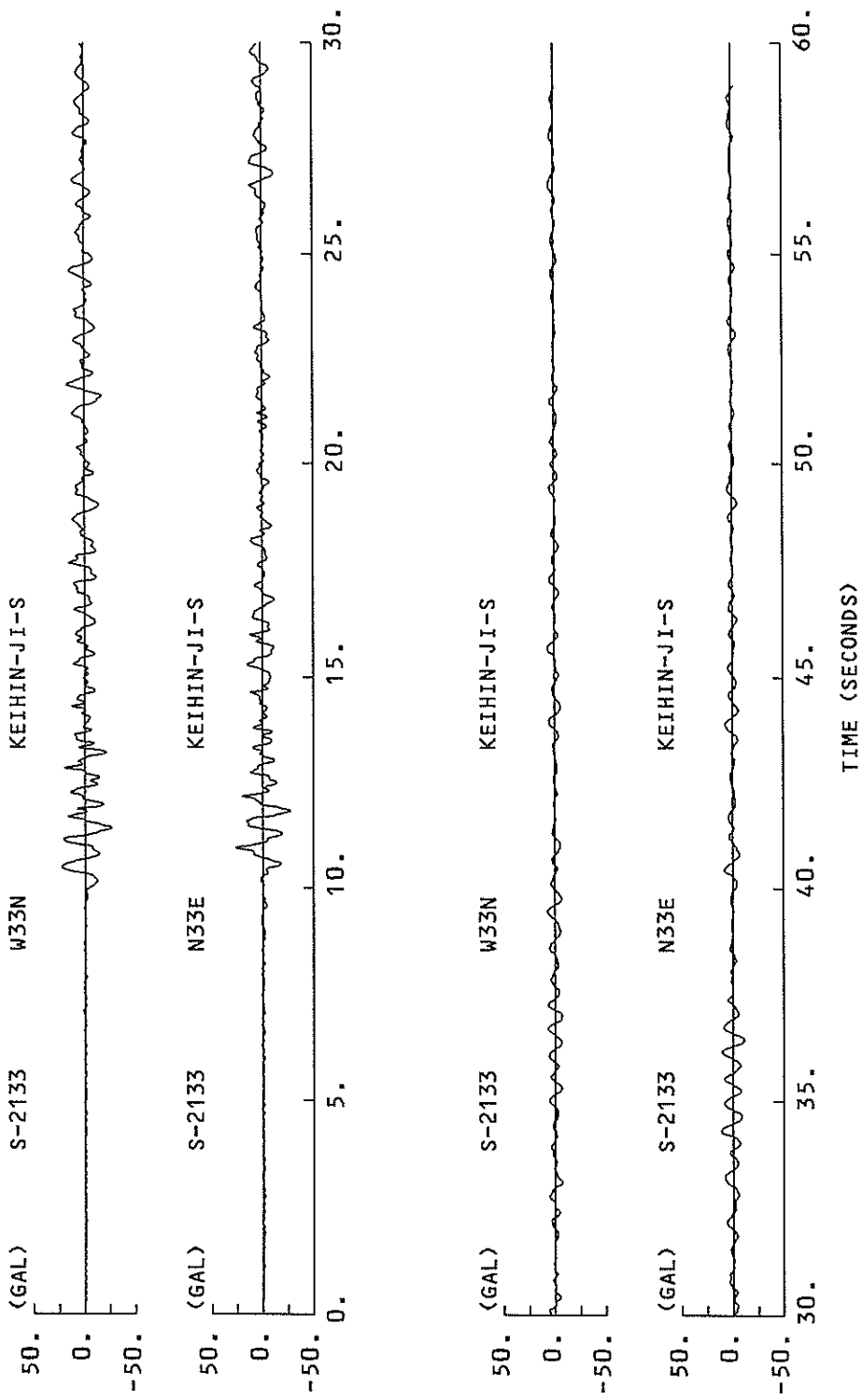


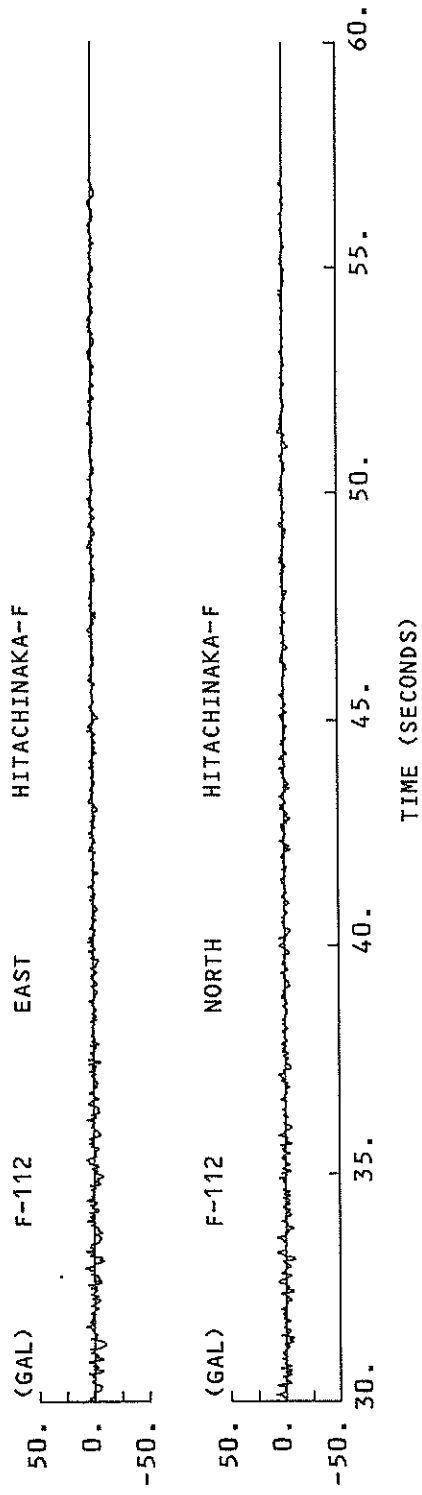
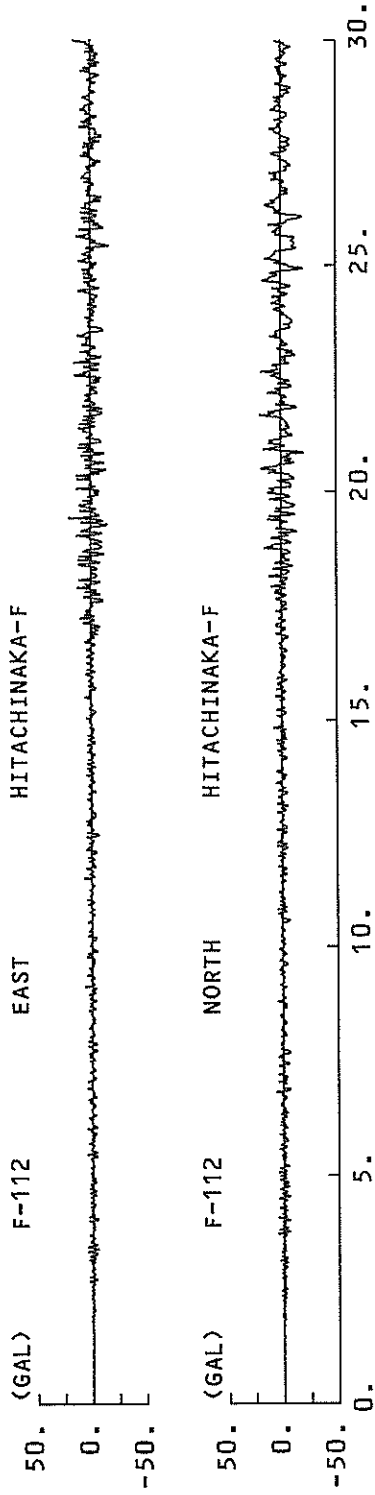
DISPLACEMENT
R=0.15 CM
MAX=0.12 CM

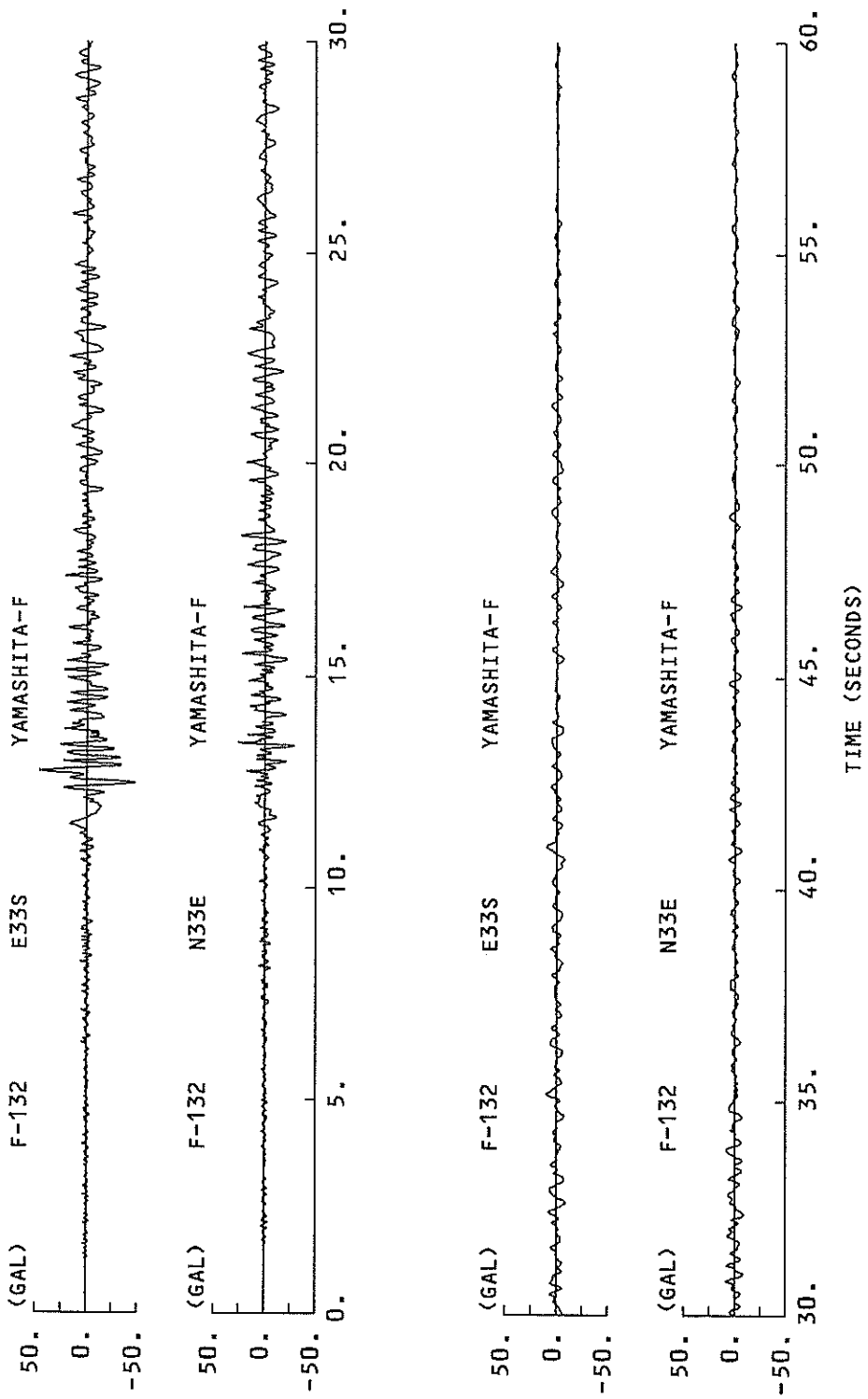


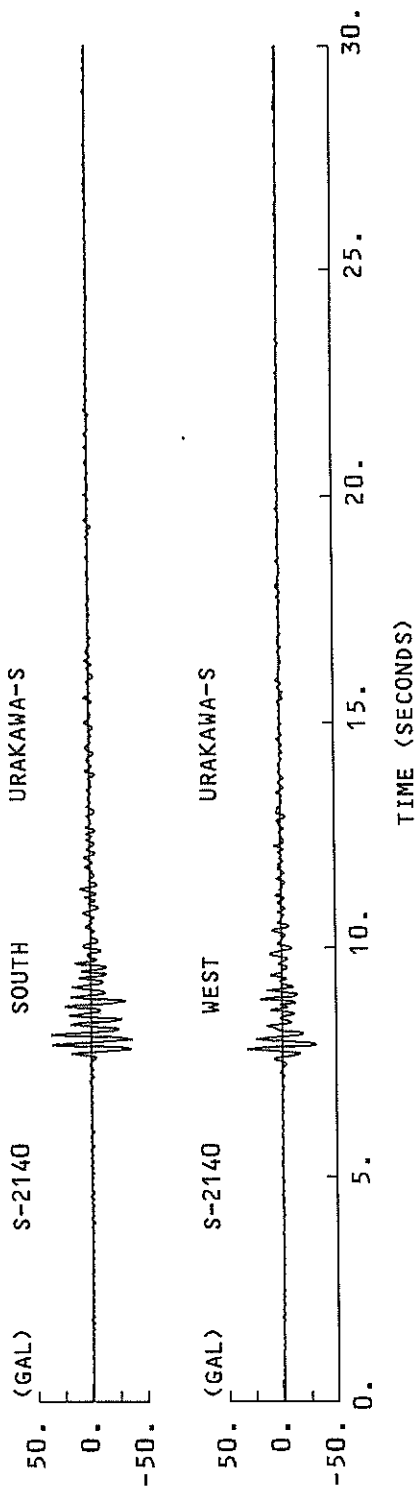
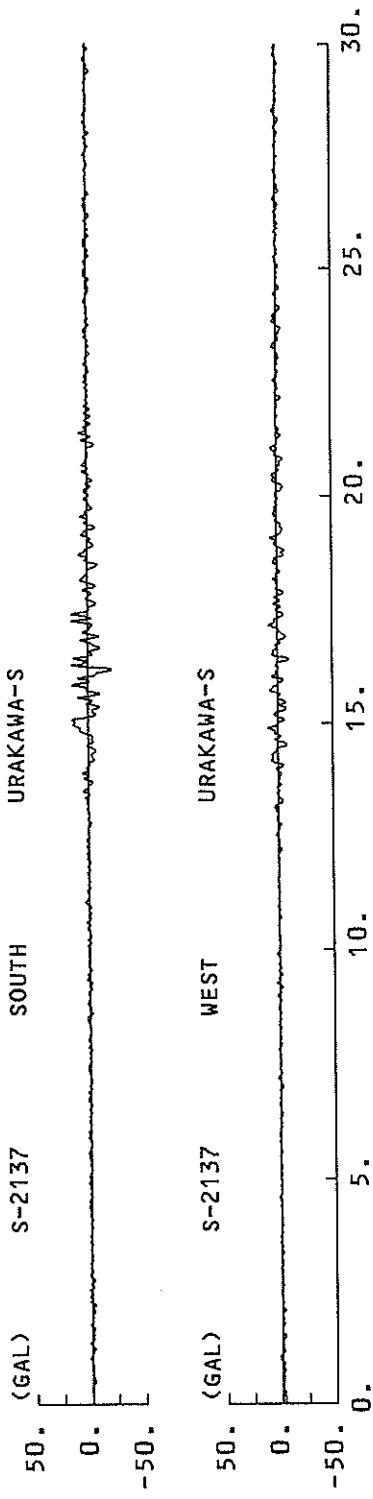


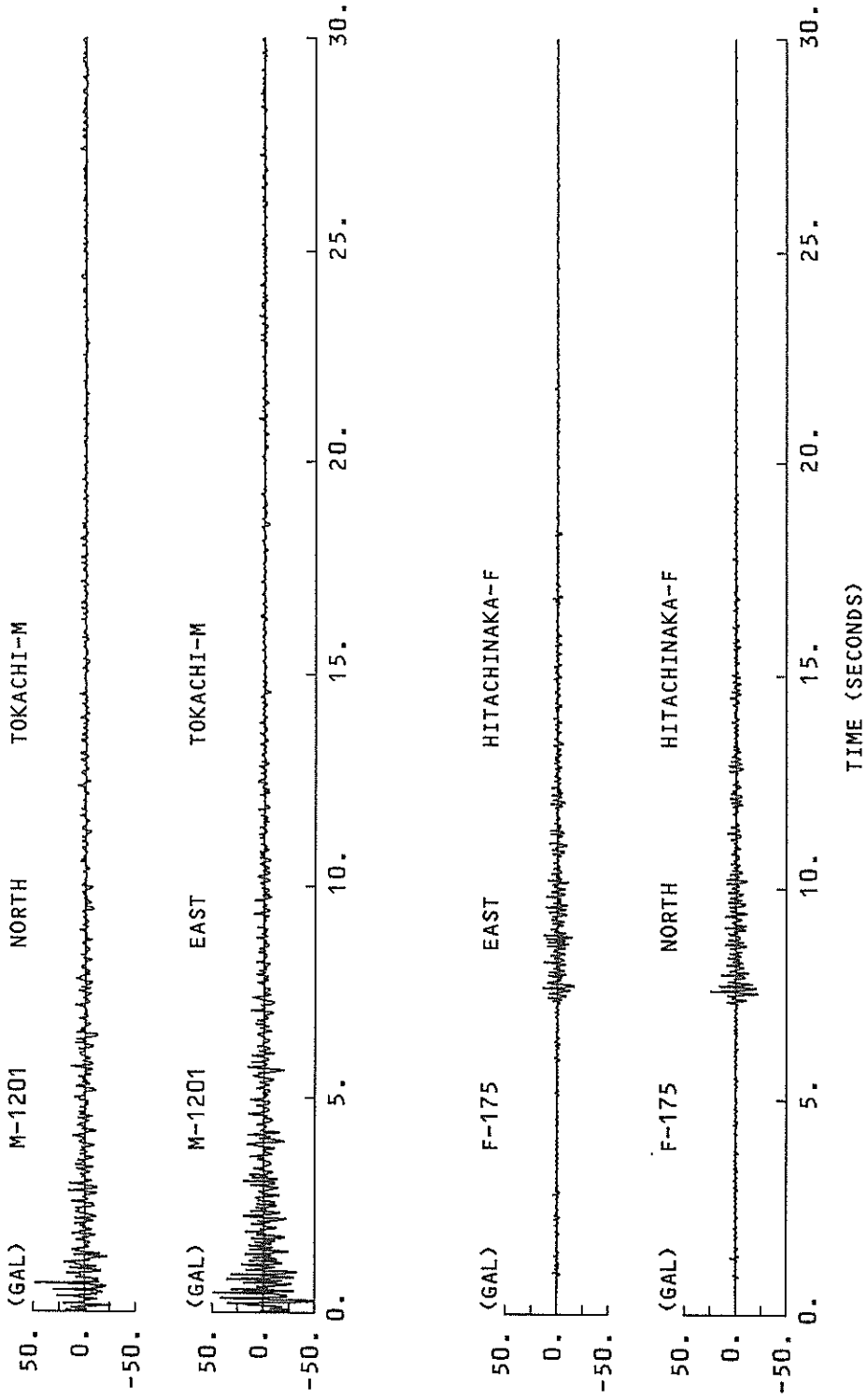


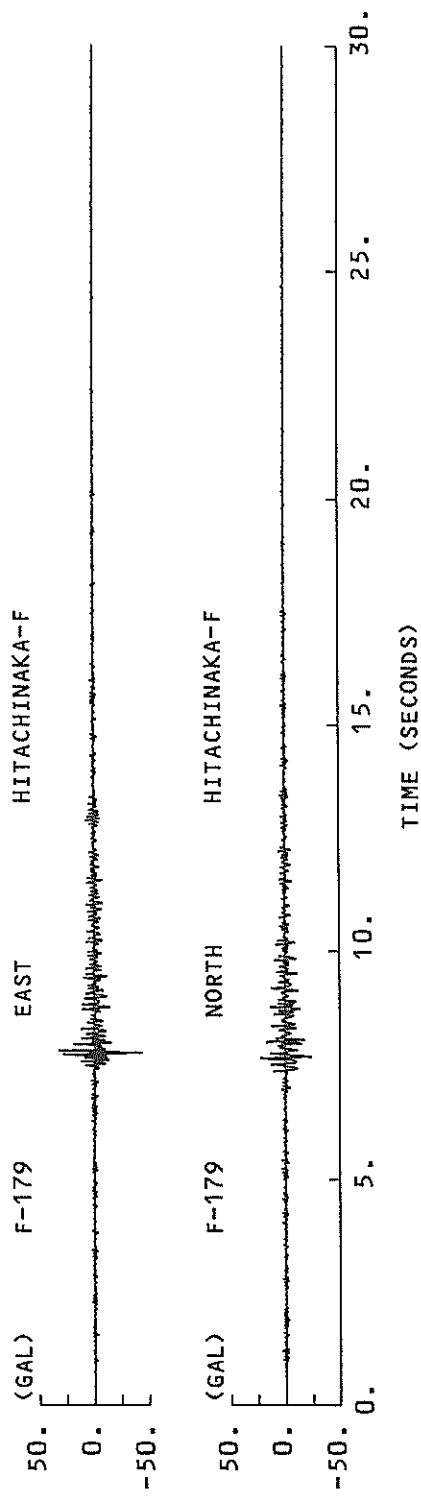
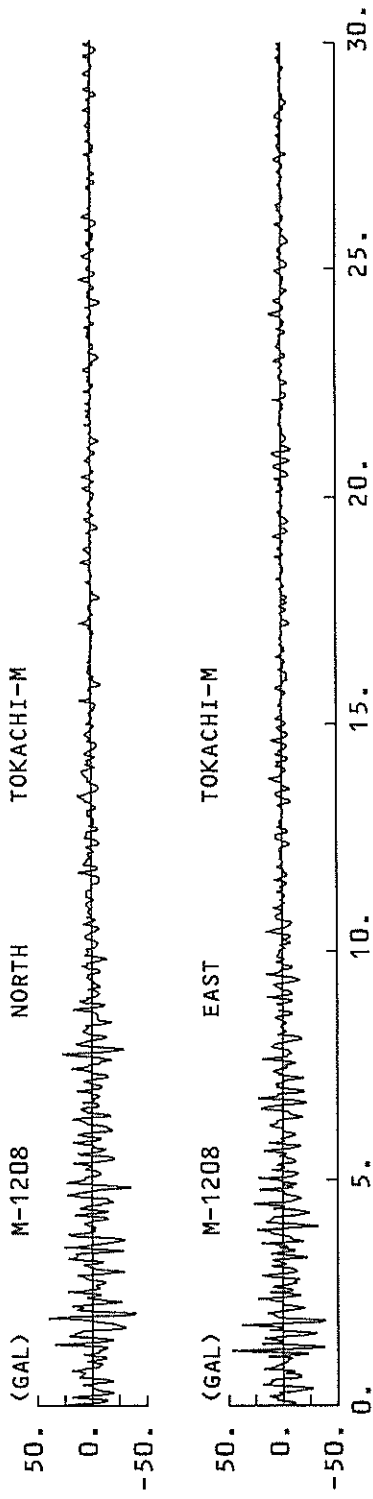


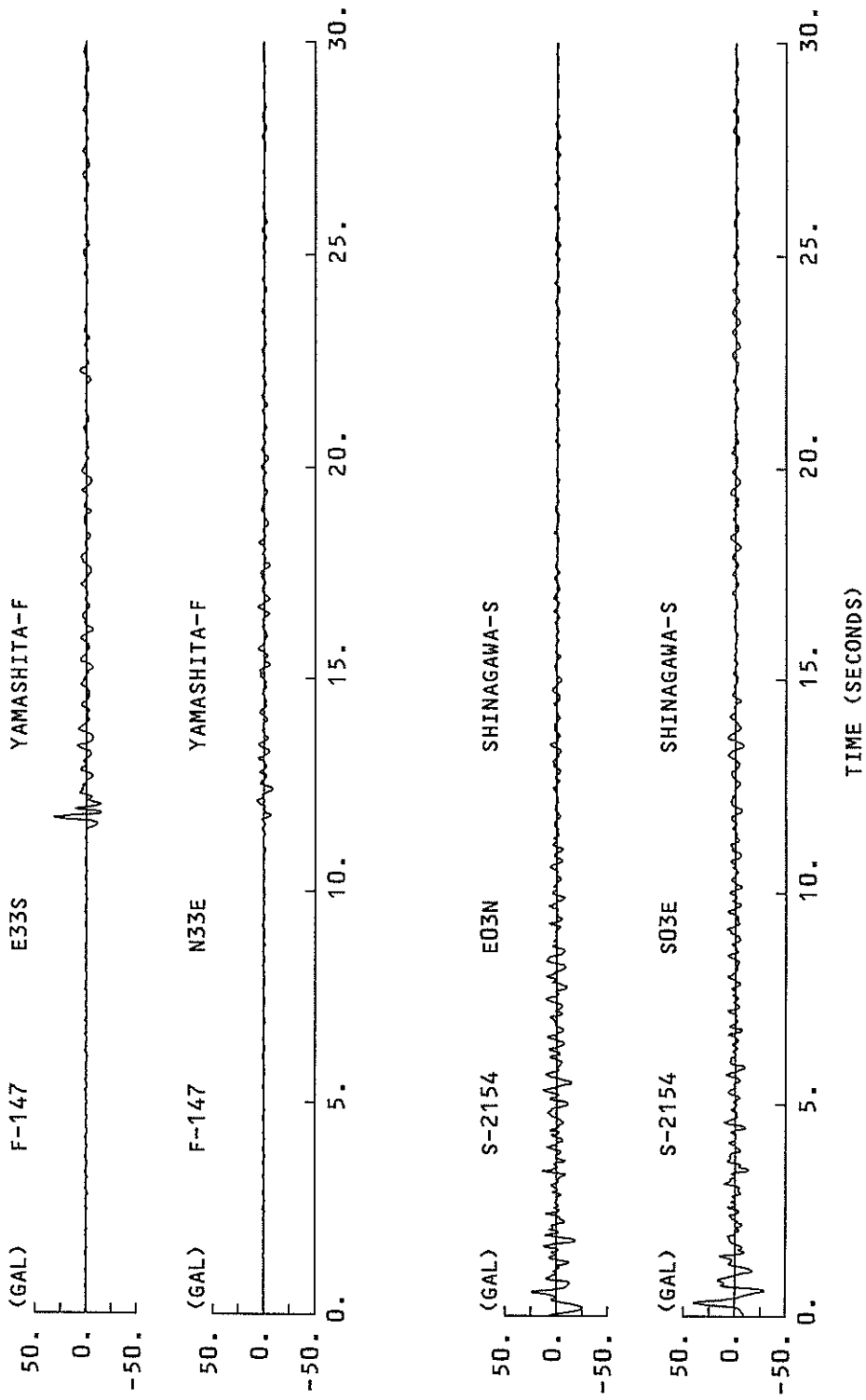


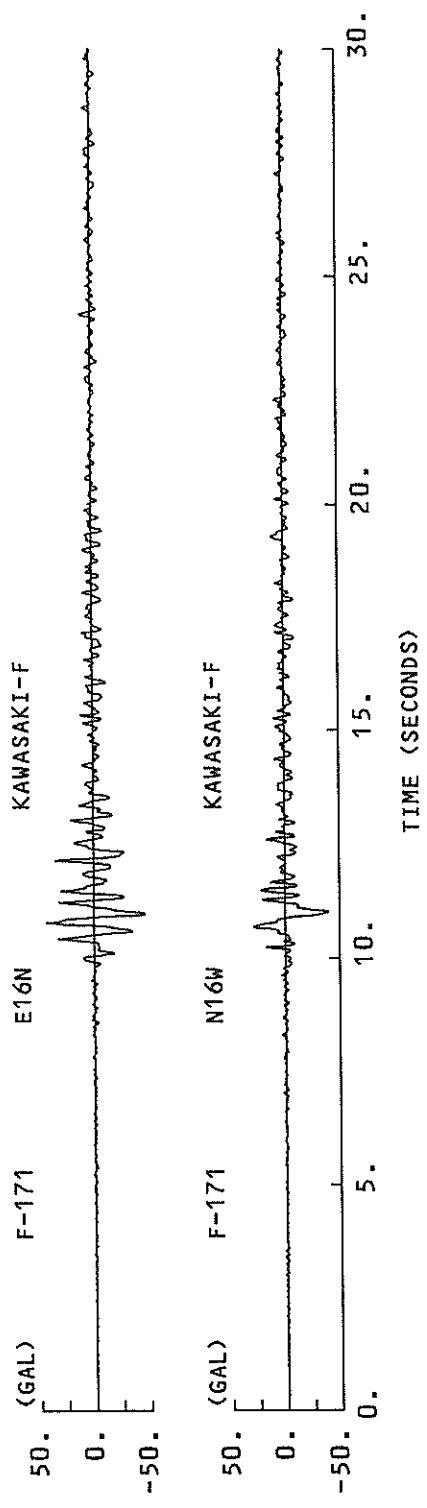
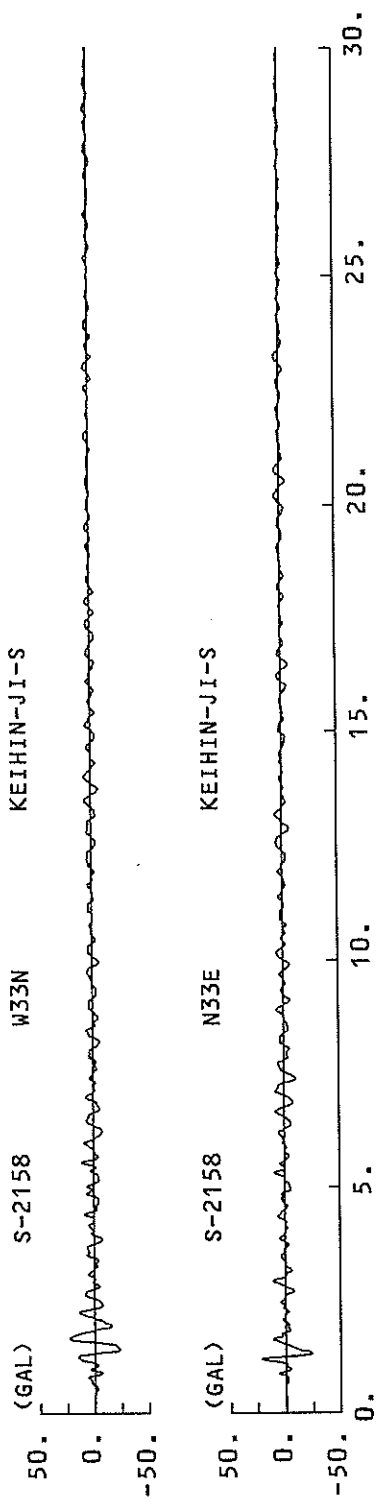


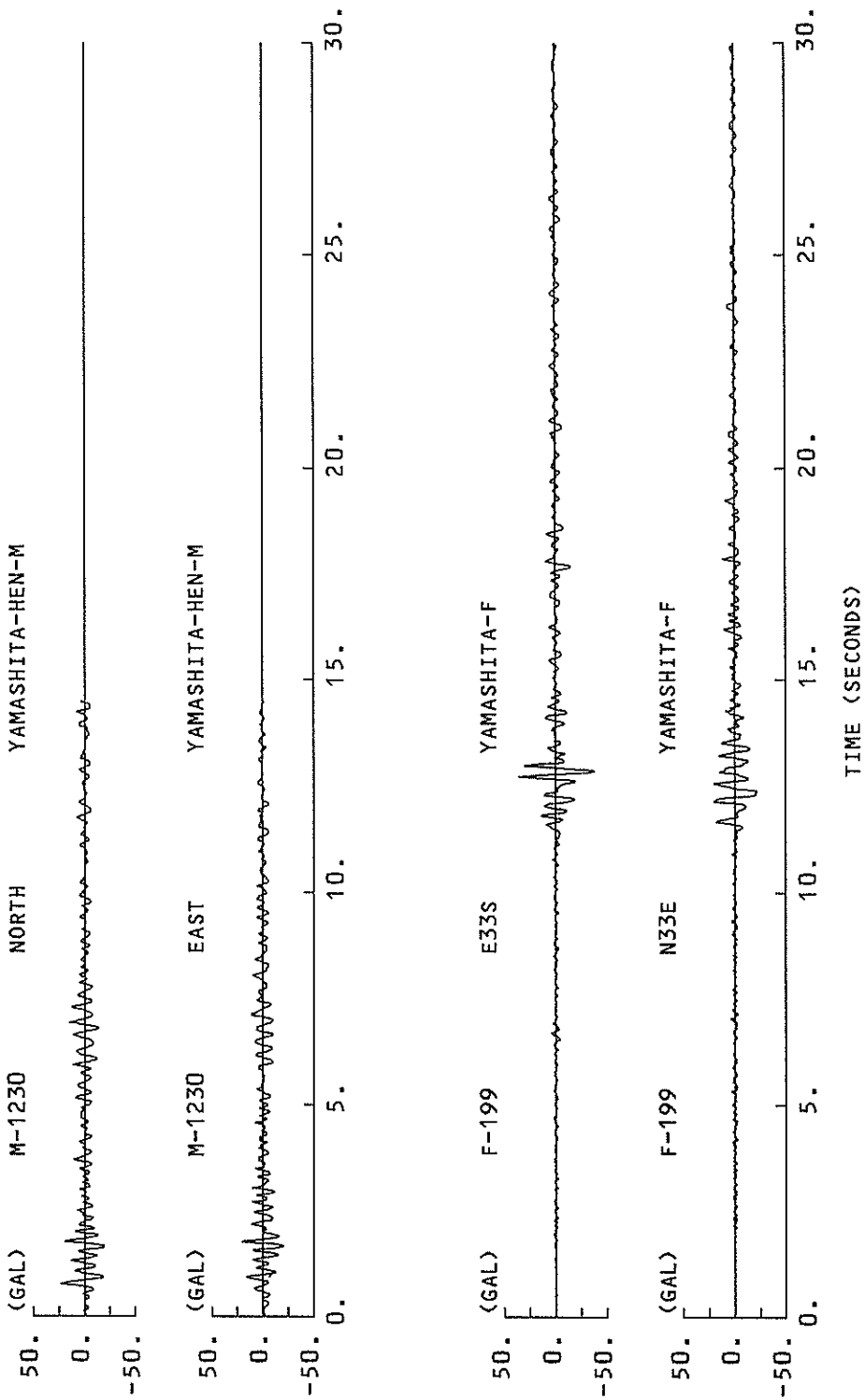


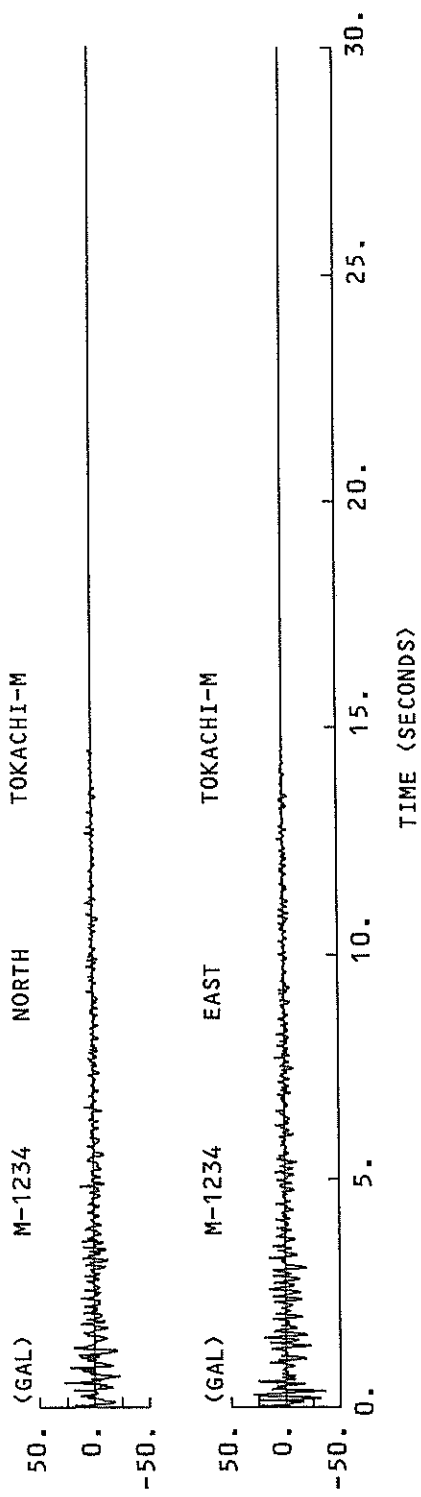
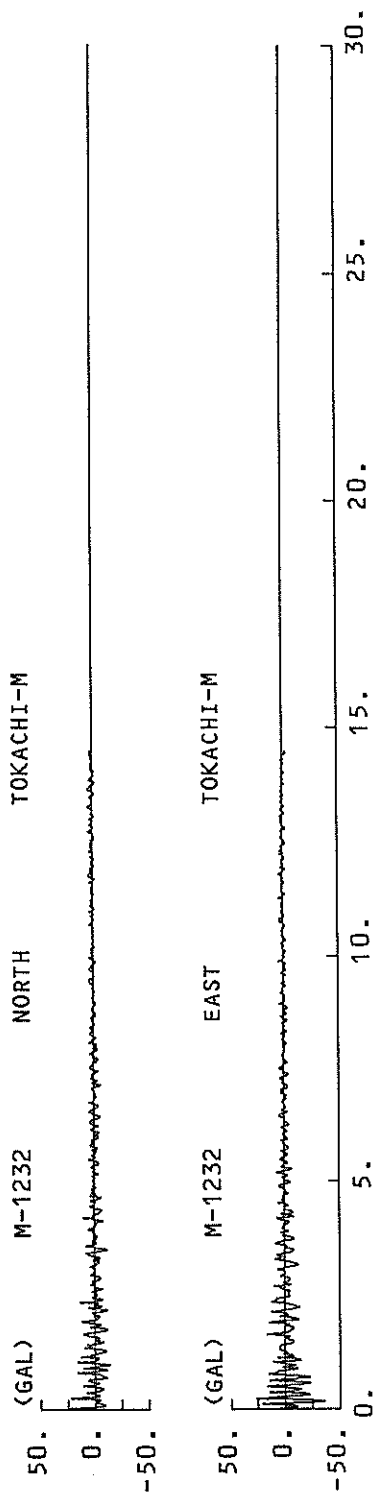


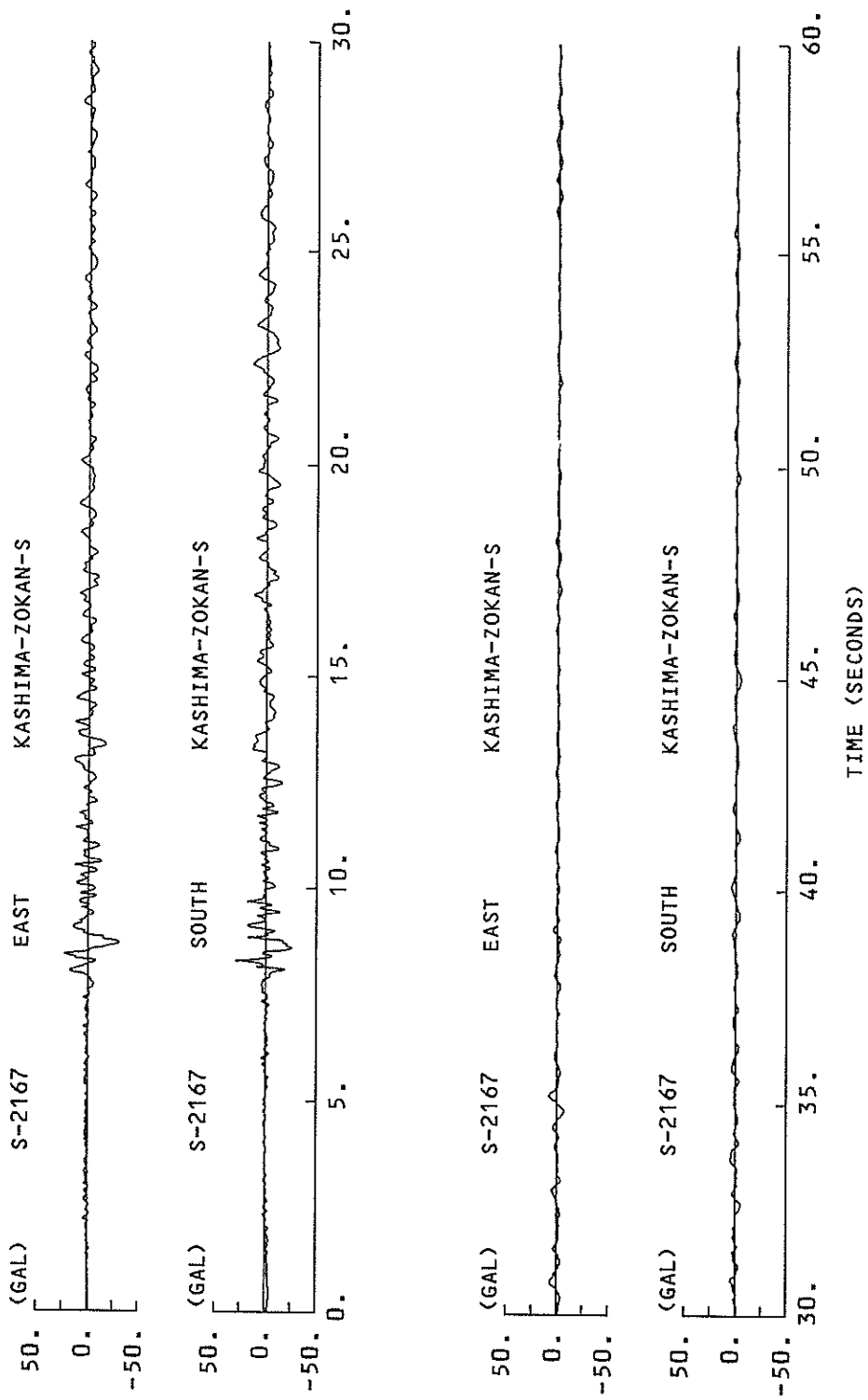


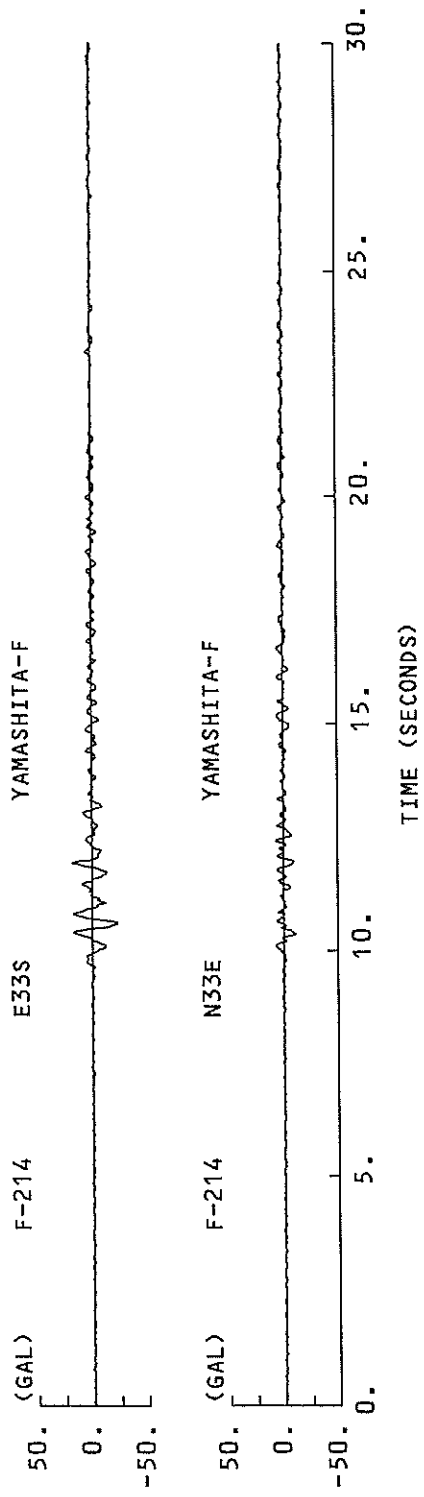
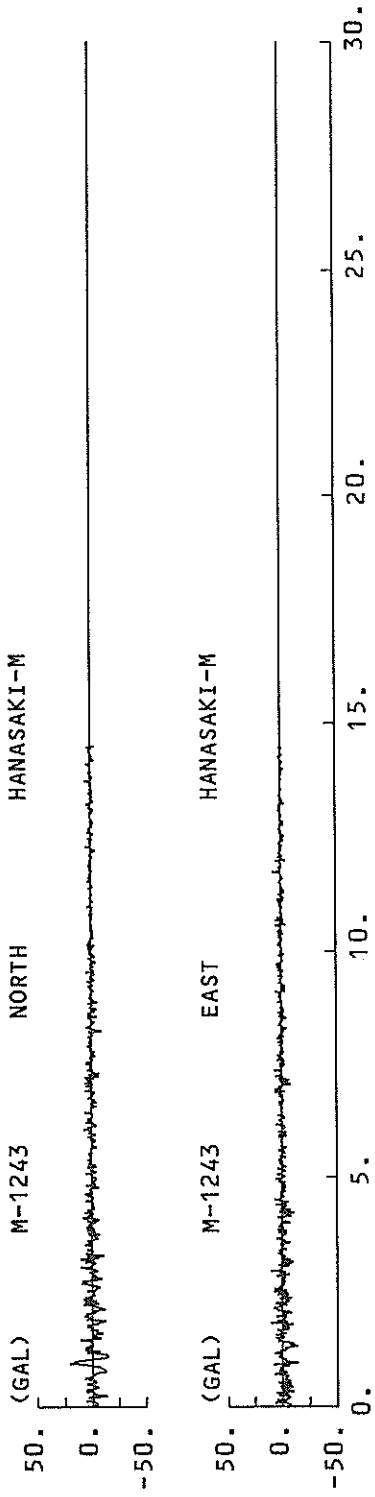


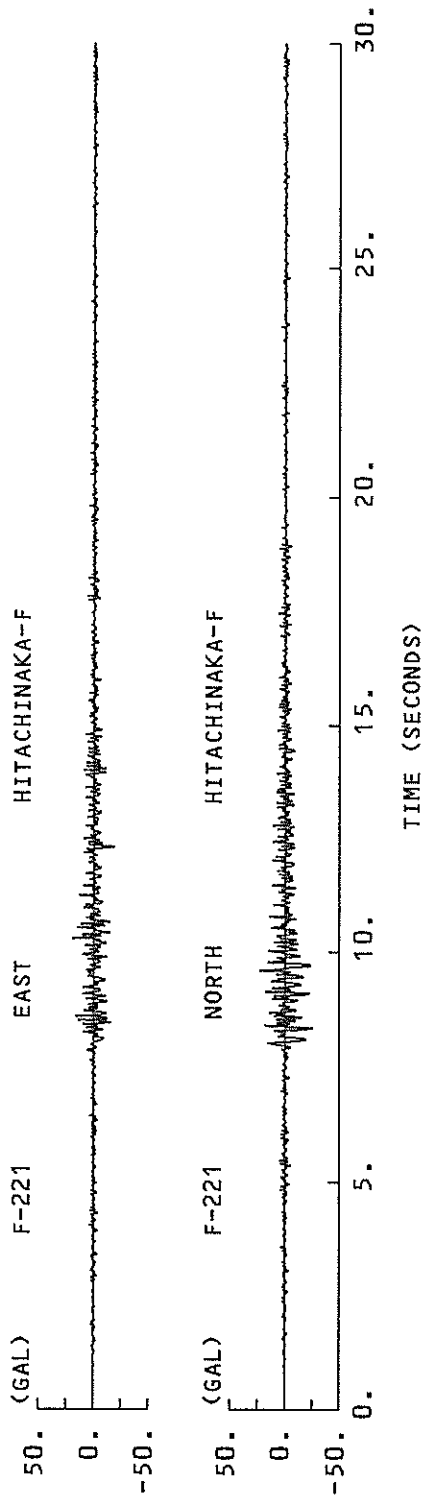
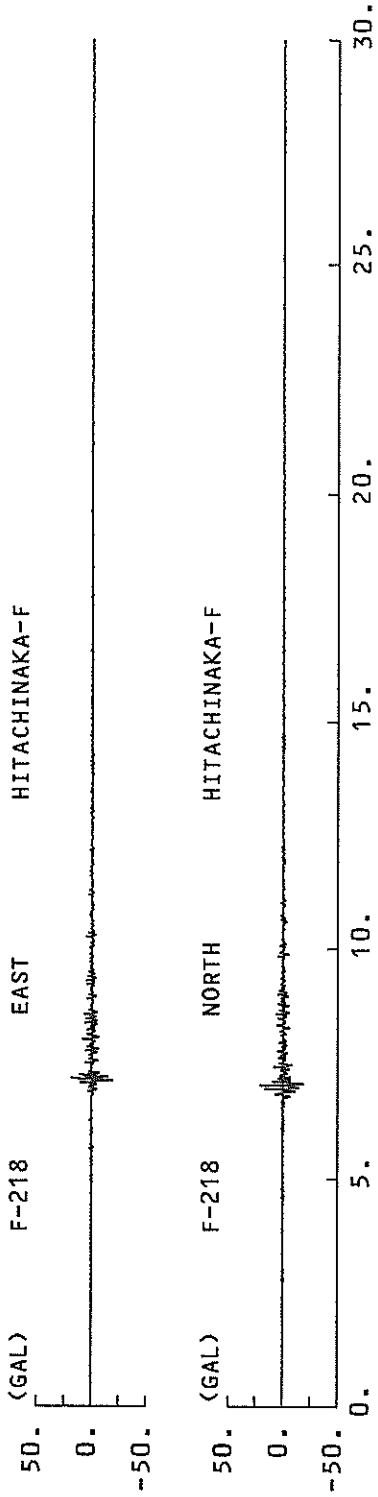












RECORD = F-107 COMPONENT = NORTH STATION = HITACHINAKA-F
 DATE AND TIME = 1988-11-30-6-19 TOTAL NUMBER OF DATA = 3000
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ONECTION POINT IN DATA NUMBER = 3000.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	CONTINUED(F-107 NORTH)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	-1	0	-1	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	2	-1	-5	-9	-3	-2	-2	1	4	4	1	4	4	4	4	4	4	4
80	-7	-11	-5	-2	5	0	-1	3	4	0	6	30	50	51	39	6	30	29
90	0	1	1	-2	1	-2	8	12	8	0	8	17	40	28	-6	-37	-40	10
100	-8	-8	-17	1	12	-9	2	-8	7	0	35	34	11	-37	-66	34	27	51
110	0	10	7	-3	-11	-18	-14	5	26	0	22	54	-57	19	49	37	51	35
120	2	-8	-18	-27	-8	33	48	22	0	0	8	-2	6	-10	-33	-8	36	69
130	-23	-19	-1	19	27	22	3	-18	-18	-14	62	13	-10	-46	-53	-10	7	14
140	-6	9	26	16	-3	-9	-8	-10	-13	-3	26	2	11	18	6	-5	1	-9
150	9	17	19	13	-5	-20	-9	7	8	2	670	17	21	14	8	-3	-28	-47
160	-1	-11	-27	-22	4	35	48	22	-15	-31	580	35	46	28	-11	-41	-51	-35
170	-40	-40	-3	48	56	16	-20	-43	-54	-24	690	21	23	11	6	10	2	-12
180	23	38	28	17	-5	-37	-47	-7	40	37	700	15	22	47	28	-3	-25	-30
190	17	2	-19	-27	-17	-2	21	29	12	-10	710	34	15	7	-5	7	18	30
200	-15	0	2	-9	-3	7	2	4	22	28	720	47	-41	-9	12	15	0	-18
210	16	-14	-20	-13	-10	-6	3	7	0	0	730	45	56	22	-30	-71	-71	-34
220	-17	15	38	31	17	-3	-31	-46	-41	-15	740	29	-19	-70	-88	-57	11	70
230	14	34	38	12	-21	-33	-18	17	52	54	750	-33	-47	-33	3	55	73	38
240	19	-27	-36	-63	-47	2	71	99	51	-24	760	-1	54	70	59	29	-13	-51
250	-16	-79	-44	21	74	67	13	-39	-69	-59	770	14	26	27	10	-4	-14	-19
260	-8	49	77	57	-6	-69	-79	-31	36	66	780	9	36	28	-4	-19	-12	-14
270	43	3	-26	-48	-51	-22	28	58	47	12	790	-1	21	44	48	30	13	-9
280	-15	-25	-14	2	10	22	19	-2	-24	-25	800	11	27	31	31	17	-4	-19
290	-17	-9	-2	17	31	14	-13	-22	-14	-5	810	17	-31	-59	-40	-9	16	45
300	-2	0	12	31	28	-13	-40	-27	-3	11	820	-14	-17	-25	-43	-49	-54	-44
310	18	16	2	-12	-23	-22	-5	26	4	19	830	7	51	101	123	112	51	-44
320	-17	-33	-31	-9	28	54	58	38	-13	-58	840	76	213	311	229	0	-302	-497
330	-60	-24	12	24	26	17	-8	-31	-26	-2	850	499	615	486	165	-240	-516	-304
340	23	27	17	8	-10	-16	2	22	22	6	860	279	159	-80	-229	-257	-109	103
350	-7	-17	-28	-17	-2	7	15	16	7	-10	870	-73	-173	-191	-82	95	223	214
360	-19	-26	-17	-2	1	-2	4	-2	2	6	880	-238	-114	51	204	269	183	-12
370	-7	-12	-17	-3	1	-2	-4	-2	2	6	890	160	249	230	129	-13	-127	-161
380	11	22	17	-10	-26	-27	-31	-23	-5	13	900	16	63	56	41	48	45	25
390	27	31	24	14	3	-2	-12	-13	-3	-3	910	-15	6	16	9	8	12	2
400	-7	-8	-5	2	15	31	35	17	0	-14	920	-4	-40	-69	-37	53	109	83
410	-26	-29	-24	7	9	11	7	6	2	-5	930	-132	-37	95	182	173	55	-109
420	-7	9	12	11	-2	-9	-14	-19	-26	-28	940	56	61	121	106	39	-17	-7
430	-11	2	14	31	41	31	8	-20	-32	-27	950	44	-78	-171	-175	-85	27	92
440	-17	-10	-6	4	17	22	20	17	14	-3	960	-22	-60	-48	40	130	135	45
450	-28	-33	-12	4	19	21	5	-7	-12	-10	970	-81	20	138	247	281	189	2
460	2	30	41	27	6	-2	-17	-27	-19	-7	980	-236	31	284	387	276	15	-232
470	-7	-10	-7	12	29	22	10	4	-8	-24	990	126	209	207	110	-50	-148	-106

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-107 NORTH)										CONTINUED(F-107 NORTH)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	64	-49	-141	-158	-90	33	120	106	51	18	1520	-20	-41	-38	-23	-2	28	41	22	-7	-28
1010	6	15	35	50	48	8	-61	-96	-64	-17	1530	-43	-54	-50	-18	21	41	31	2	-28	-44
1020	7	24	41	41	13	-27	-56	-59	-45	-17	1540	-28	12	51	62	36	-2	-39	-60	-52	-8
1030	30	68	64	33	-16	-73	-87	-38	37	81	1550	41	74	76	49	3	-31	-34	-17	1	9
1040	62	-7	-79	-121	-130	-102	-25	150	161	102	1560	2	-8	-22	-29	-22	-8	12	38	50	31
1050	101	3	-87	-121	-102	-47	27	76	82	69	1570	-1	-31	-49	-55	-47	-22	12	37	40	34
1060	50	28	14	-6	-61	-68	-71	-17	34	80	1580	21	3	-18	-45	-62	-50	-14	20	53	79
1070	98	70	31	0	-38	-68	-57	-7	40	54	1590	69	21	-33	-59	-34	14	44	39	7	-32
1080	40	8	-16	-30	-44	-39	2	29	20	16	1600	-59	-57	-31	7	39	41	22	-2	-22	-30
1090	41	81	79	4	-89	-134	-122	-82	-27	29	1610	-22	-7	10	39	56	45	20	-8	-35	-50
1100	68	76	53	10	-20	-27	-23	-34	-48	-31	1620	-47	-18	17	26	7	-20	-35	-25	7	44
1110	29	87	106	80	14	-67	-132	-166	-128	-10	1630	69	59	19	-24	-50	-54	-37	-11	5	9
1120	103	145	112	37	-43	-62	-61	6	83	110	1640	9	16	21	28	31	22	-6	-37	-17	-63
1130	54	-56	-157	-180	-114	-1	108	179	185	116	1650	-27	14	31	31	24	10	-3	-17	-10	7
1140	-1	-115	-168	-128	-29	59	116	120	70	-9	1660	37	50	36	6	19	-41	-59	-52	41	56
1150	-61	-81	-62	-24	5	27	54	81	81	45	1670	76	78	40	-17	-60	-73	-47	2	41	18
1160	-20	-70	-77	-53	-19	25	53	29	-14	-37	1680	-49	-57	-33	-69	-38	2	41	48	19	-18
1170	-49	-55	-29	11	28	29	30	24	31	38	1690	-49	-27	-33	7	50	64	45	19	-10	-31
1180	23	-13	-59	-86	-57	-11	51	96	93	43	1700	-22	0	12	29	40	28	-2	-22	-24	-21
1190	-42	-132	-150	-70	50	140	166	117	29	-55	1710	-17	0	23	35	15	-19	-51	-71	-61	-17
1200	-120	-131	-71	2	46	56	39	2	-30	-52	1720	41	77	74	28	-31	-67	-67	-37	13	54
1210	-56	-28	27	74	76	49	7	-47	-63	66	1730	57	31	-3	-27	-24	1	19	14	4	-8
1220	4	67	70	17	-51	-91	-89	-46	30	98	1740	-27	-27	5	36	38	18	-8	-35	-44	-27
1230	120	84	12	-39	-51	-27	-1	7	2	-14	1750	-6	10	30	39	21	-13	-34	-15	27	55
1240	-37	-44	-38	-10	44	81	68	31	-1	-38	1760	40	-3	-80	-72	-59	-14	47	70	6	-8
1250	-44	-12	20	37	35	20	1	-13	-18	-24	1770	-65	-101	-82	-21	50	90	83	47	1	-35
1260	-27	-12	1	3	2	-9	-28	-30	-39	-40	1780	-44	-27	-2	19	29	21	3	-7	-11	-19
1270	-34	-12	0	-4	-18	-31	-28	-2	39	76	1790	-27	-20	0	19	22	4	-18	-27	-17	8
1280	91	67	5	-60	-96	-92	-47	22	76	86	1800	31	49	48	13	-31	-57	-57	-32	0	15
1290	58	0	-50	-42	8	31	13	-14	-37	-45	1810	20	26	33	39	39	22	-10	-52	-78	-81
1300	-32	7	57	99	78	24	-22	-32	-16	-10	1820	-48	11	65	83	58	11	-24	-47	-57	-45
1310	-18	-25	-32	-29	-10	17	50	71	74	44	1830	-11	16	31	39	22	-1	-13	-21	-22	-10
1320	5	-7	6	12	0	-31	-66	-73	-64	-40	1840	11	21	12	-7	-35	-48	-30	13	56	69
1330	-2	39	62	44	-1	-37	-54	-41	1	24	1850	48	0	-48	-57	25	17	51	58	35	2
1340	2	-34	-54	-27	40	95	106	69	-5	-88	1860	-22	-31	-19	9	27	17	-7	-28	-37	-28
1350	-137	-117	-40	39	77	71	41	-11	-49	-40	1870	-22	-14	-2	20	22	28	22	10	-4	-23
1360	0	39	59	34	-27	81	-62	-67	-8	64	1880	-32	-19	4	24	28	17	0	-13	-12	-1
1370	108	105	73	35	8	-9	-25	-44	-60	-59	1890	0	-5	-2	5	16	19	5	-16	-31	-34
1380	-37	-3	26	38	35	17	-8	-27	-20	6	1900	-14	14	40	48	36	2	-31	-38	-21	10
1390	36	50	41	12	-27	-62	-69	-31	34	90	1910	52	28	-3	-30	-34	-19	-2	6	4	7
1400	99	60	0	-57	-94	-93	-49	-22	90	110	1920	19	23	21	12	0	-18	-34	-35	-22	-1
1410	76	9	-49	-76	-73	-57	-39	-22	1	21	1930	12	16	11	-2	-15	-21	-15	-15	-15	-2
1420	15	16	22	16	-10	-32	-40	-31	-11	8	1940	12	20	22	17	6	-13	-22	-13	22	51
1430	25	27	22	13	-2	-9	5	21	17	-4	1950	51	19	-20	-48	-48	-19	-22	51	48	9
1440	-22	-17	7	31	54	61	29	-31	-76	-82	1960	-34	-58	-46	-2	38	44	29	9	-4	-14
1450	-48	10	50	54	28	-14	-39	-24	13	48	1970	-13	0	8	3	-7	-12	-7	1	1	-7
1460	61	38	-16	-71	-89	-65	-23	13	46	66	1980	-10	-7	-5	-7	-17	-22	-12	4	0	38
1470	41	-9	-43	-47	-31	-19	-23	-27	-17	2	1990	51	40	7	-20	-32	-27	-17	-3	0	-8
1480	15	31	51	55	49	31	11	7	4	-14	2000	-10	-3	8	21	22	14	-2	14	9	-5
1490	-38	-51	-40	1	39	41	24	-5	-33	-43	2010	2	10	16	17	14	9	-5	-18	-15	-26
1500	-25	9	29	14	-11	-21	-13	10	50	70	2020	-31	-31	-18	2	18	21	12	2	5	12
1510	44	-5	-49	-69	-52	0	51	69	51	15	2030	9	-4	-20	-25	-22	-8	15	33	27	1

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (F-107 NORTH)				CONTINUED (F-107 NORTH)						
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-24	-34	-21	6	28	35	27	8	-11	-18
2050	-14	-5	7	17	15	15	15	7	-9	-23
2060	-19	-6	5	17	22	13	-13	-41	-54	39
2070	-17	2	14	15	7	-5	-13	-10	3	-19
2080	30	26	9	-3	-10	-14	-14	-11	4	1
2090	1	2	-2	-2	2	15	26	22	12	6
2100	0	-2	0	8	19	24	11	14	-35	-40
2110	-31	-15	-6	-1	2	2	6	13	21	20
2120	2	-15	-25	-24	-8	15	30	29	19	4
2130	-7	-5	2	6	6	-4	-15	-17	-11	-9
2140	0	11	11	3	-3	-13	-14	-7	0	7
2150	10	6	-2	0	-1	2	9	9	0	-18
2160	-25	-19	0	29	50	41	11	-20	-47	-58
2170	-54	-27	10	38	45	41	37	21	-1	-17
2180	-18	-13	-8	-6	-7	-2	4	14	28	41
2190	36	20	-1	-19	-28	-27	-23	-26	-26	-26
2200	-13	12	36	26	0	-19	-27	-15	11	37
2210	36	12	-3	-6	1	15	23	16	0	-12
2220	-18	-12	-1	2	-7	-21	-31	-29	-18	-2
2230	6	5	4	4	0	-8	-11	-6	2	13
2240	19	17	6	-7	-20	-21	-8	7	16	17
2250	2	-17	-27	-24	-14	-7	1	9	10	13
2260	18	19	17	4	-16	-27	-14	10	39	52
2270	43	14	-13	-22	-10	6	19	19	4	-19
2280	-37	-32	-8	8	2	-8	-17	-18	-8	0
2290	2	0	-11	-12	1	19	34	36	26	2
2300	-24	-40	-31	-8	16	31	21	-1	-19	-24
2310	-10	12	27	22	4	-19	-37	-32	8	19
2320	35	31	10	-19	-45	-45	-22	8	34	41
2330	31	18	4	-8	-17	-14	-3	6	10	11
2340	9	6	3	4	1	-2	-1	-1	-10	-19
2350	-22	-21	-17	-14	-10	6	29	43	47	36
2360	15	-2	-12	-14	-6	0	0	-3	-11	-14
2370	-6	3	6	4	-1	-16	-23	-29	-17	2
2380	16	14	7	2	-1	-14	-23	-19	-12	-8
2390	-7	1	9	9	7	3	1	2	12	27
2400	39	38	20	-7	-20	-22	-15	-2	16	27
2410	21	9	-3	-14	-12	-3	0	-9	-25	-29
2420	-18	0	17	27	19	0	-20	-25	-13	2
2430	11	14	7	0	-5	-7	0	11	12	2
2440	-8	-18	-24	-28	-27	-7	14	31	37	25
2450	12	-2	-14	-22	-20	-15	-10	-4	1	9
2460	19	22	14	0	-4	-7	-13	-10	-3	0
2470	2	9	17	18	6	-10	-18	-23	-12	-5
2480	11	31	38	31	12	-6	-18	-23	-5	-3
2490	17	24	14	-4	-12	-10	-5	1	5	-3
2500	-18	-27	-27	-17	-1	13	21	19	6	-15
2510	-34	-38	-27	-6	17	38	41	24	2	-12
2520	-15	-2	17	30	27	12	-5	-17	-13	4
2530	23	30	21	0	-14	-22	-22	-13	1	11
2540	10	2	-8	-9	-6	-7	-6	-1	2	2
2550	0	-6	-11	-12	-11	-3	12	19	12	4

TO BE CONTINUED

END

RECORD = F-107 COMPONENT = EAST STATION = HITACHINAKA-F
 DATE AND TIME = 1988-11-30- 6-19 TOTAL NUMBER OF DATA = 3000
 AMPLIFY INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ORIENTATION POINT IN DATA NUMBER = 3000.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	CONTINUED(F-107 EAST)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
0	1	0	0	0	0	0	0	0	0	1	480	-33	-41	-11	21	33	34	16	-16	-46	-51
10	0	0	0	0	0	0	0	0	0	1	490	-30	3	22	28	26	7	-6	-2	-46	-8
20	0	0	0	0	0	0	0	0	0	1	500	0	8	14	23	23	11	-1	-18	-20	-20
30	0	0	0	0	0	0	0	0	0	1	510	-23	9	16	37	33	13	-2	-14	-29	-36
40	1	0	0	0	0	0	0	0	0	1	520	-16	4	16	23	18	-2	-24	-37	-38	-13
50	0	0	0	0	0	0	0	0	0	1	530	20	30	28	13	-11	-16	-7	-11	-38	3
60	1	1	3	2	0	-2	0	0	0	1	540	15	8	1	4	2	1	7	28	35	23
70	2	-2	-4	-8	-12	7	3	5	7	1	550	5	-29	-54	-36	8	32	21	7	-3	-19
80	2	-3	-4	-8	-12	3	5	7	8	1	560	8	13	-6	-32	-29	-4	30	63	60	12
90	-6	-3	-1	-12	-14	2	7	8	13	13	580	-33	-52	-34	40	27	40	35	13	-11	-40
100	6	-2	-7	-4	0	0	-2	0	3	6	590	-40	4	20	13	-2	-13	-24	-33	-28	8
110	8	13	0	-14	-16	-27	-16	15	31	33	600	15	25	19	11	0	-8	-12	-11	-3	13
120	26	3	-33	-48	-27	0	16	19	11	1	610	21	9	6	-26	-23	-2	11	21	23	27
130	-16	-21	-6	18	23	7	-6	-13	-23	-16	620	25	13	3	-6	-13	-5	2	-3	-17	-9
140	8	25	29	8	-28	-39	-27	-14	21	55	630	9	7	-13	-22	-27	-29	-4	21	28	35
150	35	3	-8	-23	-38	-18	27	37	27	24	640	26	-6	-22	-16	-3	-4	0	-11	23	20
160	-2	-39	-36	3	32	40	31	0	-36	-41	650	-24	-21	2	33	45	39	20	0	-11	-32
170	-11	20	40	43	28	0	-36	-51	-18	8	660	-20	-23	-20	3	14	2	13	32	20	-8
180	28	24	19	0	-31	-27	8	22	20	11	670	-6	8	3	1	-2	-17	-23	-17	-6	26
190	-16	-49	-43	1	33	21	6	-2	-28	-48	680	40	40	0	-16	-26	-40	-24	8	19	19
200	-28	1	28	48	36	-7	-48	-55	-30	40	690	-7	-38	-47	5	30	37	40	25	-6	-33
210	12	26	37	6	-29	-28	-22	-3	40	53	700	-47	58	37	7	43	53	26	-13	-36	-29
220	28	8	-13	-38	-33	3	38	46	31	15	710	5	30	37	1	43	26	-13	-36	-29	0
230	-6	-32	-30	0	23	26	3	-34	-48	-20	720	28	10	-21	-36	-2	34	33	12	-3	-11
240	23	57	48	10	-20	-37	-44	-23	8	750	-26	-40	-32	-2	22	28	24	13	-9	-26	-26
250	26	13	-6	-13	3	22	16	-16	-41	-39	760	-26	-16	13	43	56	34	-3	-30	-30	-26
260	-11	32	53	40	10	-12	-36	-41	-18	8	770	-28	-17	8	28	28	6	-18	-28	-12	6
270	23	21	0	-29	-20	16	46	50	39	11	780	-28	-17	8	28	28	6	-18	-28	-12	6
280	-29	-53	-39	-19	-9	16	43	33	12	0	790	6	-2	2	13	21	23	23	8	-20	-46
290	-7	-8	2	10	-6	-26	-13	6	8	11	800	-48	-13	27	36	25	10	-22	-50	-30	12
300	23	25	5	-8	-16	-32	-34	-13	6	22	810	37	38	21	-10	-39	-32	3	27	33	21
310	33	23	3	-6	-12	-13	-6	-2	-7	-19	820	-64	-59	-26	12	45	58	41	3	-5	-59
320	-11	8	29	28	8	-16	-22	-8	-8	-8	830	-71	-58	-11	46	72	51	-2	-74	-123	-119
330	13	39	19	-18	-39	-36	-11	24	53	850	-89	6	105	200	216	133	5	-119	-166	-158	
340	52	19	-23	-51	-43	6	52	53	21	-20	860	-56	88	218	249	160	-18	-176	-218	-133	23
350	-48	-65	-58	-10	46	68	52	5	-38	-50	870	148	179	159	117	30	-73	-139	-142	-84	-26
360	-34	-6	23	40	31	-3	-36	-43	-29	-3	880	-22	-6	88	188	200	90	-117	-318	-360	-200
370	17	30	23	13	8	3	1	2	-13	-13	890	65	303	369	204	-58	-260	-329	-231	-17	202
380	-11	-8	1	23	27	13	3	23	33	20	900	327	273	36	-250	-381	-266	-17	183	239	166
390	13	21	5	-19	-23	-12	3	23	33	20	910	46	-76	-176	-189	-99	16	88	118	103	42
400	0	-20	-39	-42	-23	-1	8	13	23	23	920	0	21	53	37	-28	-119	-154	-73	41	86
410	-2	-9	3	8	3	-5	-1	-11	-23	-22	930	73	49	10	-41	-76	-78	-39	38	128	168
420	-9	4	12	22	26	11	0	3	4	-9	940	107	-32	-146	-146	-56	43	113	153	136	33
430	-12	-16	-20	-12	1	9	-2	-6	11	13	950	-109	-204	-180	-40	135	224	170	21	-139	-240
440	-1	-13	-16	-17	-11	10	33	38	27	3	960	-226	-96	77	197	215	160	80	-10	-100	-160
450	-26	-36	-26	-3	10	13	0	-16	-11	13	970	-163	-132	-100	-49	35	151	237	202	67	-66
460	45	55	36	0	-30	-51	-46	-5	40	50	980	-144	-168	-131	-66	33	107	168	16	-104	-152
470	19	-22	-45	-46	-22	10	32	37	28	3	990	-93	11	88	132	148	131	57	-54	-151	-190

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-107 EAST)										
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	-167	-88	21	113	159	143	77	-13	-97	-146
1010	-134	-79	-8	73	143	148	101	73	53	-1
1020	-67	-95	-98	-71	-77	-44	26	110	149	113
1030	20	59	-98	91	55	67	33	-36	-106	6
1040	-122	-76	-3	66	105	80	8	-40	-66	-28
1050	-38	12	68	100	83	49	21	-36	-111	-138
1060	-98	-45	3	52	79	57	19	6	16	35
1070	71	91	50	-35	-102	-114	-68	11	76	87
1080	21	94	-181	-186	-96	63	203	230	141	5
1090	-99	-109	-114	-29	78	135	105	28	-46	-104
1100	-128	-98	-23	77	163	182	97	-41	-140	-158
1110	-106	-1	107	151	112	35	-39	-106	-132	-97
1120	-30	30	66	62	40	23	15	13	12	-2
1130	-28	-25	0	-34	-93	-119	-63	52	139	58
1140	159	108	3	103	-139	-46	88	183	168	168
1150	80	-19	-97	-126	-98	-30	38	71	60	60
1160	22	-45	-106	-131	-109	-46	33	97	113	78
1170	6	-59	-71	-23	43	84	67	7	-97	-145
1180	-123	-39	67	128	110	44	-26	-66	-68	-34
1190	12	60	92	83	33	36	-93	-107	-71	0
1200	63	100	83	28	-26	-61	-58	-12	41	68
1210	60	20	-40	-87	-93	-53	13	73	91	50
1220	-30	-93	-87	-31	16	39	49	33	-3	-53
1230	-93	-98	-48	43	123	133	83	23	-34	-73
1240	-68	-30	30	88	108	72	3	-63	-94	-93
1250	-66	-3	76	108	79	30	-16	-46	-43	-18
1260	6	8	-14	-54	-72	-43	0	42	60	43
1270	7	-25	-48	-47	-23	5	12	-12	-44	-54
1280	-33	-1	23	38	25	-10	-36	-93	-11	33
1290	75	88	79	51	6	-28	-29	-18	-13	7
1300	51	97	108	67	-15	-100	-148	-138	-68	28
1310	117	148	87	-28	-121	-139	-84	3	81	112
1320	79	0	-84	-136	-129	-71	8	69	83	58
1330	13	-37	-94	-73	3	103	181	185	92	-58
1340	0	-61	-94	-73	3	100	194	215	156	48
1350	-193	-169	-36	100	194	75	92	70	19	-43
1360	-134	-136	71	16	75	108	80	10	-66	-115
1370	-118	-106	-58	11	81	108	86	11	-60	-98
1380	-131	-99	-16	73	123	128	86	11	-60	-98
1390	-83	-16	68	115	91	9	-80	-131	-120	-64
1400	15	83	93	40	-30	-69	-61	-18	26	49
1410	43	28	21	28	43	63	62	28	-12	-32
1420	-26	-9	1	1	-13	-33	-44	-68	-69	1
1430	19	28	27	10	-20	-51	-76	-88	-29	-16
1440	45	85	83	52	12	-18	-32	-29	-20	-18
1450	10	33	49	45	19	-12	-34	-42	-35	-13
1460	13	36	33	2	-30	-37	-77	40	59	63
1470	-21	-74	-109	-105	-67	1	77	129	123	63
1480	-3	-40	-46	-43	-43	-33	-21	-16	1	33
1490	62	76	68	37	0	-28	-53	-60	-42	-8
1500	28	50	42	16	-2	-10	-32	-31	-53	-30
1510	-61	-74	-88	25	93	133	120	68	10	-52

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (F-107 EAST)										CONTINUED (F-107 EAST)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-39	-18	8	27	21	4	-8	-13	-11	1	2550	18	4	-10	-18	-18	-3	8	13	6	1
2050	13	13	-6	-29	-34	-23	-8	6	13	8	2570	3	7	9	7	0	-13	-22	-16	-6	3
2060	-2	-4	8	21	20	11	1	-8	-9	1	2580	5	-5	-20	-29	-18	-3	21	22	8	-11
2070	15	23	20	3	-11	-14	-6	7	13	11	2590	-26	-26	-17	-7	0	-4	-6	0	15	28
2080	-6	-23	-23	-13	-6	3	6	-1	-13	-16	2600	30	13	-8	-30	-41	-32	-16	23	46	49
2090	-10	-20	6	5	-2	-7	-2	8	13	25	2610	29	0	-20	-26	-16	0	12	18	-6	6
2100	28	23	13	3	-6	-6	-8	-3	5	3	2620	-18	-19	-7	9	23	26	20	3	-16	-32
2110	-5	-7	-11	-21	-23	-16	-9	-3	-2	-10	2630	-38	-26	-3	18	26	17	0	-20	-26	-12
2120	-15	-9	-4	-6	-6	0	1	1	6	16	2640	12	36	42	28	-6	-36	-46	-27	3	31
2130	26	28	21	10	-1	-13	-16	-7	6	21	2650	42	30	4	-20	-28	-19	-4	3	6	-1
2140	26	18	1	-16	-26	-34	-20	-3	12	12	2660	-16	-27	-26	-16	2	8	8	3	1	2
2150	27	30	13	-7	-19	-18	-8	2	6	6	2670	0	-3	-6	-3	-2	5	13	23	30	27
2160	8	11	8	3	2	6	7	0	-9	-11	2680	13	-3	-19	-20	-9	1	6	3	1	3
2170	-2	7	11	16	17	13	8	-3	-18	-23	2690	6	11	13	8	0	-13	-22	-19	-6	6
2180	-16	0	17	25	19	7	-9	-18	-6	8	2700	13	8	-2	-11	-9	-3	1	2	0	-3
2190	6	-11	-33	-43	-38	-13	13	28	21	0	2710	-6	-7	-2	5	13	15	13	11	8	7
2200	-26	-42	-36	-11	18	38	41	27	8	-7	2720	1	-6	-12	-16	-18	-18	-15	-6	-1	3
2210	-19	-18	-4	6	12	16	11	-6	-26	-36	2730	3	-2	-6	-8	-4	0	6	11	15	19
2220	-21	6	29	33	23	11	-3	-18	-16	0	2740	16	8	-4	-4	-16	-20	3	20	26	21
2230	13	23	30	23	23	-14	-18	-16	-3	-3	2750	13	2	-6	-3	7	13	8	-10	-33	-37
2240	4	9	4	-9	-26	-36	-26	-7	16	38	2760	-17	12	33	37	20	-6	-29	-38	-28	-9
2250	41	23	1	-16	-25	-26	-20	-7	16	11	2770	2	9	3	-2	-6	-3	3	10	8	0
2260	8	8	7	8	5	-2	-14	-20	-12	4	2780	-10	-14	-11	-1	6	8	8	12	12	8
2270	11	2	-19	-34	-33	-21	-10	0	8	12	2790	0	-12	-13	-7	0	6	13	18	13	3
2280	10	5	0	13	31	38	31	19	10	-38	2800	-6	-14	-16	-11	-1	7	8	3	-1	-3
2290	6	2	-2	-2	3	12	19	8	-12	-38	2810	-2	1	3	7	13	16	9	0	-5	-10
2300	-46	-33	-12	15	37	37	18	-7	-33	-46	2820	-11	-6	3	9	10	3	-9	-18	-21	-13
2310	-39	-19	1	11	11	6	1	-2	-7	-5	2830	0	11	9	1	-7	-16	-19	-11	6	21
2320	-1	1	5	8	6	8	21	26	22	17	2840	26	17	0	-11	-12	-6	2	8	12	8
2330	11	-6	-28	-40	-33	-15	7	28	51	53	2850	3	-3	-11	-11	-9	-8	-2	6	16	17
2340	32	0	-26	-35	-26	-10	0	3	0	-8	2860	8	-6	-17	-17	-14	-7	2	10	13	13
2350	-16	-9	3	12	8	-3	-16	-21	-18	-12	2870	8	0	-8	-13	-12	-4	3	13	16	8
2360	0	6	3	3	-3	6	18	23	13	0	2880	-3	-10	-11	-6	5	16	21	13	1	-8
2370	-13	-20	-24	-16	2	13	20	17	0	-19	2890	-8	0	7	6	3	2	0	-2	-1	-2
2380	-23	-20	-10	3	13	18	13	8	3	0	2900	-4	-6	-11	-16	-9	2	13	17	7	7
2390	0	3	1	0	1	1	0	6	13	12	2910	-7	-14	-14	-8	1	8	11	8	5	-3
2400	6	5	10	15	15	6	-4	-10	-13	-11	2920	-12	-16	-11	-3	0	-1	-8	-13	-9	-6
2410	-2	-25	-29	-14	-16	-21	-19	-10	-2	-4	2930	-5	-3	-3	-7	-11	-13	-9	-2	5	10
2420	6	10	13	16	16	7	-2	-9	-11	1	2940	8	3	1	3	8	13	13	11	8	3
2430	5	12	16	16	16	7	-2	-9	-11	-4	2950	1	7	13	16	11	1	-6	-3	3	10
2450	-11	7	25	21	8	-6	-19	-25	-14	-21	2960	16	13	1	-12	-16	-9	5	12	8	2
2470	11	13	-4	-18	-19	-3	21	38	40	28	2970	-6	-8	-1	-13	-14	-18	-19	-13	0	11
2480	18	8	-24	-27	-17	-6	4	13	21	23	2980	19	8	-9	-26	-30	-18	6	28	12	-2
2490	22	5	-20	-39	-45	-30	-1	26	41	32	2990	-9	-26	-26	-16	0	11	15	8	3	12
2490	7	-18	-36	-35	-13	21	43	45	25	-8											
2500	-40	-51	-29	6	33	41	21	-11	-37	-46											
2510	-36	-12	8	17	16	2	-13	-18	-20	-17											
2520	-3	18	16	20	21	16	2	-18	-25	-11											
2530	7	18	21	17	9	-6	-21	-28	-20	-9											
2540	5	13	13	11	8	6	-1	-9	-13	-11											
2550	6	28	36	23	8	0	-3	0	6	6											

END

TO BE CONTINUED

RECORD = F-107 COMPONENT = UP STATION = HITACHINAKA-F
 DATE AND TIME = 1988-1-30-6-19 TOTAL NUMBER OF DATA = 3000
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 CONNECTION POINT IN DATA NUMBER = 3000.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	CONTINUED (F-107 UP)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
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50	14	15	5	-7	-10	5	20	13	12	27	12	12	12	12	12	12	12	12	12	12	12	12
60	9	-37	-53	-28	15	12	42	28	0	18	18	18	18	18	18	18	18	18	18	18	18	18
70	-44	-38	-2	15	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
80	-7	69	24	-94	-48	60	12	33	40	87	87	87	87	87	87	87	87	87	87	87	87	87
90	4	-63	-33	-9	3	10	21	44	29	-5	8	8	8	8	8	8	8	8	8	8	8	8
100	-32	-34	-17	-6	22	36	29	29	15	8	8	8	8	8	8	8	8	8	8	8	8	8
110	-7	-25	-28	-16	22	38	-8	83	-26	-17	14	85	85	85	85	85	85	85	85	85	85	85
120	46	87	-11	88	-5	112	-4	83	-26	-17	14	85	85	85	85	85	85	85	85	85	85	85
130	34	87	-14	-93	-35	53	48	-24	-45	-17	14	85	85	85	85	85	85	85	85	85	85	85
140	-1	29	47	-6	-44	27	51	-68	-93	49	6	6	6	6	6	6	6	6	6	6	6	6
150	102	-28	81	64	113	-63	-136	28	113	-6	6	6	6	6	6	6	6	6	6	6	6	6
160	-68	26	61	-7	-24	5	-11	-21	10	3	3	3	3	3	3	3	3	3	3	3	3	3
170	-42	-5	50	25	-31	-34	-7	22	28	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24
180	-47	24	74	-7	-87	-31	61	24	-64	-21	1	1	1	1	1	1	1	1	1	1	1	1
190	64	30	-34	-18	27	9	-27	-11	10	7	7	7	7	7	7	7	7	7	7	7	7	7
200	3	4	-14	-38	5	64	20	-44	-15	34	34	34	34	34	34	34	34	34	34	34	34	34
210	13	-29	-30	-9	29	38	-14	-36	-5	20	20	20	20	20	20	20	20	20	20	20	20	20
220	7	-27	-13	28	14	-31	-24	15	15	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12
230	12	38	1	-41	-25	29	40	-14	-51	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4
240	41	0	-37	16	5	5	-2	2	28	42	42	42	42	42	42	42	42	42	42	42	42	42
250	0	-57	47	31	-38	-19	32	8	-35	8	8	8	8	8	8	8	8	8	8	8	8	8
260	-11	45	52	0	-30	-16	8	1	-22	0	0	0	0	0	0	0	0	0	0	0	0	0
270	48	34	-49	-71	12	66	23	-24	-19	1	1	1	1	1	1	1	1	1	1	1	1	1
280	1	-7	-2	21	19	-14	-14	-14	-14	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26	-26
290	5	29	15	6	-10	-37	-6	57	28	-52	-52	-52	-52	-52	-52	-52	-52	-52	-52	-52	-52	-52
300	-35	37	27	-49	-53	52	82	-34	-24	18	18	18	18	18	18	18	18	18	18	18	18	18
310	52	-17	-30	34	31	-41	-34	24	-24	-11	0	0	0	0	0	0	0	0	0	0	0	0
320	5	19	-18	-42	1	12	24	-9	-37	-14	28	28	28	28	28	28	28	28	28	28	28	28
330	-11	0	11	1	12	24	0	16	10	19	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
340	34	-9	-4	-5	24	47	14	-30	-28	-10	10	10	10	10	10	10	10	10	10	10	10	10
350	-13	-4	-4	-5	-5	24	15	5	13	33	0	0	0	0	0	0	0	0	0	0	0	0
360	-2	-10	-23	3	34	15	2	61	-3	-54	3	3	3	3	3	3	3	3	3	3	3	3
370	-41	-14	34	0	-55	2	-35	16	9	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19
380	37	-19	-31	40	44	-28	16	9	11	11	11	11	11	11	11	11	11	11	11	11	11	11
390	-4	14	4	-9	-9	5	21	19	-14	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4
400	-10	16	10	10	-26	16	24	24	-7	-14	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4
410	-15	-14	10	10	2	20	15	-30	45	3	3	3	3	3	3	3	3	3	3	3	3	3
420	28	-16	-85	28	27	-35	46	20	44	-10	10	10	10	10	10	10	10	10	10	10	10	10
430	-32	9	26	4	-11	-12	-9	2	10	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16
440	34	13	72	26	-52	-13	41	-14	-65	-7	7	7	7	7	7	7	7	7	7	7	7	7
450	44	11	-20	24	60	0	-47	-8	11	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27
460	-34	13	32	13	10	2	-24	-25	11	19	19	19	19	19	19	19	19	19	19	19	19	19
470	-15	-4	26	0	-35	-9	31	24	-10	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-107 UP)												CONTINUED(F-107 UP)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
1000	69	-34	-95	-73	3	34	12	-1	-12	-49	1520	-31	-30	15	15	1	6	11	10	5	-14		
1010	-75	-27	62	96	40	-24	-18	22	-76	-95	1530	-16	7	17	6	-7	-9	10	21	-9	-48		
1020	-37	58	73	30	2	13	29	-22	-53	-53	1540	-40	-9	4	13	23	5	-15	27	8	10		
1030	-15	-18	0	60	53	-25	-44	12	8	-42	1550	-10	-26	-25	-16	-10	-6	4	24	33	28		
1040	-24	39	49	12	2	39	32	-40	-68	-4	1560	24	10	-14	-11	12	-25	7	34	18	5		
1050	54	34	-17	-30	14	-17	-46	-36	81	-4	1570	24	13	-4	-9	-24	-25	7	37	28	9		
1060	43	-16	-36	3	29	-28	24	66	2	2	1580	-7	-12	-10	-12	-7	10	21	-2	-27	-13		
1070	-12	65	61	-63	-101	5	72	27	4	24	1590	-2	0	24	32	-11	-35	-7	15	-2	-31		
1080	-10	-55	-25	17	14	-1	-4	10	22	20	1600	-36	-14	15	30	27	16	3	-15	-22	-9		
1090	21	25	10	-16	-27	-30	-51	-53	21	1610	2	2	4	-13	-18	-12	-18	-19	19	45	8		
1100	72	49	-22	-34	4	1	-37	-44	20	24	1620	9	-35	-21	17	24	10	-7	4	-19	-32		
1110	3	-8	12	31	26	-16	-71	-52	20	36	1630	2	9	20	17	0	-11	-14	9	12	-16		
1120	10	29	51	20	-28	-64	-57	7	39	14	1640	-5	24	24	12	-2	-19	-14	9	12	-16		
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1140	24	19	9	64	100	29	-40	36	9	-35	1660	-11	15	19	1	-5	0	12	15	-9	-26		
1150	-41	-32	-9	4	-21	-30	15	45	9	-35	1670	-5	11	1	-11	0	18	13	-1	7	15		
1160	40	40	10	-17	-34	-42	-24	12	14	-5	1680	4	-11	-16	-25	-28	3	28	18	8	10		
1170	-12	5	24	10	-4	0	-10	-34	-17	15	1690	8	-1	9	31	21	-12	-34	-22	5	9		
1180	8	-15	4	24	-12	-44	-28	-7	11	12	1700	-5	1	10	-10	-24	-8	-5	-21	-4	24		
1190	-31	-68	-47	5	48	69	79	52	-14	-73	1710	9	-18	-13	1	8	10	-3	-24	-18	0		
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1230	0	29	32	-10	-41	-15	14	5	-9	-2	1750	-8	24	31	2	-15	0	-18	4	3	-16		
1240	0	1	-2	-38	-53	-4	44	26	-12	-2	1760	21	17	17	14	-4	-26	-18	4	3	-16		
1250	20	0	-41	-32	18	42	34	29	15	-2	1770	-14	5	15	7	5	10	0	-25	-40	-19		
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1270	-24	-14	-20	-26	-4	2	-11	4	34	24	1790	-10	12	15	-1	-5	12	12	-14	-15	4		
1280	-1	-30	-21	-19	-30	-11	18	13	1	2	1800	2	-18	-5	29	29	-8	-24	0	16	7		
1290	-4	-32	-46	-37	24	7	34	19	-10	-9	1810	-12	-11	2	7	1	2	13	11	-20	-37		
1300	24	38	5	-34	-51	-42	-27	-21	24	97	1820	1	41	21	-19	-17	0	-1	-4	6	0		
1310	111	53	-14	-46	-28	13	38	18	-11	-14	1830	-20	-19	-5	-9	-9	4	10	0	-7	1		
1320	-10	-19	-14	12	39	43	19	-20	-44	-28	1840	15	18	5	-4	9	24	13	-9	-4	12		
1330	8	34	28	-2	-12	-30	0	7	1	-25	1850	10	-4	-11	0	2	-7	-1	14	13	-16		
1340	-39	-26	-44	-10	3	15	26	24	-4	-18	1860	-10	-12	22	7	-24	-4	29	18	-31	-64		
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1360	-25	-26	-16	-16	-22	23	52	27	-10	-28	1880	-7	-48	9	14	-10	-7	29	33	-7	-20		
1370	0	12	18	-16	16	49	38	-15	-44	-28	1890	5	10	-16	-22	0	12	4	0	8	5		
1380	-24	7	6	-2	15	24	19	0	-19	-3	1900	-8	-10	-1	15	24	18	-14	-43	-24	10		
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1440	32	9	-29	-28	-4	5	-8	-21	10	10	1960	3	-12	-16	-4	7	8	4	0	-6	-5		
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1460	37	-25	4	29	5	-25	-5	24	12	-20	1980	8	4	-4	-4	5	-1	-24	-21	6	17		
1470	-29	1	24	14	-4	7	-19	-32	-14	-10	1990	14	13	3	-15	-17	-5	-7	-14	-6	2		
1480	-19	3	36	23	-26	-34	-7	0	-9	-11	2000	0	2	21	22	-4	-17	5	18	-4	-25		
1490	-1	11	2	-12	10	40	34	5	-22	-49	2010	-9	14	1	-21	-4	15	7	-5	-9	-4		
1500	-39	14	48	24	-5	0	2	-25	-31	27	2020	2	9	5	-10	-18	12	17	2	-5	4		
1510	79	41	-36	-47	-7	-10	-39	-7	54	34	2030	2	-24	-31	-4	-4	10	9	5	2	0		

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (F-107 UP)											CONTINUED (F-107 UP)										
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-9	-6	6	7	0	10	17	-5	-24	-6	2560	0	6	1	-3	6	16	8	-7	-7	5
2060	12	5	-7	-2	5	-9	-19	0	18	12	2570	15	0	-7	3	13	-1	-13	4	-7	9
2080	-19	21	-11	-11	0	5	-2	1	2	-19	2580	-7	8	-7	-10	-10	3	14	10	-5	-18
2090	17	3	7	12	-14	12	5	-21	-7	24	2590	-16	7	19	1	-10	5	17	-1	-17	-4
2100	2	5	-10	-24	6	-5	-7	-2	-7	-9	2600	0	0	-4	-11	0	-1	14	15	0	-9
2110	2	-2	-5	-14	-15	3	24	22	0	5	2610	0	6	-4	-11	0	4	-7	-15	-5	10
2120	13	0	-3	-11	-1	-4	-15	-8	17	29	2620	12	-2	-2	0	-5	-15	-12	-4	20	23
2130	6	-6	0	24	-13	-3	8	7	3	9	2630	7	-11	12	1	12	9	0	-4	-4	-7
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2160	0	10	-4	2	0	17	-10	-3	-10	-4	2650	-4	0	-1	-4	5	7	3	0	-4	-6
2170	13	21	-5	-3	-1	21	9	0	-23	-9	2660	3	-11	-11	-5	0	3	3	2	2	7
2180	-10	7	7	-10	-4	3	9	0	-9	-4	2670	10	2	-4	0	2	4	4	0	1	8
2190	8	-5	-17	4	-4	5	14	5	14	0	2680	-2	4	10	5	-1	0	0	0	2	0
2200	-11	-2	-19	-19	-11	0	14	20	-12	2	2690	9	4	10	-15	-2	0	3	-5	-2	-4
2210	4	-9	-14	2	10	-7	-17	-2	10	5	2700	0	8	5	0	0	0	-6	-7	-5	-4
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2240	0	12	9	-4	-8	0	-6	-14	-10	-3	2730	7	0	-2	4	2	-9	13	1	-9	0
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2360	5	-8	-11	-5	0	-7	-5	11	11	-2	2850	-4	8	-2	1	0	3	5	0	5	0
2370	-20	0	15	3	4	7	8	-9	-15	0	2860	2	-5	-2	-4	8	11	8	0	-5	-10
2380	7	-9	-17	8	12	8	4	6	4	-4	2870	5	-4	-12	-4	2	-9	-14	-10	-7	-6
2390	-7	1	8	6	-1	2	17	9	-12	6	2880	-1	15	1	10	2	6	13	11	0	-3
2400	12	7	10	-9	3	4	-2	-1	-4	-6	2900	4	6	2	4	0	6	-1	-2	6	5
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2490	-2	17	15	-10	-27	-19	2	12	3	-6	2990	-15	-15	0	-7	-4	-4	-2	-2	1	6
2500	0	10	8	1	0	-2	-5	-4	-2	-4											
2510	-2	0	-4	-6	-2	3	11	10	0	-5											
2520	-9	-16	-2	18	15	-1	-8	-2	2	5											
2530	3	-7	-6	14	19	-1	-11	-2	4	-1											
2540	-1	2	-3	-7	1	10	2	-9	-8	-11											
2550	-10	-3	8	-5	-8	-7	5	4	-8	-11											

TO BE CONTINUED

END

RECORD = S-2130 COMPONENT = S03E STATION = SHINAGAWA-S
 DATE AND TIME = 1988- 3-18- 5-34 TOTAL NUMBER OF DATA = 3000
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ORIENTATION POINT IN DATA NUMBER = 3000,

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20	-7	-8	-8	-8	-9	-8	-7	-6	-5	-5
30	-4	-4	-4	-4	-5	-6	-7	-8	-9	-13
40	-17	-22	-31	-32	-33	-33	-34	-35	-35	-35
50	-35	-35	-35	-36	-36	-36	-36	-35	-35	-35
60	-4	7	18	27	36	45	50	54	55	54
70	53	47	40	32	27	23	18	15	12	10
80	9	6	0	-6	-12	-17	-18	-18	-17	-14
90	-12	-11	-12	-18	-27	-35	-42	-45	-47	-45
100	-40	-33	-26	-19	-10	1	15	31	48	70
110	100	133	155	161	158	136	101	67	45	40
120	46	83	164	250	318	346	341	303	234	142
130	63	20	7	21	63	105	125	121	80	-12
140	-134	-250	-300	-335	-343	-341	-336	-333	-351	-412
150	-505	-588	-639	-647	-590	-450	-310	-194	-153	-164
160	-230	-354	-468	-514	-480	-372	-188	125	770	823
170	799	703	542	349	81	-120	-194	-196	-129	43
180	275	482	527	501	424	334	239	145	64	18
190	7	9	12	26	32	27	-6	-74	-140	-163
200	-163	-145	-109	-83	-75	-89	-142	-213	-319	-427
210	-471	-477	-454	-396	-307	-225	-182	-165	-113	-3
220	120	355	523	614	643	624	554	451	336	244
230	167	118	94	77	53	6	-63	-128	-150	-166
240	-137	-68	9	52	60	45	13	-21	-43	-51
250	-50	-39	-22	-8	-5	-17	-60	-133	-212	-257
260	-287	-277	-234	-161	-76	0	39	48	42	22
270	-7	-37	-55	-53	-27	18	78	129	153	163
280	172	183	202	234	274	301	317	318	296	246
290	173	84	-22	-75	-129	-226	-320	-356	-378	-358
300	-294	-199	-124	-70	-37	-32	-54	-124	-138	-138
310	-138	-115	-69	-32	-12	-5	-11	-21	-29	-31
320	-23	0	30	51	58	54	39	19	3	-5
330	-5	1	11	20	26	33	40	54	81	125
340	165	186	194	196	186	169	152	136	119	100
350	76	48	6	-56	-118	-175	-227	-225	-198	-198
360	-152	-107	-76	-60	-60	-71	-83	-97	-107	-107
370	-112	-111	-101	-79	-37	14	52	76	86	85
380	70	39	-5	-41	-61	-73	-77	-75	-69	-61
390	-54	-41	-28	-10	7	26	41	52	60	71
400	93	117	153	191	224	242	249	244	222	185
410	140	89	34	-41	-114	-164	-201	-218	-250	-217
420	-204	-179	-162	-154	-149	-148	-147	-144	-136	-121
430	-93	-45	13	58	86	109	121	125	123	118
440	112	104	95	83	66	44	24	9	1	-1
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460	78	75	64	50	33	14	-4	-19	-29	-42
470	-59	-70	-73	-68	-51	-17	27	68	99	107

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(S-2130 SOSE)																					
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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1020	-22	-30	-38	-44	-47	-47	-42	-34	-23	-10	1540	8	21	37	53	67	79	97	108	119	126
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1040	4	43	76	110	140	159	165	163	158	149	1560	3	-12	-22	-28	-31	-33	-36	-40	-45	-52
1050	136	123	105	84	57	23	-21	-66	-97	-116	1570	-61	-68	-75	-83	-91	-96	-100	-105	-109	-112
1060	-121	-120	-114	-102	-85	-74	-61	-48	-40	-34	1580	-113	-111	-102	-89	-68	-41	-15	5	22	33
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1080	-64	-63	-62	-60	-52	-52	-58	-64	-70	-76	1600	43	41	39	36	30	24	19	13	13	13
1090	135	138	135	128	116	101	85	73	64	56	1610	13	12	11	7	2	-4	-9	-17	-25	-30
1100	51	46	46	52	59	63	67	70	68	59	1620	-33	-34	-33	-31	-26	-17	0	19	37	54
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1130	-150	-156	-158	-157	-154	-144	-129	-109	-81	-43	1650	-1	5	6	4	4	-2	-11	-22	-34	-45
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1150	53	53	55	57	56	54	52	50	45	43	1670	-33	-33	-33	-33	-33	-31	-26	-17	7	1
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1170	1	8	17	28	39	43	44	39	19	-5	1690	11	6	2	0	1	2	7	13	22	32
1180	-35	-62	-77	-88	-94	-97	-97	-93	-81	-59	1700	43	54	67	77	84	89	87	77	59	36
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1450	75	85	96	108	116	121	121	117	106	90	1970	27	25	22	21	21	23	23	20	20	20
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1470	-60	-69	-79	-88	-92	-92	-88	-80	-65	-44	1990	6	13	20	26	25	23	19	16	11	6
1480	-28	-17	-11	-6	-2	3	8	14	19	22	2000	2	0	0	0	0	0	-2	-2	-5	-8
1490	23	22	14	1	-12	-24	-34	-36	-40	-38	2010	-10	-10	-9	-11	-13	-15	-12	-9	-5	-4
1500	-32	-22	11	-2	3	8	11	11	8	3	2020	-3	-4	-7	-10	-17	-24	-30	-39	-46	-54
1510	-3	-9	-17	-23	-31	-35	-37	-35	-32	-26	2030	-56	-55	-50	-45	-37	-27	-20	-16	-11	-8

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (S-2130 S03E)										CONTINUED (S-2130 S03E)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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2050	71	72	73	72	69	65	62	57	40	40	2570	-34	-38	-40	-41	-46	-60	-51	-50	-47	-46
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2070	-19	-22	-26	-30	-33	-36	-39	-42	-44	-45	2590	9	20	27	33	37	42	45	46	48	46
2080	-46	-46	-45	-43	-41	-41	-41	-40	-38	-36	2600	42	40	40	36	35	33	31	30	26	23
2090	-35	-33	-30	-28	-21	-14	-6	2	11	18	2610	19	14	7	0	-6	-11	-15	-18	-24	-29
2100	23	27	27	22	16	11	10	10	17	25	2620	-32	-34	-33	-32	-30	-28	-24	-21	-20	-18
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2480	-12	-12	-9	-6	-5	-5	-6	-4	-5	-6											
2490	-3	0	4	7	9	13	17	23	30	37											
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2520	-11	-17	-22	-25	-28	-31	-36	-40	-43	-46											
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 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ORIENTATION POINT IN DATA NUMBER = 3000.

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80	-30	-31	-7	10	26	41	54	60	63	64
90	61	54	43	30	22	16	13	13	20	29
100	38	44	50	55	56	52	43	31	15	0
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120	186	191	184	157	109	48	-16	-63	-148	-183
130	-197	-197	-181	-150	-123	-108	-109	-138	-199	-273
140	-338	-408	-391	-330	-222	-79	78	213	297	359
150	337	333	293	220	116	-3	-92	-141	-163	-159
160	-125	-53	32	114	181	216	218	186	131	58
170	-8	-48	-63	-53	-28	-7	-2	-24	-72	-130
180	-179	-209	-211	-183	-129	-49	43	107	125	123
190	113	102	88	49	25	10	-2	-18	-44	-73
200	-87	-85	-57	2	52	108	135	134	95	27
210	-51	-136	-201	-238	-251	-252	-230	-244	-240	-233
220	-210	-159	-70	66	187	249	260	237	194	144
230	104	87	103	157	241	322	384	413	401	357
240	275	176	83	5	-59	-118	-169	-204	-224	-226
250	-205	-165	-119	-76	-41	-15	6	23	36	42
260	40	28	9	-15	-47	-81	-112	-140	-164	-179
270	-184	-176	-151	-108	-51	1	34	43	24	-19
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300	-190	-235	-250	-234	-189	-121	-44	34	104	150
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340	127	151	159	160	156	149	141	132	119	98
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380	-143	-140	-122	-82	-7	74	132	161	161	130
390	73	-14	-98	-155	-183	-189	-163	-90	25	100
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TO BE CONTINUED

TO BE CONTINUED

CONTINUED(S-2130 E03N)

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1070	22	-23	-19	-16	-16	-15	-16	-15	-15	-15	-15	0	18	34	47	59	67	75	82	85
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TO BE CONTINUED

TO BE CONTINUED

CONTINUED(S-2130 E03N)

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2060	5	7	9	13	17	24	29	30	30	30	2580	8	4	0	-5	-11	-19	-30	-30	-29
2070	27	24	23	22	22	24	24	25	26	26	2590	4	0	3	3	5	4	4	5	4
2080	24	19	12	5	-2	-11	-19	-25	-29	-30	2600	0	0	2	2	12	18	22	24	24
2090	-30	-29	-28	-26	-26	-29	-35	-41	-43	-44	2610	25	27	25	24	22	23	24	24	24
2100	-43	-42	-40	-36	-29	-19	-11	-2	4	7	2620	25	21	14	9	4	-6	-7	-7	-10
2110	9	10	5	0	0	1	1	3	7	13	2630	-13	-15	-15	-16	-16	-11	0	5	-2
2120	21	24	27	29	29	29	27	16	0	0	2640	-10	-14	-16	-16	-20	-30	-34	-36	-37
2130	-17	-36	-53	-66	-76	-74	-65	-51	-32	-32	2650	-38	-32	-29	-24	-19	-15	-13	-13	-15
2140	-16	-2	8	18	25	29	31	33	36	36	2660	-18	-21	-25	-28	-31	-30	-26	-21	-11
2150	38	40	42	48	52	51	47	40	31	19	2670	-6	-2	2	2	2	4	5	6	8
2160	9	1	-4	-6	-5	-4	-2	0	0	-3	2680	11	14	19	23	24	25	21	19	22
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2180	-32	-31	-28	-23	-18	-10	0	9	14	17	2700	-20	-24	-27	-32	-34	-32	-28	-22	-15
2190	18	16	14	13	12	13	13	13	13	14	2710	8	1	1	2	-2	-11	3	16	24
2200	13	8	3	0	-5	-11	-18	-23	-27	-33	2720	-27	-31	-33	-33	-29	-22	-11	3	16
2210	-38	-41	-45	-49	-49	-48	-43	-41	-41	-41	2730	29	34	37	39	36	31	27	21	15
2220	-39	-35	-29	-20	-7	8	30	44	56	65	2740	4	0	-4	-6	-9	-10	-9	-5	-1
2230	68	68	67	60	52	41	30	19	6	-6	2750	3	5	7	7	5	3	-1	-7	-11
2240	-20	-33	-44	-54	-61	-62	-61	-59	-54	-47	2760	-15	-19	-22	-25	-27	-28	-30	-29	-23
2250	-40	-31	-23	-12	0	11	23	32	37	42	2770	-16	-8	0	6	12	16	17	19	18
2260	46	49	50	51	52	54	57	58	57	54	2780	11	7	4	1	1	1	0	-4	-8
2270	49	42	39	23	15	8	3	1	0	-3	2790	-22	-26	-30	-32	-32	-30	-27	-26	-25
2280	-5	-6	-7	-12	-19	-29	-39	-47	-54	-60	2800	-24	-22	-19	-15	-13	-10	-5	-4	-7
2290	-63	-63	-60	-54	-44	-32	-21	-12	-5	-4	2810	-11	-13	-14	-10	-6	2	11	21	28
2300	3	5	8	9	8	7	8	12	18	22	2820	36	36	33	30	27	23	16	11	7
2310	23	21	19	15	10	5	3	0	-5	-6	2830	2	0	-1	0	2	4	5	8	11
2320	-6	-3	0	3	4	4	1	-2	-6	-8	2840	11	9	6	3	0	-4	-9	-14	-18
2330	-14	-19	-23	-28	-32	-32	-29	-25	-17	-8	2850	-22	-22	-22	-22	-21	-19	-18	-20	-20
2340	0	7	10	12	14	13	12	12	11	9	2860	-21	-20	-18	-17	-17	-19	-19	-18	-15
2350	10	14	20	23	25	25	25	21	15	7	2870	-13	-11	-8	-7	-5	-7	-12	-17	-21
2360	-1	-8	-12	-17	-20	-21	-19	-16	-14	-11	2880	-30	-32	-30	-27	-25	-22	-21	-20	-20
2370	-9	-7	-6	-7	-8	-11	-14	-17	-19	-19	2890	-20	-20	-17	-15	-10	-6	-4	0	2
2380	-20	-19	-19	-18	-18	-17	-17	-14	-9	-3	2900	4	2	2	2	0	-1	-2	0	3
2390	1	4	3	0	-5	-10	-17	-20	-19	-15	2910	12	17	21	21	18	18	17	16	15
2400	-8	-3	1	4	5	1	-3	-6	-7	-7	2920	21	23	24	25	25	23	18	13	8
2410	-5	-4	-2	-5	-11	-18	-26	-33	-41	-41	2930	3	0	-5	-8	-10	-13	-17	-21	-24
2420	-45	-45	-40	-32	-24	-16	-7	-2	0	2	2940	-30	-33	-32	-30	-28	-25	-22	-18	-13
2430	6	11	18	25	33	42	50	55	59	60	2950	-12	-13	-14	-13	-10	-7	-6	-4	-3
2440	58	50	40	29	19	12	6	2	0	0	2960	-3	-6	-8	-12	-14	-13	-11	-9	-3
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2480	3	2	4	7	13	19	25	30	32	32	3000	2	2	2	2	0	0	0	0	0
2490	34	35	35	31	26	19	11	3	-6	-15	2990	3	0	-5	-8	-10	-13	-17	-21	-24
2500	-23	-29	-31	-35	-37	-36	-33	-30	-25	-22	3000	-30	-33	-32	-30	-28	-25	-22	-18	-13
2510	-22	-22	-22	-25	-27	-26	-23	-17	-10	-4	3010	-12	-13	-14	-13	-10	-7	-6	-4	-3
2520	-1	0	1	4	5	7	9	10	8	9	3020	-3	-6	-8	-12	-14	-13	-11	-9	-3
2530	9	0	11	15	18	20	18	11	1	-8	3030	6	9	12	17	19	17	15	12	9
2540	-18	-25	-31	-36	-41	-44	-44	-44	-44	-44	3040	6	9	12	17	19	17	15	12	9
2550	-38	-37	-35	-34	-33	-31	-28	-25	-23	-21	3050	2	2	2	2	0	-2	-6	-10	-13

END

TO BE CONTINUED

RECORD = S-2130 COMPONENT = DOWN STATION = SHINAGAWA-S
 DATE AND TIME = 1989-3-18-5-34 TOTAL NUMBER OF DATA = 3000
 SIGNALING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 ONECTION POINT IN DATA NUMBER = 3000,

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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10	0	-1	-1	-2	-3	-4	-5	-5	-6	-6
20	0	-7	-7	-7	-7	-7	-7	-8	-9	-9
30	10	-11	-11	-12	-12	-13	-13	-13	-11	-11
40	-10	-8	-7	-6	-6	-5	-4	-3	-2	0
50	3	6	9	11	10	6	2	0	-1	-1
60	-1	-11	-19	-26	-30	-32	-33	-32	-30	-25
70	0	-18	-11	-3	4	11	16	20	22	21
80	19	17	16	15	15	13	11	8	6	6
90	19	-13	-21	-29	-34	-37	-35	-30	-19	-6
100	-5	12	18	22	24	23	20	17	16	14
120	12	8	4	3	2	0	0	1	4	5
130	0	-6	-14	-22	-29	-31	-26	-12	12	39
140	59	66	66	57	42	29	22	19	19	20
150	18	9	7	-31	-52	-66	-73	-75	-70	-57
160	-41	-26	-16	-12	-11	-9	-9	-9	-9	-7
170	-6	-6	-9	-12	-11	-23	-27	-27	-22	-5
180	19	38	48	51	48	41	27	8	-12	-31
190	-42	-45	-48	-47	-33	-9	16	40	52	53
200	45	23	-7	-35	-52	-61	-62	-47	-16	16
210	40	48	45	40	33	28	24	22	22	21
220	18	5	-20	-42	-55	-58	-46	-28	-15	-12
230	-21	-43	-62	-69	-60	-21	44	109	146	157
240	148	113	56	4	-26	-38	-37	-32	-27	-24
250	-27	-34	-42	-47	-49	-47	-38	-27	-19	-18
260	-21	-25	-26	-22	-9	9	23	28	27	21
270	10	0	-7	-13	-15	-11	-4	5	10	14
280	14	11	7	3	-1	0	2	10	27	43
290	51	53	42	11	-17	-31	-34	-28	-13	8
300	28	39	43	40	29	9	-17	-52	-85	-118
310	-137	-143	-140	-124	-94	-55	-8	33	63	77
320	83	80	66	44	24	8	-6	-22	-42	-64
330	-82	-92	-92	-78	-44	2	48	89	130	160
340	173	175	163	124	64	-5	-69	-114	-137	-139
350	-119	-79	-29	17	44	52	45	23	-6	-32
360	-49	-56	-58	-56	-48	-38	-31	-24	-17	-9
370	0	13	25	36	46	51	51	46	36	24
380	12	4	-1	-8	-14	-20	-29	-37	-40	-39
390	-32	-20	-3	13	29	39	44	49	52	52
400	51	53	55	55	51	44	33	18	-7	-4
410	-13	-21	-28	-35	-45	-56	-70	-78	-70	-73
420	-93	-23	11	48	72	82	84	77	58	26
430	-12	-42	-57	-63	-64	-61	-57	-50	-42	-32
440	-22	-12	-1	8	14	15	12	5	-6	-22
450	-39	-49	-51	-46	-31	-7	21	52	77	95
460	107	111	107	94	70	40	5	-26	-48	-56
470	-68	-49	-27	0	19	28	31	29	20	12

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(S-2130 DOWN)										CONTINUED(S-2130 DOWN)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	-18	-20	-20	-16	-11	-7	-6	-8	-10	-13	1520	-11	-10	-9	-9	-9	-9	-9	-9	-9	-9
1010	-16	-18	-17	-15	-11	-7	-1	3	6	10	1530	-8	-6	-5	-4	-4	-4	-6	-10	-12	-13
1020	13	15	17	19	20	21	22	22	22	22	1540	-13	-9	-7	-3	-4	-4	10	13	13	15
1030	22	24	27	28	28	25	23	22	20	14	1550	13	11	10	9	6	4	0	-2	-4	-8
1040	5	-2	-12	-24	-34	-40	-41	-40	-35	-28	1560	-10	-11	-9	-9	-7	-4	-1	-1	0	2
1050	-22	-16	-10	-6	-4	-1	2	2	2	2	1570	3	3	3	5	6	6	4	3	1	0
1060	5	6	6	6	5	5	3	1	-2	-1	1580	-1	-2	-3	-4	-5	-6	-8	-7	-7	-8
1070	-1	0	1	1	1	3	5	6	5	4	1590	-9	-9	-9	-10	-11	-10	-9	-7	-4	-3
1080	-1	-3	-4	-5	-6	-8	-8	-9	-9	-8	1600	-2	-1	0	0	1	1	2	4	5	6
1090	-5	0	9	17	26	33	37	41	44	43	1610	6	8	11	13	17	20	23	24	25	26
1100	38	29	17	4	-8	-19	-26	-31	-34	-37	1620	26	26	24	20	15	12	7	1	-7	-14
1110	-37	-34	-27	-17	-6	2	8	14	17	13	1630	-23	-30	-32	-34	-32	-30	-29	-25	-20	-17
1120	-15	-16	-15	-14	-11	-8	-3	1	5	6	1640	-10	-4	-1	2	6	6	6	7	8	8
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1160	7	6	6	6	7	8	7	6	6	6	1680	-10	-15	-18	-20	-20	-19	-17	-14	-10	-6
1170	7	6	6	6	4	0	-4	-7	-11	-15	1690	0	7	15	22	26	28	29	27	23	19
1180	-17	-16	-14	-10	-5	1	7	13	17	18	1700	14	11	9	8	9	11	13	14	15	15
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1200	-14	-5	3	15	27	36	39	40	38	33	1720	-7	-6	-5	-4	0	1	0	1	1	1
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1280	7	6	5	4	1	-3	-8	-12	-16	-18	1800	3	2	1	1	1	2	4	5	5	4
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1390	0	0	0	-1	-2	-1	-1	0	1	4	1910	4	2	0	1	2	4	5	8	11	15
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1430	0	0	-1	-3	-6	-11	-16	-18	-19	-21	1950	4	6	6	6	5	4	3	0	-2	4
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1460	11	13	16	17	17	16	15	14	12	10	1980	3	0	0	0	-1	-2	0	0	1	1
1470	9	7	7	7	7	7	7	7	9	10	1990	0	0	-3	-6	-9	-12	-15	-17	-18	-17
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1490	-9	-10	-11	-11	-11	-10	-9	-7	-4	-1	2010	7	6	3	2	1	-2	-3	-2	-1	-1
1500	2	5	8	10	12	13	13	12	10	9	2020	-1	-3	-4	-6	-9	-12	-13	-14	-14	-14
1510	7	5	3	0	-3	-5	-8	-11	-11	-11	2030	-14	-14	-14	-13	-8	-5	-2	-1	3	3

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (S-2130 DOWN)										CONTINUED (S-2130 DOWN)												
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
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2050	3	-2	0	-3	-10	-16	-20	-21	-23	-24	2570	5	3	1	0	-2	-3	-2	-2	4	-3	
2060	-23	-17	-13	-13	-8	-2	3	8	13	18	2580	-5	-6	-8	-8	-7	-8	-9	-8	-7	-6	
2070	22	23	21	19	18	15	12	10	2	3	2590	-5	-7	-7	-7	-8	-11	-11	-11	-10	-10	
2080	4	2	1	0	-2	-2	-1	0	2	3	2600	-7	-2	0	4	6	10	11	11	10	7	
2090	4	6	7	7	6	4	3	3	3	1	2610	6	2	0	-3	-5	-8	-9	-9	-8	-8	
2100	-1	-1	-1	-2	-3	-3	-1	1	2	3	2620	-5	-2	1	0	1	3	2	2	1	0	
2110	4	5	6	4	2	0	-2	-7	-9	-8	2630	-2	-6	-9	-11	-14	-17	-16	-16	-13	-13	
2120	-5	2	1	1	2	3	1	-2	-3	-4	2640	-11	-10	-8	-6	-5	-4	-4	-5	-6	-7	
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2150	-11	-18	-24	-25	-34	-36	-38	-36	-34	-32	2670	-5	-4	-4	-5	-7	-8	-8	-9	-7	-7	
2160	-31	-28	-25	-21	-17	-14	-11	-7	-4	-1	2680	-7	-8	-6	-8	-2	0	1	2	1	-1	
2170	0	1	2	2	2	-2	-4	-5	-6	-6	2690	-2	-2	-6	-8	-5	-3	-2	-5	-4	-1	
2180	-5	-4	-2	0	0	0	-1	-4	-7	-12	2700	-1	-1	-5	-6	2	2	2	1	0	-1	
2190	-17	-21	-22	-22	-22	-21	-20	-18	-12	-9	2710	-3	-4	-5	-6	-7	-8	-6	-7	-10	-12	
2200	-4	1	2	2	3	3	4	5	6	6	2720	-11	-11	-11	-11	-10	-9	-7	-5	-2	0	
2210	5	6	7	9	11	13	12	10	7	5	2730	1	2	5	6	6	7	6	4	0	-5	
2220	3	2	1	0	0	-1	0	-2	-4	-4	2740	-10	-13	-12	-10	-9	-9	-8	-4	-1	0	
2230	-3	-3	-2	-1	-1	-2	-1	1	3	4	2750	0	0	0	-1	-2	-2	-2	-4	-7	-9	
2240	6	8	9	10	10	10	9	10	10	13	2760	-11	-11	-12	-12	-12	-12	-13	-13	-13	-12	
2250	14	15	15	15	13	11	9	7	3	-2	2770	-11	-10	-10	-10	-9	-5	-4	-2	-2	0	
2260	-7	-11	-13	-12	-16	-16	-15	-15	-14	-14	2780	1	0	1	0	1	2	2	1	1	4	
2270	-14	-13	-10	-1	-9	-6	-3	-1	0	0	2790	5	5	5	6	6	6	6	5	2	0	
2280	1	1	0	-1	-5	-9	-11	-11	-12	-11	2800	0	-4	-8	-10	-11	-12	-12	-12	-11	-7	
2290	-9	-7	-6	-6	-5	-1	0	0	-1	-1	2810	-8	-6	-6	-4	-4	-3	-2	-3	-5	-8	
2300	-5	-8	-10	-13	-16	-15	-14	-13	-10	-9	2820	-8	-9	-9	-8	-10	-11	-11	-12	-9	-6	
2310	-8	-3	1	5	10	13	15	13	12	12	2830	-6	-5	-5	-6	-7	-8	-8	-9	-11	-13	
2320	12	7	5	1	-6	-9	-10	-9	-13	-10	2840	-14	-13	-10	-8	-4	-1	-1	0	0	1	
2330	-13	-11	-10	-7	-5	-3	-2	0	0	0	2850	0	0	-1	-2	-4	-5	-7	-7	-8	-8	
2340	-1	-2	-1	-1	-1	0	1	2	3	4	2860	-7	-7	-8	-7	-7	-8	-9	-5	0	3	
2350	4	3	3	2	2	-3	-4	-4	-3	-3	2870	3	2	1	4	6	4	3	1	-1	-3	
2360	-4	-4	-3	-2	-2	-1	-2	-4	-4	-2	2880	-4	-3	-2	-2	0	0	0	0	0	-2	-2
2370	-1	0	0	-2	-4	-6	-6	-12	-15	-17	2890	-4	-3	-4	-7	-8	-6	-6	-4	-2	-2	
2380	-17	-17	-16	-15	-14	-14	-14	-13	-12	-11	2900	-3	-3	-5	-8	-8	-8	-9	-11	-14	-14	
2390	-8	-5	-4	-4	-4	-3	-2	-2	-2	-2	2910	-15	-16	-15	-12	-11	-11	-10	-7	-6	-5	
2400	-3	-4	-4	-4	-4	-5	-4	-3	0	0	2920	-3	-2	-1	-1	0	1	1	0	0	-1	
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2420	0	-3	-4	-4	-4	-5	-4	-7	-5	0	2940	-10	-9	-8	-7	-6	-5	-4	-3	-5	-8	
2430	-4	-5	-6	-5	-2	0	1	1	1	0	2950	-12	-14	-15	-17	-16	-16	-17	-18	-18	-17	
2440	-4	-4	-4	-4	-4	-4	-5	-5	-5	-4	2960	-16	-16	-14	-11	-9	-9	-6	-4	-3	-2	
2450	-1	2	5	6	7	7	9	9	7	6	2970	-2	0	0	0	-2	-3	-2	-1	-2	-4	
2460	4	0	-2	-4	-4	-3	-3	-4	-4	-3	2980	-6	-6	-5	-4	-4	-4	-3	-2	-1	0	
2470	-1	0	0	0	-2	-2	-3	-5	-6	-5	2990	-1	-3	-3	-4	-4	-5	-8	-9	-9	-9	
2480	-4	-4	-4	-4	-5	-6	-9	-12	-15	-16												
2490	-18	-20	-21	-21	-21	-21	-21	-21	-21	-21												
2500	-21	-20	-18	-17	10	10	7	6	5	5												
2510	6	6	6	1	1	0	-4	-7	-9	-10												
2520	4	1	1	2	1	-17	-15	-11	-7	0												
2530	-3	0	-19	-20	-20	-17	-17	-15	-11	0												
2540	-13	-3	4	4	4	3	3	3	1	0												
2550	-4	-7	-8	-8	-9	-10	-9	-7	-5	-3												

END

TO BE CONTINUED

CONTINUED (F-123 N16W)										CONTINUED (F-123 N16W)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	42	84	120	145	150	140	110	76	44	20	1520	22	3	-12	-27	-41	-50	-55	-50	-47	-42
1010	15	15	30	50	74	101	126	141	147	150	1530	-35	-24	-9	6	22	32	42	44	43	42
1020	156	171	189	210	230	241	245	240	220	190	1540	37	30	26	19	13	9	10	12	15	25
1030	141	86	32	-17	-48	-67	-16	-65	-17	15	1550	35	47	60	73	80	80	71	60	42	25
1040	40	51	52	46	33	24	7	-17	-43	-63	1550	10	-10	-27	-38	-48	-53	-52	-48	-38	-2
1050	-78	-104	-127	-158	-183	-207	-219	-223	-236	-248	1570	26	52	65	71	72	70	61	41	22	61
1060	-258	-261	-253	-243	-238	-228	-223	-223	-229	-229	1580	-24	-38	-48	-42	-24	-4	20	35	-35	-14
1070	-227	-228	-233	-240	-245	-247	-251	-254	-256	-248	1590	55	45	30	15	-9	-28	37	37	42	38
1080	-233	-204	-164	-118	-68	-22	15	43	61	70	1600	-2	10	22	32	37	37	37	62	72	80
1090	61	55	37	22	12	12	26	48	74	110	1610	37	40	37	35	37	42	47	62	72	80
1100	142	167	185	200	204	162	226	240	255	261	1620	76	65	37	12	-9	-23	-27	-24	-17	-12
1110	266	266	256	230	200	162	135	111	95	80	1630	-15	-15	-15	-16	-16	-24	-27	-38	-47	-52
1120	67	61	71	100	140	185	222	271	301	321	1640	-58	-70	-80	-88	-98	-107	-106	-97	-88	-84
1130	315	281	222	151	72	2	-52	-77	-78	-66	1650	-72	-56	-43	-29	-19	-15	-14	-12	-17	-22
1140	-47	-26	-3	10	18	20	15	-4	-17	-36	1650	-30	-36	-38	-38	-35	-29	-19	-6	15	32
1150	-45	-50	-53	-52	-48	-47	-46	-34	-13	15	1660	53	67	81	90	90	81	65	42	10	-9
1160	45	72	95	100	85	56	17	-23	-53	-63	1680	-33	-50	-58	-67	-77	-82	-81	-84	-77	-72
1170	-63	-53	-38	-19	0	17	35	42	44	41	1690	-63	-68	-63	-57	-44	-26	-4	10	15	7
1180	34	20	-4	-24	-46	-72	-88	-108	-127	-143	1700	-4	-9	-17	-9	-6	3	19	32	46	54
1190	-143	-158	-163	-164	-167	-177	-183	-197	-204	-202	1710	60	65	70	74	77	80	76	70	62	60
1200	-193	-183	-183	-185	-198	-213	-235	-253	-288	-312	1720	60	57	61	67	80	84	90	95	91	95
1210	-328	-344	-348	-340	-322	-296	-264	-223	-183	-138	1730	60	57	61	67	80	84	90	95	91	95
1220	-103	-77	-58	-48	-38	-34	-27	-14	2	26	1740	96	100	96	95	90	75	66	50	40	35
1230	41	46	42	31	25	30	50	80	121	165	1750	37	40	47	57	65	71	80	85	91	92
1240	211	256	284	302	303	297	286	260	278	276	1760	87	81	70	55	40	30	23	23	24	25
1250	280	287	299	310	314	312	312	312	320	330	1770	27	23	17	5	-7	-22	-35	-48	-61	-74
1260	341	350	340	321	290	260	230	206	182	157	1780	-86	-98	-116	-127	-126	-125	-108	-92	-72	-57
1270	139	125	112	100	72	50	15	-22	-48	-67	1790	-43	-34	-29	-29	-37	-53	-77	-103	-132	-157
1280	-82	-77	-67	-47	-19	-2	10	11	1	-19	1800	-182	-202	-216	-218	-219	-203	-183	-163	-136	-102
1290	-47	-75	-103	-131	-147	-152	-147	-134	-118	-103	1810	-74	-47	-29	-19	-12	-12	-14	-9	-4	0
1300	-93	-83	-77	-82	-92	-111	-133	-154	-173	-188	1820	5	17	31	43	50	50	44	32	22	7
1310	-192	-183	-167	-163	-144	-132	-128	-134	-142	-157	1830	-9	-19	-27	-29	-19	-4	27	61	96	122
1320	-176	-187	-198	-204	-198	-188	-168	-151	-132	-120	1840	142	150	144	125	96	66	30	-4	-27	-46
1330	-117	-114	-118	-127	-135	-137	-127	-118	-103	-88	1850	-52	-51	-42	-24	-4	25	50	62	72	74
1340	-63	-32	-5	16	30	35	-27	-18	-103	-88	1860	70	55	40	30	20	10	12	17	27	37
1350	17	15	10	14	26	36	45	51	37	66	1870	47	57	70	80	88	95	105	112	122	131
1360	80	90	87	90	95	107	121	133	140	142	1880	135	131	130	123	114	101	95	81	70	59
1370	136	122	102	80	60	45	41	50	61	72	1890	47	46	50	55	59	74	91	102	109	106
1380	75	73	62	44	20	-5	-24	-27	-17	6	1900	95	76	57	30	-4	-33	-60	-78	-93	-108
1390	35	65	91	111	130	135	139	135	128	120	1910	-118	-128	-134	-137	-135	-127	-113	-107	-103	-103
1400	107	90	74	49	23	47	25	-4	-17	7	1920	-106	-107	-108	-107	-106	-102	-102	-108	-114	-114
1410	27	50	65	70	63	47	25	-4	-17	-27	1930	-117	-121	-118	-112	-112	-103	-104	-97	-88	-78
1420	-34	-32	-24	-19	-15	-16	-24	-38	-63	-91	1940	-63	-60	-62	-68	-63	-58	-48	-48	-50	-52
1430	-112	-127	-133	-128	-117	-98	-73	-38	-9	5	1950	-53	-60	-63	-68	-63	-58	-48	-35	-16	5
1440	13	12	5	-7	-20	-24	-17	0	24	47	1960	30	45	63	75	86	95	99	102	110	109
1450	68	90	105	120	122	120	102	74	42	6	1970	110	106	100	90	76	67	54	50	44	42
1460	-24	-52	-68	-76	-72	-58	-38	-19	-6	9	1980	42	42	46	55	66	76	85	95	96	97
1470	20	24	22	4	-22	-47	-78	-107	-127	-137	1990	94	85	71	57	40	20	-4	-19	-32	-38
1480	-38	-28	-108	-86	-57	-29	-5	10	20	24	2000	-38	-35	-27	-21	-13	-7	8	4	5	7
1490	24	23	24	30	32	27	22	15	-4	-6	2010	10	7	7	5	7	8	4	4	5	7
1500	-12	-22	-42	-57	-73	-82	-82	-76	-63	-57	2020	12	10	4	-6	-19	-27	-35	-38	-43	-50
1510	-42	-24	-7	0	16	27	35	45	48	39	2030	-53	-53	-52	-48	-45	-36	-29	-22	-14	-16

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (F-123 N16W)										
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-17	-24	-31	-36	-45	-51	-56	-58	-62	-62
2050	-59	-48	-42	-27	-13	-4	20	30	40	42
2060	47	50	45	37	34	35	27	27	24	23
2070	28	35	43	52	56	57	60	57	56	52
2080	45	37	30	23	19	23	32	44	60	70
2090	80	86	91	95	90	85	77	67	57	43
2100	31	20	5	-4	-24	-37	-48	-60	-58	-63
2110	62	57	-57	-52	-48	-47	-48	-46	-43	-38
2120	-34	-35	-37	-34	-32	-29	-29	-34	-34	-37
2130	-34	-33	-33	-37	-38	-42	-43	-36	-63	-75
2140	-78	-82	-77	-63	-57	-50	-43	-36	-30	-25
2150	-17	-14	-17	-19	-17	-17	-15	-12	-14	-14
2160	-15	-12	-9	-7	-6	-7	-6	-7	-9	-12
2170	-16	-17	-27	-27	-27	-22	-21	-9	0	10
2180	17	19	23	21	15	7	-4	-7	-12	-7
2190	-4	10	21	37	44	51	47	45	38	30
2200	30	28	27	30	33	40	42	47	49	55
2210	60	62	66	66	63	61	61	61	62	62
2220	68	70	67	64	57	50	38	27	17	6
2230	0	-4	-5	-5	-4	0	2	7	10	12
2240	9	2	-7	-18	-24	-29	-34	-33	-32	-29
2250	-25	-19	-21	-22	-27	-32	-35	-36	-33	-27
2260	-22	-16	-9	-5	-7	-12	-17	-29	-38	-48
2270	-59	-62	-62	-56	-48	-42	-34	-24	-17	-6
2280	2	10	14	15	10	10	-4	-4	-4	-4
2290	-4	-4	2	5	6	2	-4	-4	-9	-14
2300	-22	-24	-21	-17	-4	0	12	24	31	39
2310	42	42	42	44	45	44	45	45	47	44
2320	44	49	52	55	57	62	69	71	71	67
2330	62	55	42	33	22	10	0	-14	-17	-19
2340	-17	-27	-2	10	17	20	20	15	7	0
2350	-12	-27	-37	-48	-62	-67	-74	-72	-68	-58
2360	-47	-35	-22	-11	-7	-4	-7	-7	-12	-14
2370	-17	-17	-19	-19	-19	-22	-21	-19	-18	-19
2380	-19	-19	-22	-28	-29	-32	-29	-25	-22	-16
2390	-9	-9	-9	-14	-19	-26	-29	-37	-38	-42
2400	-40	-37	-32	-29	-24	-21	-17	-16	-14	-13
2410	-17	-19	-22	-29	-35	-38	-45	-53	-58	-58
2420	-57	-52	-43	-32	-17	-8	-4	6	15	20
2430	26	30	32	35	33	32	29	27	30	30
2440	35	42	52	60	67	71	71	66	61	52
2450	44	42	42	45	50	53	55	50	57	52
2460	45	40	32	21	12	5	-4	-6	-7	-9
2470	-4	-4	4	15	17	20	20	12	3	-7
2480	-17	-25	-27	-26	-17	-9	0	10	15	15
2490	15	15	9	5	-4	-4	-4	4	2	4
2500	1	2	-2	-3	-2	2	10	20	22	24
2510	24	22	15	5	-5	-19	-37	-51	-57	-62
2520	-63	-53	-47	-29	-19	-4	10	23	32	36
2530	34	29	20	7	-4	-14	-26	-36	-42	-45
2540	-45	-38	-34	-27	-17	-9	-4	-2	-1	-4
2550	-9	-16	-24	-32	-35	-37	-36	-29	-26	-17

TO BE CONTINUED

END

RECORD = F-123 COMPONENT = E16N STATION = KAWASAKI-F
 DATE AND TIME = 1988-3-18-5-34 TOTAL NUMBER OF DATA = 3000
 SAMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 CONNECTION POINT IN DATA NUMBER = 3000.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	-8	5	16	8	-4	-14	-17	-17	-8	-3
10	21	33	37	41	43	35	21	8	-3	-3
20	-16	-15	-3	11	23	27	21	21	21	21
30	21	6	-5	-6	3	11	13	16	18	21
40	21	21	17	11	-6	-26	-47	-63	-62	-56
50	-36	-8	31	61	78	74	57	36	20	3
60	-16	-22	-30	-30	-31	-27	-22	-8	-3	3
70	6	-3	-6	-11	-16	-17	-8	-1	4	12
80	18	12	-1	-14	-30	-41	-41	-27	-7	8
90	19	21	6	-3	-13	-17	-19	-15	-15	-11
100	-15	-8	-6	-6	-3	0	3	2	0	-1
110	-3	-3	-3	-11	-6	8	23	32	39	41
120	43	42	32	16	-6	-12	-17	-26	-31	-27
130	-22	-21	-26	-35	-37	-24	-2	18	23	21
140	16	9	13	21	26	28	27	31	22	3
150	-21	-35	-35	-27	-27	-36	-32	-17	-6	8
160	25	45	61	58	51	41	30	17	1	-14
170	-30	-42	-46	-37	-21	-3	11	32	43	42
180	31	18	6	1	-3	8	8	7	9	21
190	28	33	32	25	19	6	-8	-17	-15	-7
200	-5	-6	-14	-22	-27	-36	-35	-27	-19	-6
210	16	34	45	45	41	23	8	-1	-11	-14
220	-23	-22	-27	-35	-35	-26	-17	-12	-12	-16
230	-16	-12	-7	-7	-14	-16	-12	-3	8	23
240	41	48	46	27	5	-9	-17	-18	-11	-13
250	-21	-39	-51	-51	-47	-35	-17	-3	11	23
260	23	18	8	1	-5	-14	-21	-27	-26	-26
270	-27	-16	-3	25	43	51	48	45	47	47
280	43	41	41	35	32	22	12	3	-3	-7
290	-16	-22	-24	-23	-20	-12	3	23	39	42
300	42	35	29	26	23	23	18	13	16	27
310	32	31	23	8	-7	-24	-34	-46	-51	-46
320	-31	-17	-1	3	5	4	-4	-12	-14	-8
330	-8	-8	-14	-20	-26	-21	-12	-1	11	21
340	22	19	10	-3	-17	-27	-20	-6	-6	-17
350	-43	-55	-56	-52	-46	-27	1	31	46	45
360	31	11	-5	-16	-25	-27	-32	-1	-16	0
370	11	11	6	8	8	3	-3	3	6	6
380	4	-3	4	-6	-1	11	26	41	53	57
390	46	32	24	27	27	24	21	16	-3	-8
400	-22	-32	-36	-27	-17	-8	-1	8	18	31
410	33	31	20	5	-1	-6	-3	-3	3	3
420	-3	5	-3	7	16	21	17	3	-9	-17
430	-22	-22	-27	-17	-3	13	27	32	27	16
440	-3	-11	-17	-24	-27	-27	-24	-15	-3	16
450	25	21	4	-17	-37	-47	-42	-26	-9	-3
460	-11	-23	-26	-25	-11	9	35	52	61	53
470	38	22	8	3	13	32	51	66	71	58

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-123 E16N)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
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1010	67	75	82	86	87	92	92	82	62	35	16
1020	8	-8	-21	-15	1	25	52	71	71	48	-12
1030	21	-12	-35	-51	-61	-61	-61	-56	-46	-27	-32
1040	12	6	27	51	75	97	113	121	121	115	3
1050	107	96	77	56	35	27	22	24	27	29	-8
1060	31	24	16	-3	-26	-58	-53	-123	-146	-156	-3
1070	-140	-107	-52	13	82	140	180	137	201	197	77
1080	183	164	142	121	103	86	72	61	51	41	77
1090	36	41	51	63	77	97	106	106	97	82	-27
1100	63	51	32	-3	-6	-16	-37	-37	-58	1620	-21
1110	-110	-146	-186	-215	-232	-231	-217	-192	-166	1630	45
1120	-156	-151	-155	-164	-174	-181	-176	-175	-170	1640	-26
1130	-164	-162	-137	-115	-96	-77	-61	-56	-61	-91	-120
1140	-102	-123	-137	-140	-135	-122	-104	-83	-81	-37	1650
1150	155	152	152	154	156	152	127	142	154	155	-6
1160	61	53	51	51	52	53	55	57	54	76	-93
1170	61	53	51	51	52	53	55	57	54	76	-93
1180	96	114	130	140	147	150	142	126	102	1700	52
1190	73	41	6	-21	-52	-70	-82	-72	-47	-11	23
1200	32	72	102	117	121	105	96	75	56	37	33
1210	23	11	3	-3	8	22	42	58	71	62	37
1220	45	18	-13	-46	-67	-82	-88	-87	-85	-76	61
1230	-65	-57	-56	-62	-76	-86	-91	-91	-85	-72	113
1240	-67	-43	-51	-67	-90	-113	-140	-165	-181	1760	-66
1250	-194	-186	-176	-156	-132	-107	-76	-47	-22	3	-41
1260	23	31	24	6	-12	-32	-40	-32	-17	-2	-6
1270	10	20	21	16	3	-3	-17	-37	-56	-62	72
1280	-62	-46	-26	-5	11	22	26	22	14	1	6
1290	-13	-26	-37	-46	-55	-51	-36	-12	20	52	85
1300	81	111	132	142	150	146	137	122	104	91	80
1310	77	63	51	41	37	33	41	46	61	70	-56
1320	76	82	83	87	94	101	101	92	76	57	-26
1330	34	17	8	7	16	27	43	57	71	87	-46
1340	99	110	112	98	70	28	-13	-56	-87	-106	-42
1350	-115	-117	-107	-101	-93	-85	-80	-77	-82	-80	6
1360	-72	-61	-41	-12	16	46	71	96	109	111	-33
1370	99	80	51	16	-21	-57	-87	-103	-105	-97	51
1380	-80	-58	-36	-11	16	28	41	37	23	3	35
1390	-39	-73	-110	-140	-150	-146	-125	-95	-56	-21	1910
1400	16	40	58	71	75	77	71	55	31	-4	107
1410	-37	-71	-87	-101	-99	-83	-61	-36	-13	4	-36
1420	18	35	55	76	93	100	96	85	63	36	-26
1430	7	-17	-36	-47	-55	-56	-56	-51	-47	-46	-28
1440	-47	-51	-52	-62	-72	-77	-77	-72	-62	-47	28
1450	-35	-22	-12	-3	6	18	31	46	51	56	42
1460	51	42	36	41	35	35	31	28	27	28	3
1470	35	43	53	66	76	82	81	70	52	23	16
1480	-5	-35	-61	-78	-86	-84	-82	-27	6	46	-67
1490	82	106	113	107	87	56	31	-3	-10	-15	-27
1500	-12	-3	-3	11	16	18	21	16	5	-3	-61
1510	-15	-31	-47	-61	-72	-80	-82	-82	-78	-70	1

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-123 E16N)										CONTINUED(F-123 E16N)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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2050	-5	8	18	27	31	31	28	23	18	13	2570	4	21	32	42	51	53	56	57	56	61
2060	16	18	26	41	57	74	91	103	111	113	2580	58	59	61	66	66	66	67	66	63	61
2070	104	92	71	46	26	-3	-17	-27	-43	-51	2590	53	53	52	45	44	45	46	52	56	66
2080	-53	-52	-51	-47	-41	-34	-24	-16	-3	4	2600	72	85	92	103	116	122	127	131	129	122
2090	16	26	41	48	57	63	64	56	38	23	2610	112	100	87	72	53	36	18	-3	-6	-17
2100	-3	-17	-41	-61	-71	-81	-91	-101	-102	-112	2620	22	22	26	22	-30	-31	-35	-39	-44	-48
2110	-114	-108	-100	-85	-71	-62	-61	-62	-73	-83	2630	57	61	61	62	-62	-61	-56	-51	-48	-48
2120	-92	-96	-88	-77	-57	-32	-8	16	36	57	2640	52	57	62	67	72	75	81	77	-83	-83
2130	76	96	106	115	121	116	101	81	52	25	2650	83	85	85	87	87	87	102	-101	-105	-97
2140	1	16	-25	-21	-17	-5	11	23	36	47	2660	-90	-80	-63	-47	-38	-22	-21	-14	-6	2
2150	61	73	85	91	91	87	82	67	56	41	2670	16	25	36	45	51	53	49	43	33	26
2160	23	8	1	-12	-21	-26	-26	-26	-25	-17	2680	16	8	-3	-3	-3	3	16	18	27	32
2170	-17	-16	-17	-21	-23	-23	-27	-27	-27	-16	2690	37	42	51	57	63	71	72	71	72	66
2180	-26	-24	-20	-17	-21	-21	-22	-22	-16	-16	2700	62	56	56	57	62	65	71	76	81	77
2190	-15	-12	-11	-11	-14	-11	-16	-17	-22	-34	2710	71	61	46	32	16	-3	-6	-14	-17	-14
2200	-41	-46	-47	-53	-51	-47	-41	-31	-16	-3	2720	-8	-6	-3	9	16	23	31	36	40	43
2210	18	38	56	73	81	85	82	76	71	61	2730	43	38	32	21	11	-3	-5	-11	-16	-21
2220	51	43	37	28	17	5	-4	-17	-22	-35	2740	-24	-22	-25	27	-26	-30	-27	-32	-36	-45
2230	-39	-41	-40	-37	-31	-21	34	45	51	56	2750	-53	-61	-62	-65	-66	-62	-62	-60	-56	-53
2240	33	33	32	31	32	34	38	45	51	56	2760	-51	-41	-36	-27	-26	-21	-16	-13	-8	-8
2250	56	51	43	39	33	28	28	29	27	28	2770	-12	-9	-6	-3	1	3	4	6	4	3
2260	27	27	27	23	18	11	3	-1	-8	-12	2780	-3	-17	-32	-45	-57	-62	-62	-62	-56	-41
2270	-16	-21	-22	-26	-26	-22	-20	-12	-6	3	2790	-27	-14	-3	5	12	18	23	25	26	26
2280	8	9	3	-5	-17	-37	-47	-67	-73	-80	2800	25	23	25	25	23	27	26	23	18	8
2290	-77	-72	-62	-56	-53	-56	-62	-67	-76	-77	2810	-3	-6	-11	-14	-14	-16	-12	-14	-11	-6
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2340	37	41	47	50	56	57	63	67	72	76	2860	-11	-8	-8	-15	-17	-25	-24	-23	-22	-21
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2380	23	28	36	41	42	37	30	18	-3	-12	2900	-17	-16	-18	-17	-17	-16	-11	-6	0	5
2390	-27	-41	-52	-62	-67	-73	-76	-82	-83	-83	2910	11	16	16	16	16	8	-3	-3	-11	-20
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2410	-51	-44	-36	-32	-27	-26	-31	-27	-47	-56	2930	-3	-1	-3	-3	-3	11	17	23	31	36
2420	-61	-57	-55	-45	-37	-27	-23	-22	-22	-27	2940	41	42	43	42	38	35	32	26	22	16
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2450	18	26	36	45	52	57	56	52	45	42	2970	16	16	16	16	18	23	25	26	23	21
2460	35	33	34	36	37	38	42	46	51	56	2980	16	9	8	11	18	23	32	42	49	52
2470	56	61	65	71	72	75	81	82	82	86	2990	16	9	8	11	16	18	23	32	42	49
2480	86	87	92	96	96	97	96	87	74	62	3000	50	51	41	37	33	32	28	23	16	5
2490	46	31	15	6	-3	-6	-14	-17	-19	-19											
2500	-22	-30	-37	-47	-56	-62	-62	-61	-56	-51											
2510	-41	-32	-26	-16	-11	-5	-4	-6	-12	-20											
2520	-31	-39	-47	-57	-61	-60	-57	-57	-55	-51											
2530	-46	-37	-30	-22	-13	-4	3	6	11	11											
2540	10	3	-3	-11	-16	-24	-26	-24	-22	-22											
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END

TO BE CONTINUED

ECRD = F-123 COMPONENT = UP STATION = KAWASAKI-F
 DATE AND TIME = 1988-3-18- 5-34 TOTAL NUMBER OF DATA = 3000
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ORIENTATION POINT IN DATA NUMBER = 3000.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	
0	-19	-10	1	17	1	-22	-46	-56	-51	-32	480	0	9	13	22	42	73	78	57	18	-11
10	-11	12	27	7	1	-22	-46	-56	-51	-32	490	-17	-17	-9	2	13	28	38	36	25	2
20	-2	49	103	130	118	52	-32	-80	-18	-31	500	-28	-28	-100	-137	-172	-192	-198	-182	-148	-107
30	-66	-81	-85	-87	-79	-40	10	57	78	96	510	-66	-59	-10	-6	-20	-41	-52	-46	-21	1
40	116	121	101	62	14	-17	-42	-60	-66	-61	520	23	23	2	-22	-51	-57	-57	-42	-38	-12
50	-55	-42	-28	-28	-31	-22	1	29	39	13	530	1	37	68	98	113	116	108	108	115	126
60	-11	-2	8	17	20	20	-1	-17	-6	22	540	128	141	140	133	127	110	88	81	113	126
70	23	8	-16	-22	-21	-38	-68	-88	-91	-81	550	7	7	-2	-12	-8	10	28	14	-2	-12
80	-78	-82	-77	-16	54	83	53	-7	-56	-62	560	-12	17	48	65	43	17	-4	-27	-32	-57
90	-32	-2	14	12	22	42	63	62	37	8	610	-126	-119	-130	-100	-52	-38	-68	-96	-76	-66
100	-2	-2	-1	-22	-27	1	117	114	80	52	620	-142	-115	-53	11	74	161	302	401	381	363
110	50	43	58	76	77	71	64	67	63	45	630	318	196	136	86	37	47	93	142	166	157
120	13	-17	-38	-37	-20	-7	-16	-42	-67	-90	640	126	78	38	24	-10	-62	-78	-52	-42	-46
130	-101	-101	-71	-17	13	15	8	23	48	68	650	19	42	108	186	251	276	296	287	248	200
140	68	63	62	43	10	-22	-46	-56	-73	-106	660	136	101	76	57	73	66	37	1	-40	-88
150	-129	-125	-82	-16	40	48	12	-46	-72	-65	670	-117	-111	-87	-65	-56	-71	-102	-142	-186	-195
160	-42	-16	7	18	32	45	48	47	54	71	680	-188	-162	-105	-57	-27	-1	17	-17	-12	-42
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180	-2	13	17	3	-12	-22	-32	-42	-61	-81	700	-100	-95	-96	-107	-110	-107	-90	-66	-32	2
190	-72	-40	0	30	49	53	47	37	27	17	710	18	14	7	-2	-12	-17	-11	1	24	39
200	-1	-18	-22	-32	-32	-21	3	24	29	20	720	44	33	5	-22	-36	-25	1	28	38	49
210	17	24	38	53	51	28	-2	-32	-46	-42	730	72	83	87	81	62	37	27	22	18	34
220	-37	-27	-17	-11	-11	-12	-11	-2	20	38	740	57	68	70	63	48	51	62	73	71	68
230	1	-5	19	62	93	88	58	19	-20	-46	750	66	53	38	27	17	3	-2	-17	-7	-7
240	-61	-57	-38	-15	-12	-26	-32	-17	0	1	760	17	37	44	37	25	37	57	63	57	37
250	-11	-20	-12	-17	-20	-11	1	2	1	2	770	11	-10	-42	-77	-90	-83	-66	-38	-2	23
260	39	83	107	111	93	68	43	22	-4	-16	780	43	55	63	56	56	57	26	0	-12	-19
270	-21	-21	-16	0	22	17	-8	-32	-37	-21	790	-22	-37	-62	-108	-152	-171	-166	-152	-111	-56
280	-12	-26	-47	-51	-22	-11	47	83	88	48	800	2	43	66	68	52	47	66	98	98	73
290	0	-17	-12	-2	-2	-11	-27	-49	-71	-72	810	42	17	-10	-31	-42	-38	-37	-38	-31	-21
300	-57	-62	-77	-77	-36	37	101	118	96	57	820	-12	7	13	18	22	12	-1	-19	-21	-18
310	22	12	-57	-92	-97	-77	-42	-12	7	22	830	-8	1	27	32	32	38	47	48	47	48
320	44	66	78	63	23	-22	-56	-62	-57	-57	840	57	64	58	38	17	1	0	-21	-47	-82
330	-58	-47	-27	5	23	17	-17	-60	-78	-71	850	-109	-119	-118	-111	-99	-82	-71	-67	-65	-52
340	40	-42	-22	-2	22	38	30	-17	-67	-86	860	-36	-20	-1	1	1	10	10	17	17	3
350	-70	-50	-32	-6	17	33	33	22	-17	-32	870	-12	-37	-57	-79	-81	-77	-65	-47	-39	-47
360	-10	30	67	83	83	84	96	100	108	98	880	-51	-47	-32	-10	17	41	62	63	51	40
370	68	31	7	-2	-7	-16	-22	-21	-2	27	890	37	37	37	33	27	23	39	71	101	131
380	62	98	133	158	176	168	143	113	96	76	900	156	171	186	182	181	166	148	133	113	86
390	43	0	-30	-41	-35	-28	-32	-36	-38	-32	910	54	38	31	24	9	2	-6	-12	-16	-11
400	-27	-22	-12	5	17	7	-2	2	3	8	920	-11	-7	1	23	22	9	-6	-22	-11	-52
410	-6	-42	-92	-147	-199	-222	-206	-160	-111	-72	930	-61	-66	-68	-58	-41	-21	-4	-7	-20	-27
420	30	13	38	33	12	-6	-25	-36	-15	33	940	-31	-37	-42	-48	-46	-42	-40	-30	-3	14
430	86	106	85	44	-1	-41	-56	-51	-46	-47	950	24	1	12	-22	-27	-28	-28	-35	-46	-46
440	-46	-31	-9	-4	-11	-11	0	7	-1	-6	960	-57	-78	-92	-103	-102	-81	-56	-31	-5	16
450	7	33	69	103	125	133	128	125	118	89	970	33	37	22	8	-2	-16	-21	-16	-4	1
460	33	-24	-51	-51	-42	-48	-48	-33	-4	17	980	1	-2	-16	-31	-47	-65	-62	-42	-21	-2
470	22	9	8	2	-16	-37	-46	-43	-30	-12	990	0	-11	-31	-41	-36	-31	-22	-8	1	22

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-123 UP)										CONTINUED(F-123 UP)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	29	37	28	22	8	2	8	13	17	27	1520	-16	0	13	27	22	10	7	3	12	18
1010	37	29	17	1	0	-10	-11	0	38	76	1530	25	28	22	9	2	-11	-28	3	12	18
1020	106	118	126	114	83	52	34	28	38	38	1540	-63	-67	-71	-70	-61	-46	-30	-16	-7	2
1030	59	78	88	90	71	48	23	10	-32	10	1550	8	19	27	27	28	28	27	28	28	27
1040	-40	-50	-46	-32	-26	-27	-22	-41	-45	-45	1560	13	-1	-11	-12	-10	-7	-4	-8	-10	-11
1050	-40	-32	-36	-38	-31	-27	-22	-14	2	22	1570	-22	-27	-31	-31	-25	-17	-11	-6	0	7
1060	33	34	28	19	8	-2	-8	-9	-12	-26	1580	1	2	-11	-20	-12	-1	17	33	51	58
1070	-47	-67	-79	-78	-72	-67	-56	-52	-46	-36	1590	66	66	59	50	39	33	27	17	5	2
1080	-22	-11	1	13	22	37	40	38	35	27	1600	0	-1	-2	-7	-11	-12	-10	-5	7	6
1090	22	0	-17	-27	-21	-6	4	7	-1	-1	1610	0	-17	-28	-23	-30	-26	-22	-17	-12	-7
1100	3	8	12	12	13	17	18	13	10	1	1620	-2	3	17	32	27	22	3	-10	-22	-27
1110	1	8	9	13	22	32	35	33	31	34	1630	-22	-12	-5	-6	-12	-17	-21	-18	-16	-18
1120	42	37	23	1	-12	-26	-32	-32	-39	-46	1640	-20	-22	-22	-22	-17	-6	-1	0	1	12
1130	-42	-37	-31	-30	-26	-29	-27	-20	-11	-1	1650	22	23	27	23	18	9	0	-7	-12	-2
1140	-2	-8	-11	-12	-16	-21	-32	-47	-57	-68	1660	0	8	1	17	22	27	28	25	23	28
1150	-75	-78	-77	-77	-79	-71	-65	-31	-11	1	1670	37	41	43	43	47	47	43	42	47	52
1160	13	27	40	47	48	48	48	47	47	39	1680	48	40	32	22	10	-1	-8	-18	-22	-2
1170	31	27	28	44	68	78	88	91	81	72	1690	-28	-32	-42	-53	-66	-72	-78	-81	-81	-78
1180	63	52	38	33	33	39	49	68	83	86	1700	-76	-67	-57	-47	-41	-40	-36	-38	-28	-21
1190	81	86	82	82	76	69	57	38	22	0	1710	-17	-16	-17	-24	-31	-36	-38	-38	-28	-12
1200	-14	-30	-40	-40	-52	-56	-52	-45	-36	-4	1720	2	13	13	22	13	19	23	23	22	26
1210	-35	-39	-41	-40	-40	-37	-41	-42	-40	-41	1730	32	27	22	12	1	-4	-1	7	18	28
1220	-52	-57	-62	-57	-42	-31	-16	-9	-12	-23	1740	32	32	28	24	27	28	31	28	22	22
1230	-22	-26	-22	-7	1	17	18	11	1	-10	1750	17	22	24	29	32	37	37	39	41	48
1240	-31	-47	-52	-42	-36	-31	-27	-22	-17	-12	1760	49	52	52	48	40	32	23	18	13	22
1250	-11	-16	-29	-42	-42	-28	-13	1	13	18	1770	23	27	28	34	37	38	38	32	23	10
1260	30	44	63	73	76	66	43	22	-1	-22	1780	2	-6	-11	-17	-22	-32	-47	-62	-67	-62
1270	-41	-49	-51	-42	-46	-37	-16	-6	2	-2	1790	-52	-46	-35	-22	-16	-14	-16	-21	-28	-31
1280	-19	-37	-52	-53	-46	-33	-20	-11	-10	-12	1800	-27	-21	-16	-6	-1	-2	-1	-6	-15	-21
1290	-17	-12	-12	-18	-22	-21	-12	-11	-11	-10	1810	-28	-28	-36	-36	-38	-37	-36	-41	-41	-37
1300	-2	2	17	27	38	53	66	77	79	76	1820	-32	-28	-17	-7	9	31	47	47	41	37
1310	58	40	32	28	28	38	49	57	58	57	1830	28	28	22	17	1	-9	-16	-21	-22	-27
1320	48	37	27	22	18	22	28	38	48	60	1840	-33	-32	-27	-17	-12	-17	-26	-27	-22	-21
1330	69	78	77	80	76	78	71	63	47	28	1850	-18	-21	-22	-22	-12	-12	-17	-26	-27	-21
1340	13	3	-7	-18	-27	-27	-20	-20	-16	-8	1860	1	1	0	-2	-12	-2	-1	1	1	1
1350	-4	7	3	-6	-15	-10	-2	1	13	1	1870	22	37	47	53	57	61	57	42	32	22
1360	-2	-22	-37	-42	-45	-46	-52	-68	-80	-82	1880	22	22	27	30	37	38	40	37	28	23
1370	-90	-93	-88	-72	-57	-37	-21	-1	23	38	1890	23	23	27	22	22	22	22	28	27	12
1380	37	22	-6	-27	-42	-51	-53	-57	-68	-77	1900	-2	-10	-11	-16	-15	-11	-11	-11	-10	-10
1390	-76	-65	-56	-47	-46	-46	-42	-38	-32	-31	1910	-6	-2	0	1	9	9	13	1	1	0
1400	-22	-18	-11	-9	-5	-2	-2	-5	-2	-2	1920	-6	-11	-12	-15	-16	-19	-28	-35	-31	-20
1410	-2	1	8	22	29	43	47	40	37	32	1930	-10	-11	-16	-21	-28	-32	-41	-42	-42	-32
1420	27	28	25	23	22	22	27	37	38	38	1940	-28	-17	-12	-8	-2	0	0	0	-1	1
1430	38	38	42	51	61	71	78	77	76	76	1950	0	-8	-11	-17	-18	-20	-16	-17	-15	-11
1440	73	66	59	52	47	38	37	23	7	7	1960	-2	8	13	22	28	33	38	43	38	34
1450	-7	-7	-5	-7	-7	-6	-5	-1	3	7	1970	37	37	38	43	42	38	37	37	38	35
1460	9	7	-1	-11	-22	-32	-46	-57	-57	-61	1980	37	28	22	17	14	18	14	8	3	-1
1470	-60	-61	-57	-50	-47	-47	-42	-35	-26	-22	1990	-8	16	22	25	26	26	22	27	28	-31
1480	-22	-30	-32	-36	-31	-26	-17	-6	3	15	2000	-31	-27	-25	-22	-21	-16	-15	-17	-24	-24
1490	18	15	7	-2	-6	-2	1	19	32	38	2010	-22	-21	-15	-18	-11	-14	-11	-11	-5	0
1500	41	48	53	59	58	57	48	37	31	30	2020	3	8	12	22	22	17	8	1	-8	-12
1510	23	15	1	3	-2	-16	-26	-32	-38	-32	2030	-16	-12	-6	-2	-2	-2	-9	-13	-16	-17

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (F-123 UP)										CONTINUED (F-123 UP)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-17	-17	-16	-9	-2	1	1	1	0	0	2560	22	24	28	25	20	12	8	7	7	3
2050	0	0	-1	8	-9	-9	-12	-15	-12	-11	2570	3	3	5	1	11	18	27	28	37	37
2060	-2	0	3	8	10	14	22	28	28	35	2580	32	23	17	1	1	-2	-6	-6	-2	-3
2070	48	58	66	71	69	68	66	58	43	29	2590	-1	2	3	8	17	22	27	28	28	27
2080	17	17	17	18	0	1	0	1	7	7	2600	19	13	3	-2	-9	-12	-13	-12	-15	-12
2090	1	7	17	18	0	2	-2	-8	-6	-7	2610	-16	-21	-22	-30	-28	-22	-19	-16	-16	-16
2100	-1	7	3	3	2	4	3	0	-2	-6	2620	-22	-27	-29	-32	-27	-26	-21	-17	-14	-12
2110	-22	-52	-53	-40	-41	-43	-42	-48	-52	-52	2630	-11	-6	-6	-7	-7	-7	-7	-10	-7	-9
2120	-52	-52	-42	-48	-42	-35	-25	-15	-11	-6	2640	-6	2	0	-1	3	1	12	13	1	1
2130	-10	-11	-11	-9	-2	0	1	1	1	1	2650	1	2	0	0	0	2	4	6	8	10
2140	-7	-7	-7	-7	-11	-6	-2	0	-2	-12	2660	13	17	18	23	27	28	28	27	28	27
2150	-17	-17	-17	17	22	28	40	48	49	43	2670	22	22	22	22	31	37	38	40	41	39
2160	22	22	18	10	3	2	-1	0	7	20	2680	32	23	22	9	8	1	7	1	1	1
2170	32	22	10	3	2	-1	0	-2	-2	-2	2690	0	-2	-2	-2	-1	-1	-1	-1	-2	-5
2180	22	16	11	1	1	1	0	-2	-6	-16	2700	-11	-18	-16	-17	-15	-11	-9	-11	-11	-12
2190	-23	-22	-25	-19	-9	1	10	18	18	12	2710	-16	-21	-24	-27	-30	-30	-31	-32	-40	-37
2200	1	-2	-16	-22	-22	-22	-21	-22	-25	-27	2720	-37	-42	-40	-29	-27	-27	-31	-36	-42	-42
2210	-25	-24	-24	-17	-16	-14	-20	-5	-2	-4	2730	-48	-42	-40	-38	-36	-35	-32	-27	-22	-17
2220	-9	-9	-5	2	13	22	27	34	37	31	2740	-11	-1	3	9	17	19	23	21	24	30
2230	27	23	22	15	15	17	23	30	32	30	2750	33	38	43	40	38	36	33	31	33	32
2240	28	21	18	13	9	17	2	2	2	4	2760	37	38	43	47	46	41	39	38	37	28
2250	3	5	7	8	13	18	16	13	9	1	2770	22	12	1	1	1	0	-2	-5	-2	0
2260	0	-6	-11	-12	-12	-11	-10	-10	-12	-12	2780	1	8	15	19	22	22	17	17	17	17
2270	-20	-22	-22	-29	-32	-38	-42	-42	-41	-37	2790	12	1	1	0	-2	-6	-2	-1	0	1
2280	-33	-32	-32	-31	-27	-17	-17	-16	-16	-12	2800	1	0	-1	-2	-8	-11	-12	-17	-16	-17
2290	-14	-17	-17	-18	-18	-12	-11	-12	-16	-17	2810	-24	-28	-32	-40	-47	-51	-51	-51	-52	-48
2300	-17	-12	-13	-11	-6	-2	-1	7	8	14	2820	-48	-47	-42	-37	-32	-28	-22	-17	-16	-13
2310	17	22	27	27	23	24	25	27	22	22	2830	-9	-2	7	8	9	8	10	8	1	1
2320	27	27	27	27	33	33	37	32	28	29	2840	-1	2	7	7	8	8	10	8	1	1
2330	28	33	35	37	32	27	23	22	18	14	2850	1	12	11	17	22	18	23	29	33	37
2340	12	1	1	1	1	1	1	1	1	1	2860	37	38	33	28	27	28	28	23	18	13
2350	0	-5	-7	-6	-10	-12	-12	-15	-12	-12	2870	8	3	7	7	7	-2	-11	-11	-12	-12
2360	-7	-2	-6	-6	-9	-7	-12	-12	-19	-22	2880	10	3	-1	-1	-2	-2	8	10	9	9
2370	-26	-28	-26	-25	-19	-16	-12	-11	-11	-14	2890	-11	-11	-6	-2	1	1	1	1	1	1
2380	-12	-18	-21	-21	-21	-17	-17	-16	-11	-9	2900	0	0	0	1	1	8	12	11	12	19
2390	-1	3	4	6	6	8	8	7	2	0	2910	1	-2	-7	-8	-6	-7	-10	-11	-12	-16
2400	-4	-7	-6	2	0	0	2	2	0	0	2920	-22	-26	-26	-27	-32	-32	-32	-30	-22	-16
2410	3	8	13	13	22	18	17	14	17	17	2930	-11	-1	7	8	7	7	5	1	1	1
2420	18	12	7	2	-1	-2	-6	-2	-8	-12	2940	0	-6	-7	-10	-9	-1	2	3	7	8
2430	-15	-12	-16	-18	-15	-11	-7	-2	-1	1	2950	17	17	13	9	3	2	-2	-2	-6	-6
2440	1	12	17	17	22	27	27	28	24	23	2960	-8	-7	-6	-2	0	8	12	16	17	18
2450	18	12	1	0	-2	-2	5	0	1	1	2970	18	22	17	12	8	4	7	9	13	18
2460	14	15	16	17	22	21	23	23	22	22	2980	18	22	18	17	13	4	0	-2	-4	-8
2470	17	10	1	1	6	2	-2	-1	0	-1	2990	-1	-12	-12	-15	-12	-6	-2	0	1	1
2480	-1	-2	-2	-4	-6	-5	-7	-5	-2	-10											
2490	0	2	2	3	3	3	2	-2	-2	-16											
2500	-20	-22	-26	-26	-22	-21	-16	-12	-11	-11											
2510	-12	-12	-12	-12	-11	-9	-6	-1	-1	-2											
2520	-4	-6	-7	-11	-11	-12	-17	-21	-28												
2530	-27	-28	-22	-20	-15	-11	-2	-1	2	5											
2540	-27	8	13	13	17	22	17	11	10	1											
2550	-1	-7	-14	-17	-17	-12	-9	0	10	17											

END

TO BE CONTINUED

ECORD = M-1195 COMPONENT = NORTH STATION = YAMASHITA-HEN-M
 DATE AND TIME = 1988-3-18-5-34 TOTAL NUMBER OF DATA = 2950
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ORIENTATION POINT IN DATA NUMBER = 1494, 2950, 2950.

CONTINUED(M-1195 NORTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	5	15	25	33	21	0	-15	-17	-6	7
10	25	38	32	14	-6	-28	-38	-43	-50	-51
20	-39	-29	-21	-12	3	6	6	6	7	2
30	-2	0	6	14	15	10	0	-8	-23	-27
40	-33	-35	-35	-35	-28	-26	-27	-18	-9	3
50	7	13	14	20	24	23	22	15	5	-8
60	-20	-33	-35	-35	-21	-26	-33	-34	-20	-5
70	9	-3	-13	-21	-26	-33	-34	-20	-5	8
80	17	28	33	40	48	48	38	24	12	5
90	-35	-35	-30	-15	9	16	13	6	6	7
100	-35	-35	-30	-15	9	16	13	6	6	7
110	18	24	13	-2	-17	-26	-35	-30	-21	-12
120	-9	-15	-25	-27	-17	-26	-35	-30	-21	-12
130	-10	-10	-10	-10	-6	10	24	31	32	32
140	31	24	22	15	7	-2	-9	-10	-10	-10
150	-17	-25	-27	-26	-28	-11	23	33	26	6
160	-13	-33	-33	-27	-22	-2	12	15	13	0
170	-14	-20	-27	-26	-22	-27	-27	-27	-26	-6
180	26	32	31	31	23	13	0	-1	-2	3
190	5	-11	-21	-21	24	22	28	33	28	20
200	11	15	21	24	0	-12	-18	-11	-7	2
210	7	15	12	14	14	19	30	21	13	-1
220	19	20	14	14	19	30	21	13	-1	-15
230	-26	-27	-27	-27	-17	-27	-27	-25	-7	11
240	28	30	11	-5	-17	-18	-18	-19	-13	9
250	-9	0	9	15	7	0	-18	-28	-26	-20
260	-2	7	5	-3	-9	-13	-20	-15	-4	4
270	8	19	31	31	32	31	32	31	23	5
280	-10	-23	-27	-32	-30	-26	-20	-6	6	6
290	22	21	10	-2	-13	-20	-32	-36	-35	-36
300	-34	-27	-22	-17	-19	-13	-7	1	14	28
310	37	41	30	17	8	3	-2	1	7	-2
320	-15	-28	-35	-41	-44	-36	-30	-23	-14	-2
330	15	24	21	13	4	-3	-13	-23	-27	-27
340	-26	-27	-22	-5	11	29	40	38	22	5
350	-10	-18	-25	-27	-25	-27	-25	-19	-13	-9
360	-10	-18	-25	-27	-25	-27	-25	-19	-13	-9
370	22	11	-4	-19	-27	-26	21	39	41	34
380	-8	0	8	27	29	19	7	-6	-20	-17
390	-26	-27	-26	-27	-26	-29	-36	-35	-30	-16
400	7	29	40	41	32	4	-18	-33	-35	-33
410	-11	23	28	12	0	-1	11	23	30	35
420	41	40	40	38	31	25	16	2	-7	-17
430	-31	-35	-35	-40	-52	-48	-26	-4	20	32
440	38	27	11	5	0	-6	-23	-33	-36	-28
450	-14	5	20	24	12	-12	-16	0	14	22
460	23	9	-12	-52	-35	-21	-1	31	41	37
470	19	-13	-17	-10	-2	0	-2	-6	-17	-17

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(M-1195 NORTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	-205	-218	-221	-220	-221	-202	-156	-133	-88	-35
1010	9	62	90	140	198	258	289	293	199	113
1020	43	-15	-30	-36	-138	-167	-177	-179	-171	-151
1030	-130	-109	-79	31	2	22	43	66	94	115
1040	125	124	124	116	91	66	38	15	-10	-30
1050	-39	-44	-43	-42	-33	-23	-12	-8	0	10
1060	22	23	25	38	52	73	87	84	69	59
1070	50	49	59	85	108	111	91	66	33	0
1080	-34	-67	-95	-117	-134	-145	-144	-145	-145	-145
1090	-138	-131	-118	-102	-74	-45	-11	25	66	119
1100	155	149	117	79	47	11	-9	-23	-27	-26
1110	-58	-58	-45	-29	-27	-48	-61	-70	-78	-76
1120	-69	-120	-68	110	89	60	43	26	16	7
1130	166	146	110	32	-40	-55	-69	-81	-96	-115
1140	6	-1	-16	-32	40	-85	-61	-34	-11	6
1150	-130	-136	-133	-116	-106	-85	-61	-34	-11	6
1160	22	43	77	109	147	173	188	147	90	46
1170	13	-9	-32	-54	-60	-61	-55	-41	-23	0
1180	20	37	54	70	82	93	108	116	112	98
1190	56	23	0	-26	-58	-85	-109	-127	-133	-112
1200	-69	-23	18	57	95	125	152	159	157	144
1210	105	62	24	0	-12	-17	-5	10	22	20
1220	5	-14	-31	-52	-66	-69	-69	-69	-69	-69
1230	-69	-69	-69	-69	-64	-46	-33	-18	-10	5
1240	25	37	48	66	94	109	123	121	90	56
1250	25	-4	-22	-41	-52	-56	-73	-78	-77	-69
1260	-56	-42	-22	6	26	40	53	63	78	91
1270	90	82	74	68	58	48	37	28	21	9
1280	6	-26	-40	-55	-59	-29	-5	17	38	81
1290	89	75	45	12	-7	-28	-56	-70	-63	-60
1300	-58	-41	-30	-15	3	36	59	95	108	107
1310	96	61	28	4	-13	-21	-37	-21	-14	-9
1320	-74	-97	-116	-122	-129	-127	-129	-126	-121	-97
1330	-52	-29	-7	35	74	103	123	125	123	116
1340	162	-153	-104	-59	0	-34	-57	-80	-112	-142
1350	95	63	39	0	-34	-57	-80	-112	-142	-142
1360	-162	-153	-104	-59	0	-34	-57	-80	-112	-142
1370	273	301	311	310	309	283	242	174	78	8
1380	-48	-90	-130	-163	-177	-180	-169	-141	-114	-78
1390	-45	4	48	80	97	98	88	71	37	7
1400	-16	-40	-66	-91	-107	-108	-96	-70	-45	-23
1410	1	27	40	40	40	38	32	26	22	25
1420	32	40	53	57	58	48	27	6	11	-27
1430	-35	-36	-30	-30	-43	-56	-68	-71	-59	-44
1440	-37	-34	-34	-40	-44	-48	-38	-16	-4	-4
1450	15	32	42	55	72	86	89	74	57	39
1460	9	-17	-62	-72	-61	-55	-49	-38	-39	-39
1470	-19	18	70	90	130	163	173	176	161	142
1480	116	86	57	31	2	-28	-58	-69	-95	-72
1490	-50	-45	-26	-10	3	9	11	-1	-11	-26
1500	-43	-58	-77	-98	-112	-113	-113	-113	-113	-113
1510	-108	-95	-58	-31	-22	-8	2	14	25	39

TO BE CONTINUED

CONTINUED(M-1195 NORTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1520	48	57	64	63	64	63	64	55	33	20
1530	7	-6	-25	-42	-49	-55	-51	-46	-43	-28
1540	-10	3	15	26	40	60	73	90	103	106
1550	106	97	88	72	40	24	12	3	-5	-12
1560	-14	-27	-28	-36	-46	-45	-46	-45	-37	-25
1570	-7	15	37	56	77	94	150	173	173	171
1580	152	129	98	60	16	-18	-60	-93	-121	-144
1590	-55	-155	-155	-149	-137	-108	-80	-48	-24	-11
1600	26	48	59	63	64	50	32	19	3	-13
1610	-36	-59	-78	-94	-108	-114	-109	-95	-58	-24
1620	2	5	30	47	49	60	63	63	63	63
1630	58	36	19	9	-2	-15	-33	-37	-37	-35
1640	-21	8	6	30	43	67	90	105	114	114
1650	111	96	73	46	22	0	-27	-49	-74	-99
1660	-113	-124	-136	-138	-138	-138	-139	-124	-90	-24
1670	9	37	66	95	114	123	121	109	92	81
1680	80	80	81	76	65	59	42	31	17	2
1690	-3	-3	-3	2	7	13	13	13	12	0
1700	-6	-17	-34	-50	-59	-70	-70	-76	-80	-78
1710	-65	-45	-26	-11	-2	7	20	35	49	66
1720	73	64	36	4	-30	-54	-76	-100	-112	-112
1730	-79	-41	-17	9	32	53	76	93	105	100
1740	89	75	65	61	52	45	39	38	38	37
1750	30	30	30	23	20	13	0	-10	-19	-20
1760	-25	-29	-28	-36	-37	-37	-37	-37	-37	-37
1770	-37	-37	-37	-37	-37	-37	-37	-38	-47	-54
1780	-62	-70	-71	-71	-71	-65	-50	-41	-33	-26
1790	-18	-7	2	11	23	37	53	67	83	96
1800	104	117	123	122	123	121	115	105	86	57
1810	21	-3	-26	-40	-52	-63	-61	-45	-32	-14
1820	0	8	13	18	22	20	14	4	-5	-11
1830	-15	-36	-48	-54	-50	-44	-37	-24	-9	2
1840	21	34	50	56	62	54	43	32	20	10
1850	0	-11	-29	-44	-52	-54	-54	-54	-54	-47
1860	-45	-46	-43	-33	-29	-24	-14	-4	-3	-3
1870	-3	-3	-4	-2	-7	-12	-16	-41	-46	-45
1880	-46	-43	-37	-32	-22	-11	-2	-5	8	38
1890	51	66	72	72	70	58	39	30	30	29
1900	30	30	30	30	29	30	29	30	25	20
1910	16	6	-3	-8	-14	-19	-26	-38	-36	-43
1920	-46	-45	-44	-37	-37	-35	-28	-29	-28	-22
1930	-14	-4	7	27	29	33	45	58	72	95
1940	120	128	139	155	145	120	97	74	51	34
1950	21	2	-26	-52	-68	-71	-70	-72	-61	-46
1960	-22	-6	18	33	39	38	38	38	39	35
1970	29	30	30	20	6	-3	-16	-27	-34	-38
1980	-37	-37	-37	-37	-28	-17	-5	3	16	22
1990	21	10	1	-2	-6	-12	-11	-12	-11	-12
2000	-29	-37	-36	-41	-46	-45	-45	-46	-41	-27
2010	-17	-5	12	27	37	47	46	48	40	28
2020	19	6	-10	-30	-48	-62	-61	-44	-33	-27
2030	-17	-1	16	41	73	94	114	127	143	156

TO BE CONTINUED

CONTINUED (M-1195 NORTH)										CONTINUED (M-1195 NORTH)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	156	129	101	71	43	14					2560	-41	-47	-43	-33	-21	-9	5	20	31	40
2050	-82	-104	-118	-120	-101	-83	-63	-55	-11	-37	2570	51	62	70	72	72	64	42	21	0	-17
2060	-43	-34	-27	-21	-12	2	5	13	13	-45	2580	-35	-56	-67	-86	-96	-103	-105	-98	-85	-64
2070	13	13	13	13	13	13	13	13	13	13	2590	-48	-32	-18	-4	5	21	30	37	39	35
2080	12	16	28	37	46	46	39	36	29	21	2600	26	15	7	0	-7	-15	-24	-32	-39	-45
2090	8	-6	-16	-31	-44	-53	-66	-72	-78	-79	2610	-46	-45	-46	-42	-33	-21	-7	0	13	26
2100	-79	-67	-49	-38	-26	-13	4	21	29	36	2620	45	66	72	82	89	88	89	78	65	54
2110	45	40	33	21	13	4	-13	-25	-40	-48	2630	38	28	15	0	-13	-29	-36	-45	-54	-54
2120	-60	-74	-94	-94	-86	-76	-52	-40	-25	-8	2640	-54	-54	-54	-54	-54	-54	-54	-54	-54	-49
2130	6	12	22	30	29	30	29	29	29	22	2650	-42	-35	-27	-14	-1	12	22	28	30	29
2140	21	22	18	8	4	4	6	19	25	30	2660	22	15	7	1	-11	-19	-23	-28	-33	-37
2150	29	36	38	38	38	38	38	38	38	34	2670	-41	-46	-46	-46	-45	-46	-45	-44	-44	-44
2160	21	13	2	-6	-14	-23	-32	-38	-47	-57	2680	-37	-37	-30	-21	-9	-3	-2	4	11	13
2170	-67	-77	-94	-105	-104	-105	-102	-89	-74	-58	2690	12	13	12	14	7	4	4	5	0	-4
2180	-36	-18	5	29	41	53	55	62	63	51	2700	-2	-5	-12	-19	-21	-16	-11	-12	-8	0
2190	35	14	-1	-13	-26	-38	-46	-53	-60	-63	2710	4	11	21	33	56	63	64	60	50	37
2200	-95	-46	-44	-34	-27	-12	1	11	25	38	2720	15	-1	-10	-20	-21	-28	-28	-29	-28	-29
2210	56	88	80	78	58	44	30	19	0	2730	-28	-29	-26	-19	-8	5	23	30	29	30	
2220	-10	-17	-21	-27	-29	-29	-26	-19	-20	-20	2740	30	25	15	0	-16	-20	-23	-29	-28	-36
2230	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	2750	-40	-51	-55	-51	-39	-29	-21	-18	-12	-12
2240	16	22	21	11	-2	10	-18	-28	-28	-37	2760	-12	-12	-12	-12	-12	-11	-15	-22	-27	-33
2250	-33	-28	-25	-12	6	31	42	65	60	80	2770	-37	-39	-46	-36	-37	-37	-37	-37	-37	-37
2260	78	69	54	32	21	21	21	14	13	12	2780	-37	-37	-37	-38	-32	-28	-30	-37	-37	-37
2270	4	-1	-4	-3	-3	-4	-4	-9	-17	-21	2790	-93	-73	-14	-8	-3	-3	-3	-3	2	10
2280	-20	-20	-20	-20	-20	-20	-20	-13	-4	1	2800	13	17	27	37	38	38	38	38	38	38
2290	14	21	24	32	36	38	38	38	38	37	2810	38	37	22	9	-2	-20	-35	-47	-54	-53
2300	31	25	19	9	-1	-10	-19	-24	-29	-28	2820	-54	-52	-45	-46	-33	-16	0	17	34	45
2310	-29	-28	-29	-28	-29	-28	-29	-28	-29	-24	2830	59	66	72	71	63	51	39	32	22	10
2320	-19	-21	-11	1	21	44	47	45	52	55	2840	-3	-16	-26	-29	-35	-38	-37	-37	-35	-22
2330	58	64	64	53	34	25	15	5	-2	-3	2850	-4	-2	10	21	21	21	21	27	28	3
2340	-4	0	8	17	22	21	21	21	21	21	2860	-20	-32	-43	-46	-45	-46	-40	-34	-29	-13
2350	21	13	13	11	4	5	2	-4	-10	-16	2870	6	18	22	20	25	30	29	29	31	39
2360	-31	-37	-43	-46	-45	-46	-45	-45	-45	-45	2880	35	30	25	14	0	15	-55	-48	-54	-54
2370	-37	-30	-29	-30	-29	-26	-20	-15	-6	0	2890	-54	-54	-46	-34	-25	-20	-20	-20	-21	-17
2380	23	30	30	29	30	30	30	29	39	39	2900	-11	-13	-10	-19	-29	-31	-38	-36	-33	-34
2390	37	42	47	46	47	46	47	46	47	46	2910	-29	-25	-19	-21	-20	-13	-4	-3	-3	-4
2400	39	36	30	24	13	-2	-11	-18	-21	-20	2920	-3	-7	-18	-27	-28	-30	-37	-37	-41	-41
2410	-29	-26	-20	-20	-14	-9	-3	-3	-3	-3	2930	-46	-45	-45	-37	-37	-35	-28	-29	-26	-20
2420	-3	-2	4	3	-7	-22	-36	-44	-45	-45	2940	-14	-10	-4	-1	7	13	13	13	13	11
2430	50	-55	-53	-55	-51	-43	-37	-29	-14	6											
2440	29	43	59	74	81	71	63	47	37	30											
2450	17	6	-4	-16	-29	-42	-54	-54	-54	-54											
2460	38	38	31	-24	-20	-10	-2	8	26	36											
2470	38	38	38	38	38	38	38	38	38	38											
2480	4	-2	-10	-20	-28	-29	-28	-32	-37	-40											
2490	-45	-45	-45	-50	-58	-63	-62	-62	-55	-45											
2500	-30	-10	11	57	46	50	54	42	36	28											
2510	19	12	6	0	-4	-3	-3	-3	-4	-4											
2520	0	7	17	24	30	29	30	30	30	30											
2530	29	30	29	30	26	21	21	22	16	12											
2540	13	12	13	12	13	7	4	4	4	4											
2550	4	4	8	13	12	12	-2	-19	-33	-37											

TO BE CONTINUED

END

RECORD = M-1195 COMPONENT = EAST STATION = YAMASHITA-HEN-M
 DATE AND TIME = 1988- 3-18- 5-34 TOTAL NUMBER OF DATA = 2950
 AMPLIFYING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR ACC
 ORIENTATION POINT IN DATA NUMBER = 1494, 2950, 2950,

CONTINUED (M-1195 EAST)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	
480	-26	-14	6	17	27	28	15	5	-3	-16											
490	-23	-29	-32	-31	-31	-23	-10	4	1	7											
500	10	12	8	3	-4	-1	23	-18	2	3											
510	-14	-28	-39	-41	-37	-29	-23	-18	4	-5											
520	4	23	42	55	55	56	52	40	28	4											
530	-19	-44	-49	-49	-49	-43	-34	-31	-32	-31											
540	-26	-15	-5	6	27	53	80	76	47	21											
550	-1	-19	-32	-38	-42	-37	-31	-18	1	25											
560	49	70	92	108	127	134	129	121	114	35											
570	100	71	48	39	37	38	37	43	47	35											
580	28	30	49	56	49	36	28	21	20	29											
590	42	47	54	43	20	-5	-34	-55	-71	-106											
600	-129	-143	-160	-179	-180	-180	-179	-172	-171	-164											
610	146	-112	-76	-45	-26	-8	8	26	41	47											
620	45	49	56	54	35	25	13	4	-21												
630	-41	-56	-58	-57	-58	-57	-64	-78	-98	-119											
640	135	-145	-145	-145	-145	-145	-145	-145	-145	-135											
650	-125	-108	-92	-75	-44	-16	-18	-56	-63	-116											
660	-129	-121	-117	-111	-107	-92	-67	-43	-14	48											
670	108	148	188	231	252	257	255	258	241	196											
680	132	60	-14	-88	-156	-228	-258	-252	-206	-206											
690	-145	-74	-9	81	147	248	314	395	548	558											
700	362	354	322	281	229	171	65	-41	-128	-218											
710	-212	-239	-216	-152	-103	-68	-33	21	88	122											
720	148	151	159	159	143	114	27	-66	-146	-208											
730	-290	-339	-266	-179	-124	-65	0	65	97	112											
740	108	89	62	20	-18	-44	-49	-49	-49	-49											
750	-50	-59	-86	-110	-127	-126	-129	-90	-36	42											
760	124	159	233	256	238	189	130	79	10	-13											
770	-29	-19	5	25	35	10	-37	-69	-121	-166											
780	-191	-165	-90	-21	14	39	47	47	39	21											
790	-4	-41	-50	-37	-15	6	12	11	11	19											
800	52	95	128	165	178	178	173	162	107	59											
810	40	18	-8	-36	-69	-120	-154	-212	-262	-329											
820	-315	-214	-131	-47	-5	43	72	110	162	217											
830	267	317	341	337	284	193	99	-25	-160	-239											
840	-270	-305	-335	-322	-284	-238	-165	-27	99	189											
850	338	473	508	435	357	274	149	18	-57	-94											
860	-133	-144	-161	-184	-195	-206	-142	-49	17	94											
870	171	208	213	205	178	138	79	2	-61	-169											
880	276	308	272	116	-29	67	173	272	329	333											
890	312	246	192	160	149	152	146	120	65	-2											
900	-67	-160	-224	-222	-202	-136	-96	-68	-71	-86											
910	-112	-120	-103	-71	-44	-29	-31	-24	1												
920	31	86	130	143	140	123	101	58	26												
930	12	1	-5	-20	-38	-66	-110	-146	-176	-184											
940	-154	-104	-57	-20	14	21	18	0	-15	-23											
950	-7	18	40	55	55	43	33	27	18	4											
960	-9	-34	-53	-80	-99	-86	-54	-9	22	45											
970	44	21	-12	-38	-38	-22	-3	11	23	29											
980	9	-4	-5	-5	-1	36	97	151	188	194											
990	193	180	162	132	82	27	-24	-82	-152	-180											

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (M-1195 EAST)										CONTINUED (M-1195 EAST)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	-180	-175	-153	-129	-107	-80	-45	-16	9	45	1520	109	96	69	39	18	2	-4	-4	-4	-4
1010	64	85	103	108	104	83	35	-12	-61	-131	1530	-2	13	29	42	56	51	37	20	0	-17
1020	-176	-180	-162	-138	-116	-90	-56	-24	1	30	1540	-21	-13	-10	1	11	20	22	21	27	46
1030	53	69	92	106	109	101	80	53	5	-33	1550	58	82	112	142	184	187	156	118	85	47
1040	-51	-48	-50	-41	-16	18	66	100	135	154	1560	12	-23	-45	-63	-80	-92	-100	-100	-100	-100
1050	164	169	168	149	113	80	55	-5	-55	-86	1570	99	92	-62	-69	-49	-30	21	-21	-21	-21
1060	132	-159	-171	-171	-171	-161	-149	-121	-103	-64	1580	-21	-21	-19	-10	0	20	38	40	47	47
1070	-9	38	88	128	142	152	142	124	88	40	1590	37	25	20	13	13	13	13	15	25	37
1080	3	-39	-58	-79	-101	-116	-118	-107	-86	-83	1600	45	48	48	46	31	15	5	-13	-35	-38
1090	-59	-34	0	30	56	93	132	153	165	163	1610	-39	-38	-39	-37	-46	-84	-104	-109	-108	-109
1100	143	139	105	38	-21	-75	-121	-145	-139	-119	1620	-99	-91	-88	-81	-75	-61	-44	-31	-6	4
1110	-101	-78	-37	-3	22	43	69	83	91	88	1630	10	26	40	57	65	62	48	39	29	19
1120	78	63	32	-2	-36	-49	-49	-49	-49	-49	1640	12	13	12	22	33	45	57	79	70	-2
1130	-49	-46	33	-2	-5	7	22	28	-4	-39	1650	88	93	86	78	64	47	38	25	11	-2
1140	-61	-61	-92	-79	-54	-50	-71	-102	-109	-83	1660	-15	-27	-30	-30	-30	-30	-29	-18	2	19
1150	-55	-26	2	31	51	55	55	55	61	71	1670	25	31	30	31	19	5	-3	-9	-17	-24
1160	81	89	90	77	56	27	-9	-60	-107	-141	1680	-30	-38	-39	-38	-39	-38	-39	-38	-39	-28
1170	-158	-162	-162	-163	-147	-124	-82	-40	-25	32	1690	-6	4	6	16	22	35	55	56	43	18
1180	112	176	198	211	213	204	192	160	116	65	1700	-3	-20	-28	-31	21	22	18	4	5	0
1190	18	-27	-54	-70	-103	-114	-87	-49	-7	30	1710	5	4	3	10	21	22	18	4	5	0
1200	65	93	123	138	144	140	134	125	127	110	1720	-4	-7	-13	-12	-13	-4	-4	-2	4	4
1210	49	-1	-43	-67	-92	-105	-111	-109	-102	-101	1730	4	4	4	4	-1	-20	-33	-42	-63	-91
1220	-101	-102	-100	-86	-61	-26	4	34	59	64	1740	-109	-108	-109	-100	-80	-60	-37	-16	5	31
1230	63	64	63	64	56	55	52	43	20	-4	1750	49	73	96	115	134	135	135	123	106	90
1240	-15	-10	-9	-25	-40	-47	-53	-65	-77	-104	1760	69	50	33	15	-1	-22	-39	-51	-57	-58
1250	-120	-107	-91	-65	-37	-25	-9	-6	-1	9	1770	-69	-74	-73	-60	-40	-31	-30	-21	-6	-3
1260	33	47	56	65	72	70	64	60	54	49	1780	-6	-14	-23	-30	-38	-38	-45	-48	-47	-39
1270	36	20	6	-7	-14	-14	-14	-14	-15	-22	1790	-33	-20	0	13	24	42	63	75	82	87
1280	-22	-23	-19	0	19	53	89	120	127	114	1800	93	82	64	45	26	12	-3	-21	-21	-22
1290	68	28	-5	-29	-40	-45	-54	-74	-111	-145	1810	-17	2	18	25	37	51	58	63	77	83
1300	-165	-177	-180	-180	-179	-168	-148	-128	-114	-82	1820	83	67	40	22	-4	-24	-47	-75	-100	-109
1310	-44	-17	3	36	58	65	89	99	88	81	1830	-108	-109	-102	-91	-80	-64	-41	-17	10	31
1320	81	82	70	16	-41	-63	-79	-104	-111	-93	1840	58	79	83	83	79	66	55	39	20	5
1330	-54	-23	-7	-4	-8	-19	-42	-48	-40	-23	1850	-9	-26	-44	-59	-73	-82	-83	-75	-40	-24
1340	7	35	57	72	90	90	100	109	123	122	1860	-18	-12	-13	-13	-8	0	4	4	-3	-18
1350	116	111	85	66	37	1	-39	-61	-78	-85	1870	-26	-34	-39	-38	-39	-38	-39	-40	-29	-40
1360	-83	-83	-83	-48	-20	0	16	32	48	59	1880	-6	1	11	21	27	47	65	82	96	96
1370	83	91	97	103	109	102	87	55	12	-25	1890	101	101	96	43	38	29	12	-2	-17	-39
1380	-52	-67	-94	-111	-108	-96	-77	-42	-31	-91	1900	-48	-47	-47	-47	-47	-38	-29	-21	-20	-11
1390	-22	-12	-4	-7	0	2	2	-26	-61	-92	1910	2	6	12	16	22	21	22	22	14	13
1400	-110	-111	-92	-44	-4	20	23	30	28	28	1920	10	3	-11	-11	-27	-50	-21	4	42	74
1410	14	3	-5	-14	-23	-36	-48	-50	-56	-61	1930	94	108	117	123	131	144	143	145	124	91
1420	-71	-76	-63	-85	-74	-36	-7	16	29	29	1940	69	45	16	-24	-51	-67	-62	-83	-89	-94
1430	28	16	2	10	-14	-14	-14	-14	-14	-7	1950	-74	-28	0	43	67	86	111	126	115	103
1440	-4	18	32	45	47	55	53	33	11	11	1960	84	58	22	-5	-23	-48	-81	-103	-124	137
1450	-23	-47	-50	-43	-24	-5	-8	-16	-28	-33	1970	-145	-163	-145	-110	-69	-19	13	39	54	70
1460	-19	5	31	66	94	110	89	59	28	1	1980	77	90	90	68	46	46	46	46	46	46
1470	-12	-25	-43	-49	-53	-63	-79	-97	-108	-110	1990	-47	-48	-43	-32	-23	-19	-4	7	15	24
1480	-110	-98	-81	-66	-49	-34	-21	-9	-1	8	2000	33	39	39	38	44	48	48	48	36	16
1490	12	11	11	11	6	3	5	-1	-18	-30	2010	-1	-3	5	13	23	30	24	13	4	4
1500	-38	-44	-61	-80	-97	-100	-92	-83	-56	124	2020	4	14	34	54	54	44	36	29	20	11
1510	-25	-1	23	40	60	85	111	132	136	124	2030	4	4	4	5	0	-19	-27	-36	-41	-39

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(M-1195 EAST)										CONTINUED(M-1195 EAST)												
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
2040	-39	-37	-30	-30	-30	-17	-2	9	21	22	2560	-21	-21	-21	-21	-21	-21	-21	-21	-15	-9	
2050	21	23	15	-2	-12	-25	-30	-30	-30	-30	2570	-21	9	13	17	22	21	22	21	22	22	22
2060	-30	-29	-21	-22	-11	1	8	13	18	22	2580	22	21	10	4	4	11	22	13	13	6	-3
2070	23	43	58	45	39	34	26	16	9	-3	2590	-18	-22	-21	-21	-21	-21	-21	-21	-21	-21	-21
2080	-4	-20	-31	-30	-38	-39	-39	-38	-39	-38	2600	-22	-19	-12	-12	-14	-21	-21	-21	-21	-21	-21
2090	-39	-27	-20	-22	-15	-6	1	7	13	19	2610	-21	-21	-21	-11	6	13	12	14	8	8	
2100	22	29	52	62	66	74	74	63	54	43	2620	4	4	4	3	-3	-4	0	3	10	-25	
2110	32	16	3	-6	-20	-28	-30	-36	-40	-47	2630	-33	-39	-38	-39	-38	-39	-37	-30	-30	-30	
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2140	60	66	54	29	9	-11	-30	-43	-52	-70	2660	-39	-38	-39	-37	-29	-19	-7	5	18	22	
2150	-94	-101	-85	-87	-60	-26	-4	16	35	53	2670	21	22	21	16	8	-2	-18	-31	-39	-47	
2160	70	75	69	63	51	40	25	7	-8	-22	2680	-51	-60	-65	-64	-51	-30	-14	3	26	47	
2170	-31	-39	-38	-39	-30	-18	-8	3	14	26	2690	63	73	75	74	75	72	66	60	46	24	
2180	33	46	60	71	82	74	62	52	38	27	2700	6	-11	-22	-21	-21	-21	-21	-21	-21	-22	
2190	18	6	-10	-28	-40	-55	-76	-95	-104	-109	2710	-15	-9	12	24	30	31	24	11	-2	-14	
2200	91	-72	-57	-38	-23	-10	9	24	31	30	2720	-28	-38	-39	-39	-39	-39	-39	-39	-39	-38	
2210	31	26	20	14	5	-5	-21	-49	-58	-71	2730	-39	-38	-39	-34	-29	-30	-23	-21	-21	-21	
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2230	22	21	25	31	23	11	0	-10	-20	-27	2750	-21	-16	-6	4	12	21	21	25	31	32	
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2300	59	50	36	26	15	3	-8	-19	-22	-19	2820	-33	-45	-56	-65	-65	-65	-65	-65	-65	-102	
2310	-7	8	20	26	34	39	39	39	39	32	2830	-93	-87	-78	-72	-58	-35	-23	-16	-5	-3	
2320	19	10	1	-5	-13	-23	-29	-33	-39	-38	2840	6	18	22	21	22	22	22	21	15	8	
2330	-39	-38	-39	-39	-38	-39	-38	-44	-46	-47	2850	2	-3	-6	-19	-22	-21	-21	-21	-21	-21	
2340	-48	-43	-34	-30	-26	-21	-20	-12	-7	2	2860	-14	-7	2	4	4	4	-2	-6	-12	-14	
2350	4	4	4	4	4	4	4	4	3	9	2870	-21	-23	-30	-30	-38	-39	-39	-39	-38	-39	
2360	28	45	48	48	46	38	30	21	13	13	2880	-38	-39	-36	-30	-25	-21	-18	-7	-3	-4	
2370	13	13	6	4	0	-5	3	5	13	12	2890	-4	-4	-4	-4	-3	-4	-3	-6	-18	-24	
2380	16	23	30	30	35	45	48	48	48	40	2900	-31	-24	-21	-21	-21	-21	-21	-21	-22	-18	
2390	23	6	-9	-25	-34	-39	-38	-39	-39	-37	2910	-6	0	8	13	13	12	14	7	4	1	
2400	-28	-18	-5	4	4	4	4	4	4	4	2920	-8	-21	-31	-37	-39	-38	-39	-38	-39	-36	-36
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2420	-13	-12	-13	-8	-2	3	7	14	11	17	2940	-29	-21	-12	3	17	32	47	35	57	56	
2430	13	-9	-26	-35	-42	-48	-47	-47	-48	-42												
2440	-38	-38	-30	-29	-7	-17	-27	-36	-39	-39												
2450	20	9	0	-7	-17	-27	-36	-44	-48	-48												
2460	-38	-33	-21	-8	4	19	44	64	65	65												
2470	66	74	74	74	74	74	75	82	83	82												
2480	74	63	47	27	10	0	-3	-7	-13	-13												
2490	-7	3	13	25	38	56	65	63	49	39												
2500	6	-11	-28	-38	-39	-39	-39	-39	-39	-39												
2510	-39	-38	-39	-32	-20	-13	-10	-3	-11	-21												
2520	-21	-28	-30	-30	-30	-30	-30	-30	-30	-30												
2530	-50	-51	-38	-39	-39	-39	-39	-39	-39	-39												
2540	-39	-39	-39	-39	-39	-39	-38	-28	-21	-10												
2550	6	13	13	13	9	-1	-16	-22	-21	-21												

END

TO BE CONTINUED

RECORD = M-1195 COMPONENT = UP STATION = YAMASHITA-HEN-M
 DATE AND TIME = 1988-3-18-5-34 TOTAL NUMBER OF DATA = 2950
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC. ONECTION POINT IN DATA NUMBER = 1494, 2950, 2950.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	CONTINUED (M-1195 UP)										
0	-21	-39	-30	-19	0	35	69	71	41	7	480	24	25	10	-19	-59	-87	-75	-22	29	50
10	-23	5	55	35	-10	-23	16	-5	-48	-86	490	-39	-75	-11	51	43	13	17	40	81	69
20	-67	-13	32	30	11	3	-2	12	5	-12	500	27	-8	-25	-20	9	23	-18	-90	-63	0
30	-12	-5	-5	-6	-5	-16	34	43	0	-37	510	34	13	-36	-56	-26	15	32	2	-29	-48
40	-45	33	28	-29	-35	-30	-36	-35	-42	-38	520	-34	-4	17	12	4	-3	-11	-29	-34	-24
50	-22	27	9	-26	-45	-44	-18	-28	-23	10	530	-25	-25	-25	-25	-13	26	45	39	22	13
60	5	-20	-48	19	31	-14	-30	-39	-16	-3	540	21	39	77	67	44	24	11	6	38	32
70	-15	-26	-20	-14	15	-16	-27	-23	-34	-1	550	-3	-23	-26	-24	-36	-44	-3	48	68	54
80	27	7	-16	-44	23	43	10	0	5	18	560	24	15	26	42	29	8	-37	-7	26	43
90	6	5	-28	-52	-54	2	22	-5	11	43	570	44	46	65	84	83	64	10	-34	-18	1
100	66	45	16	-8	-28	-34	-4	-5	-7	-67	580	5	-2	1	17	-2	-18	31	50	0	-14
110	-31	-14	-7	33	35	46	29	10	2	27	590	-1	13	5	-33	-34	-26	-25	-25	-57	-59
120	62	60	39	37	60	67	43	-9	-44	-57	600	-24	-6	13	34	44	40	15	39	84	68
130	47	-33	-8	4	-6	1	43	73	47	-8	610	36	15	6	3	7	16	6	-15	25	4
140	-51	-38	39	57	26	3	5	2	-22	-35	620	2	-38	-44	-18	13	17	-14	-42	-42	-20
150	-37	-11	33	7	-12	-37	-53	-63	-54	-41	630	13	37	11	-3	22	44	50	-1	-38	-57
160	-40	30	45	11	-1	1	28	72	62	3	640	-41	-9	17	32	34	-14	-37	-1	37	0
170	-36	-78	-41	-2	-39	-69	-63	-10	20	42	650	-66	-70	-41	1	41	64	40	33	20	5
180	19	-8	-30	34	31	-40	-23	39	49	0	660	5	3	5	0	-9	-32	-7	27	7	-25
190	-41	-65	-39	-2	11	-9	-45	-10	12	-33	670	-52	-65	-60	-25	-37	-56	-47	-23	1	25
200	-60	-46	-23	-26	-26	-8	18	37	64	4	680	36	45	39	9	13	47	80	101	73	30
210	15	-16	-41	-35	-32	-11	6	37	61	10	690	-7	-47	-50	-26	-56	-58	-43	-30	-23	-5
220	-54	-85	-37	25	34	62	76	70	41	-3	700	18	35	55	72	82	77	48	-17	-55	-48
230	-35	-51	-38	-34	-23	14	23	6	7	6	710	-32	-3	-10	-36	-47	-39	-34	-36	-33	-25
240	-18	22	57	39	11	-14	-13	6	7	-3	720	-25	-26	-24	0	32	30	-13	-58	-70	-20
250	-94	-62	24	42	8	-10	-25	-8	2	8	730	-27	-80	-109	-80	-46	8	68	102	86	31
260	2	-44	-50	-13	5	36	49	56	30	-44	740	-17	-55	-42	24	31	6	-4	-7	-19	22
270	-103	-82	-29	12	22	9	56	103	90	67	750	71	92	95	70	28	-3	-23	-26	-20	1
280	23	-26	-46	6	45	51	-5	-44	-28	-27	760	14	14	17	35	56	65	56	46	17	-18
290	-54	-40	-24	-51	-55	-21	0	23	57	80	770	-61	-69	-17	-86	-82	-64	-45	-19	2	26
300	99	75	17	-13	-45	-36	11	45	37	-1	780	49	68	44	-1	-13	25	50	74	44	17
310	-29	-63	-80	-98	-66	-12	19	33	4	-24	790	-17	-31	-24	-22	-7	-5	-12	-30	-52	-69
320	-10	44	63	20	-15	-36	-20	-56	-59	28	800	-78	-85	-82	-67	-50	-29	-14	6	8	-19
330	0	-50	-51	-15	20	68	81	61	32	10	810	-25	4	50	80	96	120	108	69	38	8
340	-13	-28	-45	-62	-9	50	90	86	36	-4	820	-20	-24	-15	2	5	-32	-52	-81	-94	-96
350	-37	-56	-70	-42	32	81	76	32	-15	-23	830	-80	-80	-80	-80	-80	-80	-80	-80	-80	-80
360	-13	-34	-98	-89	-2	38	39	12	7	16	840	-3	-25	-32	-6	2	-18	-40	-77	-69	-23
370	13	15	13	16	9	-4	-23	-36	-34	-29	850	33	11	12	2	15	27	43	45	44	44
380	-8	20	51	73	69	37	-2	-50	-34	-1	860	-61	-12	-9	-23	-25	-13	3	25	15	24
390	-14	-26	-16	6	13	-4	0	15	-1	-56	870	23	-46	-40	-34	-44	60	78	92	62	39
400	-44	-3	20	22	2	-6	0	4	-6	-21	880	-25	-46	-40	-34	-44	60	78	92	62	39
410	-43	-61	-89	-59	5	57	72	51	26	-2	890	36	23	20	14	11	-6	-27	-43	-45	-44
420	-17	-39	-43	-14	25	35	11	-33	-45	-30	900	35	27	20	14	11	-6	-27	-43	-45	-44
430	-25	-21	-6	14	40	56	26	-6	-32	-46	910	-61	-12	-9	-23	-25	-13	3	25	15	24
440	-41	-32	-25	-13	0	23	33	10	-13	-36	920	23	-46	-40	-34	-44	60	78	92	62	39
450	-51	-56	-44	-21	-15	-15	-15	-15	-15	-14	930	-56	-54	-45	-37	-31	-23	-12	3	18	31
460	-19	-25	-26	-13	9	45	60	24	-2	17	940	-77	-44	-20	-5	-10	-30	-36	-36	-36	-35
470	-1	-43	-27	20	-7	-25	28	48	31	25	950	63	85	56	7	33	20	40	65	78	85
480	-19	-45	-27	20	-7	-25	28	48	31	25	960	-73	-104	-125	-110	-110	-68	-68	-38	-12	7
490	10	4	4	4	4	4	4	4	4	4	970	10	4	4	4	4	4	4	4	4	4
500	10	4	4	4	4	4	4	4	4	4	980	10	4	4	4	4	4	4	4	4	4

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (M-1195 UP)													CONTINUED (M-1195 UP)												
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)				
1000	64	42	33	35	33	11	-17	-27	-10	19	1520	0	0	0	-9	-18	-10	-2	14	21	17				
1010	32	14	-12	-31	-35	-35	-35	-35	-35	-33	1530	6	-10	-27	-37	-39	-45	-54	-66	-69	-71				
1020	-19	2	37	56	51	33	15	15	14	31	1540	-61	-27	1	19	20	12	9	10	10	10				
1030	18	-12	-36	-53	-63	-74	-75	-76	-63	-39	1550	10	10	10	10	18	32	59	60	60	48				
1040	-13	23	46	64	63	48	37	21	4	-3	1560	14	-6	-20	-30	-29	-25	-29	-29	-29	-30				
1050	-12	-17	-6	5	3	5	0	-6	6	22	1570	-38	-39	-28	-5	14	21	15	9	4	-5				
1060	39	61	72	77	85	76	60	36	7	-22	1580	59	-9	-2	12	20	19	11	0	-21	-30				
1070	-47	-34	-19	8	31	50	68	76	84	69	1590	-29	-30	-29	-11	14	11	2	0	1	1				
1080	56	52	45	32	1	-5	11	14	15	0	1600	0	0	-3	-33	-30	-8	-13	-28	-29	-29				
1090	-27	-33	-25	-19	-10	0	16	24	31	35	1610	-30	-46	-48	-32	-6	20	19	20	20	20				
1100	43	43	14	-11	-44	-55	-29	-31	-51	-71	1620	20	21	33	40	41	36	27	19	25	25				
1110	-100	-92	-67	-36	0	49	71	75	67	61	1630	31	29	35	45	58	60	61	55	44	22				
1120	58	-31	-32	-59	-83	-61	-31	-6	-17	-42	1640	0	-23	-38	-47	-50	-49	-44	-37	-30	-30				
1130	1140	17	36	33	35	34	26	23	24	25	1650	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29				
1140	4	4	4	4	5	-7	-45	-56	-71	-55	1660	-30	-28	-33	-46	-55	-64	-70	-69	-69	-69				
1150	13	4	4	4	5	4	54	56	40	12	1670	-69	-70	-63	-56	-50	-43	-34	-23	-13	10				
1160	29	60	74	67	63	64	54	54	40	-22	1680	25	31	28	36	31	12	5	1	19	20				
1170	-2	-6	-1	4	12	9	-17	-32	-28	-22	1690	20	20	20	20	20	19	10	9	0	0				
1180	-14	-16	-6	-6	18	17	17	13	15	3	1700	0	0	-9	-19	-18	-6	1	0	0	0				
1190	-18	-26	-20	-9	-9	-15	-16	-12	-10	-26	1710	0	0	0	1	10	10	10	10	10	10				
1200	-18	0	19	28	39	45	44	44	45	38	1720	10	10	9	2	-3	-16	-27	-41	-50	-45				
1210	30	19	0	-17	5	37	61	64	41	18	1730	-20	5	11	9	1	0	-6	-30	-57	-60				
1220	2	-12	-29	-33	-23	-14	2	13	14	-5	1740	-59	-60	-59	-50	-49	-37	-29	-30	-29	-29				
1230	17	34	6	5	3	12	13	-9	-5	24	1750	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29				
1240	1	-30	-36	-35	-52	-54	-42	-28	-17	-11	1760	10	10	1	-14	-29	-44	-50	-50	-43	-28				
1250	12	41	40	13	5	-2	-15	-24	-25	-14	1770	-18	-8	2	10	10	12	20	19	21	21				
1260	-18	-23	-47	-55	-55	-53	-40	-28	-17	-14	1780	13	9	4	-5	-10	-18	-19	-19	-24	-24				
1270	-15	-14	-16	-4	19	15	14	22	35	23	1790	-30	-28	-30	-24	-26	-33	-40	-50	-59	-60				
1280	13	6	-9	-16	-30	-41	-46	-44	-46	-44	1800	-49	-28	-8	10	20	15	4	-1	-8	-21				
1290	-48	-13	14	31	54	54	25	24	24	15	1810	-38	-43	-61	-48	-51	-43	-39	-34	-27	-20				
1300	-10	-26	-34	-22	3	18	25	24	24	15	1820	-18	-9	-10	-2	0	4	11	9	10	10				
1310	14	14	23	24	25	23	33	29	15	-1	1830	10	10	10	9	11	-11	-30	-28	-31	-24				
1320	-30	-36	-17	17	24	24	24	17	8	2	1840	-19	-13	0	9	10	10	10	10	10	11				
1330	-11	-16	-25	-14	11	30	43	53	44	18	1850	0	1	9	10	2	-8	-10	-16	-23	-29				
1340	-7	-41	-34	-4	24	50	71	74	66	28	1860	-22	-4	15	20	20	20	20	20	20	14				
1350	1	12	14	20	35	41	48	21	-17	-30	1870	8	17	20	20	19	2	-21	-32	-40	-32				
1360	-42	-32	-26	-23	-14	6	15	13	5	-3	1880	-20	-19	-20	-12	-8	-10	-18	-20	-12	-9				
1370	-5	10	50	66	64	65	64	50	39	28	1890	-9	-10	7	0	-14	-32	-40	-39	-39	-40				
1380	9	-13	-26	-25	-25	-25	-24	-31	-49	-58	1900	-39	-40	-34	-29	-29	-29	-21	-11	-6	0				
1390	-68	-76	-73	-61	-56	-48	-33	-25	-25	-42	1910	0	0	0	-16	-30	-28	-16	1	10	10				
1400	-46	-44	-31	-24	-25	-25	-25	-25	-25	-25	1920	10	4	-6	-18	-20	-18	-2	19	31	29				
1410	-23	-14	0	13	15	5	-6	-4	0	13	1930	30	29	39	18	70	55	27	9	15	15				
1420	9	3	4	4	-1	-10	-18	-26	-24	-26	1940	13	9	3	-18	-36	-49	-50	-49	-50	-44				
1430	-20	-12	0	17	29	40	52	60	85	61	1950	-41	-52	-42	-30	-29	-31	-22	-9	3	-3				
1440	45	31	15	2	-12	-27	-35	-35	-35	-35	1960	-26	-30	-26	-19	-19	-20	-14	-8	-11	-19				
1450	-35	-36	-32	-14	-5	2	14	28	34	25	1970	-20	-13	-5	4	1	10	10	10	10	10				
1460	5	-6	-3	11	27	39	45	44	44	44	1980	3	0	0	0	7	11	10	10	10	19				
1470	44	45	54	54	55	47	32	16	2	-8	1990	10	12	21	31	46	60	58	44	14	-8				
1480	-23	-25	-25	-25	-18	-8	12	14	21	2000	-19	-9	9	10	10	10	10	10	10	7	-5				
1490	30	35	33	36	32	28	18	3	-4	-14	2010	-39	-21	1	1	5	-7	-20	-16	0	-3				
1500	-19	-29	-39	-43	-50	-49	-50	-50	-44	-25	2020	-9	-13	-20	-19	-20	-19	-19	-19	-19	-18				
1510	-6	13	27	37	42	33	30	26	13	5	2030	-11	-2	7	-3	-9	-19	-19	-11	-9	-10				

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (M-1195 UP)										CONTINUED (M-1195 UP)												
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
2040	-5	5	15	21	20	20	10	10	0	-3	2560	-9	-16	-20	-19	-20	-17	-8	0	8	10	
2050	10	20	15	9	10	10	9	0	0	0	2570	10	10	10	10	10	10	10	10	10	9	0
2060	-7	-10	-9	-9	-10	-4	2	0	6	6	2580	-6	-15	-20	-19	-19	-19	-19	-19	-19	-19	-19
2070	0	13	-20	19	-20	19	-20	-17	-9	-9	2590	-19	-19	-23	-31	-28	-36	-39	-45	-50	-49	-19
2080	0	11	9	20	16	9	10	1	1	1	2600	-50	-48	-42	-32	-29	-27	-19	-13	-7	-1	-1
2090	15	21	19	21	17	10	10	10	9	9	2610	3	9	17	20	11	9	1	-6	-12	-19	-19
2100	11	7	0	0	0	-7	7	1	-7	-12	2620	-19	-19	-19	-19	-19	-19	-19	0	11	9	-2
2110	-27	-37	-27	-18	-20	-19	-20	-19	-20	-15	2630	10	10	10	10	10	10	10	10	10	9	-2
2120	-1	4	10	2	9	-27	-30	-29	-35	-41	2640	-13	-20	-19	-20	-13	-8	-2	7	11	3	3
2130	-38	-46	-50	-49	-50	-48	-36	-29	-18	-24	2650	-9	-8	-13	-20	-19	-20	-19	-19	-19	-19	-19
2140	-30	-25	-16	10	-2	0	0	7	10	10	2660	-19	-19	-19	-19	-19	-19	-20	-19	-28	-29	-29
2150	14	21	20	19	10	10	10	9	13	20	2670	-29	-29	-29	-29	-29	-30	-26	-19	-20	-19	-19
2160	20	20	20	19	27	40	39	27	24	38	2680	-19	-19	-19	-20	-18	-10	-9	-10	-3	0	0
2170	39	49	71	64	59	63	83	96	65	49	2690	2	12	3	0	0	6	11	10	10	10	10
2180	33	35	40	14	-10	-9	-9	-8	7	4	2700	8	0	0	0	0	0	0	-6	-10	-18	-20
2190	0	0	0	0	0	1	19	31	29	31	2710	-19	-20	-12	-8	-16	-20	-12	-9	-2	1	-1
2200	13	-8	-19	-7	3	19	36	53	61	46	2720	0	0	0	0	0	-6	-15	-19	-27	-30	-30
2210	0	0	0	0	0	-25	-10	-17	-5	1	2730	-29	-30	-29	-29	-29	-29	-29	-29	-29	-21	-11
2220	0	-26	-30	-29	-30	-25	-10	-17	-5	1	2740	4	6	19	20	20	12	9	10	10	10	10
2230	-6	-25	-28	-19	-20	-16	0	0	0	0	2750	10	8	0	0	0	0	0	0	0	0	0
2240	-17	-20	-18	7	26	31	25	12	9	14	2760	0	0	0	0	0	0	0	0	0	0	2
2250	26	38	48	58	61	55	59	45	38	41	2770	10	10	10	8	-5	-22	-30	-26	-19	-13	-13
2260	42	28	19	15	9	3	0	0	1	0	2780	-6	0	0	0	0	0	0	-6	-16	-20	-20
2270	39	42	28	19	15	9	3	0	1	0	2790	-27	-30	-29	-29	-29	-29	-30	-26	-18	-12	-12
2280	6	12	21	16	9	10	10	10	11	20	2800	-7	0	0	0	0	0	0	0	0	9	10
2290	19	20	19	21	2	-12	-21	-30	-38	-40	2810	10	10	10	10	10	10	9	1	0	0	0
2300	-39	-39	-30	-29	-30	-38	-40	-39	-33	-18	2820	0	0	-4	-12	-20	-19	-27	-30	-29	-29	-29
2310	-2	3	10	10	10	10	10	10	9	11	2830	-29	-29	-29	-28	-11	6	11	4	0	0	0
2320	4	0	-8	-20	-19	-21	-29	-29	-30	-25	2840	0	-2	-11	0	12	8	0	-13	-20	-19	-19
2330	-19	-18	-8	1	10	10	4	7	9	9	2850	-19	-19	-16	-4	0	9	10	10	4	0	0
2340	-9	-10	-5	0	1	10	10	10	10	10	2860	10	9	16	12	-1	-7	-10	-9	-9	-9	-9
2350	10	10	19	20	20	20	20	13	7	0	2870	-9	-12	-20	-18	10	21	12	9	10	9	9
2360	0	0	-2	-17	-22	-30	-29	-29	-29	-29	2880	11	5	-1	-9	-22	-31	-40	-49	-49	-49	-49
2370	-29	-29	-30	-24	-15	-8	2	14	21	21	2890	-49	-42	-30	-19	-20	-19	-20	-13	-9	-4	-4
2380	19	26	30	22	12	-1	2	-10	-30	-37	2900	1	0	1	0	1	-7	-6	0	6	11	11
2390	-41	-35	-29	-28	-17	-5	12	18	9	1	2910	9	11	9	17	21	20	20	20	20	20	20
2400	0	0	0	0	0	0	0	0	5	11	2920	20	19	22	32	41	33	29	19	9	11	11
2410	9	10	10	10	10	10	9	11	6	5	2930	2	0	0	0	-7	-10	-9	-9	-9	-9	-9
2420	11	9	18	20	20	20	20	20	19	21	2940	-9	-9	-10	-4	2	-11	-29	-43	-50	-57	-57
2430	14	1	0	5	13	19	22	29	34	41												
2440	40	40	41	51	60	51	46	35	17	5												
2450	0	0	0	6	13	19	21	15	9	10												
2460	10	10	10	10	10	10	10	10	5	-1												
2470	6	10	10	9	11	19	26	23	17	3												
2480	0	-2	-15	-37	-52	-44	-32	-17	-8	-10												
2490	-9	-6	7	10	10	10	4	-7	-16	4												
2500	-20	-19	-20	-19	-20	-15	-5	5	11	10												
2510	10	10	10	10	10	10	10	10	10	10												
2520	7	-1	-8	-10	-7	10	19	20	12	10												
2530	1	-11	-19	-19	-19	-19	-19	-19	-19	-19												
2540	-18	-20	-17	-10	-8	0	5	15	20	20												
2550	20	20	20	21	16	9	11	3	0	-8												

END

TO BE CONTINUED

RECORD = M-1200 COMPONENT = NORTH STATION = TOKACHI-M
 DATE AND TIME = 1988-5-7-10-59 TOTAL NUMBER OF DATA = 3000
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ONECTION POINT IN DATA NUMBER = 1501, 3000, 3000,

CONTINUED (M-1200 NORTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
480	122	185	236	188	138	87	23	23	35	-1										
490	-44	-62	-57	-34	-13	0	27	55	31	-3										
500	-43	97	-103	-81	-94	-78	-61	-37	-4	28										
510	68	146	163	111	47	-29	-67	-45	-10	-27										
520	-71	-96	-89	-78	-57	-45	-27	-52	-48	129										
530	136	102	64	9	-19	-6	-17	-52	-89	-80										
540	-40	-20	104	107	84	55	20	-24	-88	-140										
550	-102	-27	10	58	71	25	-11	-35	-23	-39										
560	-71	-79	-44	-8	50	123	122	84	46	18										
570	2	0	-6	-4	6	27	56	92	83	10										
580	-68	-135	-184	-179	-133	-82	3	77	72	34										
590	-1	-27	-21	-4	8	15	9	0	10	36										
600	49	66	82	54	23	21	23	18	-65	-121										
610	-114	-79	-70	-92	-121	-87	-58	19	87	107										
620	59	3	-49	-32	51	81	56	20	1	12										
630	38	50	28	2	2	1	-23	-1	38	-8										
640	-31	-75	-28	61	104	71	21	-13	-58	-56										
650	-25	-9	-9	-30	-53	-69	-59	-40	-47	-11										
660	1	-7	3	15	24	49	62	36	3	-30										
670	-65	-97	-111	-95	-37	7	70	110	179	179										
680	122	42	14	33	9	-30	-78	-120	-121	-68										
690	0	16	-24	-68	-109	-59	-36	-40	-30	-10										
700	21	42	62	77	102	135	182	181	133	91										
710	42	-11	-57	-99	-142	-194	-200	-157	-147	-78										
720	22	-4	-67	-43	35	81	83	-5	-81	-78										
730	-62	-30	19	67	95	87	51	19	6	-29										
740	-47	-67	-89	-109	-133	-151	-174	-172	-154	-99										
750	41	72	96	84	144	189	197	157	120	77										
760	33	-18	-14	22	27	4	-15	-29	-16	-21										
770	-39	-44	-68	-49	15	63	21	-20	-52	-80										
780	-32	20	53	60	20	-16	-23	20	56	108										
790	136	95	50	-2	-33	-51	-67	-68	-23	3										
800	1	7	44	92	138	90	25	34	-88	-124										
810	-155	-138	-103	-62	-60	-64	-36	1	37	75										
820	127	149	116	93	65	35	12	22	62	25										
830	-29	-56	-87	-85	-27	-5	12	17	16	17										
840	6	-20	-60	-63	-39	-1	18	32	6	-60										
850	-91	-63	-25	-10	12	30	31	36	40	3										
860	31	13	20	67	28	-11	-65	-36	48	114										
870	100	44	2	-29	-52	-70	-50	-32	-27	-35										
880	21	-4	16	56	40	-12	-77	-58	27	65										
890	25	-18	-39	-19	-26	78	94	50	18	17										
900	38	36	2	-31	-83	-65	-26	20	64	42										
910	17	22	41	24	2	4	21	48	34	1										
920	-8	-12	-5	-8	-6	-8	-5	-28	-62	-110										
930	-82	-27	11	60	61	33	23	59	72	83										
940	78	52	7	-49	-66	-34	-28	-17	-16	-24										
950	-17	-15	-10	7	-14	-27	-39	-37	-39	-59										
960	29	60	55	48	6	-8	1	36	4	0										
970	-17	-39	-56	-64	-40	-8	9	3	-2	-45										
980	-80	-16	59	93	122	130	116	100	82	50										
990	19	-13	-47	-61	-33	-10	-5	-16	-8	-1										

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(M-1200 NORTH)

CONTINUED(M-1200 NORTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	-16	-45	-57	-49	-16	-8	-32	-16	25	54	1520	6	-30	-50	-61	-36	-1	44	28	4	-15
1010	45	10	-14	-35	-61	-81	-65	-39	-9	3	1530	-30	-38	-45	-44	-45	-45	-35	-13	8	25
1020	21	33	4	15	27	-2	14	45	95	99	1540	36	29	22	15	8	-4	-11	1	-2	-18
1030	67	42	12	-13	-15	5	26	37	0	19	1550	-21	-21	-18	17	23	-5	-32	-51	-68	-69
1040	-38	-82	-93	-84	-58	-42	-17	0	16	0	1560	-55	-52	-46	-45	-40	-32	-8	18	51	66
1050	46	69	100	98	86	72	57	56	57	69	1570	42	16	-1	-19	-31	-36	-26	-11	-14	7
1060	73	62	-9	-21	0	-2	-27	-56	-68	-79	1580	5	-23	-15	-13	-13	-12	-13	-10	2	9
1070	-79	-63	-39	-9	17	-1	-8	-7	-1	15	1590	13	21	32	35	27	17	9	-9	-29	-44
1080	51	79	80	60	30	3	-11	-15	-21	-30	1600	-54	58	-39	-2	7	-7	-21	-29	-28	-15
1090	-24	-7	0	0	28	29	0	-25	-50	-67	1610	-4	-13	-35	-55	-67	-58	-43	-3	30	40
1100	-50	8	22	53	53	75	118	80	20	20	1620	18	-23	-42	-6	23	-22	-42	-55	-63	-45
1110	-47	-133	-155	-131	-102	-69	-33	-2	-9	-45	1630	-37	-22	5	19	14	-6	-19	-21	-16	0
1120	-72	-39	62	108	81	55	34	15	-6	-17	1640	11	2	-10	-13	-11	-5	-24	-5	3	16
1130	-8	-1	1	42	56	30	8	-3	-13	-19	1650	27	25	16	6	-5	-24	-42	-53	27	25
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1290	-84	-74	-4	-28	61	57	29	40	96	119	1810	-7	-3	5	25	45	46	23	-2	-29	-40
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1500	-36	-39	-57	-41	-31	-13	13	19	-10	-53	2020	-45	-30	0	29	39	42	10	2	4	23
1510	-72	-57	-13	52	73	-8	-55	-103	-92	-19	2030	48	68	69	40	13	-21	-44	-47	-18	19

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(M-1200 NORTH)										CONTINUED(M-1200 NORTH)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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2050	-22	-24	-3	13	24	27	18	11	11	5	2570	-11	-13	-13	-13	16	18	10	11	10	11
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2070	17	26	26	15	9	4	-7	-17	-39	-1	2590	35	25	10	-1	-11	-14	-20	-15	-11	-5
2080	26	30	35	33	11	-2	-3	19	53	38	2600	-5	3	18	24	8	8	-18	-14	20	24
2090	11	30	-10	-14	-10	-6	11	36	22	3	2610	2	-17	-13	20	35	34	34	23	11	24
2100	5	-10	-14	12	7	1	8	26	18	5	2620	6	2	3	2	2	3	2	9	22	41
2110	-4	-6	12	12	7	1	8	26	18	5	2630	52	46	30	18	21	27	22	18	19	12
2120	2	3	-4	-5	-14	-20	9	33	10	-11	2640	10	10	11	6	2	3	-9	-27	-27	-32
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2480	-26	0	11	-15	-20	-23	-29	-34	-43	-43											
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2500	-33	-25	-17	-7	-4	10	32	25	2	-5											
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2520	-13	-18	-12	-4	-11	-16	-13	-12	-13	-15											
2530	17	16	13	4	0	-8	-13	-31	-42	-14											
2540	18	39	42	32	19	8	-4	-4	-15	-26											
2550	-28	-28	-18	-6	-2	3	2	3	2	-3											

END

TO BE CONTINUED

CONTINUED (M-1200 EAST)												CONTINUED (M-1200 EAST)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
1000	58	8	-32	-78	-91	-53	-9	35	10	-25	1520	8	-3	-12	-19	-28	-52	-70	-69	-59	-44		
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1080	-23	-23	32	21	123	153	134	83	39	-12	1600	-57	-57	-83	-64	4	45	91	104	82	44		
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1480	70	45	15	-13	-32	-44	-39	-29	-9	10	2000	26	12	-25	-43	-42	-25	41	76	83	52		
1490	25	32	32	25	15	-6	-3	23	39	49	2010	2	-35	-54	-41	-16	25	32	35	24	20		
1500	22	-21	-40	-93	-139	-165	-116	-34	62	34	2020	7	-14	-25	-40	-59	-34	-2	9	18	24		
1510	67	28	-6	-33	-39	-27	15	61	59	36	2030	29	18	6	-16	-40	-54	-59	-49	-26	11		

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (M-1200 EAST)										CONTINUED (M-1200 EAST)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	48	67	44	6	-42	-55	-53	-49	-22	4	2560	15	7	-1	-9	-14	-12	-16	-21	-28	-27
2050	0	-11	-22	-14	23	25	18	-4	-43	-67	2570	-13	4	26	-24	16	2	-9	-17	-28	-29
2060	-80	-52	38	73	102	89	59	10	-36	-36	2580	-30	-29	-30	22	-8	6	17	20	20	21
2070	-93	-54	-37	-25	-14	2	20	28	36	37	2590	16	10	17	29	26	0	-24	-38	-31	0
2080	34	6	-6	-13	-5	13	20	11	-2	-41	2600	24	29	24	10	-3	-11	-11	-1	3	-8
2090	-32	-1	22	31	19	-8	-2	-31	-38	-38	2610	-14	2	25	29	28	28	16	11	12	18
2100	-45	-44	-44	-37	-24	0	23	47	55	47	2620	29	26	19	12	12	24	30	23	5	-6
2110	39	16	-11	-20	-18	-1	-4	-2	-22	-36	2630	-14	-8	-4	-4	-4	-4	3	3	3	-5
2120	-28	4	-4	-4	-4	-4	-4	-4	-4	-4	2640	-12	-19	-22	-17	13	52	74	58	31	7
2130	27	36	37	37	44	45	45	44	36	35	2650	-9	-21	-21	-9	4	3	4	-3	-13	-12
2140	-22	-47	-64	-74	-48	-48	8	27	38	33	2660	-13	0	21	29	28	29	28	28	29	28
2150	23	19	14	6	-23	-49	-61	-68	-44	-44	2670	29	26	10	2	6	12	17	23	28	29
2160	-12	11	26	40	44	36	10	-6	-21	-1	2680	28	29	25	18	10	1	-8	-17	-18	-8
2170	-20	-27	-30	-29	-30	-29	-30	-28	-31	-13	2690	-4	1	4	2	4	2	8	13	62	72
2180	5	55	100	80	44	9	-20	-46	-34	-17	2700	37	18	-8	-20	-21	-21	-13	-5	6	13
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2200	-4	-4	4	20	19	11	12	12	8	-15	2720	20	21	14	11	12	11	12	11	12	11
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2230	52	56	41	11	-9	-25	-35	-47	-32	-21	2750	35	12	-2	-12	-11	-1	7	13	5	-11
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2350	0	-25	-42	-55	-63	-65	-44	-7	20	36	2870	-21	-21	-21	-22	-20	-13	-6	-2	9	23
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2370	27	27	20	-10	-32	-30	-32	-25	-23	-22	2890	28	29	28	29	24	15	2	-12	-13	-13
2380	-15	-4	1	7	8	20	34	42	56	60	2900	-6	0	8	19	26	31	38	45	46	53
2390	45	21	-16	-57	-77	-84	-69	-34	-3	24	2910	54	53	61	62	63	53	37	22	20	20
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2470	-6	2	11	20	23	27	19	13	-1	-22	2990	-5	-4	-5	-4	-5	2	11	23	32	46
2480	-38	-42	-56	-30	-26	-3	27	25	11	-1											
2490	-16	-20	-21	-15	-11	-12	-11	-13	-3	3											
2500	4	3	9	13	3	-4	-3	-4	-7	-5											
2510	-4	5	12	12	11	22	35	45	44	32											
2520	15	-12	-41	-60	-62	-18	21	43	45	27											
2530	8	0	-13	-1	19	28	24	7	-8	-21											
2540	-11	5	22	29	29	24	15	7	-4	-14											
2550	-20	-22	-29	-30	-20	-5	9	21	19	21											

TO BE CONTINUED

END

CONTINUED (M-1200 UP)										CONTINUED (M-1200 UP)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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1010	-67	-39	18	53	49	59	24	-33	-49	-46	1530	-25	22	-6	14	22	-13	-52	-31	-42	-47
1020	-60	-29	-10	19	31	36	40	-6	-15	-5	1540	-12	-24	-23	-37	45	1	25	2	-22	-30
1030	-19	-17	-15	-17	-10	-15	-6	57	64	20	1550	9	18	-23	-24	-21	-13	-13	6	49	6
1040	6	7	8	8	45	20	10	32	32	18	1560	29	16	16	16	29	-32	-30	-23	-23	-24
1050	-8	-36	-57	-43	-21	6	31	26	20	6	1570	-20	-16	-26	7	0	-22	-19	-8	-7	-7
1060	-14	-48	-51	-48	-26	18	57	86	61	19	1580	-7	-6	-17	-39	-45	-24	-5	-7	-1	22
1070	-29	-78	-81	-53	-31	-30	26	24	3	3	1590	22	-16	-59	76	-68	-24	27	51	59	33
1080	-29	-24	8	29	0	8	-3	-25	-15	-26	1600	2	29	-51	-79	-51	-19	9	-8	-4	-27
1090	75	50	2	33	6	-16	-37	-48	-31	44	1610	-29	22	33	-3	-20	-19	9	-4	-27	-19
1100	27	3	-12	17	49	42	31	25	31	21	1620	-41	-27	8	16	-22	-17	-29	-31	-23	-13
1110	-8	-2	22	-35	-35	14	-10	0	-12	6	1630	-3	6	4	-12	-22	-36	-40	-39	-40	-23
1120	-5	-3	3	-3	38	63	19	2	-42	-15	1640	-23	-33	-27	-18	-37	-67	-51	-49	-21	1
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1140	28	65	18	-1	-17	-58	13	31	68	57	1660	4	-16	-30	-50	-64	-37	-2	-4	-21	-23
1150	38	7	-26	-37	-26	-2	30	50	44	4	1670	-24	-18	0	29	37	20	0	-31	-47	-64
1160	-12	22	9	-21	11	-6	-41	-30	-8	-25	1680	-28	-15	-35	-47	-30	-28	-35	2	-34	-43
1170	-15	15	31	34	8	-24	-43	-53	-54	-21	1690	-8	-2	-18	-51	-56	-64	-60	-25	13	10
1180	27	18	4	0	-12	-14	-14	21	32	13	1700	10	19	-16	-51	-56	-64	-60	-25	13	10
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1200	17	31	5	-28	2	32	38	18	14	7	1720	-19	-21	-20	-16	-25	-17	-10	0	-31	0
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1260	-21	-62	-78	-31	32	51	-2	-2	-27	-57	1780	-65	-81	-55	-25	-6	19	-2	-2	-42	-78
1270	-66	6	25	5	13	-8	-54	-70	-44	-6	1790	-82	-39	-2	11	-14	-21	-2	-40	-44	-46
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1370	-30	-55	-92	5	82	44	44	32	12	1	1890	-42	-18	0	12	15	17	3	-11	-17	-10
1380	6	8	15	20	32	13	4	-32	-42	1	1900	-18	-29	-39	-28	-25	-9	-1	-13	-15	-3
1390	37	50	41	10	-33	-72	-42	-1	17	7	1910	6	5	-16	-28	-25	-9	-3	-2	-2	-5
1400	16	73	41	9	23	12	3	4	2	2	1920	2	-3	-16	-10	6	1	-16	-27	-34	-21
1410	-31	-22	-3	2	8	6	4	-14	-25	-24	1930	-15	-13	-4	0	-39	-55	-29	-20	-8	-6
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1440	-22	-4	7	12	2	27	42	-9	-43	-28	1960	-15	-15	-14	-7	12	23	1	-12	-24	-30
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1490	-4	-15	-24	-14	-48	-63	-33	-9	1	1	2010	-7	-8	-14	-15	-13	-1	16	17	-11	-37
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TO BE CONTINUED

TO BE CONTINUED

CONTINUED (M-1200 UP)										CONTINUED (M-1200 UP)									
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(10)
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2080	0	-15	-14	-16	-13	0	-4	17	15	-12	2600	-22	-23	-10	1	8	9	16	-20
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2100	-7	-23	-31	-18	-3	9	5	-12	-15	-15	2620	17	29	34	31	22	16	17	8
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2290	-14	-15	-2	8	15	17	23	24	17	15	2810	16	7	9	8	8	-4	-6	0
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2310	27	33	32	33	26	24	24	17	11	4	2830	17	10	8	9	8	9	0	3
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2340	23	25	24	22	15	8	-10	-17	-14	-3	2860	1	0	-6	-14	-14	-6	2	14
2350	13	33	40	33	32	33	28	8	-6	15	2870	2	-7	-7	-6	0	0	0	0
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2380	-13	-17	-13	-3	-2	14	20	0	-10	-18	2900	8	16	17	12	7	1	4	18
2390	-6	8	15	14	15	11	0	-7	-10	0	2910	14	4	0	1	0	0	4	23
2400	6	6	6	5	6	5	13	22	21	22	2920	8	9	16	17	5	9	8	1
2410	21	21	11	11	-6	-11	-12	3	21	35	2930	-7	-16	-15	-11	-2	7	9	-3
2420	38	27	9	-11	-20	-11	4	4	-8	-26	2940	-13	11	25	30	25	16	9	8
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2440	-4	2	4	0	-4	-11	17	-21	-20	0	2960	-16	-11	-2	1	0	1	3	9
2450	-13	1	11	19	11	11	7	2	2	5	2970	8	14	17	16	17	13	8	9
2460	-17	-22	-21	-21	-15	-6	15	38	30	8	2980	8	9	7	-3	0	10	17	16
2470	-9	-26	-44	-38	-10	19	35	24	-15	10	2990	17	17	17	17	17	17	17	17
2480	9	10	9	10	5	-7	-21	-23	-19	-3									
2490	15	17	18	10	14	18	17	18	17	17									
2500	17	17	17	17	17	17	17	17	17	17									
2510	12	-8	-24	-21	-24	-7	13	17	7	-12									
2520	-8	14	40	40	42	31	-4	-18	-23	-23									
2530	0	30	35	17	3	0	4	17	16	17									
2540	17	16	9	15	25	33	33	33	33	26									
2550	25	20	17	12	8	7	16	16	11	11									

END

TO BE CONTINUED

RECORD = F-174 COMPONENT = NORTH STATION = HITACHI/NAKA-F
 DATE AND TIME = 1988-5-30-19-45 TOTAL NUMBER OF DATA = 3000
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR., ACC.
 ONECTION POINT IN DATA NUMBER = 3000,

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
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60	4	-3	-4	1	0	4	1	-2	1	5	1	5	3	0	-1	3	0	0	0	0
70	-11	-12	3	12	5	1	8	4	-9	-15	3	1	0	-5	0	0	0	0	0	0
80	-5	1	4	7	7	11	8	-6	-9	3	1	0	0	0	0	0	0	0	0	0
90	0	-18	1	5	16	16	7	-9	-18	1	0	0	0	0	0	0	0	0	0	0
100	18	7	-5	14	15	-7	-25	-25	-12	7	0	0	0	0	0	0	0	0	0	0
110	14	7	8	21	9	-3	8	0	-35	-22	13	13	13	13	13	13	13	13	13	13
120	24	24	0	0	-3	3	4	-5	-21	-10	10	10	10	10	10	10	10	10	10	10
130	16	20	0	-5	-1	-20	-42	-22	6	6	6	6	6	6	6	6	6	6	6	6
140	16	50	63	34	-8	-17	-15	-32	-32	0	0	0	0	0	0	0	0	0	0	0
150	19	23	19	5	-3	-12	-23	-16	-9	-12	12	12	12	12	12	12	12	12	12	12
160	3	37	47	22	-3	-22	-51	-62	-22	21	21	21	21	21	21	21	21	21	21	21
170	32	38	48	31	-1	-28	-23	12	35	32	32	32	32	32	32	32	32	32	32	32
180	-1	-50	-66	-38	-6	4	3	-5	-19	-13	13	13	13	13	13	13	13	13	13	13
190	16	45	42	26	5	-25	-45	-42	-11	27	27	27	27	27	27	27	27	27	27	27
200	26	-5	-15	5	16	3	1	27	25	5	5	5	5	5	5	5	5	5	5	5
210	-28	-41	-46	-28	28	10	-22	34	3	-16	16	16	16	16	16	16	16	16	16	16
220	-22	-9	12	22	28	10	-22	34	3	-16	16	16	16	16	16	16	16	16	16	16
230	7	-5	-12	0	25	33	15	-11	-38	-53	6	6	6	6	6	6	6	6	6	6
240	-60	-39	7	33	40	45	30	1	-21	-16	-36	6	6	6	6	6	6	6	6	6
250	-2	-2	1	16	24	21	28	21	-8	-12	-42	42	42	42	42	42	42	42	42	42
260	-43	-44	-40	-6	41	70	38	-12	-42	-42	42	42	42	42	42	42	42	42	42	42
270	-39	-9	20	31	20	-14	-49	-41	-16	-17	17	17	17	17	17	17	17	17	17	17
280	-32	-17	21	46	53	58	40	-12	-60	-59	59	59	59	59	59	59	59	59	59	59
290	-21	19	38	22	-9	-15	-3	-1	1	18	18	18	18	18	18	18	18	18	18	18
300	28	6	-27	-32	-17	-9	7	18	-3	-26	26	26	26	26	26	26	26	26	26	26
310	-25	-8	16	20	9	-4	-15	-10	-1	1	1	1	1	1	1	1	1	1	1	1
320	12	29	16	29	16	-3	-23	-11	20	30	8	8	8	8	8	8	8	8	8	8
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340	-60	-79	-50	13	53	51	26	-16	-57	-64	64	64	64	64	64	64	64	64	64	64
350	-38	-3	28	40	16	-17	-16	21	48	37	37	37	37	37	37	37	37	37	37	37
360	5	-28	-47	-44	-22	71	40	-32	-50	50	50	50	50	50	50	50	50	50	50	50
370	-9	31	54	48	3	-37	-35	10	15	27	27	27	27	27	27	27	27	27	27	27
380	1	-40	-46	-12	16	10	9	16	7	-12	12	12	12	12	12	12	12	12	12	12
390	-7	13	-3	-53	-75	-31	36	73	58	13	13	13	13	13	13	13	13	13	13	13
400	-19	-45	-52	-5	38	23	5	16	29	28	28	28	28	28	28	28	28	28	28	28
410	13	-8	-28	-33	-22	-1	31	58	24	-38	38	38	38	38	38	38	38	38	38	38
420	-50	-24	-24	-9	37	37	-28	-67	-22	43	43	43	43	43	43	43	43	43	43	43
430	67	53	11	-35	-71	-78	60	48	85	45	45	45	45	45	45	45	45	45	45	45
440	-10	-28	-38	-58	-27	41	63	26	-17	-38	38	38	38	38	38	38	38	38	38	38
450	-13	41	70	54	31	11	-39	-84	-55	11	11	11	11	11	11	11	11	11	11	11
460	51	32	0	-32	0	-65	-51	-1	21	12	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
470	3	32	43	49	51	13	-13	-27	-54	-64	64	64	64	64	64	64	64	64	64	64

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-174 NORTH)										CONTINUED(F-174 NORTH)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	203	226	202	124	1	-120	-186	-136	-76	1520	40	43	28	8	-16	-38	-47	-41	-33	-30	
1010	-19	31	47	7	-53	-89	-71	5	100	1530	-27	17	-1	12	17	7	7	-8	1	7	
1020	174	155	92	14	-30	-37	-16	-8	-44	1540	17	16	0	-7	16	62	87	70	24	-40	
1030	-102	-89	-60	-27	46	102	150	152	92	1550	-99	-130	-103	-22	63	104	97	67	27	-3	
1040	1040	-121	-144	-5	28	31	93	95	27	1560	-3	14	27	26	13	-10	-21	0	41	80	
1050	-135	141	-84	-5	28	-3	-55	-79	-69	1570	88	56	-2	-58	-99	-114	-102	-77	-74	-89	
1060	55	110	88	7	-87	-154	-176	-155	-103	1580	-17	-52	-1	38	58	50	17	-24	-57	-58	
1070	72	147	207	7	-95	119	7	-95	-151	1590	-87	41	85	98	84	56	19	-9	-19	-13	
1080	-67	46	139	176	121	81	75	85	90	1600	-9	-160	-38	-55	-44	-5	47	89	95	61	
1090	90	93	90	72	27	-48	-141	-216	-239	1610	0	-60	-81	-45	13	50	48	16	-21	-49	
1100	-134	-53	-10	-25	-84	-149	-153	-97	-6	1620	-51	-24	14	37	20	-20	-60	-77	-52	6	
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1120	99	104	87	51	21	13	20	38	61	1640	99	100	61	10	-31	-61	-57	-15	36	74	
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1490	-1	-3	7	23	37	38	16	-6	-23	2010	53	67	55	16	-25	-54	-61	-51	-37	-30	
1500	-27	-22	-28	-45	-66	-83	-90	-72	-29	2020	-37	-46	-43	-23	3	25	31	27	24	28	
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TO BE CONTINUED

TO BE CONTINUED

CONTINUED (F-174 NORTH)										CONTINUED (F-174 NORTH)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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2050	13	16	8	-11	-19	-22	-7	15	28	0	2570	21	6	-5	-12	-13	-13	-14	-17	-15	-6
2060	20	0	-11	-8	7	20	-7	-9	-15	28	2580	6	16	15	4	-9	-17	-16	-12	-3	-2
2070	-20	-22	-16	-13	-26	-42	-52	-37	-37	-15	2590	-11	-18	-20	-19	-14	-5	1	1	0	-6
2080	5	21	24	14	5	11	30	45	55	63	2600	-17	-23	-15	1	14	15	6	-1	-4	-6
2090	61	43	28	17	19	29	38	40	21	-12	2610	-9	-10	-12	-14	-9	0	6	5	3	0
2100	-41	-55	-63	-55	-37	-25	-22	-34	-37	-37	2620	-1	1	13	22	25	24	22	20	16	16
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2170	19	15	7	0	13	28	35	30	18	2690	-2	20	-36	-37	11	15	17	-8	-4	-5	-10
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2230	18	27	26	11	-6	-25	-29	-23	-10	-1	2750	27	24	18	7	0	-2	14	25	26	17
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2270	5	27	47	45	27	1	-17	-20	-6	9	2790	28	41	36	15	0	-9	-10	-3	6	10
2280	15	2	-15	-25	-29	-16	7	25	31	21	2800	7	-1	-9	-16	-17	-12	-3	5	5	-6
2290	10	7	7	7	8	11	13	6	-13	-35	2810	-23	-32	-25	-9	8	20	16	5	0	4
2300	-45	-46	-41	-27	-11	0	7	6	-3	-13	2820	19	37	46	43	28	11	0	-3	0	4
2310	-15	-15	-3	13	30	35	24	1	-15	-22	2830	1	-2	-10	-18	-23	-20	-12	-9	-8	-8
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2330	18	26	33	31	23	10	-2	-12	-18	-19	2850	-12	-5	8	23	27	19	8	1	5	0
2340	-14	-9	-3	1	1	8	20	27	21	7	2860	16	28	30	18	0	-12	-14	-8	-1	0
2350	-3	-6	0	12	21	19	10	1	-1	-1	2870	-9	-20	-30	-30	-20	-11	-8	-6	-2	4
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END

TO BE CONTINUED

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 SIGNAL = GR. ACC.
 ONECTION POINT IN DATA NUMBER = 3000.

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470	-7	0	39	50	-2	-38	-56	-64	-27	25	970	-77	-99	-79	-18	74	173	244	243	156	40	
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TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-174 EAST)										CONTINUED(F-174 EAST)											
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1010	114	85	-18	-89	-116	-85	1	109	209	242	1530	-20	-32	-31	-2	44	83	84	54	13	-16
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1080	97	238	312	279	157	42	-9	-9	34	95	1600	-13	14	43	51	41	24	9	2	24	24
1090	98	14	-101	-165	-206	-171	-102	-39	-17	-10	1610	21	24	36	44	42	24	-5	-32	39	25
1100	14	62	114	140	102	20	-67	-118	-112	-70	1620	-5	24	53	64	54	32	2	-30	-59	-75
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TO BE CONTINUED

TO BE CONTINUED

CONTINUED (F-174 EAST)										CONTINUED (F-174 EAST)											
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2530	-8	-1	0	0	9	14	24	24	15	-1											
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TO BE CONTINUED

END

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 DATE AND TIME = 1988-5-30-19-45 TOTAL NUMBER OF DATA = 3000
 SAMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 CONNECTION POINT IN DATA NUMBER = 3000,

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30	0	0	0	0	1	0	0	0	1	0	0	132	166	11	-88	-50	-48	-77	-32	-15
40	2	1	0	0	0	0	0	0	0	0	0	-43	178	137	-143	-78	221	112	-285	-227
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60	-44	44	40	-11	5	53	51	-89	-69	-69	118	232	8	-129	9	137	-7	-141	-36	78
70	38	39	-34	7	78	22	-28	13	42	19	-11	-15	-87	64	73	137	-7	-141	-36	78
80	-17	-42	-1	72	31	-62	-44	-19	-69	-55	118	232	8	-129	9	137	-7	-141	-36	78
90	-20	-42	-38	187	146	-118	-84	107	31	-123	134	198	232	-66	-81	85	-12	-159	-85	-80
100	-44	102	59	-78	77	56	75	-50	-33	83	118	232	8	-129	9	137	-7	-141	-36	78
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TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-174 UP)										CONTINUED(F-174 UP)											
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TO BE CONTINUED

TO BE CONTINUED

CONTINUED (F-174 UP)										CONTINUED (F-174 UP)											
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2150	25	8	-2	4	-7	-3	9	3	-13	-13	2670	-1	-5	-10	-7	4	9	4	0	2	5
2160	-15	-6	-16	-31	-29	-17	-29	-44	-21	12	2680	4	0	1	2	-6	-15	-8	5	8	0
2170	9	-15	-20	-1	14	13	6	-2	-2	0	2690	1	15	13	-6	-15	-1	9	11	9	3
2180	3	6	9	18	36	40	16	-12	7	7	2700	-2	0	4	1	0	3	5	-1	-3	-1
2190	1	-13	4	29	24	5	1	11	6	-15	2710	-6	-15	-15	-5	8	6	-7	-12	-1	0
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2210	-10	-6	13	10	-19	-32	-10	-1	-23	-30	2730	-5	8	11	3	1	1	4	8	6	0
2220	1	3	-2	-6	2	8	1	0	9	6	2740	-5	0	9	13	4	-5	-4	4	8	3
2230	1	9	21	14	-2	-17	-14	-4	3	14	2750	0	3	0	-7	0	8	-4	-8	4	4
2240	29	26	6	1	6	0	-10	-7	0	5	2760	6	1	-2	-2	-2	-6	-5	-3	-7	-5
2250	11	16	9	-10	-18	-13	-11	-20	-19	0	2770	4	4	-2	-5	-5	-6	-5	-3	0	3
2260	9	-6	-21	-19	-8	-5	-6	8	26	23	2780	1	-7	-8	2	7	-5	-13	0	8	-5
2270	9	11	4	-10	-18	-17	-13	-7	0	0	2790	-10	9	16	-1	-14	-2	4	0	2	13
2280	3	-2	-5	3	3	-1	7	27	32	16	2800	19	12	3	2	3	-5	-10	0	11	9
2290	9	14	9	-7	-5	9	13	4	5	8	2810	-4	-14	-11	-2	-1	-5	0	-2	-12	-10
2300	3	-2	-9	-15	-10	0	-3	-18	-25	-15	2820	4	7	0	5	13	1	-15	-5	4	4
2310	-6	-7	-13	-18	-15	3	8	-5	-6	9	2830	6	0	-6	-2	7	13	9	5	15	18
2320	14	9	17	33	36	23	11	-6	4	4	2840	1	-10	-1	3	-1	0	8	2	-12	-16
2330	0	-5	-12	-15	-5	-5	-12	-16	-15	-19	2850	-6	-1	-10	-18	-7	11	-2	-13	10	9
2340	-28	-25	-15	-5	-6	-15	-9	15	22	0	2860	21	9	4	14	11	0	-2	-5	-8	-3
2350	-14	1	13	-2	-10	5	18	11	-4	-10	2870	-5	1	8	4	-1	-2	-5	0	0	-5
2360	11	32	19	0	4	18	14	-4	-5	25	2880	-8	-15	-12	-8	-12	-9	4	8	0	-6
2370	41	16	-3	14	33	17	-6	-9	-1	0	2890	-6	-6	-5	1	8	9	2	-5	-6	-6
2380	-3	-12	-19	-10	0	-11	-21	-10	-1	0	2900	-5	1	4	1	-2	0	3	1	3	4
2390	-22	-25	-22	-15	-14	-15	-12	-11	-15	-12	2910	0	-3	-5	-3	3	10	16	10	0	4
2400	-12	-16	-4	11	8	-3	4	20	17	6	2920	2	-3	-5	1	5	0	-7	0	-3	-3
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2420	0	-5	0	-2	0	10	17	13	4	-13	2940	-3	-20	-15	4	13	4	0	-5	1	-7
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2440	-12	-5	9	0	-4	-25	-5	-5	-27	-31	2960	11	13	9	0	0	6	6	-1	-5	1
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2470	7	-6	-5	1	7	2	-2	-6	-10	-12	2990	8	16	8	-5	-7	0	4	0	-7	-10
2480	-10	-3	-2	-5	4	19	18	5	3	13											
2490	9	0	-10	-15	-18	-10	7	11	5	2											
2500	0	-7	-9	-5	-5	-5	-5	1	1	-15											
2510	-20	1	13	0	-8	-6	-9	-11	3	11											
2520	25	10	4	10	4	5	14	16	11	10											
2530	5	1	-4	5	20	6	-11	-10	-1	-8											
2540	-13	1	17	0	-25	-15	11	17	8	4											
2550	6	0	-11	-7	6	8	-2	-8	-3	-4											

END

TO BE CONTINUED

RECORD = M-1226 COMPONENT = NORTH STATION = YAMASHITA-HEN-M
 DATE AND TIME = 1989-8-12-14-14
 SAMPLING INTERVAL = 0.010 (SEC) TOTAL NUMBER OF DATA = 2200
 SIGNAL = GR. ACC. SCAL = 0.10000
 ONECTION POINT IN DATA NUMBER = 1494, 2200, 2200,

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	CONTINUED (M-1226 NORTH)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	-1	1	8	6	8	4	-2	-8	-16	-24	83	117	153	178	178	175	155	129	106	83	
10	-25	-17	-4	0	0	0	0	8	9	9	60	18	-20	-70	-121	-163	-205	-217	-205	-167	
20	10	3	-6	-6	-6	-6	0	8	11	1	490	-121	-79	18	61	143	157	161	161	161	
30	-7	-22	-36	-40	-39	-38	-20	-5	0	8	510	157	134	98	63	25	-16	-58	-100	-139	
40	17	27	34	26	6	-3	-8	-13	-11	-12	520	-135	-129	-99	-67	-23	22	73	122	164	
50	-11	-12	-7	-1	4	5	5	6	5	6	530	181	157	120	87	52	20	-8	-34	-67	
60	4	11	12	2	-5	-11	-10	-11	-4	11	540	-133	-155	-178	-178	-148	-114	-65	-6	43	
70	16	8	-4	-10	-11	-9	-12	-18	-20	-28	550	180	220	210	186	156	118	80	46	9	
80	-38	-42	-31	-27	-34	-36	-35	-37	-33	-29	560	-70	-105	-143	-162	-161	-147	-123	-100	-76	
90	-4	30	48	59	58	51	31	24	32	32	570	-23	9	42	72	92	73	93	113	128	
100	34	41	48	71	99	130	168	215	196	147	580	76	36	-3	-46	-88	-118	-151	-188	-189	
110	113	78	51	17	-31	-77	-103	-129	-176	-192	590	-160	-116	-82	-41	-3	20	38	59	78	
120	-167	-138	-109	-104	-106	-123	-96	-30	27	91	600	166	209	260	255	227	199	159	112	69	
130	136	152	123	83	57	23	-22	-61	-86	-113	610	-7	45	-98	-127	-144	-156	-151	-140	-127	
140	-84	-18	72	155	250	360	466	543	620	702	620	84	54	-28	-4	12	33	56	72	84	
150	746	771	790	781	714	631	365	-116	-298	-549	640	-115	-105	-90	-76	-63	-41	-4	25	49	
160	-890	-903	-946	-961	-930	-1027	-1055	-1043	-932	-849	650	108	131	142	125	103	70	45	21	-5	
170	-680	-511	-276	-139	210	550	661	835	1008	1052	660	-40	-54	-65	-65	-39	-12	42	55	-24	
180	1035	980	865	735	537	434	194	-2	-156	-312	670	15	-29	-69	-107	-143	-177	-207	-217	-191	
190	-382	-489	-481	-519	-541	-563	-596	-552	-397	-160	710	-152	-109	-71	-36	-10	6	21	36	48	
200	21	192	245	224	190	148	142	182	192	143	720	54	54	50	33	5	-22	-52	-81	-105	
210	100	62	30	-8	-41	-70	-82	-75	-57	-9	730	-84	-60	-36	-14	13	39	61	84	103	
220	46	150	227	226	213	184	129	83	37	1	740	73	45	22	5	-6	-5	-6	-5	-13	
230	-27	-38	-93	-120	-147	-181	-201	-218	-222	-222	750	-45	-74	-92	-114	-112	-95	-78	-59	-42	
240	-222	-225	-240	-232	-200	-193	-106	-64	-10	35	760	-25	-14	1	29	52	73	97	114	98	
250	63	86	107	124	141	145	146	140	138	130	770	47	29	13	4	1	10	34	45	61	
260	174	170	142	113	70	35	0	-33	-67	-96	780	76	85	95	94	75	52	30	11	-12	
270	-120	-132	-147	-158	-153	-105	-63	-14	25	65	790	-57	-84	-103	-120	-125	-124	-124	-118	-106	
280	108	142	154	135	88	38	-3	-43	-88	-109	800	-90	-71	-57	-40	-8	19	48	70	81	
290	-91	-59	-25	9	45	65	67	59	58	63	810	76	54	32	6	-27	-58	-72	-71	-60	
300	96	132	144	107	64	46	35	23	-5	-49	820	-15	6	27	45	52	60	65	64	56	
310	-100	-131	-159	-177	-185	-190	-183	-176	-163	-133	830	42	25	12	-1	-2	-10	-8	5	7	
320	-98	-64	-18	21	62	99	133	175	210	227	840	-1	-22	-43	-57	-63	-56	-44	-29	-15	
330	193	153	127	94	56	36	49	59	66	67	850	23	43	61	76	83	80	66	51	36	
340	62	49	32	8	-15	-43	-71	-93	-95	-95	860	6	-12	-21	-29	-36	-35	-40	-45	-44	
350	-102	-107	-112	-100	-84	-72	-63	-52	-45	-33	870	-45	-40	-23	-14	-7	-10	24	41	55	
360	-22	-18	-18	-9	2	12	20	24	24	21	880	69	80	89	93	84	72	57	38	18	
370	10	-4	-23	-46	-65	-66	-41	-15	-11	-26	890	-24	-45	-34	-46	-40	-43	-30	33	32	
380	-46	-53	-24	4	35	69	82	67	45	22	900	-18	-52	-16	-30	-37	-43	-45	-52	-52	
390	8	1	-1	-1	1	0	-5	-11	-4	5	910	-52	-51	-31	-17	-19	-16	-10	-4	9	
400	7	6	11	17	22	27	32	40	39	29	920	23	39	49	49	41	24	11	2	-2	
410	19	5	-8	-18	-18	-19	-31	-47	-55	-67	930	10	-9	-10	-8	0	9	19	32	46	
420	-69	-50	-33	-12	6	19	30	33	32	25	940	63	67	60	54	44	32	22	12	2	
430	23	16	15	15	15	15	24	31	41	22	950	-18	-27	-35	-36	-44	-43	-41	-34	-21	
440	-7	-37	-56	-64	-58	-24	-5	-5	-19	-25	960	-6	6	17	23	29	34	27	18	5	
450	-26	-21	-4	6	46	92	92	92	92	93	970	-10	-9	-10	0	14	27	41	52	62	
460	88	79	54	42	10	-18	-47	-74	-105	-131	980	66	67	62	50	37	26	13	2	-1	
470	-148	-156	-150	-141	-128	-106	-79	-44	-1	42	990	-10	-9	-4	3	8	14	21	30	39	

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(M-1225 NORTH)

CONTINUED(M-1225 NORTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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1010	-36	-31	-26	-27	-25	-19	-11	-9	-10	-9	1530	0	4	3	10	13	20	20	20	20	20
1020	-10	-9	-10	-9	-12	-19	-17	-21	-26	-17	1540	20	14	11	12	11	12	9	3	2	4
1030	-7	4	15	27	42	53	58	58	58	58	1550	-47	-5	-7	-14	-13	-13	-16	-23	-32	-40
1040	58	51	39	26	15	2	7	-17	-23	-32	1560	-47	-48	-46	-34	-24	-13	-3	2	10	12
1050	-41	-44	-51	-46	-27	-18	-18	-18	-18	-18	1570	11	11	12	5	2	3	3	3	3	3
1060	-24	-29	-35	-35	-35	-35	-36	-31	-25	-19	1580	3	3	3	3	3	3	3	3	3	3
1070	-14	-2	6	7	6	0	-7	-16	-18	-6	1590	-8	-14	-21	-35	-36	-45	-48	-53	-57	-56
1080	6	20	37	48	57	69	79	93	116	119	1600	-57	-55	-45	-33	-20	-5	9	23	38	49
1090	117	109	99	84	73	57	43	27	8	-14	1610	61	63	62	63	57	53	47	42	33	24
1100	-33	-55	-74	-83	-109	-119	-122	-115	-98	-85	1620	18	9	3	-3	-5	-11	-14	-20	-22	-26
1110	-64	-45	-32	-23	-17	-11	-7	-1	5	12	1630	-32	-30	-31	-28	-21	-14	-13	-13	-20	-22
1120	21	45	69	92	111	118	126	126	127	121	1640	-22	-22	-22	-22	-15	-13	-12	-5	-5	-5
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1170	19	13	8	-18	-19	-17	-24	-24	-25	-25	1690	55	62	61	50	43	37	31	27	21	19
1180	-18	-18	-18	-18	-13	-19	-18	-18	-20	-21	1700	12	5	2	-4	-5	-11	-14	-20	-23	-21
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1200	-27	-23	-4	15	32	48	58	50	22	-1	1720	28	29	27	20	19	9	0	-5	-5	-5
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1370	-34	-27	-20	-11	-4	0	6	7	7	7	1890	52	46	36	26	16	7	2	-11	-20	-23
1380	7	7	7	7	6	7	6	12	15	17	1900	-18	-11	-4	2	9	16	20	20	20	19
1390	24	29	33	32	33	32	33	28	24	23	1910	12	4	-9	-23	-38	-51	-62	-65	-65	-59
1400	15	16	15	16	14	14	10	-10	-17	-26	1920	-53	-43	-29	-17	-5	3	9	20	30	37
1410	-26	-27	-25	-11	-1	-2	2	2	6	7	1930	44	46	45	36	29	21	20	13	11	11
1420	6	4	-2	-9	-9	-9	-16	-19	-18	-18	1940	12	8	2	-3	-11	-14	-13	-19	-22	-22
1430	-18	-17	-23	-27	-26	-26	-27	-26	-26	-18	1950	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22
1440	19	10	3	-3	-9	-10	-9	-10	-9	-15	1960	-4	1	5	11	15	20	20	20	21	15
1450	19	10	3	-3	-9	-10	-9	-10	-9	-15	1970	11	8	2	3	2	4	11	12	11	11
1460	-28	-35	-18	-5	-1	-1	0	-7	-10	-10	1980	11	5	0	-5	-5	-5	-5	-5	-5	-5
1470	-9	-10	-9	-2	0	6	8	16	23	25	1990	-4	-5	0	3	2	3	3	3	3	3
1480	22	15	15	7	7	6	0	-1	-1	-1	2000	3	3	3	3	3	3	3	3	3	3
1490	-2	-9	-10	-8	2	5	3	3	3	3	2010	3	3	3	3	3	3	3	3	3	3
1500	3	3	3	2	2	15	27	31	38	32	2020	12	11	12	19	21	14	10	5	-1	8
1510	26	10	-7	-30	-48	-60	-69	-73	-74	-68	2030	-6	-14	-12	-20	-22	-28	-31	-30	-31	-23

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (M-1226 NORTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-5	2	5	12	12	19	20	20	20	20
2050	20	13	5	-5	-20	-31	-39	-39	-39	-30
2060	-12	-2	4	11	13	20	20	20	20	20
2070	20	20	20	20	20	13	11	5	0	-5
2080	-12	-14	-13	-14	-13	-13	-13	-13	-13	-13
2090	-13	-13	-14	-13	-13	-19	-22	-27	-31	-31
2100	-30	-31	-29	-21	-15	-7	-4	-5	-5	-5
2110	-5	-5	-5	-5	-5	-5	-5	-3	11	11
2120	30	37	33	33	24	11	-1	-13	-22	-21
2130	-22	-21	-14	-11	-4	-5	-4	-6	0	4
2140	2	8	17	21	19	21	16	11	7	-3
2150	-5	-10	-22	-21	-25	-28	-37	-38	-5	-3
2160	3	11	26	38	37	37	37	38	33	25
2170	12	-3	-17	-23	-29	-31	-30	-30	-31	-28
2180	-21	-13	-5	-4	2	6	11	14	20	20
2190	20	20	20	20	19	11	3	-3	-5	-11

END

RECORD = M-1226 COMPONENT = EAST STATION = YAMASHITA-HEN-M
 DATE AND TIME = 1988- 8-12-14-14 TOTAL NUMBER OF DATA = 2200
 SAMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.

CONNECTION POINT IN DATA NUMBER = 1494, 2200, 2200.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	9	25	36	32	18	12	20	38	48	47
10	32	9	-11	-11	-1	-2	-2	-9	-16	-20
20	-11	5	15	16	10	-2	-8	3	8	8
30	9	16	17	17	15	8	16	18	18	14
40	6	1	0	2	-3	-8	-4	7	20	28
50	28	29	26	17	8	0	-6	-3	11	21
60	37	30	15	28	31	21	5	-5	-17	-29
70	-32	-30	-9	-4	-5	-5	4	26	45	66
80	80	89	100	101	100	104	111	119	113	89
90	35	1	-25	-54	-90	-127	-156	-164	-164	-135
100	-87	-51	6	57	99	121	128	118	77	38
110	0	-48	-95	-159	-225	-270	-275	-208	-148	-72
120	21	107	192	276	356	436	506	569	575	571
130	479	395	287	173	5	-179	-457	-645	-665	-567
140	565	-440	-271	-171	-102	10	89	184	285	359
150	407	404	306	216	156	15	-138	-238	-332	-459
160	580	-671	-888	-604	-507	-362	-188	-43	109	246
170	368	473	553	599	626	612	588	549	501	432
180	353	214	70	-187	-339	-387	-385	-319	-249	-144
190	-14	32	3	-61	-115	-151	-155	-119	-83	-53
200	-23	-3	17	51	90	133	179	228	283	138
210	74	8	-39	-85	-126	-155	-175	-186	-199	-209
220	-216	-188	-128	-72	9	90	113	107	85	58
230	35	40	70	105	149	181	192	189	173	136
240	100	64	27	-6	-43	-89	-147	-203	-221	-218
250	-201	-175	-155	-146	-136	-122	-103	-82	-64	-32
260	2	46	84	99	101	93	86	77	68	66
270	62	44	19	-5	-17	-13	7	24	37	40
280	39	45	58	73	86	66	37	-2	-38	-77
290	-101	-64	-28	0	16	32	47	62	69	82
300	91	99	95	62	27	-7	-35	-65	-94	-121
310	-152	-170	-155	-144	-129	-119	-112	-88	-50	8
320	47	122	191	198	179	164	156	151	139	139
330	118	79	40	6	-28	-52	-66	-66	-73	-90
340	-80	-50	-26	-12	-13	-13	-13	-13	-5	-5
350	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4
360	-108	-103	-73	-36	8	45	58	48	23	-1
370	-13	-13	-9	-4	-14	-30	-40	-45	-50	-26
380	2	34	69	92	108	114	120	114	108	91
390	69	50	28	6	-16	-31	-30	-21	-12	-18
400	-30	-42	-31	-17	-6	14	47	72	74	58
410	29	14	2	-13	-27	-41	-64	-90	-105	-111
420	-109	-98	-89	-77	-65	-42	-31	-23	-11	-11
430	-5	2	17	28	40	55	65	74	71	65
440	66	69	88	101	88	62	40	15	-2	-17
450	-28	-39	-63	-87	-113	-103	-77	-52	-29	-8
460	5	12	23	35	52	62	66	51	30	7
470	-20	-42	-67	-82	-83	-60	-33	-12	6	21

TO BE CONTINUED

CONTINUED (M-1226 EAST)												CONTINUED (M-1226 EAST)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
480	35	48	57	56	57	56	62	55	56	40	1000	-39	-39	-39	-40	-39	-40	-36	-31	-26	-22		
490	25	1	-3	-4	-23	-50	-78	-97	-110	-110	1010	-17	-12	-7	13	-6	-12	-20	-22	-29	-30		
500	-110	-104	-74	-35	-2	16	38	54	63	66	1020	-19	-3	7	25	8	3	11	20	30	39		
510	65	66	59	44	25	0	-32	-59	-83	-102	1030	39	40	37	26	14	12	14	13	13	13		
520	-115	-100	-69	-37	-9	22	54	85	110	126	1040	13	13	13	7	-7	-24	-40	-48	-56	-57		
530	134	137	136	137	132	117	88	65	44	24	1050	-67	-48	-37	-30	-23	-16	-7	2	13	26		
540	0	-24	-45	-63	-80	-99	-111	-119	-110	-85	1060	30	31	26	21	16	12	13	13	23	35		
550	-60	-36	-11	1	4	4	-3	-4	-3	-4	1070	52	58	55	46	35	21	8	0	-4	-8		
560	-5	-1	10	19	30	39	51	65	75	68	1080	-15	-20	-27	-38	-46	-53	-58	-54	-47	-35		
570	50	25	-2	-29	-41	-35	-18	-13	-37	-60	1090	-16	-1	4	3	-6	-18	-27	-36	-41	-48		
580	-84	-97	-78	-53	-29	-10	0	4	4	1	1100	-48	-48	-48	-48	-47	-26	0	23	43	66		
590	-5	0	14	34	61	91	110	128	139	146	1110	80	85	79	66	50	35	19	5	11	28		
600	143	123	79	31	-26	-88	-138	-189	-226	-242	1120	-31	-31	-30	-31	-30	-30	-21	-3	-14	39		
610	-225	-181	-121	-16	-28	27	91	153	182	195	1130	58	66	62	50	36	29	23	19	11	1		
620	193	180	180	160	160	179	167	136	96	52	1140	-4	-4	-4	-4	-4	-4	-4	-5	0	5		
630	7	-34	-80	-123	-165	-189	-215	-246	-258	-262	1150	3	4	-2	-5	-1	5	12	13	10	0		
640	-252	-223	-189	-148	-98	-51	-2	42	93	138	1160	-9	-22	-30	-38	-40	-39	-40	-39	-40	-37		
650	172	192	197	195	177	151	122	86	50	3	1170	-27	-14	-3	11	27	48	68	81	70	47		
660	-28	-63	-93	-103	-103	-101	-91	-81	-73	-68	1180	27	6	4	1	8	-16	-29	-43	-58	-66		
670	-60	-46	-24	-2	16	34	55	69	77	82	1190	-65	-47	-27	-6	8	21	31	30	27	9		
680	79	73	67	55	38	16	9	10	9	15	1200	-1	-11	-13	-13	-13	-13	-13	-13	-13	-13		
690	24	32	22	-6	-33	-47	-53	-45	-28	-17	1210	-13	-13	-13	-6	-4	1	11	17	26	32		
700	-28	-51	-61	-67	-60	-44	-34	-36	-53	-78	1220	38	42	48	54	58	65	62	47	34	21		
710	-103	-121	-115	-103	-86	-70	-57	-40	-24	5	1230	2	-14	-28	-44	-56	-69	-75	-74	-75	-70		
720	28	65	101	131	149	160	147	125	106	97	1240	-56	-36	-11	7	33	40	39	32	22	14		
730	96	96	92	65	42	19	-1	-19	-34	-40	1250	9	3	4	3	5	13	5	-3	-4	-4		
740	-45	-46	-70	-103	-139	-144	-120	-102	-87	-77	1260	-4	-2	4	4	4	4	4	4	3	8		
750	-63	-43	-26	2	29	59	85	114	137	151	1270	20	28	31	30	29	17	6	-6	-19	-29		
760	167	166	168	160	123	100	64	24	-9	-45	1280	-41	-51	-57	-53	-43	-32	-20	-20	-8	-2		
770	-66	-74	-80	-79	-80	-72	-51	-28	-4	20	1290	13	31	45	48	49	45	39	37	30	25		
780	35	31	18	0	-18	-30	-41	-47	-59	-69	1300	15	6	0	7	13	-12	-14	-8	-3	-4		
790	-69	-70	-65	-45	-30	-10	5	26	48	72	1310	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4		
800	95	112	108	72	31	-5	-51	-92	-125	-131	1320	4	3	-7	-20	-37	-43	-53	-57	-57	-52		
810	-130	-130	-119	-105	-87	-64	-45	-20	0	15	1330	-42	-30	-16	-1	10	25	45	69	93	100		
820	33	51	63	63	64	53	30	5	-22	-32	1340	83	62	44	33	14	-4	-15	-22	-28	-31		
830	-33	-27	-12	5	28	38	38	46	47	55	1350	-30	-25	-18	-14	-8	-4	0	5	3	4		
840	67	62	42	22	-3	-17	-7	12	29	36	1360	4	3	5	0	-4	-8	-14	-12	-16	-22		
850	21	3	-5	-13	-26	-40	-47	-61	-66	-75	1370	-19	-9	-4	-2	7	16	26	36	39	39		
860	-92	-101	-102	-100	-84	-71	-61	-41	-19	3	1380	38	31	25	12	9	-8	-22	-32	-39	-39		
870	25	41	63	95	129	151	156	163	163	172	1390	-42	-50	-42	-39	-34	-24	-16	-2	12	25		
880	177	185	174	145	112	65	18	-21	-55	-82	1400	37	40	39	39	39	39	39	39	39	39		
890	-22	-142	-161	-172	-171	-157	-131	-100	-69	-51	1410	31	29	23	17	8	-2	-10	-20	-22	-24		
900	-48	-48	-48	-48	-48	-48	-49	-43	-33	-19	1420	-32	-38	-39	-31	-25	-16	-13	-8	-4	-2		
910	-1	16	50	73	75	71	59	56	57	57	1430	5	2	-3	-5	-14	-21	-29	-30	-38	-37		
920	57	56	58	53	48	42	32	24	15	7	1440	-30	-31	-31	-30	-31	-27	-22	-19	-12	-6		
930	-3	-12	-19	-22	-22	-21	-25	-34	-39	-39	1450	-1	8	13	20	17	9	1	-10	-22	-31		
940	-39	-39	-39	-39	-39	-39	-39	-39	-39	-39	1460	-30	-31	-31	-30	-30	-16	0	17	35	47		
950	-10	-25	-45	-63	-82	-106	-117	-122	-120	-107	1470	48	56	46	34	30	30	31	28	22	14		
960	-90	-68	-49	-27	-5	22	51	72	89	98	1480	-5	-25	-44	-49	-48	-49	-44	-28	-22	-18		
970	109	110	109	98	88	83	83	94	113	119	1490	-6	1	11	14	20	21	21	21	21	22		
980	108	93	72	58	42	35	28	21	14	1	1500	16	10	4	7	-18	-26	-31	-38	-43	-54		
990	-12	-26	-33	-39	-39	-39	-39	-39	-39	-39	1510	-58	-53	-38	-23	-8	7	17	31	45	60		

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(M-1225 EAST)

CONTINUED(M-1226 EAST)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1520	78	83	83	82	71	56	45	27	13	12	12	4	3	4	-2	-4	-5	-4	-5	-4
1530	12	12	12	12	12	12	12	12	14	21	21	-4	-5	-4	-5	-2	4	2	8	13
1540	21	21	20	22	17	10	-3	-22	-39	-50	-50	11	13	9	3	-1	-4	-5	-4	-5
1550	-56	-66	-73	-72	-63	-56	-45	-41	-41	-35	-35	3	3	3	3	3	3	3	5	12
1560	-30	-22	-13	-1	9	12	12	12	12	12	12	12	12	12	12	12	12	20	21	21
1570	12	12	12	12	12	1	-7	-19	-23	-22	-22	21	29	30	26	17	10	0	-8	-18
1580	-22	-22	-22	-11	-3	3	3	3	3	4	4	-22	-22	-22	-22	-14	-8	0	9	20
1590	-1	-10	-17	-23	-22	-22	-22	-22	-22	-22	-22	29	35	39	39	32	27	20	11	-3
1600	-23	-17	-10	-1	9	18	21	21	21	21	21	-18	-28	-31	-33	-41	-31	-29	-29	-3
1610	21	21	21	21	21	21	21	19	10	0	0	14	6	1	14	30	41	48	47	47
1620	21	21	21	21	21	21	21	22	-22	-23	-23	2150	48	43	32	22	16	-14	-22	-36
1630	-9	-20	-23	-22	-22	-22	-22	-22	-22	-23	-23	2160	-46	-49	-48	-49	-48	-35	-14	6
1640	-18	-9	-1	3	6	13	12	6	-1	-10	-10	2170	23	11	26	34	46	48	46	35
1650	-31	-29	-31	-31	-31	-31	-32	-26	-21	-15	-15	2180	-13	-13	-13	-13	-14	-7	2	4
1660	-4	5	12	17	23	29	30	24	9	-7	-7	2190	3	3	3	3	4	-3	-5	-25
1670	-23	-31	-31	-31	-31	-29	-22	-22	-15	-11	-11									
1680	-4	3	3	7	13	12	12	14	22	20	20									
1690	22	15	11	4	-2	-9	-15	-12	-11	-24	-24									
1700	-22	-22	-22	-22	-22	-23	-22	-23	-23	-22	-22									
1710	-9	-4	1	4	10	13	19	28	31	88	88									
1720	42	48	47	48	39	26	20	14	6	3	3									
1730	4	3	3	3	4	3	5	12	20	29	29									
1740	38	39	38	31	22	12	0	-12	-21	-26	-26									
1750	-32	-31	-31	-31	-32	-25	-20	-10	0	7	7									
1760	15	22	29	36	43	48	46	30	13	1	1									
1770	-6	-13	-14	-13	-14	-13	-14	-12	-19	-22	-22									
1780	-23	-17	-13	-13	-5	0	5	11	12	12	12									
1790	12	10	0	-4	-10	-14	-13	-14	-13	-13	-13									
1800	-13	-13	-13	-13	-13	-6	-4	-4	-5	0	0									
1810	4	3	3	3	3	4	0	-11	-19	-24	-24									
1820	-31	-31	-37	-41	-38	-30	-24	-16	-13	-8	-8									
1830	0	4	12	12	14	21	22	29	36	39	39									
1840	38	39	39	38	30	29	22	21	22	16	16									
1850	11	7	-2	-8	-29	-35	-25	-20	-10	-1	-1									
1860	4	3	4	0	-5	-4	-8	-15	-22	-27	-27									
1870	-37	-42	-49	-49	-49	-49	-49	-40	-25	-11	-11									
1880	1	14	14	21	21	21	21	21	21	21	21									
1890	13	12	12	12	12	12	12	13	10	3	3									
1900	4	3	3	3	3	3	3	3	3	3	3									
1910	-4	-5	-4	-4	-5	-13	-13	-14	-13	-4	-4									
1920	4	12	12	12	12	12	12	13	14	-7	-7									
1930	-19	-22	-30	-31	-36	-41	-37	-27	-22	-23	-23									
1940	-21	-13	-14	-10	-4	-2	7	16	22	21	21									
1950	21	21	21	21	21	15	11	13	10	3	3									
1960	3	3	3	3	3	4	11	12	12	12	12									
1970	12	12	12	12	12	12	19	22	21	21	21									
1980	15	8	-5	-19	-23	-22	-22	-22	-20	-8	-8									
1990	1	8	13	11	15	22	20	22	13	13	13									
2000	9	3	-1	-6	-4	-5	-4	-4	5	12	12									
2010	12	11	16	22	20	21	20	22	19	13	13									
2020	9	0	-11	-22	-20	-31	-32	-41	-36	-29	-29									
2030	-16	-7	0	6	12	12	12	12	12	11	11									

END

TO BE CONTINUED

RECORD = M-1226 COMPONENT = UP STATION = YAMASHITA-HEN-K
 DATE AND TIME = 1968- 8-12-14-14 TOTAL NUMBER OF DATA = 2200
 SAMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL GR. ACC. ONECTION POINT IN DATA NUMBER = 1494, 2200, 2200.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	-4	-1	8	8	16	19	18	19	16	10	480	-41	-19	-12	-21	-32	-44	-32	-37	-42	-27
10	6	-30	-1	41	37	37	49	52	36	36	490	-11	0	24	-1	-2	-1	-1	-3	-3	-10
20	7	-33	-25	22	27	12	-6	-8	-5	7	500	19	26	24	-2	-15	-38	-38	13	9	-12
30	-8	-26	-37	-29	-2	13	13	13	14	25	510	-24	-9	20	29	18	6	8	0	8	6
40	40	39	18	-1	-20	-37	-58	0	15	2	520	12	33	37	16	7	8	7	0	-12	-12
50	-6	4	27	2	-16	-28	0	18	7	0	530	-13	-9	5	8	7	6	-3	-12	-14	-29
60	-1	7	5	5	13	28	34	37	16	9	540	-33	-33	-32	-33	-25	-2	8	0	-13	-20
70	-31	-7	34	46	47	32	27	25	27	5	550	-14	0	7	7	-6	-10	5	7	11	25
80	-44	-61	-11	8	9	28	-7	-3	29	44	560	28	47	47	64	49	38	38	38	38	32
90	16	-21	-60	-78	-58	-8	27	29	6	-16	570	22	17	8	7	8	7	15	14	-2	-17
100	-24	-17	0	7	-2	-3	0	8	2	0	580	-30	-33	-33	-31	-19	-12	-12	-13	-7	-2
110	-28	-60	-46	-10	-3	-13	-35	-26	26	67	590	5	19	26	35	39	47	48	47	49	42
120	70	37	23	16	17	16	-4	-24	15	38	600	37	39	32	19	10	-2	-5	25	31	5
130	37	34	23	8	-18	-34	-32	-35	-14	24	610	-22	-34	-32	-42	-56	-41	-8	9	18	-11
140	52	75	70	48	21	-21	-62	-70	-32	25	620	-49	-51	-24	-5	14	17	17	17	16	16
150	62	66	66	66	4	-19	-32	-1	25	11	630	1	-15	-24	-11	13	16	17	14	7	5
160	23	12	-4	-19	-30	-32	-64	-60	-17	19	640	-3	-2	-4	1	18	28	38	31	16	-7
170	-1	24	34	44	51	66	83	85	61	10	650	-33	-33	-37	-44	-44	-29	-8	1	7	1
180	-44	-57	-56	-64	-67	-33	21	59	69	41	660	-10	-14	-14	-9	6	24	16	-5	-24	-34
190	17	-5	-32	-43	-31	-16	20	56	90	73	670	-35	-35	-34	-22	-14	-15	-15	-9	10	24
200	21	-14	-47	-72	-75	-50	-36	-27	-5	2	680	27	47	59	66	59	54	55	54	55	54
210	1	1	-5	4	26	58	93	133	156	152	690	55	43	25	11	-15	-46	-54	-32	-9	-7
220	118	72	19	-20	-50	-77	-65	-61	-60	-60	700	-22	-45	-22	-45	-65	-48	-33	-13	0	8
230	-72	-81	-80	-70	-55	-43	-25	-5	11	22	710	13	9	0	12	27	38	40	27	18	7
240	-41	-39	-27	-9	27	39	54	85	90	89	720	-4	-23	-37	-7	-20	58	58	58	59	-56
250	72	43	28	29	29	28	32	39	46	31	730	-40	-24	-7	-20	20	22	22	22	25	40
260	-1	-31	-59	-78	-73	-75	-85	-71	-88	5	740	26	-7	-27	-2	-2	-29	-33	-40	-26	-9
270	-2	-3	19	48	74	79	78	79	70	42	750	0	2	2	-2	-20	-30	-36	-30	-19	28
280	-2	-3	19	48	74	79	78	79	70	42	760	-7	-17	-34	-48	-45	-34	-21	-5	9	28
290	24	18	4	-7	-26	-33	-32	-33	-41	-43	770	53	55	35	17	-1	-8	-7	-12	-7	1
300	-40	-32	-33	-31	-22	-10	18	36	5	-12	780	3	3	12	13	6	-7	0	3	10	14
310	58	58	77	66	33	5	-12	-1	-13	-34	790	13	11	2	-5	-16	-26	-27	-16	-3	3
320	-51	-70	-72	-69	-60	-14	18	29	25	15	800	2	7	14	14	6	-8	-16	-15	-16	-14
330	0	-11	-12	-12	-12	-12	-7	12	32	39	810	-6	0	5	4	2	-8	-16	-13	-21	-19
340	25	20	44	40	25	6	-2	2	2	2	820	7	19	26	25	26	25	14	22	26	33
350	-68	-52	-14	30	56	58	50	31	12	7	830	25	26	25	17	15	17	12	1	-16	-33
360	7	8	5	-5	-27	-44	-49	-43	-42	-43	840	-44	-22	-3	-3	-3	-3	-4	-1	-6	6
370	-23	2	8	-9	-35	-52	-47	-35	-16	-20	850	15	17	25	27	23	6	-10	-18	-26	-98
380	-13	-8	-7	8	7	3	-4	9	26	5	860	-58	-67	-56	-58	-20	-13	-13	-13	-10	-2
390	28	24	17	31	38	38	37	22	5	-8	870	-9	-2	-3	-2	7	4	4	5	15	15
400	-17	-22	-28	-13	-8	7	6	-5	-20	-36	880	17	19	31	38	36	28	19	17	17	20
410	-50	-53	-43	-24	-5	10	29	38	38	38	890	37	48	37	20	17	17	17	17	17	15
420	38	32	23	9	-11	23	27	11	-14	950	8	5	1	-7	-11	-1	-1	6	9	18	15
430	-40	-34	-13	-3	-16	-36	-40	-30	-6	18	910	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
440	36	36	19	6	-8	-12	-5	-3	-37	-37	920	2	0	21	11	-3	-23	-32	-32	-38	-43
450	-48	-48	-33	-22	-32	-50	-23	5	-34	48	930	-16	-3	0	8	15	16	21	33	47	45
460	44	21	34	66	67	52	30	6	14	-38	940	-2	7	14	16	17	18	18	18	13	6
470											950	2	7	14	16	17	18	18	18	13	6

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(M-1226 UP)										CONTINUED(M-1226 UP)									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	8	7	8	10	17	22	29	26	18	1520	7	7	7	7	7	-1	-3	-2	-3
1010	17	18	17	16	8	8	6	4	-3	1530	-1	-9	-13	-12	-13	-20	-31	-25	-7
1020	-1	-3	6	7	-15	-24	-18	-12	-9	1540	1	6	6	5	-3	-2	-3	-2	-3
1030	-1	-3	-23	-23	-20	-13	-6	-1	-2	1550	-2	-19	-41	-31	-18	-7	-2	-3	-2
1040	-2	-2	-2	-2	-1	-4	-12	-12	-12	1560	-2	-2	-2	-2	-2	-3	-2	-5	-13
1050	-3	6	7	7	7	7	17	17	17	1570	-12	-13	-12	-12	-12	-12	-12	-12	-12
1060	25	28	28	25	17	17	18	17	18	1580	-12	-12	-12	-12	-12	-13	-4	-2	-2
1070	10	-4	-14	-28	-33	-31	-23	-4	-2	1590	-2	-2	-2	5	8	5	-2	-11	-13
1080	-1	-7	-13	-4	-2	-2	-2	-11	-25	1600	-21	-21	-12	-12	-13	-12	-12	-12	-12
1090	-38	-49	-35	-19	-6	-1	-2	-2	-2	1610	-12	-12	-12	-12	-12	-12	-12	-13	-12
1100	-2	-2	-2	-2	-2	-2	-2	-2	-2	1620	-13	-10	-2	-2	-2	-2	6	7	7
1110	-2	-2	-2	-2	-2	-2	-2	-2	-2	1630	6	15	17	22	28	26	17	18	11
1120	1	9	15	20	28	27	19	20	28	1640	0	-3	-10	-13	-12	-13	-13	-12	-12
1130	27	28	27	19	13	5	-4	-13	8	1650	-12	-12	-12	-13	-12	-14	-8	-2	3
1140	18	17	10	-7	-20	-22	-11	3	7	1660	8	6	7	7	7	8	5	-2	-2
1150	18	17	18	9	7	0	-2	-2	-3	1670	-2	-3	1	8	0	-7	-13	-12	-12
1160	1	7	13	18	18	28	27	28	28	1680	-12	-3	5	14	14	-3	-11	-13	-12
1170	19	17	18	16	21	29	39	33	27	1690	-12	-12	-12	-12	-13	-22	-22	-23	-22
1180	-27	-33	-32	-33	-26	-18	-11	-19	-26	1700	-23	-17	-11	-13	-12	-12	-13	-7	-1
1190	-40	-52	-63	-58	-43	-33	-9	3	19	1710	9	18	17	17	18	14	6	7	7
1200	35	49	62	74	78	69	57	43	29	1720	8	1	-3	-2	-2	-2	-4	-12	-12
1210	17	17	18	17	18	16	8	7	8	1730	-12	-12	-12	-13	-12	-13	-12	-8	0
1220	-2	-2	-2	-2	-2	-2	-2	-10	-13	1740	13	18	17	17	8	7	6	8	2
1230	-12	-12	-12	-12	-4	5	8	14	18	1750	-3	-2	-2	-2	-2	-2	-2	-2	-2
1240	-12	-12	-12	-12	-1	8	6	14	17	1760	-2	-2	-2	-2	1	10	24	35	45
1250	15	7	8	16	18	17	17	18	11	1770	42	32	18	8	2	-3	-2	-2	-3
1260	-3	11	29	39	33	27	26	17	18	1780	-1	-6	-13	-12	-12	-13	-2	-2	-12
1270	17	17	17	18	15	7	8	0	-5	1790	-12	-12	-13	-12	-13	-11	-2	-3	3
1280	-14	-23	-21	-30	-32	-33	-27	-15	-9	1800	8	6	11	18	17	16	24	29	25
1290	0	5	-1	-10	-5	-1	-2	-2	-2	1810	17	11	0	-3	-2	-2	-2	-2	-2
1300	-2	-1	-11	-7	3	11	18	26	28	1820	-2	-2	-2	-2	-2	-3	0	7	7
1310	21	17	17	18	11	6	0	-2	-1	1830	17	17	17	17	18	9	7	0	-3
1320	-6	-13	-12	-12	-12	-12	-12	-12	-12	1840	-13	-12	-13	-13	-11	-3	-2	-3	0
1330	-12	-12	-12	-12	-12	-2	-4	-13	-12	1850	7	7	7	7	7	7	7	7	8
1340	-12	-12	-12	-12	-5	10	17	20	28	1860	7	7	8	3	-3	-2	-2	-2	-11
1350	20	15	6	0	-5	-12	-11	-3	1	1870	-12	-13	-6	-1	-3	-2	-2	7	7
1360	7	12	18	17	10	1	-3	8	7	1880	7	7	7	7	7	7	7	-2	-2
1370	7	10	24	28	27	28	27	28	19	1890	-13	-12	-13	-3	-2	-2	-2	-2	-2
1380	9	5	-2	-2	-2	-2	-2	6	8	1900	-2	-2	-2	-2	-2	-2	-2	-3	-2
1390	7	9	17	17	17	17	16	6	15	1910	-10	-13	-13	-9	-2	-2	8	17	17
1400	17	22	27	16	9	6	4	-2	-9	1920	17	17	17	17	18	27	27	28	28
1410	-13	-12	-13	-12	-13	-10	2	10	18	1930	18	17	15	8	1	-3	-3	-13	-13
1420	33	38	38	38	30	26	18	17	18	1940	-12	-13	-12	-12	-12	-12	-13	-21	-22
1430	18	17	18	12	5	1	-2	-2	-2	1950	-23	-22	-23	-22	-23	-23	-23	-20	-20
1440	-2	-2	-2	0	4	7	0	-2	-10	1960	-12	-12	-13	-5	-2	0	6	7	7
1450	-12	-11	-18	-23	-22	-22	-21	-29	-33	1970	7	6	8	2	-3	-2	-2	-3	5
1460	-32	-31	-22	-13	9	-2	-1	-6	-13	1980	7	7	7	7	0	-3	-2	-2	-2
1470	-10	-3	4	17	17	18	17	8	7	1990	-3	-2	-3	3	7	10	18	17	17
1480	8	5	-2	-1	-3	0	16	18	17	2000	9	7	0	-3	-2	-2	-2	-4	-12
1490	18	17	11	-3	-14	-4	-2	-3	0	2010	-2	-2	-2	-2	-2	-2	-4	-13	-12
1500	7	7	8	1	-3	-2	-10	-18	-24	2020	-13	-12	-13	-13	-12	-13	-8	-1	-3
1510	-21	-13	-4	0	7	7	7	7	7	2030	-2	-2	-2	-2	-2	-2	-2	-2	-2

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (M-1226 UP)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-2	-2	-2	-2	-3	2	8	6	13	18
2050	17	17	17	17	17	17	17	17	17	17
2060	17	17	9	5	-2	-2	-2	-2	-2	-2
2070	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
2080	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
2090	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
2100	-2	-2	-2	-2	-2	-3	0	7	7	7
2110	7	7	7	7	7	7	7	7	7	7
2120	7	7	7	7	7	7	7	7	7	7
2130	7	7	7	6	-2	-2	-2	0	8	7
2140	7	7	6	-2	-2	-2	-2	-2	-2	-2
2150	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
2160	-2	-2	-2	-2	-3	-11	-13	-12	-12	-13
2170	-12	-15	-23	-22	-23	-22	-23	-18	-12	-13
2180	-12	-13	-12	-13	-12	-13	-9	-2	-3	-2
2190	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2

END

ECORD = F-168 COMPONENT = N33E STATION = YAMASHITA-F
 DATE AND TIME = 1988- 8-12-14-15 TOTAL NUMBER OF DATA = 3000
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 (GNAL = GR. ACC.) ONECTION POINT IN DATA NUMBER = 3000.

CONTINUED(F-168 N33E)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	
480	5	-6	-4	1	7	9	1	14	15	6	1	-14	-20	-16							
490	-13	-6	-3	1	14	15	6	1	14	15	6	-6	-8	-9							
500	21	21	-3	-19	-18	-2	7	0	-15	7	0	-14	-8	-15							
510	0	16	20	18	3	-13	-17	-8	12	-2	7	-8	12	26							
520	20	-5	-20	-20	-13	1	0	1	1	0	1	7	1	1							
530	-1	14	26	24	3	-18	-21	-13	-1	-13	-1	1	3	3							
540	12	10	-13	-20	-19	2	25	35	16	-13	7	8	13	7							
550	-29	-13	21	38	21	-13	-24	-13	8	7	8	8	8	8							
560	0	-3	0	-13	23	-14	15	34	11	-28	3	11	-28	3							
570	-41	-4	40	52	25	2	0	13	-1	-3	11	-3	-1	-3							
580	-13	-13	-14	-15	-13	-13	0	17	23	16	14	17	23	16							
590	0	-3	1	9	6	-4	-14	10	6	-6	10	6	-6	-6							
600	0	1	7	4	4	9	10	6	9	10	6	9	10	6							
610	11	-2	-18	-23	-20	-3	12	13	0	-13	0	-13	0	-13							
620	8	31	36	16	-13	-13	-13	-13	-30	-13	-30	-13	-30	-13							
630	12	20	0	-26	-28	-4	19	25	12	-13	12	13	0	-13							
640	-27	-6	18	17	-16	-38	-14	22	26	10	22	26	10	-13							
650	0	17	36	31	1	-13	1	13	3	-13	1	13	3	-13							
660	-15	-13	0	-1	-8	-3	-13	3	6	-5	3	6	-5	-5							
670	-13	-13	1	20	19	-3	-25	-25	-18	-13	-25	-18	-13	-13							
680	8	18	26	32	16	-2	-5	8	17	1	-5	8	17	1							
690	-18	-20	-3	11	3	-8	-15	-20	-15	-13	-20	-15	-13	-13							
700	-13	3	1	24	26	16	7	6	12	26	19	6	12	26							
710	1	11	24	26	16	7	6	12	26	19	6	12	26	19							
720	-1	-13	7	8	-2	-23	-22	-13	-11	-13	-22	-13	-11	-13							
730	-42	-27	-1	8	8	-2	-14	-13	-1	12	-22	-13	-11	12							
740	1	-3	6	26	36	19	1	6	18	24	1	6	18	24							
750	15	1	-3	-6	-13	-18	-16	6	24	19	-16	6	24	19							
760	0	20	-40	-38	-22	-8	-13	-13	5	19	-8	-13	5	19							
770	26	15	16	15	16	19	18	21	9	-3	18	21	9	-3							
780	-8	1	10	3	-14	-23	-16	-13	-15	-13	-16	-13	-15	-13							
790	-18	-13	-5	-8	-14	-13	-6	-5	-8	-14	-13	-6	-5	-8							
800	-16	-13	12	24	24	7	-1	5	24	26	-1	5	24	26							
810	17	-3	-3	4	19	19	25	16	-13	-33	19	25	16	-13							
820	-45	-28	-1	19	17	7	-13	-20	-19	-3	-20	-19	-3	-20							
830	19	15	-3	-13	-13	4	8	10	12	11	8	10	12	11							
840	-1	-5	8	25	26	9	-13	-16	-3	16	-13	-16	-3	16							
850	16	-13	-32	-52	-37	-8	16	25	17	9	-8	16	25	17							
860	6	-1	-2	1	6	-1	6	-1	6	-1	6	-1	6	-1							
870	51	35	-3	-32	-37	-28	-15	0	15	22	-28	-15	0	15							
880	17	7	6	14	11	-13	-4	0	15	-3	-4	0	15	-3							
890	-5	-13	-18	-13	-4	-2	-4	-2	-4	-2	-4	-2	-4	-2							
900	-13	3	18	44	52	40	9	-1	14	9	-1	14	9	-1							
910	26	24	6	-3	5	13	4	-8	-8	-1	-8	-8	-1	-8							
920	-4	-18	-28	-27	-14	-23	-52	-63	-60	-52	-63	-60	-52	-63							
930	-52	-62	-78	-82	-71	-59	-52	-23	-23	-11	-59	-52	-23	-23							
940	42	54	48	40	41	45	35	17	13	26	45	35	17	13							
950	51	80	120	165	199	199	139	52	-38	-97	139	52	-38	-97							
960	-108	-80	-42	0	26	32	0	33	72	-2	32	0	33	72							
970	-107	-131	-135	-122	-92	-53	-15	-17	-52	-107	-15	-17	-52	-107							
980	-160	-182	-174	-132	-70	0	52	82	91	88	0	52	82	91							
990	89	115	168	258	390	506	616	694	739	753	616	694	739	753							

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (F-168 N33E)										CONTINUED (F-168 N33E)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	699	556	328	70	-163	-337	-416	-431	-420	-411	1520	10	-1	10	45	83	105	105	90	52	7
1010	430	-472	-516	-543	-548	-551	-551	-528	-451	-300	1530	-35	-73	-92	-77	-52	-13	6	6	1	8
1020	122	62	251	402	461	442	368	256	124	36	1540	-18	-26	-21	-13	6	33	53	66	75	50
1030	1040	11	14	16	14	11	2	41	66	42	1550	26	1	-19	-19	-22	0	21	41	52	53
1040	-13	-42	-55	-37	-18	-26	-66	-135	-197	-230	1560	41	20	0	-16	-33	-45	-53	44	18	19
1050	238	-216	-171	-122	-80	-36	26	119	134	200	1570	49	56	45	22	-2	-26	-52	-63	-67	-58
1060	176	142	138	167	204	223	219	184	139	103	1580	-45	-42	-52	-52	-52	-55	-59	-67	-73	-64
1070	92	76	75	85	66	26	-23	-43	-33	-18	1590	-52	-23	-3	11	24	37	46	56	58	56
1080	-14	-19	-27	-45	-82	-131	-166	-134	-136	-164	1600	62	65	63	60	51	45	26	6	-16	-27
1090	-131	-93	-63	-23	9	21	23	9	-4	-13	1610	-28	-18	-14	-42	-72	-75	80	80	66	49
1100	-3	17	40	60	71	53	6	-52	-77	-71	1620	18	-14	-14	-61	-72	-71	-1	-62	-58	-82
1110	-36	0	26	35	26	38	65	92	105	105	1630	-33	-10	6	6	6	0	-1	1	7	20
1120	104	66	17	-23	-54	-73	-75	-77	-62	-39	1640	35	50	54	43	22	0	-19	-38	-53	-66
1130	130	13	40	66	99	120	135	145	145	115	1650	-73	-77	-71	-60	-52	-37	-28	-25	-22	-27
1140	63	13	-40	-92	-112	-114	-104	-95	-92	-72	1660	-27	-13	11	43	63	82	100	120	135	144
1150	72	-92	-84	-65	-33	-5	21	61	112	145	1670	145	140	123	99	66	37	6	-13	-18	-22
1160	145	121	76	42	21	6	0	-28	-53	-68	1680	-20	-22	-20	-15	-18	-30	-44	-52	-52	-47
1170	-72	-56	-33	-13	8	12	6	-3	-13	-13	1690	-38	-37	-40	-55	-77	-100	-112	-113	-103	-92
1180	-13	-14	-15	-2	6	14	-13	-46	-76	-92	1700	-70	-53	-35	-18	-1	6	12	1	-13	-47
1190	-82	-69	-59	-55	-54	-55	-52	-35	-21	-13	1710	-20	-18	-18	-3	19	44	65	80	90	99
1200	-15	-18	-13	-5	0	6	14	26	58	96	1720	104	105	100	95	91	85	80	71	53	34
1210	129	145	145	141	145	145	145	116	78	48	1730	21	16	6	-4	-18	-31	-40	-52	-63	-55
1220	33	33	26	21	26	36	26	6	-3	1	1740	-60	-68	-85	-107	-114	-104	-83	-82	-52	-41
1230	6	-37	-37	-76	-105	-114	-112	-107	-98	-92	1750	-31	-18	-13	1	20	26	19	24	37	50
1240	-77	-52	-37	-37	-53	-55	-43	-26	-21	-20	1760	35	76	61	45	26	19	24	37	50	45
1250	-13	-1	3	6	19	35	48	45	35	20	1770	38	24	6	6	1	10	18	21	21	15
1260	6	-4	-13	-13	-13	-19	-28	-43	-54	-55	1780	7	2	-13	-23	-33	-37	-42	-52	-53	-53
1270	-38	-14	0	0	-13	-23	-22	-23	-22	-13	1790	-52	-46	-38	-27	-21	-18	-20	-27	-23	-20
1280	1	22	53	87	124	144	144	119	97	76	1800	-13	1	6	3	-1	-5	-2	-1	0	-1
1290	65	58	50	38	25	14	15	20	24	26	1810	-13	-13	-1	12	25	41	53	62	61	53
1300	26	20	1	-22	-46	-72	-99	-123	-136	-131	1820	41	26	15	1	-7	-15	-23	-27	-27	-25
1310	-93	-53	-22	-13	-13	-14	-13	-1	13	21	1830	-27	-33	-38	-39	-32	-21	-13	4	25	41
1320	26	26	17	6	-13	-13	-3	13	23	19	1840	52	53	49	41	26	13	-22	-27	-32	-32
1330	7	-8	-14	-15	-6	7	18	18	0	-31	1850	-24	-20	-13	-13	-13	-16	-19	-19	-13	-3
1340	-55	-62	-60	-52	-41	-32	-19	-3	14	25	1860	11	21	22	20	17	10	-3	-19	-32	-38
1350	26	36	55	85	115	129	127	120	112	104	1870	-35	-32	-32	-25	-13	-6	1	-13	-17	-11
1360	35	56	15	-25	-67	-107	-132	-145	-140	-123	1880	-21	-21	-13	6	26	48	66	88	98	96
1370	-112	-100	-93	-80	-62	-52	-39	-23	-13	13	1890	85	73	61	43	26	19	14	5	-13	-20
1380	26	39	26	6	-5	-13	-8	3	24	50	1900	-30	-31	-32	-34	-43	-53	-62	-66	-62	-57
1390	66	75	66	63	56	90	115	125	121	104	1910	-46	-32	-15	-5	0	0	-1	8	21	31
1400	85	78	75	66	57	54	46	34	8	-18	1920	37	36	26	20	3	-13	-30	-40	-52	-55
1410	-40	-57	-66	-78	-94	-112	-134	-171	-213	-243	1930	-62	-73	-79	-73	-58	-36	-14	2	13	19
1420	-250	-221	-175	-120	-60	-36	47	76	82	81	1940	22	25	33	45	65	85	98	98	95	84
1430	85	90	87	80	76	86	105	137	145	145	1950	65	48	26	9	5	-21	-37	-53	-58	-58
1440	132	105	78	41	-8	-52	-69	-75	-75	-77	1960	-53	-52	-40	-30	-16	-13	4	13	25	26
1450	-82	-92	78	-67	-50	-52	-32	-1	31	61	1970	41	41	36	26	26	24	21	24	26	35
1460	87	105	132	137	124	105	89	66	48	26	1980	41	45	46	50	51	51	40	19	0	-16
1470	6	-3	0	6	6	-1	-26	-58	-102	-131	1990	-33	-53	-73	-92	-95	-92	-92	-77	-67	-67
1480	-144	-143	-121	-92	-52	-18	6	21	23	13	2000	-57	-44	-30	-13	7	24	26	36	26	26
1490	55	54	45	42	42	39	37	26	24	6	2010	26	33	37	41	45	50	55	65	66	75
1500	55	54	45	42	42	39	37	26	24	6	2020	76	71	63	51	37	16	-1	-21	-40	-55
1510	-20	-37	-41	-33	-19	-1	12	26	26	26	2030	-65	-70	-62	-53	-40	-32	-31	-32	-37	-40

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-168 N33E)											
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2050	-19	-8	0	6	16	26	46	58	75	85	2570
2060	102	111	105	104	83	63	45	25	9	1	2580
2070	0	1	-13	-10	-17	-19	-17	-19	-27	-40	2590
2080	-52	1	-59	-60	-56	-47	-36	-23	-15	-13	2600
2090	3	11	21	26	26	26	26	26	24	19	2610
2100	15	10	9	14	20	23	26	35	40	38	2620
2110	32	24	20	18	12	0	-15	-31	-37	-40	2630
2120	-43	-43	-38	-33	-30	-28	-25	-19	-14	4	2640
2130	17	26	31	38	42	46	45	41	26	22	2650
2140	6	-8	-27	-52	-60	-66	-72	-67	-60	-52	2660
2150	-40	-37	-20	-25	-20	-13	5	17	26	26	2670
2160	26	25	23	22	23	21	26	35	41	43	2680
2170	53	53	53	53	43	43	26	16	3	-13	2690
2180	-30	-42	-52	-52	-52	-42	-38	-25	-16	-4	2700
2190	-13	-13	-27	-33	-42	-45	-45	-41	-37	-30	2710
2200	-21	-13	5	17	23	26	26	31	44	45	2720
2210	47	42	41	42	42	37	26	26	16	8	2730
2220	1	-8	-13	-14	-24	-38	-52	-57	-56	-52	2740
2230	-42	-31	-20	-13	0	1	0	0	1	6	2750
2240	6	16	17	18	16	6	16	19	23	26	2760
2250	24	19	15	12	6	5	6	5	6	6	2770
2260	7	9	17	26	35	38	39	35	30	16	2780
2270	8	-3	-14	-25	-37	-52	-55	-53	-44	-33	2790
2280	-28	-25	-24	-21	-18	-18	-16	-16	-14	-8	2800
2290	-3	5	10	15	17	19	16	14	11	10	2810
2300	7	7	6	6	1	-1	-3	-3	1	1	2820
2310	4	-1	-13	-15	-13	-3	6	6	6	1	2830
2320	-13	-16	-18	-18	-20	-23	-23	-16	-13	3	2840
2330	17	26	31	33	36	38	41	42	41	38	2850
2340	26	21	19	15	11	6	1	-3	1	1	2860
2350	1	-3	0	-3	-2	-13	-13	-14	-17	-23	2870
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2370	-13	-13	-13	-3	-1	4	13	14	11	11	2890
2380	6	5	-3	1	-3	-3	-40	-47	-52	-52	2900
2390	7	6	1	-8	-22	-33	-40	-48	-54	50	2910
2400	-36	-22	-16	5	21	25	42	48	54	50	2920
2410	40	21	15	5	-1	-5	-13	-18	-26	-35	2930
2420	-32	-21	-13	-1	6	6	6	3	-3	-13	2940
2430	-13	-7	-13	-3	0	7	6	3	3	25	2950
2440	33	37	37	32	21	16	16	14	11	9	2960
2450	6	0	-13	-19	-29	-37	-40	-39	-40	-36	2970
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2470	-13	-8	-4	-1	2	7	16	21	21	21	2990
2480	22	26	26	24	18	6	1	-3	-13	-13	3000
2490	-13	-18	-20	-17	-23	-18	-16	-15	-13	-13	3010
2500	-13	-8	-3	1	3	8	12	21	22	24	3020
2510	24	19	19	20	16	11	14	18	16	22	3030
2520	16	11	4	4	1	5	11	15	20	15	3040
2530	11	6	0	0	-3	-1	-5	-13	-18	-27	3050
2540	-31	-36	-41	-42	-38	-31	-23	-15	-5	6	3060
2550	6	16	25	21	22	21	19	15	15	6	3070

TO BE CONTINUED

END

RECORD = F-168 COMPONENT = E335 STATION = YAMASHITA-F
 DATE AND TIME = 1988-08-12-14-15 TOTAL NUMBER OF DATA = 3000
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC. ONECTION POINT IN DATA NUMBER = 3000.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	CONTINUED (F-168 E335)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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10	0	-4	0	0	0	-4	-4	-4	0	-4	490	-1	-4	-5	-9	-5	-5	-9	-12	-4	7
20	0	-4	1	0	0	-4	0	-4	1	0	500	10	10	7	0	-4	-9	-2	8	2	2
30	-4	2	0	-4	0	0	0	-4	-4	0	510	-5	-7	4	12	9	-4	4	5	15	10
40	-4	0	-4	-4	0	-4	-4	-4	-4	-4	520	-2	-16	-10	2	6	0	-5	-1	4	7
50	2	1	0	-4	-4	0	-4	-4	-4	0	530	9	11	12	9	-11	10	4	-5	-12	-10
60	-4	-4	3	4	5	0	-4	-1	0	-4	540	6	15	12	11	-24	-24	-5	4	6	-2
70	-4	-4	3	4	5	0	-4	-1	0	-4	550	-14	-12	4	15	12	-4	-9	-4	-4	-4
80	0	2	1	-1	-1	-4	0	-4	-1	-5	560	10	15	11	-6	4	14	15	-4	-24	-21
90	-4	-10	-6	5	5	0	6	12	11	-4	570	10	15	11	-6	4	10	15	11	2	6
100	-4	5	2	-5	-13	-5	11	-16	-16	-4	580	-3	5	-4	-2	0	-5	-9	-24	-30	-19
110	-14	-9	-3	5	15	15	-1	-16	-16	-4	590	10	29	24	7	-4	-4	14	25	28	20
120	15	15	11	6	5	6	-4	-4	-4	-4	600	15	13	-5	-24	15	33	34	26	15	22
130	5	7	-3	-8	-4	-4	-4	-4	-4	-4	610	15	13	-5	-24	-32	-30	-24	-24	-15	-14
140	15	7	-12	-29	-24	5	24	15	2	6	620	-14	-9	-2	-2	1	-7	17	15	22	28
150	-6	-7	-3	-4	9	4	-2	-4	-4	-2	630	33	15	2	1	2	-9	-24	-9	5	7
160	-9	-14	2	15	24	11	-2	-9	-6	2	640	-4	-7	-13	4	-6	-24	-11	10	0	6
170	7	6	-4	-4	-7	-4	-4	-4	-4	-4	650	15	-2	-18	-7	10	9	-4	-29	-32	-14
180	7	-4	-2	-2	-1	-4	-4	-4	7	10	660	4	8	-4	-10	6	25	15	11	5	4
190	-4	-15	-14	-4	10	10	-4	-11	-3	7	670	11	8	-5	-17	-24	-24	-11	0	-4	-15
200	7	4	2	7	7	1	-14	-24	-15	-4	680	-10	-4	9	-4	-4	14	25	28	20	27
210	5	7	7	6	-4	-4	3	6	7	2	690	29	24	7	-4	-9	-9	-9	-8	-9	-14
220	2	0	2	-4	-4	-4	-1	-6	-4	-4	700	13	-9	-11	-24	-29	-24	-15	-9	-12	-15
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240	0	-2	-7	-11	-9	-4	-2	-4	-4	-4	720	14	14	10	2	2	-2	-14	-16	-5	-4
250	12	14	12	11	10	5	1	-4	-13	-24	730	14	14	10	2	4	19	14	-7	-12	-6
260	-6	-4	4	5	9	12	12	7	7	14	740	-4	10	3	-9	-12	4	15	5	-15	-29
270	15	7	-1	-14	-15	-24	-26	-31	-26	-24	750	-5	9	15	5	-14	-7	15	11	-5	-12
280	-9	-4	-4	9	15	15	15	12	12	15	760	3	-5	-5	1	6	15	27	29	27	4
290	22	10	-9	-16	-12	-5	-1	-9	-9	-5	770	-34	35	27	11	-5	-24	-24	-16	-9	-14
300	10	13	11	15	20	15	9	-1	-7	-4	780	-15	-24	-11	-4	7	10	8	5	5	7
310	-6	-15	-14	-5	-4	5	9	10	7	-4	790	1	-7	-12	-13	-14	-12	-12	-24	-34	-26
320	0	2	-4	-4	-4	9	7	2	-4	-6	800	-9	12	15	15	34	39	28	12	5	5
330	-13	-2	9	12	2	-14	-17	-12	0	2	810	5	2	0	-4	5	4	0	9	10	-4
340	-7	-24	-24	-7	5	10	5	-1	-4	-4	820	-24	-24	-13	-5	-4	-5	0	-4	-4	7
350	4	0	-5	-4	14	14	4	-2	1	10	830	12	-4	-6	-9	0	5	3	-4	-4	-9
360	15	15	15	15	15	12	13	7	-4	-9	840	-15	-24	9	7	8	7	10	5	-5	-4
370	-14	-24	-24	-15	-12	-11	-6	4	11	7	850	12	15	10	7	0	0	0	15	14	-5
380	-4	1	9	15	11	2	-4	-8	-15	-24	860	15	22	15	10	0	-9	-9	5	15	15
390	-24	-9	-4	9	6	2	-4	0	4	5	870	5	-7	-24	-14	7	15	15	9	-4	-4
400	-4	-3	6	6	2	2	7	6	7	5	880	4	9	7	-3	-6	-1	5	15	20	10
410	-4	7	10	0	-4	-1	0	-4	0	-5	890	-4	-3	-4	-13	-24	-9	-4	14	15	22
420	-1	-4	-9	-9	1	15	15	10	-4	-2	900	36	62	94	123	133	133	150	165	162	133
430	-4	1	4	3	-3	-4	-4	-4	-4	-19	910	94	59	15	-29	-89	-143	-182	-194	-192	-167
440	-8	0	-4	-5	-4	-5	-4	-4	-4	-4	920	-128	-96	-63	-24	0	4	-14	-47	-83	-112
450	15	15	5	-4	-2	6	15	25	10	-12	930	-128	-96	-63	-24	0	4	-14	-47	-83	-112
460	-24	-4	5	10	-2	6	15	25	10	-12	940	-115	-44	41	131	213	286	331	371	395	400
470	6	-9	7	15	15	-2	-18	-24	-4	9	950	395	409	432	431	371	231	231	94	-55	-185
480	6	-9	7	15	15	-2	-18	-24	-4	9	960	-345	-365	-345	-304	-266	-226	-182	-126	-65	-12

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-168 E335)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	15	15	-24	-81	-142	-182	-221	-276	-340	-379	1520	-116	-63	-19	15	42	71	101	118	120	113
1010	-414	-439	-446	-430	-697	-340	-718	-160	-73	24	1530	94	82	70	54	45	37	29	15	2	-4
1020	131	213	330	489	639	707	718	687	628	563	1540	-14	-15	-27	-42	-49	-54	-54	-48	-44	-33
1030	476	379	273	150	25	-67	-123	-155	-184	-221	1550	24	-5	15	44	67	86	99	109	94	74
1040	-249	-261	-214	-113	-4	77	101	83	54	54	1560	47	20	0	-10	-9	-7	-9	-24	-26	-31
1050	77	101	116	105	67	29	2	-24	-32	-34	1570	-25	-27	-31	-29	-28	-25	-24	-24	-17	-15
1060	-44	72	-116	-183	-194	-221	-249	-212	-307	-352	1580	-66	-49	-16	-89	-104	-111	-106	91	-72	-49
1070	-380	-379	-344	-282	-205	-130	-64	-9	47	100	1590	-24	2	22	35	46	54	74	87	89	74
1080	152	193	213	229	223	204	197	207	236	264	1600	46	6	-24	-39	-44	-42	-40	-39	-27	-10
1090	267	248	222	195	172	166	182	203	213	209	1610	5	15	40	54	69	84	94	103	105	94
1100	188	162	130	88	40	-9	-71	-142	-200	-253	1620	81	54	37	15	7	-4	-4	-4	-5	-4
1110	-300	-348	-404	-444	-461	-459	-432	-382	-312	-232	1630	-10	-14	-10	-6	-5	-9	-24	-33	-47	-61
1120	-150	-66	15	85	133	169	192	202	209	222	1640	-53	-51	-63	-55	43	24	9	39	54	74
1130	237	239	227	213	193	161	124	88	40	-5	1650	80	74	61	46	37	34	30	27	15	6
1140	-34	-43	-41	-24	4	39	72	103	126	128	1660	-12	-30	-38	-39	-36	-27	-25	-29	-28	-24
1150	111	91	77	54	34	-4	-46	-86	-123	-154	1670	-9	-2	-4	2	0	0	4	-4	-15	-14
1160	-172	-182	-182	-173	-174	-165	-154	-142	-121	-93	1680	-34	-49	-56	-64	-66	-63	-53	-34	-16	-14
1170	-41	-4	35	63	74	86	94	113	114	107	1690	1	-3	-18	-39	-58	-66	-64	-54	-39	-15
1180	94	84	54	20	-24	-63	-103	-111	-103	-70	1700	10	35	59	84	94	109	110	99	85	72
1190	-24	23	62	94	133	170	203	222	232	213	1710	54	54	49	37	26	15	15	10	0	-19
1200	173	133	85	37	-4	-43	-90	-131	-161	-171	1720	-24	-24	-5	-4	-7	-10	-16	-26	-37	-28
1210	-158	-142	-129	-123	-127	-131	-132	-137	-142	-148	1730	-42	-37	-24	-1	14	15	25	29	28	25
1220	-152	-155	-142	-118	-89	-54	-24	8	44	88	1740	21	10	0	-13	-16	-24	-24	-24	-31	-31
1230	132	171	205	230	241	238	229	213	204	184	1750	-34	-39	-41	-42	-42	-39	-37	-32	-26	-24
1240	158	126	84	35	-13	-63	-93	-113	-128	-134	1760	-17	-14	-9	1	5	2	2	7	14	15
1250	-126	-114	-93	-69	-54	-63	-85	-106	-114	-111	1770	28	34	40	46	47	45	40	26	12	4
1260	-103	-94	-84	-66	-51	-40	-31	-24	-5	10	1780	7	15	41	54	78	83	74	54	41	26
1270	25	41	54	74	94	121	133	146	146	135	1790	11	-9	-26	-34	-46	-53	-64	-64	-65	-63
1280	125	106	86	69	63	51	34	14	2	-13	1800	-52	-44	-41	-40	-42	-43	-36	-25	-14	-5
1290	-28	-36	-34	-33	-31	-24	-4	10	15	15	1810	4	7	10	7	8	10	10	9	2	-2
1300	15	10	-5	-24	-31	-34	-40	-52	-64	-71	1820	-14	-24	-29	-28	-24	-14	-1	10	21	32
1310	-73	-71	-68	-66	-64	-67	-63	-48	-29	-3	1830	39	47	49	54	59	67	73	81	86	84
1320	15	32	35	30	15	5	-6	-13	-15	-24	1840	72	54	40	26	14	4	-4	-7	-14	-24
1330	-24	-29	-29	-31	-28	-29	-26	-13	5	34	1850	-24	-26	-33	-40	-44	-53	-63	-69	-78	-78
1340	54	83	105	124	142	156	156	133	102	48	1860	-68	-53	-49	-58	-66	-78	-83	-83	-69	-54
1350	-14	-75	-128	-160	-169	-161	-145	-130	-121	-115	1870	-39	-29	-15	-4	-4	-9	15	36	64	74
1360	-103	-82	-48	-10	15	45	66	85	106	133	1880	94	113	133	159	165	143	124	89	54	31
1370	158	183	192	192	183	165	138	104	54	12	1890	4	-4	-4	-36	-48	-51	-45	-36	-24	-12
1380	-31	-63	-79	-83	-78	-68	-55	-47	-38	-35	1900	-4	-4	-5	-14	-29	-43	-63	-63	-54	-39
1390	-31	-25	-26	-31	-40	-52	-67	-66	-110	-133	1910	-24	15	6	10	15	20	22	29	34	35
1400	-148	-147	-132	-114	-95	-83	-66	-46	-24	-4	1920	30	15	-1	-27	-49	-63	-66	-68	-63	-56
1410	15	36	54	104	153	206	251	277	292	292	1930	-54	-51	-46	-34	-24	1	21	35	44	49
1420	286	271	242	198	147	75	-4	-53	-93	-113	1940	49	53	54	63	71	74	74	69	64	49
1430	-127	-147	-172	-194	-214	-222	-221	-205	-193	-183	1950	39	27	15	4	-6	-16	-24	-29	-29	-29
1440	185	192	187	165	142	118	103	-81	-64	-49	1960	-31	-34	-39	-37	-39	-34	-29	-24	-18	-15
1450	-39	-12	15	64	115	168	213	260	292	310	1970	-13	-14	-24	-24	-24	-29	-31	-30	-25	-19
1460	303	275	238	187	146	110	72	26	-24	-57	1980	-9	2	10	24	36	46	50	49	49	48
1470	-83	-91	-103	-103	-103	-103	-103	-85	-77	-68	1990	38	29	21	14	4	53	46	4	0	9
1480	-56	-44	-34	-30	-29	-30	-29	-29	-43	-64	2000	15	30	44	54	54	54	48	29	9	-16
1490	-81	-84	-90	-86	-73	-48	-10	35	90	148	2010	-39	-63	-83	-98	-103	-95	-85	-74	-63	-51
1500	196	227	249	263	264	246	198	131	49	-29	2020	-39	-26	-7	9	15	15	25	30	37	25
1510	-93	-143	-170	-183	-196	-210	-222	-224	-208	-172	2030	33	27	26	28	32	40	46	45	42	42

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-168 E33S)										CONTINUED(F-168 E33S)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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2050	-24	-9	-4	-4	6	9	12	11	10	9	2570	-46	-53	-63	-54	-48	-39	-31	-2	-14	-36
2060	4	-4	-17	-37	-47	-63	-63	-60	-33	-19	2580	-4	6	7	10	13	14	12	15	15	-6
2070	-4	12	15	23	15	22	25	26	25	15	2590	7	9	12	15	15	15	15	15	14	11
2080	10	-3	-13	-24	-28	-38	-43	-46	-46	-41	2600	1	-2	-9	-7	-9	-5	-2	0	0	7
2090	-39	-39	-39	-38	-34	-29	-24	-3	14	34	2610	-1	-3	-9	-14	-24	-9	-34	-39	-39	0
2100	49	54	64	74	83	86	88	88	80	67	2620	-32	-31	-24	-15	-6	7	15	5	31	40
2110	53	34	23	10	5	-4	-12	-25	-36	-49	2630	54	54	54	50	40	30	15	5	-8	-24
2120	-59	-63	-66	-71	-74	-69	-63	-49	-38	-31	2640	-29	-29	-26	-24	-24	-7	-4	9	15	15
2130	-26	-25	-29	-35	-24	-17	-7	2	13	21	2650	15	15	10	0	-4	-17	-24	-32	-39	-42
2140	32	46	54	77	89	94	94	92	77	54	2660	-44	-48	-44	-43	-39	-35	-31	-29	-27	-27
2150	10	-4	-12	-12	-31	-45	-56	-63	-63	-54	2670	-26	-24	-11	-4	5	10	15	24	29	38
2160	-44	-29	-13	-5	4	10	15	11	6	-4	2680	43	47	54	54	54	52	49	42	35	29
2170	-4	-12	-24	-25	-29	-31	-32	-31	-29	-24	2690	15	15	14	14	12	12	14	11	7	5
2180	-15	-12	-9	-4	-1	3	14	25	31	33	2700	-4	-11	-15	-24	-24	-24	-27	-26	-26	-26
2190	34	29	24	15	11	6	-5	-16	-26	-32	2710	-24	-14	-2	2	12	15	24	15	15	9
2200	-36	-31	-18	-4	15	32	47	59	70	74	2720	0	12	-12	-15	-24	-15	-11	-7	-4	2
2210	74	54	46	24	7	-9	-24	-30	-44	-54	2730	9	12	21	15	24	20	15	15	15	10
2220	-63	-63	-63	-53	-43	-33	-26	-24	-24	-24	2740	8	-4	-9	-24	-24	-24	-26	-24	-18	-18
2230	-15	-9	-9	-10	-15	-24	-24	-30	-34	-34	2750	-12	-9	-2	0	3	9	10	12	14	13
2240	-4	15	4	15	24	30	39	44	49	51	2760	7	1	-4	-5	-9	-9	-12	-16	-24	-24
2250	47	46	40	37	34	30	35	41	46	48	2770	-24	-24	-24	-12	-14	-7	-5	-3	-4	-4
2260	49	54	54	54	54	44	33	14	2	-9	2780	-3	-3	-4	-3	1	1	-1	-4	-4	-5
2270	-24	-30	-36	-39	-41	-46	-48	-44	-43	-36	2790	-5	-4	-4	-4	-4	-4	-5	-5	-9	-7
2280	-29	-24	-24	-24	-29	-34	-37	-43	-47	-47	2800	-5	-4	5	10	15	15	26	27	30	37
2290	-49	-48	-36	-25	-11	2	15	27	39	49	2810	44	53	54	67	69	70	67	64	54	45
2300	54	54	54	54	54	47	39	24	11	6	2820	37	28	14	4	-9	-19	-35	-31	-39	-43
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2320	-1	-11	-19	-25	-28	-36	-41	-45	-48	-48	2840	-24	-24	-24	-24	-26	-29	-28	-31	-29	-25
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2340	0	-4	-12	-24	-30	-30	-25	-24	-14	-5	2860	14	14	5	7	4	2	-4	-4	-4	-6
2350	-1	-4	-7	-9	-9	-5	0	7	12	15	2870	-4	-2	2	2	4	4	4	7	12	15
2360	21	28	33	41	47	54	54	58	54	53	2880	15	15	15	15	23	26	27	27	29	27
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2380	0	0	0	0	-2	-4	-12	-19	-24	-24	2900	-14	-14	-9	-9	-12	-12	-24	-24	-30	-36
2390	-24	-19	-14	-7	-4	4	2	-4	0	-4	2910	-43	-46	-44	-44	-37	-34	-30	-26	-24	-14
2400	-5	-7	-6	-5	-4	-7	-7	-11	-7	-1	2920	-2	5	13	15	24	25	29	32	37	37
2410	3	7	7	9	12	15	15	24	22	22	2930	35	36	36	33	32	25	21	15	10	5
2420	24	28	30	31	26	20	15	5	4	-15	2940	-4	-5	-5	-3	-4	-4	2	-2	0	0
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2440	-24	-16	-17	-24	-24	-8	-4	-4	-4	4	2960	-25	-24	-24	-16	-12	-9	-11	-9	-9	-5
2450	6	11	15	24	32	37	36	35	27	15	2970	-4	4	7	8	15	15	14	15	15	24
2460	12	2	-4	-12	-19	-24	-24	-24	-24	-14	2980	29	29	29	27	19	15	11	14	15	24
2470	-8	-5	-9	-9	-7	-11	-13	-24	-24	-19	2990	-12	-11	-9	-7	-2	-2	-1	4	-9	-12
2480	-24	-15	-17	-19	-24	-29	-32	-35	-39	-39											
2490	-39	-29	-24	-7	5	24	40	54	62	64											
2500	63	63	54	54	51	36	21	1	-12	-24											
2510	-24	-24	-14	-2	13	24	31	32	32	25											
2520	15	5	-14	-25	-37	-44	-51	-58	-52	-49											
2530	-47	-34	-25	-17	-4	7	15	27	29	30											
2540	-30	34	32	32	25	25	15	7	-4	-4											
2550	-4	0	2	5	4	6	11	15	29	37											

END

TO BE CONTINUED

ECRD = F-168 COMPONENT = UP STATION = YAMASHITA-F
 DATE AND TIME = 1988- 8-12-14-15 TOTAL NUMBER OF DATA = 3000
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC. ONECTION POINT IN DATA NUMBER = 3000.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
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10	0	0	1	0	0	2	0	0	0	0	490	28	-17	-46	-60	-53	-30	7	44	59	47	
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150	0	0	0	0	0	0	0	0	0	0	630	21	42	-66	-37	7	32	27	-12	-35	-17	
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510	0	0	0	0	0	0	0	0	0	0	990	-66	-57	-67	-92	-96	-66	-7	52	98	120	

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-168 UP)										CONTINUED(F-168 UP)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	129	128	110	75	30	-7	-27	-27	-39	-76	1520	-44	-31	-27	-17	-27	-27	-17	-3	12	11
1010	-107	-94	-66	-42	-33	-27	-7	24	63	91	1530	-7	-27	-37	-33	-17	3	28	43	35	12
1020	107	101	78	69	83	91	86	72	46	19	1540	-7	-27	9	23	29	34	31	20	3	-15
1030	0	-29	-74	-114	-117	-114	-119	-114	-85	-48	1550	-27	-27	-27	-24	-20	-10	-7	2	2	-3
1040	1	28	-27	-27	-27	1	12	1	-17	-17	1560	-12	-20	-27	-27	-15	-8	0	12	12	-7
1050	6	33	3	12	10	12	12	9	11	36	1570	-17	-14	10	37	64	82	88	77	52	26
1060	71	121	146	157	151	131	106	26	-71	-135	1580	12	11	4	-7	-16	-45	-77	-106	-11	-97
1070	-162	-155	-120	-80	-39	5	266	27	46	106	1590	-66	-30	-14	-13	-15	-5	12	42	64	70
1080	62	49	12	-7	-37	-67	-84	-86	-91	-106	1600	52	34	22	12	11	-4	-15	-17	2	28
1090	-116	-106	-75	-47	-12	0	-37	-48	-27	33	1610	47	57	62	68	66	54	33	7	-6	-10
1100	27	71	91	113	111	91	89	109	131	140	1620	-7	0	2	4	-8	-27	-35	-44	-52	-53
1110	131	111	78	36	-8	-49	-67	-66	-59	-66	1630	-57	-55	-45	-29	-7	12	19	4	-17	-32
1120	-57	-48	-17	26	52	60	31	-14	-66	-82	1640	-42	-46	-44	-30	-12	7	21	31	41	47
1130	-66	-13	46	66	51	17	-12	-35	-37	-20	1650	49	47	37	29	23	12	7	0	-7	-8
1140	-21	-42	-60	-86	-114	-120	-92	-54	-30	-17	1660	-7	-6	-17	-27	-27	-27	-13	7	36	57
1150	5	30	52	71	102	125	126	107	91	72	1670	68	63	47	27	12	4	-2	-6	-17	-32
1160	48	36	26	12	-9	-31	-45	-51	-53	-53	1680	-37	-35	-27	-8	5	9	3	-9	-27	-27
1170	-59	-66	-54	-33	-15	-17	-30	-42	-30	-12	1690	-27	-10	-7	-8	-12	-8	-7	0	5	-7
1180	40	76	91	90	67	44	28	26	23	12	1700	-10	-13	3	29	52	62	52	52	42	31
1190	3	-12	-19	-17	-13	-8	-7	-15	-20	-19	1710	19	6	-7	-27	-43	-55	-58	-47	-34	-17
1200	-15	-12	-7	0	2	4	9	24	27	2	1720	-9	-7	-8	-7	0	2	7	11	19	27
1210	-17	-27	-8	12	23	-7	-35	-70	-84	-84	1730	27	22	12	22	25	24	12	-2	-19	-29
1220	-69	-32	11	52	71	65	52	52	62	66	1740	-39	-42	-37	-22	-8	-7	-7	-15	-22	-27
1230	52	34	-7	-41	-57	-53	-44	-44	-53	-59	1750	-27	-14	0	12	12	12	7	4	0	0
1240	-57	-39	-12	12	37	32	7	-10	1	24	1760	3	6	6	7	12	22	24	12	12	11
1250	39	37	31	24	12	8	12	22	24	17	1770	12	12	18	19	12	12	12	13	17	27
1260	21	23	33	39	35	22	11	12	31	47	1780	9	-8	-27	-27	-28	-34	-27	-16	-13	-21
1270	52	37	9	-13	-30	-31	-32	-32	-43	-66	1790	-27	-17	-27	-27	-33	-34	-27	-17	1	18
1280	-82	-92	-86	-75	-66	-66	-47	-32	-27	-27	1800	38	48	44	26	9	2	8	19	31	34
1290	-27	-17	-7	26	52	68	62	52	49	44	1810	37	28	12	-3	-6	0	12	31	38	36
1300	39	36	25	11	6	0	-2	2	7	12	1820	24	7	-8	-19	-22	-27	-32	-35	-47	-54
1310	12	3	14	-31	-36	-27	-11	5	12	37	1830	-47	-29	-17	-13	-17	-16	-7	9	22	27
1320	50	42	29	22	28	29	12	-7	-27	-22	1840	29	28	21	11	2	1	9	12	12	9
1330	-7	12	26	33	36	41	39	34	25	12	1850	-2	-9	-12	-7	-7	-4	-4	2	12	26
1340	7	-8	-20	-27	-17	0	6	-9	-35	-55	1860	29	23	19	12	12	9	2	-3	-6	-10
1350	-56	-47	-29	-27	-32	-47	-66	-69	-60	-38	1870	-17	-27	-31	-34	-35	-35	-31	-27	-27	-10
1360	-12	5	5	-1	0	12	32	37	28	5	1880	-7	7	-8	-6	0	12	26	37	41	46
1370	-17	-20	2	33	61	77	76	64	51	39	1890	46	37	27	9	-7	-18	-30	-32	-30	-32
1380	34	41	51	60	44	10	-42	-84	-94	-77	1900	-27	-17	-8	-8	-10	-9	-7	0	7	1
1390	-47	-10	12	23	3	-27	-48	-54	-43	-27	1910	12	29	39	40	36	34	39	43	44	35
1400	-15	-15	-28	-44	-47	-38	-27	7	12	24	1920	17	-3	-27	-39	-40	-42	-27	-13	-2	-2
1410	28	37	48	52	52	28	-2	-12	-2	18	1930	-8	-13	-10	-7	3	11	12	12	12	9
1420	25	17	5	3	2	2	-3	-8	-7	9	1940	8	12	12	3	-4	-12	-27	-28	-42	-47
1430	12	12	12	35	71	108	118	101	63	22	1950	-52	-47	-36	-27	7	8	12	12	12	26
1440	-7	-27	-40	-50	-52	-50	-55	-66	-67	-66	1960	32	40	41	33	26	23	25	31	34	29
1450	-55	-42	-32	-14	9	44	77	91	85	67	1970	12	12	18	29	31	29	12	-7	-20	-27
1460	44	32	37	39	31	8	-27	-66	-91	111	1980	-27	-27	-27	-27	-27	-27	-27	-8	-4	-5
1470	-124	-122	-115	-106	-90	-67	-39	-12	7	27	1990	-15	-22	-27	-33	-44	-52	-52	-38	-18	0
1480	42	51	52	74	89	88	72	52	46	52	2000	12	22	28	31	41	49	62	68	69	52
1490	52	39	22	12	22	22	12	1	-20	-40	2010	36	23	12	12	12	9	2	-12	-27	-37
1500	-45	-27	-7	22	49	67	71	61	44	23	2020	-42	-35	-30	-27	-22	-27	-27	-27	-29	-29
1510	3	-19	-39	-47	-39	-12	-7	-27	-38	-27	2030	-27	-18	-19	-20	-20	-17	-5	12	30	38

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(F-168 UP)										CONTINUED(F-168 UP)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	37	34	31	23	11	2	-7	-10	-8	-12	2560	6	4	0	2	4	-2	-7	-10	-13	-13
2050	-22	-27	-15	-7	9	18	28	42	61	70	2570	-17	-17	-27	-29	-29	-27	-13	-1	7	9
2060	69	58	34	7	-14	-27	-30	-32	-27	-27	2580	8	4	3	4	7	8	12	12	9	7
2070	-27	-31	-34	-32	-32	-27	-10	-2	3	0	2590	6	1	1	2	0	6	7	5	1	2
2080	-7	-13	-22	-27	-12	7	6	8	8	1	2600	3	4	0	0	0	0	-7	-10	-13	-13
2090	0	7	12	21	23	26	27	26	26	24	2610	-12	-5	-1	2	4	5	4	5	3	4
2100	23	22	21	21	23	12	12	2	-7	-10	2620	4	2	1	-7	-7	-8	-9	-9	-8	-7
2110	-7	-3	-4	-10	-22	-27	-27	-14	-8	-13	2630	-4	0	-7	0	-7	3	3	7	11	12
2120	-15	-27	-19	-8	-2	2	12	12	21	12	2640	12	12	12	12	11	12	12	12	12	8
2130	12	9	9	10	3	-7	-8	-12	-16	-13	2650	-1	-8	-9	-5	-6	-7	-13	-17	-27	-15
2140	-8	-1	6	7	9	16	18	12	9	-7	2660	-10	0	5	2	-5	-15	-22	-27	-27	-19
2150	-12	-22	-28	-32	-34	-29	-27	-30	-30	-17	2670	-9	-8	-12	-8	-7	-2	0	1	3	6
2160	0	12	24	31	28	12	6	6	8	12	2680	12	12	12	19	22	26	27	28	24	27
2170	9	7	4	4	4	19	24	24	22	20	2690	12	12	6	-7	-7	-7	-7	-10	-21	24
2180	18	12	0	-14	-17	-14	-7	-6	-8	-8	2700	-27	-27	-18	-12	-8	-7	-6	-5	-7	-7
2190	-7	-4	-1	7	12	12	10	-3	-15	-17	2710	-7	0	4	8	11	12	12	11	6	2
2200	-5	-4	9	3	-12	-17	-18	-13	-1	8	2720	0	-7	-7	-3	-8	-13	-15	-8	0	9
2210	12	12	7	1	-1	-4	-3	-1	-1	0	2730	12	12	19	12	12	12	12	11	12	12
2220	3	11	22	22	23	19	12	6	6	0	2740	11	7	4	2	-2	-3	-3	-5	-10	-12
2230	-7	-10	-12	-17	-12	-12	-8	-8	-12	-12	2750	-15	-12	-7	0	5	4	4	-7	-9	-9
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2250	4	4	2	1	-7	3	-2	-5	-13	-18	2770	-2	-5	-5	-7	-1	4	11	12	12	12
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2270	-7	-9	-17	-18	-13	-7	8	12	12	23	2790	3	1	3	4	4	0	-7	-17	-28	-35
2280	26	26	22	12	19	23	12	12	12	8	2800	-32	-27	-14	-9	-13	-13	-17	-17	-14	-5
2290	0	-7	-7	-7	1	6	0	-6	-17	-12	2810	1	6	6	1	-3	-6	-8	-8	-7	-5
2300	-5	3	11	12	11	8	4	0	-3	-12	2820	-5	0	-6	-7	-7	-8	-12	-8	0	9
2310	-17	-17	-19	-27	-12	-2	3	4	3	8	2830	12	12	12	12	12	12	12	12	12	12
2320	12	12	11	1	-12	-16	-21	-20	-27	-13	2840	12	12	12	12	7	-7	-10	-17	-27	-28
2330	-7	-8	-7	-9	-9	-7	-4	12	19	21	2850	-32	-32	-27	-17	-3	8	16	20	21	19
2340	12	4	-7	-12	-10	-8	-7	-2	3	-7	2860	12	9	7	8	10	12	11	9	6	8
2350	1	9	12	27	24	22	9	2	-7	-7	2870	7	4	3	5	5	2	-5	-6	-2	2
2360	-7	3	-2	-7	-9	-13	-13	-8	-2	-4	2880	8	12	9	4	-7	-7	-7	-4	4	3
2370	11	8	3	4	1	2	0	-1	-2	-4	2890	-4	-7	-7	-3	0	0	0	-2	-3	-8
2380	-11	-27	-27	-27	-18	-8	26	12	11	9	2900	-12	-9	-3	3	2	7	7	7	6	4
2390	4	12	21	31	36	34	26	12	11	0	2910	1	-7	-8	-8	-10	-4	-1	-2	2	2
2400	11	0	-1	-9	-10	-8	-7	-7	0	1	2920	-1	-1	-3	-6	-6	-4	-1	-2	-2	-4
2410	0	0	-3	2	3	4	-7	-7	-15	-27	2930	-3	0	2	4	0	-7	-7	-8	-7	-7
2420	-18	-12	-1	4	4	0	-7	-12	-19	-1	2940	4	8	11	10	7	6	8	9	11	12
2430	3	2	3	9	12	11	12	12	19	22	2950	12	8	2	-7	-2	-4	-4	-4	-7	-7
2440	12	11	3	-1	-2	0	-8	-9	-8	-10	2960	-7	-8	-7	-8	-8	-9	-8	-7	-7	-6
2450	-10	-14	-14	-8	-2	-1	-1	-7	-7	0	2970	-9	-13	-12	-12	-6	0	6	9	12	18
2460	3	4	1	1	1	4	2	2	5	3	2980	24	26	29	28	24	22	12	11	6	7
2470	0	-5	-13	-11	-3	-3	-5	-2	-4	-7	2990	-7	-12	-16	-15	-14	-8	-7	1	3	7
2480	-7	-12	-7	3	12	24	26	25	11	4											
2490	4	3	2	-1	-4	-17	-6	-5	2	11											
2500	12	7	-1	-7	-15	-17	-20	-22	-14	-9											
2510	-7	4	6	7	6	-2	0	0	-2	-7											
2520	-12	-22	-24	-27	-27	-27	-27	-27	-16	-13											
2530	-9	-7	0	8	12	23	28	29	33	37											
2540	39	36	29	17	12	3	-5	-12	-14	-4											
2550	-5	-7	-2	-7	11	23	32	36	34	22											

TO BE CONTINUED

END

ECORD = S-2171 COMPONENT = SOUTH STATION = KUSHIRO-JI-S
 DATE AND TIME = 1988-10-10-14-52 TOTAL NUMBER OF DATA = 2950
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.

CORRECTION POINT IN DATA NUMBER = 2950, 2950,		CONTINUED(S-2171 SOUTH)										TO BE CONTINUED									
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	10	10	10	10	10	10	10	10	10	8	480	4	6	6	4	0	-8	-14	-18	-19	-21
10	8	7	6	5	5	4	4	3	2	0	490	-18	-13	-11	-9	-10	-11	-10	-9	-4	-2
20	0	0	0	0	0	1	1	2	4	6	500	0	2	6	12	18	22	22	20	16	10
30	8	9	10	11	12	14	15	17	17	18	510	3	-2	-7	-12	-16	-19	-23	-25	-14	16
40	16	9	2	-5	-13	-19	-24	-26	-28	-28	520	-6	-2	-7	-19	-31	-34	-19	3	15	16
50	-28	-30	-31	-31	-31	-22	-15	-7	2	2	530	11	4	4	14	28	38	31	15	-4	-19
60	7	11	11	9	6	-1	-6	-9	-11	-13	540	-27	-24	-11	5	25	34	36	33	23	12
70	-9	-3	3	8	12	16	18	15	9	-3	550	9	13	24	37	41	35	23	13	4	-3
80	-13	-19	-16	6	29	45	43	10	-28	-41	560	-8	-11	-11	-8	-4	-1	-4	-16	-31	-43
90	-110	-120	-109	-83	-51	-31	-26	-33	-41	-42	570	-47	-41	-30	-17	-6	4	10	14	15	11
100	-29	1	41	75	91	91	76	55	39	30	580	8	7	14	27	34	38	34	13	8	-23
110	28	35	51	57	51	30	-4	-38	-55	-58	600	-32	-34	-29	-16	-4	1	6	8	3	-3
120	-45	-27	-17	-12	-9	-1	18	47	69	74	610	-39	-20	-5	4	7	9	9	15	22	25
130	65	36	3	-11	-9	10	31	42	39	18	620	22	15	6	0	-5	-9	-5	5	17	24
140	-14	-40	-48	-38	-23	-11	-2	2	0	-7	630	31	33	26	10	-5	-15	-20	-23	-27	-31
150	-9	-6	2	15	20	17	10	3	2	14	640	-36	-36	-30	-19	-5	0	8	17	35	35
160	40	51	49	28	-5	-19	-19	-13	-15	-32	650	40	42	36	25	14	7	2	2	10	22
170	-64	-93	-90	-46	22	77	92	83	59	31	660	31	33	30	20	11	7	5	5	3	-3
180	11	5	8	13	10	-9	-45	-76	-90	-86	670	-13	-23	-30	-33	-34	-27	-19	-12	-7	-5
190	9	10	4	13	10	-9	-45	-76	-90	-86	680	-6	-10	-13	-15	-16	-12	-7	-2	1	7
200	-27	-19	-4	13	32	48	59	64	65	62	690	19	26	28	23	8	0	2	13	17	14
210	53	35	11	-18	-43	-53	-50	-35	-21	-13	700	0	-24	-43	-47	-41	-29	-18	-10	-5	0
220	-9	-4	1	6	8	6	2	0	-3	-2	710	3	3	-3	-3	-18	-32	-36	-27	-9	5
230	-2	-1	1	3	3	7	11	9	6	-7	720	-1	-17	-30	-33	-28	-21	-14	-10	-9	-10
240	-27	-37	-40	-31	-16	-5	11	27	36	39	730	-13	-15	-13	-4	10	26	33	33	29	25
250	36	25	6	-10	-25	-33	-34	-27	-19	-11	740	23	25	26	25	12	-10	-23	-24	-16	8
260	-4	4	14	21	23	21	13	-3	-19	-29	750	-5	-3	-3	-4	-1	0	-3	-10	-14	-14
270	-32	-29	-20	0	19	34	44	49	49	36	760	-14	-11	-8	-6	-3	7	23	36	44	39
280	12	-11	-31	-39	-41	-42	-46	-59	-73	-77	770	20	0	-11	-14	-12	-8	-6	-10	-20	-29
290	-59	-16	25	53	65	64	55	40	21	5	780	-32	-25	-13	-2	1	0	-4	-8	-7	7
300	-7	-15	-19	-22	-24	-26	-26	-23	-13	0	790	27	33	28	11	-16	-37	-44	-33	-9	12
310	8	11	10	8	9	16	25	31	28	18	800	19	17	5	-2	-4	-1	2	0	-4	-12
320	5	-4	-11	-15	-17	-16	-18	-18	-21	-24	810	-21	-24	-24	-23	-25	-40	-58	-67	-66	-50
330	-27	-25	-21	-18	-18	-19	-17	-8	6	21	820	-25	-3	9	12	8	3	2	7	13	15
340	27	27	24	20	16	15	15	16	17	16	830	7	-5	-12	-10	0	12	19	20	12	0
350	16	15	8	-6	-18	-23	-18	-1	16	21	840	-9	-4	23	47	55	48	22	-13	-53	-81
360	18	10	0	-6	-7	-3	3	11	19	22	850	-98	-103	-104	-102	-99	-98	-96	-82	-53	-19
370	18	8	-4	-14	-22	-23	-21	-19	-18	-20	860	5	24	31	37	43	48	53	58	52	52
380	-23	-25	-23	-22	-11	10	23	31	36	36	870	39	20	-5	-41	-81	-118	-152	-147	-131	-131
390	28	19	10	2	-6	-17	-30	-40	-45	-50	880	-108	-78	-47	-20	-5	1	4	9	12	15
400	-52	-52	-48	-39	-26	-8	8	14	16	17	890	20	23	29	39	49	55	53	48	47	65
410	15	15	13	10	6	1	-3	7	-10	-11	900	4	-2	-4	49	155	293	339	330	278	278
420	-13	-14	-14	-13	-6	4	13	17	19	18	910	180	82	0	-63	-103	-126	-148	-166	-173	-167
430	14	9	5	-2	-10	-17	-18	-19	-19	-18	920	-2	-38	40	72	51	-19	-87	-166	-256	-314
440	-19	-21	-20	-12	-1	7	10	9	6	2	930	-127	-35	40	72	51	-19	-87	-166	-256	-314
450	-2	-4	-4	-3	-1	1	3	8	23	50	940	-315	-268	-196	-126	-80	-71	-95	-138	-178	-197
460	77	94	98	92	71	42	18	2	-11	-21	950	-175	-104	-3	91	143	155	147	121	81	37
470	-32	-42	-50	-55	-57	-49	-34	-21	-11	-2	960	10	-2	3	35	62	67	45	-11	-80	-119
480	-32	-42	-50	-55	-57	-49	-34	-21	-11	-2	970	-127	-86	-4	61	97	109	102	62	-9	-96
490	-32	-42	-50	-55	-57	-49	-34	-21	-11	-2	980	-127	-86	-4	61	97	109	102	62	-9	-96
500	-32	-42	-50	-55	-57	-49	-34	-21	-11	-2	990	-127	-86	-4	61	97	109	102	62	-9	-96

CONT INUED(S-2171 SOUTH)

CONTINUED(S-2171 SOUTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	-181	-256	-300	-295	-214	-41	189	323	341	300	25	19	18	18	17	13	4	-7	-18	-25
1010	208	97	25	8	-14	-11	-6	6	15	49	1520	-30	-24	-14	-4	3	7	5	0	-6
1020	101	161	218	249	252	237	210	164	93	7	1530	-11	-14	-14	-15	-17	-18	-18	-20	-21
1030	-88	-193	-313	-397	-435	-454	-425	-340	-212	-39	1540	-21	-15	-5	6	16	18	20	19	15
1040	171	308	339	321	252	146	34	-72	-134	-150	1550	6	-9	-29	-43	-49	-30	-9	10	19
1050	-142	-115	-93	-78	-65	-51	-28	11	61	93	1570	22	24	26	25	23	22	21	15	0
1060	105	98	67	27	-3	-19	-22	-16	0	19	1580	-20	-41	-56	-63	-65	-57	-51	-38	-17
1070	32	32	15	-19	-59	-90	172	107	-115	-104	1590	8	43	82	114	129	130	119	82	74
1080	-75	-26	39	105	153	172	156	135	104	104	1600	62	46	26	5	-12	-26	-34	-42	-39
1090	68	48	44	53	80	113	128	126	109	71	1610	34	-30	-20	-2	17	35	48	51	34
1100	21	-24	-64	-102	-131	-142	-140	-123	-92	-59	1620	-7	-8	-18	-27	-35	-46	-64	-68	-68
1110	-22	0	7	11	14	16	20	28	35	33	1630	-57	-34	-8	16	37	47	50	44	28
1120	13	-36	-113	-186	-228	-238	-205	-126	-96	29	1640	-12	-25	-34	-36	-30	-18	-6	5	17
1130	61	72	71	58	31	-6	-40	-63	-73	-73	1650	40	42	41	29	3	-27	-51	-69	-78
1140	-70	-69	-79	-110	-151	-183	-185	-165	-113	-41	1660	-63	-43	-14	8	20	34	41	43	38
1150	36	89	100	88	50	-7	-60	-85	-88	-67	1670	21	14	7	1	-4	-10	-19	-29	-36
1160	-27	16	63	109	145	165	171	174	176	175	1680	-33	-11	16	15	43	56	58	36	15
1170	168	153	125	83	39	-3	-45	-79	-97	-101	1690	-8	-11	-9	-6	-3	-1	0	3	6
1180	-87	-50	-1	47	97	134	147	146	135	111	1700	12	21	34	47	60	70	76	77	75
1190	78	43	15	-6	-18	-24	-26	-28	-27	-20	1710	49	23	1	-9	-12	-10	-4	1	5
1200	-7	5	16	24	43	70	89	95	90	63	1720	-3	-35	-28	-14	0	12	17	20	21
1210	8	-71	-143	-174	-183	-181	-167	-146	-122	-94	1730	33	-36	-28	-14	0	-8	-32	-38	-38
1220	-59	-19	14	29	29	14	-10	-39	-66	-89	1740	16	14	13	10	3	-8	-22	-32	-38
1230	-99	-99	-83	-52	-16	11	36	57	72	78	1750	-32	-24	-16	-7	0	2	0	-1	-2
1240	79	79	67	35	-3	-40	-75	-96	-103	-103	1760	-11	-17	-24	-33	-45	-61	-75	-87	-91
1250	-93	-78	-56	-33	-9	11	40	65	59	52	1770	-76	-58	-38	-17	7	35	59	74	79
1260	7	-56	-108	-126	-119	-79	-19	30	71	101	1780	75	59	62	55	47	36	23	12	1
1270	122	139	152	161	161	149	119	80	33	-12	1790	-3	8	27	46	63	73	80	85	87
1280	-48	-73	-87	-92	-86	-65	-30	3	20	24	1800	78	60	35	14	1	-5	-8	-6	-6
1290	18	0	-28	-54	-68	-74	-74	-72	-68	-66	1810	-7	-6	-3	6	16	20	21	19	16
1300	-63	-51	-31	-22	-21	-28	-48	-58	-52	-23	1820	11	9	7	3	0	1	5	10	16
1310	13	38	56	59	53	44	35	29	24	21	1830	23	22	14	-2	-23	-42	-57	-63	-59
1320	20	23	35	52	68	77	81	81	76	59	1840	-41	-37	-38	-43	-47	-47	-43	-38	-30
1330	29	7	-44	-73	-88	-93	-88	-76	-58	-27	1850	-11	-5	0	1	1	-1	-6	-9	-14
1340	15	62	107	149	169	172	161	131	87	40	1860	-12	-11	-13	-18	-22	-24	-23	-21	-21
1350	-6	-40	-61	-69	-69	-64	-49	-23	4	28	1870	-21	-21	-20	-12	1	15	22	26	29
1360	47	52	47	29	5	-14	-26	-32	-37	-43	1880	37	47	59	67	71	71	66	55	38
1370	-50	-58	-66	-70	-70	-63	-50	-32	-18	-12	1890	2	-7	-12	-15	-11	1	15	24	29
1380	-11	-16	-25	-36	-46	-52	-45	-37	-57	-49	1900	32	32	31	31	31	30	28	26	24
1390	-29	-11	6	10	22	32	39	42	36	14	1910	12	1	7	-10	-16	-19	-18	-14	-13
1400	-59	-8	-55	-96	-84	-62	-46	-33	-24	-15	1920	-10	-5	-2	0	0	1	0	3	8
1410	-8	5	26	59	92	110	114	114	104	84	1930	14	13	7	0	-7	-10	-12	-13	-12
1420	64	44	30	21	15	12	10	7	3	-1	1940	-17	-22	-27	-31	-34	-32	-26	-22	-19
1430	-2	0	9	25	43	57	65	67	61	46	1950	-21	-24	-27	-30	-30	-27	-26	-26	-32
1440	21	-7	-27	-35	-37	-33	-27	-24	-23	-35	1960	-44	-48	-49	-43	-33	-23	-11	-4	1
1450	-45	-50	-53	-42	-13	15	41	52	53	41	1970	11	17	23	27	27	27	29	33	37
1460	21	3	-3	0	14	22	19	2	-22	-47	1980	37	30	23	18	15	17	20	19	11
1470	-69	-79	-81	-74	-59	-49	-45	-44	-45	-44	1990	-8	10	0	19	40	58	68	70	67
1480	-40	-32	-22	-13	-7	-4	-2	-2	-3	-5	2000	52	42	32	23	17	12	5	-1	-6
1490	-7	-7	-8	-8	-9	-5	6	22	37	48	2010	-8	-2	9	26	40	45	46	41	34
1500	54	56	53	51	45	51	32	14	-8	-17	2020	13	1	-9	-17	-26	-32	-35	-37	-34
1510	-20	-7	23	52	64	68	65	57	46	34	2030	-29	-26	-26	-26	-32	-41	-49	-52	-49

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(S-2171 SOUTH)

CONTINUED(S-2171 SOUTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-40	-33	-27	-21	-18	-15	-11	-9	-9	-9
2050	-14	-23	-32	-39	-45	-48	-46	-45	-42	-41
2060	-37	-31	-23	-11	0	12	17	21	25	27
2070	28	31	35	34	33	33	33	30	27	23
2080	19	14	9	4	1	3	10	22	37	53
2090	70	82	85	81	69	49	32	22	15	10
2100	4	-1	-8	-13	-17	-19	-16	-10	-5	0
2110	5	1	5	2	0	-4	-4	-3	-6	-4
2120	-10	-11	-13	-14	-14	-13	-14	-19	-23	-24
2130	-21	-12	-1	7	14	18	15	2	-14	-13
2140	-44	-50	-40	-32	-24	-20	-17	-16	-16	-16
2150	-18	-19	-19	-19	-20	-21	-21	-22	-21	-21
2160	-20	-15	-4	9	27	37	43	47	41	27
2170	-11	-4	-17	-24	-32	-38	-43	-44	-43	-33
2180	-18	0	19	35	45	49	51	50	44	36
2190	25	13	1	-7	-12	-16	-17	-16	-12	-4
2200	4	13	20	25	27	21	10	0	-5	-9
2210	-10	-12	-12	-8	-5	-1	2	3	2	0
2220	-2	-5	-6	-7	-10	-15	-19	-20	-18	-13
2230	-9	-7	-2	4	13	18	21	22	18	11
2240	2	-3	-7	-9	-12	-18	-24	-31	-38	-41
2250	-39	-34	-28	-23	-19	-13	-5	3	11	15
2260	18	21	21	17	16	15	15	15	18	21
2270	20	20	18	17	16	17	15	12	8	4
2280	3	1	0	0	2	3	3	4	8	13
2290	18	20	21	20	17	15	15	15	14	9
2300	2	-1	-6	-11	-15	-18	-18	-12	-3	8
2310	23	36	45	49	46	41	37	31	22	14
2320	0	-8	-14	-18	-21	-20	-17	-13	-10	-9
2330	-8	-7	-7	-9	-11	-11	-15	-18	-16	-14
2340	-14	-13	-9	-8	-8	-8	-9	-9	-12	-17
2350	-23	-27	-32	-40	-43	-43	-40	-37	-31	-21
2360	-8	8	20	23	25	24	13	-1	-12	-21
2370	-28	-31	-31	-34	-34	-30	-26	-20	-15	-8
2380	-7	6	5	7	8	7	6	6	5	5
2390	2	9	12	15	19	22	24	25	27	26
2400	23	21	18	20	27	37	48	55	57	54
2410	51	46	40	36	33	29	27	31	33	33
2420	30	22	12	3	-1	-5	-6	-7	-4	0
2430	4	8	10	12	13	12	12	12	12	8
2440	0	-11	-21	-30	-36	-41	-41	-35	-26	-18
2450	-11	-3	2	2	0	-4	-9	-16	-21	-24
2460	-25	-26	-24	-22	-19	-16	-15	-13	-13	-17
2470	-21	-23	-27	-31	-35	-37	-37	-35	-33	-28
2480	-22	-14	-5	2	14	22	27	33	38	40
2490	40	39	35	32	30	29	30	30	31	31
2500	29	26	24	21	23	26	28	29	30	28
2510	27	24	21	21	20	15	10	5	0	-2
2520	-2	-1	-1	-3	-4	-6	-4	-3	0	4
2530	10	9	7	6	4	0	0	2	6	8
2540	7	3	0	-5	-8	-11	-15	-20	-25	-29
2550	-31	-31	-28	-20	-10	-3	2	6	6	4

TO BE CONTINUED

END

ECORDE S-2171 COMPONENT = EAST STATION = KUSHIRO-JI-S
 DATE AND TIME = 1988-10-10-14-52 TOTAL NUMBER OF DATA = 2950
 AMPLING INTERVAL = 0.010 (SEC) SIGNAL = GR. ACC.
 ONECTION POINT IN DATA NUMBER = 2950, 2950.

CONTINUED(S-2171 EAST)										
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	8	9	9	9	9	9	9	10	9	9
10	9	7	7	7	7	7	7	7	7	7
20	7	7	7	7	7	7	7	7	7	7
30	5	2	0	-2	-5	-7	-7	-5	-2	6
40	0	4	8	10	12	13	15	15	16	17
50	17	18	19	17	13	8	4	2	0	0
60	0	0	-2	-8	-17	-27	-35	-41	-40	-34
70	-16	2	18	25	27	24	16	7	0	-3
80	-2	15	37	49	50	37	6	6	-28	-51
90	-61	-45	-27	-13	-7	4	-6	-10	-14	-18
100	-18	-15	-8	12	19	41	51	51	33	2
110	-33	-69	-84	-73	-29	22	58	70	68	51
120	15	-19	-33	-35	-29	-22	-19	-25	-39	-53
130	-58	-48	-12	29	62	74	74	60	43	29
140	21	15	11	8	2	-8	-23	-48	-83	-107
150	-110	-87	-24	55	128	145	135	88	21	-38
160	-56	-51	-25	6	29	40	41	33	23	17
170	13	5	-9	-29	-50	-60	-54	-32	-2	18
180	24	19	10	3	4	15	29	43	55	61
190	-37	-79	-94	-87	-52	-3	36	47	40	21
200	2	-14	-30	-38	-38	-29	-18	-8	1	7
210	15	20	23	17	0	-25	-47	-59	-65	-68
220	-63	-49	-25	0	21	40	51	53	52	51
230	52	53	53	45	29	9	-11	-35	-53	-63
240	-74	-84	-88	-89	-88	-84	-75	-57	-32	-9
250	6	19	32	42	48	51	51	45	31	18
260	7	-2	-7	-7	-3	10	35	53	56	46
270	24	5	-6	-8	-8	-7	-8	-12	-15	-16
280	-13	-11	-11	-15	-25	-37	-50	-57	-62	-63
290	-56	-43	-26	-6	8	26	43	55	61	60
300	48	30	11	-3	-11	-14	-15	-13	-12	-11
310	-9	-4	4	11	13	13	10	1	-1	-24
320	-32	-31	-23	-9	3	10	12	10	2	-7
330	-19	-30	-39	-44	-44	-39	-36	-34	-36	-38
340	-35	-31	-16	0	27	54	71	76	67	44
350	15	-12	-27	-36	-35	-26	-13	-6	-3	-2
360	-1	0	2	4	3	-1	-7	-15	-24	-35
370	-44	-50	-54	-53	-48	-41	-33	-23	-12	-4
380	0	2	2	4	12	27	41	47	37	18
390	-10	-3	4	-24	-21	-18	-16	-16	-18	-23
400	0	-14	-23	-32	-29	-19	0	13	19	20
410	-27	-30	-32	-32	-29	-19	0	13	19	20
420	12	-3	-14	-20	-14	-2	10	17	17	10
430	0	-7	-10	-9	-6	-1	3	7	8	8
440	6	5	3	3	2	-3	-15	-27	-34	-35
450	-28	-16	-5	3	10	11	8	2	-2	-6
460	-9	-11	-12	-12	-17	-21	-22	-17	-4	-4
470	14	34	48	54	47	29	6	-12	-27	-35

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(S-217:1 EAST)										CONTINUED(S-217:1 EAST)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	410	363	278	185	82	-47	-158	-230	-264	-276	1520	-27	-7	12	34	59	79	90	97	96	77
1010	-273	-250	-205	-154	-120	-107	-104	-103	-90	-35	1530	41	2	-32	-55	-51	-49	-20	20	57	74
1020	112	239	390	386	307	165	5	-122	-186	-179	1540	79	75	65	56	47	38	28	21	18	15
1030	-95	33	127	156	150	114	67	16	-23	-48	1550	14	13	13	15	18	27	41	51	55	60
1040	-68	-86	-106	-129	-143	-147	-126	-54	36	125	1560	59	46	19	-16	-52	-78	-85	-73	-40	-1
1050	169	176	158	116	73	47	36	30	27	21	1570	27	36	33	19	0	-10	-15	-10	-4	-4
1060	0	-44	-98	-150	-186	-201	-199	-173	-141	-137	1580	-1	1	5	5	3	5	12	15	14	8
1070	-159	-178	-167	-95	27	152	213	215	169	90	1590	-3	-17	-30	-42	-50	-56	-61	-72	-89	-103
1080	7	-51	-84	-100	-107	-111	-112	-113	-100	-44	1600	-109	-105	-89	-64	-30	0	16	22	27	32
1090	63	180	249	273	263	176	36	-88	-162	-188	1610	37	42	46	49	40	24	10	0	-9	-9
1100	-198	-199	-193	-178	-156	-109	-32	46	127	181	1620	-7	0	10	27	44	58	69	75	74	70
1110	193	177	132	35	-46	-98	-107	-90	-31	33	1630	62	50	38	28	37	38	1	8	-9	-8
1120	62	47	16	7	-15	2	64	143	187	178	1640	-1	13	27	34	37	39	21	6	0	-3
1130	124	47	-47	-132	-177	-192	-195	-192	-189	-187	1650	4	19	37	49	52	53	50	35	21	13
1140	-188	-175	-133	-73	-8	39	66	90	124	153	1660	7	1	-1	-11	-31	-50	-62	-68	-65	-45
1150	164	150	108	58	-2	-56	-92	-108	-113	-101	1670	-18	-3	-2	-11	-23	-32	-39	-42	-34	-20
1160	-65	-23	6	25	37	44	53	77	115	143	1680	-9	-4	0	-1	-6	-12	-19	-23	-23	-22
1170	147	135	67	-16	-111	-190	-224	-214	-149	-34	1690	-17	-6	14	43	70	88	96	83	48	4
1180	93	159	169	153	123	93	64	42	21	-2	1700	-19	-25	-27	-20	-8	0	3	2	-6	-8
1190	-22	-32	-36	-35	-31	-26	-34	-53	-69	-78	1710	-12	-19	-17	-8	2	9	14	17	13	8
1200	-84	-83	-68	-40	-6	26	48	52	40	4	1720	6	4	1	3	8	17	30	42	50	54
1210	-37	-72	-101	-112	-108	-100	-94	-92	-93	-97	1730	54	45	31	15	-1	-11	-9	9	17	14
1220	-95	-80	-44	8	60	92	107	107	92	62	1740	15	17	18	13	7	7	9	12	14	16
1230	18	-37	-64	-105	-102	-71	-22	26	52	60	1750	14	10	5	0	-3	-8	-14	-17	-19	-19
1240	62	59	57	61	65	69	67	62	57	49	1760	-11	-6	-4	-1	-2	-9	-18	-22	-24	-22
1250	39	21	-12	-54	-74	-78	-50	36	137	183	1770	-15	-9	-6	-2	-1	-4	-10	-14	-18	-22
1260	191	179	135	70	7	-52	-89	-100	-101	-92	1780	-24	-23	-13	12	45	73	90	95	88	68
1270	-77	-64	-53	-42	-28	-8	18	48	79	104	1790	43	23	10	0	-6	-14	-27	-39	-46	-46
1280	109	87	46	-5	-64	-114	-137	-141	-128	-105	1800	-36	-12	15	38	48	51	45	34	22	22
1290	-79	-49	-9	36	56	54	16	-57	-113	-128	1810	13	7	2	-1	0	2	8	16	25	36
1300	-128	-96	-16	66	108	115	103	72	32	-6	1820	40	41	34	19	3	-9	-21	-27	-28	-29
1310	-35	-55	-71	-84	-88	-83	-68	-47	-25	-8	1830	-30	-22	-7	10	24	33	37	38	34	25
1320	0	4	5	2	0	2	6	9	11	12	1840	16	6	-2	7	-11	-18	-24	-27	-32	-32
1330	10	8	11	23	44	65	79	77	47	-4	1850	-23	-4	12	19	22	22	16	9	4	0
1340	-57	-106	-130	-133	-119	-97	-78	-68	-62	-51	1860	-9	-4	-6	-3	0	1	2	2	2	3
1350	-27	9	49	76	83	83	74	64	54	48	1870	1	-3	-9	-12	-10	-5	4	14	18	19
1360	43	38	30	22	18	19	25	39	52	57	1880	16	8	0	-5	-7	-4	0	5	9	12
1370	58	52	42	34	26	21	18	13	8	3	1890	16	21	28	36	43	48	51	53	52	45
1380	0	-3	-5	-8	-16	-27	-43	-57	-67	-70	1900	33	19	4	-6	-13	-17	-16	-2	18	34
1390	-63	-46	-23	-1	24	42	51	55	58	53	1910	38	37	31	17	0	-8	-9	-5	3	8
1400	38	17	-6	-24	-38	-46	-48	-44	-31	-12	1920	11	15	14	11	8	7	6	3	-1	-9
1410	6	24	29	18	-7	-30	-37	-32	-11	11	1930	-18	-25	-26	-23	-17	-12	-9	-7	-7	-11
1420	17	7	-20	-54	-74	-76	-61	-30	-9	-4	1940	-13	-12	-8	-3	0	0	-3	-10	-19	-22
1430	-10	-25	-38	-47	-48	-40	-30	-22	-13	2	1950	-23	-21	-11	2	11	15	17	15	13	12
1440	22	41	50	50	39	24	16	9	6	13	1960	13	15	13	7	0	-10	-17	-26	-31	-31
1450	26	42	55	65	66	66	56	39	10	-6	1970	-32	26	-10	4	14	17	15	11	11	11
1460	-11	-7	1	12	17	15	10	5	0	-2	1980	-2	-7	-8	-6	-2	3	9	16	23	27
1470	-3	-1	0	-2	-8	-13	-17	-19	-25	-33	1990	28	29	22	10	3	-3	-6	-3	0	5
1480	-39	-41	-26	3	34	55	66	69	67	60	2000	8	5	-1	-7	-10	-11	-11	-8	-5	0
1490	53	45	34	18	0	-21	-42	-58	-76	-86	2010	2	5	8	8	5	1	-1	-8	-2	12
1500	-89	-84	-62	-38	-10	10	15	11	-7	-29	2020	19	26	31	28	22	14	9	6	5	9
1510	-39	-41	-38	-35	-33	-35	-46	-52	-52	-45	2030	13	15	18	19	19	17	14	9	3	-2

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(S-2171 EAST)										CONTINUED(S-2171 EAST)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-6	-9	-9	-7	-5	-2	0	0	2	2	2560	4	8	9	11	13	14	11	2	-6	-14
2050	0	1	4	5	5	5	0	0	1	-3	2570	-17	-12	-6	-1	0	1	0	-3	-4	-3
2060	-9	14	-17	-18	-13	-3	10	24	30	30	2580	-5	-6	-5	-1	0	2	5	-7	7	5
2070	35	36	31	20	9	3	0	-6	-14	-21	2590	5	5	6	6	7	8	9	11	15	19
2080	-27	-32	-35	-32	-22	-10	0	10	16	20	2600	26	31	34	38	42	44	44	41	35	28
2090	21	19	12	1	-7	-9	-7	1	10	15	2610	23	19	15	14	11	8	2	-1	-4	8
2100	17	20	18	15	14	13	10	0	-13	-13	2620	-8	-7	-2	6	13	16	18	19	24	30
2110	-23	-27	-28	-23	-13	-6	1	7	15	27	2630	35	39	41	34	24	14	6	0	-2	-2
2120	37	42	42	43	31	10	-15	-39	-59	-72	2640	1	4	6	5	3	3	5	9	14	24
2130	-79	-80	-75	-59	-37	-16	-2	5	11	15	2650	32	25	15	5	-4	-14	-22	-15	-34	-37
2140	16	17	18	18	14	8	3	0	0	-1	2660	-38	-36	-31	-24	-19	-15	-12	-15	-16	-18
2150	-1	1	8	12	16	20	23	21	13	2	2670	-18	-12	-7	-1	3	6	13	21	27	31
2160	-8	-7	-23	-21	-12	-2	5	11	13	9	2680	33	36	38	33	26	18	12	10	12	14
2170	5	4	6	11	18	23	24	18	6	-8	2690	15	18	23	25	25	27	28	27	27	24
2180	-16	-21	-21	-14	-8	2	5	19	30	37	2700	19	14	10	8	6	7	12	12	9	8
2190	40	41	42	40	36	31	22	14	4	-6	2710	8	11	17	22	28	35	38	37	39	41
2200	-14	-20	-25	-29	-28	-24	-17	-8	0	6	2720	44	47	46	43	38	31	22	16	13	10
2210	11	14	13	12	12	10	6	0	-7	-11	2730	11	12	13	12	12	12	12	8	2	-1
2220	-12	-15	-18	-20	-23	-27	-29	-29	-27	-25	2740	-3	-6	-8	-8	-9	-12	-16	-21	-18	-11
2230	-24	-20	-14	-4	6	13	16	19	23	26	2750	-8	-6	-3	-3	-5	-7	-10	-14	-15	-12
2240	28	30	30	28	22	14	7	3	4	6	2760	-9	-5	-1	2	5	9	11	13	16	17
2250	9	10	11	9	4	-1	-5	-7	-8	-9	2770	17	17	15	12	10	6	2	1	-3	-7
2260	-10	-15	-19	-24	-28	-29	-23	-8	6	14	2780	-9	-11	-14	-14	-13	-11	-9	-8	-8	-7
2270	19	22	20	14	11	8	9	10	9	8	2790	-3	4	7	8	4	4	9	18	24	2
2280	4	-1	5	-10	-11	-10	-9	-8	-8	-11	2800	4	7	8	7	4	4	4	4	2	2
2290	-14	-16	-21	-18	-14	-11	-10	-14	-20	-29	2810	28	30	29	25	19	14	15	19	25	31
2300	-34	-37	-36	-21	-1	13	20	24	26	24	2820	34	35	36	41	43	42	38	36	31	24
2310	19	15	15	15	17	22	21	17	16	13	2830	20	18	15	15	14	12	13	16	18	19
2320	10	9	12	15	15	19	28	34	36	39	2840	20	22	21	14	5	0	-5	-6	-2	3
2330	41	35	28	21	18	16	16	18	18	18	2850	8	10	8	6	5	9	12	15	16	15
2340	14	9	5	3	1	3	8	12	13	11	2860	15	13	10	8	2	-1	-2	-4	-3	-2
2350	7	5	5	6	9	12	14	15	17	12	2870	-2	-2	-4	-8	-8	-9	-11	-11	-9	-8
2360	2	-6	-10	-16	-19	-21	-23	-26	-28	-28	2880	-8	-8	-5	0	2	5	4	0	-3	-6
2370	-28	-28	-24	-24	-19	-17	-16	-16	-19	-21	2890	-7	-1	2	2	1	2	2	1	0	2
2380	-22	-23	-20	-13	-9	-9	-9	-9	-13	-19	2900	5	8	12	16	18	20	22	23	26	28
2390	-25	-24	-24	-14	0	10	12	14	14	12	2910	26	21	18	15	12	8	9	13	15	16
2400	9	4	1	2	2	0	-1	-1	2	4	2920	17	16	15	16	15	12	10	17	17	20
2410	5	11	20	27	40	47	49	51	51	42	2930	-15	-18	-20	-16	-7	1	7	12	13	9
2420	29	14	3	-6	-10	-8	-2	7	13	14	2940	22	24	29	31	27	22	18	13	9	5
2430	17	13	7	0	-6	-11	-16	-17	-17	-12											
2440	-3	5	12	18	23	27	31	33	33	33											
2450	32	25	15	4	-3	-8	-8	0	11	19											
2460	25	30	31	28	21	14	7	0	-5	-12											
2470	-11	-6	1	9	14	16	16	13	6	-2											
2480	-10	-20	-26	-28	-27	-25	-19	-7	0	5											
2490	9	14	19	24	26	26	23	20	17	12											
2500	6	0	-2	4	7	18	8	-8	-8	-11											
2510	-19	-25	-29	-28	-21	-13	-6	-1	-1	-1											
2520	1	10	15	20	27	30	28	26	25	26											
2530	30	34	36	35	31	27	20	16	11	6											
2540	1	-1	-3	-5	-6	-4	-2	-4	-5	13											
2550	15	14	8	1	-3	-7	-9	-8	-5	-1											

TO BE CONTINUED

END

RECORD = S-2171 COMPONENT = DOWN STATION = KUSHIRO-J1-S
 DATE AND TIME = 1988-10-10-14-52 TOTAL NUMBER OF DATA = 2950
 SAMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ONECTION POINT IN DATA NUMBER = 2950, 2950.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	CONTINUED (S-2171 DOWN)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			
0	0	1	1	1	2	2	2	3	3	3	-10	-8	-5	-3	-3	3	10	16	15	9	0
10	3	3	3	3	2	2	2	2	2	2	-10	-18	-21	-24	-24	3	-26	-26	-24	15	0
20	2	2	2	2	2	2	2	2	2	2	-9	-4	0	5	10	-25	10	-19	-22	9	-17
30	3	2	2	2	2	2	2	2	2	2	16	18	20	19	14	5	5	-2	-7	13	15
40	-79	-75	-67	-51	-34	-16	1	11	20	27	15	13	9	5	-1	4	1	-2	-5	-12	-15
50	33	40	48	57	64	68	71	72	73	73	520	-15	-13	-9	-5	3	-1	-2	-5	-12	-21
60	73	71	66	51	30	4	-13	-16	4	35	530	-28	-31	-28	-12	2	4	0	6	5	-4
70	80	119	149	159	143	101	2	-99	-176	-205	540	-4	-2	1	2	2	4	-1	-10	-16	-17
80	-201	-182	-147	-78	-11	44	80	118	144	155	550	-11	5	23	33	35	34	35	34	29	21
90	147	90	24	-27	-48	-51	40	18	6	23	560	15	12	10	6	2	1	-1	-2	-2	-4
100	31	33	33	35	40	43	37	11	-19	-42	570	-5	3	0	3	4	3	2	0	0	-3
110	-52	-55	-54	-47	-39	-30	-23	-15	-6	4	580	-17	-11	-6	-2	6	-24	-18	-16	-16	-19
120	13	21	26	29	30	25	18	12	8	6	610	-10	-10	-10	-10	-10	-10	-9	-7	-8	-11
130	5	3	0	3	7	11	18	27	34	37	520	5	10	14	13	7	0	-4	-6	-4	0
140	35	30	24	16	4	-8	-17	-19	-10	7	530	-2	-2	1	0	4	6	6	4	3	0
150	28	36	38	31	18	10	5	4	2	6	640	-2	-4	0	4	9	10	4	-2	-8	-11
160	8	9	9	12	18	24	30	33	34	34	650	2	2	0	0	0	0	0	0	0	1
170	22	4	-5	-13	-19	-23	-24	-28	-33	-35	670	2	4	4	5	4	1	0	-1	-4	-15
180	-33	-24	-7	2	4	5	6	6	5	4	680	-32	-42	-45	-45	-40	-28	-19	-16	-14	-10
190	9	11	11	10	7	2	-3	-5	-6	-6	690	-5	0	0	2	4	0	-1	-4	-5	-6
200	-4	0	3	3	0	-6	-13	-17	-14	-7	710	6	1	-1	-2	1	16	18	15	10	10
210	0	6	11	9	1	-6	-8	-2	4	11	720	-15	-9	-3	0	-1	0	-2	-7	-13	-17
220	16	16	14	11	9	8	4	0	-4	-5	730	-21	-18	-13	-6	1	10	18	24	26	27
230	-6	-7	-7	-9	-10	-12	-12	-8	-6	-4	740	24	18	10	3	-5	-14	-15	-10	-2	0
240	-3	-3	-6	-9	-8	-6	-3	-2	0	1	750	-2	-11	-24	-29	-27	-16	-4	0	4	7
250	2	8	17	23	25	24	16	4	-5	-9	760	5	3	6	12	17	18	13	4	-4	-12
260	-9	-11	-16	-19	-21	-22	-19	-13	-8	-4	770	-16	-15	-13	-12	-9	-3	0	2	4	5
270	-4	-5	-6	-7	-10	-8	-3	1	3	3	780	3	-2	-6	-7	-6	-3	0	3	4	6
280	5	9	10	9	7	8	5	0	-12	-23	790	5	1	-2	-6	-10	-16	-18	-13	-4	6
290	-32	-38	-43	-43	-40	-36	-32	-29	-27	-19	800	11	14	14	12	5	-7	-19	-23	-25	-27
300	-8	3	9	11	9	7	4	1	0	0	810	-24	-22	-20	-19	-18	-16	-12	-4	6	15
310	1	4	5	8	11	12	11	11	12	11	820	20	23	21	11	0	-8	-11	-12	-12	-11
320	10	7	3	-1	-1	-2	-5	-10	-15	-16	830	-5	8	31	45	52	51	41	22	1	-15
330	-18	-17	-15	-14	-14	-15	-16	-17	-16	-16	840	-20	-17	-19	-17	-19	-22	-25	-23	-18	-9
340	-8	-5	-5	-2	1	5	8	9	13	15	850	-1	7	12	14	13	10	6	2	-1	-4
350	17	24	31	34	37	34	21	4	-7	-15	860	-5	-5	-4	-3	-1	4	6	5	2	2
360	-20	-25	-31	-38	-44	-40	-24	-11	-7	-5	870	-2	-2	-19	-21	-15	-19	-21	-20	-18	-17
370	-4	-2	-4	-8	-11	-13	-14	-8	9	24	880	-17	-19	-21	-21	-15	-4	4	9	9	6
380	34	39	38	28	14	6	0	-1	0	2	890	2	-1	-1	0	0	0	0	0	0	-7
390	2	0	0	-4	-7	-14	-19	-13	-6	1	900	-8	-1	-15	-16	-16	-16	-16	-14	-10	-4
400	4	6	5	-1	-7	-11	-13	-10	-8	-6	910	0	14	28	35	33	25	16	9	5	3
410	-4	-1	0	-3	-6	-9	-9	-6	-1	4	920	3	2	0	-4	-7	-4	-5	21	36	43
420	-11	16	16	13	9	6	7	10	10	10	940	16	16	12	9	9	9	10	9	8	13
430	6	-1	-10	-16	-18	-20	-21	-20	-16	-16	950	3	15	29	34	29	14	-4	-16	-23	-23
440	-11	-7	-2	1	5	5	3	3	1	-3	960	-22	-18	-12	-9	-9	-12	-25	-41	-63	-56
450	-9	-12	-11	-14	-19	-26	-33	-37	-31	-31	970	-45	-13	12	20	18	8	0	-5	-7	-6
460	-25	-15	-1	21	34	39	37	27	17	13	980	-4	-4	-5	-4	-4	8	19	27	29	29
470	14	18	20	20	18	12	6	-1	-6	-9	990	25	15	15	15	-6	-11	-16	-17	-17	-12

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (S-2171 DOWN)										CONTINUED (S-2171 DOWN)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	-7	-3	-1	-2	-8	-15	-16	-15	-8	-1	1520	3	3	0	-5	-10	-13	-15	-13	-9	-6
1010	5	10	12	13	12	9	4	3	-2	-6	1530	-2	0	2	6	9	9	7	5	4	4
1020	-7	-7	86	5	-2	-1	0	1	11	31	1540	2	2	2	2	1	-2	-4	-7	-7	-5
1030	57	77	86	85	73	56	38	18	-2	-24	1550	-3	-1	-2	-2	-1	0	3	8	10	13
1040	-50	-27	-54	-55	-51	-44	-38	-35	-30	-29	1560	17	15	15	11	9	6	4	4	4	0
1050	-27	-25	-20	-20	-10	0	12	20	25	26	1570	4	6	7	8	7	4	2	-7	0	-15
1060	21	13	5	-3	-13	-22	-30	-33	-30	-21	1580	0	-1	0	0	2	0	-4	-4	0	3
1070	-9	1	8	11	11	10	10	10	7	0	1590	-17	-17	-15	-10	-7	-5	-4	-4	0	3
1080	-4	-7	-8	-9	-12	-11	-12	-15	-21	-15	1600	10	14	15	17	13	9	5	3	4	5
1090	-32	-40	-43	-37	-20	0	18	31	35	42	1610	3	3	4	6	9	10	10	9	7	3
1100	34	28	28	23	19	16	15	11	3	-9	1620	0	1	3	0	3	0	0	3	2	0
1110	-19	-22	-21	-15	-8	-4	-2	2	-1	-1	1630	-6	-6	-4	0	-1	4	3	3	2	-5
1120	-1	0	1	2	2	4	4	5	5	6	1640	-2	-2	-1	0	0	0	0	-3	-6	-7
1130	5	1	-2	-6	-12	-17	-21	-21	-17	-8	1650	-10	-11	-8	-3	-1	-4	-5	-9	-4	7
1140	0	6	9	7	2	-2	-8	-10	-9	-6	1660	4	0	-2	-4	-4	-6	-8	-9	-9	-8
1150	-4	-2	0	0	0	-3	-5	-8	-12	-20	1670	-7	-7	-5	-4	-4	-5	-5	-4	-2	1
1160	-24	-27	-29	-29	-27	-22	-16	-11	-9	-6	1680	5	8	12	15	19	22	23	24	24	25
1170	-2	4	11	18	21	20	15	7	1	-1	1690	25	25	25	23	20	15	7	1	-3	-6
1180	0	3	10	20	29	33	35	34	29	21	1700	-7	-7	-7	-5	-3	0	3	3	2	-1
1190	11	3	-2	-5	-5	-4	-4	-5	-7	-10	1710	-2	-5	-5	-2	-2	-2	-2	-2	-4	-4
1200	-14	-17	-20	-18	-16	-12	-7	-1	0	0	1720	-4	-5	-9	-16	-22	-23	-26	-26	-23	-19
1210	-2	-5	-6	-6	-3	0	4	8	5	-1	1730	-16	-12	-8	-6	-8	-8	-4	-10	-10	-9
1220	-6	-3	-9	-9	-9	-10	-11	-13	-16	-17	1740	-8	-7	-6	-4	-4	0	2	2	5	9
1230	-16	-15	-14	-11	-9	-6	0	5	8	10	1750	18	27	32	36	37	35	27	27	20	14
1240	9	3	-4	-10	-13	-14	-10	-6	8	8	1760	9	8	9	12	13	11	9	5	0	1
1250	18	27	33	38	42	43	43	43	41	40	1770	2	5	8	19	17	10	10	10	11	13
1260	37	30	23	13	3	-6	-15	-21	-24	-25	1780	16	16	20	19	17	15	12	8	4	1
1270	-27	-27	-27	-27	-25	-22	-19	-14	-9	-4	1790	-1	-4	-6	-6	-4	-1	-1	2	2	2
1280	1	12	18	24	25	25	25	22	18	13	1800	3	2	0	-1	-1	-2	-2	-5	-5	-6
1290	9	3	-2	-7	-8	-11	-10	-10	-9	-10	1810	-6	-5	-2	-1	0	0	0	0	-2	-3
1300	-10	-10	-10	-16	-23	-26	-26	-24	-20	-11	1820	-4	-4	-5	-7	-7	-5	-3	-2	-2	-3
1310	-6	-2	-2	-3	-6	-10	-14	-16	-14	-14	1830	-6	-11	-17	-20	-24	-25	-27	-24	-18	-10
1320	-14	-14	-11	-7	0	10	16	18	15	10	1840	-2	6	13	19	24	26	27	26	24	21
1330	4	0	-1	6	10	14	16	18	20	23	1850	16	12	13	14	13	12	10	9	9	10
1340	-4	1	6	10	14	16	17	17	20	20	1870	9	8	7	4	8	4	4	2	-1	-4
1350	22	23	22	20	18	17	17	15	10	5	1870	9	8	7	4	4	2	4	6	7	9
1360	1	0	0	1	2	4	4	6	9	11	1880	-4	-4	-3	-2	0	2	4	6	4	9
1370	12	13	12	12	11	10	9	6	4	3	1890	9	10	11	11	10	7	6	1	1	-10
1380	0	-1	-4	-6	-10	-14	-16	-15	-14	-12	1900	-13	-12	-10	-8	-5	-3	0	3	5	4
1390	-10	-10	-11	-12	-16	-22	-26	-27	-27	-27	1910	4	3	2	0	-1	-3	-5	-6	-8	-9
1400	-27	-26	-22	-19	-14	-8	-3	0	2	2	1920	-9	-8	-7	-7	-4	0	1	2	5	7
1410	-1	0	-4	-5	-5	-5	-4	-5	-7	-11	1930	8	8	7	6	4	2	2	3	3	2
1420	-13	-14	-13	-11	-10	-9	-8	-4	-1	0	1940	2	2	1	0	-1	0	0	1	1	1
1430	1	7	11	16	22	26	29	28	23	14	1950	0	2	1	-1	0	0	0	2	4	5
1440	8	4	3	4	6	10	14	15	16	13	1960	7	5	7	4	3	2	0	-1	-3	-5
1450	8	2	-3	-7	-10	-9	-6	-4	-2	0	1970	-5	-5	-5	-5	-5	-4	-4	-2	-2	-2
1460	0	1	2	6	10	12	11	9	5	0	1980	3	2	0	-2	0	0	0	0	1	3
1470	-4	-8	-10	-9	-6	-1	6	10	12	10	1990	-2	-2	-2	3	2	0	0	0	1	3
1480	4	-3	-11	-17	-19	-18	-16	-15	-15	-15	2000	3	3	2	0	0	0	0	-1	-2	-3
1490	-14	-12	-10	-8	-6	-4	-2	0	2	7	2010	0	0	0	2	2	0	0	1	5	-1
1500	14	18	20	20	20	19	17	13	10	10	2020	-13	-9	-7	-7	-7	-7	-7	-9	-9	-10
1510	8	8	8	8	6	5	3	3	2	2	2030	-10	-10	-10	-10	-10	-9	-8	-6	-6	-7

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(S-2171 DOWN)										CONTINUED(S-2171 DOWN)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	-7	-7	-7	-7	-7	-7	-7	-5	-6	-7	2560	-2	-2	-3	-2	1	3	2	2	0	0
2050	-7	-7	-7	-6	-7	-6	4	0	4	11	2570	2	0	0	3	5	5	6	8	7	8
2060	12	12	13	13	12	10	8	0	6	3	2580	9	10	12	14	14	11	9	7	6	6
2070	1	0	0	0	0	0	0	0	0	3	2590	6	5	5	6	6	5	4	4	4	1
2080	4	6	7	8	8	8	7	0	6	5	2600	0	0	0	0	2	5	8	9	10	9
2090	4	3	1	0	-1	-4	-5	-8	-7	-9	2610	8	9	9	8	6	5	6	4	2	0
2100	-8	-9	-10	-12	-13	-14	-12	-9	-9	-10	2620	0	-1	-2	-1	0	0	-1	0	0	0
2110	-10	-9	-7	-6	-5	-6	-5	-4	-3	1	2630	0	0	0	-3	2	1	1	2	3	2
2120	8	13	13	13	13	11	10	7	5	2	2640	0	0	0	4	-5	5	3	2	1	-1
2130	0	-6	-9	-10	-12	-12	-10	-8	-7	-6	2650	-2	0	0	4	5	5	5	7	7	-1
2140	-6	-5	-4	-4	-5	-3	0	1	3	3	2660	0	0	4	4	4	4	3	2	2	1
2150	-6	-6	-5	-5	-5	-6	-5	-2	-1	0	2670	4	4	4	5	4	4	4	7	7	4
2160	2	-1	-2	-4	-7	-9	-11	-12	-11	0	2680	1	0	1	2	3	3	6	8	8	2
2170	0	-7	-7	-7	-7	-9	-11	-12	-12	-11	2690	7	10	10	7	4	4	7	5	4	2
2180	-8	-7	1	0	-1	0	1	2	4	3	2700	0	-1	-3	-5	-6	-7	-10	-11	-11	-9
2190	4	2	1	0	0	0	0	0	0	7	2710	-6	-2	1	3	1	0	0	1	3	4
2200	8	9	9	6	3	0	-4	-7	-9	-11	2720	5	7	5	3	4	4	3	6	9	14
2210	-13	-12	-9	-7	-4	0	3	7	7	3	2730	15	15	14	14	13	11	5	1	0	0
2220	3	3	0	0	0	0	-2	-7	-9	-8	2740	0	0	-1	0	0	0	0	0	0	-2
2230	-4	0	4	5	5	3	2	0	-2	-3	2750	-2	-2	-4	-6	-4	-2	0	0	2	3
2240	0	4	5	4	4	4	4	4	4	0	2760	2	1	0	-1	-1	0	0	0	1	2
2250	-3	-7	-12	-14	-12	-13	-16	-15	-15	-12	2770	0	-3	-2	-1	2	2	2	4	5	0
2260	-12	-12	-9	-7	-7	-7	-10	-12	-12	-11	2780	7	5	4	4	3	4	3	2	0	0
2270	-8	-4	0	2	4	4	4	4	4	5	2790	0	1	3	4	6	7	7	8	8	2
2280	0	1	2	1	0	0	-1	1	3	4	2800	6	5	4	4	4	4	4	3	3	2
2290	5	4	3	1	0	-2	-2	-3	-3	-1	2810	1	0	0	-1	-2	-2	-2	-1	0	0
2300	-3	0	2	3	4	4	4	3	1	1	2820	1	3	4	4	2	0	0	0	2	2
2310	-2	-2	-2	-1	-1	-1	-1	0	3	3	2830	0	1	2	1	0	0	-1	0	0	0
2320	2	0	0	-1	-1	-3	-2	0	1	2	2840	3	4	6	5	5	6	6	6	7	6
2330	3	4	6	6	5	5	5	4	4	4	2850	11	13	12	9	7	7	5	3	2	1
2340	2	1	0	-2	-2	-4	-5	-6	-8	-9	2860	0	0	0	1	2	1	0	0	0	1
2350	-10	-12	-15	-16	-14	-12	-13	-10	-10	-5	2870	3	4	4	6	8	7	5	7	7	7
2360	-10	-8	-5	-6	-5	-1	-1	-4	-5	-5	2880	8	9	8	6	6	4	3	2	2	3
2370	-2	-2	-1	1	3	3	3	1	0	1	2890	3	3	3	1	0	0	0	0	0	0
2380	1	-1	0	2	-1	-2	-2	-2	-2	-3	2900	-2	-4	-5	-4	-4	-5	-8	-7	-5	-3
2390	-3	-3	-2	-1	0	3	4	5	6	7	2910	-13	-11	-10	-10	-9	-6	-6	-7	-8	8
2400	8	9	8	9	10	12	15	21	24	21	2920	-1	-2	-2	-1	1	5	4	7	4	3
2410	18	15	10	6	4	2	-1	-1	0	0	2930	8	7	8	8	7	6	5	4	4	3
2420	0	2	2	0	0	0	0	0	0	0	2940	1	0	-2	-3	-1	0	0	4	6	7
2430	0	1	2	3	4	4	4	2	0	-1											
2440	0	1	3	3	2	1	0	0	0	-1											
2450	-4	-5	-7	-7	-7	-9	-11	-13	-14	-15											
2460	-17	-18	-18	-15	-14	-11	-8	-4	-2	-2											
2470	0	0	-1	-2	-3	0	0	0	-1	-3											
2480	-1	-2	-2	0	2	3	3	2	2	4											
2490	5	6	6	4	3	8	10	11	11	10											
2500	10	11	11	10	11	12	13	15	15	14											
2510	14	13	11	9	7	7	9	9	7	7											
2520	8	9	9	8	5	5	5	6	8	8											
2530	5	2	0	-2	-5	-8	-11	-12	-11	-10											
2540	-9	-9	-11	-12	-11	-9	-9	-9	-8	-7											
2550	-5	-3	-3	-4	-4	-4	-2	0	0	-2											

END

TO BE CONTINUED

RECORD = M-1242 COMPONENT = NORTH STATION = TOKACHI-M
 DATE AND TIME = 1988-10-10-14-52 TOTAL NUMBER OF DATA = 2950
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC. ONECTION POINT IN DATA NUMBER = 1497, 2950, 2950.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	50	37	-86	-76	5	59	23	-40	-109	-158	-53	-111	-158	-168	-123	-78	-30	10	48	64
10	-206	-221	-222	-200	-196	-223	-214	-173	-147	-158	65	51	4	-49	-115	-151	-111	-44	0	27
20	-113	-31	-21	38	132	248	353	289	204	267	500	37	55	75	73	21	-56	-145	-199	-226
30	245	178	107	39	48	93	169	232	240	165	510	-149	54	78	68	32	21	54	84	103
40	162	155	151	107	-9	-126	-169	-235	-314	-372	530	-114	-122	-115	-150	-145	-78	-3	85	175
50	-416	-454	-456	-594	-832	-314	-155	-29	156	241	540	180	119	57	31	74	72	69	19	-128
60	159	94	16	31	102	152	138	129	134	153	560	29	56	1	-26	-8	28	66	15	-10
70	200	342	379	332	203	135	61	-23	-78	-135	570	-34	-11	-45	-62	-75	-83	-28	13	48
80	-168	-189	-203	-212	-144	-55	-102	-161	-205	-225	580	109	94	9	39	81	64	9	-20	-34
90	259	324	346	-245	-138	-32	-3	-72	-56	52	590	-78	-109	-75	-27	-8	2	37	78	6
100	237	351	256	202	227	304	354	316	249	129	600	-53	-70	-118	-133	-91	0	75	95	93
110	1	-88	242	-343	-455	-471	-387	-245	8	191	620	-10	13	58	79	77	54	38	-26	-53
120	358	358	227	28	-191	-228	-225	-185	-97	-115	630	-101	-76	-41	-19	-11	5	46	70	30
130	74	311	437	442	288	84	9	-105	-38	72	640	-15	28	93	111	53	-11	-25	-16	-32
140	165	225	188	137	109	62	-113	-306	-376	-660	650	-58	-103	-116	-63	-33	11	17	18	-19
150	-415	-382	-341	-316	-259	-248	-189	-103	44	251	670	-73	-82	-39	-11	3	31	51	47	1
160	418	528	577	559	471	366	256	144	153	279	680	-15	-18	-54	-97	-61	-20	5	39	77
170	290	212	114	3	-135	-257	-301	-300	-250	-259	690	-12	-9	-5	-6	-4	-6	-3	-9	24
180	-353	-411	-313	-208	-67	52	122	63	-32	-278	700	70	29	2	-5	38	48	-13	-39	-66
190	-365	-253	-170	324	419	324	187	188	187	188	710	-92	18	114	142	95	23	-39	12	65
200	266	286	247	195	146	96	35	45	63	51	720	43	-39	-81	-134	-173	-106	56	172	139
210	-16	-140	-214	-285	-315	-245	-185	-131	-96	-109	730	-4	38	33	-5	-55	-57	-82	-62	14
220	-142	-245	-354	-372	-234	-110	-8	50	66	45	740	137	139	77	38	1	16	-37	-84	-81
230	41	131	220	333	432	397	303	237	150	44	750	-80	-34	-41	-88	-88	-58	-24	-10	-5
240	17	-7	-12	43	94	155	151	87	4	-85	760	13	32	63	95	115	87	51	22	6
250	-139	-192	-178	-181	-230	-280	-313	-262	-131	26	770	25	36	10	-36	-85	-118	-121	-98	-64
260	153	288	309	189	93	5	85	179	265	264	780	-8	14	58	105	121	84	47	15	-37
270	171	38	-43	-102	-123	-88	-85	-100	-135	-162	790	12	83	102	66	2	-45	-74	-58	-25
280	-114	-54	8	8	-23	-50	-66	-43	3	62	800	-28	-51	-53	-55	-35	-2	15	25	23
290	126	213	188	122	73	26	-46	-116	-152	-119	810	0	-14	-21	-34	-59	-90	-88	-35	6
300	-78	-41	-5	16	35	43	11	-29	-56	-3	820	80	105	116	98	70	61	36	26	11
310	63	84	70	49	30	9	-9	-38	-84	-130	830	-7	-7	-9	-21	-47	-64	-50	-14	-13
320	-176	-221	-230	-110	59	153	179	131	78	-30	840	-14	-14	-14	-15	-9	0	18	36	32
330	108	-64	-29	-6	-6	-13	-6	-8	-19	0	850	-7	-23	-34	-18	-4	-4	-4	3	1
340	13	-24	-92	-188	-209	-158	-121	-110	-91	-47	860	11	33	19	0	-4	10	15	-13	-45
350	4	54	73	105	156	174	167	143	123	130	870	-45	-11	-14	-39	-58	-59	-46	-21	17
360	135	115	33	-54	-116	-108	-120	-138	-211	-281	880	10	-6	-15	-11	2	27	66	91	66
370	-220	-154	-53	-1	28	46	43	33	41	64	890	-43	-36	12	57	95	112	43	-13	-76
380	123	165	100	18	-1	59	111	108	57	79	900	73	-66	84	-89	-82	-28	31	73	85
390	88	93	35	-17	-71	-121	-99	-34	-74	-117	910	66	43	65	92	107	114	113	104	85
400	-154	-126	-99	-105	-102	-100	-56	-4	47	68	920	59	31	3	-34	-34	-44	-63	-54	-47
410	30	-10	-62	-55	4	3	6	4	55	136	930	-16	-33	-34	-34	-34	-44	-63	-54	-47
420	225	283	328	255	116	0	-59	-108	-143	-137	940	21	69	102	115	96	63	47	60	66
430	-96	-83	-92	-102	-117	-130	-138	-102	-47	-33	950	15	-10	-16	-24	-18	36	74	39	-21
440	-42	-84	-110	-103	-73	-34	-7	24	106	109	960	-89	-105	-86	-51	-18	11	25	17	36
450	53	13	-19	17	41	46	12	-24	-122	-198	970	96	124	99	59	36	34	25	8	22
460	-86	-4	53	65	65	41	-26	-26	5	37	980	17	-4	0	14	19	-4	6	-15	-16
470	64	64	63	49	53	66	63	65	42	-5	990	-38	-73	-44	-7	15	33	37	46	56

TO BE CONTINUED

TO BE CONTINUED

CONTINUED (M-1242 NORTH)

CONTINUED (M-1242 NORTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	73	73	62	52	58	63	47	5	-30	-64
1010	-94	-113	-83	-45	-24	-15	-17	-14	10	0
1020	-8	1	0	-12	-44	-52	14	10	47	70
1030	65	51	33	31	31	32	26	19	3	1
1040	2	0	-10	3	6	5	13	47	44	60
1050	-25	-21	-18	-19	-19	-7	20	47	53	60
1060	50	31	-1	-43	-79	-95	-73	-53	-60	-49
1070	23	10	40	50	22	-8	-15	0	-3	-10
1080	10	79	125	120	93	41	-12	-18	2	8
1090	-6	-31	-60	-79	-72	-21	22	52	60	19
1100	-25	-20	-23	-21	-22	-13	-8	2	12	31
1110	36	22	2	-27	34	-23	0	18	36	28
1120	25	33	57	61	30	-8	-37	-83	-84	-27
1130	45	78	64	34	-8	-28	-35	-27	-23	-15
1140	-13	-12	-6	-20	-22	-2	-14	1	29	-10
1150	-39	-16	24	51	35	11	0	-6	-29	-63
1160	-46	-14	2	25	52	66	56	17	-21	-14
1170	0	17	18	-14	-41	-85	-42	-6	56	68
1180	41	3	-31	-57	-64	-21	56	94	66	5
1190	-21	48	92	92	47	-9	-27	-36	-19	12
1200	39	73	92	47	-9	-33	2	23	-4	-8
1210	-76	-39	-9	-4	-4	-4	-11	-4	-6	-11
1220	0	30	63	76	78	52	34	26	47	33
1230	39	33	38	34	-29	-42	-18	26	53	55
1240	52	37	23	12	-25	-70	-95	-63	-18	1
1250	6	4	12	28	33	39	45	45	45	24
1260	25	19	0	0	6	4	-9	-11	25	71
1270	67	32	9	-23	-49	-80	-108	-86	-51	-13
1280	-13	-23	8	38	45	44	44	51	55	54
1290	53	34	17	13	21	20	14	9	-12	-21
1300	-11	-3	-14	-31	-32	-25	-14	-5	3	38
1310	46	16	-28	-25	-7	12	25	16	-6	-22
1320	-30	-30	-17	16	50	55	46	43	54	43
1330	33	35	34	21	2	-17	-28	-42	-65	-50
1340	34	21	2	28	34	40	45	54	66	60
1350	25	14	64	58	47	12	-22	-36	-2	23
1370	25	19	7	3	7	14	22	44	54	45
1380	14	-37	-62	-33	0	32	19	12	21	24
1390	23	9	-12	-25	-25	-25	-25	-25	-25	-5
1400	22	50	62	55	41	14	-8	-28	-37	-34
1410	-27	20	10	20	55	61	61	59	43	22
1420	8	-9	-25	-36	-47	-45	-27	12	12	29
1430	36	40	39	40	39	39	39	36	20	7
1440	-4	-18	-29	-37	-42	-37	-26	-8	12	37
1450	47	55	41	28	12	-12	-33	-21	4	4
1460	35	38	10	-21	-48	-41	-13	24	60	48
1470	18	20	40	58	59	39	27	22	8	-16
1480	-19	-5	9	24	20	5	-5	-14	-11	-3
1490	-15	1	6	5	4	-3	6	-18	-18	-11
1500	-13	23	17	14	-1	-1	14	17	14	-1
1510	-2	4	19	28	37	62	80	29	-1	-16

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(M-1242 NORTH)

CONTINUED(M-1242 NORTH)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2040	0	16	26	5	-21	-35	-31	3	16	10
2050	-10	-24	-19	2	23	6	-16	-36	-44	-42
2060	-38	-13	13	24	26	25	32	36	36	41
2070	15	-14	-38	-31	-18	-9	-2	-4	-2	-7
2080	-4	13	16	6	-18	-24	-16	-8	0	6
2090	12	19	25	33	36	31	16	7	3	-4
2100	-3	-11	-14	-11	2	17	24	31	36	35
2110	36	29	12	-1	-4	-3	-3	-4	-13	-13
2120	-13	-13	-15	-13	-13	-5	-3	-10	-20	-13
2130	3	6	6	6	6	6	6	6	7	22
2140	35	28	8	5	6	6	6	6	6	6
2150	6	5	6	2	-1	6	6	6	6	6
2160	6	4	7	16	14	3	3	-4	1	1
2170	16	10	17	15	17	11	-3	-8	-14	-13
2180	-11	1	7	3	-3	-8	-14	-2	-7	-9
2190	5	-4	-34	-54	-61	-47	-2	27	22	8
2200	6	-3	-18	-22	-27	-33	-34	-27	-14	7
2210	27	63	48	2	-6	7	16	11	0	-3
2220	-4	2	7	5	6	5	6	4	13	10
2230	-2	-9	-16	-23	-38	-42	-24	-15	-12	-14
2240	2	23	25	26	16	7	1	-4	-3	-3
2250	-3	-3	-3	-3	-3	-4	-19	-19	-6	-6
2260	-2	-11	-11	-3	0	11	24	18	2	-20
2270	-14	27	52	34	5	-6	-14	-13	-13	-13
2280	-13	-12	-4	-3	-3	-3	-3	-4	1	1
2290	15	27	42	36	13	-2	-14	-12	-19	-23
2300	-23	-18	-7	1	8	14	4	-10	-8	-8
2310	22	26	23	11	6	2	-4	-3	-4	-3
2320	-3	-3	-3	-3	-3	-3	-5	-13	-13	-13
2330	-13	-13	-5	3	15	14	5	6	5	14
2340	31	32	11	0	-11	-12	3	7	0	-13
2350	-22	-23	-23	-9	6	6	6	6	6	6
2360	6	6	6	6	6	5	6	5	6	3
2370	-4	-3	-4	-3	-12	-25	-46	-55	-47	-27
2380	-8	-3	-11	-14	-11	5	15	15	7	5
2390	5	6	18	32	43	46	30	11	0	-13
2400	-1	-30	-34	-33	-34	-34	-34	-34	-34	-33
2410	-34	-28	-20	-12	-4	-4	3	12	15	14
2420	14	15	10	5	4	4	14	29	31	19
2430	10	0	-5	-4	3	4	4	0	-11	-16
2440	-15	-15	-22	-40	-54	-35	-17	-9	1	10
2450	18	31	32	23	20	12	13	9	2	3
2460	2	3	11	12	0	-7	-12	-18	-16	-18
2470	-17	-18	-17	-18	-14	-7	0	1	9	11
2480	10	11	12	21	20	21	12	10	8	1
2490	-5	-10	-8	-9	-9	-9	-9	-9	-9	-10
2500	-10	-10	-9	-16	-33	-45	-34	-16	-1	0
2510	0	-1	3	20	34	46	48	54	59	51
2520	43	35	26	17	9	5	-1	-2	-1	-6
2530	-19	-26	-30	-30	-34	-42	-48	-60	-61	-66
2540	-12	-71	-67	-51	-32	-16	0	7	7	7
2550	7	6	7	4	-4	-12	-6	0	7	6

TO BE CONTINUED

END

ECORD = M-1242 COMPONENT = EAST STATION = TOKACHI-M
 DATE AND TIME = 1988-10-10-14-52 TOTAL NUMBER OF DATA = 2950
 AMPLING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ONECTION POINT IN DATA NUMBER = 1497, 2950, 2950.

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0	-136	-210	-13	98	69	-13	-111	-207	-169	-102
10	-19	91	175	128	34	-76	-154	-219	-93	-120
20	-194	-280	-222	8	182	328	337	237	85	-2
30	-23	69	101	139	1	-127	-141	-183	-31	94
40	168	259	281	210	148	65	2	-21	20	108
50	187	236	258	210	89	-40	-126	-131	-132	-131
60	134	166	-206	-259	-333	-430	-430	-459	-118	187
70	276	363	364	228	-44	-201	-257	-86	61	201
80	370	419	322	168	83	19	139	351	388	371
90	188	85	-46	-216	-269	-128	-23	-72	-157	-85
100	-273	-326	-263	-149	-28	65	146	146	107	-65
110	-247	-281	-246	-127	-32	32	11	30	109	187
120	280	408	407	305	136	-44	24	109	254	482
130	608	551	149	-217	-348	-476	-486	-570	-639	-705
140	-605	-296	-136	170	426	519	255	67	-89	-256
150	-131	112	277	481	583	524	80	-189	-239	-97
160	74	186	230	151	13	-37	-77	-17	11	-66
170	-207	-240	-238	-129	-9	59	61	-4	-26	15
180	62	117	171	218	195	97	-32	-121	-135	-120
190	-79	-95	34	96	145	184	194	179	157	122
200	82	22	-54	-121	-192	-263	-319	-243	-151	0
210	93	102	27	-72	-230	-303	-210	-73	51	116
220	164	136	79	9	30	162	306	379	412	430
230	407	347	198	49	-25	-113	-86	-137	-223	-286
240	-386	-370	-322	-247	-184	-51	-18	-85	-109	-154
250	-92	5	48	103	141	194	233	294	304	269
260	153	-76	-128	-57	19	115	66	21	-5	-13
270	2	1	-80	-131	-190	-221	-210	-167	-98	-18
280	9	2	-13	-23	-31	-33	-31	-24	-5	28
290	73	135	167	118	41	-41	-92	-87	-73	-47
300	20	94	171	184	112	0	-90	-126	-152	-141
310	-87	-38	9	35	57	9	-103	-175	-190	-164
320	-113	-52	-6	-3	6	77	125	135	131	85
330	36	-12	-73	-119	-110	-43	52	120	138	116
340	64	15	-21	-36	-72	-123	-161	-219	-225	-131
350	-94	-54	-34	11	67	170	201	160	92	27
360	-34	-62	-49	-12	7	21	-8	-62	-114	-112
370	-69	-40	-10	-29	-83	-118	-83	-27	6	26
380	-3	-43	-68	61	2	72	155	228	246	206
390	143	68	26	12	4	-11	-33	-56	-83	-113
400	-153	-109	-11	53	9	-77	-141	-163	-108	-54
410	25	94	159	175	134	83	29	119	-33	-34
420	-8	49	93	114	92	95	-57	-128	-135	-85
430	-1	85	155	201	138	36	-41	-188	-149	-189
440	-212	-153	-97	-36	-10	-34	-70	-98	-99	-63
450	-25	-23	-45	-22	-13	-4	-23	-57	99	-76
460	151	203	254	272	241	170	76	-48	-125	-76
470	-20	36	96	117	48	-16	-64	-105	-138	-159

TO BE CONTINUED

CONTINUED(M-1242 EAST)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
480	-176	-191	-198	-200	-165	-107	-48	10	61	95
490	77	16	-53	-76	-25	-11	-25	-33	-53	-18
500	37	95	173	200	121	55	-16	-90	-146	-95
510	-6	71	167	163	149	64	-47	4	0	-39
520	-74	-87	-97	-107	-93	-64	-47	85	118	89
530	23	-19	-16	-18	-40	-22	-41	5	75	110
540	114	55	-50	-105	-87	-32	5	48	0	-141
550	-237	-307	-334	-255	-126	12	142	252	261	110
560	-20	-39	4	68	114	111	57	47	28	-4
570	-42	-67	-71	-71	-80	-79	-47	-4	49	81
580	13	-62	-115	-132	-100	-100	-64	-25	16	59
590	69	68	76	96	137	183	176	105	-43	-186
600	-279	-274	-163	-56	31	86	102	90	72	49
610	27	3	5	12	5	-11	-18	-5	7	10
620	-1	-12	-19	-6	27	31	-11	-69	-94	-59
630	-27	-8	-1	2	8	13	11	13	8	0
640	-5	20	34	31	34	24	0	-21	-51	-87
650	-123	-127	-92	-58	-30	8	24	24	15	0
660	-13	-15	-20	-24	-12	0	24	49	63	81
670	70	-10	-81	-127	-134	-131	-98	-43	2	36
680	48	55	24	-1	22	68	102	126	141	129
690	51	-11	-10	1	12	16	16	16	16	15
700	16	-2	-18	-40	-61	-92	-103	-60	-6	38
710	55	57	74	106	123	104	67	18	-17	-44
720	-71	-86	-96	-80	-55	-32	-4	10	28	38
730	54	9	-77	-16	-39	11	40	57	34	14
740	69	120	151	150	83	-31	-103	-152	-158	-85
750	-35	7	31	38	34	21	7	0	-27	-8
760	-48	-45	-6	44	107	143	135	96	60	37
770	27	26	7	-28	-70	-101	-98	-76	-51	-36
780	-24	-13	3	28	38	30	26	32	49	65
790	71	83	89	103	122	137	145	90	13	-59
800	-116	-162	-147	-90	-70	-52	-44	-43	-53	-51
810	-45	-10	16	17	13	6	9	45	93	105
820	98	59	3	-32	-13	21	48	53	-1	-63
830	-104	-132	-142	-148	-79	-36	-22	-9	-2	-3
840	4	24	4	72	86	84	46	11	3	-12
850	-12	-1	56	88	85	70	20	-31	-58	-65
860	-35	35	83	57	1	-52	-103	-113	-103	-65
870	-45	-42	-42	-42	-33	-12	14	41	68	104
880	133	158	106	20	47	108	136	-142	-77	-13
890	42	93	144	157	71	16	-13	-11	-13	-11
900	-14	-23	-36	-42	-42	-25	-31	18	52	88
910	108	67	-17	-85	-115	-95	-31	18	63	76
920	31	-3	-53	-101	-88	-33	28	54	75	52
930	0	-2	0	16	14	-1	-28	-57	-40	-40
940	7	48	56	5	35	-49	-54	-46	-25	11
950	12	-1	-2	9	27	53	76	72	46	-7
960	-55	-81	-62	1	50	91	91	66	34	-21
970	-57	-73	-72	-54	-26	-7	3	8	16	16
980	16	16	17	12	6	20	36	49	56	23
990	-11	-14	-9	5	15	8	-12	-34	-54	-49

TO BE CONTINUED

CONTINUED(M-1242 EAST)

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1000	-30	-21	-13	-15	-26	-34	-33	-24	8	37	1520	-26	-33	-31	-29	7	35	34	20	-6	-28
1010	48	6	-66	-59	-11	59	126	166	197	143	1530	-47	-40	-29	-31	-30	-24	-15	34	20	14
1020	50	-14	-45	-52	-56	-21	-2	-14	-22	-10	1940	20	10	2	-6	-16	-26	-21	2	9	15
1030	-5	-3	35	34	-13	-26	-12	-6	0	-4	1550	22	21	21	21	21	22	-21	14	11	12
1040	18	16	13	60	68	42	19	31	46	50	1560	11	0	-17	-30	-9	22	42	52	24	-7
1050	34	17	53	50	52	32	31	3	4	24	1570	-43	-40	-16	-7	-11	-17	-17	-26	-27	-25
1060	17	-16	-55	-81	-26	19	46	38	46	23	1580	-28	6	43	34	25	14	11	3	3	3
1070	-70	-91	-93	-60	-18	3	6	1	0	1	1590	3	2	14	43	54	41	11	-18	-28	-19
1080	-2	20	81	109	66	-17	-69	-100	-115	-102	1600	-19	-26	-19	4	12	13	13	13	18	28
1090	-36	13	60	92	130	94	-5	-46	-72	-64	1610	33	32	19	4	-5	-6	-6	-6	-6	-2
1100	-35	8	13	-31	-69	-77	-60	-21	52	122	1620	17	40	71	91	71	45	22	4	-13	-27
1110	97	0	-69	-92	-63	-16	19	23	-119	-93	1630	-25	-26	-25	-27	-5	31	62	83	75	59
1120	-11	-12	3	27	48	-7	-92	-121	-119	-21	1640	38	19	-5	-24	-26	-26	-17	5	13	16
1130	-35	20	91	119	105	90	75	28	-55	-21	1650	24	23	23	11	1	-15	-32	-48	-56	-35
1140	44	98	68	18	-27	-22	-4	5	16	6	1660	-17	-13	-2	11	17	24	23	23	23	23
1150	-17	-34	-57	-80	-89	-64	-31	3	37	42	1670	23	18	-6	-39	-71	-68	-43	-25	-11	-6
1160	7	-12	0	43	73	74	37	0	-19	-19	1680	-19	-34	-35	-35	-28	-19	-2	-12	-24	-35
1170	3	16	11	5	15	32	45	65	56	45	1690	-32	-19	-8	10	29	56	76	82	52	20
1180	-62	-105	-146	-131	-61	-2	51	65	56	45	1700	1	-16	-9	-5	-22	-50	-55	-56	-41	-11
1190	47	48	36	21	15	-2	-29	-61	-76	-69	1710	9	25	33	28	18	14	9	3	-2	-13
1200	-6	73	117	122	95	70	34	40	67	59	1720	-22	27	-34	35	22	4	22	17	11	2
1210	21	-53	-90	-102	-113	-108	-81	-48	-16	-3	1730	-4	-9	-15	-23	-25	-25	-36	-26	-25	-16
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1240	85	101	90	30	-47	-96	-136	-151	-54	17	1760	12	13	13	13	15	22	13	2	12	0
1250	67	89	105	102	85	75	62	33	-24	-55	1770	-16	-15	-16	-10	4	13	13	13	12	0
1260	-71	-82	-82	-47	8	50	86	100	107	95	1780	-21	-49	-46	-32	-19	-6	2	4	2	7
1270	73	49	23	-9	-40	-60	-56	-33	-12	-20	1790	14	21	25	16	3	-10	-25	-35	-28	1
1280	-21	-5	40	70	42	-5	-31	-64	-58	3	1800	18	14	-4	-20	-26	-16	-15	-16	-16	-16
1290	40	69	68	39	11	16	35	71	88	83	1810	-15	-16	-15	-16	-14	2	22	17	9	-1
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1310	-8	-13	-2	8	1	-3	-2	-3	-2	-2	1830	3	-7	-23	-26	-16	7	14	13	-1	-20
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1340	21	42	73	76	55	41	36	37	44	47	1860	6	13	14	13	14	2	-8	0	12	31
1350	45	47	44	51	52	46	30	-35	-51	-54	1870	21	-5	-25	-36	-32	13	3	4	2	2
1360	-15	22	35	46	23	2	-8	-12	7	33	1880	-6	-14	-16	-22	-4	23	48	41	16	-5
1370	47	38	28	13	-4	-18	-24	-20	-14	-8	1890	-19	-28	-2	15	16	24	3	-21	-29	-18
1380	11	28	47	56	48	45	39	25	7	-5	1900	16	16	16	-23	-60	-75	-36	-15	13	38
1390	-12	-19	-24	-23	-13	-4	5	21	33	35	1910	44	28	14	12	5	-4	2	15	10	3
1400	34	35	29	52	62	43	9	48	-75	-27	1920	3	4	3	4	13	24	30	21	0	-27
1410	58	64	63	63	53	27	2	-17	-38	-47	1930	-41	-54	-50	-27	-7	10	14	6	2	5
1420	-42	-23	7	30	41	43	42	42	42	41	1940	13	14	8	2	4	-7	-22	-26	-17	2
1430	28	9	-5	-7	5	24	52	70	69	54	1950	27	31	11	10	-6	-5	-6	-4	4	3
1440	37	29	12	0	-22	-60	-84	-82	-61	-28	1960	5	14	10	-13	-35	-24	1	14	4	4
1450	8	39	81	83	68	63	40	37	28	35	1970	-3	-24	-43	-62	-44	-12	18	42	54	51
1460	5	-7	-3	-13	-11	-26	-33	-16	10	34	1980	33	-15	-30	21	55	57	31	30	14	-1
1470	68	80	38	-5	-18	-22	-11	2	7	10	1990	-22	-26	-19	-8	-5	-15	-34	-27	-10	0
1480	24	35	40	46	54	57	56	54	38	19	2000	12	7	-13	-25	-25	-20	7	28	34	35
1490	-8	-28	-33	-14	9	36	31	4	15	1	2010	32	23	13	0	-17	-27	-20	-13	4	19
1500	-21	-44	-61	-68	-52	-21	1	6	0	-13	2020	27	33	18	-5	-32	-43	-53	-56	-44	-19
1510	-27	-34	-25	-17	0	15	16	15	0	-12	2030	-46	-35	-28	-25	-26	-26	-23	-4	14	23

TO BE CONTINUED

TO BE CONTINUED

CONTINUED(M-1242 EAST)										CONTINUED(M-1242 EAST)											
NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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2050	8	-3	-6	-5	-6	-6	-5	-7	-17	14	2570	24	23	24	21	23	24	18	18	13	6
2060	-26	-15	0	10	13	10	-3	-18	-28	-35	2580	-5	-6	4	-12	-16	-15	-15	-21	-26	-25
2070	-36	-27	-25	-3	-17	-17	5	18	24	19	2590	-26	-25	-23	-10	9	28	34	29	21	14
2080	12	5	-3	-6	-15	-23	-11	8	23	23	2600	7	2	8	13	20	24	23	24	21	24
2090	31	34	32	36	44	35	4	-28	-55	-40	2610	22	15	11	3	4	3	3	-5	-6	-6
2100	-6	4	2	-5	-12	-7	-5	-6	1	12	2620	-5	-6	-1	-33	-21	1	4	3	3	3
2110	9	2	9	14	13	13	13	13	19	38	2630	3	4	3	4	3	9	14	13	14	13
2120	53	37	9	-21	-46	-60	-57	-28	-14	-6	2640	13	13	13	13	14	13	14	7	4	0
2130	-6	-6	2	12	13	13	12	2	2	-6	2650	-6	-11	-17	-15	-16	-15	-9	7	19	25
2140	-5	-6	2	12	22	23	24	17	4	-5	2660	19	13	14	5	3	3	3	4	14	10
2150	-23	-35	-35	-27	-19	-2	17	33	42	44	2670	0	-13	-16	-21	-27	-24	-32	-36	-35	-36
2160	39	26	13	22	52	75	51	25	5	-20	2680	-35	-35	-35	-35	-27	-22	-8	2	8	14
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2180	13	22	7	-10	-28	-38	-46	-31	-10	13	2700	-5	-15	-15	-16	-8	5	14	22	23	13
2190	35	51	54	35	12	-7	-24	-26	-7	19	2710	4	-2	-11	-16	-15	-16	-15	-16	-8	-8
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2230	-3	15	23	32	33	33	33	24	14	13	2750	-11	-15	-5	0	16	24	23	23	15	13
2240	13	14	9	3	-2	-8	-17	-25	-25	-26	2760	22	23	23	22	10	1	-5	-6	-6	2
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2260	-27	-5	17	38	55	64	58	36	19	10	2780	8	-4	-4	4	3	4	12	14	13	16
2270	3	3	4	1	-10	-21	-26	-13	-5	-6	2790	24	23	24	19	6	0	-12	-11	5	18
2280	-6	-6	-20	-31	-36	-27	-15	-11	9	19	2800	25	15	4	3	4	3	14	21	29	29
2290	25	32	33	33	33	33	33	34	28	22	2810	22	19	4	4	3	8	22	23	23	23
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2320	30	34	33	33	23	13	14	11	4	2	2840	3	3	3	3	3	4	3	4	2	10
2330	-6	-5	-6	-6	-6	-6	-6	-6	-15	-14	2850	14	13	5	-4	-11	-16	-4	27	44	52
2340	-1	4	2	5	-1	-5	-13	5	30	32	2860	36	14	3	-2	-7	-3	4	3	5	14
2350	23	1	-8	-21	-26	-25	-19	-10	3	3	2870	14	11	3	4	3	4	4	4	3	4
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2370	-7	0	4	10	14	13	13	13	13	21	2890	4	0	-5	-6	-2	9	21	24	23	24
2380	24	32	33	33	30	16	-7	-17	-12	4	2900	18	0	0	-6	-2	14	8	2	9	9
2390	20	22	29	31	13	-7	-16	-15	-3	12	2910	15	22	24	23	24	18	12	3	14	9
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2430	7	12	10	-2	-15	-18	-17	-17	-18	-11											
2440	-7	-8	-14	-26	-28	-27	-17	0	10	11											
2450	10	10	10	10	10	10	10	10	3	-4											
2460	-14	-27	-29	-29	-29	-30	-22	-12	0	9											
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2480	7	8	8	8	8	8	7	-2	-2	-2											
2490	-31	-31	-32	-28	-20	-10	-2	-2	-2	-2											
2500	-8	-13	-12	-12	-12	-12	-15	-10	-3	2											
2510	7	5	7	1	2	19	30	37	33	21											
2520	1	-14	-28	-34	-33	-34	-34	-34	-34	-34											
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2540	16	2	-7	-15	-9	7	19	26	18	3											
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TO BE CONTINUED

END

RECORD = H-1242 COMPONENT = UP STATION = TOKACHI-M
 DATE AND TIME = 1988-10-10-14-52 TOTAL NUMBER OF DATA = 2950
 AMPLIFYING INTERVAL = 0.010 (SEC) SCAL = 0.10000
 SIGNAL = GR. ACC.
 ONECTION POINT IN DATA NUMBER = 1497, 2950, 2950.

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20	-28	11	50	89	84	34	-11	-71	-70	-20
30	-24	-7	66	144	177	127	34	-17	-64	-83
40	-42	-32	-8	41	56	18	8	-54	-45	66
50	79	49	26	32	45	76	56	29	-10	-89
60	-139	-85	-48	-15	36	15	4	45	101	158
70	-100	-53	-15	36	15	4	45	101	158	141
80	220	186	83	-50	-132	-145	-98	9	123	141
90	118	74	19	-44	-104	-61	-22	2	7	-1
100	-2	-23	-45	-60	-62	-45	-43	-60	-60	-62
110	-30	29	104	173	242	204	130	29	111	-205
120	-245	-236	-208	-129	-21	155	227	188	110	-19
130	-126	-178	-160	-62	22	91	142	150	94	50
140	-11	-132	-193	-212	-177	-96	-35	8	48	89
150	124	141	156	147	88	41	-32	-70	-96	-1
160	98	47	-3	-139	-134	-59	10	64	70	34
170	-1	-45	-85	-121	-117	-4	112	122	70	20
180	3	-1	-15	-15	-16	-5	6	14	14	15
190	41	89	102	15	-34	-149	-173	-135	-75	8
200	118	176	115	75	31	-6	-49	-78	-87	-67
210	-33	-37	-16	-6	-29	-14	6	5	18	18
220	76	86	22	-16	-90	-55	42	118	130	-55
230	-210	-243	-245	-175	-36	74	136	150	110	25
240	-29	-52	19	96	131	66	-1	-80	-74	-53
250	16	101	189	160	101	28	-63	-141	-205	-159
260	-22	32	13	-35	-84	-103	-59	-11	27	63
270	63	35	7	38	104	128	127	128	30	-46
280	-68	-72	-57	-34	33	59	36	10	-13	-42
290	-54	-60	-53	-32	6	67	78	32	5	5
300	31	63	78	40	-11	-60	-112	-91	6	94
310	60	4	-54	-89	-91	-86	-50	3	41	67
320	60	22	-19	-49	-77	-79	-72	-48	-20	0
330	11	55	87	51	12	-46	-80	-92	-90	-13
340	59	-58	-86	-73	-71	-74	-49	-25	12	32
350	-39	-9	-33	-23	28	68	89	48	-5	-53
360	8	-9	-33	-23	28	68	89	48	-5	-53
370	-83	-72	-25	-15	-4	50	36	-26	-78	-75
380	-48	-9	19	-16	-84	-131	-95	-47	-8	41
390	82	54	-1	-51	-76	-59	3	82	85	106
400	61	-40	-105	-80	-28	21	55	56	20	-28
410	-72	-65	-33	9	64	118	101	29	-48	-86
420	-79	-27	17	23	-1	11	19	-12	-19	-11
430	1	28	15	-14	-30	-24	-12	-23	-30	8
440	7	-17	-31	-24	11	18	18	12	-2	4
450	-19	-95	-116	-59	-10	44	105	90	35	-52
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TO BE CONTINUED

NO.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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490	-42	-62	-81	-69	-15	34	66	68	7	-72
500	91	-45	-16	-16	-18	8	4	-1	-20	4
510	27	-10	-36	-33	-34	-73	-46	-3	36	54
520	20	-40	-36	-10	-15	-3	0	-5	19	60
530	64	44	9	-36	-51	-61	-35	-51	-7	-35
540	-12	-11	-55	-67	-12	39	66	84	74	34
550	14	43	45	29	58	63	10	-44	-40	-47
560	-31	13	51	71	29	23	48	32	5	7
570	10	8	10	-6	7	20	19	11	-37	-49
580	-25	19	5	-32	-50	-54	-85	-72	-21	45
590	103	83	45	-23	-80	-107	-58	-14	-9	-8
600	10	31	62	70	55	1	-38	-65	-32	0
610	28	31	12	12	-24	-6	31	31	32	29
620	-8	-81	-125	-119	-88	-53	-5	43	35	23
630	33	-15	-3	41	14	-15	-20	-2	-29	-51
640	-18	14	46	39	-16	-43	-37	-21	4	61
650	84	39	24	25	13	-37	-32	-6	17	51
660	53	-4	-51	-61	-48	-28	2	-4	-15	-14
670	-14	-14	-4	31	66	46	-6	-37	-75	-74
680	-34	3	14	6	-4	-4	-4	-17	17	35
690	5	-2	-18	-29	-50	-42	12	49	50	26
700	-20	-58	-74	-74	-93	-2	16	17	15	-10
710	-39	-42	-43	-25	8	19	0	-59	-63	-8
720	37	71	71	9	-32	-15	0	-6	-12	0
730	18	1	7	2	-13	-20	-21	2	28	25
740	0	-24	-56	-63	-66	-14	33	69	97	86
750	32	-19	-53	-63	-65	-13	10	-6	-3	-11
760	7	14	-8	-11	-27	-25	-9	-37	-61	-49
770	-17	33	44	22	4	-12	5	40	73	78
780	42	18	-4	-20	-30	-16	12	46	84	99
790	85	40	6	-14	-21	-23	-39	-9	35	41
800	26	37	29	36	20	25	19	3	-6	-14
810	-33	-51	-40	-35	20	30	23	10	-11	-20
820	-48	-32	-20	-35	-36	-30	2	8	5	20
830	26	48	41	14	-8	-11	-13	4	34	51
840	3	-33	-43	-12	4	-23	10	-11	26	8
850	-14	-29	-33	-27	-3	23	28	7	-2	-4
860	-12	-19	-19	-3	-1	-5	-19	-31	-56	-43
870	-14	6	24	28	28	22	0	-15	-31	-42
880	-24	-3	0	-14	-20	-1	-2	4	36	62
890	64	33	3	-24	-55	-86	-59	-9	27	50
900	61	73	78	67	27	-14	-47	-63	-41	2
910	36	31	29	12	2	-2	-1	-15	-21	-15
920	-19	-17	-24	-1	37	56	38	15	-42	-42
930	-29	11	18	16	-6	-33	-47	-53	-28	7
940	41	64	67	26	-32	-49	-32	14	56	57
950	59	41	23	-8	-23	-21	-14	-4	6	7
960	21	29	27	25	11	-29	-29	-56	-24	-24
970	10	28	28	22	4	-21	-32	-33	-6	38
980	77	86	48	13	-1	-3	-1	7	16	16
990	31	37	37	38	44	-14	-53	-52	-54	-40

TO BE CONTINUED

CONTINUED(M-1242 UP)										CONTINUED(M-1242 UP)											
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1010	54	40	36	38	47	34	19	1	35	31	8	8	-22	-30	-13	-13	-13	-13	1	12	
1020	-46	-17	40	40	31	14	-16	23	35	38	24	6	-3	-14	-22	-16	-16	-16	6	18	
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1260	17	6	12	16	19	30	27	3	3	-11	1780	5	18	22	12	8	-8	-8	22	18	0
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1290	-17	-10	-3	-1	-2	-1	-2	-1	-2	-1	1810	2	-4	-13	-19	-16	-6	-6	2	11	11
1300	-2	8	39	67	55	22	-4	-12	-11	3	1820	-12	-17	-17	0	-7	0	0	9	11	2
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TO BE CONTINUED

TO BE CONTINUED

CONTINUED (M-1242 UP)										CONTINUED (M-1242 UP)											
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TO BE CONTINUED

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