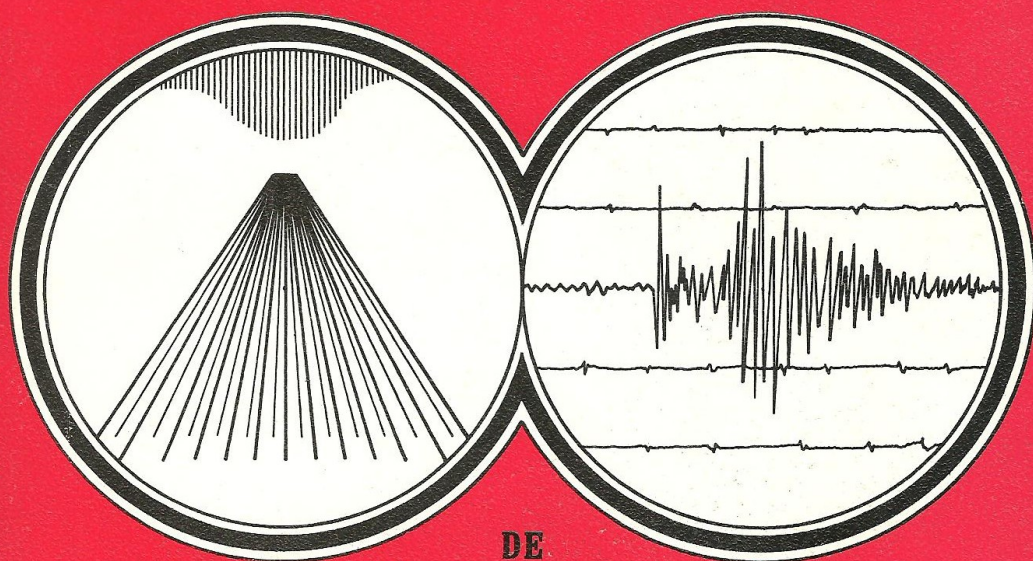


CATÁLOGO DE TEMBLORES EARTHQUAKE CATALOG

1985

OBSERVATORIO
VULCANOLOGICO Y SISMOLOGICO



DE
COSTA RICA

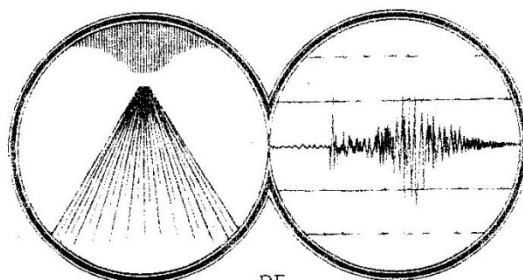
UNIVERSIDAD NACIONAL
HEREDIA COSTA RICA

ENERO 1986

CATÁLOGO DE TEMBLORES EARTHQUAKE CATALOG

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OBSERVATORIO
VULCANOLÓGICO Y SISMOLÓGICO



DE
COSTA RICA

CONSEJO NACIONAL DE INVESTIGACIONES
CIENTÍFICAS Y TECNOLÓGICAS



CONICIT

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Victor González Salas
(Editores)

UNIVERSIDAD NACIONAL
HEREDIA, COSTA RICA

ENERO DE 1986

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I. INTRODUCCION.
INTRODUCTION.

INTRODUCCION

El presente Catálogo de Temblores 1985, tiene como objetivo la divulgación de la información sísmológica básica registrada y procesada por la red sísmográfica del OBSERVATORIO VULCANOLÓGICO Y SISMOLÓGICO DE COSTA RICA, UNIVERSIDAD NACIONAL (OVSICORI-UNA) durante el año de 1985. Se presenta también un resumen de la actividad sísmica de abril a diciembre de 1984, publicada en el catálogo correspondiente a ese año.

Los parámetros sísmicos estadísticos y gráficos corresponden a eventos ubicados en territorio costarricense y muy cerca de sus fronteras. Además se presentan tiempos de arribo de sismos regionales y teleseismos registrados en nuestras estaciones.

El OVSICORI-UNA edita mes a mes boletines sísmológicos preliminares con la descripción de la actividad sísmica y un listado general de todos los sismos localizados durante el mes. Esta información es la que ha servido como base para este catálogo. Los boletines mensuales así como los catálogos anuales son ampliamente distribuidos tanto a nivel nacional como a observatorios, universidades e institutos de todos los continentes.

El objetivo último que se persigue con la publicación de estos catálogos y con la existencia misma del observatorio, es contribuir a la expansión de una base local de datos sísmológicos, fundamental para la zonificación sísmica del país y en las investigaciones conducentes a la reducción de peligros y pérdidas causadas por terremotos.

Cualquier tipo de información adicional que no halla sido incluida en este catálogo puede ser solicitada a nuestro Observatorio.

INTRODUCTION

The purpose of this Earthquake Catalog, is to present the basic seismological information gathered by the Observatorio Vulcanológico y Sismológico de Costa Rica, Universidad Nacional (OVSICORI-UNA), seismographic network during 1985. A summary of the seismic activity between April 1 and December, 1984 is also included. That information was published in the 1984 Earthquake Catalog.

Statistical and seismic parameters, as well as graphs presented correspond to seismic events located within the territory of Costa Rica or very close to its borders. Arrival times of regional earthquakes and teleseisms are also included.

OVSICORI-UNA publishes monthly preliminary seismological bulletins that describe the seismic activity together with a listing of all the earthquakes located during each month. This information has been used as a data base for this catalog. Monthly bulletins, as well as yearly catalogs are thoroughly distributed in Costa Rica and internationally to other observatories, universities and research institutions from all over the world.

The purpose of this publication and the existence of our Observatory itself, is to contribute to the expansion of a seismological local data bank which is essential for the seismic zoning of Costa Rica and for planning associated with hazards and damage reduction caused by earthquakes.

Other information not included in the present catalog may be requested to our Observatory.

PERSONAL ASOCIADO AL PROYECTO*
PROJECT ASSOCIATED PERSONNEL*

COSTA RICA

J. Barquero
E. Fernández
V. González
F. Güendel
E. Malavassi
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C. Montero
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ESTADOS UNIDOS DE AMERICA

J. Gill
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G. Simila

* en orden alfabético
in alphabetical order

INSTRUMENTACION Y DATOS DE LAS ESTACIONES

La red sismográfica del OVSICORI-UNA, es una red telemétrica en la cual la información es transmitida desde todas las estaciones remotas al centro de registro ubicado en el campus Omar Dengo de la Universidad Nacional en Heredia. Esta transmisión se efectúa a través de ondas de radio de muy alta frecuencia (VHF). Se transmite con un rango de frecuencia de 217 a 220 MHz por medio de transmisores de 0.5 watts de potencia. Las líneas de transmisión son menores que 150 Km.

Este tipo de transmisión de datos hace necesario que la gran mayoría de las estaciones se encuentren ubicadas en lo alto de cerros, permitiendo así la buena calidad de transmisión.

El sistema consiste de un sismómetro (vertical u horizontal) cuya señal alimenta a un pre-amplificador "VCO". La salida de éste pasa a un radio transmisor el cual se encarga, a través de una antena, de enviar la señal hasta el centro de registro. Las estaciones remotas son mantenidas en operación mediante baterías que son a su vez recargadas durante el día por medio de paneles solares.

El equipo utilizado es el mismo en todas las estaciones y consiste en sismómetros Ranger SS-1 de período corto (1 Hz) y amplificadores Teledyne-Geotech 42.50.

En el centro de registro la señal es captada por la antena y receptor correspondientes y filtrada por un discriminador hasta obtener de nuevo la señal generada por el movimiento del suelo en el sitio donde se encuentra el sismómetro. Esta señal es nuevamente amplificada y graficada finalmente en forma analógica en un tambor de registro.

Los amplificadores son del tipo AR-320 y los tambores de registro RV 301B ambos Teledyne-Geotech.

Los registros se hacen sobre papel termosensible a una velocidad de 1mm/seg con marcas de tiempo cada minuto, hora y día. La señal de tiempo es recibida vía satélite y corresponde al tiempo universal del Meridiano de Greenwich (tiempo local más seis horas). El error en esta fuente de tiempo es despreciable (1 ± 10^{-3} seg) comparado con la velocidad de registro del sistema (1 mm/seg) reduciéndose básicamente a la corrección producida por la variación de la frecuencia de la corriente eléctrica que alimenta al sistema ($60 \text{ Hz} \pm 4 \text{ Hz}$). Este error es corregido durante la interpretación de los sismogramas.

INSTRUMENTATION AND INFORMATION CONCERNING STATIONS

OVSICORI-UNA's seismographic network is a telemetered network that uses high frequency radio waves. Information is transmitted from remote stations to the recording center located at the Omar Dengo Campus, Universidad Nacional, Heredia. Transmission lines are less than 150 Km. Stations are often located at the top of mountains and hills due to telemetry requirements.

The system consists of a seismometer (vertical and/or horizontal) which produces a signal which inputs to a pre-amplifier "VCO". The output of the "VCO" is transmitted by a radio system to the recording center. Remote stations operate with batteries which are recharged daily by solar panels.

The equipment used is standard for all the stations and consists of Ranger SS-1 short period (1 Hz) seismometers and amplifiers 42.50 produced by Teledyne-Geotech.

At the recording center the signal is received and filtered by a discriminator to obtain the relative movements of the ground produced by earthquakes. The signal is again amplified and recorded on drums.

Amplifiers are AR-320 and recording drums are RV-301B both produced by Teledyne-Geotech.

Thermosensitive paper is used for recording with a speed of 1 mm/sec. Time marks are generated on the record every minute, hour and day. Time signal is received via satellite and corresponds to the Greenwich Meridian Universal Time (local time plus six hours). The error in the timing system is negligible (1 ± 10^{-3} sec), when compared with the recording speed of the system (1 mm/sec). Potential errors result from the frequency fluctuation in the electric power at Heredia, usually $60 \text{ Hz} \pm 4 \text{ Hz}$. This error is corrected during the seismogram interpretation process.

TABLA I-1
COORDENADAS DE LAS ESTACIONES
STATION COORDINATES

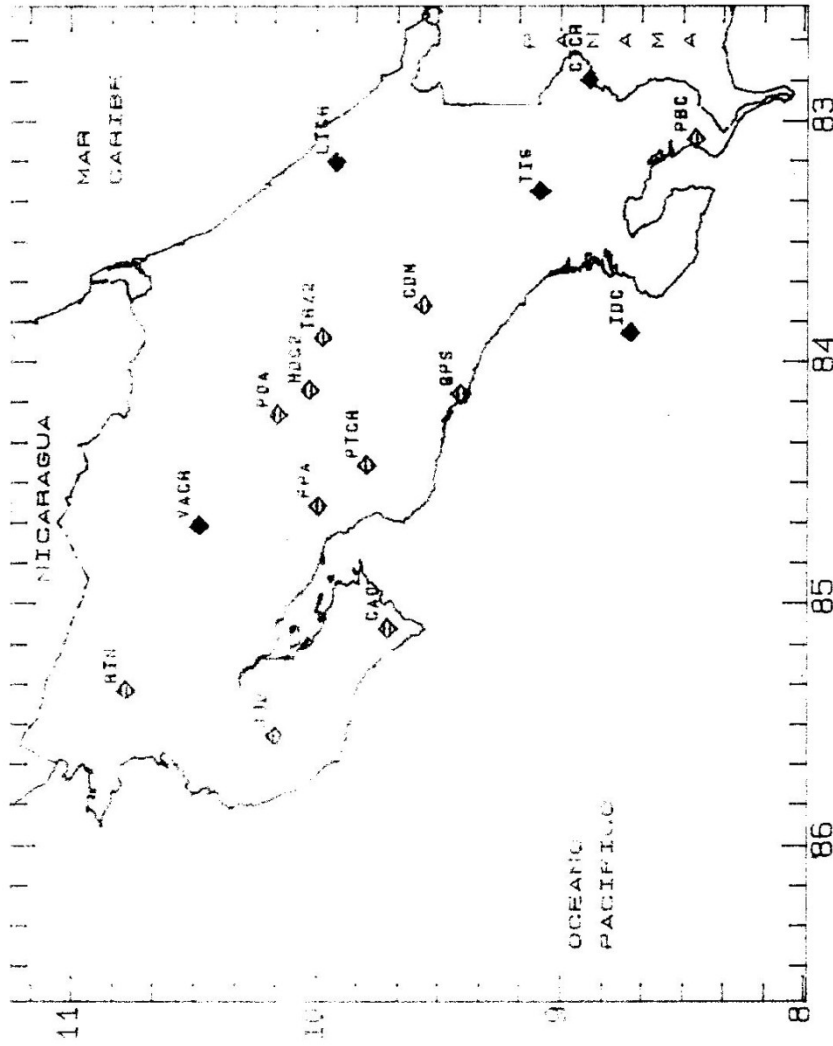
NOMBRE	CODIGO	LATITUD(N)	LONGITUD(W)	ELEVACION
NAME	CODE	LATITUDE(N)	LONGITUDE(W)	ELEVATION
RINCON DE LA VIEJA	RIN	10:46.41	85:21.50	775
JUAN DIAZ	JUD	10:09.72	85:32.82	844
COBANO	CAO	9:42.07	85:06.20	263
ESPARZA	EPA	9:59.26	84:35.79	310
QUEPOS	QPS	9:24.19	84:07.94	83
POTENCIANA	PTCR	9:47.37	84:25.57	1510
HEREDIA*	HDC	10:08.08	84:06.84	1157
HEREDIA	HDC2	10:01.42	84:07.00	1220
VOLCAN POAS	POA	10:09.14	84:13.02	2093
VOLCAN IRAZU**	IRZ	9:58.47	83:51.94	3380
VOLCAN IRAZU	IRZ2	9:58.13	83:53.85	2945
C. DE LA MUERTE	CDM	9:33.31	83:45.95	3470
PUNTA BURICA	PBC	8:25.12	83:02.21	350
TIGRE	TIG	*****		
COTON	CTCR	* OPERACIONALES EN 1986		
ISLA DEL CANO	IDC	*		
LIMON	LICR	* OPERATIONAL IN 1986		
ARENAL	VACR	*****		

* CAMBIADA A HDC2 EL 26/11/1984
 * MOVED TO HDC2 IN 11/26/1984
 ** CAMBIADA A IRZ2 EL 01/07/1985
 ** MOVED TO IRZ2 IN 07/01/1985

**RED SISMOGRAFICA
OVSICORI-UNA**

SIMBOLOGIA

- Estaciones en operación 
- Estaciones en proyecto 



MAPA I-I

**RED SISMOGRAFICA
OVSICORI-UNA**

TABLA I-2
 INSTRUMENTACION Y FECHA DE OPERACION DE LAS ESTACIONES
 INSTRUMENTATION AND DATES OF OPERATION OF STATIONS

CODIGO ESTACION	FECHA DE OPERACION	GEOFONO	PERIODO	COMPONENTE	AMPLIFICACION
STATION CODE	DATE OF OPERATION	GEOPHONE	PERIOD	COMPONENT	MAGNIFICATION
PBC	01/1985	RANGER SS-1	1 SEG.	Z	~40K
IRZ*	04/1984	RANGER SS-1	1 SEG.	Z	~40K
IRZ2	07/1985	RANGER SS-1	1 SEG.	Z	~40K
CDM	04/1984	RANGER SS-1	1 SEG.	Z	~40K
POA	04/1984	RANGER SS-1	1 SEG.	Z	~40K
HDC**	05/1984	RANGER SS-1	.8 SEG.	N,E	~2.8K
HDC2	11/1984	RANGER SS-1	1 SEG.	Z	~40K
HDC2	11/1984	RANGER SS-1	.8 SEG.	N,E	~2.8K
PTCR	05/1984	RANGER SS-1	1 SEG.	Z	~40K
EPA	05/1984	RANGER SS-1	1 SEG.	Z	~40K
QPS	04/1984	RANGER SS-1	1 SEG.	Z	~40K
CAO	11/1984	RANGER SS-1	1 SEG.	Z	~40K
JUD	11/1984	RANGER SS-1	1 SEG.	Z	~40K
RIN	11/1984	RANGER SS-1	1 SEG.	Z	~40K

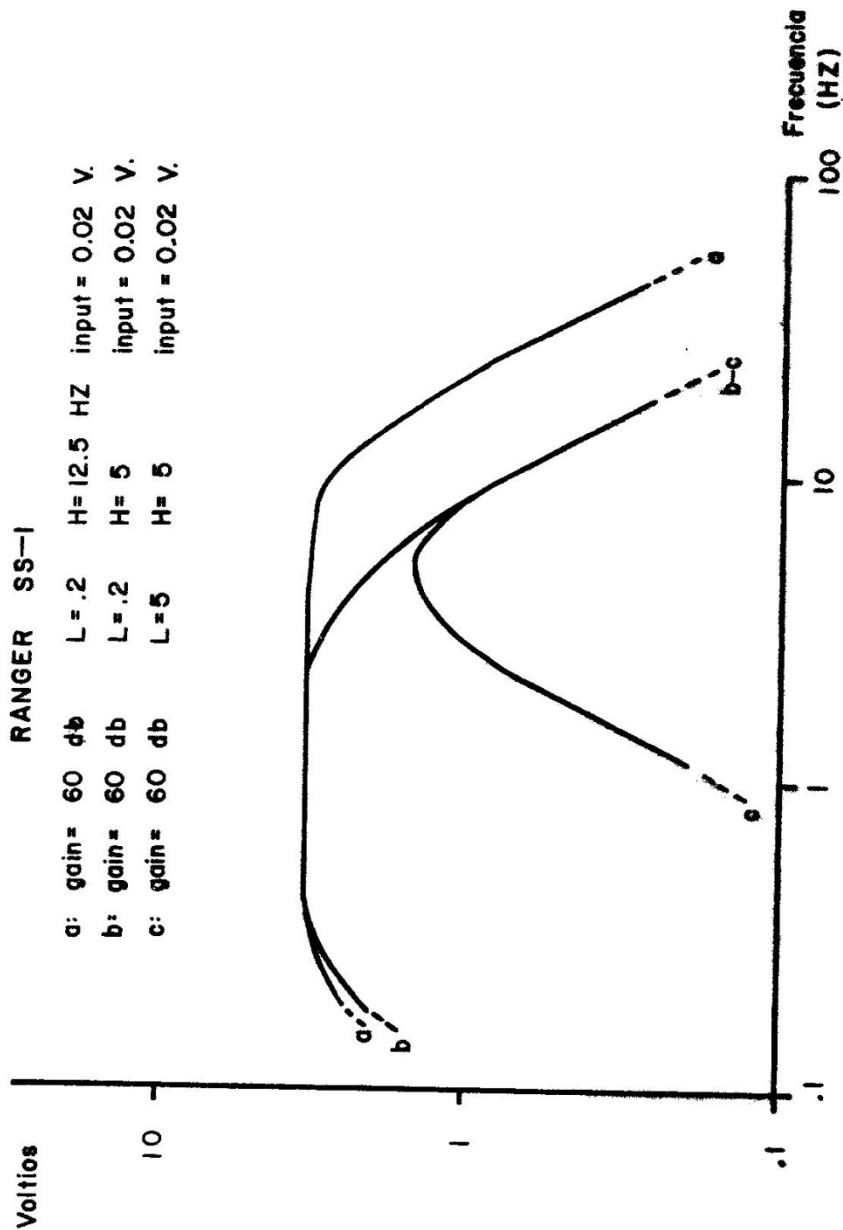
* CAMBIADA A IRZ2 EL 01/07/1985

* MOVED TO IRZ2 IN 07/01/1985

** CAMBIADA A HDC2 EL 26/11/1984

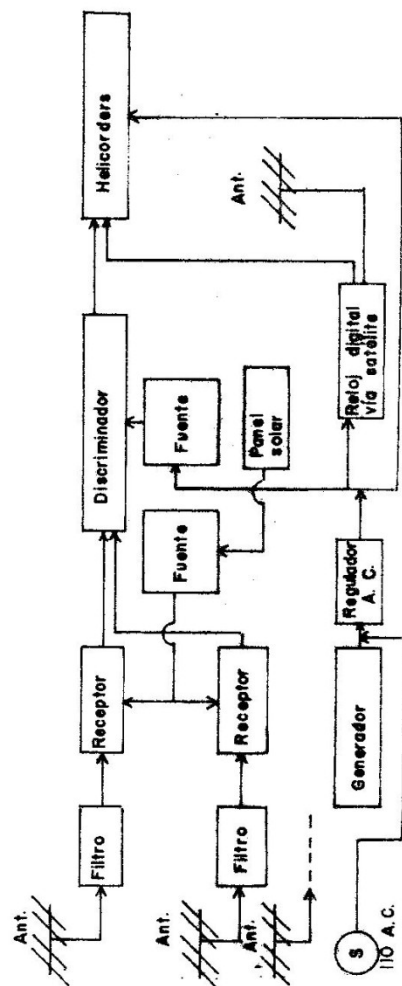
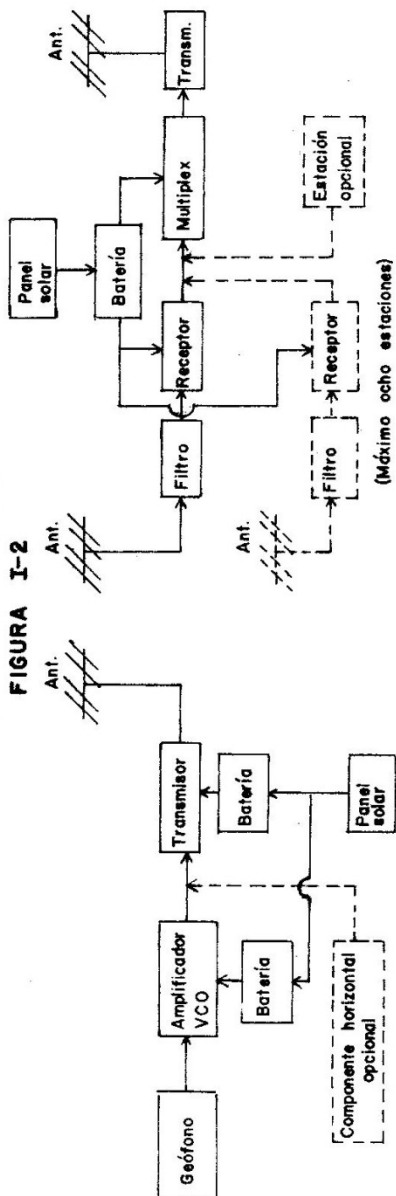
** MOVED TO HDC2 IN 11/26/1984

FIGURA I-1



RESPUESTA DE FRECUENCIA FILTROS L (LOW) Y H (HIGH)
DEL AMPLIFICADOR SISMICO TELEDINE GEOTECH 42.50

DIAGRAMA DEL SISTEMA
FIGURA I-2



ANÁLISIS DE DATOS

Los sismogramas de todas las estaciones son leídos diariamente anotando toda la información posible para cada evento sísmico. Dentro de la información leída están los tiempos de arribo de las ondas P (primaria-longitudinal) y S (secundaria-transversal) anotando también la impetuosidad, polaridad y grado de calidad de la lectura. Dependiendo de la distancia epicentral se anota si las primeras fases son Pn, Sn, P*, S* o simplemente P y S. Esta información es procesada por medio del programa HYPOINVERSE (Klein, 1978) adaptado a un computador DEC Professional 350.

Una vez obtenida la primera ubicación se procede a identificar cualquier error residual de tiempo mayor que 0.5 segundos para las ondas P y S. De existir residuos mayores que este valor, se procede a revisar las lecturas y efectuar las correspondientes correcciones. Entre los resultados principales obtenidos del análisis por computadora para cada sismo están:

- a- tiempo de origen
- b- latitud y longitud epicentral
- c- profundidad focal
- d- magnitud local
- e- error en el tiempo (RMS)
- f- errores en el plano horizontal y vertical (ERH y ERZ) y otra serie de parámetros estadísticos que facilitan la evaluación de la calidad de los resultados obtenidos.

Se reportan todos los sismos que han podido ser ubicados aún cuando los errores en la horizontal y la vertical sean mayores que 10 Km, siempre y cuando el RMS sea menor que 0.5 segundos después de una revisión exhaustiva del evento. Eventos con información insuficiente para ser localizados han sido omitidos del listado general.

El modelo de corteza utilizado en el programa HYPOINVERSE está basado en el propuesto por Matumoto et al. (1977) para la región norte de Costa Rica, modificado parcialmente. Este modelo consiste de 5 capas con las siguientes profundidades y velocidades: de 0 a 8.2 Km, 5.1 Km/s; de 8.2 a 21.1 Km, 6.2 Km/s; de 21.1 a 43.4 Km, 6.6 Km/s; de 43.4 a 60.0 Km, 7.85 Km/s y más profundo que 60.0 Km, 8.156 Km/s.

DATA ANALYSES

Seismograms are read on a daily basis. P and S waves arrival times, nature of the motion (i or e), polarity and quality of the reading are among the parameters extracted. Depending on the epicentral distance the first phase corresponding to Pn, Sn, P*, S* or simply P and S is indicated. This information is processed using the HYPOINVERSE program (Klein, 1978) adapted to a DEC Professional 350 computer system.

Once the first preliminary location is obtained, any location with residual time error (RMS) bigger than 0.5 sec for P or S waves is rechecked and corrected when possible.

Results obtained for each earthquake includes:

- a- origin time
- b- epicentral latitude and longitude
- c- focal depth
- d- local magnitude
- e- time error (RMS)
- f- errors in the horizontal and vertical plane (ERH and ERZ) as well as other statistical parameters used in the quality evaluation of the data.

All located earthquakes are reported. In some cases earthquake locations with horizontal and vertical errors larger than 10 km are reported if the RMS is smaller than 0.5 seconds after an exhaustive evaluation of the event. Events without sufficient information to be located have been omitted from the general listing.

Crustal model used in the HYPOINVERSE program is after Matumoto et al (1977) for the northern region of Costa Rica, slightly modified. This model consists of 5 layers with the following depths and velocities: from 0 to 8.2 km, 5.1 km/sec.; from 8.2 to 21.1 km, 6.2 km/sec.; from 21.1 to 43.4 km, 6.6 km/sec.; from 43.4 to 60.0 km, 7.85 km/sec.; deeper than 60 kms, 8.156 km/sec.

La magnitud local de los eventos sísmicos es obtenida del promedio de las magnitudes parciales calculadas para cada estación según la duración de las trazas. Estas magnitudes parciales se calculan según la relación obtenida por el Servicio Geológico de los Estados Unidos (USGS) para sismos en Alaska ($ML = -1.16 + 2.01 \log T + 0.0035 D + 0.007 Z + F$) (T: duración del sismo, D: distancia epicentral, Z: profundidad focal y F: corrección para cada estación). Se cuenta además con dos trazas horizontales con respuesta WOOD-ANDERSON para el cálculo de la magnitud Richter, sin embargo se ha observado que ésta es de 2 a 4 décimas mayor que la obtenida con la relación del USGS.

Local magnitude for seismic events is obtained from the average of the coda magnitudes recorded for each station. These station magnitudes are calculated according to the relation obtained by the United States Geological Survey (USGS) for earthquakes in Alaska ($ML = -1.16 + 2.01 \log T + 0.0035 D + 0.007 Z + F$, where T= duration of the event, D= epicentral distance, Z= focal depth and F= correction factor for each station). Two horizontal seismometers calibrated for WOOD-ANDERSON response are used to calculate the Richter's magnitude. We have observed that the Richter's magnitude is always 0.2 to 0.4 larger than the magnitude obtained by using the USGS relation for Alaska.

Referencias:

KLEIN, F.W.; 1978; Hypocenter Location Program HIPDINVERSE, Open File Report 78-694; Department of the Interior, U.S. Geological Survey, 113 pp.

KLEIN, F.W.; User's Guide to HIPDINVERSE, a Program for VAX and PC 350 Computers to Solve for Earthquake Locations; Open File Report; United States Department of the Interior, Geological Survey. (en preparación).

MATUMOTO, T.; OHTAKE, M.; LATHAM, G.; UHARA, J.; 1977; Crustal Structure in Southern Central America, Bull. Seis. Soc. Amer.; 67(1), 121-134.

IN MEMORIAL



El Observatorio Vulcanológico y Sisnológico de Costa Rica, Universidad Nacional, desea rendir, en esta edición de nuestro Catálogo Anual de Temblores, un homenaje póstumo al Doctor Charles Francis Richter uno de los más grandes sisnólogos de todos los tiempos, quién sentó bases muy firmes en la sisnología moderna.

El Dr. Richter nació en 1900 en una granja en las afueras de Hamilton, Ohio al norte de Cincinnati, Estados Unidos. En 1920 obtuvo el grado de Bachiller en Física de la Universidad de Stanford y en 1928 el Doctorado en el Instituto de Tecnología de California (Caltech).

OVSICORI-UNA is pleased to dedicate the present Earthquake Catalog 1985, to honor the memory of Dr. Charles Francis Richter, one of the fathers of modern seismology and one of the greatest seismologist of all times.

Dr. Charles F. Richter was born in a farm near Hamilton, Ohio in 1900, USA. In 1920 he obtained his Bsc. in Physics from the Stanford University and in 1928 his Ph.D. from the California Institute of Technology (Caltech).

De 1928 a 1936 trabajó como investigador en la Institución Carnegie de Washington. Regresó a Caltech en donde trabajó como profesor asistente en sismología (1937-1947), profesor asociado (1947-1952), profesor (1952-1970) y profesor emeritus desde 1970.

Publicó dos de las más significantes contribuciones a la sismología: el libro "Sismología Elemental" (1948), utilizado como libro de texto en muchos países del mundo, y en colaboración con Beno Gutenberg publicó el libro "La Sismicidad de la Tierra" (1949). También es autor y coautor de más de 200 artículos sobre sismología y temas relacionados.

El Dr. Richter ha sido reconocido internacionalmente por el establecimiento de la "Escala de Magnitud de Richter" utilizada desde 1935, para medir el tamaño de los sismos en función de la energía liberada.

El Dr. Charles Richter murió, de un daño en la arteria coronaria, el 30 de setiembre de 1985 en el Centro de Convalecencia del Parque Marino en Altadena, California, en donde estuvo internado alrededor de un año.

La foto que aquí se presenta corresponde a su última aparición en público, en 1982, para la dedicatoria del Laboratorio Charles F. Richter de la Universidad de California en Santa Cruz.

Between 1928 and 1936 Dr. Richter joined the staff of the Carnegie Institution in Washington D.C. Dr. Richter returned to Caltech, where worked as assistant professor of seismology (1937-1947), associated professor (1947-1952), professor (1952-1970) and emeritus professor since 1970.

Dr. Richter published two of the most significant contributions to modern seismology: the book "Elementary Seismology" (1948), which is used as a text book in several countries around the world, and the book "Seismicity of the Earth", written jointly with Beno Gutenberg (1949). Dr. Richter is author and co-author of more than 200 articles about seismology and related topics.

Dr. Richter has been internationally known for establishing the "Richter Scale of Magnitude" used since 1935 to measure the size of earthquake as a function of the energy released.

Dr. Richter died after a health problem in his coronary artery on September 30, 1985 at the Marino Park Convalescent Center in Altadena, California, where he spent the previous year.

The photo shown in this catalog corresponds to Dr. Richter's last public appearance in 1982 when he attended the dedication of the Charles F. Richter Laboratory of the University of California at Santa Cruz.

AGRADECIMIENTOS

El Observatorio Vulcanológico y Sismológico de Costa Rica Universidad Nacional (OVSICORI-UNA), desea agradecer a las autoridades de la Universidad Nacional, de la Universidad de California en Santa Cruz y del Gobierno de la República, que hicieron posible la aprobación e implementación de nuestro proyecto y nos estimularon en nuestro propósito de proveer al país de datos sismológicos necesarios para la planificación del desarrollo nacional y de la prevención de peligros causados por sismos.

A la Oficina para la Asistencia de Desastres en el Extranjero de la Agencia para el Desarrollo Internacional (OFDA-AID) por la financiación del "Proyecto para la Instalación de una Red Sismográfica Permanente en Costa Rica y el Establecimiento de un Programa de Reducción de Peligros Causados por Sismos". Fue a través de este proyecto que se ha podido registrar y procesar la información que aquí se presenta.

Al Laboratorio Sismológico Charles F. Richter de la Universidad de California en Santa Cruz por la valiosa asesoría y revisión crítica de nuestro trabajo. Queremos agradecer especialmente a la Dra. Karen C. MacNally.

A la Fundación Nacional para las Ciencias (NSF) por su valioso apoyo científico, así como al Servicio Geológico de los Estados Unidos (USGS) por facilitarnos programas de computación y por el asesoramiento en aspectos relacionados con la vulcanología y sismología. Agradecemos especialmente al Dr. F. Klein, Dr. D. Harlow, Dr. A. Okamura y Dr. N. Banks, y a los Observatorios Vulcanológicos de Hawaii y David Johnston, Cascades por su colaboración en diferentes formas a nuestros proyectos.

Agradecemos también al Dr. W. B. Melson del Instituto Smithsonian por su asesoría técnica en el campo de la vulcanología.

Deseamos agradecer de manera muy especial a la Fundación Vulcanológica y Sismológica de América Central (FUVSAC) por el interés y la colaboración incondicional que ha brindado en el desarrollo de todas las actividades de nuestro Observatorio.

ACKNOWLEDGEMENTS

The Volcanological and Seismological Observatory of Costa Rica, Universidad Nacional (OVSICORI-UNA) would like to thank to the authorities of the Universidad Nacional, the University of California at Santa Cruz, and the Costa Rican government which made possible fund allocation and implementation of our projects and permanently stimulated our purpose of providing the country with the seismological information needed for national development and earthquake hazards reduction planning.

To the Agency for International Development, Office of Foreign Disaster Assistance (AID-OFDA) for making possible fund allocation for the "Project for the Installation of a Permanent Seismographic Network in Costa Rica and the Establishment of an Earthquake Hazards Reduction Program". It was through this project that we were able to record and process the information presented in this catalog.

To the Charles F. Richter Seismological Laboratory of the University of California at Santa Cruz for providing valuable advice and critical review of our work. We would specially like to acknowledge Dr. Karen C. MacNally.

To the the National Sciences Foundation (NSF) for its scientific support, as well as to the United States Geological Survey (USGS) for providing computer programs and for valuable advice in volcanology and seismology related fields. We would specially like to acknowledge Dr. F. Klein, Dr. D. Harlow, Dr. A. Okamura and Norman Banks; and to the Hawaiian and Cascades, David Johnston Volcano Observatories for their collaboration in different ways to our projects.

To Dr. W. Melson from the Smithsonian Institution for his technical advice in the field of volcanology.

To the "Volcanological and Seismological Foundation of Central America" (FUVSAC) for the support of all the activities of our Observatory.

Al cuerpo de bomberos del Instituto Nacional de Seguros por los reportes de intensidad sísmica en todo el país. Estos reportes fueron incluidos en nuestros boletines mensuales.

A los medios de comunicación colectiva por el apoyo a nuestro trabajo y la interpretación objetiva y difusión de nuestros boletines.

Finalmente deseamos agradecer al Consejo Nacional de Investigaciones Científicas y Tecnológicas (CONICIT) por el apoyo financiero para la publicación de este catálogo.

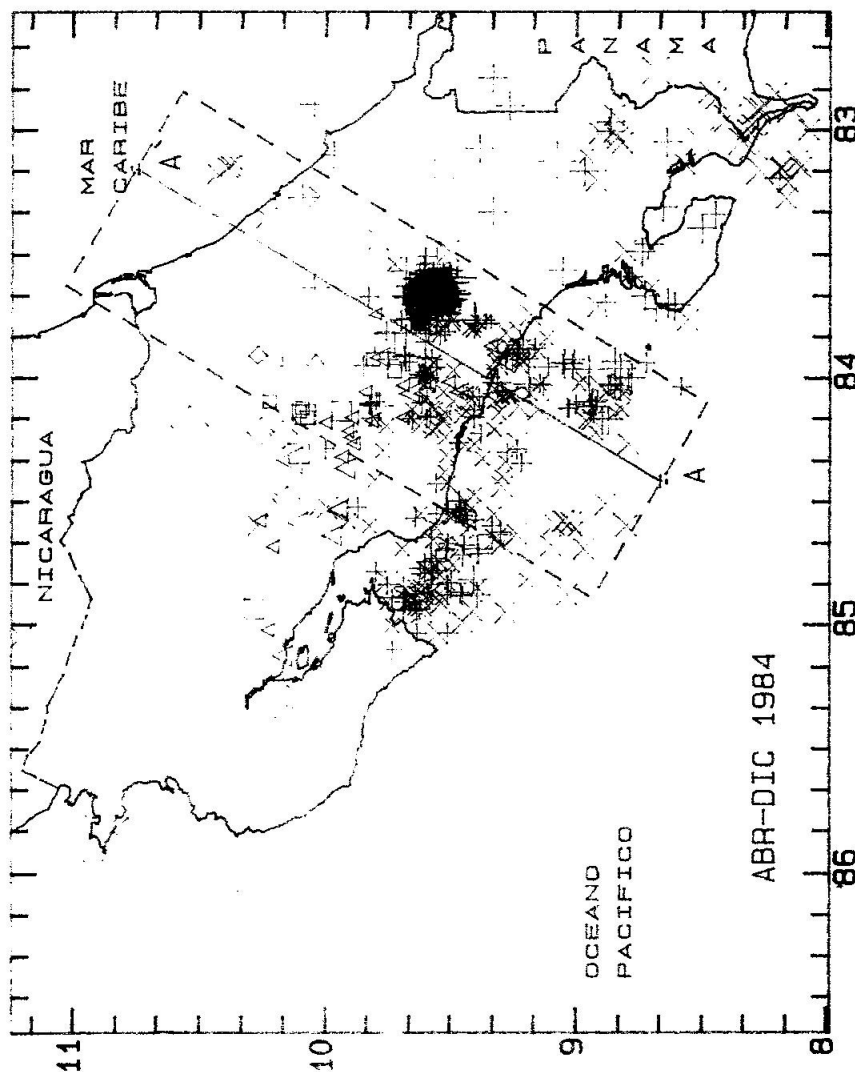
To the " Fire Department" of Instituto Nacional de Seguros for providing seismic intensity reports from the whole country. Those reports were included in our monthly bulletins.

To the collective communication media for their support of our work and objective interpretation of our bulletins.

And finally to the " Consejo Nacional de Investigaciones Científicas Tecnológicas de Costa Rica" (CONICIT) for their financial support that made possible the publication of the present catalog.

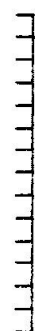
II. SISMICIDAD DE COSTA RICA ABR-DIC 1984.
SEISMICITY OF COSTA RICA APR-DEC 1984.

A. MAPAS Y GRAFICOS.
MAPS AND GRAPHS.



MAGNITUD CONT.
 1.0- 1.9 1
 2.0- 2.9 461
 3.0- 3.9 203
 4.0- 4.9 16
 5.0- 8.0 0
 PROFUNDIDAD CONT.
 0.- 24.9 420
 25.- 49.9 209
 50.- 74.9 32
 75.- 99.9 11
 100.-250.0 9
 GRAFICADOS CONT.
 ABR-DIC 1984 681
 SIN GRAFICAR 4

140 KM



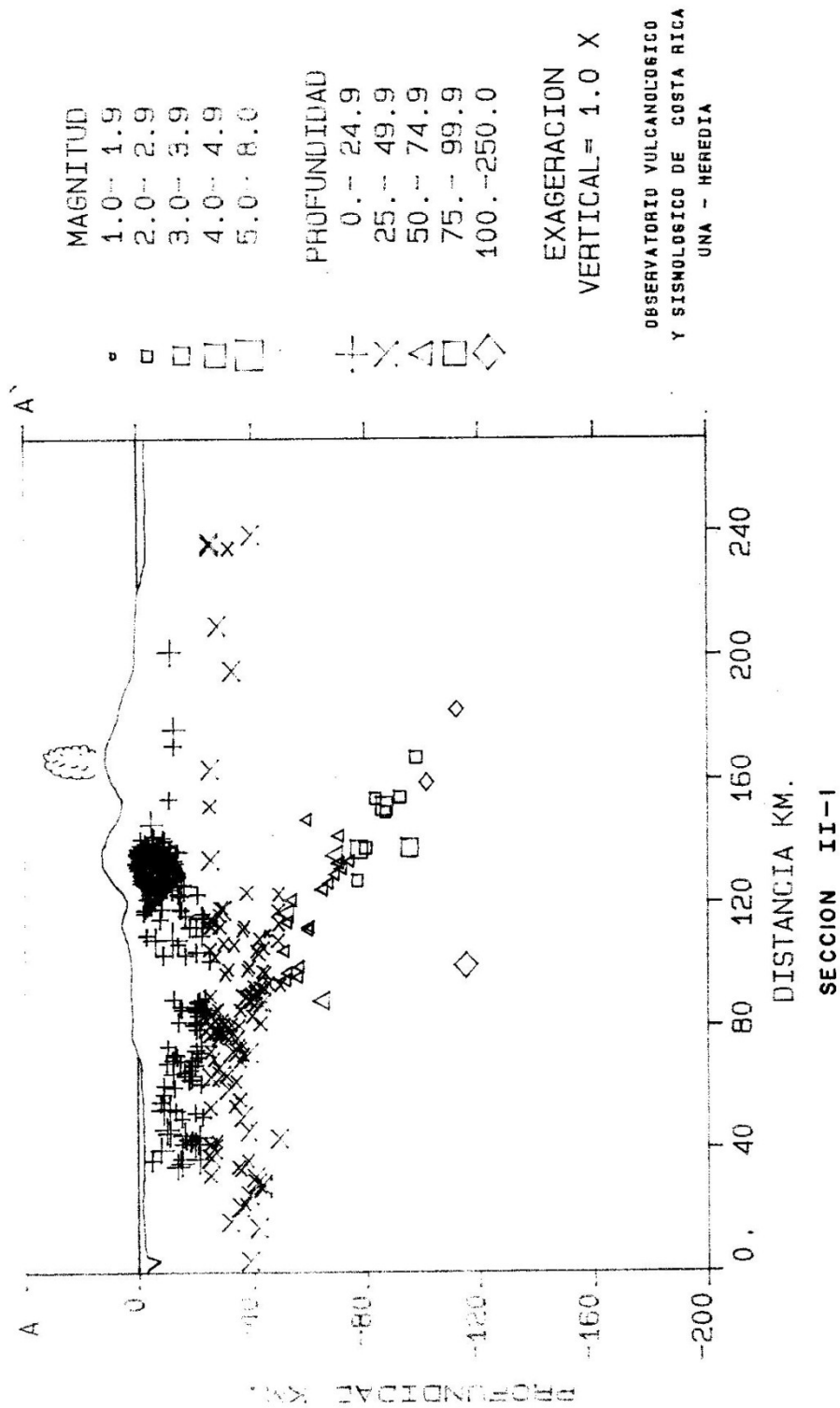
OBSERVATORIO VULCANOLÓGICO
 Y SISMOLOGICO DE COSTA RICA
 UNA - HEREDIA

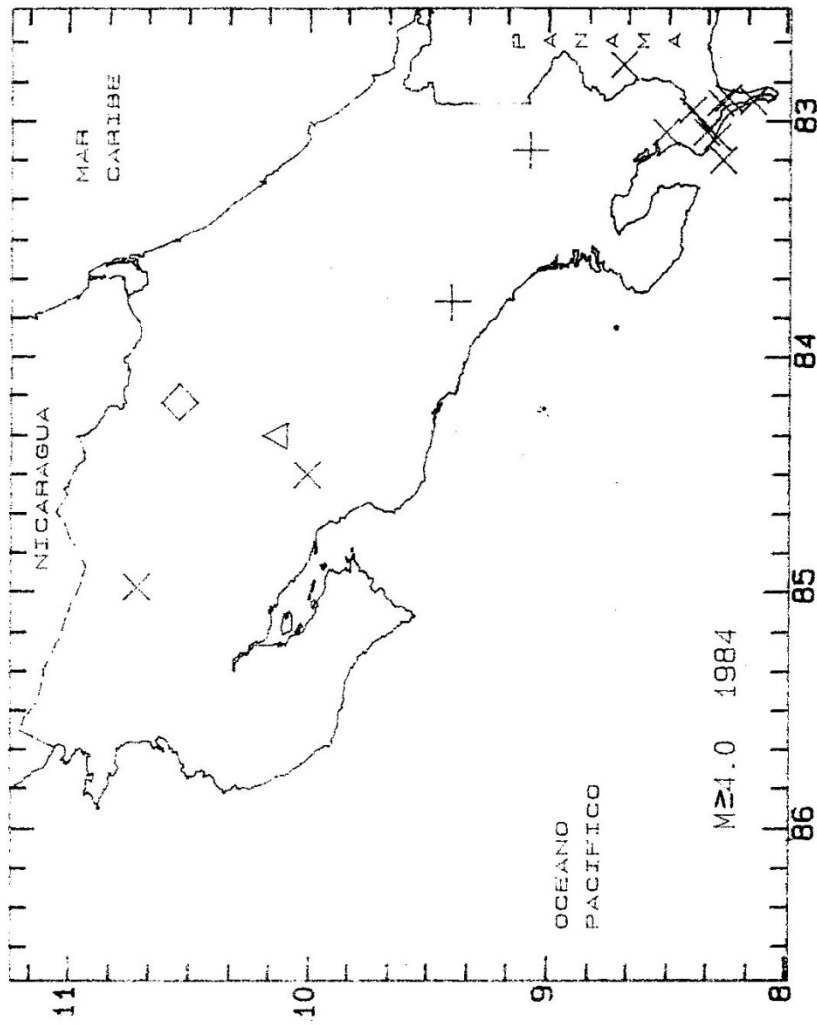
ABR-DIC 1984

SISMICIDAD DE COSTA RICA

MAPA II-I

SISMICIDAD ABRIL-DICIEMBRE 1984
 (TODAS MAGNITUDES)





MAGNITUD CONT.	
1.0- 1.9	0
2.0- 2.9	0
3.0- 3.9	0
4.0- 4.9	16
5.0- 8.0	0
PROFUNDIDAD CONT.	
0.- 24.9	2
25.- 49.9	11
50.- 74.9	1
75.- 99.9	0
100.-250.0	2
GRAFICADOS CONT.	
M≥4.0 1984	16
SIN GRAFICAR	1

140 KM

Observatorio Vulcanológico
y Sismológico de Costa Rica
UNA - Heredia

MAPA II-3

SISMICIDAD ABRIL-DICIEMBRE 1984
(M≥4.0)

TIEMPO

1 ABR 84

0 1 2 3 4 5

ABR MAY JUN JUL AGO SET OCT NOV DIC ENE

31 DIC 83

PROFUNDIDAD
0. - 24.9
25. - 49.9
50. - 74.9
75. - 99.9
100. - 249.9

OBSERVATORIO VULCANOLÓGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

31 DIC 84

TIEMPO

1 APR 84

GRAFICO II-1

DIAGRAMA DE LA PROFUNDIDAD VERSUS TIEMPO
(TODAS MAGNITUDES 1984)

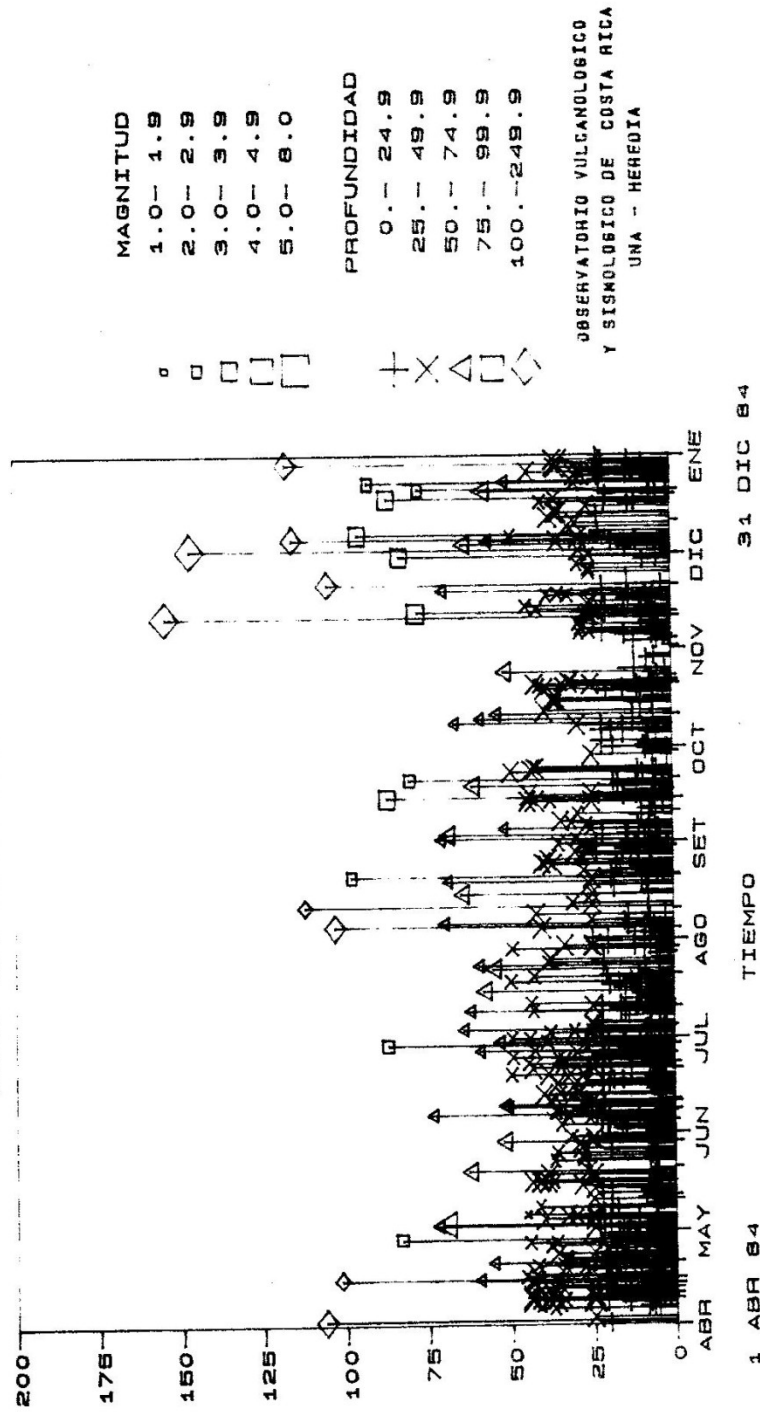


GRAFICO II-2

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA (TODAS MAGNITUDES 1984)

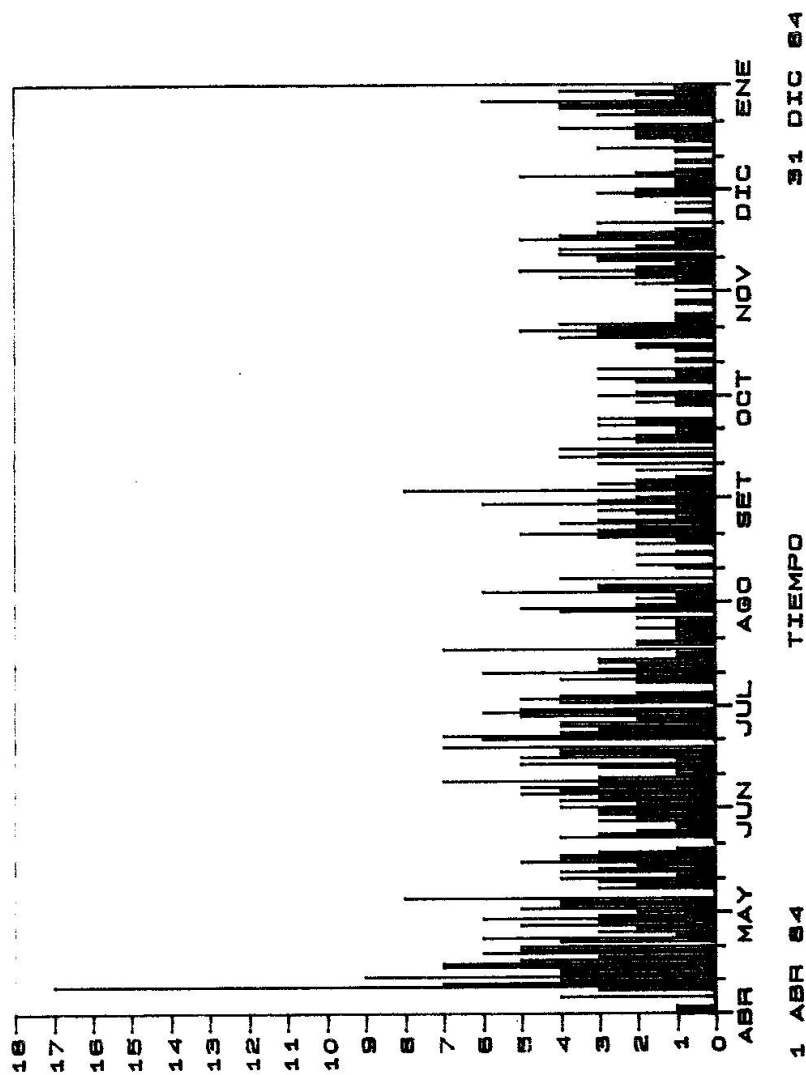


GRAFICO II-3

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA
(M<3. 1984)

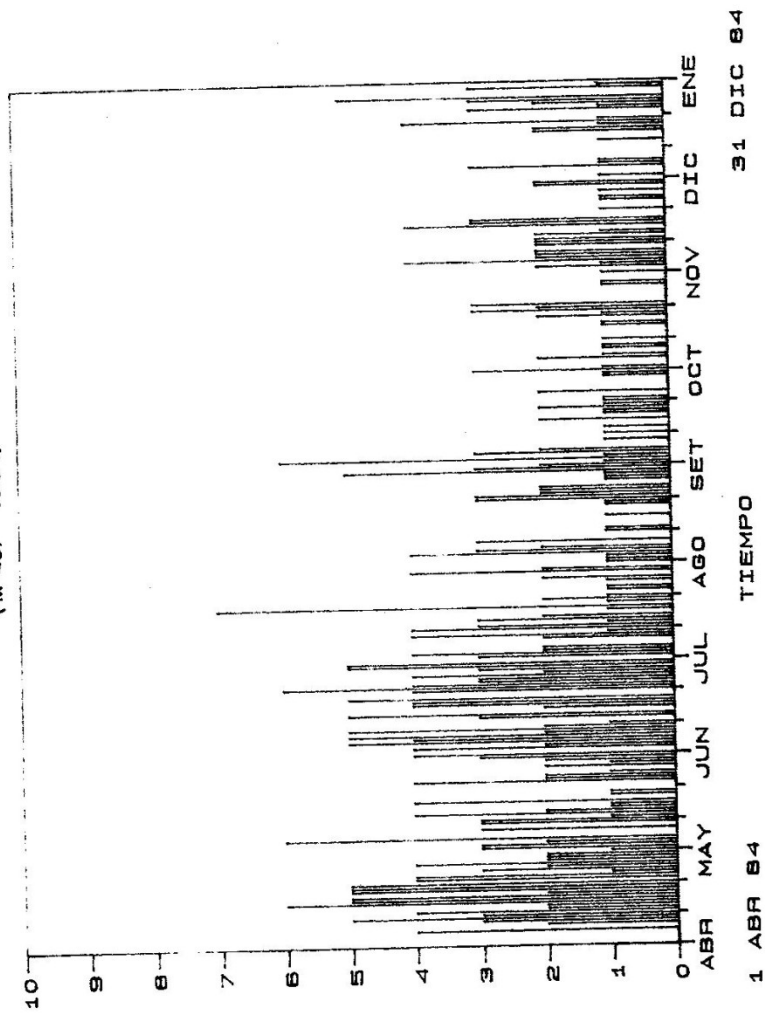


GRAFICO II-4

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA
($3 \leq M < 4$, 1984)

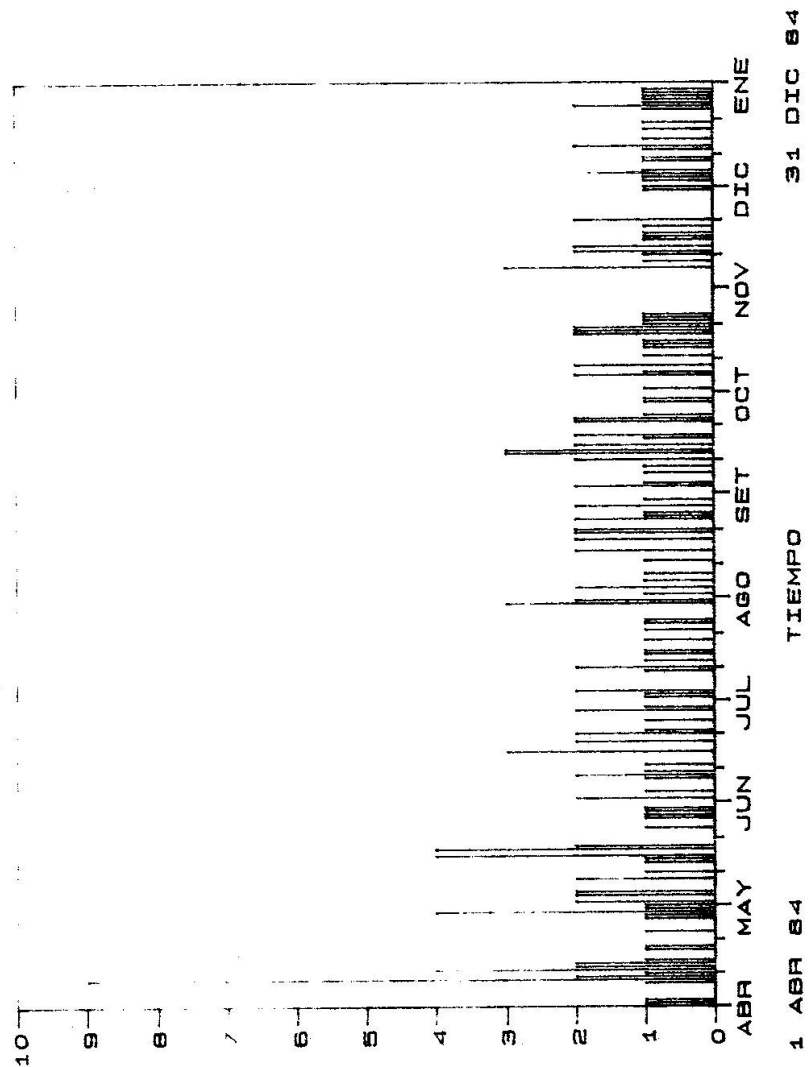


GRAFICO II-5

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA
($M \geq 4$, 1984)

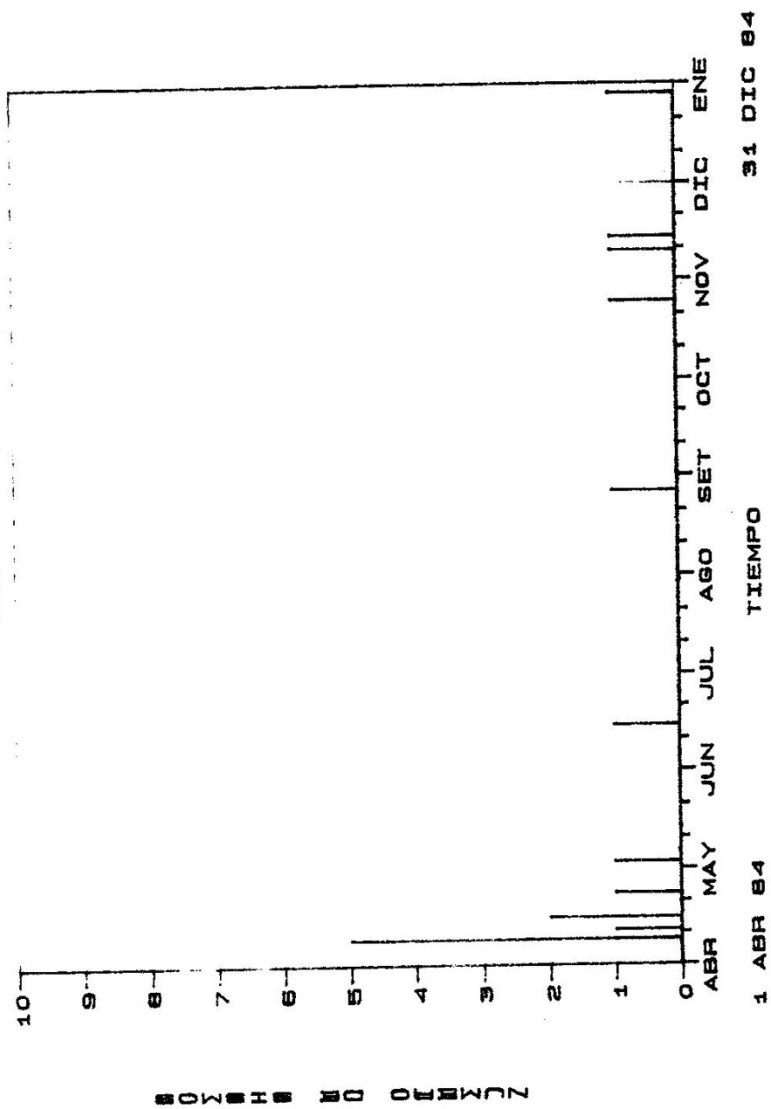
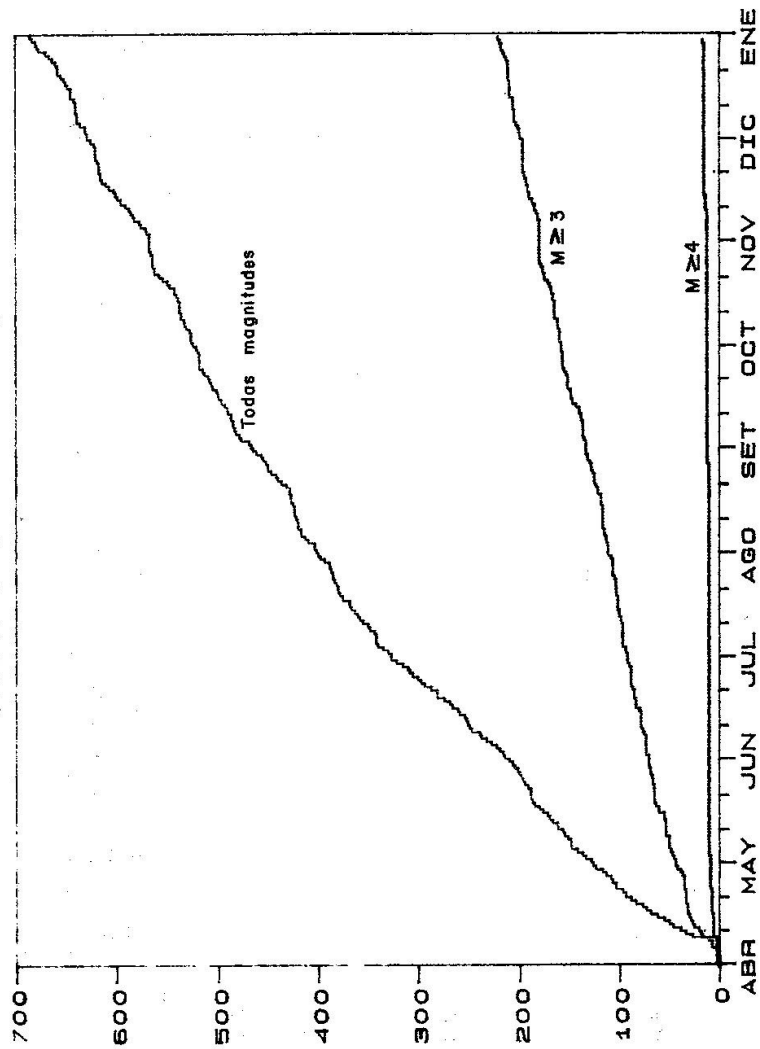


GRAFICO II-6

DIAGRAMA ACUMULATIVO DEL NUMERO DE EVENTOS POR DIA
(TODAS MAGNITUDES. 1984)



31 DIC 84

TIEMPO

1 ABR 84

GRAFICO II-7

HISTOGRAMA DEL MOMENTO SISMICO POR DIA (TODAS MAGNITUDES 1984)

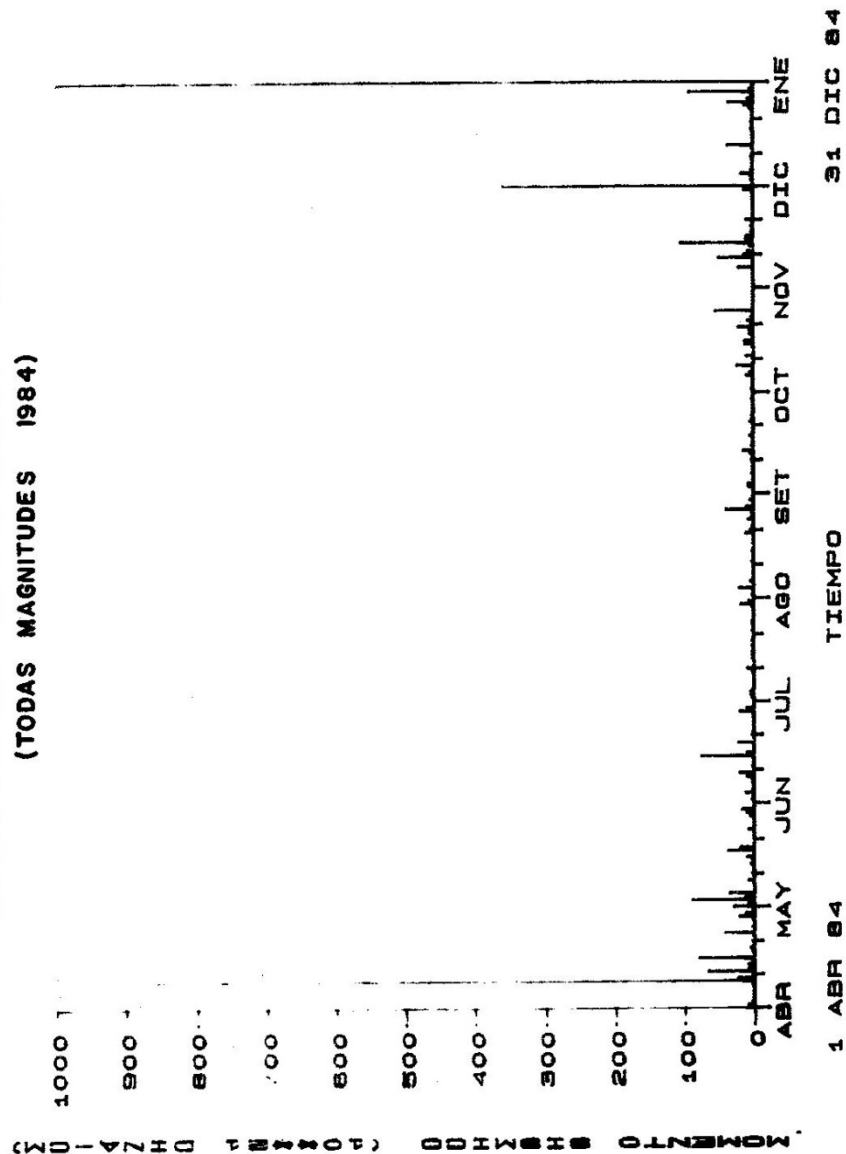


GRAFICO II-8

DIAGRAMA ACUMULATIVO DEL MOMENTO SISMICO POR DIA
(TODAS MAGNITUDES. 1984)

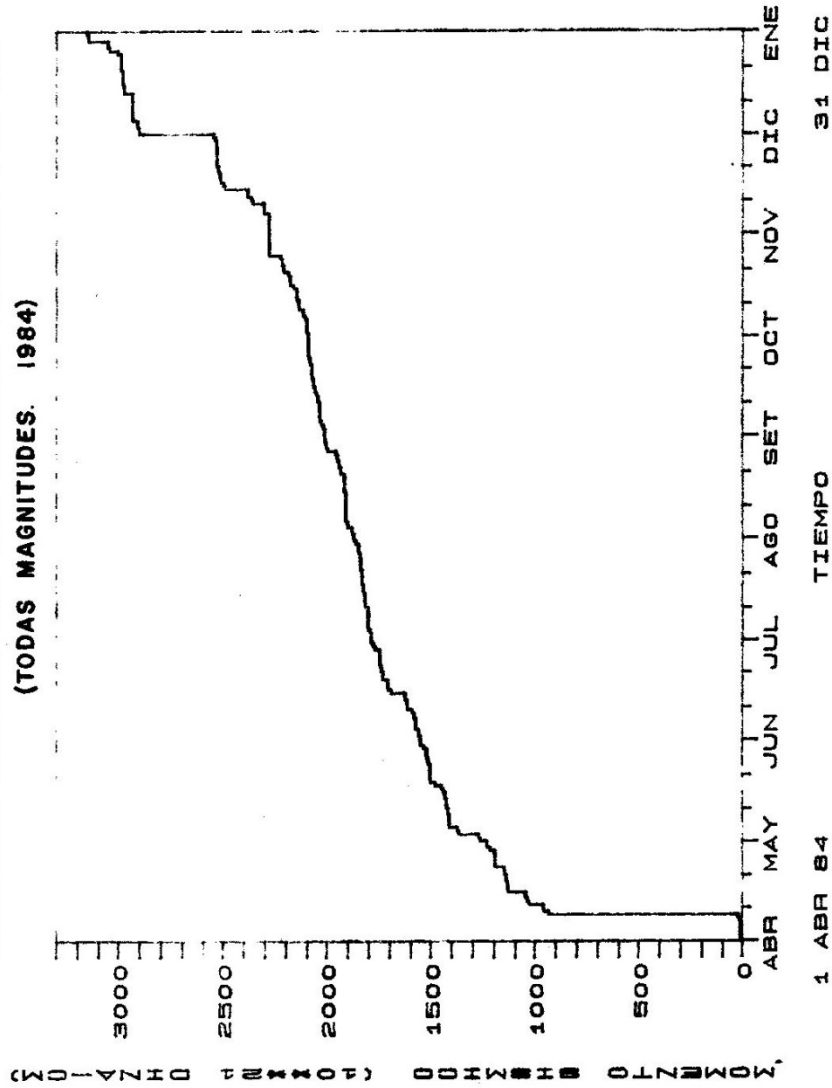
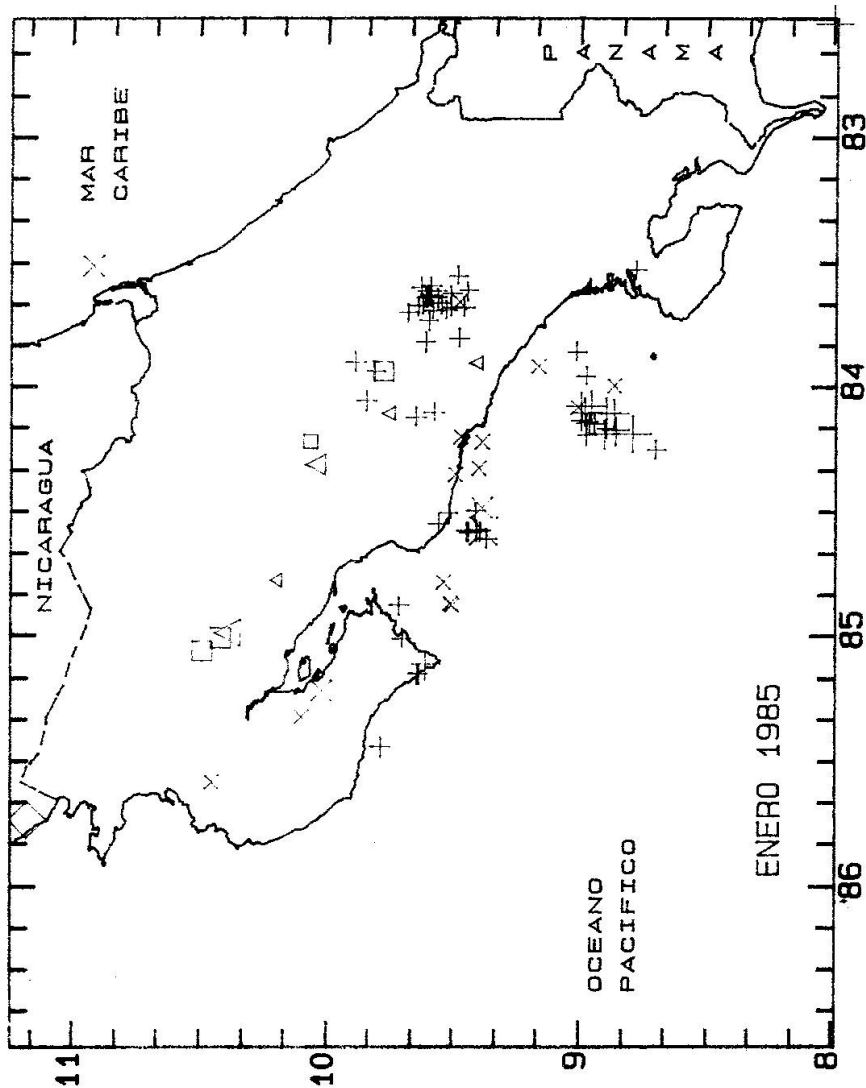


GRAFICO II-9

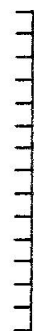
III. SISMICIDAD DE COSTA RICA ENE-DIC 1985.
SEISMICITY OF COSTA RICA JAN-DEC 1985.

A. MAPAS.
MAPS.



MAGNITUD CONT.	
1.0- 1.9	1
2.0- 2.9	65
3.0- 3.9	16
4.0- 4.9	5
5.0- 8.0	0
PROFUNDIDAD CONT.	
0.- 24.9	60
25.- 49.9	17
50.- 74.9	5
75.- 99.9	4
100.-250.0	1
GRAFICADOS CONT.	
ENERO 1985	87
SIN GRAFICAR	0

140 KM



OBSERVATORIO VULCANOLOGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

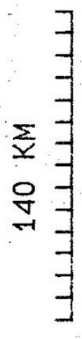
SISMICIDAD DE COSTA RICA

MAPA III-I

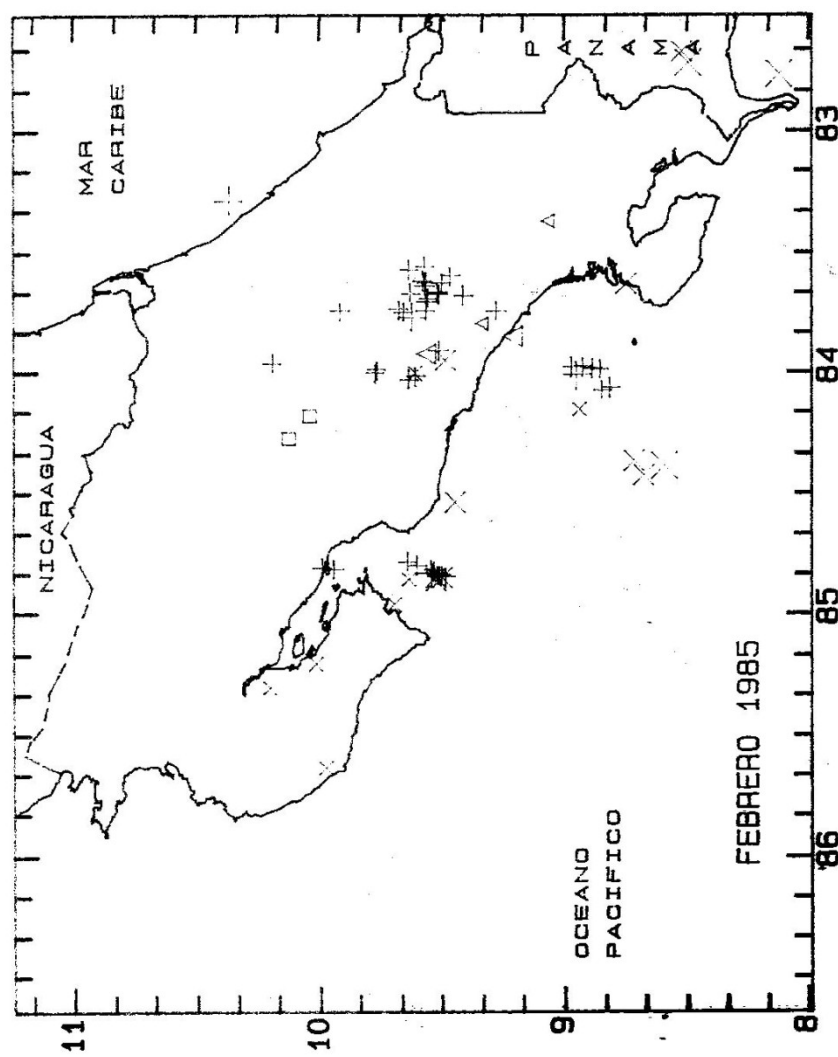
SISMICIDAD ENERO 1985

MAGNITUD CONT.
 1.0- 1.9 0
 2.0- 2.9 53
 3.0- 3.9 15
 4.0- 4.9 3
 5.0- 8.0 0
 PROFUNDIDAD CONT.
 0.- 24.9 46
 25.- 49.9 19
 50.- 74.9 4
 75.- 99.9 2
 100.-250.0 0
 GRAFICADOS CONT.
 FEBRERO 1985 71
 SIN GRAFICAR 0

■ □ □ □ □
 + × △ □ ◇



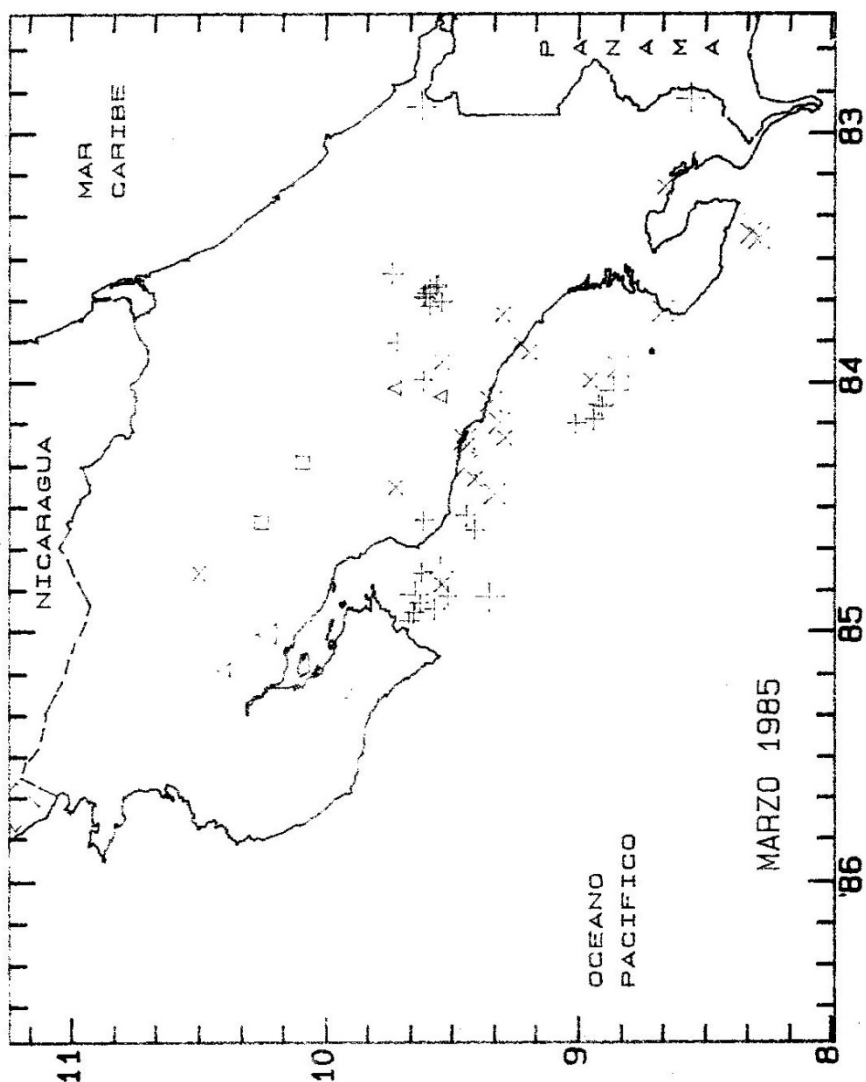
OBSERVATORIO VULCANOLÓGICO
 Y SISMOLOGICO DE COSTA RICA
 UNA - HEREDIA



SISMICIDAD DE COSTA RICA

MAPA III-2

SISMICIDAD FEBRERO 1985



SISMICIDAD DE COSTA RICA

MAPA III-3

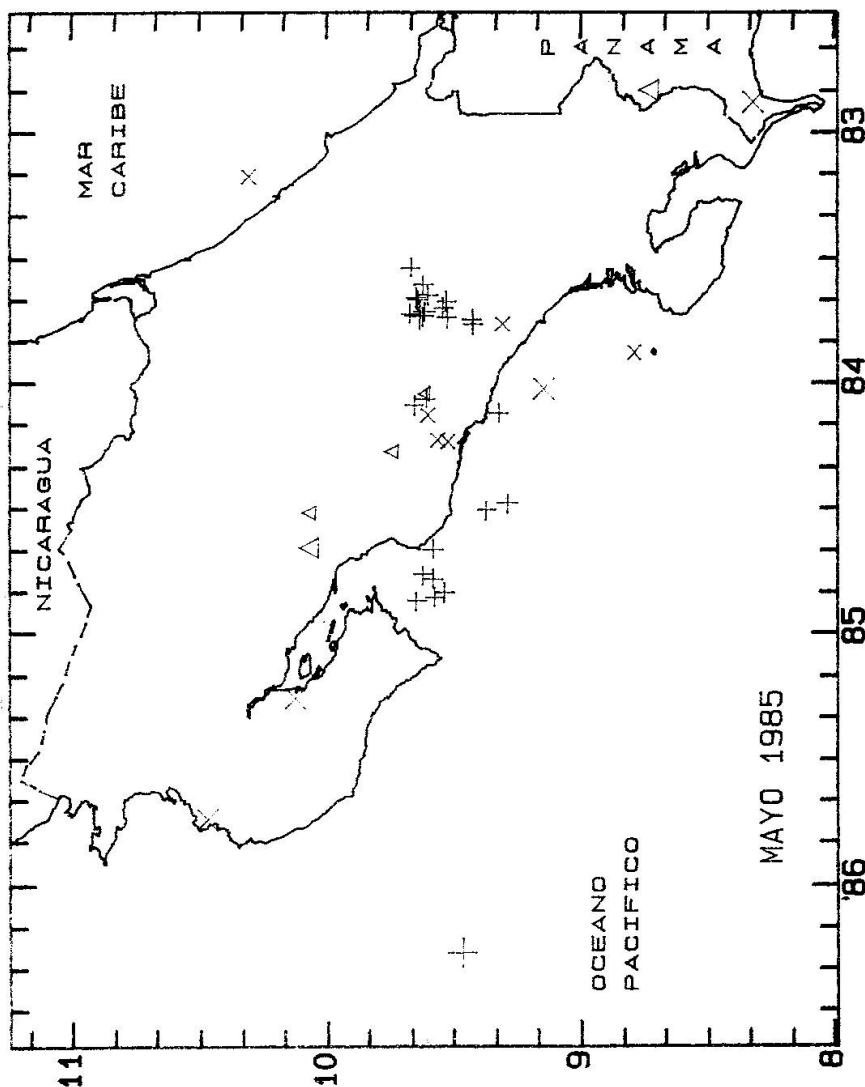
SISMICIDAD MARZO 1985

MAGNITUD	CONT.
1.0- 1.9	0
2.0- 2.9	42
3.0- 3.9	16
4.0- 4.9	0
5.0- 8.0	1
PROFUNDIDAD	CONT.
0.- 24.9	31
25.- 49.9	21
50.- 74.9	4
75.- 99.9	2
100.-250.0	1
GRAFICADOS	CONT.
MARZO 1985	59
SIN GRAFICAR	0

140 KM



OBSERVATORIO VULCANOLOGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA



MAGNITUD CONT.	
1.0- 1.9	0
2.0- 2.9	33
3.0- 3.9	8
4.0- 4.9	0
5.0- 8.0	0
PROFUNDIDAD CONT.	
0.- 24.9	26
25.- 49.9	10
50.- 74.9	5
75.- 99.9	0
100.-250.0	0
GRAFICADOS CONT.	
MAYO 1985	41
SIN GRAFICAR	1

140 KM

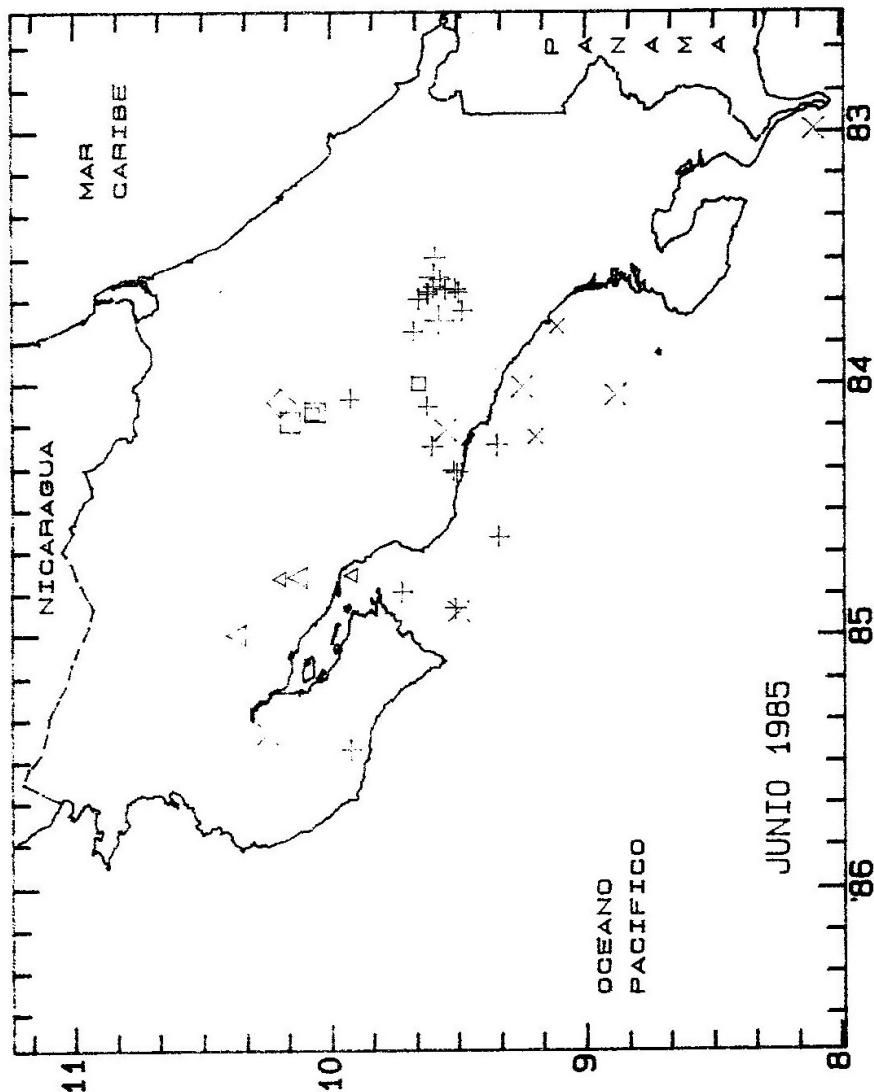


OBSERVATORIO VULCANOLÓGICO
Y SISMOLÓGICO DE COSTA RICA
UNA - HEREDIA

SISMICIDAD DE COSTA RICA

MAPA III-5

SISMICIDAD MAYO 1985



MAGNITUD CONT.

1.0- 1.9	0
2.0- 2.9	27
3.0- 3.9	13
4.0- 4.9	0
5.0- 8.0	0

PROFUNDIDAD CONT.

0.- 24.9	23
25.- 49.9	8
50.- 74.9	4
75.- 99.9	4
100.-250.0	1

GRAFICADOS CONT.

JUNIO 1985	40
SIN GRAFICAR	0

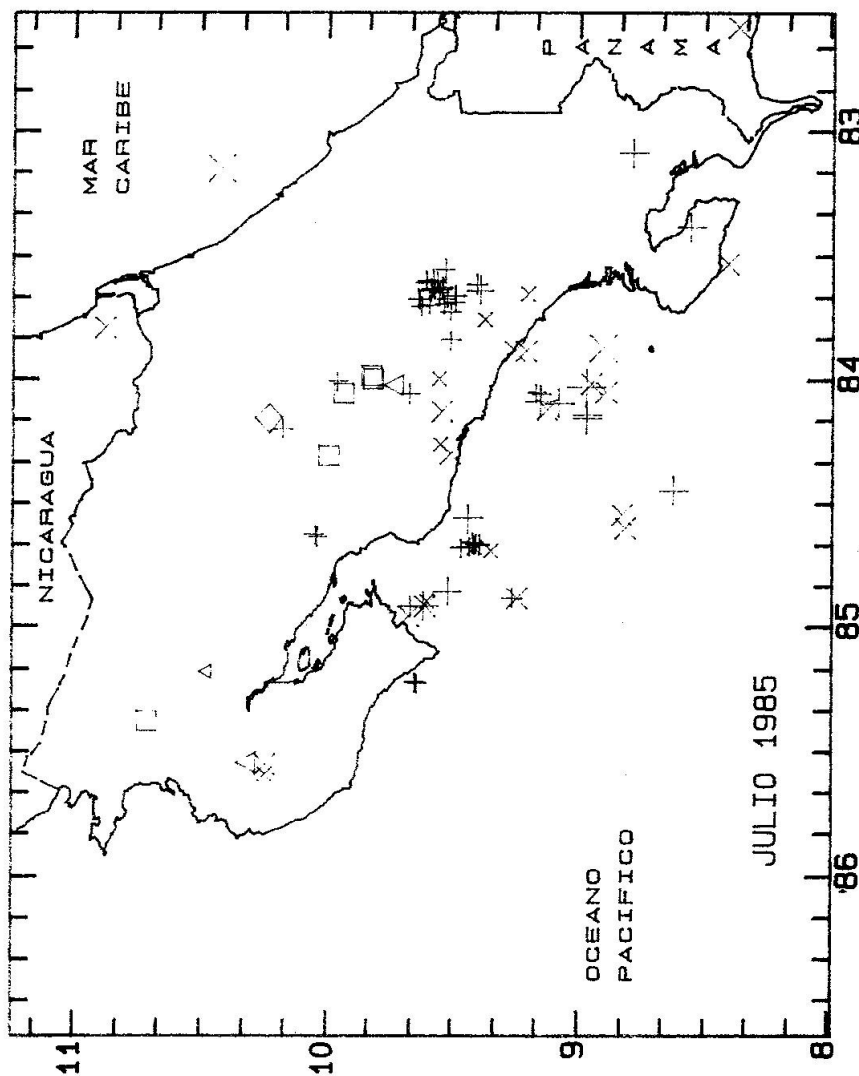
140 KM

OBSERVATORIO VULCANOLÓGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

SISMICIDAD DE COSTA RICA

MAPA III-6

SISMICIDAD JUNIO 1985



MAGNITUD CONT.

1.0-1.9	0
2.0-2.9	49
3.0-3.9	36
4.0-4.9	3
5.0-8.0	0

PROFUNDIDAD CONT.

0.-24.9	53
25.-49.9	26
50.-74.9	3
75.-99.9	5
100.-250.0	1

GRAFICADOS CONT.

JULIO 1985	88
SIN GRAFICAR	1

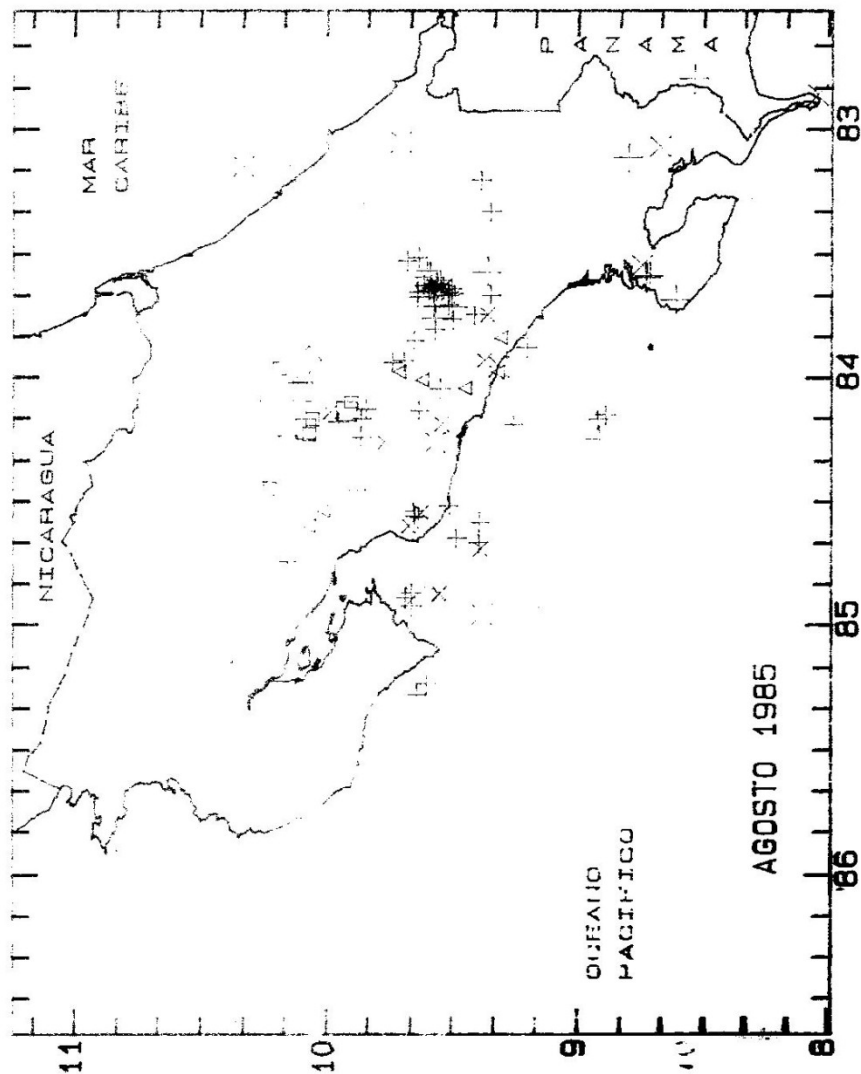
140 KM

OBSERVATORIO VULCANOLÓGICO
Y SISMOLÓGICO DE COSTA RICA
UNA - HEREDIA

SISMICIDAD DE COSTA RICA

MAPA III-7

SISMICIDAD JULIO 1985



MAGNITUD CONT.

1.0- 1.9	0
2.0- 2.9	84
3.0- 3.9	29
4.0- 4.9	1
5.0- 8.0	0

PROFUNDIDAD CONT.

0.- 24.9	72
25.- 49.9	23
50.- 74.9	8
75.- 99.9	9
100.-250.0	2

GRAFICADOS CONT.

AGOSTO 1985	114
SIN GRAFICAR	2

140 KM

OBSERVATORIO VULCANOLÓGICO
Y SISMOLÓGICO DE COSTA RICA
UNA - HEREDIA

SISMICIDAD DE COSTA RICA

MAPA III-8

SISMICIDAD AGOSTO 1985

MAGNITUD CONT.

1.0- 1.9	0
2.0- 2.9	100
3.0- 3.9	44
4.0- 4.9	2
5.0- 8.0	0

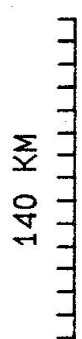
PROFUNDIDAD CONT.

0.- 24.9	89
25.- 49.9	44
50.- 74.9	8
75.- 99.9	4
100.-250.0	1

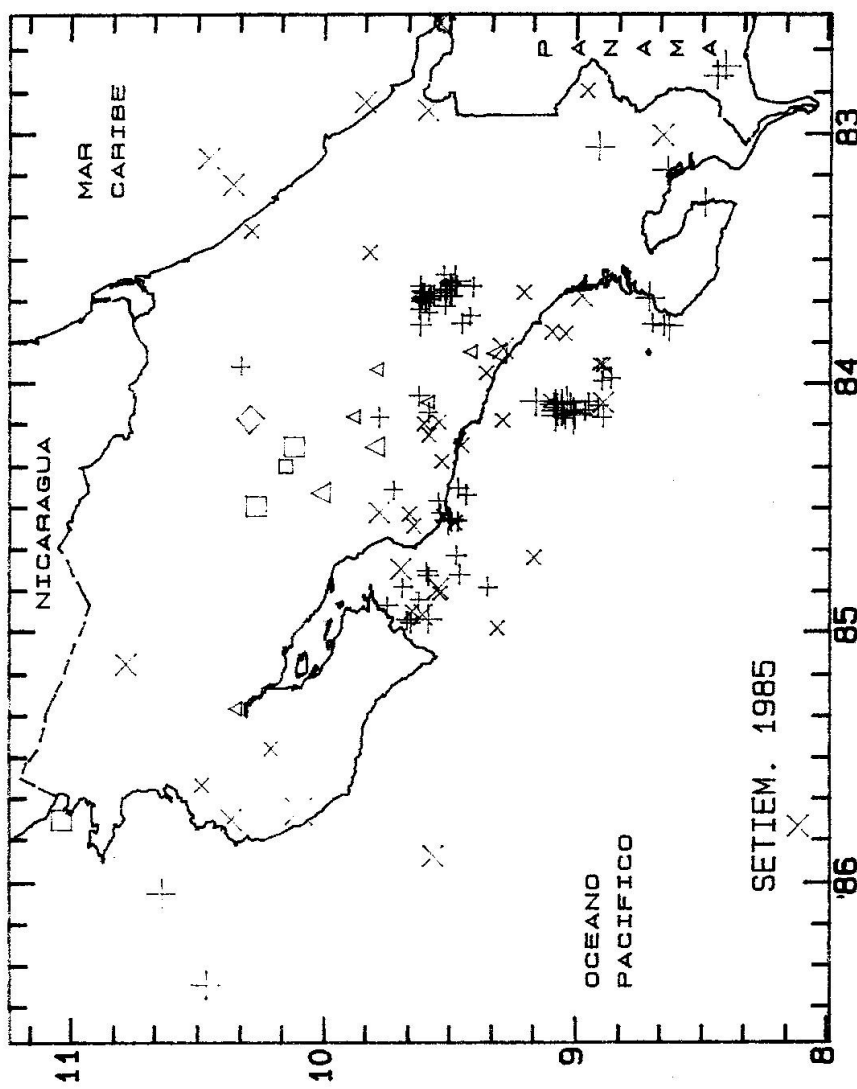
GRAFICADOS CONT.

SETIEM. 1985	146
SIN GRAFICAR	2

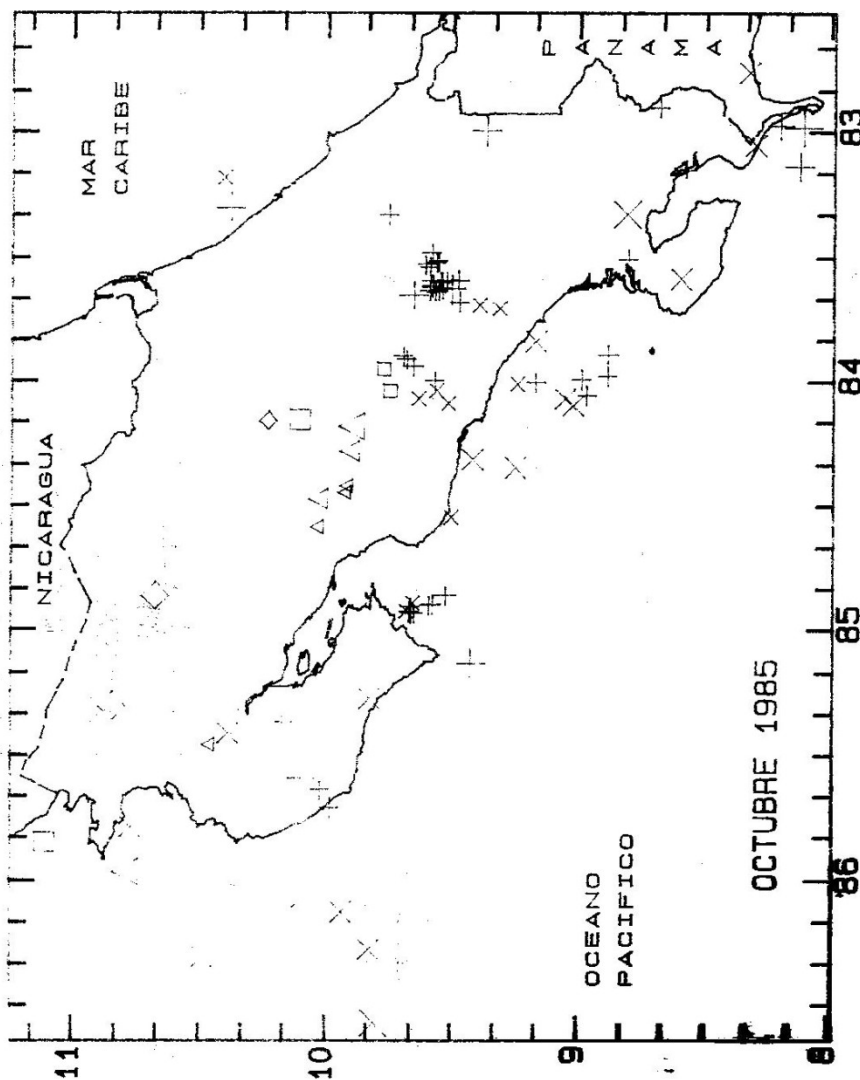
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OBSERVATORIO VULCANOLOGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA



SETIEM. 1985
 SISMICIDAD DE COSTA RICA
 MAPA III-9
 SISMICIDAD SETIEMBRE 1985



MAGNITUD CONT.

1.0- 1.9	0
2.0- 2.9	58
3.0- 3.9	29
4.0- 4.9	5
5.0- 8.0	0

PROFUNDIDAD CONT.

0.- 24.9	50
25.- 49.9	27
50.- 74.9	8
75.- 99.9	4
100.-250.0	3

GRAFICADOS CONT.

OCTUBRE 1985	92
SIN GRAFICAR	5

140 KM

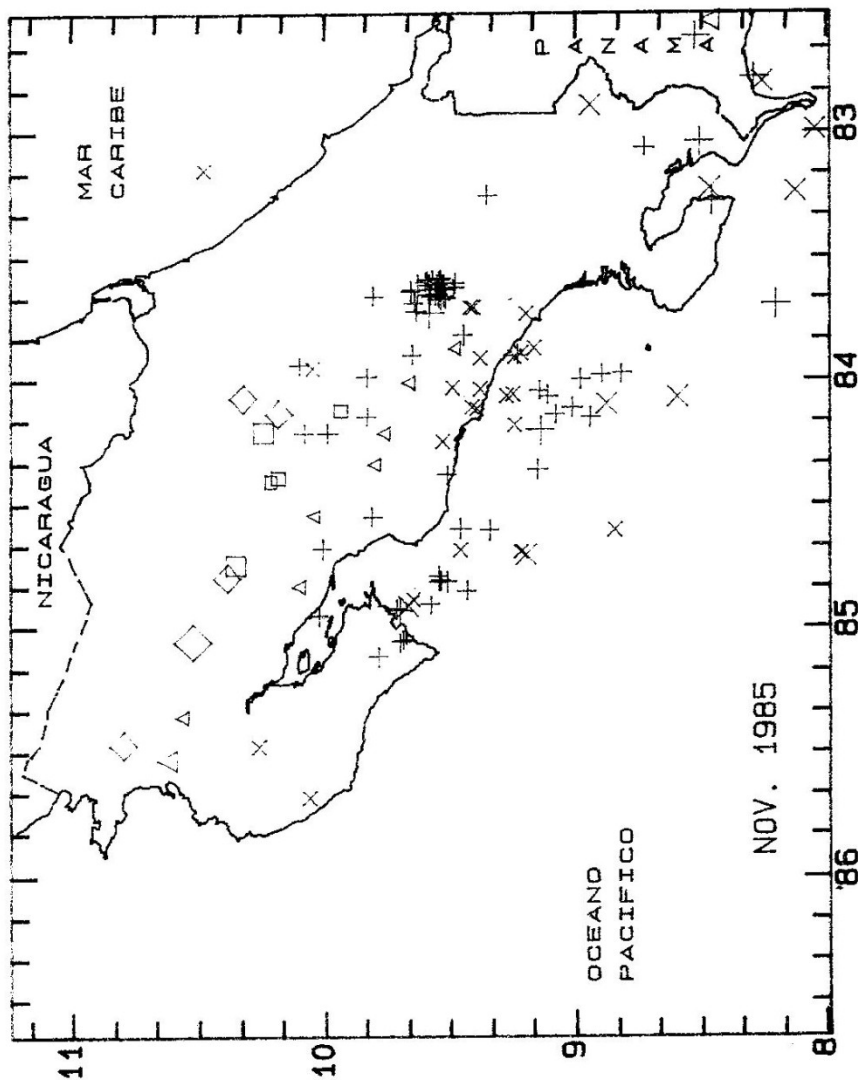


OBSERVATORIO VULCANOLOGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

SISMICIDAD DE COSTA RICA

MAPA III-10

SISMICIDAD OCTUBRE 1985



MAGNITUD CONT.

1.0-1.9	1
2.0-2.9	95
3.0-3.9	26
4.0-4.9	1
5.0-8.0	0

PROFUNDIDAD CONT.

0.-24.9	72
25.-49.9	32
50.-74.9	9
75.-99.9	5
100.-250.0	5

GRAFICADOS CONT.

NOV. 1985 123

SIN GRAFICAR 8

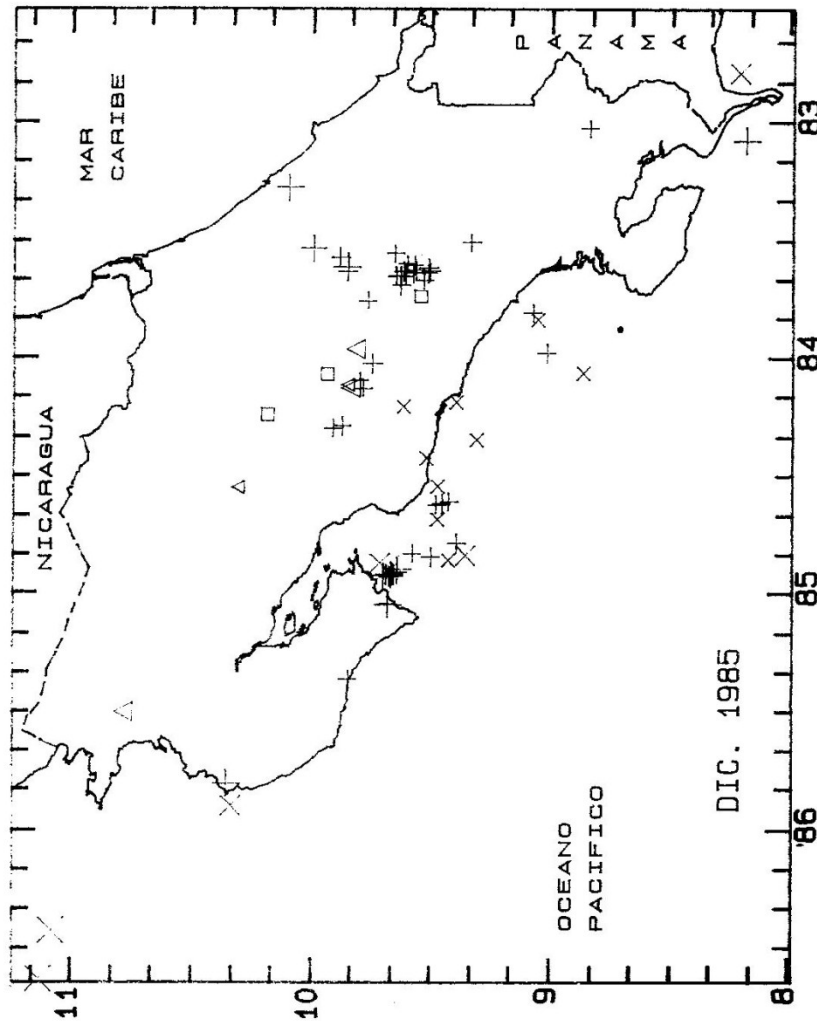
140 KM

OBSERVATORIO VULCANOLÓGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

SISMICIDAD DE COSTA RICA

MAPA III-II

SISMICIDAD NOVIEMBRE 1985



□	MAGNITUD CONT.	0
□	1.0-1.9	59
□	2.0-2.9	16
□	3.0-3.9	2
□	4.0-4.9	0
□	5.0-8.0	
+	PROFUNDIDAD CONT.	
+	0.-24.9	54
+	25.-49.9	15
+	50.-74.9	5
+	75.-99.9	3
+	100.-250.0	0
×	GRAFICADOS CONT.	
×	DIC. 1985	77
×	SIN GRAFICAR	14

140 KM

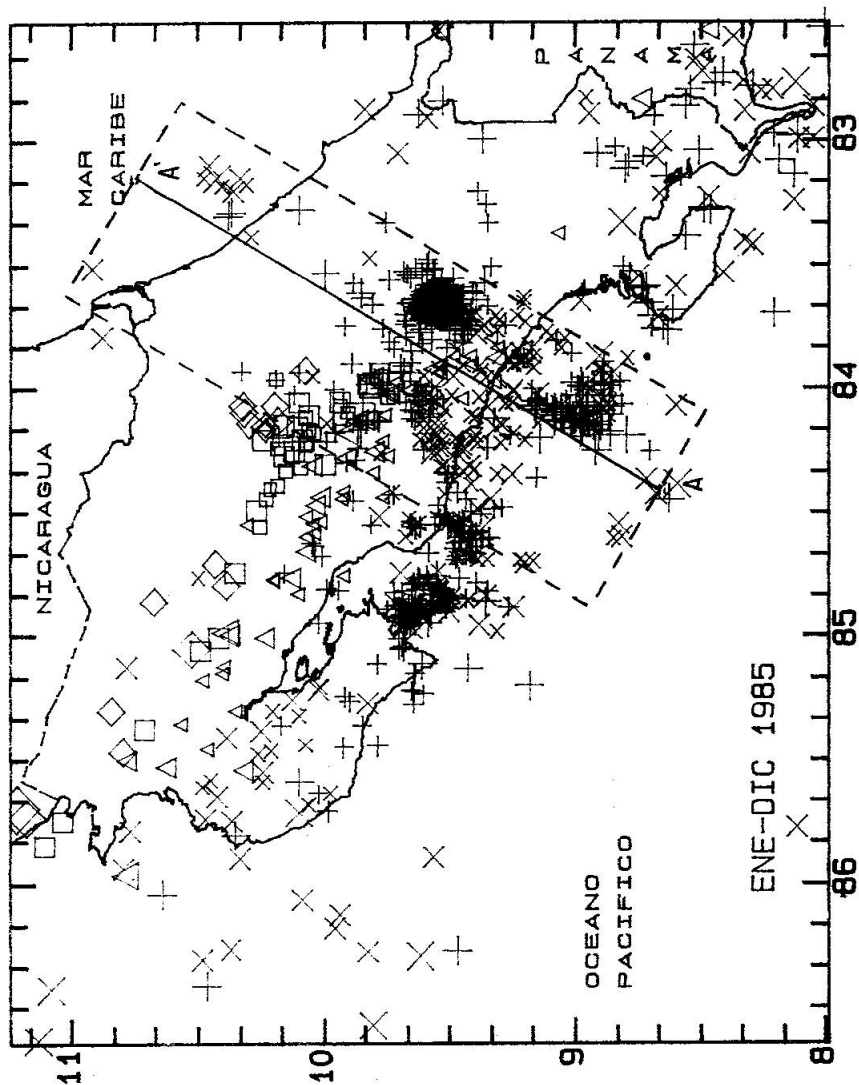
OBSERVATORIO VULCANOLÓGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

DIC. 1985

SISMICIDAD DE COSTA RICA

MAPA III-12

SISMICIDAD DICIEMBRE 1985



MAGNITUD CONT.

1.0- 1.9	2
2.0- 2.9	699
3.0- 3.9	257
4.0- 4.9	22
5.0- 8.0	1

PROFUNDIDAD CONT.

0.- 24.9	602
25.- 49.9	255
50.- 74.9	66
75.- 99.9	42
100.-250.0	16

GRAFICADOS CONT.

ENE-DIC 1985	981
SIN GRAFICAR	33

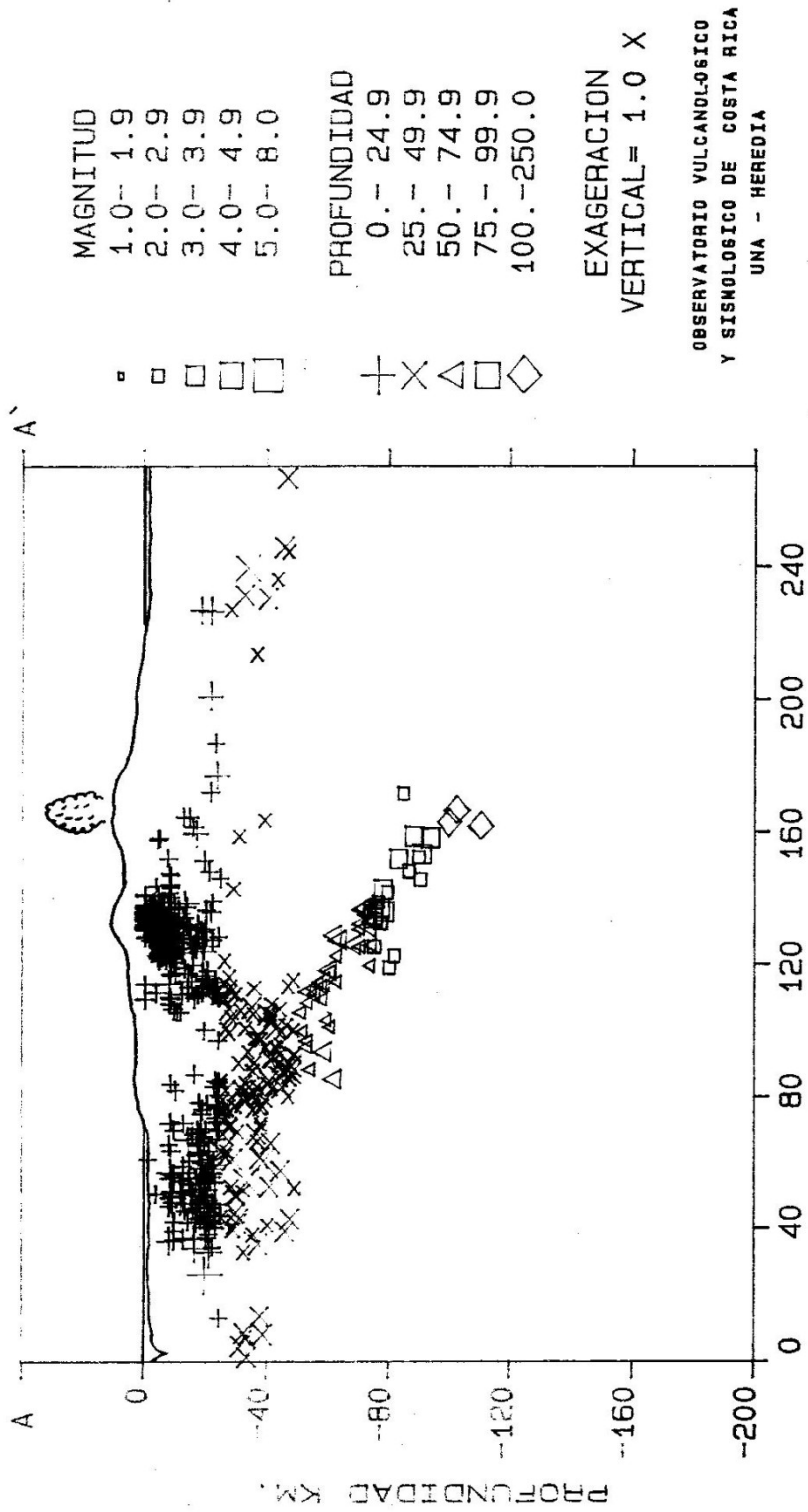
140 KM

OBSERVATORIO VULCANOLÓGICO
Y SISMOLÓGICO DE COSTA RICA
UNA - HEREDIA

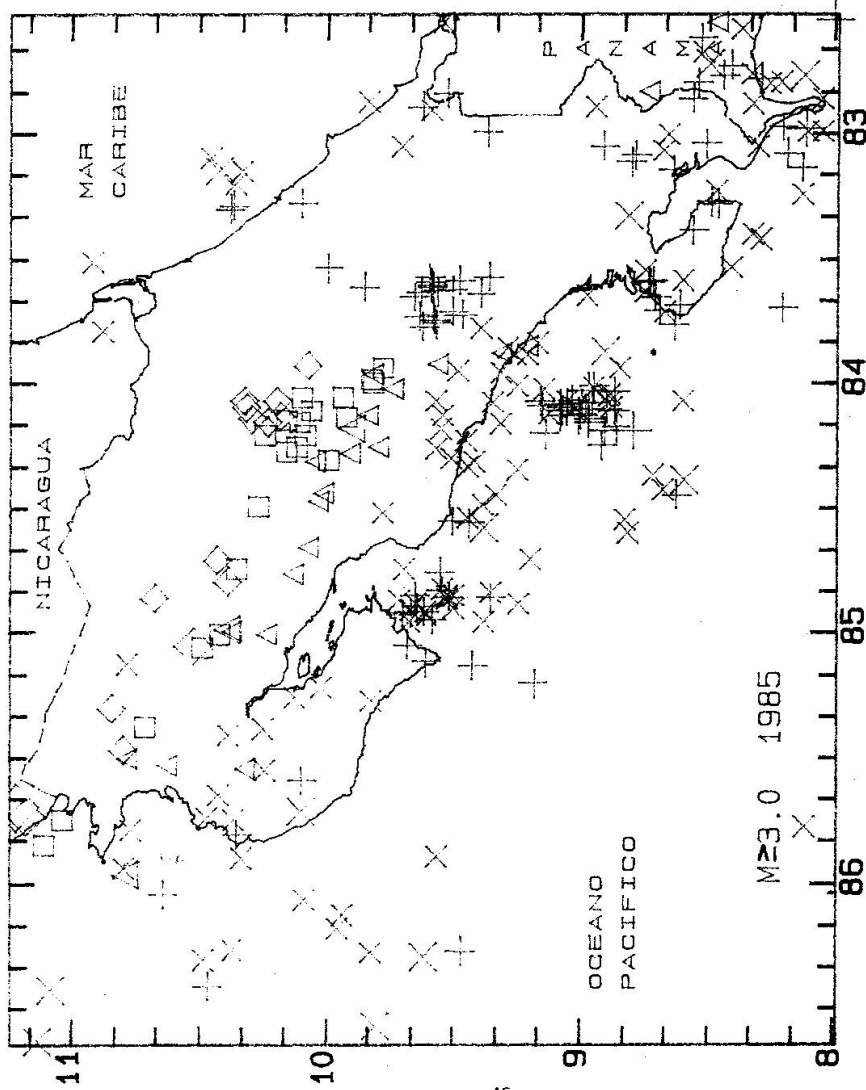
SISMICIDAD DE COSTA RICA

MAPA III-13

SISMICIDAD ENERO-DICIEMBRE 1985
(TODAS MAGNITUDES)



SECCION SISMICA TRANSVERSAL (A-A') N 30 ° E. 1985
(Ver mapa III-13)



MAGNITUD CONT.

1.0-1.9	0
2.0-2.9	0
3.0-3.9	257
4.0-4.9	22
5.0-8.0	1

PROFUNDIDAD CONT.

0.-24.9	102
25.-49.9	119
50.-74.9	23
75.-99.9	21
100.-250.0	15

GRAFICADOS CONT.

M $\geq$ 3.0	1985	280
SIN GRAFICAR		0

140 KM

OBSERVATORIO VULCANOLÓGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

SISMICIDAD DE COSTA RICA

MAPA III-14

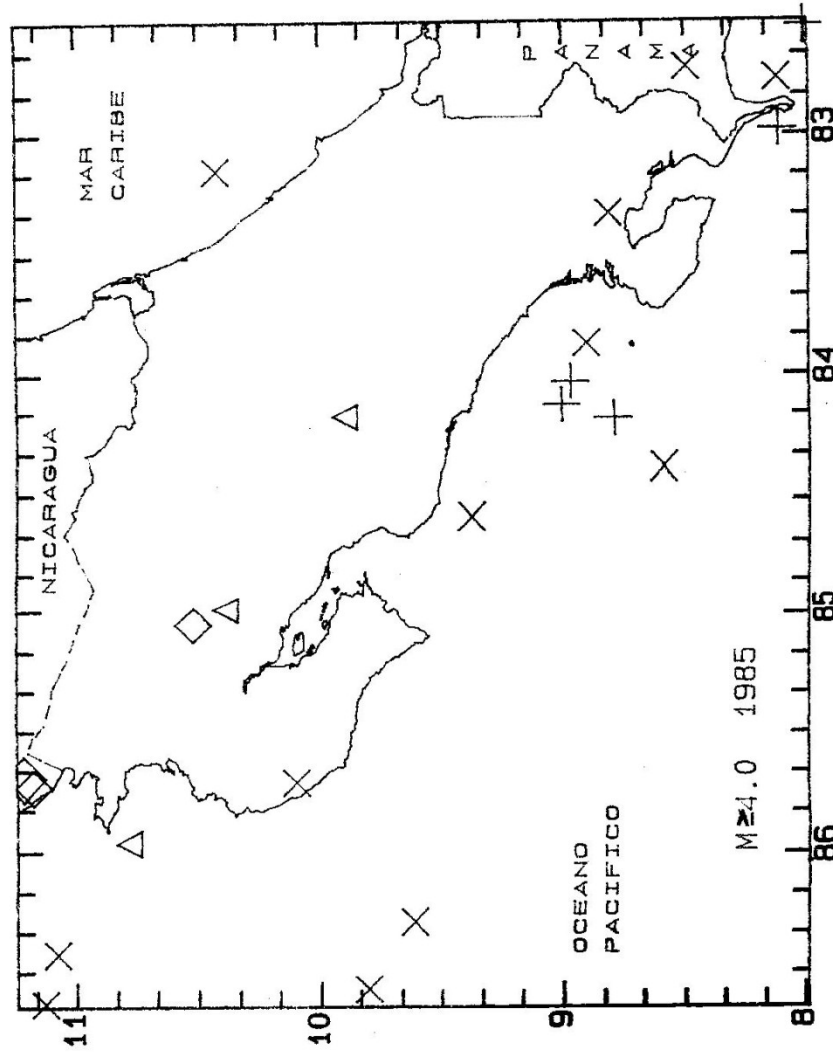
SISMICIDAD ENERO-DICIEMBRE 1985

(M $\geq$ 3.0)

■ □ □ □ □ + × △ □ ◇
 MAGNITUD CONT.
 1.0- 1.9 0
 2.0- 2.9 0
 3.0- 3.9 0
 4.0- 4.9 22
 5.0- 8.0 1
 PROFUNDIDAD CONT.
 0.- 24.9 5
 25.- 49.9 12
 50.- 74.9 3
 75.- 99.9 0
 100.-250.0 3
 GRAFICADOS CONT.
 M≥4.0 1985 23
 SIN GRAFICAR 0

140 KM

OBSERVATORIO VULCANOLÓGICO
 Y SISMOLÓGICO DE COSTA RICA
 UNA - HEREDIA



SISMICIDAD DE COSTA RICA

MAPA III-15

SISMICIDAD ENERO-DICIEMBRE 1985

(M ≥ 4.0)

III. SISMICIDAD DE COSTA RICA ENE-DIC 1985.
SEISMICITY OF COSTA RICA JAN-DEC 1985.

B. ESTADISTICAS Y GRAFICOS.
STATISTICS AND GRAPHS.

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA
(TODAS MAGNITUDES 1985)

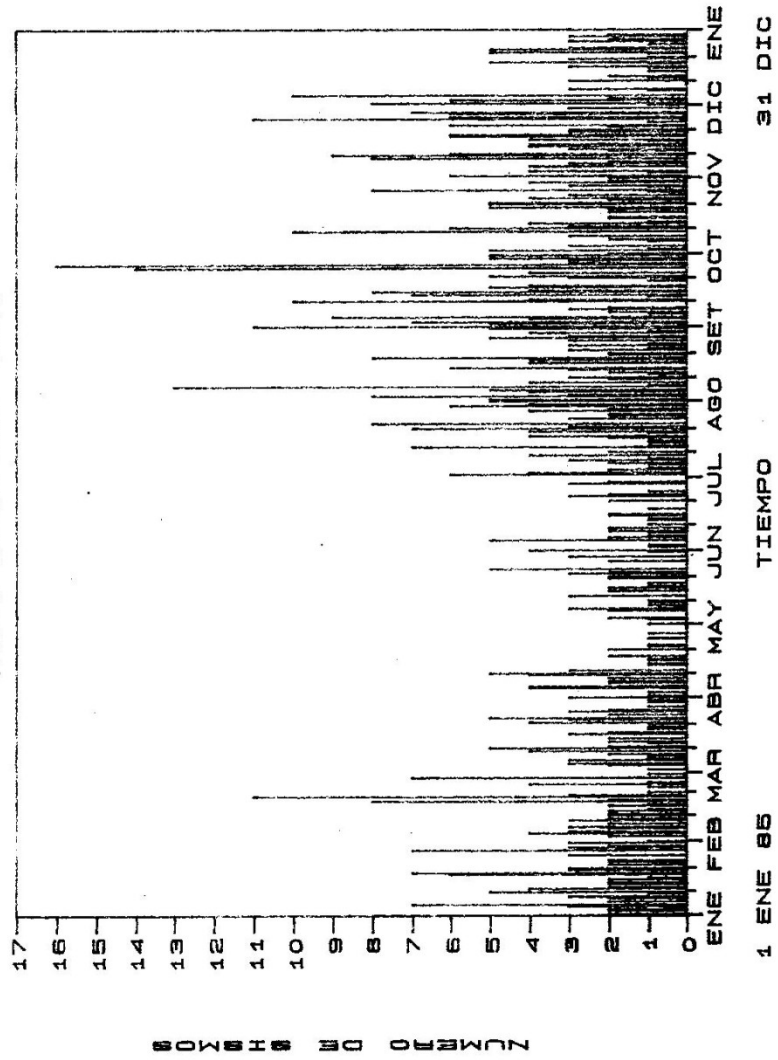


GRAFICO III-I

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA
(M<3. 1985)

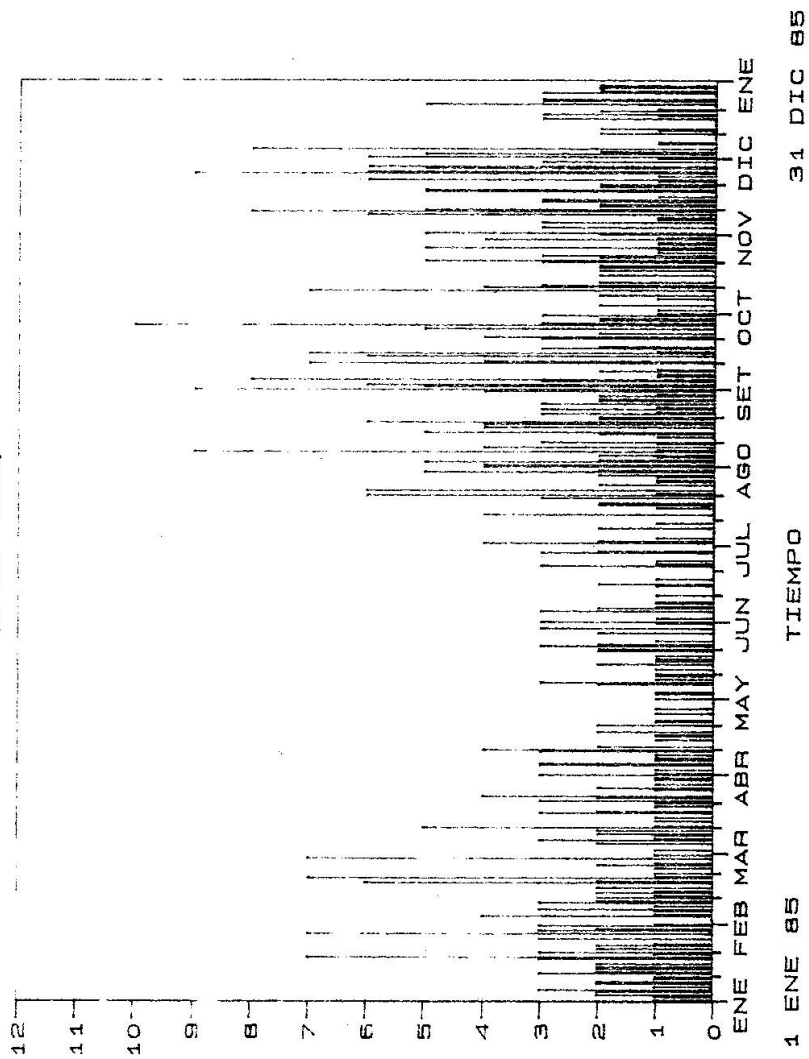


GRAFICO III-2

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA
($3 \leq M < 4$, 1985)

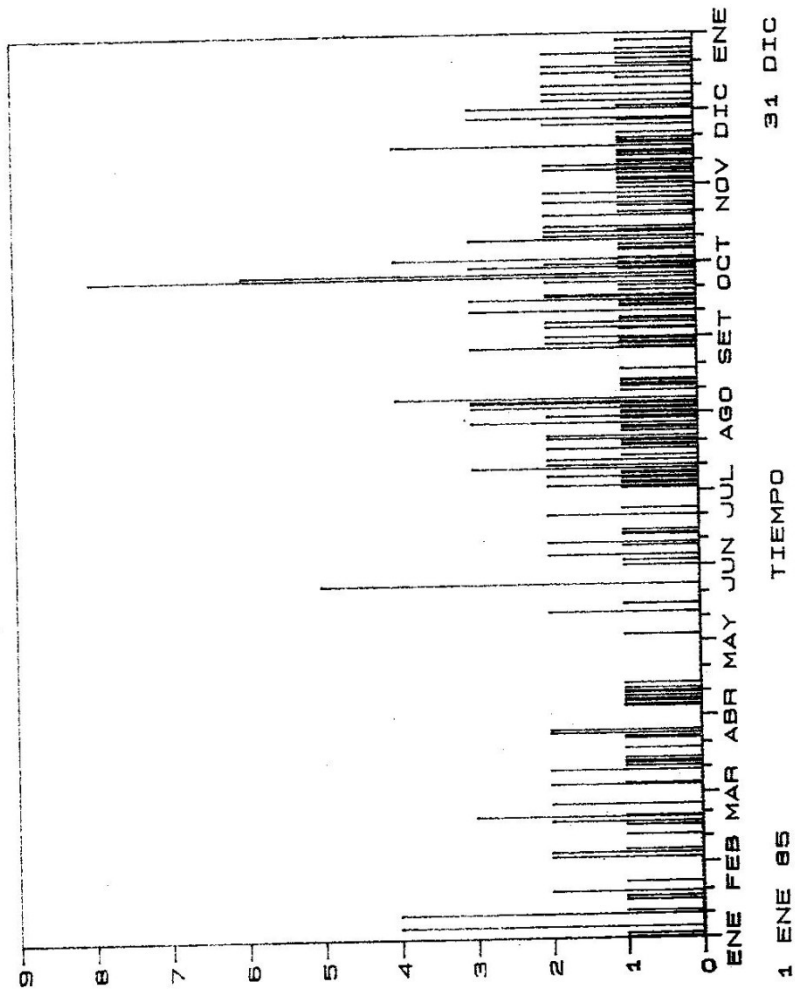


GRAFICO III-3

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA
($M \geq 4$ 1985)

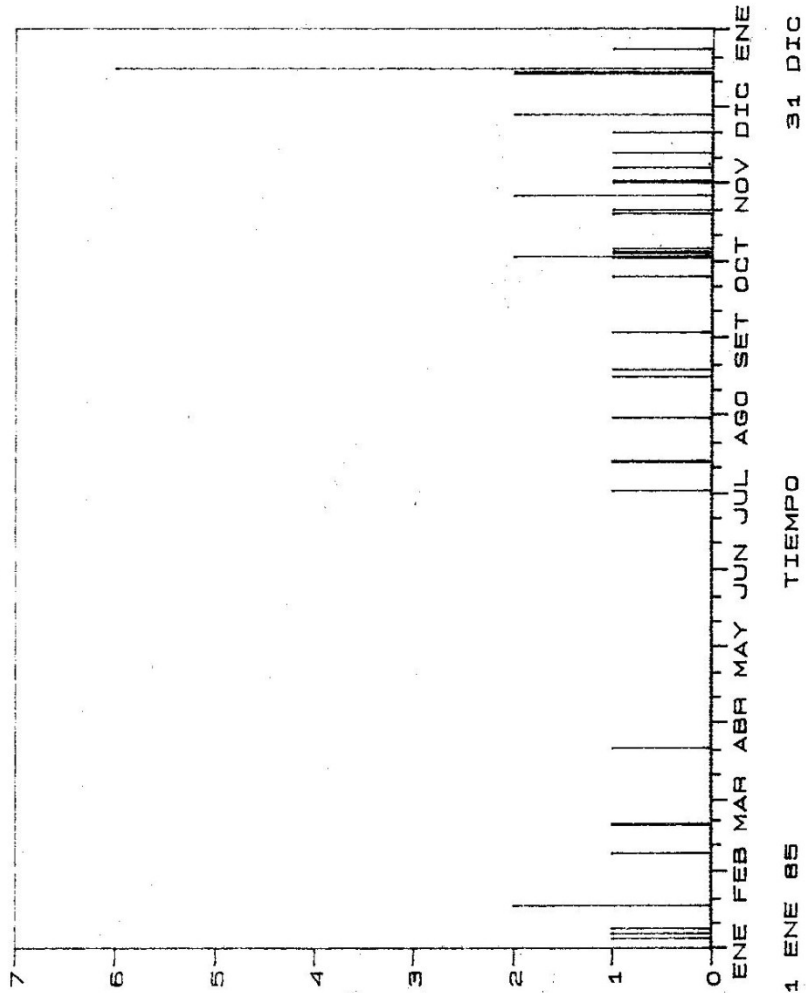


GRAFICO III-4

DIAGRAMA ACUMULATIVO DEL NUMERO DE EVENTOS POR DIA
(TODAS MAGNITUDES 1985)

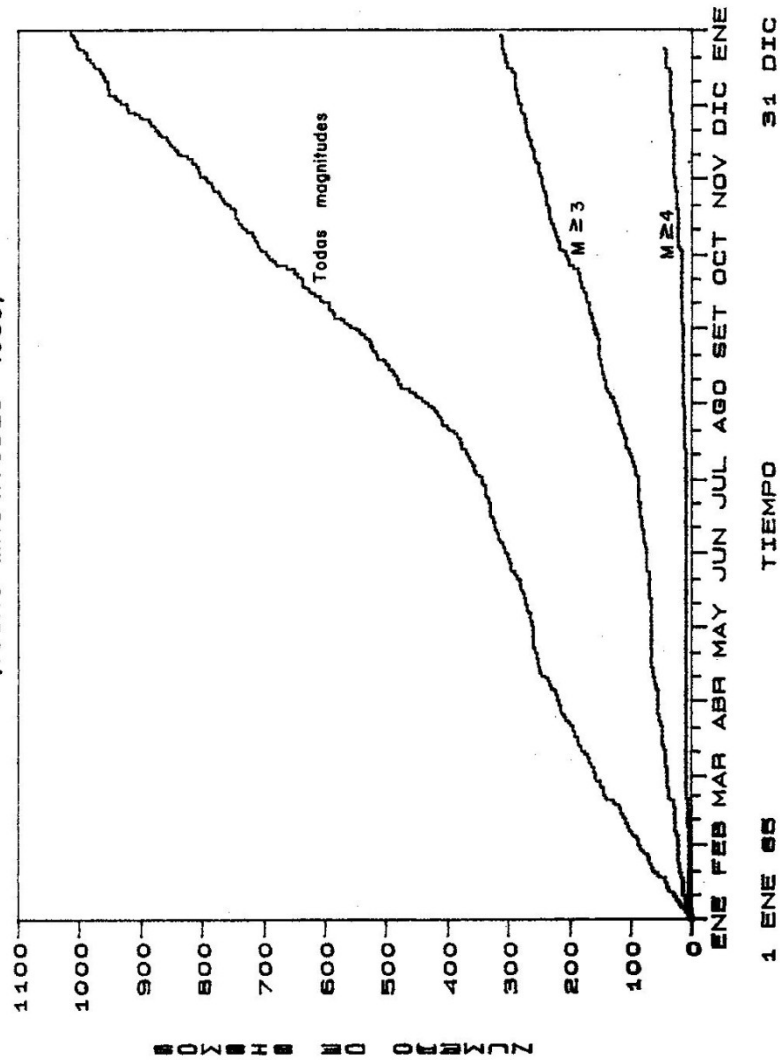


GRAFICO III-5

HISTOGRAMA DEL MOMENTO SISMICO POR DIA (TODAS MAGNITUDES 1985)

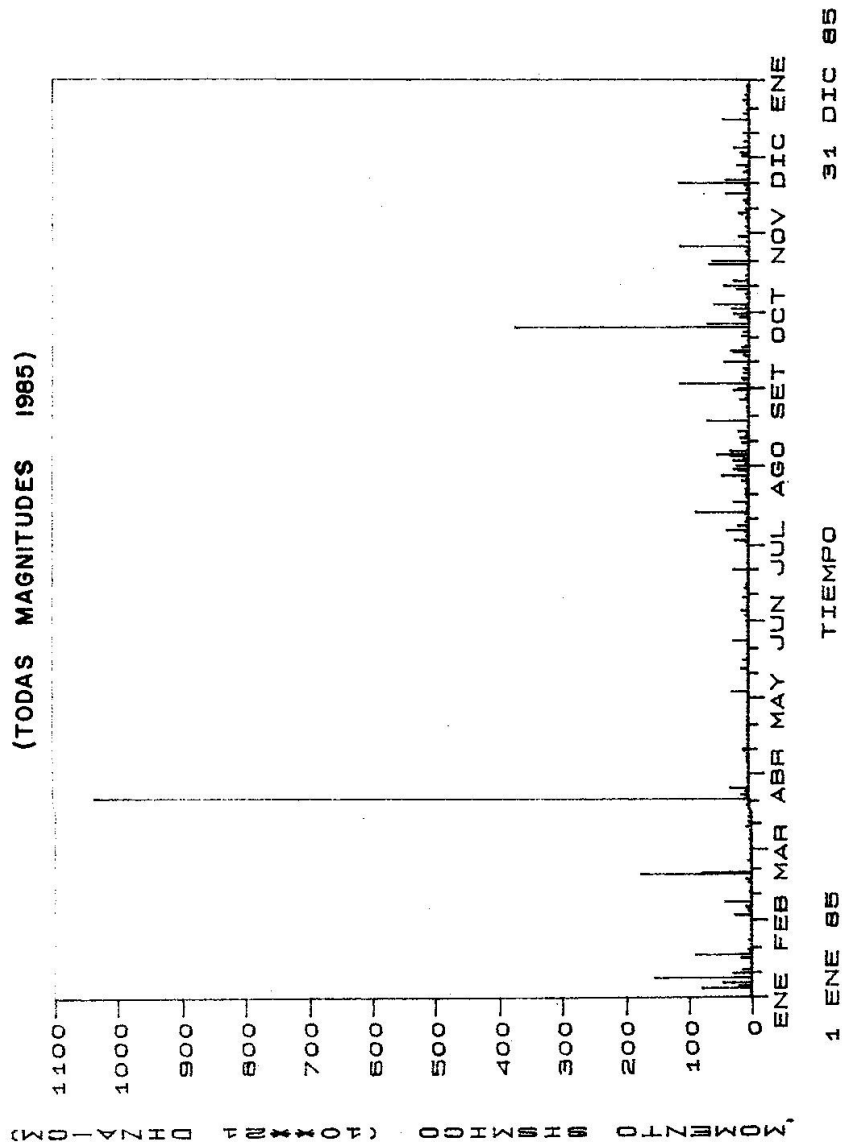


GRAFICO III-6

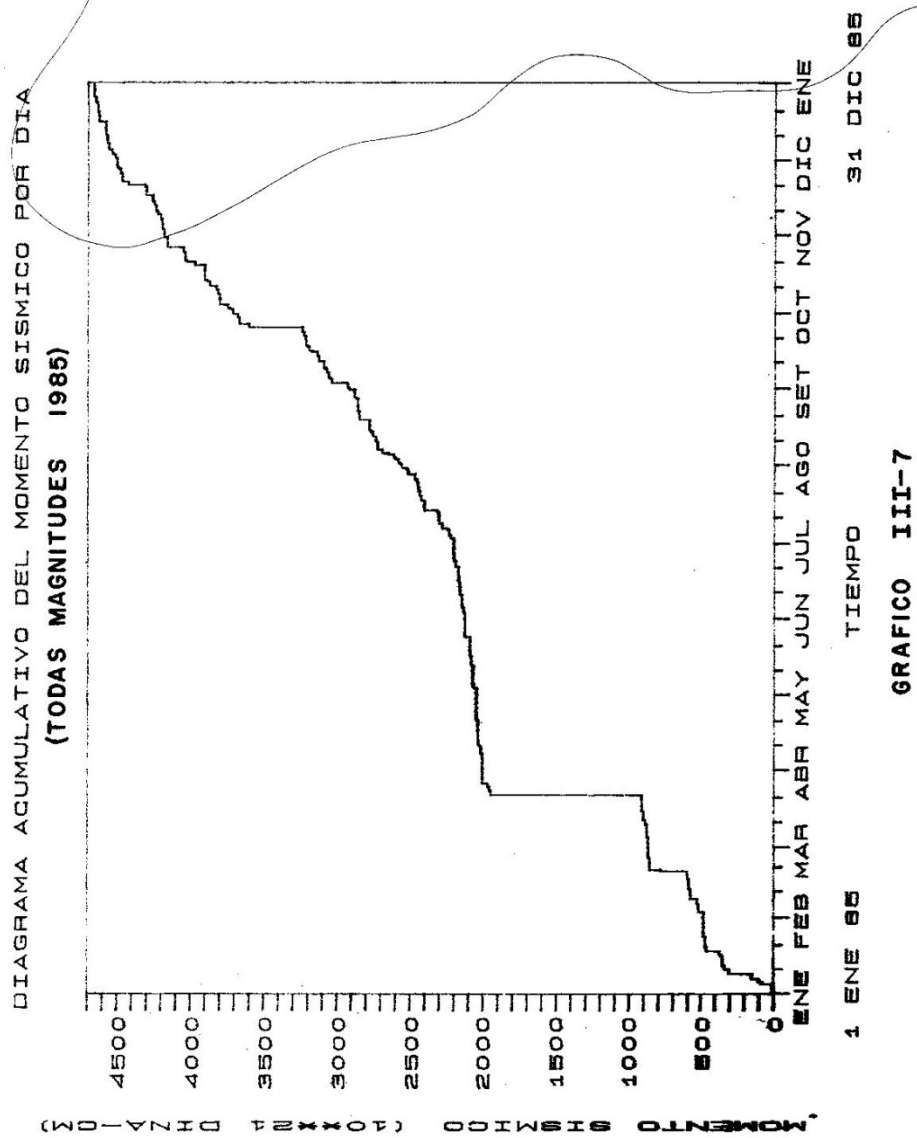
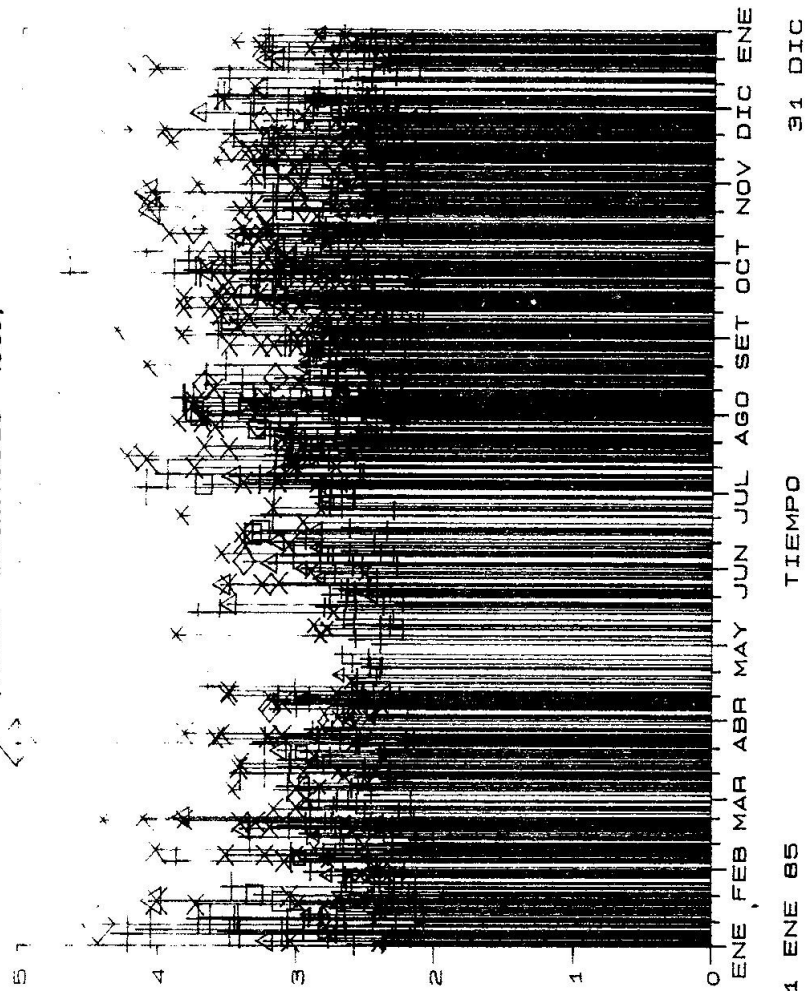


DIAGRAMA DE LA MAGNITUD VERSUS TIEMPO

(TODAS MAGNITUDES 1985)



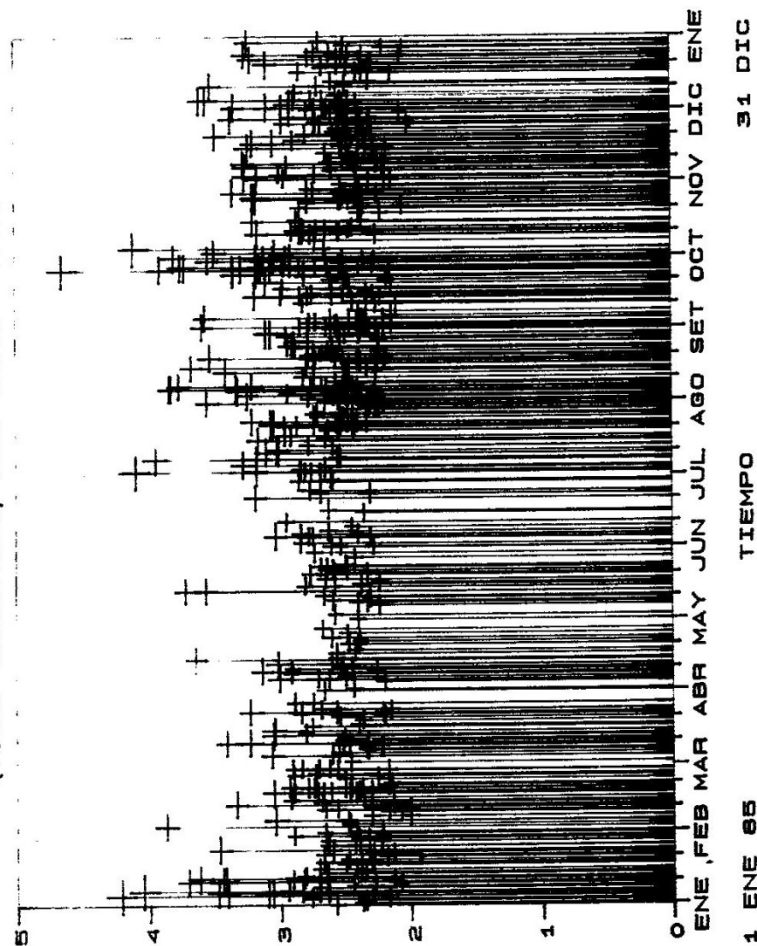
MAGNITUD
1.0 1.9
2.0 2.9
3.0 3.9
4.0 4.9
5.0 5.0

PROFUNDIDAD
0 - 24.9
25 - 49.9
50 - 74.9
75 - 99.9
100 - 249.9

OBSERVATORIO VULCANOLOGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

GRAFICO III-8

DIAGRAMA DE LA MAGNITUD VERSUS TIEMPO
(TODAS MAGNITUDES, PROF < 25Km. 1985)



MAGNITUD	PROFUNDIDAD
1.0-1.9	0.-24.9
2.0-2.9	25.-49.9
3.0-3.9	50.-74.9
4.0-4.9	75.-99.9
5.0-6.0	100.-249.9

OBSERVATORIO VULCANOLOGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

GRAFICO III-9

DIAGRAMA DE LA MAGNITUD VERSUS TIEMPO
(TODAS MAGNITUDES, 25Km ≤ PROF. < 50Km 1985)

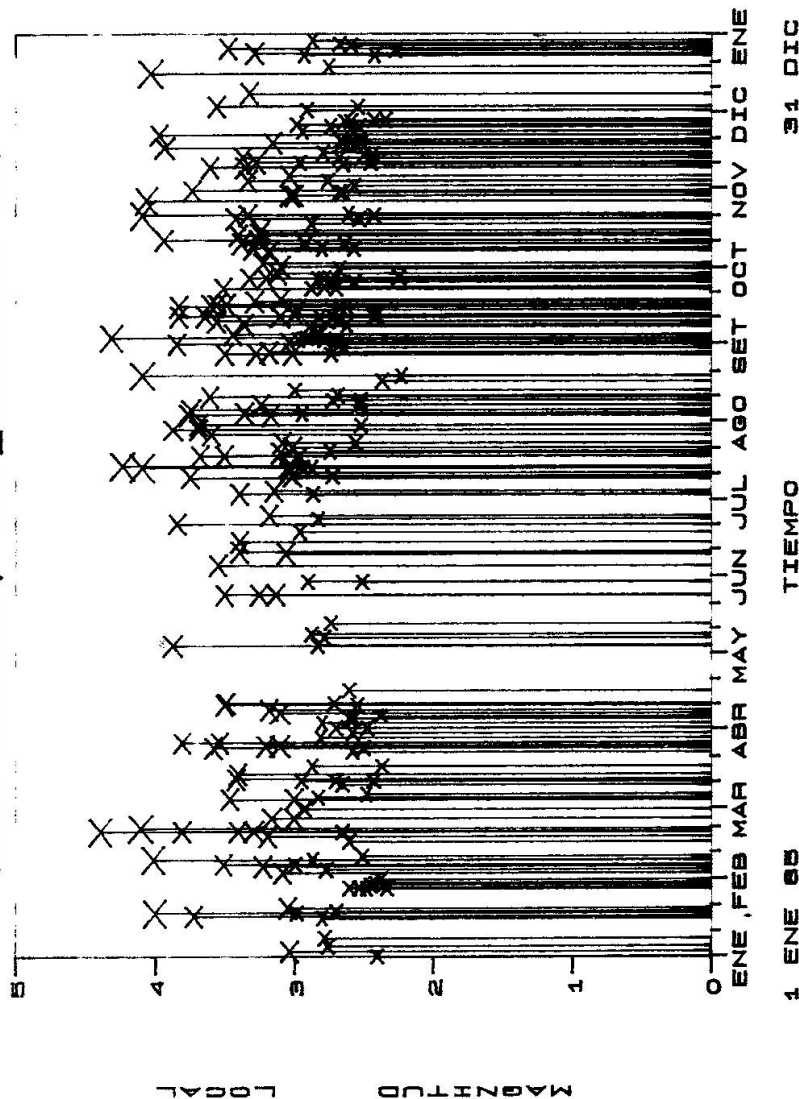


DIAGRAMA DE LA MAGNITUD VERSUS TIEMPO
(TODAS MAGNITUDES, 50Km ≤ PROF. < 75Km 1985)

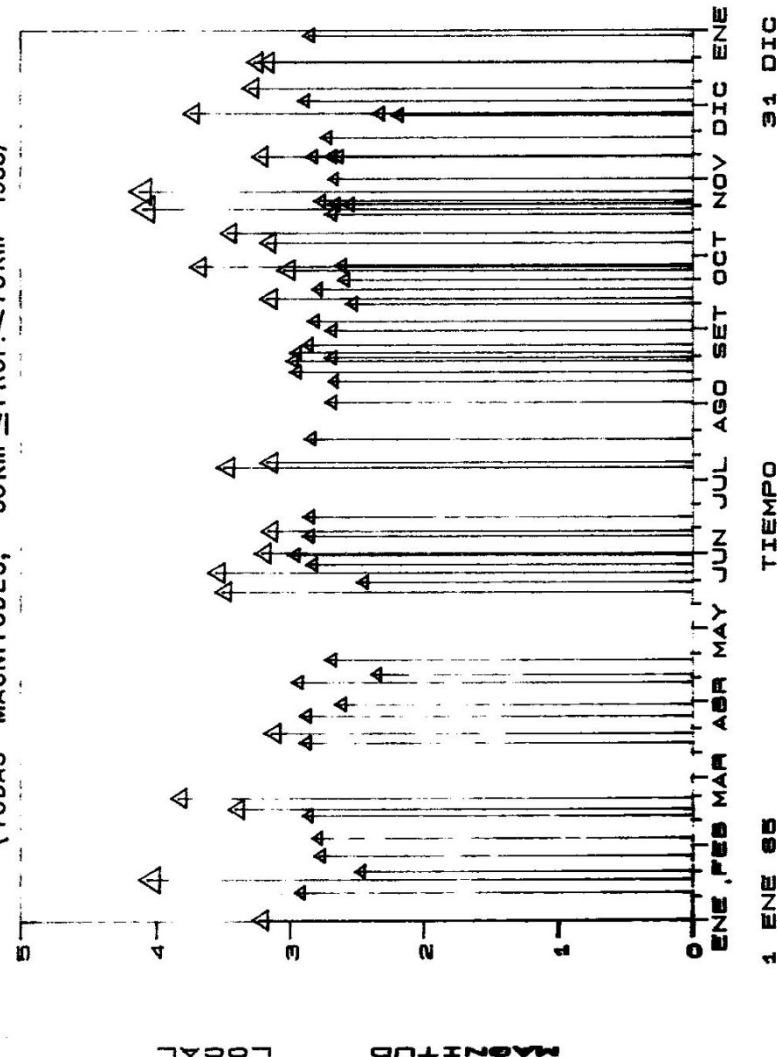


GRAFICO III-II

DIAGRAMA DE LA MAGNITUD VERSUS TIEMPO
(TODAS MAGNITUDES, 75Km ≤ PROF. < 100Km. 1985)

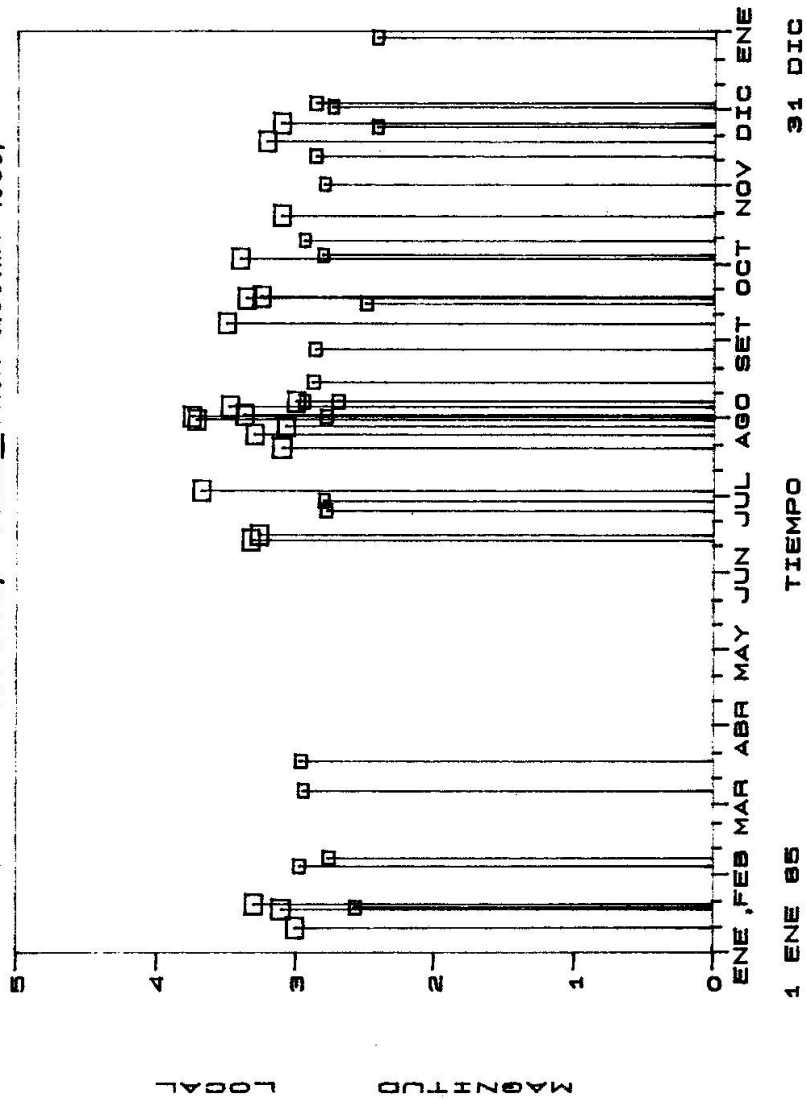


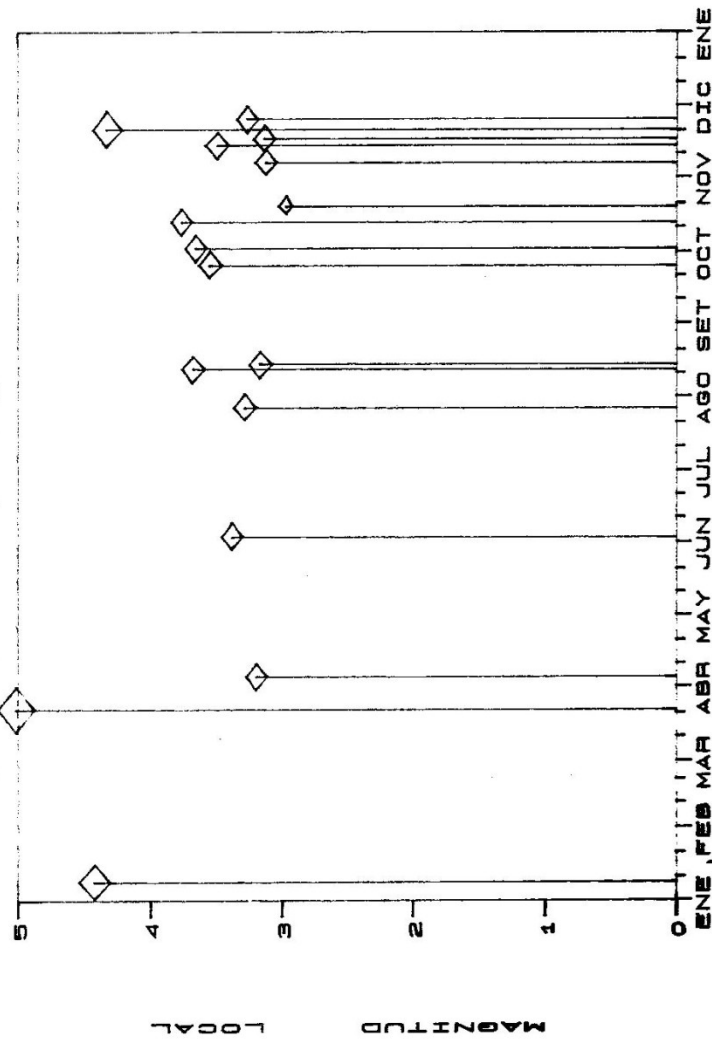
GRAFICO III-12

MAGNITUD
1.0 - 1.9
2.0 - 2.9
3.0 - 3.9
4.0 - 4.9
5.0 - 5.9

PROFUNDIDAD
0. - 24.9
25. - 49.9
50. - 74.9
75. - 99.9
100. - 249.9

OBSERVATORIO VULCANOLÓGICO
Y SISMOLÓGICO DE COSTA RICA
UNA - HEREDIA

DIAGRAMA DE LA MAGNITUD VERSUS TIEMPO
(TODAS MAGNITUDES, PROF $\geq$ 100km. 1985)



MAGNITUD
1.0- 1.9
2.0- 2.9
3.0- 3.9
4.0- 4.9
5.0- 6.0

PROFUNDIDAD

0.- 24.9
25.- 49.9
50.- 74.9
75.- 99.9
100.-249.9

□ □ □ □ □ + × △ □ ◇

OBSERVATORIO VULCANOLOGICO
Y SISMOLOGICO DE COSTA RICA
UNA - HEREDIA

31 DIC 85

TIEMPO

GRAFICO III-13

1 ENE 85

DIAGRAMA DE LA PROFUNDIDAD VERSUS TIEMPO
(TODAS PROFUNDIDADES, TODAS MAGNITUDES. 1985)

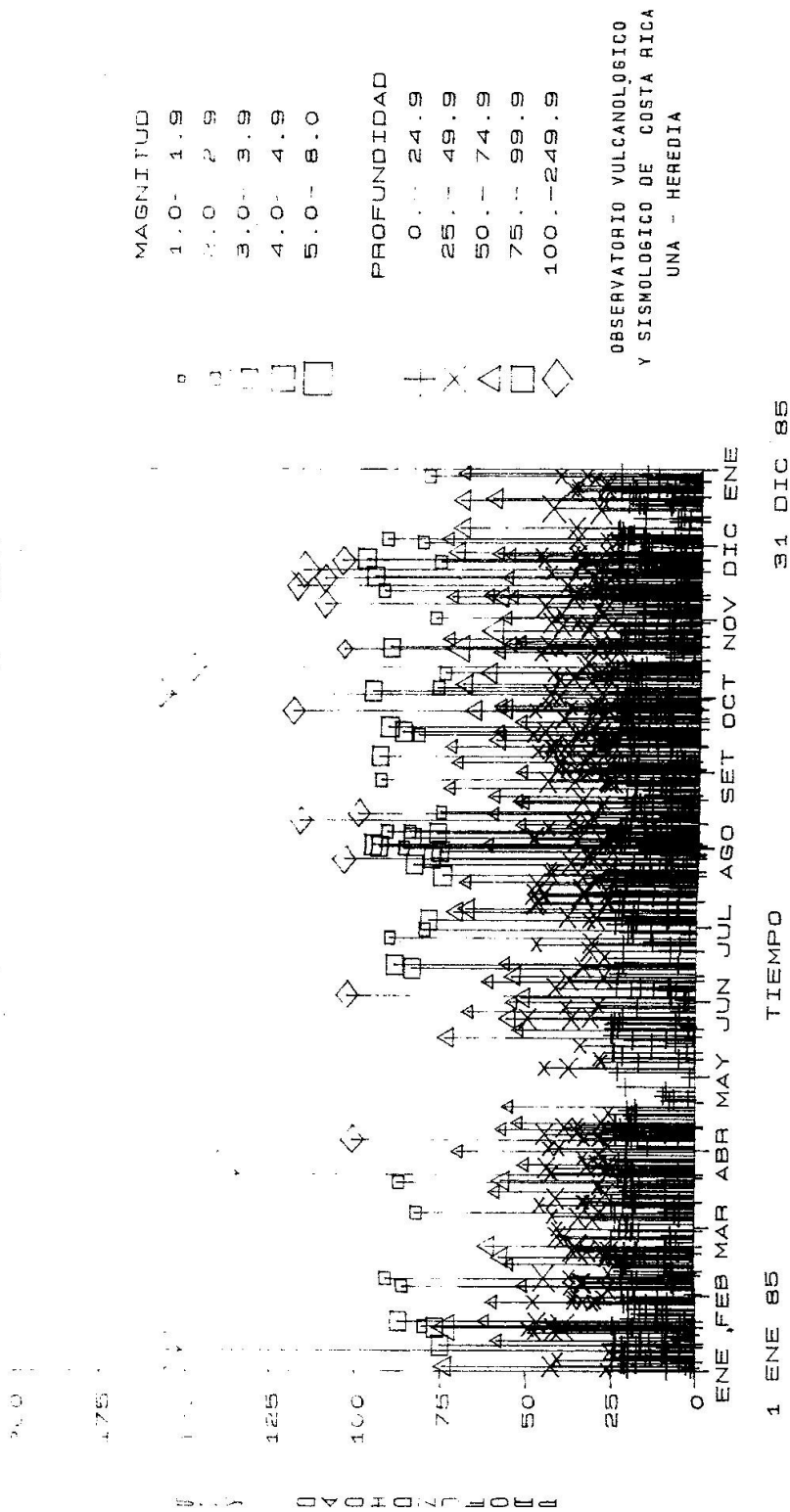


GRAFICO III-14

DIAGRAMA DE LA PROFUNDIDAD VERSUS TIEMPO
(TODAS PROFUNDIDADES, $M < 3$, 1985)

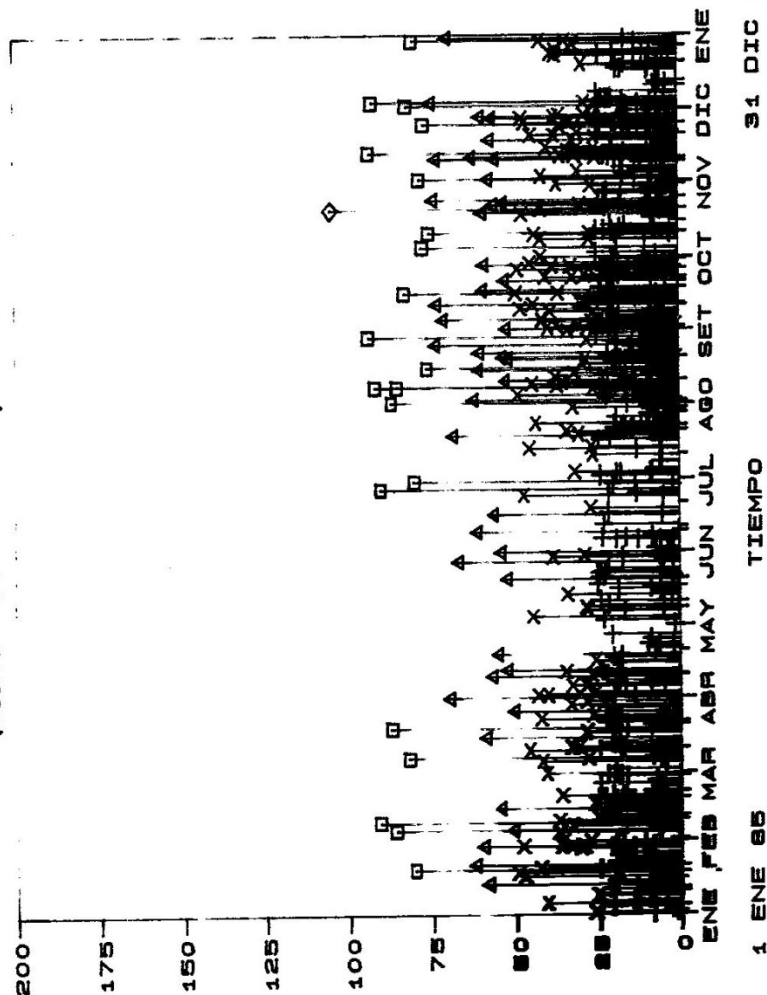


GRAFICO III-15

DIAGRAMA DE LA PROFUNDIDAD VERSUS TIEMPO
(TODAS PROFUNDIDADES, $3 \leq M < 4$ 1985)

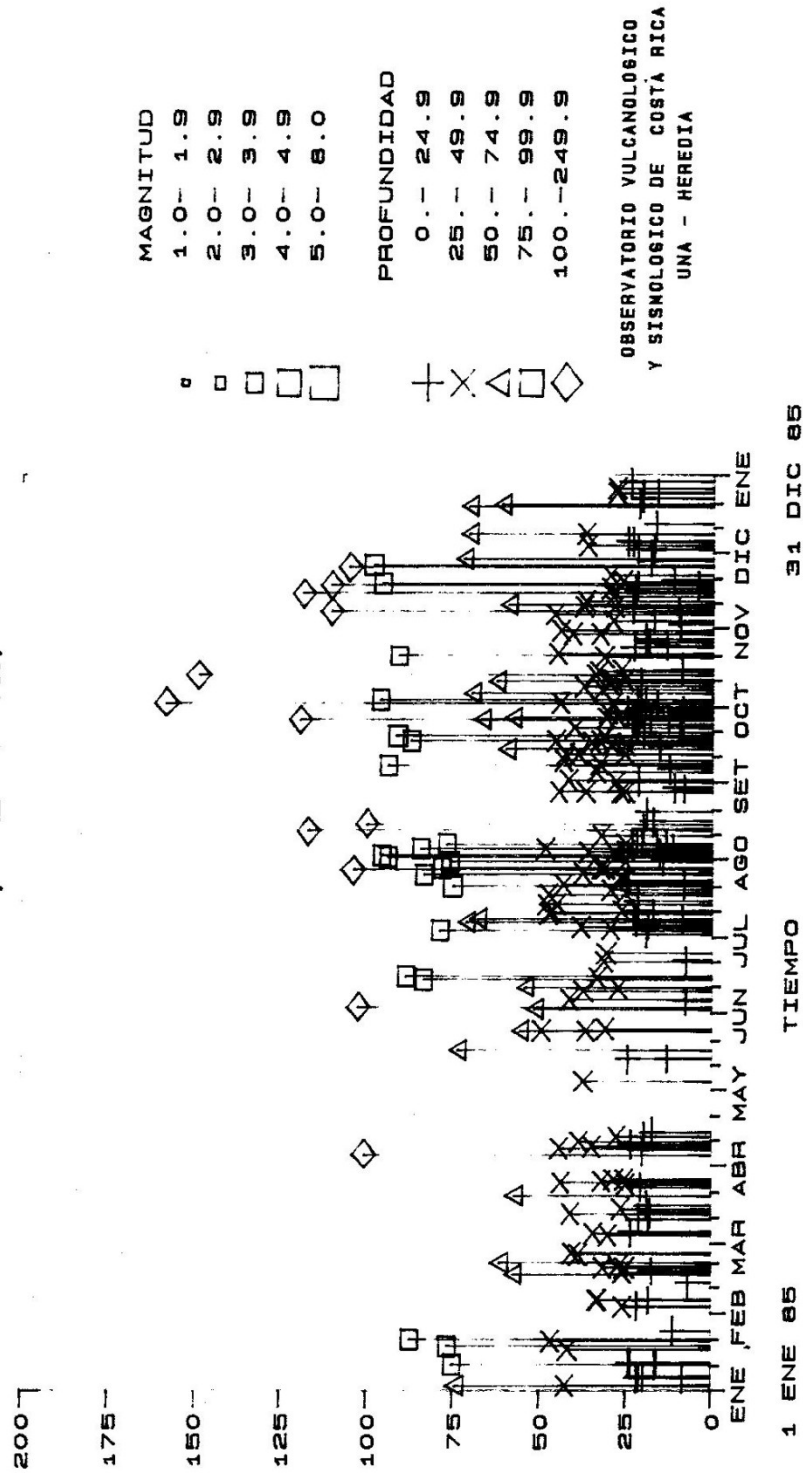


GRAFICO III-16

DIAGRAMA DE LA PROFUNDIDAD VERSUS TIEMPO
(TODAS PROFUNDIDADES, $M \geq 4$ 1985)

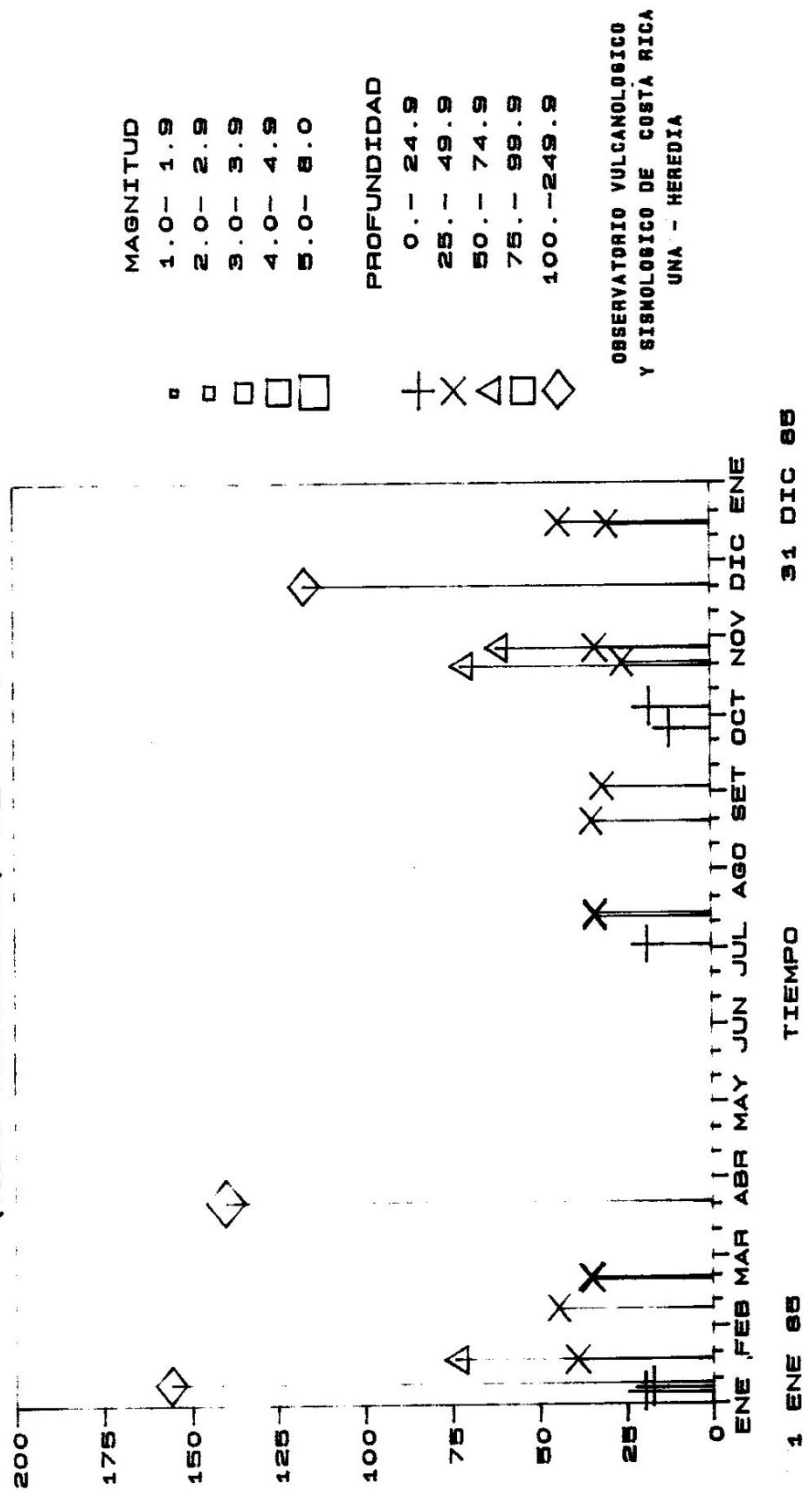


GRAFICO III-17

III. SISMICIDAD DE COSTA RICA ENE-DIC 1985.
SEISMICITY OF COSTA RICA JAN-DEC 1985.

C. LISTADO DE EVENTOS LOCALES, M < 3.0.
LOCAL EVENT LISTING, M < 3.0.

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.D. GRAD:MIN	PROF. KM	MAG	Nº	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
1	85-1-1	11:46:39.39	9:30.44	83:37.85	8.23	2.6	11	15.8	285	0.23	1.5	23.2
2	85-1-1	22:25:23.27	9:28.60	83:39.77	26.09	2.4	6	14.3	329	0.17	3.4	1.1
3	85-1-2	6:46:26.80	9:35.91	83:38.07	1.22	2.4	7	15.2	283	0.13	5.9	7.8
4	85-1-3	7:53:44.13	9:37.28	83:40.35	2.50	2.3	7	12.6	263	0.37	3.0	3.4
5	85-1-4	2:1:37.56	9:42.61	84:52.87	20.41	2.8	12	24.4	189	0.15	1.2	0.7
6	85-1-4	16:44:19.88	9:34.63	83:41.59	4.54	2.2	6	8.4	272	0.15	1.7	1.5
7	85-1-5	5:57:40.35	9:38.49	83:40.57	0.03	2.3	6	13.8	255	0.31	3.0	2.4
8	85-1-5	15:3:30.24	9:29.41	84:21.30	40.50	2.8	13	26.3	175	0.32	1.3	2.2
9	85-1-6	8:44:20.11	8:41.79	84:15.29	24.50	2.7	5	79.8	332	0.29	6.1	22.3
10	85-1-6	12:1:21.36	8:56.30	84:8.98	14.31	2.6	5	51.7	330	0.01	1.4	2.2
11	85-1-6	13:29:36.56	8:59.54	84:8.33	12.75	2.8	12	45.7	303	0.22	1.5	2.8
12	85-1-7	2:7:1.98	8:53.59	84:10.21	9.77	2.9	10	56.9	281	0.19	1.5	17.1
13	85-1-8	16:9:42.73	8:51.82	83:59.92	25.13	2.8	8	81.1	315	0.25	2.6	20.2
14	85-1-8	16:42:42.88	8:58.58	83:57.49	9.04	2.7	9	51.2	311	0.23	1.8	20.6
15	85-1-9	9:57:27.11	9:41.97	85:0.49	8.02	2.4	10	10.4	164	0.19	8.0	10.6
16	85-1-9	11:6:47.04	9:27.31	83:40.71	20.78	2.3	8	14.7	283	0.22	2.7	0.7
17	85-1-10	22:2:42.94	9:50.43	84:3.55	8.75	2.1	12	21.3	128	0.14	0.5	12.9
18	85-1-11	15:20:9.43	8:57.71	84:8.61	21.29	2.6	8	49.1	310	0.27	2.5	21.3
19	85-1-12	4:34:42.82	9:53.16	83:53.96	8.75	2.1	5	10.5	145	0.08	4.2	10.0
20	85-1-12	7:18:53.81	8:46.58	83:31.84	0.12	2.8	11	90.3	334	0.19	5.0	6.6
21	85-1-12	9:9:5.65	9:26.50	83:36.99	9.87	2.9	13	20.7	290	0.24	1.6	6.0
22	85-1-13	5:25:36.45	8:58.38	84:8.96	13.41	2.8	11	47.9	304	0.15	1.4	3.6
23	85-1-13	8:10:10.29	10:11.79	84:46.87	58.50	2.9	13	30.8	313	0.29	2.3	1.7
24	85-1-14	2:29:51.56	9:30.44	83:40.78	4.41	2.4	9	10.9	278	0.20	2.9	0.7
25	85-1-14	10:46:45.07	8:58.31	84:11.78	19.67	2.7	8	48.5	309	0.22	2.7	1.6
26	85-1-15	1:0:4.82	9:37.71	83:36.06	6.52	2.3	8	15.9	283	0.18	2.2	1.4
27	85-1-15	17:39:12.00	9:32.80	83:40.23	5.57	2.4	7	10.5	294	0.15	2.3	0.9
28	85-1-16	4:3:30.68	9:23.37	84:35.00	1.26	2.7	14	47.7	252	0.17	1.0	0.7
29	85-1-16	12:11:28.86	9:28.08	84:12.10	47.46	2.8	6	43.4	316	0.17	2.2	4.7
30	85-1-18	4:31:53.30	9:0.18	84:5.02	49.31	3.0	8	95.2	321	0.28	3.4	19.3
31	85-1-18	17:4:33.43	9:33.79	83:38.61	18.80	2.5	8	51.8	315	0.24	3.2	2.5
32	85-1-18	21:32:0.75	9:40.59	83:42.25	0.02	2.3	13	15.1	235	0.31	2.5	1.5
33	85-1-19	0:15:3.72	9:26.59	84:34.97	19.84	2.7	11	42.2	202	0.21	1.2	1.4
34	85-1-19	1:33:17.43	9:24.41	84:34.82	18.27	2.7	10	45.8	221	0.13	1.1	1.8
35	85-1-19	7:11:28.12	9:48.38	83:56.38	8.30	2.3	10	20.4	122	0.24	0.9	23.7
36	85-1-19	10:20:4.09	9:35.19	83:35.90	4.23	2.4	6	18.7	285	0.21	2.8	1.9
37	85-1-19	10:50:40.44	10:3.80	84:13.41	80.20	2.6	5	9.9	134	0.18	4.8	2.1
38	85-1-19	10:59:21.29	9:35.71	83:44.16	24.35	2.3	6	5.5	235	0.21	3.1	2.0
39	85-1-19	18:25:15.71	10:26.83	85:35.27	42.61	2.7	6	32.0	223	0.12	2.5	1.2
40	85-1-20	14:46:22.74	9:21.70	84:36.71	9.57	2.5	8	51.8	230	0.21	1.4	20.5
41	85-1-21	5:14:10.88	9:36.38	83:38.35	3.20	2.2	10	15.0	279	0.17	1.3	0.9
42	85-1-21	11:18:43.79	9:45.32	84:6.86	62.54	2.5	9	34.4	94	0.23	1.5	2.7
43	85-1-21	19:4:20.10	9:36.22	83:39.69	0.63	1.9	6	12.7	273	0.04	1.2	0.8
44	85-1-22	9:10:31.51	9:24.57	84:30.18	19.80	2.7	13	40.7	207	0.20	0.7	0.9
45	85-1-22	21:53:44.23	9:33.20	84:33.30	8.23	2.3	8	29.8	177	0.20	0.9	20.9
46	85-1-23	21:4:17.46	9:34.46	84:6.20	11.65	2.1	10	19.3	115	0.16	1.1	7.9
47	85-1-23	23:56:35.49	9:38.68	84:7.31	14.61	2.3	10	26.9	113	0.30	1.2	8.4
48	85-1-24	16:46:38.07	9:46.91	85:26.76	16.32	2.6	6	38.6	243	0.05	1.3	3.5
49	85-1-26	4:21:26.49	9:35.49	83:38.42	8.34	2.4	5	14.4	284	0.22	2.9	22.1
50	85-1-26	5:30:7.76	9:31.56	83:41.49	9.50	2.4	5	8.8	294	0.12	2.5	1.2
51	85-1-26	11:55:23.77	9:28.88	83:33.23	17.66	2.6	4	24.6	321	0.01	2.4	1.7
52	85-1-28	18:2:42.06	9:29.95	84:52.71	30.38	2.5	11	33.4	216	0.16	1.0	2.9
53	85-1-28	20:5:0.63	9:31.02	84:30.56	20.81	2.6	12	31.6	181	0.25	0.9	1.0
54	85-1-28	21:25:26.66	10:5.69	85:19.50	47.64	2.6	12	25.4	158	0.20	1.5	2.6
55	85-1-28	21:55:26.24	9:23.25	84:13.49	36.22	2.3	7	10.3	254	0.17	1.3	2.5
56	85-1-28	21:58:14.90	9:28.58	83:48.32	14.54	2.2	8	9.8	232	0.17	2.9	2.2
57	85-1-28	22:49:30.01	9:24.77	83:54.31	60.26	2.8	8	22.0	263	0.17	3.1	2.0
58	85-1-28	23:49:59.52	9:32.15	84:46.98	33.24	2.5	5	48.2	281	0.11	3.4	5.4
59	85-1-29	1:17:28.46	9:30.68	84:52.17	29.37	2.5	6	33.2	223	0.20	3.2	5.2
60	85-1-29	1:46:15.88	9:26.06	84:35.10	8.23	2.3	13	43.2	266	0.15	1.1	17.5

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SS	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
61	85-1-29	12:39:23.51	9:38.12	85: 9.42	19.55	2.4	8	9.4	247	0.17	2.1	0.7
62	85-1-30	15:47:53.65	9: 0.60	83:51.42	17.53	2.9	11	53.2	315	0.17	1.3	1.0
63	85-1-30	19:42: 2.75	9:23.83	84:19.64	35.84	2.4	11	21.4	259	0.14	1.0	1.3
64	85-1-31	0:38:12.12	9:38.15	85: 9.30	19.50	2.7	14	9.2	231	0.26	1.8	0.9
65	85-1-31	1: 7:17.99	9: 9.82	83:55.33	27.29	2.4	8	35.3	299	0.13	2.0	2.3
66	85-1-31	5:52:24.86	9:36.50	83:49.25	11.07	2.2	10	8.4	163	0.12	1.0	2.5
67	85-2- 1	11: 7:55.58	9:40.37	83:44.57	0.73	2.4	9	13.4	212	0.17	3.7	2.1
68	85-2- 4	0:13:17.02	10: 0.59	85:12.38	36.86	2.8	12	36.2	280	0.15	1.8	0.9
69	85-2- 4	10:55:44.83	9:30.92	83:40.27	6.31	2.5	12	11.3	279	0.18	1.2	0.5
70	85-2- 4	14:15:38.72	10: 7.40	84:16.69	86.00	3.0	13	7.5	177	0.15	1.1	1.2
71	85-2- 4	14:28:53.00	9:19.84	83:47.93	51.28	2.8	8	25.3	275	0.19	1.5	1.5
72	85-2- 5	19:49:40.66	9:33.18	83:41.55	6.73	2.5	7	8.1	273	0.21	2.1	0.7
73	85-2- 6	19:29:15.83	9:58.19	85:38.29	32.87	3.0	13	23.6	268	0.14	1.1	0.7
74	85-2- 7	6:12:32.97	9:33.56	83:37.63	6.05	2.3	8	15.2	282	0.23	2.2	1.6
75	85-2- 7	6:30:22.38	9:33.76	83:44.76	16.89	2.0	4	2.4	264	0.00	3.3	1.6
76	85-2- 7	23:33:33.87	10: 2.19	84:10.87	90.74	2.8	8	7.2	117	0.20	3.1	2.2
77	85-2- 8	11:14:18.23	10:11.96	85:18.43	36.92	2.9	11	26.6	190	0.19	1.6	1.1
78	85-2- 9	0:31:54.77	9:34.53	83:37.32	0.63	2.1	8	15.9	293	0.19	6.3	7.2
79	85-2- 9	5:26: 4.29	9:37.76	83:34.54	8.46	2.2	5	22.4	288	0.11	1.8	15.7
80	85-2- 9	17:18: 8.95	9:41.50	84:57.91	25.27	2.5	11	15.2	179	0.18	1.4	1.9
81	85-2-10	14:53:24.76	9:33.93	83:33.77	6.14	2.7	10	22.3	290	0.21	1.4	0.7
82	85-2-10	15: 0:29.31	9:39.17	83:45.10	1.46	2.6	7	10.9	308	0.11	4.1	3.0
83	85-2-11	5:39:55.74	9:30.47	83:54.83	8.49	2.0	9	17.1	173	0.22	0.8	19.2
84	85-2-11	9:42: 8.47	9:36.31	84: 1.30	21.06	2.3	13	25.6	108	0.26	0.7	1.5
85	85-2-12	10:37:14.24	10:11.27	83:57.84	21.56	2.1	7	24.7	253	0.27	3.1	3.3
86	85-2-13	6:32:25.25	9:56.15	84:49.02	20.07	2.7	12	24.9	141	0.23	1.0	1.1
87	85-2-13	13:16:29.09	9: 3.98	83:22.73	54.65	2.9	11	69.0	322	0.25	3.0	3.4
88	85-2-14	2:50:12.95	9:59.21	84:48.77	20.24	2.9	13	23.7	150	0.24	1.1	0.9
89	85-2-15	15:40: 0.15	9:37.88	84: 1.79	20.56	2.4	8	27.8	179	0.24	1.5	2.4
90	85-2-15	22:39: 3.22	9:36.21	84: 0.14	26.24	2.6	12	26.5	112	0.16	0.6	2.1
91	85-2-17	3:29:30.90	9:31.77	84:49.28	10.55	2.5	9	36.4	202	0.12	0.8	11.7
92	85-2-17	3:53:16.99	9:29.81	84:50.42	17.50	2.7	13	36.7	212	0.14	0.8	1.2
93	85-2-17	6:46:15.42	9:30.96	84:50.38	15.86	2.9	14	35.5	207	0.19	0.9	1.7
94	85-2-17	7:34:22.91	9:28.96	84:50.80	14.48	2.7	11	37.2	225	0.19	1.7	3.4
95	85-2-17	7:38:22.29	9:30.98	84:50.52	19.72	2.4	9	35.3	207	0.21	2.2	3.4
96	85-2-17	18:22:29.08	9:35.85	84:47.89	22.84	2.6	14	35.4	184	0.20	0.8	3.3
97	85-2-18	0: 7:19.32	9:38.25	84:47.04	24.59	2.4	12	35.7	188	0.18	0.9	2.8
98	85-2-18	2:48:51.22	9:37.45	83:40.43	0.01	2.3	12	12.7	261	0.25	1.9	1.0
99	85-2-19	0:28:52.37	9:54.72	83:45.01	4.48	2.5	10	14.4	244	0.16	2.4	0.8
100	85-2-19	4:10:32.11	9:30.37	84:50.40	17.10	2.8	13	36.1	209	0.13	0.8	1.1
101	85-2-19	4:12: 2.01	9:32.16	84:49.75	16.61	2.7	13	35.3	202	0.14	0.8	1.7
102	85-2-19	5:53:48.35	9:24.48	83:40.87	20.56	2.4	6	18.8	342	0.11	2.7	1.2
103	85-2-19	6:48:12.74	9:37.91	84:51.33	35.97	2.7	15	28.3	179	0.28	1.1	2.2
104	85-2-19	6:59:49.82	9:30.44	84:50.55	17.23	2.9	10	35.8	210	0.21	1.6	2.1
105	85-2-19	13:22:22.78	9:27.70	83:36.31	6.77	2.5	9	20.5	290	0.15	1.7	0.7
106	85-2-20	16:54:54.45	9:45.95	83:59.68	8.10	2.2	7	27.2	243	0.17	1.8	3.8
107	85-2-21	1: 7:21.11	9:46.24	84: 0.51	8.95	2.2	12	27.6	98	0.22	0.6	18.4
108	85-2-23	4:45:18.45	9:33.61	83:42.67	5.55	2.5	10	6.0	270	0.19	1.7	0.5
109	85-2-24	1: 2:55.20	9:16.41	83:44.77	24.17	2.9	12	31.4	292	0.20	1.2	2.3
110	85-2-24	10:20:40.33	9:30.59	83:40.62	6.79	2.3	8	11.0	278	0.24	2.3	0.7
111	85-2-25	18:39:16.21	9:29.79	83:37.80	7.48	2.7	10	16.2	285	0.08	1.4	0.7
112	85-2-27	7:43: 8.95	8:55.18	83:58.84	18.59	2.6	8	56.3	313	0.24	1.8	1.3
113	85-2-27	8:36: 7.33	8:52.82	83:59.11	16.12	2.7	8	60.4	328	0.27	1.9	2.2
114	85-2-27	13:35:54.51	9:33.98	83:38.37	0.01	2.2	9	13.9	280	0.20	1.1	1.2
115	85-2-27	14:13:27.98	8:51.09	83:59.41	18.42	2.9	9	63.3	329	0.19	1.7	0.9
116	85-2-27	14:57:52.81	8:57.90	83:58.74	21.96	2.8	12	51.5	311	0.24	1.6	9.4
117	85-2-27	15:58:29.13	8:50.46	84: 4.51	20.19	2.6	11	62.9	313	0.34	2.0	1.7
118	85-2-27	16: 5:16.10	8:48.48	84: 3.94	22.21	2.7	10	66.6	320	0.29	2.0	20.5
119	85-2-28	10:47: 1.95	8:55.94	84: 9.46	40.49	2.9	9	99.8	323	0.26	13.0	19.3
120	85-3- 2	9:23:32.40	9:44.19	83:33.81	19.43	2.5	6	42.4	335	0.13	4.3	1.7

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.D. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
121	85- 3- 5	2:36:17.10	9:36.38	83:39.56	4.28	2.6	12	13.0	273	0.15	1.1	1.3
122	85- 3- 5	6:10:37.24	9:11.73	83:52.62	41.88	2.8	13	36.3	294	0.32	2.5	0.9
123	85- 3- 6	11:29:20.77	9:36.27	83:38.59	5.76	2.5	11	14.5	278	0.18	1.3	1.4
124	85- 3- 6	12:54:39.73	9:32.49	84:48.54	27.84	2.5	9	36.9	198	0.25	1.5	4.5
125	85- 3- 6	13: 8: 0.63	10: 5.38	84:19.46	82.02	2.9	12	13.7	169	0.17	1.6	1.1
126	85- 3- 7	15: 9:30.37	9:35.39	83:41.62	8.25	2.3	7	8.8	267	0.17	1.7	2.3
127	85- 3- 8	11:41:24.12	9:33.52	83:36.80	5.86	2.3	12	16.8	184	0.20	1.2	1.0
128	85- 3- 9	1:54:47.47	9:34.05	84:54.65	18.17	2.5	12	25.8	216	0.14	1.0	1.1
129	85- 3- 9	21:41:39.56	9:43.14	83:50.35	8.54	2.2	11	19.9	161	0.17	0.9	17.4
130	85- 3-10	2:52:14.35	9:13.70	83:50.83	45.62	2.7	11	36.9	289	0.18	1.2	1.6
131	85- 3-10	10:40: 5.97	9:37.67	84:53.24	24.23	2.5	9	25.1	196	0.17	1.9	4.7
132	85- 3-11	6:11:31.00	10:29.79	84:45.80	32.77	2.7	8	59.5	277	0.27	3.1	1.9
133	85- 3-11	6:47:20.71	9:32.30	83:40.57	4.69	2.3	10	10.0	277	0.12	1.1	0.7
134	85- 3-11	6:54:48.75	8:54.40	84: 5.88	17.13	2.5	9	55.4	310	0.23	2.9	2.3
135	85- 3-11	7:42:15.02	8:39.73	83:13.26	30.65	3.0	6	29.4	176	0.13	12.1	2.0
136	85- 3-11	10:58:36.56	9:26.40	84:15.22	33.09	2.4	9	13.9	228	0.28	1.8	2.6
137	85- 3-12	19:14:17.03	9:36.84	84:33.42	20.69	2.5	13	24.5	164	0.22	0.8	0.9
138	85- 3-14	1: 5:10.89	9:39.01	84:55.43	18.80	2.8	16	20.5	180	0.21	0.9	0.8
139	85- 3-15	8:33:14.97	10:24.06	85: 9.32	59.33	2.9	13	47.0	133	0.15	1.1	1.4
140	85- 3-17	1:39:48.44	8:57.19	83:59.40	28.66	2.9	11	52.5	310	0.22	2.0	4.3
141	85- 3-17	15:10:15.23	9:53.54	85:16.08	19.99	2.7	10	27.9	176	0.20	4.8	3.7
142	85- 3-17	20:16:57.89	9:32.59	83:55.09	28.20	2.4	7	16.8	152	0.18	1.3	2.7
143	85- 3-18	15:32:51.83	9:40.17	84:57.54	16.12	2.4	9	16.2	206	0.14	1.8	2.5
144	85- 3-18	19:24:26.88	10:14.96	84:33.70	87.11	3.0	15	29.4	200	0.24	2.1	1.4
145	85- 3-20	8:54:27.87	9:33.39	83:36.33	8.67	2.4	7	17.6	301	0.19	2.1	18.0
146	85- 3-21	20:42:20.44	9:31.04	84:51.33	22.44	2.5	10	34.0	208	0.14	1.5	5.6
147	85- 3-22	4:13:40.58	9:35.26	83:37.49	0.02	2.2	6	15.9	288	0.14	1.4	1.1
148	85- 3-22	17:43:14.38	8:55.35	84: 5.47	21.70	2.6	6	53.7	329	0.11	3.3	12.5
149	85- 3-22	21:14:37.20	9:24.44	84:35.54	18.22	2.8	15	46.3	211	0.24	1.0	1.3
150	85- 3-23	0:43: 6.10	9:43.36	84:25.22	42.05	2.6	12	7.5	189	0.22	1.0	1.5
151	85- 3-23	20:12:43.77	9:36.86	83:59.68	20.03	2.2	13	26.0	109	0.37	1.0	2.4
152	85- 3-24	4:13:40.05	9:26.69	84:32.11	18.43	2.7	13	40.2	200	0.18	0.9	2.3
153	85- 3-24	11:27:46.56	9:36.97	84:45.77	19.82	2.6	14	38.5	177	0.16	0.7	0.9
154	85- 3-24	13:10: 6.48	9:24.51	84:23.38	26.64	2.5	5	28.3	264	0.07	2.4	2.0
155	85- 3-24	20:32:53.82	9:36.76	83:39.28	4.83	2.2	9	13.8	272	0.28	2.1	2.2
156	85- 3-26	8:39:38.07	9:32.74	84: 3.40	50.60	2.9	11	17.9	96	0.26	1.6	2.4
157	85- 3-27	16:25:56.99	8:56.28	84: 9.03	20.41	2.7	9	51.8	312	0.31	3.2	1.8
158	85- 3-27	22:47:21.16	9: 0.57	84: 9.99	22.37	2.9	8	44.0	302	0.20	1.9	5.5
159	85- 3-28	12:52:39.02	9:18.08	83:43.58	33.05	2.8	15	28.6	293	0.28	1.4	1.5
160	85- 3-30	1: 8:40.04	9:17.43	84:13.40	28.46	2.6	12	16.0	237	0.37	1.9	4.8
161	85- 3-31	17:18:23.42	9:43.91	84: 1.32	70.01	2.6	11	32.0	145	0.22	1.7	2.1
162	85- 4- 1	13: 5: 6.50	9:13.82	83:42.54	39.92	2.7	5	36.7	341	0.04	9.1	1.4
163	85- 4- 1	16:22:38.16	9:27.49	84:32.50	20.01	2.7	14	39.0	197	0.25	1.0	1.6
164	85- 4- 1	23:26:23.76	9:31.84	84:13.17	43.19	2.5	9	36.7	235	0.18	2.6	1.2
165	85- 4- 2	16:35:32.63	9:54.82	85:14.91	13.86	2.4	10	28.5	165	0.35	2.0	6.1
166	85- 4- 3	3:38:30.60	9:28.28	83:50.95	25.64	2.8	12	13.1	213	0.30	1.5	2.4
167	85- 4- 5	17:12:55.92	9:37.81	84:59.21	32.68	2.6	6	15.0	209	0.09	1.6	2.1
168	85- 4- 5	18:12:52.96	9:36.34	83:38.17	4.89	2.2	9	15.3	279	0.45	3.6	3.8
169	85- 4- 5	21:38:53.93	9:26.44	83:54.38	28.39	2.6	11	20.0	211	0.29	1.4	2.7
170	85- 4- 6	4:17:33.70	9:29.54	84:52.15	18.43	2.7	13	34.7	217	0.18	1.0	1.3
171	85- 4- 6	6:38:28.06	9:31.93	84:51.83	16.94	2.6	15	32.3	206	0.26	1.1	2.0
172	85- 4- 6	6:59:43.82	9:35.81	83:57.33	27.81	2.4	7	21.3	200	0.19	2.2	3.5
173	85- 4- 7	7:39:48.98	9:41.75	84:52.78	19.74	2.5	11	24.5	175	0.31	1.9	1.4
174	85- 4- 8	1:24:41.30	9:31.81	83:40.02	8.56	2.9	11	11.2	380	0.20	1.5	3.0
175	85- 4- 9	8:24:53.71	9:32.52	83:54.96	57.37	3.0	15	16.6	95	0.19	1.0	1.2
176	85- 4-10	1:38:59.34	9:32.59	84:44.50	26.75	2.5	12	43.4	285	0.19	1.1	3.3
177	85- 4-10	10:53:45.61	9:36.72	83:40.27	0.14	2.2	7	12.2	266	0.04	1.2	0.9
178	85- 4-10	15:34:55.70	9:36.41	84:52.74	21.89	2.9	15	26.8	282	0.19	1.1	2.3
179	85- 4-11	15:19:36.12	9:23.86	84:12.57	34.43	2.7	14	8.5	283	0.24	1.0	1.5
180	85- 4-11	22:59:20.47	9:27.57	83:44.80	23.39	2.5	6	10.9	344	0.16	1.5	1.2

NUM	FECHA AA-MM-DD	I.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
181	85- 4-11	23:13:41.89	9:25.28	83:44.69	23.46	2.5	12	15.1	276	0.29	1.7	1.7
182	85- 4-11	23:37: 2.68	9:26.69	83:47.26	17.64	2.4	11	12.5	253	0.30	2.3	2.2
183	85- 4-12	0:37: 6.76	9:45.94	84:26.41	52.53	2.4	10	3.0	219	0.17	1.4	1.8
184	85- 4-12	7:55:49.06	9:26.21	83:45.68	19.29	2.6	10	13.2	306	0.27	2.4	1.5
185	85- 4-15	13:27:17.00	9:19.29	84:29.43	18.75	2.6	12	40.4	227	0.33	1.2	1.9
186	85- 4-16	10:31:49.76	9:37.96	84:47.61	25.65	2.6	13	34.8	189	0.18	0.9	2.3
187	85- 4-17	12:31:22.50	9:38.66	84:47.67	20.32	2.6	13	34.5	186	0.26	1.0	1.2
188	85- 4-18	10: 7:56.51	9:37.86	84:48.70	17.88	2.4	10	32.9	190	0.23	4.1	6.5
189	85- 4-18	15: 3:43.67	9:32.11	83:56.17	55.54	2.7	9	18.8	153	0.16	1.3	2.1
190	85- 4-21	9: 2:11.32	9:31.35	83:38.47	7.83	2.4	9	14.2	283	0.20	1.7	0.9
191	85- 4-21	23:24:41.42	9:31.26	83:41.88	6.47	2.5	7	8.4	294	0.20	2.4	0.6
192	85- 4-22	2:43:37.38	9:32.81	83:40.12	1.92	2.4	9	10.7	277	0.32	1.8	2.2
193	85- 4-23	14:38:42.85	9:22.30	84:38.37	9.74	2.6	10	52.0	230	0.28	2.0	24.6
194	85- 4-25	13:45:54.39	9:44.08	83:48.78	8.71	2.5	9	20.6	177	0.20	1.4	17.1
195	85- 4-27	1:49:31.28	9:36.71	84:46.31	20.49	2.7	15	37.7	178	0.13	0.5	0.8
196	85- 5- 1	10:42:40.78	9:38.88	83:39.68	1.66	2.4	6	15.4	259	0.14	2.3	1.2
197	85- 5- 3	7:27:37.69	9:17.20	84:29.06	22.98	2.6	11	40.7	234	0.27	1.4	4.5
198	85- 5- 4	15:52:55.22	9:35.88	84: 7.73	44.39	2.8	10	21.6	104	0.26	1.2	2.2
199	85- 5- 7	0:40:47.02	9:34.70	84:46.97	16.82	2.2	6	37.7	201	0.13	1.5	3.0
200	85- 5- 7	6:39:18.36	9:18.56	83:46.18	27.95	2.8	10	27.4	307	0.19	1.7	2.2
201	85- 5- 8	1:56:40.95	10:18.15	83:10.65	28.28	2.9	11	83.7	316	0.13	1.0	1.3
202	85- 5- 8	6:52:53.70	9:31.37	83:44.44	4.92	2.4	5	4.6	359	0.13	16.7	0.7
203	85- 5- 8	6:55:49.10	9:37.11	83:44.13	0.01	2.3	8	7.8	225	0.15	3.5	1.7
204	85- 5- 9	3:51:27.12	9:34.33	84:51.39	21.61	2.6	8	53.0	301	0.11	1.5	11.0
205	85- 5-10	22:41:35.60	9:35.82	83:39.06	2.62	2.3	9	13.4	277	0.17	1.2	1.3
206	85- 5-11	2:28:44.34	9:38.55	84:52.38	23.80	2.7	12	26.1	191	0.18	1.2	2.9
207	85- 5-13	13:59:59.88	9:31.46	84:14.26	34.05	2.7	13	17.7	184	0.21	0.9	1.6
208	85- 5-15	1:38: 3.59	9:32.36	83:42.05	5.99	2.6	8	7.3	273	0.21	1.7	0.5
209	85- 5-15	19:56:36.86	9:32.01	84:50.33	18.83	2.8	12	34.5	203	0.14	0.8	1.1
210	85- 5-16	14:59:49.67	9:22.13	84:30.65	8.88	2.4	12	41.7	216	0.23	1.1	19.0
211	85- 5-17	14:30:42.87	9:36.78	83:43.02	0.78	2.2	7	8.4	242	0.08	1.7	0.9
212	85- 5-18	7:57:53.97	9:40.08	83:32.49	24.87	2.7	8	49.3	334	0.10	2.8	4.6
213	85- 5-20	7:52:40.34	9:44.44	84:16.71	52.61	2.5	9	17.1	229	0.20	1.6	1.9
214	85- 5-20	19:17:15.60	9:25.35	83:46.00	24.26	2.8	14	14.7	267	0.21	1.0	1.4
215	85- 5-21	0:27:51.39	9:25.61	83:44.88	22.94	2.6	11	14.4	274	0.20	1.3	1.3
216	85- 5-21	15:58:12.27	9:37.00	83:36.64	1.89	2.3	8	18.4	284	0.07	4.6	5.6
217	85- 5-22	2: 3:40.51	9:40.14	83:43.60	2.06	2.6	13	13.4	223	0.22	2.0	1.6
218	85- 5-22	16:18:29.23	9:19.32	84: 7.34	24.63	2.6	7	9.1	298	0.09	1.2	0.9
219	85- 5-22	20:56:11.31	9:31.59	83:40.49	5.90	2.5	9	10.5	277	0.16	1.3	0.5
220	85- 5-23	3:54:46.82	9:34.76	84:39.91	22.22	2.7	8	35.1	278	0.17	1.6	3.0
221	85- 5-23	12:19:41.98	9:36.55	84: 3.77	23.73	2.6	14	24.1	99	0.19	0.6	2.4
222	85- 5-24	13:53:40.68	9:39.24	84: 5.52	21.28	2.5	14	28.3	103	0.13	0.4	2.4
223	85- 5-27	0:56:10.45	10: 4.02	84:31.13	67.05	2.8	16	12.3	157	0.29	1.3	1.6
224	85- 5-27	17:15:22.95	9:38.47	83:40.22	4.93	2.4	10	14.2	258	0.27	5.1	5.7
225	85- 5-29	4:16:35.38	9:36.98	84:46.06	17.35	2.7	16	38.0	192	0.19	0.8	1.0
226	85- 5-29	5:40:36.92	9:33.71	84:13.78	38.44	2.5	14	20.6	172	0.22	0.9	1.7
227	85- 5-29	18:38:47.67	8:47.26	83:52.81	28.83	2.9	13	73.8	322	0.17	1.2	1.1
228	85- 5-31	4:12:54.11	9:36.96	84: 2.82	54.45	3.0	15	25.5	111	0.13	0.8	1.2
229	85- 6- 1	3: 0:13.39	9:37.08	83:38.29	2.29	2.6	8	15.7	276	0.28	2.3	3.0
230	85- 6- 1	7:15:34.57	9:39.15	83:39.76	2.82	2.5	8	15.7	258	0.18	1.9	1.1
231	85- 6- 1	8:16:46.30	9:40.48	83:47.53	3.50	2.3	6	13.6	180	0.13	5.8	4.1
232	85- 6- 2	9:13:30.22	9:29.81	83:38.07	7.23	2.8	8	15.8	320	0.24	4.0	1.9
233	85- 6- 5	6:19:39.21	9:30.33	83:37.24	6.09	2.7	15	16.9	179	0.25	1.1	0.7
234	85- 6- 5	19:11:47.11	9:37.01	84: 5.30	12.33	2.3	7	24.3	106	0.22	0.8	11.0
235	85- 6- 5	20:37:21.57	9:20.74	84:14.63	18.99	2.8	9	13.8	227	0.29	1.9	1.8
236	85- 6- 6	6: 5:21.75	9:30.15	84:21.10	23.60	2.8	15	26.5	171	0.25	0.9	2.0
237	85- 6- 6	11:37:55.28	9:31.07	84:20.73	16.40	2.4	7	26.6	226	0.15	1.4	2.7
238	85- 6- 7	0:49:20.96	9:55.35	84: 3.41	8.14	2.6	10	13.0	172	0.14	0.7	0.6
239	85- 6- 8	22:30:53.19	10:11.93	84:46.34	61.55	2.9	12	30.4	139	0.23	1.5	2.0
240	85- 6- 9	13: 6:36.76	9:35.19	83:29.72	0.06	2.4	6	29.9	297	0.19	2.2	1.9

NUM	ECHA AA-MM-DD	T.ORIGEN HH:MM:SS	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
241	85- 6-11	20:36:24.31	9:30.51	84:53.42	22.86	2.9	9	31.7	215	0.29	3.0	10.2
242	85- 6-15	12: 1:30.31	9:32.94	83:37.40	5.29	2.3	7	15.7	283	0.36	2.6	1.5
243	85- 6-16	0:11:25.82	9:55.20	84:45.48	56.52	2.9	9	19.2	188	0.25	4.2	2.8
244	85- 6-16	4:25:46.65	9:42.93	84:49.53	21.50	2.6	7	30.5	188	0.12	1.4	3.4
245	85- 6-18	14:45:30.85	9:11.71	84:12.46	26.99	3.0	12	24.6	285	0.24	1.7	2.3
246	85- 6-23	12: 2:49.54	9:35.57	83:36.96	5.10	2.3	8	17.0	282	0.15	1.4	1.5
247	85- 6-23	13:26:39.01	9: 6.58	83:46.31	47.06	2.8	13	49.5	310	0.21	1.4	1.7
248	85- 6-23	18:24:44.38	9:55.03	85:27.15	21.68	2.7	7	23.1	218	0.05	1.6	2.0
249	85- 6-24	14:58:11.49	9:34.00	83:35.02	13.12	2.8	7	30.0	189	0.23	3.2	5.2
250	85- 6-25	23:37:59.09	10: 4.34	84: 7.06	90.20	2.8	9	5.4	196	0.12	2.1	1.5
251	85- 6-28	8:57:57.62	9:36.90	83:38.46	1.97	2.6	7	15.3	276	0.20	10.3	12.4
252	85- 6-28	13:27:32.43	9:35.93	84:14.82	19.91	2.8	10	28.9	182	0.34	1.5	2.8
253	85- 6-28	14:20:14.83	9:20.25	84:36.26	19.96	2.7	7	53.9	306	0.24	3.0	2.6
254	85- 6-29	3:19:50.15	9:28.88	83:42.53	13.47	2.6	6	10.3	359	0.17	18.7	1.0
255	85- 6-29	9:48:58.48	9:39.29	83:59.94	80.09	2.8	8	27.9	175	0.17	2.8	2.1
256	85- 7- 2	3:52: 1.06	9: 8.87	84: 3.68	23.92	2.7	7	29.5	296	0.27	4.1	2.5
257	85- 7- 2	14: 4:23.73	9:38.26	85:13.85	17.93	2.7	8	15.7	251	0.12	2.2	1.0
258	85- 7- 2	17: 0:42.06	9:38.88	85:13.49	18.98	2.8	10	14.6	250	0.21	2.4	1.0
259	85- 7- 2	22:59:56.81	9:38.90	85:13.39	17.93	2.8	11	14.4	250	0.16	1.7	0.8
260	85- 7- 3	14:49:38.89	9:24.22	83:36.89	8.70	2.8	8	23.6	296	0.28	2.3	19.9
261	85- 7- 3	16:14:18.00	9:22.41	83:45.57	31.64	2.9	10	20.2	276	0.21	1.3	2.9
262	85- 7- 4	12:32:15.90	9:57.44	84: 0.48	8.06	2.6	8	12.2	129	0.10	1.2	0.9
263	85- 7- 8	1: 5: 9.22	9:35.17	83:38.56	5.44	2.5	8	13.9	295	0.17	1.4	0.9
264	85- 7- 8	4:38:15.40	9:33.40	83:39.10	5.77	2.5	7	12.5	283	0.14	1.9	1.4
265	85- 7-10	7:13:22.15	9:33.18	83:59.93	26.28	2.7	11	25.6	211	0.25	1.3	4.0
266	85- 7-13	3:43: 1.65	9:34.50	83:38.28	12.86	2.8	9	14.2	295	0.22	2.8	3.8
267	85- 7-13	10:56:15.65	9:12.27	83:39.12	45.40	2.9	7	41.0	189	0.18	6.2	1.8
268	85- 7-13	12:40:35.22	9:36.14	84:53.82	26.70	2.9	13	25.1	204	0.24	1.4	3.0
269	85- 7-13	19:22:10.85	9:29.52	83:39.72	5.21	2.6	8	13.4	317	0.31	3.2	1.3
270	85- 7-16	14: 3:46.40	10:10.45	84:12.05	5.86	2.7	6	3.0	266	0.10	2.3	0.4
271	85- 7-17	0: 7:45.74	9: 9.97	84: 3.17	24.16	3.0	7	27.8	306	0.05	1.2	1.4
272	85- 7-17	10:26:22.83	9:40.01	84:55.02	21.10	2.9	13	20.8	206	0.25	1.5	2.5
273	85- 7-18	13:51:29.62	10:28.66	85:10.84	68.75	2.8	6	38.2	160	0.19	2.0	3.8
274	85- 7-18	23:41:58.36	10:14.48	85:35.67	30.56	3.0	8	10.2	234	0.26	3.3	1.4
275	85- 7-20	9:42:36.74	9:29.52	83:41.14	7.24	2.6	8	11.2	297	0.19	2.4	0.7
276	85- 7-20	10: 9:40.78	9:29.22	83:39.65	5.85	2.5	8	13.8	299	0.13	1.8	0.6
277	85- 7-20	10:47: 2.51	9:20.80	84:41.69	34.12	2.7	6	57.4	306	0.21	3.7	6.7
278	85- 7-21	4:38:53.42	9:40.14	84: 3.52	14.48	2.4	9	30.6	120	0.35	1.2	9.1
279	85- 7-21	6: 9: 1.52	9:25.00	84:39.65	19.09	2.4	9	48.8	299	0.25	2.0	1.6
280	85- 7-21	13:58:56.72	9:24.55	84:40.13	19.81	2.9	12	50.0	215	0.21	1.1	1.3
281	85- 7-21	17:48:24.06	9:15.66	84:53.00	19.39	2.7	10	54.6	255	0.42	3.1	5.3
282	85- 7-21	18:23:44.08	9:23.41	84:39.97	16.41	3.0	14	51.7	218	0.24	1.0	4.6
283	85- 7-21	19:25:12.70	10: 2.07	84:37.97	14.14	2.5	10	6.6	117	0.25	0.8	1.2
284	85- 7-22	2: 0: 4.81	9:27.95	84:40.97	17.43	2.5	8	45.7	204	0.17	1.5	2.6
285	85- 7-23	4:33:15.20	9:30.52	83:50.59	0.27	2.3	6	9.9	192	0.20	10.2	13.4
286	85- 7-23	8:54:37.47	9:35.49	83:41.99	3.30	2.4	5	8.3	283	0.10	2.2	1.8
287	85- 7-23	9:29:42.50	10: 2.77	84:37.77	11.53	2.6	11	7.5	119	0.24	0.8	1.5
288	85- 7-23	10: 2:53.73	9:25.69	84:40.59	19.85	2.5	8	48.7	211	0.20	1.9	2.1
289	85- 7-23	12:15:52.03	9:31.81	83:33.29	9.35	2.4	7	23.3	304	0.24	2.4	17.4
290	85- 7-23	14:44:33.45	9:33.01	84:15.73	43.31	2.6	9	21.6	185	0.23	1.4	2.2
291	85- 7-25	0:58:19.46	9:36.19	83:36.05	4.58	2.5	7	18.9	202	0.40	2.8	3.4
292	85- 7-25	23:47:20.45	9:24.08	84:39.93	19.04	2.7	12	50.5	216	0.28	1.1	1.8
293	85- 7-26	1:23:42.19	9:31.35	83:40.37	7.82	2.7	7	10.8	296	0.20	2.8	0.7
294	85- 7-27	18:48: 4.78	9:30.49	83:43.56	9.56	2.7	6	6.8	357	0.18	19.8	1.0
295	85- 7-28	6:54:38.01	9:37.98	83:40.65	0.02	2.4	6	13.0	261	0.10	2.3	1.2
296	85- 7-29	6:56:39.60	9:32.64	83:36.23	8.87	2.3	6	14.2	307	0.25	5.0	16.7
297	85- 7-29	8:30: 7.46	9:36.53	83:36.35	0.50	2.3	6	18.6	290	0.33	13.0	16.2
298	85- 7-30	1: 8: 4.96	9:37.66	83:42.37	0.02	2.2	6	10.4	248	0.23	2.6	1.7
299	85- 7-30	1:30:16.48	9:24.58	84:40.70	32.24	2.5	6	50.5	225	0.16	2.6	6.2
300	85- 7-30	4:47:39.75	9:38.29	83:40.38	0.63	2.2	6	13.8	261	0.23	3.2	2.0

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	Nº	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
301	85- 7-30	5:24:54.35	9:32.32	83:37.70	8.34	2.3	6	15.2	308	0.33	2.8	29.6
302	85- 7-30	21:13:48.42	9:33.71	83:36.32	9.76	2.3	6	17.6	303	0.19	4.1	14.9
303	85- 7-31	4: 8: 1.65	9:35.27	83:37.97	3.57	2.2	5	15.1	290	0.22	11.7	12.1
304	85- 7-31	19:15:13.64	9:31.95	83:41.86	6.34	2.5	6	7.9	313	0.32	7.2	3.1
305	85- 8- 1	0:38: 9.85	9:35.01	83:38.52	1.90	2.6	8	13.9	283	0.29	2.8	3.9
306	85- 8- 1	1:58: 8.78	10: 3.33	84:10.14	86.82	2.8	7	6.8	206	0.16	2.4	2.7
307	85- 8- 1	3: 3:32.37	9:35.96	85:14.23	15.98	2.5	12	18.6	256	0.22	2.0	1.0
308	85- 8- 1	5:24:24.18	9:38.19	83:40.45	2.62	2.4	7	13.5	262	0.33	16.8	22.3
309	85- 8- 2	1:18: 2.09	9:38.25	83:39.32	0.01	2.8	10	15.2	268	0.23	2.3	1.6
310	85- 8- 2	3:16:18.40	9:36.64	83:37.63	0.02	2.5	7	16.4	284	0.30	3.1	2.1
311	85- 8- 2	14:54:44.64	9:37.03	84: 0.79	62.59	2.7	10	41.1	276	0.25	2.6	3.5
312	85- 8- 2	21:14:43.35	9:44.14	83:56.29	8.75	2.5	11	26.3	127	0.21	0.8	18.3
313	85- 8- 3	4:16:53.83	9:37.75	84: 8.15	8.50	2.3	9	36.5	199	0.26	1.1	24.8
314	85- 8- 3	4:23:57.42	9:35.56	83:38.73	1.46	2.3	7	13.9	282	0.20	2.0	2.4
315	85- 8- 3	5:28: 0.02	9:32.85	83:36.47	9.40	2.5	7	17.4	307	0.24	4.4	17.9
316	85- 8- 3	9:28:48.55	9:33.63	83:37.22	9.24	2.4	6	15.9	301	0.24	4.8	18.2
317	85- 8- 3	22:43: 7.35	9:38.97	83:51.01	22.04	2.6	6	14.0	187	0.13	2.9	2.8
318	85- 8- 4	14:47:42.11	9:46.20	84:15.92	48.91	2.9	15	17.7	106	0.23	0.8	2.1
319	85- 8- 4	16:42:41.79	9:23.12	83:12.44	7.56	2.9	15	64.1	220	0.40	4.0	2.2
320	85- 8- 5	15: 0:42.08	9:23.32	84:35.06	21.27	2.3	7	47.8	214	0.33	3.3	18.2
321	85- 8- 6	9:46: 6.42	9:30.70	83:39.33	5.69	2.6	11	13.1	285	0.21	1.8	0.7
322	85- 8- 6	21:20:59.25	8:53.29	84: 9.12	12.88	2.7	8	57.3	315	0.24	2.4	4.8
323	85- 8- 7	0:39:50.10	10: 6.94	84: 1.66	16.20	2.4	6	14.2	216	0.18	2.4	2.3
324	85- 8- 7	2:22:47.75	8:55.14	84:10.32	9.77	2.6	9	54.0	312	0.15	1.4	16.2
325	85- 8- 7	4:54: 1.20	9:32.66	84:52.60	25.94	2.5	8	30.4	217	0.20	2.5	5.3
326	85- 8- 7	8:21:36.21	10:11.02	83:57.91	85.04	2.7	7	24.3	269	0.19	4.7	1.8
327	85- 8- 7	9:55:57.01	10: 9.17	84:44.90	24.03	2.5	8	24.7	232	0.26	4.3	2.9
328	85- 8- 7	17: 0:16.98	10:13.55	84:27.00	91.76	2.9	11	26.8	255	0.23	2.5	1.6
329	85- 8- 7	20:22:41.91	9:20.57	83:39.94	8.31	2.7	6	26.1	347	0.33	7.2	30.3
330	85- 8- 7	20:31:35.65	9:57.16	84:10.85	13.98	2.4	5	10.6	150	0.22	1.4	2.4
331	85- 8- 7	23:15:34.10	9:32.50	84:11.37	37.04	2.5	8	37.9	229	0.06	1.0	1.5
332	85- 8- 8	4:39:10.75	9:30.89	83:40.15	5.90	2.5	10	11.5	283	0.24	1.9	0.8
333	85- 8- 9	3: 5:37.07	9:12.14	83:52.79	22.89	2.5	10	35.6	292	0.22	1.7	2.7
334	85- 8- 9	3:31:25.24	9:22.24	83:55.91	44.52	2.5	10	22.3	239	0.14	1.5	1.2
335	85- 8- 9	12: 4: 9.71	9:39.05	84:32.63	13.20	2.6	12	20.1	155	0.23	0.8	3.6
336	85- 8- 9	15:59:22.65	9:21.54	83:45.00	35.53	2.7	12	21.9	281	0.30	1.5	2.1
337	85- 8-10	11:16:44.57	9:26.94	84: 2.82	52.76	2.7	8	10.7	248	0.15	1.6	1.8
338	85- 8-11	18:36:35.90	9:30.09	83:38.34	16.02	2.7	15	15.2	193	0.28	1.3	1.2
339	85- 8-11	21:15: 3.67	9:40.22	84:36.05	37.40	2.7	13	23.3	154	0.21	0.8	1.2
340	85- 8-11	22:59:24.03	9:39.45	84:52.28	21.30	2.8	12	25.9	172	0.23	1.4	3.7
341	85- 8-13	10:22:26.59	9:22.96	84:41.63	31.52	3.0	13	54.0	222	0.21	0.9	3.7
342	85- 8-14	1:43:56.29	9:32.83	84: 2.70	9.48	2.3	9	30.6	215	0.20	1.3	18.3
343	85- 8-14	16: 0: 9.86	10: 0.62	84:32.64	60.86	3.0	17	6.3	112	0.23	0.9	1.2
344	85- 8-15	12: 3:12.22	9:54.14	84: 6.08	75.94	2.9	11	13.6	143	0.14	1.0	1.2
345	85- 8-15	14:16:51.76	9:23.60	84:40.09	13.72	2.8	14	51.5	218	0.21	0.9	2.6
346	85- 8-15	16:13:12.17	9:39.55	84:55.65	19.44	2.5	13	19.9	189	0.20	1.2	0.8
347	85- 8-15	21: 8:50.38	9:34.49	83:37.59	5.39	2.3	6	15.4	307	0.12	5.7	4.6
348	85- 8-15	21:23:29.03	9:34.51	83:38.59	6.50	2.5	7	13.7	305	0.05	3.3	2.5
349	85- 8-17	11:26:17.35	9:29.47	83:39.85	4.23	2.5	8	13.3	299	0.12	1.7	0.6
350	85- 8-17	16:27:20.72	9:34.59	83:42.88	4.60	2.4	9	6.1	288	0.20	2.2	0.8
351	85- 8-17	17:34: 6.32	9:59.04	84: 8.60	29.05	2.4	7	5.3	106	0.33	2.1	2.5
352	85- 8-17	21:19:44.85	9:32.00	83:38.54	2.96	2.2	8	13.8	297	0.11	1.6	1.1
353	85- 8-18	1: 6:13.88	9:24.53	83:45.00	16.38	2.4	5	16.4	335	0.05	11.5	6.4
354	85- 8-18	2:36:47.70	9:37.88	84:34.06	20.26	2.7	16	23.5	161	0.22	0.7	0.9
355	85- 8-18	4:13:34.70	9:30.83	83:42.55	4.31	2.4	8	31.3	351	0.13	1.8	0.6
356	85- 8-18	10:26:23.08	9:36.14	83:34.23	2.23	2.5	9	22.1	300	0.11	1.3	1.3
357	85- 8-19	6:40: 1.36	9:50.48	84: 7.71	19.66	2.7	12	20.3	132	0.30	0.7	1.8
358	85- 8-19	6:42:14.28	9:51.54	84:10.13	8.53	2.2	7	19.2	128	0.26	1.4	21.8
359	85- 8-19	7: 4: 9.88	9:15.27	84:11.62	17.56	2.8	9	57.7	243	0.20	1.2	2.0
360	85- 8-19	9:43:26.35	10: 4.30	84:36.18	51.98	3.0	10	9.4	204	0.25	2.4	1.6

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	KMS SEG	ERH KM	ERZ KM
361	85- 8-19	15:29:35.43	9:38.78	84:33.56	19.05	2.6	14	21.6	156	0.21	0.6	1.1
362	85- 8-19	15:58:13.28	9:37.21	84:33.03	28.29	2.2	10	23.3	162	0.16	1.1	1.9
363	85- 8-20	5:37:16.79	9:19.07	83:58.91	53.74	2.7	7	71.6	311	0.22	4.4	8.6
364	85- 8-20	11:25:31.34	9:38.02	83:30.96	8.37	2.8	12	56.6	321	0.21	1.6	5.4
365	85- 8-21	5:17:30.57	9:40.85	83:31.77	21.40	2.7	7	74.8	333	0.16	2.8	16.2
366	85- 8-21	20:34: 3.73	9:34.06	83:48.63	10.05	2.6	12	5.1	138	0.25	1.7	3.1
367	85- 8-22	1:18:42.70	10:23.59	85: 7.58	60.70	3.0	14	49.2	135	0.13	0.7	1.9
368	85- 8-22	19: 1:32.87	9:52.85	84:27.35	14.02	2.6	11	10.7	93	0.23	0.8	1.1
369	85- 8-22	20:29: 0.44	9:35.64	83:40.55	1.70	2.2	5	10.8	277	0.14	9.1	11.2
370	85- 8-23	16: 9:25.26	9:35.31	83:34.33	8.38	2.9	10	21.6	292	0.30	2.3	26.6
371	85- 8-24	9:26:54.25	9:41.46	83:56.10	8.90	2.6	8	31.1	275	0.33	2.1	28.3
372	85- 8-24	13:32:33.64	9:34.00	83:37.98	14.74	2.9	10	53.3	284	0.30	2.0	10.5
373	85- 8-24	18:33:28.51	9:29.89	83:46.13	10.08	2.9	12	6.3	254	0.18	1.4	1.5
374	85- 8-25	4:31: 1.83	9:42.58	83:58.61	73.75	2.9	6	50.0	298	0.21	7.4	7.5
375	85- 8-26	9:14:32.13	9:40.94	84:52.42	18.88	2.8	7	23.5	200	0.09	1.4	1.0
376	85- 8-26	16:15:35.50	9:38.32	85:16.82	19.15	2.9	10	20.6	255	0.34	2.9	1.3
377	85- 8-26	19:30:38.74	9:20.64	83:19.96	11.58	2.5	8	53.0	338	0.23	2.7	20.3
378	85- 8-27	12:31:33.54	10: 4.18	85:26.60	27.99	2.7	7	15.3	176	0.17	1.6	2.3
379	85- 8-27	19:30:37.06	9:51.63	84:14.41	5.87	2.2	6	22.6	292	0.07	1.0	0.5
380	85- 8-28	0:38:16.73	9:34.27	83:37.63	6.04	2.9	12	15.3	187	0.23	1.4	1.2
381	85- 8-28	10:54:58.52	10: 3.97	84:13.70	93.67	2.9	9	9.7	109	0.08	2.3	1.3
382	85- 8-29	17:14:17.06	9:30.62	84:31.19	24.63	2.4	11	32.7	184	0.18	1.0	3.1
383	85- 8-29	17:45:51.75	9:32.54	83:39.03	7.44	2.5	11	12.7	283	0.22	1.7	0.7
384	85- 8-30	21:47:25.91	9:33.04	84:52.35	33.61	2.6	12	30.4	203	0.17	1.3	1.9
385	85- 8-31	2:57:48.01	9:28.78	84:38.99	10.67	2.5	9	42.3	241	0.16	1.2	13.3
386	85- 8-31	18: 7:29.17	9:18.20	83:50.23	52.70	2.7	11	29.1	274	0.17	1.6	1.1
387	85- 8-31	23:33:17.80	9:34.06	83:37.82	13.98	2.6	13	14.9	285	0.23	1.6	1.6
388	85- 8-31	23:51: 8.06	9:34.65	83:37.48	9.71	2.4	10	15.7	285	0.17	1.2	4.2
389	85- 9- 1	8:30:31.96	9:35.79	83:38.48	1.23	2.3	9	14.4	286	0.21	4.4	5.5
390	85- 9- 1	11:59:53.00	9:48.74	83:28.57	39.52	2.7	9	49.4	334	0.36	9.0	1.5
391	85- 9- 1	17:51: 0.87	9:30.93	83:37.59	3.47	2.2	8	15.9	317	0.16	4.4	3.0
392	85- 9- 1	20: 9:43.99	8:53.48	83:56.31	20.53	2.8	12	60.7	316	0.19	1.3	1.6
393	85- 9- 1	20:20:33.76	9:40.96	84:49.26	21.10	2.5	13	31.0	178	0.24	1.2	3.6
394	85- 9- 1	20:52: 0.33	8:51.55	83:58.72	24.87	2.6	11	62.8	319	0.14	1.4	7.8
395	85- 9- 1	21:52:16.26	9:33.62	83:38.96	7.62	2.3	9	12.8	282	0.31	2.5	1.7
396	85- 9- 1	22: 4: 7.79	9:36.58	83:39.77	1.09	2.3	8	12.8	274	0.13	1.3	0.9
397	85- 9- 1	23:25:57.06	9:34.79	83:39.66	10.97	2.8	13	11.8	280	0.20	1.2	1.8
398	85- 9- 2	0:51:37.53	9:26.95	83:45.71	19.25	2.6	14	11.8	265	0.15	1.0	0.6
399	85- 9- 2	1:26:52.85	10:17.13	83:23.47	36.86	2.8	9	65.7	306	0.18	1.8	1.3
400	85- 9- 2	4: 9:47.31	8:53.26	83:55.60	30.21	3.0	13	76.3	292	0.25	1.5	4.8
401	85- 9- 2	4:33:59.97	9:35.70	83:40.58	0.47	2.1	7	10.8	276	0.11	1.6	1.2
402	85- 9- 2	21:55:57.11	9:39.10	84:57.88	22.75	2.5	8	16.1	196	0.17	2.7	1.3
403	85- 9- 3	4:17:21.91	9:44.54	84:53.67	21.47	2.5	8	23.4	175	0.18	2.2	4.6
404	85- 9- 3	5:22: 4.54	9:31.98	84:31.46	18.10	2.7	16	30.5	179	0.21	0.7	2.0
405	85- 9- 3	10: 2: 8.43	9:34.98	83:42.66	3.06	2.8	12	6.8	268	0.30	2.6	1.4
406	85- 9- 3	14:46:10.95	9:37.21	84: 3.10	23.70	2.3	14	25.7	99	0.33	0.8	3.2
407	85- 9- 3	18:13: 3.78	9: 2.26	84: 8.83	18.61	2.4	9	71.2	270	0.26	3.1	4.1
408	85- 9- 3	22:28:11.98	9:36.17	84: 9.89	41.43	2.9	19	22.5	107	0.21	0.5	0.7
409	85- 9- 4	1:47:39.51	8:57.23	82:49.81	26.48	2.8	8	62.6	251	0.23	2.8	2.4
410	85- 9- 4	10:59:16.84	10:12.36	85:27.93	41.36	2.8	10	10.2	128	0.20	2.9	1.6
411	85- 9- 4	15:53:25.94	9:47.26	83:56.79	71.31	2.8	12	20.9	128	0.20	1.4	1.8
412	85- 9- 5	3:27:14.31	9:30.91	83:41.10	5.12	2.2	6	9.9	321	0.18	4.8	2.0
413	85- 9- 5	4:26: 1.41	9:36.59	83:39.46	1.60	2.2	6	13.4	276	0.14	8.4	11.0
414	85- 9- 5	15:30:49.92	9:32.07	83:37.99	6.94	2.3	6	14.7	309	0.19	4.2	2.1
415	85- 9- 5	19: 8:53.01	9:29.64	83:39.10	4.76	2.2	6	14.2	326	0.22	6.1	2.7
416	85- 9- 5	22:42:46.95	9:28.05	83:36.46	8.53	2.5	8	19.9	321	0.34	3.1	24.9
417	85- 9- 5	23: 2:51.55	9:29.45	83:36.71	5.23	2.4	8	18.4	291	0.14	1.5	0.8
418	85- 9- 5	23:27: 6.54	9:29.20	83:38.87	6.91	2.2	5	15.0	328	0.03	5.4	1.7
419	85- 9- 5	23:31:25.50	9:31.08	83:37.32	4.55	2.6	12	16.3	289	0.18	1.0	0.5
420	85- 9- 6	2: 9:41.73	9:43.19	84:25.83	17.98	2.1	8	7.7	205	0.15	1.2	1.7

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
421	85- 9- 7	14:53:15.39	9:17.24	84: 9.06	26.01	2.9	16	13.1	240	0.27	1.1	1.7
422	85- 9- 8	0:47:51.88	9: 5.56	83:47.64	38.88	2.6	8	98.1	325	0.14	1.9	0.8
423	85- 9- 8	4:58:51.33	9:39.85	84:57.11	20.40	2.4	15	17.1	208	0.32	2.0	1.0
424	85- 9- 9	0:45: 1.32	9:26.86	84:15.18	47.69	2.7	12	42.5	210	0.20	1.1	2.5
425	85- 9-11	0:27:21.96	9:36.49	83:39.42	8.38	2.1	7	13.3	277	0.17	2.3	17.1
426	85- 9-11	8:17:23.85	9:52.79	84: 8.38	73.29	2.5	9	16.2	184	0.06	1.7	1.1
427	85- 9-11	9:27: 4.45	9:31.76	84:18.99	43.99	2.4	8	31.4	295	0.19	2.6	3.1
428	85- 9-11	10: 2:17.11	9:34.83	84:46.47	19.85	2.3	8	38.5	226	0.21	2.2	1.7
429	85- 9-11	10: 6: 7.24	9:32.19	84:50.80	29.36	2.8	14	33.5	216	0.15	1.0	1.7
430	85- 9-11	18:24:24.26	9:28.56	84:33.69	27.97	2.7	12	37.9	209	0.17	0.9	2.0
431	85- 9-11	23: 5:17.19	9:24.34	83:36.67	8.80	2.8	10	23.7	308	0.22	2.4	7.9
432	85- 9-12	1:23:46.66	9:36.76	83:46.00	0.41	2.3	10	48.9	343	0.16	2.3	1.7
433	85- 9-12	16: 3:18.31	9:31.46	84:32.06	29.62	3.0	16	31.7	201	0.24	0.9	1.8
434	85- 9-12	16:10:17.90	9:38.42	84:34.49	28.65	2.4	11	23.3	181	0.26	1.5	2.0
435	85- 9-12	21:17: 2.28	9:36.22	83:38.30	5.89	2.4	10	15.0	283	0.16	2.4	2.4
436	85- 9-14	3:28:49.88	9:18.51	84:58.84	25.65	3.0	9	81.0	323	0.23	3.0	14.0
437	85- 9-14	3:29:43.41	9:20.65	84:48.97	12.88	2.8	8	65.5	318	0.18	1.6	17.2
438	85- 9-14	6:15:28.56	9:30.51	83:37.32	8.63	2.2	7	16.6	319	0.18	2.4	16.7
439	85- 9-14	9:36: 1.34	8:54.36	84: 5.58	21.15	3.0	11	80.7	226	0.27	2.2	26.1
440	85- 9-14	20:21:15.66	9:29.27	84:33.39	13.05	2.8	18	36.5	207	0.22	0.8	2.1
441	85- 9-14	23:36:36.77	9:46.37	84: 8.30	9.09	2.6	17	28.0	146	0.21	0.5	3.5
442	85- 9-15	0:37:42.55	9:27.94	84:33.44	9.83	2.7	14	38.8	211	0.17	0.8	14.0
443	85- 9-15	5:55:32.79	9:25.68	84:26.93	8.41	2.5	10	40.3	284	0.15	1.3	17.8
444	85- 9-15	11:20: 2.28	9:20.96	83:57.45	49.06	2.7	7	31.1	272	0.19	2.1	2.9
445	85- 9-15	14:25: 1.54	9:36.25	83:38.92	7.06	2.5	12	13.9	281	0.21	1.3	0.7
446	85- 9-15	17:13: 2.63	10: 8.80	84:20.27	82.82	2.5	9	13.3	253	0.13	1.9	1.7
447	85- 9-15	17:13:44.75	9:24.95	83:43.82	4.19	2.3	7	15.9	341	0.12	3.3	0.7
448	85- 9-15	21:14:12.49	9:12.11	83:38.00	36.44	2.6	8	41.9	325	0.23	3.7	1.2
449	85- 9-16	0:43: 9.57	9:35.16	84:45.29	19.83	2.3	12	40.3	198	0.17	0.8	1.1
450	85- 9-17	0:13:35.48	9:29.72	83:35.98	8.47	2.6	14	19.4	184	0.20	1.1	16.2
451	85- 9-17	2:47:37.48	9:24.92	83:52.50	59.36	2.8	11	19.6	128	0.12	1.2	1.8
452	85- 9-17	20:53:38.88	8:38.67	83:46.03	21.48	3.0	10	79.8	223	0.24	2.3	23.8
453	85- 9-18	10:35:59.87	9:34.43	83:38.93	0.01	2.1	6	13.0	292	0.17	1.5	1.1
454	85- 9-18	16:48:18.61	9:27.60	84:25.33	23.83	2.5	10	32.4	241	0.18	1.5	1.9
455	85- 9-21	1: 3:27.09	8:57.04	84: 4.38	20.78	2.6	9	75.2	312	0.26	7.2	19.6
456	85- 9-21	5: 2:12.86	9:35.15	84: 4.62	52.90	2.6	11	34.3	206	0.15	1.3	1.9
457	85- 9-21	17:37:16.35	10:19.59	83:55.89	23.46	2.2	6	39.3	316	0.09	1.4	3.4
458	85- 9-22	1:59:12.83	10:28.87	85:36.56	40.22	2.7	6	36.2	231	0.17	2.6	1.1
459	85- 9-22	5:33:47.99	9:36.60	83:40.07	0.03	2.5	10	12.4	273	0.24	2.2	1.5
460	85- 9-22	6:42: 9.75	8:53.55	83:59.40	8.23	2.8	9	77.7	317	0.28	2.2	26.4
461	85- 9-22	7: 7:31.90	8:54.16	83:55.37	32.19	2.9	9	74.6	316	0.22	3.1	1.6
462	85- 9-23	0:34: 0.17	9:38.59	84:55.01	28.51	2.8	15	52.0	216	0.21	1.3	3.2
463	85- 9-23	10:23:29.72	9:27.40	84:45.93	17.97	2.5	11	52.5	293	0.15	1.2	1.2
464	85- 9-25	0:15:13.79	9:36.66	83:37.68	21.99	2.2	7	16.4	284	0.28	5.2	4.6
465	85- 9-25	12:47:13.07	9:34.95	84:12.78	48.78	2.6	12	21.8	159	0.14	0.9	1.7
466	85- 9-25	13:26:52.17	9: 5.12	84: 4.44	14.96	2.5	9	35.9	302	0.15	1.4	1.8
467	85- 9-25	13:38:31.95	9: 5.83	84: 4.33	26.89	2.7	10	34.7	301	0.21	1.6	3.6
468	85- 9-25	23:52:23.15	9: 1.13	84: 4.67	23.31	2.8	10	68.8	307	0.15	1.2	12.6
469	85- 9-26	4:11:16.01	9:29.71	84:32.67	23.51	2.5	6	35.2	296	0.27	2.2	4.3
470	85- 9-26	4:45: 9.10	9: 2.70	84: 7.42	15.08	2.8	12	39.9	300	0.21	1.4	2.0
471	85- 9-26	5:31:44.87	9:36.84	83:36.36	0.03	3.4	8	18.7	289	0.35	2.3	1.7
472	85- 9-26	12:17:23.82	8:57.51	84: 6.70	21.01	2.6	8	76.5	307	0.25	7.1	18.7
473	85- 9-26	12:32:49.83	8:53.42	84: 8.23	21.30	2.7	9	84.5	310	0.26	1.9	25.4
474	85- 9-26	13:17:14.73	9: 4.99	84: 5.86	12.96	2.9	12	35.8	298	0.21	1.4	6.3
475	85- 9-26	14:16: 0.40	9: 3.30	84: 4.87	22.39	2.9	13	29.2	301	0.26	1.5	3.7
476	85- 9-26	14:57:31.52	9: 9.80	84:42.06	32.59	2.8	7	74.3	257	0.15	2.7	7.9
477	85- 9-26	17: 0:43.62	9: 2.33	83:47.94	38.14	2.8	7	57.5	318	0.22	2.4	1.2
478	85- 9-26	19:23: 3.55	8:41.75	83:45.48	1.32	3.0	15	80.6	218	0.43	2.2	2.8
479	85- 9-27	19:41:14.87	9: 0.51	84: 7.04	8.85	3.0	11	43.9	303	0.27	1.7	23.2
480	85- 9-27	20:27: 5.68	10:20.83	85:18.55	59.30	2.6	7	33.2	123	0.14	1.2	2.5

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SS	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
481	85- 9-27	23: 0:12.94	9:32.63	84: 9.61	44.97	2.2	7	40.0	226	0.22	1.9	2.9
482	85- 9-28	5:37:18.16	9:28.17	84:41.44	18.32	2.5	10	45.9	243	0.18	1.1	1.4
483	85- 9-28	6:25: 5.58	9:34.92	84: 7.09	10.60	2.3	9	40.9	276	0.16	1.3	14.7
484	85- 9-29	18:56:11.99	9:32.62	84:28.65	10.27	2.3	10	27.9	196	0.18	0.9	9.4
485	85- 9-29	21:40:44.23	9:36.99	83:42.06	0.03	2.3	6	9.9	255	0.25	3.0	1.7
486	85- 9-30	7: 8: 8.37	9:37.04	84:52.37	19.76	2.5	10	27.0	222	0.20	2.4	1.1
487	85- 9-30	12:59:44.10	9:31.19	83:33.92	19.96	2.6	5	61.8	324	0.27	6.2	2.4
488	85- 9-30	14:44:14.31	9:39.55	84:31.69	41.46	2.7	13	16.4	212	0.18	1.5	0.6
489	85-10- 1	23:30:38.41	8:34.48	83: 9.03	6.79	2.9	10	17.0	176	0.19	5.1	3.7
490	85-10- 2	11:35:14.59	9:45.14	83:19.81	24.89	2.9	6	91.3	342	0.12	2.6	14.7
491	85-10- 4	10:24:36.51	10: 9.90	85:21.89	18.80	2.7	10	20.0	180	0.15	2.8	3.9
492	85-10- 4	21:48:25.30	9:46.11	83:57.21	77.31	2.8	13	23.1	128	0.16	1.4	1.2
493	85-10- 7	21:53: 0.05	8:59.29	83:59.55	9.92	2.7	8	48.7	311	0.26	1.7	21.1
494	85-10- 8	4:58:18.84	9:18.79	83:42.54	41.60	2.8	10	27.5	321	0.24	3.6	1.1
495	85-10- 8	5:14:44.61	9:30.85	84: 5.44	26.78	2.6	6	35.9	276	0.31	3.7	7.9
496	85-10-10	2:12:30.40	10:24.27	83:11.12	43.67	2.9	12	91.8	317	0.27	2.0	25.5
497	85-10-10	3:13:33.32	10: 1.32	85:38.41	18.74	2.8	14	18.8	259	0.23	1.4	0.7
498	85-10-10	4: 4:17.88	9:58.78	85:42.67	19.27	2.8	12	27.1	269	0.18	1.3	0.8
499	85-10-10	8:45:30.65	9:44.44	84: 2.48	75.24	2.9	18	29.9	93	0.25	1.0	1.4
500	85-10-10	14:48:52.91	9:35.10	83:35.68	2.61	2.2	11	19.1	289	0.13	1.1	1.3
501	85-10-10	19:19: 5.94	9:39.27	84:53.41	26.95	2.6	16	24.0	188	0.18	1.0	1.4
502	85-10-10	23:36:23.18	9:31.31	84:51.60	20.10	2.7	16	33.3	208	0.14	0.9	0.7
503	85-10-11	21:54:48.74	9:39.59	84:54.39	24.65	2.8	17	32.1	175	0.22	0.9	1.7
504	85-10-11	21:55:48.69	9:40.07	84:55.42	22.48	2.9	18	30.1	173	0.12	0.6	1.3
505	85-10-11	21:58: 2.84	9:38.88	84:56.03	20.05	2.5	13	19.5	194	0.24	1.3	0.9
506	85-10-11	22: 8:48.50	9:39.39	84:55.84	22.67	2.5	13	19.6	190	0.33	1.4	2.3
507	85-10-12	9:21:18.95	9:33.86	83:38.40	7.31	2.5	10	13.9	284	0.14	1.3	0.9
508	85-10-12	11:50:10.08	9:34.61	84:53.84	17.88	2.7	14	26.5	211	0.18	1.0	0.6
509	85-10-12	12:11:18.81	9:35.05	84:54.04	17.87	2.6	12	35.8	210	0.14	0.9	0.8
510	85-10-13	17:16:45.30	9:28.32	83:40.87	16.19	2.4	12	13.1	285	0.24	2.1	0.9
511	85-10-13	19:35:36.82	8:57.91	84: 3.52	20.68	2.8	14	49.4	280	0.15	1.1	1.3
512	85-10-16	0:52: 5.22	8:40.88	82:54.08	0.30	2.9	10	32.4	253	0.33	7.2	10.3
513	85-10-16	23:43:29.43	9:32.56	83:37.78	8.27	2.4	11	15.0	286	0.25	1.7	22.9
514	85-10-18	14:12:32.81	9:38.09	84: 4.24	47.33	2.9	18	26.6	79	0.32	1.0	2.0
515	85-10-18	23:20:29.55	10: 2.35	84:35.33	59.80	2.7	13	5.8	154	0.19	1.7	1.3
516	85-10-19	19:38:48.15	9:31.44	83:35.85	2.32	2.4	10	18.8	291	0.29	2.1	1.9
517	85-10-19	21:22:51.17	9:34.99	83:36.73	5.21	2.2	11	17.1	287	0.17	1.2	0.7
518	85-10-20	3:21:12.60	10:13.61	84: 9.68	104.80	3.0	14	10.3	226	0.21	2.4	1.7
519	85-10-20	7:10:41.99	9:33.53	84: 2.16	41.71	2.5	12	20.3	122	0.25	1.0	2.1
520	85-10-21	7:45: 3.13	8:48.39	83:30.55	21.99	2.8	13	97.9	333	0.30	2.8	23.8
521	85-10-21	16:13:22.28	9:34.94	83:37.36	5.85	2.4	12	16.0	286	0.18	1.2	1.0
522	85-10-21	20:56:16.85	9:30.26	84:33.01	26.25	2.4	15	34.5	187	0.22	0.9	1.7
523	85-10-22	0:19: 1.65	9:38.97	83:56.54	8.96	2.0	9	22.0	111	0.46	2.0	35.4
524	85-10-22	3: 1:50.04	9:23.30	83:41.67	29.97	2.6	14	30.1	291	0.27	1.2	1.6
525	85-10-22	7: 6: 0.55	9: 9.98	84: 0.41	23.93	2.3	8	29.7	296	0.21	2.8	2.1
526	85-10-22	9:31:54.61	9:55.22	84:25.34	56.41	2.6	14	14.6	88	0.16	0.8	0.9
527	85-10-22	23:34:50.59	9:55.60	84:26.77	53.21	2.7	14	15.4	91	0.24	1.2	1.6
528	85-10-23	5:58:50.24	8:53.08	83:58.75	17.65	2.8	11	60.0	315	0.16	1.5	1.4
529	85-10-23	23:33:12.82	10:27.60	85:27.53	74.43	2.8	8	34.5	180	0.16	1.2	1.8
530	85-10-24	4:32: 9.40	9:33.35	83:31.08	8.20	2.5	9	27.1	312	0.23	2.0	22.8
531	85-10-24	5:11:19.72	9:35.34	83:32.43	5.67	2.5	11	25.0	295	0.24	1.4	1.4
532	85-10-24	5:12:38.71	9:36.21	83:31.83	4.38	2.5	11	26.4	296	0.25	1.5	1.7
533	85-10-25	16: 1:58.23	9:34.94	83:29.08	0.03	2.4	10	31.0	301	0.17	1.6	1.9
534	85-10-26	21: 9:30.07	9:41.64	83:54.10	17.42	2.5	12	21.5	136	0.31	1.1	4.3
535	85-10-27	0:26:55.35	9:32.59	83:36.02	5.50	2.2	10	18.2	290	0.20	1.6	1.3
536	85-10-27	4:50:59.05	9:34.09	84: 0.08	22.34	2.5	14	23.3	126	0.28	1.0	4.3
537	85-10-27	7:47:16.94	9:33.70	83:31.44	9.85	2.4	8	26.6	311	0.30	4.4	20.2
538	85-10-27	14:35:57.68	9:28.38	83:35.55	6.13	2.5	10	21.1	294	0.23	1.8	0.8
539	85-10-27	21:29:41.15	9:40.82	83:54.88	8.32	2.5	12	21.5	127	0.32	0.9	29.2
540	85-10-28	0:23: 6.58	9:39.73	84:55.80	21.49	2.7	13	19.5	188	0.17	1.1	2.9

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERM KM	ERZ KM
541	85-10-29	14:50: 2.65	8:52.97	83:53.46	8.79	2.8	11	63.6	318	0.26	1.6	24.8
542	85-10-30	6: 5:33.87	9:33.33	83:38.29	3.73	2.4	5	14.6	301	0.29	9.9	8.8
543	85-10-30	10:59:39.55	9:40.80	84:55.50	26.43	2.7	11	19.7	181	0.20	1.1	1.5
544	85-10-30	12:45:20.84	9:32.92	83:36.07	0.01	2.4	9	18.1	289	0.24	1.5	1.5
545	85-10-30	14:42:23.83	9:14.31	84: 0.71	36.64	2.7	11	22.6	286	0.28	1.3	1.4
546	85-10-31	6:20:44.11	9:35.34	83:38.15	3.26	2.5	9	0.0	0	0.24	1.6	1.8
547	85-11- 1	17:48:34.18	10:10.98	84:23.63	77.94	2.8	15	19.6	223	0.24	2.0	1.4
548	85-11- 1	22: 1:36.90	9:28.74	83:52.32	57.70	2.7	12	14.4	112	0.20	1.2	1.1
549	85-11- 2	2:12:43.04	9:32.56	83:39.81	2.97	2.2	7	11.3	282	0.26	2.6	2.2
550	85-11- 2	4:34: 6.89	9:39.26	83:38.54	3.31	2.1	8	17.5	269	0.24	10.7	14.2
551	85-11- 2	4:34:37.59	9:35.28	83:35.90	8.18	3.0	12	18.7	288	0.22	5.5	7.0
552	85-11- 2	5:53:21.41	10: 5.71	83:56.55	12.85	2.3	8	14.9	238	0.21	2.3	2.1
553	85-11- 2	22:55:38.15	9:22.82	84: 2.16	41.37	2.6	14	10.9	228	0.16	0.8	0.4
554	85-11- 4	8:10: 6.86	9:20.44	84:36.42	16.87	3.0	10	67.6	259	0.22	1.2	1.9
555	85-11- 4	17:55:59.63	10:15.45	85:28.80	30.48	2.8	8	12.9	158	0.24	2.7	3.0
556	85-11- 4	18:16:59.15	9:47.95	83:39.51	7.80	2.7	12	29.6	258	0.31	3.4	4.9
557	85-11- 6	12: 4:44.71	9:36.79	83:53.89	8.43	2.2	7	35.9	286	0.30	2.4	27.8
558	85-11- 6	15: 9:40.83	9:49.78	84: 8.91	12.79	2.2	9	21.9	202	0.24	1.3	5.3
559	85-11- 6	17: 1:28.18	10: 1.22	84:57.22	17.31	2.6	14	39.1	155	0.27	1.0	2.1
560	85-11- 7	0:36:36.91	9:48.32	84:33.17	8.02	2.4	7	14.0	163	0.09	1.3	1.2
561	85-11- 8	16:16:36.58	9:43.57	83: 3.94	11.74	2.9	10	31.4	215	0.21	2.0	2.1
562	85-11- 9	10:15:38.54	9:32.52	83:39.28	4.03	2.4	10	12.3	283	0.21	1.4	1.0
563	85-11- 9	13:31:36.45	9:26.73	83:49.17	0.05	2.2	7	13.6	238	0.26	3.9	3.6
564	85-11- 9	13:32:23.58	9:33.39	83:39.28	4.79	2.4	9	12.2	282	0.23	2.2	1.0
565	85-11- 9	13:37:44.46	9:34.80	83:36.92	5.00	2.6	15	16.8	189	0.24	1.0	0.9
566	85-11- 9	18:46:12.20	9:25.98	84:50.99	11.30	2.2	7	40.8	268	0.18	1.8	14.8
567	85-11- 9	23:56: 0.40	9:32.20	84:48.45	17.14	2.6	15	37.2	199	0.25	0.9	1.2
568	85-11-10	3: 8:13.43	9:39.85	84: 0.57	73.28	2.7	11	29.4	95	0.26	1.7	2.5
569	85-11-10	3:38: 9.50	10: 5.93	84:49.77	55.96	2.8	18	28.4	121	0.21	0.8	1.6
570	85-11-10	7: 1:26.03	9:27.36	84:35.99	19.29	2.4	12	41.7	201	0.12	0.9	1.2
571	85-11-10	18:34:10.32	9:38.66	84:52.91	25.13	2.7	10	25.1	191	0.23	1.5	2.1
572	85-11-10	20:20:24.86	10:34.03	85:21.63	62.68	2.7	8	23.0	155	0.24	1.6	2.7
573	85-11-10	20:34:52.78	9:31.12	83:38.00	8.41	2.4	8	15.1	316	0.16	1.6	16.7
574	85-11-10	22:48:14.95	9:30.67	84:48.72	17.36	2.4	14	38.3	205	0.19	0.9	1.7
575	85-11-10	23: 7:25.33	9:32.61	84:48.58	18.91	2.4	8	36.7	198	0.11	0.9	1.8
576	85-11-11	13:41:45.82	9: 6.50	84: 3.77	21.13	2.5	13	33.7	297	0.26	1.8	3.0
577	85-11-11	20:32:29.40	9:12.74	84:41.43	35.72	3.0	12	64.8	249	0.26	1.5	2.3
578	85-11-11	20:55:49.53	10: 2.43	83:57.29	31.07	2.5	11	10.2	207	0.23	1.7	1.0
579	85-11-11	21:11:41.47	9:59.02	84:12.83	22.22	2.4	8	11.6	136	0.28	1.5	2.1
580	85-11-11	22:36:14.53	9:34.83	83:38.31	6.19	2.2	9	14.2	292	0.26	3.4	2.4
581	85-11-12	17:10:14.58	10:12.57	84:24.46	93.08	2.9	14	21.8	232	0.20	1.5	1.3
582	85-11-12	21:47:10.87	8:53.83	83:58.66	9.34	2.5	12	58.7	317	0.28	1.7	22.1
583	85-11-13	1:41: 5.95	9:47.09	85: 7.01	16.34	2.6	14	9.4	142	0.12	0.7	0.8
584	85-11-13	10:25:25.82	8:50.53	84:36.42	33.08	2.7	12	81.3	311	0.28	1.7	1.1
585	85-11-14	6: 2:14.69	9: 4.74	84: 8.44	19.91	2.3	11	36.0	297	0.24	1.7	1.1
586	85-11-14	6:58:32.49	9:11.63	83:44.06	30.86	2.4	9	40.3	303	0.17	2.0	2.1
587	85-11-14	8: 3:31.32	9:12.90	83:53.49	25.30	2.5	14	33.7	289	0.28	1.5	2.6
588	85-11-15	3:13:13.56	9:16.25	84: 3.87	39.57	2.8	14	16.5	278	0.27	1.2	1.4
589	85-11-15	5:54:44.43	9:49.71	83:59.23	20.16	2.2	13	18.5	109	0.28	1.0	2.0
590	85-11-15	21:55:20.02	9:37.97	83:43.37	4.73	2.3	12	9.9	236	0.22	2.3	2.1
591	85-11-16	22:55:11.28	9:31.39	83:39.78	5.31	2.5	11	11.8	283	0.26	1.6	0.7
592	85-11-18	0:34:10.13	9:28.95	83:37.80	5.02	2.5	6	17.0	327	0.18	5.8	2.6
593	85-11-18	2:58:14.92	10: 2.47	84:33.05	57.35	2.7	15	7.7	153	0.18	1.2	1.0
594	85-11-18	7:33:22.62	10: 3.19	85:41.16	31.95	2.6	5	19.5	263	0.01	3.1	0.9
595	85-11-18	16:24:48.29	9:32.89	83:37.97	7.80	2.4	11	14.6	285	0.16	1.2	0.5
596	85-11-19	21:27:37.20	9:32.58	84:47.58	19.51	2.9	18	38.3	196	0.24	0.8	0.9
597	85-11-19	0: 7:20.08	9: 6.99	84:21.80	3.78	2.4	11	37.9	290	0.31	1.7	1.4
598	85-11-19	9:30:31.49	9:32.02	83:40.59	4.72	2.5	11	10.1	280	0.22	1.4	0.6
599	85-11-19	10:16: 6.60	9:30.94	83:40.04	6.58	2.5	11	11.7	283	0.16	1.2	0.5
600	85-11-19	13: 3: 9.99	9:14.28	83:54.44	25.28	2.7	12	30.8	284	0.22	1.3	1.8

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SS	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
601	85-11-19	23:55:21.85	9:31.70	84:15.10	44.52	2.5	11	19.1	188	0.29	1.6	2.8
602	85-11-20	5:58:31.22	9:22.85	83:54.85	37.38	2.5	7	25.3	269	0.21	1.9	4.0
603	85-11-20	16:33:47.98	9:14.36	84:10.87	30.37	2.7	14	19.0	280	0.26	1.5	1.6
604	85-11-21	11:25:58.23	9:34.77	83:39.13	6.91	2.8	12	12.7	281	0.20	1.4	0.6
605	85-11-21	18:14:43.57	9:34.33	83:39.54	2.08	2.3	12	11.9	281	0.19	1.0	1.1
606	85-11-22	18:58:39.06	8:58.63	83:59.90	12.11	2.6	12	49.6	312	0.37	1.9	18.6
607	85-11-23	2:57:19.69	10: 4.68	84:12.86	14.20	2.5	14	8.3	111	0.25	0.9	1.6
608	85-11-23	8:44:15.86	9:28.63	83:36.48	8.40	2.5	13	19.4	182	0.25	1.5	21.2
609	85-11-23	10:14:35.26	10: 0.37	84:40.77	16.64	2.4	11	9.3	198	0.25	2.4	1.2
610	85-11-23	12:55:15.50	9:31.70	83:36.59	3.74	2.3	9	17.4	289	0.20	2.0	1.6
611	85-11-23	13: 3:20.17	9:23.59	84: 7.22	35.39	2.9	16	1.8	179	0.20	0.8	0.9
612	85-11-23	16:37:56.67	9:24.81	84: 6.72	35.98	2.6	12	2.5	176	0.18	0.7	1.2
613	85-11-24	20:48:24.42	9:56.01	84: 7.56	76.53	2.4	10	10.1	109	0.14	1.2	1.2
614	85-11-25	0:19:19.45	8:48.83	83:58.50	23.43	3.0	13	67.8	318	0.21	1.6	10.9
615	85-11-25	1:19:12.56	9:29.51	84: 2.05	46.49	2.7	14	14.6	152	0.25	1.1	2.1
616	85-11-25	8:36: 8.35	9:38.51	83:41.19	0.02	2.4	12	13.0	255	0.23	1.8	1.0
617	85-11-25	10:20:15.82	9:27.20	84:41.22	32.67	2.5	12	47.0	207	0.17	0.9	2.8
618	85-11-25	13:10:31.82	9:31.13	83:36.69	14.71	2.7	14	17.4	185	0.26	1.1	1.5
619	85-11-25	13:46:30.15	9:34.49	84:54.37	18.78	2.5	12	25.8	202	0.18	1.3	1.1
620	85-11-25	18:42:12.69	9:13.85	83:53.81	24.27	2.5	13	32.2	286	0.20	1.3	1.8
621	85-11-25	19: 6: 8.65	9:30.67	84:23.07	8.67	2.0	10	30.1	224	0.18	1.3	16.1
622	85-11-25	23: 0: 3.62	9:41.68	85: 3.49	16.18	2.4	10	5.0	172	0.09	0.8	0.5
623	85-11-26	1:35:21.18	9:40.96	85: 2.91	16.94	2.7	15	6.3	182	0.15	0.9	0.6
624	85-11-26	6:50:10.51	9:40.38	85: 2.82	13.34	2.0	9	6.9	202	0.15	1.3	0.8
625	85-11-26	13:32:23.55	8:56.38	84: 9.03	9.66	2.7	14	51.5	278	0.22	1.3	16.7
626	85-11-26	13:41: 8.64	9: 0.78	84: 6.72	15.81	2.5	9	43.5	302	0.28	2.5	2.0
627	85-11-26	23:21:14.04	10:28.24	83: 9.17	47.31	3.0	11	98.7	320	0.36	2.6	24.2
628	85-11-26	23:42:39.45	9:35.58	83:36.38	3.10	2.3	12	18.0	287	0.26	1.4	1.0
629	85-11-27	3:45:17.70	9:48.29	84:20.50	56.59	2.2	10	9.4	108	0.18	1.3	2.5
630	85-11-27	14: 1:32.14	9:14.74	84: 3.66	37.65	2.6	13	19.2	282	0.21	1.0	1.2
631	85-11-27	17:28:10.83	9:31.58	83:38.20	6.47	2.5	13	14.5	182	0.23	1.4	0.8
632	85-11-27	17:33:14.28	9:32.89	83:36.79	8.36	2.5	13	16.8	187	0.21	1.1	18.6
633	85-11-27	22:27:19.58	9: 9.66	83:52.42	25.79	2.6	14	39.2	299	0.16	1.1	2.1
634	85-11-28	3:11:44.82	9:45.82	84:12.88	59.99	2.3	11	23.4	111	0.17	1.2	2.6
635	85-11-28	5:56:48.52	9:20.92	83:15.33	17.55	2.9	12	60.5	319	0.20	2.0	1.3
636	85-11-28	8:18:28.45	9:25.11	83:42.54	35.95	2.4	11	16.5	286	0.25	2.0	1.1
637	85-11-28	8:27:34.34	9:42.52	84:55.41	23.65	2.3	12	19.7	157	0.21	1.3	1.9
638	85-11-28	10:54: 8.26	9:24.33	83:42.49	28.23	2.3	12	17.8	288	0.22	1.6	1.0
639	85-11-28	13:56:29.52	9:32.10	83:35.40	8.32	2.4	11	19.4	291	0.21	1.4	20.4
640	85-11-30	5:13:59.83	9: 8.75	84: 2.61	16.01	2.4	13	30.3	295	0.22	1.3	1.6
641	85-11-30	6:34: 3.87	9:33.89	83:35.56	8.27	2.6	16	19.1	191	0.22	0.8	22.0
642	85-11-30	6:37:23.27	9:32.28	83:35.83	5.51	2.1	9	18.6	290	0.14	1.8	1.4
643	85-12- 1	22: 6:40.99	9:47.84	84: 6.07	8.17	2.8	16	25.2	80	0.27	0.6	1.9
644	85-12- 2	2:53:38.28	9:28.13	84:41.01	25.02	2.9	15	45.5	204	0.19	0.9	3.0
645	85-12- 2	3:17:16.79	9:50.85	83:38.08	4.78	2.6	12	31.8	266	0.17	1.3	0.8
646	85-12- 2	7:36: 1.06	9:52.75	83:34.44	14.84	2.6	10	36.8	285	0.18	1.2	4.5
647	85-12- 2	11:37:56.67	9:30.00	83:38.24	6.35	2.5	8	15.4	287	0.16	1.6	0.7
648	85-12- 2	16:15:21.45	9:32.35	83:44.62	81.71	2.7	11	3.0	270	0.18	2.1	1.6
649	85-12- 2	17: 3:11.59	9:40.76	85: 2.78	15.88	2.7	13	6.7	185	0.20	1.0	1.1
650	85-12- 3	9:22:43.13	8:50.30	83: 1.80	12.10	3.0	8	44.1	223	0.23	4.1	3.5
651	85-12- 3	12:22:56.26	9:28.30	84:32.67	28.35	2.5	13	37.7	194	0.18	0.8	2.0
652	85-12- 3	13:40:28.99	10:18.09	84:33.30	74.64	2.9	18	35.2	212	0.25	1.7	1.4
653	85-12- 3	19: 5:37.11	10:10.72	84:14.72	92.25	2.9	16	4.3	211	0.20	1.5	1.3
654	85-12- 3	23:10:20.62	9:39.48	84:54.53	24.11	2.5	10	21.9	188	0.19	1.3	1.7
655	85-12- 4	7:37:53.81	9:23.31	84:47.12	8.44	2.4	14	49.3	227	0.26	1.2	24.8
656	85-12- 4	12:29:10.45	9:29.89	84:50.66	16.86	2.5	12	36.3	212	0.20	1.1	1.4
657	85-12- 5	4:32:38.40	9:40.27	84:56.00	22.87	2.7	13	19.0	186	0.22	1.7	2.9
658	85-12- 5	6:28:49.76	9:41.15	84:55.47	20.74	2.9	18	19.7	166	0.18	0.8	0.7
659	85-12- 5	6:29:59.52	9:39.19	84:55.58	22.95	2.5	8	20.1	212	0.05	0.9	1.1
660	85-12- 5	7:20: 0.04	9:41.17	84:55.12	21.49	2.5	13	20.3	179	0.20	1.1	2.0

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
661	85-12- 5	7:47:54.42	9:40.17	84:55.27	21.50	2.7	14	20.3	185	0.23	1.2	2.0
662	85-12- 5	10:44:52.53	9:39.41	84:55.58	21.26	2.9	18	20.0	178	0.22	0.9	1.8
663	85-12- 5	12:13:41.73	9: 0.94	83:58.71	21.36	2.9	12	46.3	307	0.25	1.6	10.3
664	85-12- 5	17:13:15.32	9:38.17	84:54.60	20.15	2.8	13	22.4	183	0.26	1.6	1.0
665	85-12- 7	19:41:43.62	9:38.95	83:33.42	4.10	2.5	10	25.1	292	0.24	1.8	1.8
666	85-12- 8	0: 2:26.27	9:39.09	84:55.08	24.29	2.9	15	21.1	192	0.22	1.1	1.7
667	85-12-11	2:47:38.17	9:33.75	83:37.86	7.31	2.5	9	14.8	299	0.26	3.4	2.6
668	85-12-11	16:32: 7.86	9:35.87	83:36.32	3.60	2.7	14	18.2	287	0.25	1.2	0.8
669	85-12-12	8: 9:10.33	9:37.36	83:41.77	6.43	2.5	11	10.7	255	0.21	1.7	1.3
670	85-12-13	4:15:53.60	9:38.56	83:39.22	0.02	2.3	10	15.7	268	0.15	1.4	1.0
671	85-12-13	4:19:34.28	9:36.73	83:38.13	5.19	2.6	11	15.7	282	0.21	1.6	1.0
672	85-12-17	8:11:37.96	9:46.79	84: 7.70	9.14	2.1	13	27.1	91	0.29	0.7	20.9
673	85-12-17	17:30: 5.14	9:54.40	84:18.11	17.24	2.4	15	18.9	92	0.16	0.5	1.4
674	85-12-17	22: 3:21.40	9: 4.43	83:48.49	18.82	2.8	9	51.0	312	0.16	1.4	1.1
675	85-12-18	10:38:23.64	9:45.86	83:45.56	8.68	2.3	7	23.3	215	0.14	1.9	14.0
676	85-12-19	2:54:35.47	9:28.43	84:37.51	18.52	2.5	12	41.4	198	0.18	0.9	1.3
677	85-12-19	2:54:35.56	9:27.09	84:37.27	9.27	2.7	12	43.2	203	0.17	0.8	14.7
678	85-12-19	17:19: 4.65	8:51.67	84: 4.03	29.05	2.7	7	60.7	317	0.22	2.1	6.2
679	85-12-20	2: 3:56.29	9:34.59	84:49.79	16.52	2.5	10	33.0	191	0.20	1.3	1.6
680	85-12-20	21: 3:29.11	9:30.55	83:37.36	5.84	2.4	12	16.5	289	0.26	1.8	0.9
681	85-12-21	5:42:57.62	9:30.60	83:38.62	6.35	2.3	12	14.3	286	0.23	1.7	0.7
682	85-12-23	8:28: 1.70	9:41.85	84:55.31	19.79	2.5	13	19.9	175	0.14	1.4	0.7
683	85-12-23	10:16:50.20	9:50.64	85:22.02	23.97	2.8	14	33.0	213	0.20	0.9	1.4
684	85-12-23	11:26: 7.13	9:23.27	84:11.52	37.07	2.4	9	50.4	263	0.16	1.3	2.7
685	85-12-23	23:23:41.44	9: 3.06	83:50.30	38.33	2.9	14	50.7	290	0.26	1.7	0.9
686	85-12-23	23:42:15.42	9:40.44	84:55.77	19.53	2.5	16	19.3	171	0.15	0.9	0.6
687	85-12-24	0:10:45.74	9:36.52	83:39.13	2.58	2.1	8	13.8	278	0.17	1.8	1.1
688	85-12-24	14: 1:25.26	9:52.21	84:17.37	13.02	2.5	18	17.5	79	0.24	0.5	1.6
689	85-12-24	17:37:40.55	9:31.52	83:40.38	4.45	2.3	6	10.7	295	0.06	1.9	0.7
690	85-12-25	2:28:54.92	9:18.49	84:20.92	37.06	2.3	13	26.0	232	0.27	1.3	2.3
691	85-12-25	5: 7:10.23	9:34.09	83:36.55	10.83	2.7	14	17.3	288	0.17	1.1	2.5
692	85-12-25	10: 3:48.10	9:19.78	83:30.70	8.26	2.6	8	37.5	327	0.19	3.0	20.0
693	85-12-27	1:32:20.51	9:34.38	83:38.47	4.80	2.0	8	13.8	283	0.17	1.5	1.4
694	85-12-27	10:47:54.14	9:37.73	83:39.29	0.09	2.2	8	14.7	272	0.18	2.2	1.2
695	85-12-27	14:47:36.74	9:31.05	84:25.58	31.74	2.6	15	30.3	175	0.18	0.8	1.5
696	85-12-28	16:56:51.98	9:25.33	84:36.75	13.00	2.5	14	45.7	208	0.21	1.2	4.1
697	85-12-28	21: 3:39.91	9:36.85	84:12.51	41.53	2.7	14	24.9	116	0.18	0.8	0.9
698	85-12-29	5:42: 9.86	9:25.29	84:51.52	33.93	2.9	15	41.1	227	0.22	1.2	2.5
699	85-12-29	8:28:52.71	9:55.97	84: 4.20	79.84	2.4	9	19.3	111	0.22	1.9	2.2
700	85-12-30	1: 5:38.31	9:44.55	84: 1.52	16.37	2.7	15	28.8	97	0.17	0.4	1.4
701	85-12-30	16:48:44.82	9:50.69	84: 6.99	69.98	2.9	13	19.9	81	0.15	1.0	1.3

III. SISMICIDAD DE COSTA RICA ENE-DIC 1985.
SEISMICITY OF COSTA RICA JAN-DEC 1985.

D. LISTADO DE EVENTOS LOCALES, $3.0 \leq M < 4.0$.
LOCAL EVENT LISTING, $3.0 \leq M < 4.0$.

NUM	FECHA AA-MM-DD	Y.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
1	85- 1- 2	20:44:21.27	10: 2.48	84:19.13	74.30	3.2	16	16.6	126	0.22	1.1	1.4
2	85- 1- 3	3:57:34.66	10: 1.18	85:13.22	42.31	3.0	15	37.7	148	0.31	1.7	0.7
3	85- 1- 6	0:28:48.27	8:54.15	84:11.55	8.39	3.4	16	56.0	280	0.26	1.3	18.2
4	85- 1- 6	3: 4:45.98	8:53.67	84: 6.09	21.45	3.1	11	56.7	310	0.31	2.2	24.4
5	85- 1- 6	12:55:12.42	8:58.78	84: 6.18	19.66	3.1	10	47.2	305	0.16	1.3	1.1
6	85- 1- 6	15:40:20.78	8:51.36	84:10.76	21.16	3.5	14	61.0	283	0.23	1.4	13.2
7	85- 1-11	6:16:30.40	8:51.59	84: 6.56	16.36	3.4	13	60.5	285	0.28	1.6	2.2
8	85- 1-11	12:20:16.69	9:46.67	83:56.51	75.21	3.0	12	23.4	122	0.22	1.5	1.8
9	85- 1-11	14:48:31.60	9:36.34	83: 7.13	23.68	3.7	13	19.8	222	0.14	1.3	1.5
10	85- 1-11	23:17:38.06	8:59.61	84: 4.88	15.63	3.4	16	45.8	277	0.27	1.1	1.4
11	85- 1-12	2: 6:18.04	8:57.06	84: 4.58	23.60	3.6	12	50.7	281	0.24	1.7	3.7
12	85- 1-17	13:11: 0.29	9:23.06	84:29.27	41.63	3.7	7	68.2	252	0.25	2.6	1.7
13	85- 1-18	17:52:17.39	10:29.14	85: 3.90	76.25	3.1	9	75.5	288	0.16	3.2	4.5
14	85- 1-20	8:16:51.07	10:55.13	83:31.13	46.44	3.0	12	111.6	322	0.19	1.7	17.1
15	85- 1-20	23:39: 4.52	10:24.78	85: 0.50	87.35	3.3	17	55.5	151	0.18	1.0	1.9
16	85- 1-24	14:49: 8.79	9:35.18	83:36.98	11.13	3.5	11	16.8	283	0.26	1.4	3.8
17	85- 2- 3	7:46:13.72	9:26.54	84:32.28	25.57	3.1	13	40.5	200	0.22	1.2	2.6
18	85- 2- 3	9:38:54.95	10:21.90	83:17.34	21.52	3.9	9	76.6	289	0.12	2.0	3.4
19	85- 2- 5	20:48:28.10	8:44.60	83:38.18	32.94	3.2	13	91.4	312	0.24	1.8	0.9
20	85- 2- 5	22:45:28.92	8:56.71	84: 0.85	18.02	3.0	12	52.5	324	0.17	1.5	1.0
21	85- 2- 6	5:26:19.54	8:40.29	84:25.54	33.34	3.5	9	87.5	317	0.28	3.8	1.5
22	85- 2-12	19:53: 3.88	9:37.04	83:46.38	6.82	3.3	13	7.0	187	0.19	2.0	1.8
23	85- 2-16	4:24:38.84	9:33.78	83:55.39	57.55	3.4	14	17.3	141	0.15	0.9	1.4
24	85- 2-17	2:17:56.58	9:31.20	84:51.28	25.86	3.2	12	33.9	208	0.20	1.3	4.1
25	85- 2-17	16:45:17.22	9:32.50	84:49.96	17.45	3.0	15	34.5	200	0.23	0.9	1.6
26	85- 2-19	4:30:26.20	9:29.80	84:51.16	25.05	3.4	14	35.7	213	0.19	1.0	4.6
27	85- 2-19	4:50:38.76	9:31.35	84:51.70	31.62	3.3	13	33.1	208	0.21	1.2	3.9
28	85- 2-19	12:17:27.39	8:30.93	82:40.73	26.97	3.8	14	166.3	340	0.25	12.9	19.8
29	85- 2-20	17:37:57.67	9:12.69	83:51.02	61.49	3.2	12	37.6	279	0.21	1.7	1.4
30	85- 2-24	11:16:46.05	8:42.88	84:22.28	38.75	3.2	12	81.0	316	0.20	2.1	0.8
31	85- 2-24	23:50:51.03	9:28.88	83:57.26	40.48	3.0	14	21.4	179	0.20	0.8	1.0
32	85- 3- 4	4:34:35.56	8:50.59	83:56.47	29.85	3.5	13	61.5	294	0.39	2.2	6.0
33	85- 3- 4	9:29:33.17	9:26.76	84:20.26	34.38	3.0	15	23.0	188	0.36	1.3	2.5
34	85- 3- 5	6:28:30.90	9:32.94	84:45.46	23.42	3.1	16	41.5	192	0.22	0.9	3.9
35	85- 3-10	10:18: 1.52	9:38.80	84:51.28	18.01	3.4	12	27.9	175	0.23	1.1	1.9
36	85- 3-10	15:55: 4.85	8:51.69	84: 1.97	21.12	3.2	11	62.5	221	0.27	1.8	25.9
37	85- 3-12	5:48:23.84	9:20.62	84: 4.82	40.95	3.4	17	8.8	158	0.30	1.0	0.8
38	85- 3-13	1:50:49.16	8:33.51	82:51.68	17.66	3.0	7	26.4	277	0.16	4.8	6.4
39	85- 3-14	14:56:18.75	9:18.60	84: 9.82	26.12	3.4	15	10.9	165	0.24	1.1	1.8
40	85- 3-15	21:27:11.67	9:21.09	84:51.63	18.48	3.0	16	40.4	346	0.23	1.0	1.3
41	85- 3-19	21:40:40.78	10:14.12	85: 0.73	57.24	3.1	18	53.2	128	0.22	0.9	2.0
42	85- 3-23	4:14:47.13	9:37.26	82:53.66	20.71	3.2	12	95.8	258	0.24	1.7	3.8
43	85- 3-24	6:48:23.82	9:20.06	84:26.78	25.01	3.6	15	35.3	223	0.17	0.9	2.5
44	85- 3-25	2:28:23.64	9:26.80	84:14.00	43.82	3.2	16	12.1	174	0.24	0.9	1.5
45	85- 3-25	13:27: 1.22	8:40.03	83:42.96	31.99	3.1	7	75.2	222	0.28	3.2	2.1
46	85- 3-26	5: 2: 2.26	8:19.14	83:24.36	28.35	3.8	13	39.5	256	0.18	1.2	1.2
47	85- 3-26	8:19:55.14	8:17.14	83:25.53	25.16	3.5	9	42.8	262	0.13	1.3	1.2
48	85- 4- 5	3: 3:49.78	10:25.51	84:42.74	100.78	3.2	11	50.3	225	0.21	2.8	1.9
49	85- 4- 6	22:16: 3.73	8:41.33	83:42.45	20.30	3.0	9	92.2	329	0.28	9.2	24.3
50	85- 4- 7	16:40:14.41	10:25.33	85:38.90	44.04	3.1	6	31.0	240	0.18	3.9	2.0
51	85- 4- 8	1: 2:37.91	9:34.19	84: 4.26	34.90	3.2	13	19.7	108	0.27	1.0	2.1
52	85- 4- 9	0:48:31.62	9:31.40	82:50.32	23.38	3.1	11	101.8	330	0.18	1.7	2.6
53	85- 4-10	3:44:25.78	9:57.28	86:11.02	38.48	3.5	5	73.5	301	0.09	2.3	1.4
54	85- 4-11	22:30: 9.44	9:23.53	83:46.77	27.86	3.5	13	18.2	268	0.24	1.1	2.3
55	85- 4-12	11:34: 7.42	9:27.91	83:43.54	19.40	3.0	14	10.9	277	0.41	2.1	1.1
56	85- 4-14	9:13: 6.62	9:10.59	85:12.17	17.12	3.6	13	59.4	264	0.25	1.5	1.6
57	85- 5- 4	14:16:50.14	10:27.99	85:44.47	37.39	3.9	11	40.0	263	0.21	2.2	0.8
58	85- 5-13	8:14:21.77	9:27.79	86:16.22	24.24	3.7	9	111.1	315	0.08	1.7	0.8
59	85- 5-13	12:30:38.79	9:37.97	83:43.89	12.83	3.6	12	40.7	294	0.31	1.6	6.8
60	85- 5-16	15:48:27.34	10: 4.18	84:39.61	73.43	3.5	18	11.4	123	0.24	1.1	1.6

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SS	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	Nº	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
61	85- 5-24	8:19:14.90	8:44.03	82:50.18	55.44	3.5	12	41.3	258	0.20	2.9	2.9
62	85- 5-24	14:53:2.28	9: 8.73	84: 1.68	36.66	3.2	15	30.9	201	0.25	1.1	1.5
63	85- 5-24	19:56:38.03	8:19.34	82:52.70	49.33	3.5	4	25.1	338	0.01	5.8	1.3
64	85- 5-24	20:36:1.08	9:37.48	82:18.92	17.97	3.6	12	155.3	287	0.24	3.2	3.5
65	85- 5-24	22:55:36.79	10: 7.45	85:15.74	31.01	3.1	16	31.5	119	0.27	0.8	1.8
66	85- 6- 1	22:32:45.91	10:22.04	84:59.92	51.34	3.2	13	59.9	146	0.35	1.3	4.6
67	85- 6- 3	0:44:22.01	10:11.55	84: 4.31	102.59	3.4	13	16.5	219	0.31	3.2	2.3
68	85- 6- 5	8:34:7.82	9:35.57	83:34.66	7.64	3.0	14	21.1	192	0.31	1.5	2.6
69	85- 6- 5	23:29:32.45	10:14.87	85:23.38	41.49	3.5	12	19.5	121	0.38	3.2	2.1
70	85- 6- 9	6:36:37.33	9:32.73	84:10.89	37.36	3.1	13	16.7	119	0.36	1.2	2.4
71	85- 6-10	6:27:19.51	9:29.70	84:54.32	27.17	3.4	12	31.6	321	0.15	1.3	2.9
72	85- 6-10	21:36:19.97	10: 7.72	84:45.94	54.06	3.2	15	24.3	129	0.33	1.3	2.8
73	85- 6-13	13:41:5.33	10: 3.56	84: 6.49	83.44	3.3	17	4.1	195	0.22	1.7	1.3
74	85- 6-14	6: 4:40.63	9:14.78	84: 0.58	33.21	3.4	13	22.0	286	0.26	1.3	1.6
75	85- 6-15	6:17:22.76	10: 9.25	84: 8.91	89.75	3.2	17	7.5	184	0.28	2.0	1.6
76	85- 6-21	12:22:42.24	9:34.27	83:44.83	7.62	3.2	13	2.7	245	0.26	2.2	1.2
77	85- 6-21	8: 2: 3.14	8: 6.50	82:59.45	31.61	3.8	7	38.3	332	0.13	3.9	1.0
78	85- 6-24	10: 7: 0.47	8:53.09	84: 2.72	30.77	3.2	10	80.6	224	0.18	2.6	10.2
79	85- 7- 2	2:55:25.65	9: 4.63	84: 5.70	19.32	3.2	12	36.5	269	0.29	1.7	1.8
80	85- 7- 3	12:41: 8.33	9:49.22	83:59.08	78.71	3.7	12	19.1	110	0.24	1.7	2.1
81	85- 7- 3	22:49: 2.55	8:56.72	84: 1.27	29.65	3.4	11	52.4	310	0.18	1.6	5.0
82	85- 7- 4	11:35:38.94	9: 7.32	84: 7.47	37.88	3.1	8	31.3	297	0.31	3.3	2.1
83	85- 7- 5	13:16:33.89	9: 9.01	84: 5.50	18.52	3.2	16	38.5	174	0.30	1.2	1.2
84	85- 7- 6	16:55:29.44	10:19.13	85:32.68	71.17	3.5	9	17.5	276	0.30	2.9	2.4
85	85- 7- 7	1:22:29.36	8:37.25	84:26.78	21.91	3.9	12	93.6	232	0.26	1.5	25.2
86	85- 7- 7	10:57:39.77	9:34.89	83:36.68	8.92	3.2	8	17.2	297	0.25	2.2	17.6
87	85- 7- 8	5:13:56.70	9:44.30	84: 1.54	67.75	3.2	14	29.2	97	0.18	1.1	1.6
88	85- 7- 9	17:42:34.74	8:22.21	82:34.87	47.45	3.7	6	54.5	318	0.07	6.8	9.1
89	85- 7-10	8: 9:17.58	9:30.57	84:18.28	46.53	3.0	14	22.3	207	0.26	1.1	1.9
90	85- 7-10	11:33:44.64	8:57.89	84: 8.71	17.31	3.1	9	48.8	305	0.17	2.1	1.7
91	85- 7-10	11:41:57.41	8:57.94	84: 9.60	22.86	3.0	8	48.8	305	0.26	4.2	10.8
92	85- 7-11	11:10:22.69	9:36.27	84:55.28	26.22	3.0	11	55.5	221	0.29	1.9	6.0
93	85- 7-11	12: 2:46.50	9:36.57	84:55.05	21.32	3.0	12	54.9	220	0.26	1.6	22.5
94	85- 7-13	21:17:52.80	9:12.39	83:53.32	45.35	3.0	6	41.0	323	0.08	4.8	3.9
95	85- 7-13	21:25:15.24	9:15.06	83:53.09	48.18	3.0	4	36.3	320	0.00	5.7	3.7
96	85- 7-15	5: 1: 3.35	8:33.35	83:23.33	21.68	3.2	11	118.6	340	0.25	6.2	1.6
97	85- 7-18	1:35:49.88	8:52.45	84: 3.04	47.53	3.5	9	108.1	311	0.32	3.6	26.4
98	85- 7-18	15:26:15.33	10:14.30	85:35.13	25.30	3.7	11	8.5	203	0.14	1.1	1.5
99	85- 7-19	19:27:38.43	9:14.55	84:53.08	29.66	3.1	13	56.4	248	0.33	1.7	4.7
100	85- 7-20	19:59:25.46	9:49.07	83:59.97	75.22	3.1	12	26.2	167	0.19	1.1	1.5
101	85- 7-21	17:36:26.54	9:32.29	84: 7.91	43.17	3.0	12	15.0	130	0.24	1.2	0.6
102	85- 7-22	4:21:27.25	9:23.46	83:38.42	8.34	3.1	9	22.9	185	0.22	4.1	22.3
103	85- 7-22	8:49: 0.77	9:31.06	84:51.37	24.79	3.0	7	56.0	316	0.09	1.5	5.2
104	85- 7-23	5:31:42.36	8:46.88	83: 5.32	24.22	3.2	8	37.6	216	0.14	4.2	1.8
105	85- 7-23	16: 7:49.00	9:40.45	84:57.39	26.08	3.1	16	16.4	186	0.22	0.9	1.4
106	85- 7-25	20:12:32.48	10:42.65	85:22.73	83.61	3.3	11	7.3	180	0.24	1.6	1.7
107	85- 7-26	9:28:29.56	10:52.80	83:47.46	37.57	3.6	12	93.3	271	0.24	1.6	0.7
108	85- 7-27	11:17:53.34	10:13.61	84: 9.52	104.11	3.3	9	10.4	269	0.29	3.9	2.3
109	85- 7-28	0:53:53.48	9:56.11	84: 3.34	78.17	3.1	13	11.9	111	0.21	1.6	1.1
110	85- 7-28	8:29:34.08	8:48.65	84:35.94	31.24	3.9	15	110.5	228	0.37	1.6	2.0
111	85- 7-28	8:46:35.36	8:49.34	84:32.90	32.43	3.7	14	108.3	225	0.16	1.1	0.8
112	85- 7-30	20:27:19.81	8:24.54	83:32.03	25.10	3.7	15	51.0	225	0.29	1.5	1.2
113	85- 7-31	2: 1:45.18	9:59.44	84:18.52	75.90	3.7	18	20.6	81	0.21	0.9	0.9
114	85- 7-31	7:53:30.91	9:26.11	84:33.77	14.30	3.5	16	42.2	203	0.31	1.1	2.8
115	85- 8- 1	16:15:13.61	10: 5.70	84: 3.41	94.08	3.7	19	10.3	190	0.23	1.5	1.3
116	85- 8- 2	17:28:11.35	10: 9.18	84:16.41	96.00	3.4	15	6.2	149	0.17	0.9	1.0
117	85- 8- 3	5:40:22.76	9:21.63	83:34.52	15.35	3.2	14	30.1	178	0.22	1.3	1.0
118	85- 8- 3	11: 5:18.07	8:40.35	83: 4.20	28.67	3.8	12	25.5	213	0.14	1.6	0.8
119	85- 8- 3	22:48: 7.10	10:47.42	85:56.41	26.09	3.2	5	63.5	303	0.11	2.1	3.0
120	85- 8- 4	8: 8:24.35	9:38.55	84:53.27	25.48	3.4	14	24.5	192	0.22	1.3	2.7

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SSG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
121	85- 8- 5	1:28:49.93	9:18.83	83:57.51	48.32	3.7	17	21.5	155	0.23	1.0	2.0
122	85- 8- 5	1:47:27.21	10: 4.77	84:12.45	84.68	3.5	18	8.2	116	0.28	1.8	1.5
123	85- 8- 5	11:14: 8.68	8:32.37	82:47.79	11.47	3.3	6	32.0	288	0.23	7.5	15.0
124	85- 8- 6	21:15: 1.75	8:54.78	84:15.10	16.36	3.8	14	56.0	203	0.25	1.3	1.6
125	85- 8- 6	23:26:38.48	8:43.90	83:35.58	13.45	3.8	13	65.8	185	0.22	2.2	1.9
126	85- 8- 6	23:37:14.31	8:36.57	83:41.16	23.52	3.3	14	70.1	203	0.30	1.9	3.3
127	85- 8- 7	1:57: 5.73	8:43.70	83:35.83	20.64	3.8	17	66.0	186	0.27	1.8	4.3
128	85- 8- 7	2: 8:54.05	8:42.86	83:35.47	21.77	3.2	15	64.7	206	0.26	1.9	24.2
129	85- 8- 7	2:31:25.86	9:55.11	84: 8.13	76.94	3.0	17	11.9	68	0.21	1.3	1.1
130	85- 8- 7	7: 5: 8.94	8:44.56	83:32.82	25.33	3.2	11	62.0	199	0.32	3.8	2.2
131	85- 8-10	7:19: 9.29	10:19.96	83: 8.99	32.44	3.6	10	111.2	280	0.26	2.6	1.4
132	85- 8-12	1:30:36.77	10:18.77	84: 6.02	117.11	3.7	14	22.0	225	0.28	2.7	2.6
133	85- 8-13	4:14:51.43	8:47.86	83: 6.88	20.10	3.4	7	39.7	211	0.16	4.1	6.7
134	85- 8-14	23:57:26.28	10: 4.29	83:55.81	100.09	3.2	12	21.1	236	0.14	1.8	1.3
135	85- 8-15	21: 1:21.36	9:33.48	83:37.79	17.42	3.7	17	14.9	197	0.19	0.8	0.8
136	85- 8-19	19:44: 7.91	9:33.96	83:45.76	19.20	3.5	16	1.3	185	0.18	0.6	0.6
137	85- 8-27	14:27:17.82	10:21.96	86:15.93	25.53	3.3	4	81.8	305	0.15	3.1	15.4
138	85- 8-27	22: 6:29.52	9:22.64	84:57.52	26.70	3.5	15	39.4	236	0.23	1.4	4.4
139	85- 8-27	23:22:11.12	9:33.95	84:15.62	36.89	3.0	15	22.9	177	0.28	1.0	1.6
140	85- 8-28	2:51:11.28	9:42.18	83: 3.39	44.83	3.2	6	96.8	349	0.19	13.0	19.6
141	85- 8-29	4:16:53.40	9:30.07	83:42.77	8.36	3.1	10	55.8	314	0.19	1.4	20.4
142	85- 8-29	14:50:11.84	9:35.23	83:35.74	11.08	3.1	13	19.0	288	0.23	1.6	3.7
143	85- 8-30	18:36:28.56	11:17.73	85:46.39	126.53	3.7	7	73.6	330	0.11	3.3	2.6
144	85- 8-31	20:22:16.76	8: 2.87	82:51.85	28.01	3.8	5	49.5	345	0.11	11.6	0.8
145	85- 9- 1	6:26: 2.12	8:26.13	82:46.09	21.58	3.6	7	33.3	308	0.10	1.1	1.3
146	85- 9- 1	8:49:21.17	9:17.27	83:51.49	41.92	3.0	12	75.8	292	0.17	1.4	0.7
147	85- 9- 4	16:33:36.98	10:47.00	85: 7.68	33.64	3.4	14	25.2	215	0.31	1.2	2.1
148	85- 9- 5	0:51:27.19	11:26.90	86:41.15	61.23	3.8	8	163.0	338	0.18	2.7	18.6
149	85- 9- 5	23:34:14.81	9:28.46	83:35.31	12.46	3.6	14	21.5	184	0.20	0.8	1.9
150	85- 9- 7	0:44:48.91	11: 2.22	85:44.88	94.12	3.5	8	51.7	317	0.08	2.0	1.1
151	85- 9- 7	17: 0: 1.31	11:25.45	85:38.01	159.70	3.9	8	78.3	328	0.14	3.9	1.2
152	85- 9- 8	1: 1:18.93	9:32.49	82:33.50	32.88	3.4	8	154.4	347	0.17	10.1	15.7
153	85- 9- 9	11:44:10.36	9:46.50	84:31.32	43.40	3.6	17	10.6	131	0.20	0.9	0.8
154	85- 9-11	15:11: 1.65	9:32.39	84:49.47	25.54	3.6	16	35.5	212	0.13	1.0	1.8
155	85- 9-11	15:47:48.51	9:33.69	85:53.84	42.73	3.1	12	77.1	302	0.20	10.0	13.7
156	85- 9-11	21: 5:17.44	8: 6.88	85:46.58	39.05	3.8	18	191.4	312	0.20	7.3	11.2
157	85- 9-13	21: 9:55.54	9:47.59	84:15.45	59.87	3.2	17	18.5	148	0.16	1.0	0.8
158	85- 9-14	20:15:44.91	9:30.01	84:33.24	15.42	3.2	19	35.1	166	0.23	0.8	1.8
159	85- 9-15	23:43:36.36	9:36.18	84:55.88	25.33	3.8	11	59.2	308	0.14	1.2	5.4
160	85- 9-16	0:58:13.36	10:21.58	85:45.05	29.46	3.6	13	31.3	268	0.20	1.4	0.8
161	85- 9-16	10: 2:50.12	8:58.53	83:38.93	35.13	3.5	14	65.7	180	0.19	1.5	1.2
162	85- 9-16	22:10:40.96	8:39.08	83: 0.60	32.77	3.6	10	24.1	230	0.14	3.4	0.9
163	85- 9-17	1:13:15.50	10: 7.02	84:15.40	87.28	3.4	16	5.8	105	0.13	1.3	1.0
164	85- 9-17	8:34:43.15	10:27.19	83: 5.98	45.72	3.3	11	102.6	322	0.32	2.7	26.3
165	85- 9-18	11:34:49.00	9:41.64	84:44.83	31.32	3.1	14	36.6	216	0.21	0.9	1.8
166	85- 9-18	18:10:14.30	10:15.99	84:29.67	91.37	3.2	15	32.9	171	0.16	1.5	1.1
167	85- 9-20	10:53: 1.93	9:34.87	84:56.97	19.98	3.1	14	59.5	251	0.31	1.7	1.4
168	85- 9-22	1:14:48.73	10:21.24	83:12.27	40.22	3.5	12	87.1	316	0.21	1.6	0.9
169	85- 9-23	11:47:47.70	8:24.27	82:43.66	22.19	3.3	6	38.0	313	0.07	2.1	4.1
170	85- 9-23	22:11:14.75	10:38.23	86: 2.78	9.70	3.2	10	76.0	304	0.10	0.8	2.2
171	85- 9-25	9:58:29.92	10:17.44	84: 8.69	119.47	3.5	15	17.3	237	0.15	1.8	1.0
172	85- 9-25	12:22:30.19	9: 9.41	84: 4.37	18.39	3.1	15	28.1	204	0.14	0.6	0.7
173	85- 9-25	15:25:12.30	8:59.91	84: 7.54	9.38	3.9	13	45.0	217	0.28	1.9	21.1
174	85- 9-25	15:29:24.01	9: 3.20	84: 4.98	8.71	3.2	15	39.3	211	0.32	1.4	26.8
175	85- 9-25	15:55:11.34	9: 4.31	84: 6.82	12.91	3.3	16	36.9	187	0.26	1.3	4.7
176	85- 9-25	17: 0: 3.91	10: 0.67	84:26.37	66.85	3.0	11	24.7	241	0.23	1.7	1.7
177	85- 9-25	17:17:10.75	9: 4.75	84: 5.00	22.69	3.1	14	36.5	213	0.31	1.6	3.8
178	85- 9-25	23:36:39.86	9: 4.63	84: 7.99	21.50	3.3	18	36.3	183	0.22	0.8	3.2
179	85- 9-26	4:40:13.78	9: 3.10	84: 6.73	9.66	3.7	14	39.2	213	0.24	1.4	17.9
180	85- 9-26	8:37:48.85	8:29.21	83:16.44	23.33	3.1	13	22.9	216	0.11	1.5	1.0

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
181	85- 9-26	8:48:41.85	9:18.83	83:52.69	58.15	3.7	17	29.6	151	0.23	1.3	1.6
182	85- 9-26	8:51:38.52	9:49.95	83:52.60	30.89	3.3	8	102.2	329	0.10	1.9	1.0
183	85- 9-26	11:12:10.75	9:35.25	82:54.30	27.49	3.2	12	94.5	257	0.21	1.1	1.6
184	85- 9-26	18:49:12.51	8:37.74	83:46.09	23.35	3.7	16	79.4	224	0.19	1.4	15.6
185	85- 9-28	9:37:54.16	8:53.35	84: 4.70	30.40	3.1	9	107.2	327	0.25	2.4	20.4
186	85- 9-29	0: 1:49.72	8:42.18	83:39.16	24.74	3.5	14	70.2	211	0.29	1.8	2.1
187	85- 9-29	1:55:31.73	8:38.12	83: 8.88	8.72	3.1	9	23.0	187	0.36	10.0	4.4
188	85- 9-29	20:27:29.04	9: 1.78	84: 4.14	20.83	3.0	9	67.3	303	0.36	8.8	23.1
189	85- 9-30	20:13:30.58	8:54.37	83: 3.01	16.51	3.2	10	106.7	342	0.25	3.7	6.6
190	85- 9-30	23:55:48.29	10:27.67	86:24.70	0.06	3.8	7	100.3	313	0.15	6.8	9.3
191	85-10- 1	19:50:26.68	9:14.92	84:20.91	28.94	3.1	16	29.3	180	0.30	1.1	2.0
192	85-10- 2	4:23:52.84	9:22.06	82:59.79	22.05	3.0	10	119.3	342	0.15	2.8	1.6
193	85-10- 2	7:38:22.28	9:25.39	85: 7.97	19.53	3.5	16	21.1	267	0.14	1.1	0.9
194	85-10- 2	9:12:21.65	10:50.41	85:18.34	158.17	3.7	12	9.4	266	0.15	1.9	1.2
195	85-10- 2	9:28:38.39	9: 2.98	84: 4.11	44.38	3.2	8	91.2	333	0.22	2.8	21.5
196	85-10- 3	10:27:33.28	11: 6.51	85:50.82	96.37	3.4	8	65.1	322	0.13	2.5	1.7
197	85-10- 6	2:10: 7.38	10: 1.71	84:28.54	69.85	3.2	14	14.0	146	0.21	1.8	1.2
198	85-10- 7	12:46: 8.57	9:49.28	85:16.31	32.45	3.2	17	22.8	197	0.23	1.0	0.9
199	85-10- 8	9: 9:58.04	10:46.19	85:47.62	37.68	3.3	11	47.5	291	0.33	2.1	0.9
200	85-10-10	2:55: 5.39	8:19.76	82:45.91	30.12	3.4	8	36.0	325	0.06	3.3	1.2
201	85-10-10	6:53:31.17	9:54.44	84:17.15	62.83	3.5	21	20.2	67	0.20	0.8	1.0
202	85-10-10	12:42:52.49	10: 5.66	85:35.52	21.01	3.2	15	9.0	249	0.20	1.2	0.5
203	85-10-11	0:27:25.95	8:35.77	83:35.17	25.75	3.9	18	59.2	201	0.24	1.8	1.3
204	85-10-11	10: 0:38.46	9:49.10	86:16.58	29.33	3.2	6	88.6	308	0.11	1.3	2.8
205	85-10-13	3:41:40.97	10:40.27	84:51.85	149.09	3.3	19	55.2	204	0.21	1.5	1.2
206	85-10-13	4:22:29.48	10: 5.06	86: 4.26	34.35	3.4	7	58.0	294	0.26	2.3	1.6
207	85-10-14	6:44:48.38	8:18.03	83: 3.27	33.30	3.2	10	16.0	322	0.09	2.6	0.6
208	85-10-15	5: 4:25.22	8: 7.65	83: 8.35	9.24	3.2	8	36.0	311	0.10	3.3	5.2
209	85-10-15	5:34:38.22	9:10.21	83:50.59	26.83	3.2	15	41.0	161	0.21	0.9	2.0
210	85-10-20	3:57:27.03	10:23.01	85:24.92	31.71	3.4	17	28.6	157	0.29	0.8	1.3
211	85-10-20	16:51:19.47	10: 6.16	84: 9.33	91.05	3.1	19	8.7	167	0.17	1.0	0.9
212	85-10-21	21:59:11.35	9:56.01	86: 7.73	45.13	3.3	4	68.6	300	0.32	5.5	21.4
213	85-10-24	7:20: 8.37	8:12.23	82:58.44	23.16	3.2	6	28.7	338	0.21	14.9	4.5
214	85-10-25	0:23:38.91	9:39.20	83:39.31	13.54	3.2	17	16.3	191	0.33	1.2	2.0
215	85-10-25	22:35:57.44	10:22.64	83:18.22	18.85	3.2	14	79.3	313	0.23	1.3	1.3
216	85-10-27	14:15:22.95	9:30.15	83:37.84	19.68	3.3	14	15.9	181	0.32	1.0	0.9
217	85-10-29	11:35:25.76	9: 1.02	84: 5.82	40.83	3.0	7	43.1	324	0.14	2.0	0.7
218	85-10-29	17:36:18.72	9:25.02	84:19.16	32.98	3.0	13	20.6	197	0.25	1.1	1.8
219	85-10-31	0:40:27.61	10:28.69	86:18.50	44.31	3.7	5	90.3	343	0.06	5.3	12.8
220	85-11- 2	3:51:14.68	9:37.63	83:38.05	9.59	3.2	13	16.5	278	0.35	2.0	5.8
221	85-11- 3	21:56:55.73	8:30.41	83: 2.52	17.24	3.2	7	7.7	235	0.10	5.6	1.8
222	85-11- 4	0:25:23.35	8:56.60	82:59.69	29.18	3.3	12	58.9	244	0.11	1.7	1.1
223	85-11- 6	14:32:47.51	8:52.63	84: 6.05	46.07	3.0	9	107.6	327	0.23	2.7	21.7
224	85-11- 7	12:30:23.39	9:34.68	83:43.77	10.09	3.2	12	47.2	298	0.25	1.4	4.6
225	85-11- 7	14:11:20.57	10:10.73	84: 8.20	110.41	3.1	10	9.3	221	0.19	3.3	1.6
226	85-11- 8	18:44:51.60	9:41.91	84:55.97	23.18	3.3	17	18.7	161	0.22	1.0	1.9
227	85-11- 9	9:53:45.26	8:27.77	83:13.73	28.46	3.6	13	135.1	340	0.31	3.7	1.4
228	85-11- 9	18:14: 2.37	8:35.60	84: 4.34	37.80	3.3	12	90.3	220	0.24	1.9	1.1
229	85-11-10	2:29:18.82	10:37.54	85:32.05	59.46	3.2	12	25.3	227	0.25	1.8	1.2
230	85-11-11	13:43:19.01	9:11.58	84:42.45	37.21	3.3	13	67.3	251	0.27	1.8	1.1
231	85-11-13	6:39:15.11	8: 7.37	83:14.52	29.06	3.4	8	40.4	299	0.11	4.0	2.8
232	85-11-14	16:31:55.43	10:19.10	84: 4.48	118.66	3.5	16	33.1	223	0.28	2.1	2.1
233	85-11-15	15:56:11.23	9: 8.27	84:12.24	22.33	3.2	16	30.6	182	0.28	1.0	2.8
234	85-11-17	1:49:48.62	8:15.26	82:47.98	29.79	3.9	8	36.5	338	0.05	4.2	0.8
235	85-11-17	19:31:36.30	8:27.63	83:16.94	22.15	3.2	14	23.4	225	0.24	1.9	1.2
236	85-11-17	20:43:42.72	10:47.67	85:28.21	110.46	3.1	7	12.4	273	0.22	2.2	2.2
237	85-11-17	20:55:17.69	8:31.23	82:37.03	4.30	3.0	7	50.6	302	0.04	4.9	5.8
238	85-11-18	18: 1:27.04	10:20.95	84:44.65	95.87	3.2	15	43.3	213	0.18	1.5	1.9
239	85-11-19	12:50:33.34	9:39.85	84:54.67	26.41	3.2	19	21.5	174	0.29	1.1	1.8
240	85-11-20	3:53:26.38	8:12.08	83:41.70	11.44	3.5	9	73.8	268	0.14	5.0	12.5

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
241	85-11-22	5:53:16.92	8: 2.91	82:59.55	29.95	4.0	5	44.8	332	0.02	3.3	1.1
242	85-11-25	3:32:35.44	10:22.97	84:47.84	105.15	3.3	18	49.2	217	0.24	1.8	1.3
243	85-11-25	15:35:43.17	10:14.18	84:12.51	98.45	3.1	14	9.4	224	0.25	2.1	1.6
244	85-11-27	16:30:18.25	8:17.18	82:47.90	18.04	3.3	7	36.2	332	0.04	2.3	0.9
245	85-11-28	8:45:19.42	8:37.39	82:24.40	50.68	3.6	7	75.7	302	0.13	5.4	15.3
246	85-11-28	11:41:54.03	8:38.67	82:22.19	41.01	3.7	7	80.2	302	0.04	7.7	6.2
247	85-11-28	13: 2: 0.96	8:27.73	82:33.40	72.25	3.7	5	56.6	315	0.16	11.9	9.4
248	85-12- 2	3:19:39.62	8:24.34	82:30.45	82.69	4.0	6	52.1	315	0.05	10.5	7.3
249	85-12- 2	11:41:37.14	10:20.83	85:48.48	22.04	3.3	10	35.2	274	0.14	1.4	1.8
250	85-12- 2	16:32:45.45	9:40.62	85: 2.96	17.47	3.1	18	6.5	189	0.17	1.0	0.6
251	85-12- 3	18:14: 4.47	9:21.21	84:50.42	36.56	3.6	19	48.2	203	0.21	0.9	1.2
252	85-12- 5	6:58: 2.09	9:41.97	84:55.46	23.40	3.6	16	19.6	162	0.22	1.0	2.6
253	85-12- 5	9:18:48.89	9:39.83	84:55.08	24.72	3.5	17	20.7	174	0.19	0.9	1.7
254	85-12- 8	0:58:33.67	8:12.51	82:47.84	37.25	3.3	6	39.9	346	0.08	6.1	0.8
255	85-12- 8	10:20:51.66	10:46.97	85:30.27	70.61	3.3	10	16.0	269	0.33	2.1	2.3
256	85-12-11	14:43: 4.12	11:22.65	83:45.06	34.51	3.2	12	145.4	330	0.17	9.7	14.7
257	85-12-11	22: 9: 1.88	9:51.02	83:36.85	16.80	3.5	16	33.7	222	0.27	1.3	1.4
258	85-12-14	22:14:23.82	11:31.05	85:54.16	12.41	3.9	7	101.8	335	0.03	4.0	3.4
259	85-12-16	5:43:43.61	11:31.16	86:14.22	34.31	3.9	6	168.6	340	0.13	9.0	13.7
260	85-12-16	14:53:11.29	11:28.06	86: 1.57	13.67	3.8	6	106.1	336	0.06	3.1	2.8
261	85-12-19	14:11:44.67	9:48.75	83:57.93	70.88	3.3	13	18.9	119	0.16	1.2	1.6
262	85-12-19	20:38:27.97	9:49.97	84: 2.94	61.48	3.2	16	21.3	83	0.13	0.6	1.1
263	85-12-20	7: 9:43.44	10: 5.58	83:16.88	21.53	3.1	15	68.6	308	0.18	1.0	6.3
264	85-12-22	17:39:37.11	9:38.24	84:53.93	20.67	3.2	18	23.5	181	0.14	0.6	0.6
265	85-12-24	13:32:28.63	9:42.50	84:52.48	27.95	3.3	20	25.1	157	0.16	0.7	1.4
266	85-12-24	14:45:54.09	8:10.88	83: 4.64	16.39	3.2	7	29.1	319	0.16	3.9	2.9
267	85-12-26	7:55:21.17	10:19.75	85:54.07	28.04	3.5	13	43.0	282	0.11	1.3	0.8
268	85-12-29	1:14:45.71	9:59.45	83:32.27	23.66	3.2	17	39.5	239	0.18	0.5	1.8

III. SISMICIDAD DE COSTA RICA ENE-DIC 1985.
SEISMICITY OF COSTA RICA JAN-DEC 1985.

E. LISTADO DE EVENTOS LOCALES, $M \geq 4.0$.
LOCAL EVENT LISTING, $M \geq 4.0$.

NUM	FECHA AA-MM-DD	T.ORIGEN HH:MM:SEG	LAT. N. GRAD:MIN	LONG.O. GRAD:MIN	PROF. KM	MAG	No	DM KM	GAP GRAD	RMS SEG	ERH KM	ERZ KM
1	85- 1- 5	22:34:13.11	8:47.55	84:11.47	19.81	4.2	11	68.2	288	0.18	2.5	1.9
2	85- 1- 7	18:18: 5.05	8: 0.07	82:32.63	17.33	4.0	13	219.0	337	0.27	13.1	17.0
3	85- 1- 9	7:38: 2.72	11:10.50	85:44.21	155.60	4.4	9	177.9	328	0.18	4.5	5.7
4	85- 1-18	14:19:34.69	9:22.80	84:34.79	39.02	4.0	9	48.5	253	0.19	2.6	1.8
5	85- 1-18	17:44:32.38	10:23.32	84:59.56	74.07	4.1	16	58.5	150	0.25	1.6	3.1
6	85- 2- 8	4:29:39.84	8:35.32	84:23.42	44.53	4.0	12	94.9	292	0.26	2.3	23.2
7	85- 2-19	22:55:40.65	8:29.36	82:43.29	34.42	4.4	15	165.1	335	0.16	9.9	15.3
8	85- 2-20	8:32:57.10	8: 7.00	82:46.16	35.13	4.1	14	193.9	335	0.17	8.3	13.1
9	85- 3-22	3:28:38.73	11:13.13	85:42.07	139.90	5.0	9	62.0	315	0.12	1.8	2.7
10	85- 7- 2	2:46:37.45	8:58.15	84: 1.85	18.58	4.1	10	49.5	281	0.22	2.1	3.1
11	85- 7-13	3:19:47.47	8:54.02	83:52.43	33.59	4.1	11	73.8	185	0.30	2.8	2.1
12	85- 7-14	12:33:58.00	10:25.12	83: 9.13	33.64	4.2	9	95.7	343	0.08	2.8	0.7
13	85- 7-31	23:45:41.81	11:22.87	85:44.06	172.50	4.7	8	79.1	318	0.10	2.4	1.6
14	85- 8-16	21:48:54.01	8:23.92	81:50.30	19.81	4.2	10	248.0	347	0.19	10.6	12.8
15	85- 8-19	20:53:19.75	9:36.71	86:17.51	34.57	4.1	9	102.1	313	0.20	1.5	0.7
16	85- 9- 3	0:29:43.83	10: 5.66	85:43.18	31.54	4.3	12	20.4	265	0.34	4.3	0.9
17	85- 9-25	12: 9:53.42	9: 0.36	84: 7.80	11.96	4.6	11	44.2	192	0.24	1.8	9.3
18	85-10- 2	22:46:23.96	11:38.00	87:32.20	8.25	4.4	11	255.8	342	0.33	13.4	16.0
19	85-10- 3	1:34:29.45	11:50.75	86:41.60	47.32	4.3	10	187.9	338	0.19	2.1	2.4
20	85-10- 3	8:38: 2.25	11:53.71	86:50.14	58.39	4.2	10	203.4	342	0.18	5.2	18.6
21	85-10- 4	7:39:35.47	8: 6.92	82:58.76	17.94	4.1	14	245.0	338	0.15	7.3	8.9
22	85-10- 5	15:29:44.67	6:53.35	82:33.67	33.96	5.7	14	324.9	341	0.21	12.4	17.2
23	85-10- 6	0:24:50.95	11:30.37	86: 5.03	34.69	4.1	12	160.5	327	0.19	10.4	16.0
24	85-10-20	4:52:20.58	9:54.02	84:11.22	71.77	4.1	19	15.8	72	0.21	1.0	1.4
25	85-10-21	21:51:33.56	9:48.11	86:34.09	25.55	4.1	9	118.8	317	0.09	1.2	0.8
26	85-10-27	18:22:33.42	10:47.04	85:58.23	61.50	4.1	11	66.9	305	0.16	1.5	2.9
27	85-10-27	19:23:46.76	8:48.77	83:19.94	33.33	4.1	12	50.1	170	0.21	2.6	0.9
28	85-11- 1	10:48:36.93	11:15.08	85:39.72	177.79	4.3	8	62.6	326	0.25	5.0	1.9
29	85-11- 2	4:51:27.88	5:42.35	82:28.80	35.74	4.9	15	311.4	338	0.31	16.6	22.7
30	85-11- 7	2:37:11.79	11:40.94	86:46.04	34.19	4.4	11	183.7	340	0.25	11.1	14.6
31	85-11-13	8:39:36.26	11:54.83	86:45.46	137.82	4.7	12	198.2	343	0.10	2.5	3.3
32	85-11-21	8:29:35.85	10:31.29	85: 3.43	116.50	4.3	16	43.2	163	0.22	1.3	1.7
33	85-11-28	7:34:28.84	8:29.24	82:27.88	57.17	4.3	7	66.8	309	0.18	10.4	8.6
34	85-11-28	8:40:24.66	8:38.30	82:25.79	52.81	4.2	7	73.7	300	0.11	5.5	12.7
35	85-12-14	12:39:19.59	11:27.02	85:54.11	23.75	4.9	7	95.7	334	0.03	1.5	1.8
36	85-12-14	12:52:35.44	11:32.50	86: 3.87	20.38	4.0	8	115.0	338	0.14	1.4	2.7
37	85-12-15	14:53:44.65	11: 8.11	86:37.88	29.87	4.2	6	160.4	346	0.17	10.4	16.1
38	85-12-15	17:53:19.73	11: 8.88	86:47.00	63.15	4.6	7	173.8	347	0.17	5.5	16.9
39	85-12-16	2:44:38.18	11:35.48	85:39.08	35.17	5.1	9	159.4	318	0.14	9.2	12.9
40	85-12-16	4: 3:20.31	11:27.12	86:15.56	28.40	4.1	8	163.1	340	0.09	7.8	12.0
41	85-12-16	4:52:18.66	11:36.87	86: 6.46	35.18	4.4	6	172.7	338	0.15	9.7	15.0
42	85-12-16	6:19:31.20	11: 4.84	86:25.41	43.84	4.0	8	139.9	345	0.28	5.4	26.1
43	85-12-16	6:36:54.10	11:40.72	86: 3.02	34.74	4.2	8	177.3	338	0.22	12.1	18.5
44	85-12-16	7:13: 9.79	11:54.80	86:34.37	94.41	4.7	6	224.4	344	0.03	3.2	8.5
45	85-12-24	23:39:36.07	11:27.69	85:55.55	160.54	4.6	8	98.3	334	0.03	4.3	2.3

III. SISMICIDAD DE COSTA RICA ENE-DIC 1985.
SEISMICITY OF COSTA RICA JAN-DEC 1985

F. LISTADO DE EVENTOS LOCALES, $M > 4.0$
Y SUS RESPECTIVAS FASES.

LOCAL EVENT LISTING, $M > 4.0$
AND CORRESPONDING PHASES.

YEAR/MO/DA HR:MM:SEC LAT. LONG. DEPTH *
1985/ 1/ 5 22:34:13.1 8.792 -84.191 19.8 4.0

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPD 22:34: 30.1	
IRZ	IPD 36.1	
POA	IPU 38.5	
HDC2	IPD 36.2	S 54.0
PTCR	IPD 32.5	
QPS	IPD 25.2	
EPA	IPU 36.0	
CAO	IPD 36.7	S 54.5
JUD	IPU 47.0	

YEAR/MO/DA HR:MM:SEC LAT. LONG. DEPTH *
1985/ 2/ 8 4:29:39.8 8.589 -84.390 44.5 4.0

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	EPD 4:29: 61.0	
IRZ	IPU 66.2	
POA	EP+ 67.3	
HDC2	IPD 65.4	S 84.5
PTCR	IPU 71.9	
QPS	IPU 56.0	S 68.9
EPA	IPU 54.3	S 83.6
CAO	EP+ 62.7	
JUD	EP 72.3	

1985/ 1/ 7 18:18: 5.1 8.001 -82.344 17.3 4.0

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 18:18: 39.8	S 61.2
IRZ	IPD 46.1	S 77.5
POA	EPD 50.6	S 86.0
PTCR	IPD 48.2	S 82.0
QPS	IPU 41.6	S 70.0
EPA	IPU 51.6	S 88.6
CAO	EPD 55.3	
JUD	EPD 63.1	

1985/ 2/19 22:55:40.7 8.488 -82.721 34.4 4.4

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPD 22:55: 7.4	S 28.1
IRZ	IPU 13.0	S 38.0
POA	IPU 18.0	S 46.5
HDC2	EPD 15.0	S 42.0
PTCR	IPU 16.2	S 43.7
QPS	IPU 9.2	S 32.0
EPA	EP 19.8	S 49.9
CAO	EP 23.4	

1985/ 1/ 9 7:38: 2.7 11.175 -85.737 155.6 4.4

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	EPD 7:38: 45.4	S 79.4
HDC2	EPD 38.7	
QPS	IPD 43.2	S 74.7
EPA	EPD 34.6	S 59.0
CAO	IPD 34.1	S 59.0

1985/ 2/20 8:32:57.1 8.117 -82.769 35.1 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	EPD 8:33: 27.3	S 51.0
IRZ	EPD 33.2	S 61.8
POA	EP 38.0	S 69.5
HDC2	EP- 35.6	S 65.0
PTCR	EPD 35.5	S 65.5
QPS	EPD 28.7	S 53.0
EPA	IPU 40.5	S 72.0
CAO	EP 41.6	

1985/ 1/18 14:19:34.7 9.380 -84.580 39.0 4.0

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
IRZ	IPD 14:19: 53.1	
POA	IPD 52.1	S 65.0
HDC2	IP 50.3	S 62.6
PTCR	IPD 44.9	
EPA	IPD 47.4	
CAO	IPD 47.5	
JUD	IPD 56.9	

1985/ 3/22 3:28:33.7 11.219 -85.701 139.9 5.0

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 3:28: 30.8	S 114.5
IRZ	IPD 76.0	S 111.8
POA	IPD 72.1	S 99.8
HDC2	EP- 73.4	S 108.2
PTCR	EP- 72.6	S 103.0
QPS	EPD 78.3	S 110.2
EPA	EPD 69.8	S 93.6
CAO	IPD 69.1	S 93.5
JUD	IPD 63.7	
AN	IPU 59.8	
PKC	IPD 97.0	S 147.5

1985/ 1/19 17:44:32.4 10.389 -84.993 74.1 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 17:44: 58.2	
IRZ	IPD 54.4	S 71.7
POA	IPU 49.8	S 63.0
HDC2	IPU 51.4	S 65.5
PTCR	IPU 49.8	S 62.8
QPS	IPU 55.3	S 73.8
EPA	IPU 47.0	
CAO	IPD 46.0	S 60.2
JUD	IPU 47.0	
RIN	IPU 46.0	

1985/ 7/ 2 2:46:37.5 8.969 -84.031 16.6 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPD 2:46: 50.9	
POA	IPD 60.0	
HDC2	IPD 57.4	S 73.0
PTCR	IPD 54.6	S 68.0
QPS	IPD 46.2	
EPA	IPD 39.1	
CAO	IPU 60.9	S 80.0
JUD	EPD 72.4	

YEAR/MO/DA HR:MM:SEC LAT. LONG. DEPTH M
1985/ 7/13 3:19:47.5 8.900 -83.874 33.6 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 3:20: 1.1	
IRZ2	IPU 7.6	
POA	IPU 11.8	
HDC2	IPU 9.3	S 25.8
PTCR	IPU 7.6	S 22.5
EPA	IPD 10.9	
CAO	IPU 12.9	
JUD	EP 22.2	
PBC	IPU 5.1	

1985/ 7/14 12:33:58.0 10.419 -83.152 33.6 4.2

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
IRZ2	IPD 12:34: 15.0	
POA	IPD 18.4	
HDC2	IPD 17.5	S 32.7
PTCR	IPD 23.3	S 42.9
EPA	EPD 24.3	
CAO	EPD 32.4	S 58.7
JUD	IPD 36.8	S 66.5

1985/ 7/31 23:45:41.8 11.381 -85.734 172.5 4.7

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 23:46: 27.9	S 61.6
IRZ2	EP 23.7	S 55.5
POA	EP+ 19.0	
HDC2	IPD 21.4	S 51.0
PTCR	EPU 20.2	
QPS	EP 26.0	
EPA	EPU 17.0	S 43.6
CAO	IPU 16.2	S 41.3
JUD	IPU 11.2	S 34.1
RIN	IPU 7.2	S 28.5

1985/ 8/16 21:48:54.0 8.399 -81.838 19.8 4.2

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPD 21:49: 32.3	S 62.5
POA	EPU 42.4	S 80.2
HDC2	IPD 39.9	S 75.5
PTCR	EP 42.0	
QPS	EPU 35.7	
EPA	EP 44.9	S 84.7

1985/ 8/19 20:53:19.8 9.612 -86.292 34.6 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 20:53: 61.3	S 92.6
IRZ2	IPU 60.6	
POA	IPD 56.3	S 83.2
HDC2	IPU 57.0	S 85.0
PTCR	IPU 51.6	S 75.5
QPS	IPU 55.5	
EPA	EPD 49.5	S 72.3
CAO	IPU 41.5	S 58.2
JUD	IPU 37.4	
RIN	IPU 45.6	S 66.8
PBC	EPU 73.5	

YEAR/MO/DA HR:MM:SEC LAT. LONG. DEPTH M
1985/ 9/ 3 0:29:43.8 10.094 -85.720 31.5 4.3

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 0:29: 77.8	S 104.5
IRZ2	IPU 75.3	S 99.8
POA	IPU 70.6	
HDC2	IPU 72.0	S 93.5
PTCR	IPU 67.6	
QPS	EP 73.0	
EPA	IPU 64.4	
CAO	IPD 58.4	
JUD	IPD 49.7	
RIN	IPD 59.0	
PBC	IPD 93.4	

1985/ 9/25 12: 9:53.4 9.006 -84.130 12.0 4.6

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPD 12:10: 6.5	
IRZ2	IPD 12.5	
POA	IPD 15.2	
HDC2	IPD 13.0	S 28.4
PTCR	IPD 9.5	
QPS	IPD 1.7	
EPA	IPU 13.9	
JUD	EPU 26.8	
RIN	IPU 31.1	
PBC	IPD 16.1	S 34.0

1985/10/ 2 22:46:24.0 11.633 -87.537 8.3 4.4

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
IRZ2	EP+ 22:47: 27.5	
HDC2	EPU 24.5	S 70.5
EPA	EPD 18.5	S 60.5
CAO	IPD 15.2	S 54.3
JUD	IPD 5.7	S 39.5
RIN	IPD 4.0	S 35.7

1985/10/ 3 1:34:29.5 11.846 -86.693 47.3 4.3

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
IRZ2	EP 1:34: 80.7	
HDC2	EP- 77.7	
EPA	EP 73.3	S 107.2
CAO	EPU 71.0	S 103.6
JUD	IPD 62.8	S 88.5
RIN	IPD 57.8	S 80.0

1985/10/ 3 8:38: 2.2 11.895 -86.836 58.4 4.2

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
HDC2	EP 8:38: 52.0	S 90.6
EPA	IPU 47.1	S 82.0
CAO	IPU 45.3	S 78.5
JUD	IPU 37.0	S 64.0
RIN	EPD 32.5	S 56.5

YEAR/MO/DA HR:MM:SEC LAT. LONG. DEPTH M
1985/10/ 4 7:39:35.5 8.115 -82.979 17.9 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
POA	EP 7:40: 16.0	S 47.5
HDC2	IPD 13.8	S 43.3
PTCR	EPU 13.3	S 43.0
EPA	EPD 16.8	S 49.3
CAO	EP 19.2	S 53.7
JUD	IPD 28.0	S 69.4
RIN	IPU 32.2	S 76.0

1985/10/ 5 15:29:44.7 6.889 -82.561 34.0 5.7

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	EPU 15:30: 31.5	
IRZ2	IPD 37.5	
POA	IPU 41.6	S 85.8
HDC2	IPD 39.3	S 81.4
PTCR	EPD 38.8	S 80.7
QPS	EP 31.5	S 68.2
EPA	EP 41.8	S 86.6
CAO	EPD 42.5	
JUD	EPD 51.7	

1985/10/ 6 0:24:51.0 11.506 -86.084 34.7 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
IRZ2	IPD 0:25: 33.6	
POA	EP- 28.5	
HDC2	EP 31.0	S 61.9
PTCR	IPU 29.8	S 60.0
EPA	IPD 26.0	S 53.2
CAO	IPD 24.9	S 51.7
JUD	IPD 16.8	S 36.3

1985/10/20 4:52:20.6 9.900 -84.187 71.8 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 4:52: 34.8	
IRZ2	IPU 32.6	S 42.0
POA	IPD 32.5	
HDC2	IPU 32.0	S 40.3
PTCR	IPU 32.4	S 41.2
QPS	IPU 34.3	S 44.2
EPA	IPD 33.3	
CAO	IPD 38.8	S 52.9
JUD	IPD 44.5	S 63.2
RIN	IPD 45.6	S 65.8
PBC	EP 51.2	S 74.8

1985/10/21 21:51:33.6 9.802 -86.568 25.5 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPD 21:51: 78.9	
IRZ2	EPD 77.8	
POA	EPU 73.5	
HDC2	EP 74.5	
PTCR	EPD 69.5	
QPS	EP 73.2	
EPA	EPD 67.1	
CAO	IPU 59.8	S 80.0
JUD	IPU 53.5	
RIN	IPU 61.2	S 83.1

YEAR/MO/DA HR:MM:SEC LAT. LONG. DEPTH M
1985/10/27 18:22:33.4 10.784 -85.970 61.5 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	EPU 18:22: 73.7	
IRZ2	EP 69.2	
POA	EPU 64.4	
HDC2	EP- 65.8	S 90.7
PTCR	EP 64.0	S 87.0
QPS	EPD 71.0	
EPA	IPD 60.3	S 81.0
CAO	IPD 57.2	S 76.0
JUD	IPU 49.2	
RIN	IPD 47.2	

1985/10/27 19:23:46.8 8.813 -83.332 33.3 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 19:23: 63.8	
IRZ2	IPD 70.4	
POA	IPU 75.4	S 96.8
HDC2	EP+ 72.8	S 93.0
PTCR	IPU 72.5	
QPS	IPU 65.4	S 79.7
EPA	EP+ 76.4	
CAO	IPU 79.3	
PBC	IPD 56.9	

1985/11/ 1 10:48:36.9 11.251 -85.662 177.8 4.3

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
EPA	EP 10:49: 10.8	S 37.0
CAO	IPU 10.5	S 36.4
JUD	IPU 5.6	S 28.0
RIN	EP 1.8	S 22.2

1985/11/ 2 4:51:27.9 5.706 -82.480 35.7 4.9

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 4:52: 30.3	S 79.0
IRZ2	EP+ 36.5	S 89.2
POA	EPU 40.5	S 95.8
HDC2	EP 37.8	S 91.5
QPS	EPU 29.5	
EPA	EP 40.0	S 94.9
CAO	EPD 39.0	
JUD	EP- 48.1	
PBC	IPD 12.4	S 47.8

1985/11/ 7 2:37:11.8 11.682 -86.767 34.2 4.4

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
POA	IPU 2:37: 58.9	S 95.5
HDC2	IPD 60.8	S 98.4
PTCR	EP 59.5	S 96.5
EPA	IPD 55.2	
CAO	S 85.7	
JUD	EPU 44.5	S 69.5
RIN	EP 40.0	

YEAR/MO/DA HR:MM:SEC LAT. LONG. DEPTH M
1985/11/13 8:39:36.3 11.914 -86.758 137.8 4.7

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	EPU 8:40: 34.4	S 79.5
PTCR	EP 25.5	
QPS	EPU 31.6	
EPA	EP 22.2	S 58.0
CAO	EPD 20.4	S 55.3
JUD	IPU 12.8	S 41.2
RIN	EPD 8.8	S 34.0

1985/11/21 8:29:35.8 10.521 -85.057 116.5 4.3

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 8:29: 64.8	S 88.5
IRZ2	IPD 61.5	S 81.0
POA	IPU 57.2	S 74.4
QPS	EPU 62.7	S 83.9
EPA	IPU 55.6	S 70.4
CAO	IPU 56.4	S 72.0
JUD	IPU 54.6	S 68.9
RIN	IPU 53.0	S 66.8
PBC	EPD 80.5	

1985/11/28 7:34:28.8 8.487 -82.465 57.2 4.3

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPD 7:34: 56.5	S 79.0
IRZ2	IPU 62.3	S 88.0
POA	IPU 68.7	S 99.7
HDC2	IPU 65.0	S 92.5
PTCR	IPD 66.0	S 96.0
QPS	IPU 59.6	S 83.0
EPA	EP 70.6	S 102.5
PBC	IPD 42.4	S 53.0

1985/11/28 8:40:24.7 8.638 -82.430 52.8 4.2

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPD 8:40: 52.7	S 74.0
IRZ2	IPU 57.4	S 83.5
POA	IPD 64.7	
HDC2	EP 60.0	S 87.0
PTCR	EP 61.8	S 89.8
QPS	EP+ 55.2	
EPA	EP 66.5	S 98.7
PBC	IPD 38.8	S 50.0

1985/12/14 12:39:19.6 11.450 -85.902 23.7 4.9

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 12:39: 66.0	S 102.0
PTCR	IP 57.0	
EPA	EP 53.0	S 79.5
CAO	IPU 52.5	S 78.5
JUD	IP 44.0	S 63.0
RIN	IP 36.0	

YEAR/MO/DA HR:MM:SEC LAT. LONG. DEPTH M
1985/12/14 12:52:35.4 11.542 -86.064 20.4 4.0

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
PTCR	EP 12:52: 75.8	S 106.8
EPA	EP 72.0	S 100.0
CAO	EPD 70.7	S 98.9
JUD	EPD 62.3	S 82.8
RIN	IPD 54.7	S 70.0

1985/12/15 14:53:44.7 11.135 -86.631 29.9 4.2

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
PTCR	EP 14:54: 25.2	
EPA	EP 23.0	S 52.3
CAO	EP- 19.3	S 46.5
JUD	EPD 10.7	S 31.2

1985/12/15 17:53:19.7 11.148 -86.783 63.2 4.6

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
PTCR	EP 17:53: 61.5	
EPA	EP 58.4	S 88.4
CAO	EP- 54.7	S 82.5
JUD	IPU 46.5	S 67.0

1985/12/16 2:44:38.2 11.591 -85.651 35.2 5.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	IPU 2:45: 22.7	
IRZ2	IPU 17.2	
POA	IPU 12.2	
PTCR	IPU 14.0	
QPS	EPU 20.5	
EPA	IPU 10.4	
CAO	IPU 11.3	
JUD	IPU 3.5	S 23.5

1985/12/16 4: 3:30.3 11.452 -86.259 28.4 4.1

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
PTCR	EP 4: 3: 60.7	S 92.8
EPA	EPD 57.0	S 85.5
CAO	EPD 55.4	S 82.8
JUD	EPD 46.9	S 67.5

1985/12/16 4:52:18.7 11.615 -86.108 35.2 4.4

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
PTCR	EP 4:52: 59.0	
EPA	IP 54.9	S 83.0
CAO	EPD 54.0	S 82.0
JUD	EP 46.0	

YEAR/MO/DA HR:MM:SEC LAT. LONG. DEPTH M
1985/12/16 6:19:31.2 11.081 -86.424 43.8 4.0

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
PTCR	EP 6:19: 68.5	S 58.4
EPA	EP 65.7	S 92.0
CAO	EP 62.1	S 87.1
JUD	EPD 53.7	S 70.7

1985/12/16 6:36:54.1 11.679 -86.050 34.7 4.2

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
PTCR	EP 6:37: 34.7	S 66.2
EPA	EP 30.3	S 58.7
CAO	IPU 30.3	S 58.4
JUD	EPD 21.7	S 43.3

1985/12/16 7:13: 9.8 11.913 -86.573 34.4 4.7

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
EPA	EP 7:13: 52.4	S 86.0
CAO	EPD 51.4	S 83.8
JUD	EPD 43.2	S 69.3

1985/12/24 23:30:36.1 11.462 -85.926 160.5 4.6

ESTACION	FASE Y TIEMPO DE P	FASE Y TIEMPO DE S
CDM	EPD 23:31: 23.6	S 61.0
IRZ2	EPD 18.8	S 52.2
POA	EPD 13.8	S
HDC2	EPD 15.6	S 47.0
PTCR	EPD 15.3	S 46.5
QPS	IPU 21.0	S
EPA	EP 11.9	S 40.3
CAO	IPD 11.5	S 39.7
JUD	IPD 5.5	S 28.5
RIN	EPD 1.4	S 21.1

IV. EVENTOS REGIONALES Y TELESISMICOS REGISTRADOS
CON SUS RESPECTIVAS FASES ENE-DIC 1985.
RECORDED REGIONAL AND TELESEISMIC EVENTS WITH
CORRESPONDING PHASES JAN-DEC 1985.

BASADO EN EL BOLETIN PRELIMINAR DE EPICENTROS
DEL SERVICIO GEOLOGICO DE LOS ESTADOS UNIDOS.
BASED ON PRELIMINARY DETERMINATION OF EPICENTERS
OF U.S. GEOLOGICAL SURVEY.

SISMOS REGIONALES Y TELESISMOS

Esta sección presenta tiempos de arribo registrados de sismos regionales y telesismos. Los parámetros de ubicación fueron tomados del Boletín de Determinación Preliminar de Epicentros (PDE) publicado por el Servicio Geológico de EUA (USGS). Tiempos de arribo de fases están dados con el tiempo del Meridiano de Greenwich (GMT). El movimiento inicial de la onda P (compresión) o dilatación (d) puede también indicarse. La magnitud de las ondas de cuerpo (mb) reportada por el USGS se presenta también para cada sismo.

Los sismos regionales registrados, para magnitudes 4.5 o mayores, se originaron en las siguientes regiones:

País	No de eventos
Nicaragua.....	11
El Salvador.....	13
Panamá.....	15
Guatemala.....	18
México.....	16
Caribe.....	9

Eventos originados en Sur América fueron registrados para magnitudes de 5.0 y mayores, como sigue:

País	No de eventos
Colombia.....	4
Bolivia.....	1
Perú.....	4
Chile.....	16
Argentina.....	5

Eventos telesísmicos con magnitud de 6.0 se registraron de:

País	No de eventos
Filipinas.....	3
Islas de Tonga.....	1
Otras regiones.....	11

Eventos adicionales, bien registrados y de interés general han sido también incluidos.

REGIONAL AND TELESEISMIC EARTHQUAKES

This section presents arrival times recorded from regional and teleseismic earthquakes. The earthquake location parameters were selected from the U.S. Geological Survey (U.S.G.S.) Preliminary Determination of Epicenters, Bulletin (P.D.E.). Phase arrival times are Greenwich Meridian Time (GMT). The first motion of the P wave (compression (u) or dilatation (d)) may also be indicated. The U.S.G.S. body wave magnitude, m_b , is presented.

Regional earthquakes are detected with magnitude 4.5 or greater from the following regions:

Country	No. of events
Nicaragua.....	11
El Salvador.....	13
Panamá.....	15
Guatemala.....	18
México.....	16
Caribbean.....	9

Events from South America with magnitude 5.0 and greater are:

Country	No. of events
Colombia.....	4
Bolivia.....	1
Perú.....	4
Chile.....	16
Argentina.....	5

Teleseismic earthquakes with magnitudes of about 6.0 from:

Country	No. of events
Phillipines.....	3
Tonga Islands.....	1
Other regiones.....	11

Additional well recorded events of interest are also included.

FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVO ARRIVE	LAT. LAT.	LONG. LONG.	Z Z	mb mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	Km	
01/05	CDM	iPu	11 11 31.1	11 12 28.4	10.2N	80.0W	32	6.2
								Norte de Panamá
01/15	CDM	ePd	12 00 11.1	12 03 53.6	14.5N	98.0W	28	5.1
								Cerca de la costa de Guerrero, México
01/18	PTCR	ePu	15 00 08.3	15 07 36.3	29.4S	70.7W	82	5.8
								Chile Central
01/26	CDM	iPu	03 07 02.5	03 15 16.5	33.1S	68.5W	38	6.1
								Provincia de Mendoza, Argentina
02/05	CDM	eP	11 48 17.1	11 50 01.1	4.9N	78.4W	15	5.1
								Sur de Panamá
02/11	CDM	ePu	00 13 51.8	00 16 56.4	17.1N	94.7W	50	5.3
								Chiapas, México
02/19	CDM	iPd	22 55 42.5	22 56 07.0	8.8N	82.4W	33	4.5
								Frontera Panamá-Costa Rica
02/27	CDM	eP	04 26 48.2	04 28 31.9	5.9N	77.5W	33	4.9
								Cerca de la costa oeste de Colombia
03/01	HDC2	eP	06 58 59.6	07 00 58.4	4.1N	78.6W	33	5.2
								Sur de Panamá
03/03	PTCR	eP	22 47 06.9	22 55 18.6	33.2S	71.9W	33	6.9
								Cerca de la costa central de Chile
03/03	PTCR	eP	23 38 30.9	23 46 46.0	32.9S	71.8W	33	6.5
								Cerca de la costa central de Chile
03/04	CDM	ePu	00 32 21.4	00 40 30.4	33.2S	71.8W	33	6.0
								Cerca de la costa central de Chile
03/04	CDM	ePu	15 01 06.2	15 09 20.3	33.8S	71.3W	33	6.1
								Cerca de la costa central de Chile
03/04	CDM	ePd	19 03 07.2	19 11 12.8	32.8S	71.6W	33	5.3
								Cerca de la costa central de Chile
03/04	CDM	iPd	22 11 12.7	22 13 43.1	15.2N	92.6W	96	4.9
								Frontera México-Guatemala
03/10	CDM	ePd	19 33 13.7	19 34 49.2	13.5N	89.0W	83	5.2
								El Salvador

FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVO ARRIVE	LAT. LAT.	LONG. LONG.	Z Z	mb mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	Km	
03/11	CDM	ePu	01 03 41.6	01 05 33.8	12.2N	88.8W	33	4.3
								Fuera de la costa de América Central
03/13	CDM	iPd	11 48 25.0	11 49 46.7	4.8N	82.5W	10	4.9
								Sur de Panamá
03/13	RIN	eP	19 34 57.8	19 43 46.6	40.5N	127.5W	10	6.1
								Fuera de la costa de Oregon (EEUU)
03/14	JUD	ePu	04 48 45.8	04 50 18.5	12.0N	89.6W	33	-
								Fuera de la costa de América Central
03/16	CDM	eP	14 54 01.1	14 59 10.1	17.1N	62.4W	14	6.2
								Islas Leeward
03/17	CDM	eP	03 41 12.7	03 46 10.0	16.9N	62.4W	33	4.8
								Islas Leeward
03/17	CDM	eP	10 41 37.9	10 49 42.4	32.7S	71.6W	33	5.9
								Cerca de la costa central de Chile
03/18	CDM	ePu	19 49 45.5	20 09 15.3	7.7N	123.6E	33	6.0
								Mindanao, Islas Filipinas
03/19	CDM	ePu	04 01 06.5	04 09 15.3	33.3S	71.8W	33	5.9
								Cerca de la costa central de Chile
03/19	CDM	eP	10 28 36.5	10 35 23.2	18.6S	63.6W	33	5.5
								Bolivia
03/19	CDM	eP	10 45 59.4	10 50 45.0	18.7N	62.6W	33	5.1
								Islas Leeward
03/25	CDM	ePu	01 31 25.4	01 32 39.8	5.1N	81.2W	33	4.9
								Sur de Panamá
03/25	CDM	eP	05 14 33.2	05 22 48.3	34.3S	72.3W	33	6.1
								Cerca de la costa central de Chile
03/27	JUD	ePd	22 29 20.2	22 30 38.4	13.8N	89.5W	88	4.8
								El Salvador
04/03	CDM	eP	13 06 19.8	13 14 24.2	32.6S	71.6W	33	5.7
								Cerca de la costa central de Chile
04/04	CDM	eP	13 57 23.1	13 59 47.7	14.6N	92.0W	33	5.1
								Cerca de la costa de Chiapas, México

FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVE ARRIVE	LAT. LAT.	LONG. LONG.	Z Z	mb mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	Km	
04/04	CDM	eP	23 52 23.1	23 54 20.3	11.9N	91.3W	33	5.0 Fuera de la costa de América Central
04/05	CDM	iPu	19 38 16.5	19 39 29.0	4.9N	82.5W	10	4.9 Sur de Panamá
04/08	CDM	ePd	10 17 03.1	10 17 55.5	11.5N	86.7W	33	4.4 Cerca de la costa de Nicaragua
04/09	CDM	ePd	01 56 58.6	02 05 14.2	34.2S	71.5W	33	6.3 Cerca de la costa central de Chile
04/09	JUD	iPu	15 34 23.4	15 35 55.8	13.4N	90.9W	66	4.2 Cerca de la costa de Guatemala
04/10	CDM	eP	05 10 56.3	05 14 46.5	18.5N	69.1W	139	4.8 República Dominicana
04/10	CDM	eP	20 15 42.4	20 18 16.7	2.0N	77.0W	33	5.2 Cerca de la costa oeste de Colombia
04/13	CDM	eP	03 00 04.4	03 19 47.5	11.7N	126.6E	33	6.4 Pasaje de Molucca
04/16	CDM	eP	08 00 01.5	08 02 23.0	9.2N	73.6W	69	4.6 Norte de Colombia
04/19	CDM	eP	17 43 10.3	17 44 07.0	11.9N	86.6W	66	5.3 Cerca de la costa de Nicaragua
04/19	CDM	eP	17 55 34.3	17 56 32.0	11.8N	86.9W	59	5.3 Cerca de la costa de Nicaragua
04/19	CDM	eP	18 33 27.1	18 34 25.5	11.9N	86.8W	54	4.6 Cerca de la costa de Nicaragua
04/20	CDM	ePu	18 23 48.2	18 25 20.0	9.0N	77.3W	40	5.6 Frontera Panamá-Colombia
04/21	CDM	ePu	06 39 07.7	06 40 42.3	9.1N	77.3W	33	4.2 Cerca de la costa norte de Colombia
04/23	CDM	eP	15 16 22.6	15 17 54.5	13.6N	88.7W	36	4.6 El Salvador
04/23	CDM	ePd	16 15 11.0	16 34 30.8	15.3N	120.6E	181	6.4 Luzón, Islas Filipinas

FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVO ARRIVE	LAT. LAT.	LONG. LONG.	Z Z	mb mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	Km	
04/25	CDM	eP	11 54 49.5	11 56 24.3	7.9N	77.4W	33	4.8 Frontera Panamá-Colombia
04/25	RIN	eP	23 03 09.0	23 04 17.5	12.9N	88.4W	33	4.6 Fuera de la costa de América Central
04/28	CDM	ePu	08 30 32.6	08 39 23.8	39.7S	75.6W	33	6.0 Fuera de la costa central de Chile
05/03	CDM	ePu	07 02 47.5	07 03 48.6	11.9N	86.8W	33	5.1 Cerca de la costa de Nicaragua
05/07	CDM	iPd	08 00 24.2	08 03 19.3	15.3N	94.3W	33	4.5 Cerca de la costa de Oaxaca, México
05/09	CDM	ePd	22 57 10.2	22 59 26.3	13.8N	91.7W	33	4.9 Cerca de la costa de Guatemala
05/10	CDM	ePd	15 35 50.4	15 54 53.5	5.6S	151.1E	30	6.3 Región de Nueva Bretaña
05/15	CAO	eP	07 26 49.0	07 27 31.2	11.9N	86.6W	33	4.7 Cerca de la costa de Nicaragua
05/15	CDM	ePu	20 12 45.7	20 25 02.7	56.6S	25.4W	33	5.8 Sur de las Islas Sandwich
05/18	CDM	iPd	03 12 57.9	03 13 23.6	8.5N	82.7W	33	5.0 Frontera Panamá-Costa Rica
05/19	POA	ePd	18 09 15.4	18 17 08.2	30.2S	71.3W	39	5.9 Cerca de la costa central de Chile
05/23	CDM	iPd	11 21 35.9	11 23 03.4	11.7N	88.2W	33	4.6 Fuera de la costa de América Central
05/23	CDM	iPd	11 33 14.5	11 34 40.3	12.0N	88.3W	33	4.6 Fuera de la costa de América Central
05/23	CDM	eP	11 42 36.3	11 44 00.9	12.2N	88.3W	33	4.3 Fuera de la costa de América Central
05/27	CDM	eP	12 40 52.5	12 43 16.5	14.0N	92.2W	33	4.3 Fuera de la costa de Chiapas, México
05/31	CDM	ePd	06 00 00.9	06 02 37.5	15.8N	92.9W	102	4.7 Frontera México-Guatemala

FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVO ARRIVE	LAT LAT.	LONG. LONG.	Z Z	mb mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	Km	
06/03	CDM	ePu	02 45 32.1	02 47 14.4	13.1N	90.2W	70	5.1
								Cerca de la costa de Guatemala
06/03	CDM	ePu	07 06 18.2	07 08 24.5	4.9N	75.9W	126	4.9
								Colombia
06/03	CDM	eP	12 06 21.1	12 19 31.0	15.2S	173.6W	33	6.2
								Isla Tonga
06/04	RIN	eP	03 56 28.9	04 15 52.4	4.9N	127.5E	113	6.0
								Isla Talau
06/04	RIN	eP	11 04 20.2	11 05 36.8	13.4N	89.9W	61	5.0
								El Salvador
06/04	CDM	eP	16 33 21.4	16 35 08.1	13.4N	90.0W	33	4.7
								El Salvador
06/05	CDM	ePu	04 21 38.5	04 23 56.0	14.1N	91.8W	33	4.9
								Guatemala
06/06	CDM	ePd	21 31 05.8	21 33 08.0	3.3N	78.6W	13	5.0
								Sur de Panamá
06/08	CDM	eP	13 48 46.5	13 50 35.5	6.9N	77.0W	26	4.6
								Norte de Colombia
06/10	CDM	iPu	03 23 31.8	03 25 35.3	3.0N	78.6W	20	5.6
								Sur de Panamá
06/10	CDM	eP	15 37 03.3	15 44 29.0	28.1S	67.2W	180	5.8
								Provincia la Rioja, Argentina
06/10	CDM	ePu	23 13 13.7	23 15 02.6	13.4N	89.9W	33	4.6
								El Salvador
06/13	CDM	iPu	11 42 32.4	11 44 34.6	14.7N	90.5W	222	4.9
								Guatemala
06/14	CDM	eP	07 11 12.9	07 13 48.2	6.8N	73.0W	156	4.9
								Norte de Colombia
06/14	CDM	ePu	07 43 57.5	07 47 02.2	17.7N	94.5W	147	4.7
								Chiapas, México
06/16	CDM	ePd	07 24 57.4	07 26 50.5	12.9N	90.1W	33	4.1
								Fuera de la costa de América Central

FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVO ARRIVE	LAT. LAT.	LONG. LONG.	Z Z	mb mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	Km	
06/22	CDM	ePu	03 49 23.1	03 51 11.0 El Salvador	13.4N	90.0W	33	4.8
06/22	CDM	eP	05 54 05.1	05 55 49.7 El Salvador	13.9N	89.8W	33	4.7
06/24	CDM	eP	02 59 49.5	03 01 35.2 El Salvador	13.1N	89.9W	33	4.5
06/26	CDM	ePu	17 10 01.9	17 14 41.3 Islas Virgenes	18.9N	64.6W	56	5.6
06/26	CDM	iPu	20 28 24.6	20 29 21.7 Sur de Panamá	6.1N	82.4W	10	5.1
06/26	CDM	ePu	23 44 52.8	23 47 28.3 Norte de Colombia	6.9N	72.9W	151	5.0
07/03	CDM	ePu	04 36 52.4	04 55 50.4 Nueva Bretaña	4.5S	152.8E	41	6.2
07/03	CDM	iPd	13 10 08.9	13 11 54.5 Norte de Colombia	6.2N	76.8W	33	4.8
07/04	CDM	eP	08 51 35.8	08 55 07.2 Daxaca, México	17.6N	97.0W	71	5.0
07/05	CDM	eP	06 17 16.9	06 22 08.6 Islas Leeward	18.4N	63.0W	56	5.1
07/05	CDM	iPu	07 20 06.4	07 23 09.3 Chiapas, México	17.3N	94.0W	97	5.3
07/07	HDC2	ePd	11 25 12.0	11 33 21.2 Cerca de la costa central de Chile	32.9S	72.0W	32	5.4
07/08	CDM	ePd	01 54 15.9	01 56 47.6 Cerca de la costa de Chiapas, México	14.3N	93.1W	33	4.8
07/14	IRZ2	iPd	11 51 26.1	11 52 44.7 Sur de Panamá	4.9N	82.6W	10	4.8
07/17	HDC2	iPd	03 20 01.6	03 21 20.7 Fuera de la costa de Costa Rica	10.0N	86.2W	33	5.2
07/19	PTCR	eP	11 37 29.0	11 39 43.7 Cerca de la costa de Chiapas, México	14.5N	92.0W	33	4.8

FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVO ARRIVE	LAT. LAT.	LONG. LONG.	Z Z	mb mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	Km	
07/21	CDM	ePd	13 10 33.3	13 14 47.4	19.0N	68.0W	23	5.7
								Passage Mona, Mar Caribe
07/21	CDM	ePu	23 59 05.6	00 00 36.2	3.5N	82.8W	10	4.6
								Sur de Panamá
07/22	CDM	ePd	09 26 52.1	09 45 58.2	6.3S	148.7E	33	5.9
								Nueva Bretaña
07/26	CDM	ePd	17 57 00.4	18 00 42.2	5.4S	78.6W	33	5.3
								Norte de Perú
07/29	IRZ2	ePd	07 54 44.3	08 13 41.0	36.2N	70.9E	101	6.7
								Región del Indu Kush
07/29	CDM	ePd	11 35 53.7	11 38 54.7	17.7N	94.6W	46	5.3
								Chiapas, México
07/30	CDM	ePu	21 51 35.8	21 53 12.4	13.3N	89.1W	81	5.1
								El Salvador
08/01	CDM	eP	23 15 15.4	23 27 34.8	57.7S	25.4W	33	5.7
								Islas Sandwich del Sur
08/02	CDM	eP	07 46 51.4	08 05 47.5	36.2N	70.8E	103	6.1
								Región Indu Kush
08/04	CDM	eP	02 36 23.6	02 56 09.5	7.4N	123.5E	35	5.8
								Mindanao Islas Filipinas
08/04	CDM	ePd	18 57 16.7	18 58 50.7	8.9N	77.4W	33	4.9
								Frontera Panamá-Colombia
08/12	CDM	eP	00 04 50.9	00 14 35.5	38.4S	73.5W	33	5.5
								Cerca de la costa central Chile
08/13	CDM	ePu	05 29 19.1	05 34 52.4	15.0S	75.5W	26	5.4
								Costa de Perú
08/14	POA	eP	05 24 29.7	05 30 09.0	15.1S	75.6W	33	5.0
								Costa de Perú
08/17	JUD	ePd	06 58 55.4	06 59 57.7	13.0N	88.6W	81	5.1
								Fuera de la costa de América Central
08/18	JUD	ePu	23 15 01.7	23 16 40.0	14.4N	90.6W	33	4.9
								Guatemala

FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVO ARRIVE	LAT. LAT.	LONG. LONG.	Z Z	mb mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	Km	
08/19	CDM	eP	07 53 48.0	07 59 20.4	15.0S	75.6W	33	5.3
				Costa de Perú				
08/23	CDM	ePd	16 35 10.8	16 42 07.2	24.1S	67.0W	202	5.4
				Provincia de Salta, Argentina				
09/01	HDC2	ePd	01 00 55.2	01 04 03.7	19.8N	75.3W	10	5.1
				Cuba				
09/02	CDM	iPd	19 28 22.5	19 30 43.9	14.1N	91.7W	33	4.8
				Guatemala				
09/03	JUD	ePu	08 28 25.8	08 30 28.4	6.8N	76.5W	32	4.9
				Norte de Colombia				
09/08	CAO	ePd	15 30 10.2	15 31 48.9	15.2N	91.2W	160	4.5
				Frontera México-Guatemala				
09/12	PTCR	ePd	23 49 18.4	23 51 29.8	15.4N	91.7W	174	4.6
				Frontera México-Guatemala				
09/15	CDM	eP	07 57 53.7	08 01 16.2	18.0N	97.2W	67	5.9
				Oaxaca, México				
09/17	CDM	eP	10 39 26.7	10 41 31.5	13.4N	90.8W	33	4.7
				Cerca de la costa de Guatemala				
09/18	CDM	ePd	03 59 08.6	04 01 16.2	4.1N	76.9W	94	4.8
				Colombia				
09/19	PTCR	ePd	13 17 47.8	13 22 15.3	18.2N	102.6W	33	7.0
				Michoacán, México				
09/20	CDM	iPd	10 57 10.5	10 58 19.8	11.8N	87.9W	33	4.4
				Cerca de la costa de Nicaragua				
09/21	CDM	ePu	01 37 13.8	01 41 39.1	17.8N	101.7W	33	6.3
				Cerca de la costa de Guerrero, México				
09/24	CDM	ePd	20 28 51.8	20 48 21.6	6.4S	130.0E	140	5.7
				Mar de Banda				
09/26	CDM	ePd	07 27 48.9	07 41 31.3	34.6S	178.7W	33	6.5
				Sur de las Islas Kermadec				
09/26	CDM	ePu	08 33 27.1	08 41 36.8	33.6S	71.6W	47	5.6
				Cerca de costa central de Chile				

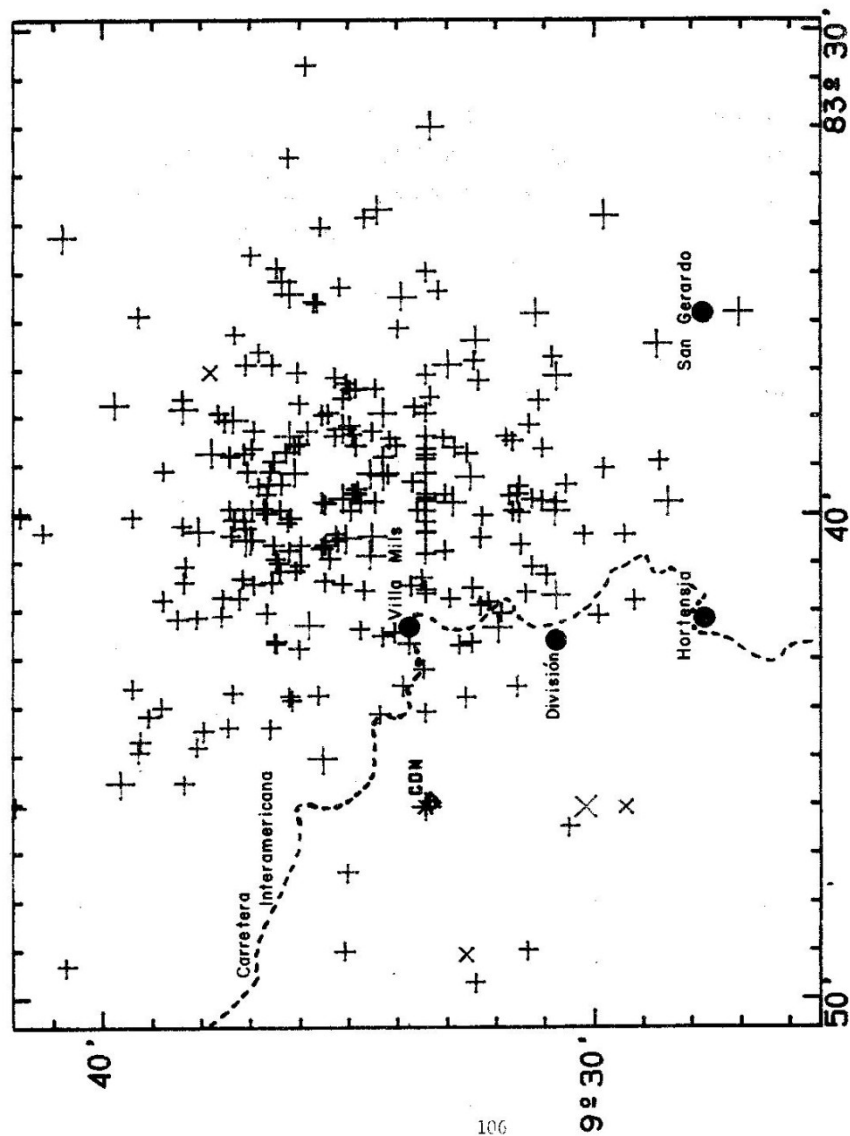
FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVO ARRIVE	LAT. LAT.	LONG. LONG.	Z Z	mb mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	Km	
10/02	JUD	ePu	02 21 06.3	02 22 54.7 Guatemala	14.1N	91.6W	33	4.8
10/09	CDM	eP	01 15 05.0	01 34 56.5 Java	6.9S	107.1E	158	5.9
10/11	CDM	ePu	03 39 11.0	03 41 27.3 Guatemala	15.3N	90.8W	5	4.6
10/12	JUD	ePd	20 29 24.5	20 30 37.1 El Salvador	13.2N	89.6W	75	5.2
10/18	CDM	iPu	17 49 40.8	17 50 50.7 Sur de Panamá	5.0N	82.2W	33	5.0
10/22	CDM	eP	00 48 30.1	00 51 04.9 Norte de Colombia	6.8N	73.1W	158	4.8
10/23	CDM	ePd	15 27 55.5	15 30 10.6 Guatemala	14.1N	91.9W	52	4.9
10/24	HDC2	ePu	01 48 56.0	01 56 55.3 San Juan, Argentina	31.4S	68.6W	111	5.7
10/25	CDM	eP	18 12 19.7	18 31 04.2 Mar de Banda	7.1S	124.3E	599	5.7
10/26	CDM	ePd	09 19 07.2	09 20 22.5 Costas de América Central	13.0N	89.7W	64	4.4
10/31	CDM	ePd	21 49 20.0	21 56 31.1 Santiago del Estero, Argentina	28.7S	63.2W	595	5.8
11/01	JUD	ePu	23 56 36.7	23 57 53.3 Costa de América Central	12.6N	90.0W	33	4.6
11/05	CDM	ePd	22 58 03.0	23 00 10.7 Colombia	5.1N	76.2W	103	4.9
11/15	JUD	iPu	05 39 11.2	05 40 14.4 El Salvador	13.1N	88.6W	79	5.1
11/18	PBC	iPd	07 41 08.2	07 41 57.4 Sur de Panamá	5.3N	82.6W	10	4.3
11/27	JUD	ePu	15 08 58.6	15 09 33.9 Costa de Guatemala	14.0N	90.9W	77	5.0

FECHA DATE	EST STA	FASE PHASE	T. ORIGEN ORIG. TIME	ARRIVO ARRIVE	LAT. LAT.	LONG. LONG.	Z	mo mb
MM/DD			HH MM SEG.	HH MM SEG.	GRAD.	GRAD.	km	
11/28	CDM	ePd	00 13 59.7	00 18 53.2	11.8N	161.3W	73	5.3
								Windward Islands, Mar Caribe
12/03	CDM	iPd	17 52 23.1	17 54 59.8	5.8N	73.0W	157	5.0
								Norte de Colombia
12/04	JUD	ePu	09 05 05.9	09 06 32.2	13.5N	90.6W	100	4.5
								Costas de Guatemala
12/12	CDM	eP	08 23 26.3	08 25 59.8	14.4N	91.1W	33	4.5
								Costa de Chiapas, México
12/12	JUD	eP	16 18 27.3	16 20 56.0	14.5N	93.0W	33	4.7
								Costa de Chiapas, México
12/13	CDM	ePu	07 10 11.2	07 12 14.7	14.1N	91.6W	151	4.8
								Guatemala
12/14	CDM	ePd	06 46 13.3	07 05 57.4	7.6N	126.7E	33	5.7
								Islas Talud
12/14	CAO	ePu	12 39 18.0	12 39 52.5	11.4N	86.0W	33	5.0
								Nicaragua
12/16	CAO	iPu	02 44 35.5	02 45 11.2	11.7N	85.8W	21	3.2
								Nicaragua
12/19	CDM	ePd	07 32 01.0	07 34 22.5	15.3N	91.9W	33	4.7
								Frontera Mexico-Guatemala
12/21	JUD	eP	22 56 54.6	22 58 50.2	14.1N	92.2W	33	5.1
								Costa de Chiapas, México
12/23	CDM	ePd	05 16 03.9	05 26 12.9	62.2N	124.3W	10	5.4
								Nordeste de Canadá
12/25	CDM	ePd	15 42 42.4	15 50 53.2	62.1N	124.1W	10	5.7
								Nordeste de Canadá

V. SECUENCIA DE REPLICAS ASOCIADAS AL TERREMOTO DE
SAN ISIDRO, PEREZ ZELEDON, DEL 3 DE JULIO DE 1983.
AFTERSHOCK SEQUENCE ASSOCIATED WITH THE JULY 3, 1983,
SAN ISIDRO, PEREZ ZELEDON, EARTHQUAKE.

MAPAS Y GRAFICOS.

MAPS AND GRAPHS.



MAGNITUD CONT.
 1.0- 1.9 0
 2.0- 2.9 214
 3.0- 3.9 41
 4.0- 4.9 0
 5.0- 8.0 0
 PROFUNDIDAD CONT.
 0.- 24.9 250
 25.- 49.9 5
 50.- 74.9 0
 75.- 99.9 0
 100.-250.0 0
 GRAFICADOS CONT.
 CERRO 1984 255
 SIN GRAFICAR 1
 ESTACION

10 KM
 OBSERVATORIO VULCANOLÓGICO
 Y SISMOLÓGICO DE COSTA RICA
 UNA - HEREDIA

MAPA V-I
 SISMICIDAD CERRO DE LA MUERTE
 ABRIL-DICIEMBRE 1984

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA

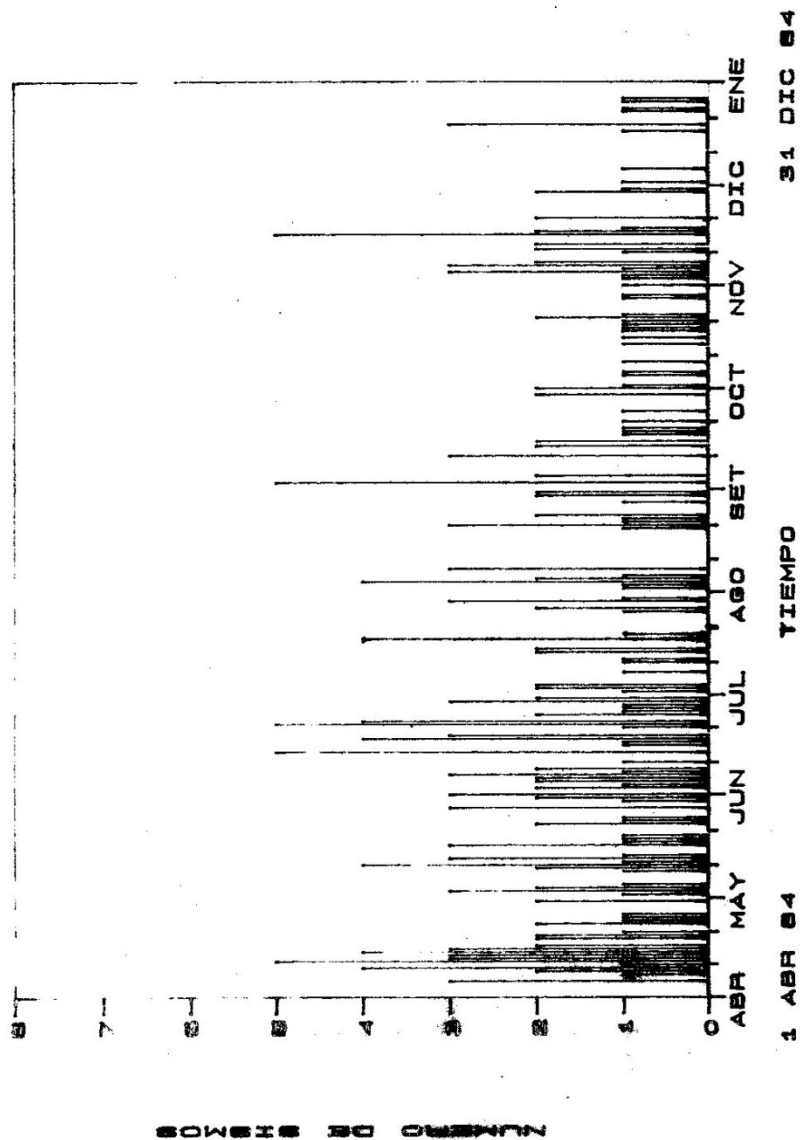


GRAFICO V-1
CERRO DE LA MUERTE (1984)

DIAGRAMA ACUMULATIVO DEL NUMERO DE EVENTOS POR DIA

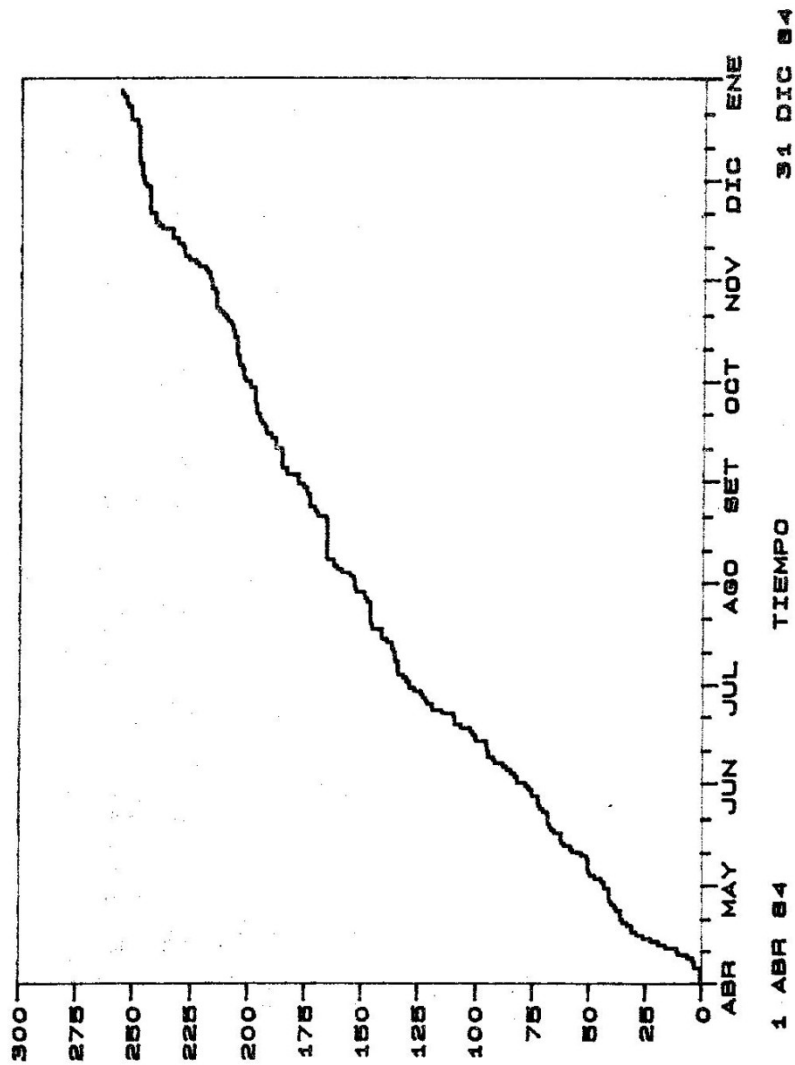


GRAFICO V-2

CERRO DE LA MUERTE (1964)

HISTOGRAMA DEL MOMENTO SISMICO POR DIA

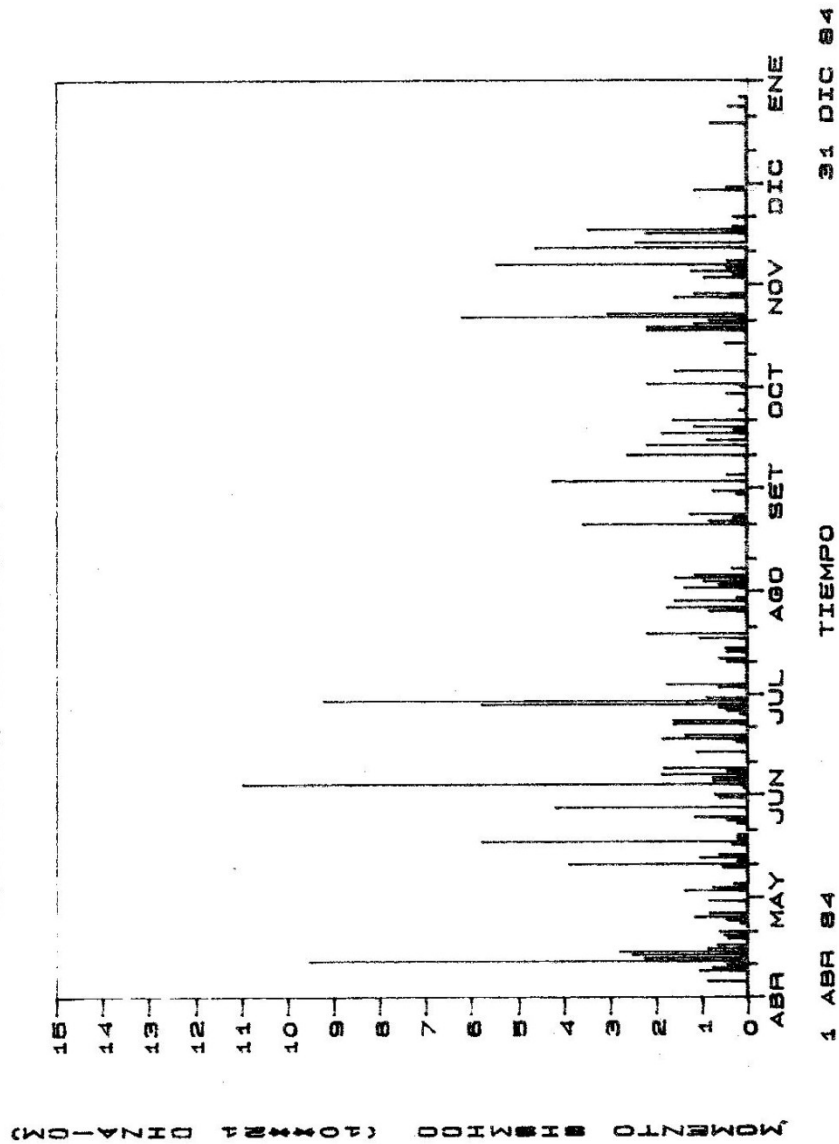


GRAFICO V-3
CERRO DE LA MUERTE (1984)

DIAGRAMA ACUMULATIVO DEL MOMENTO SISMICO POR DIA

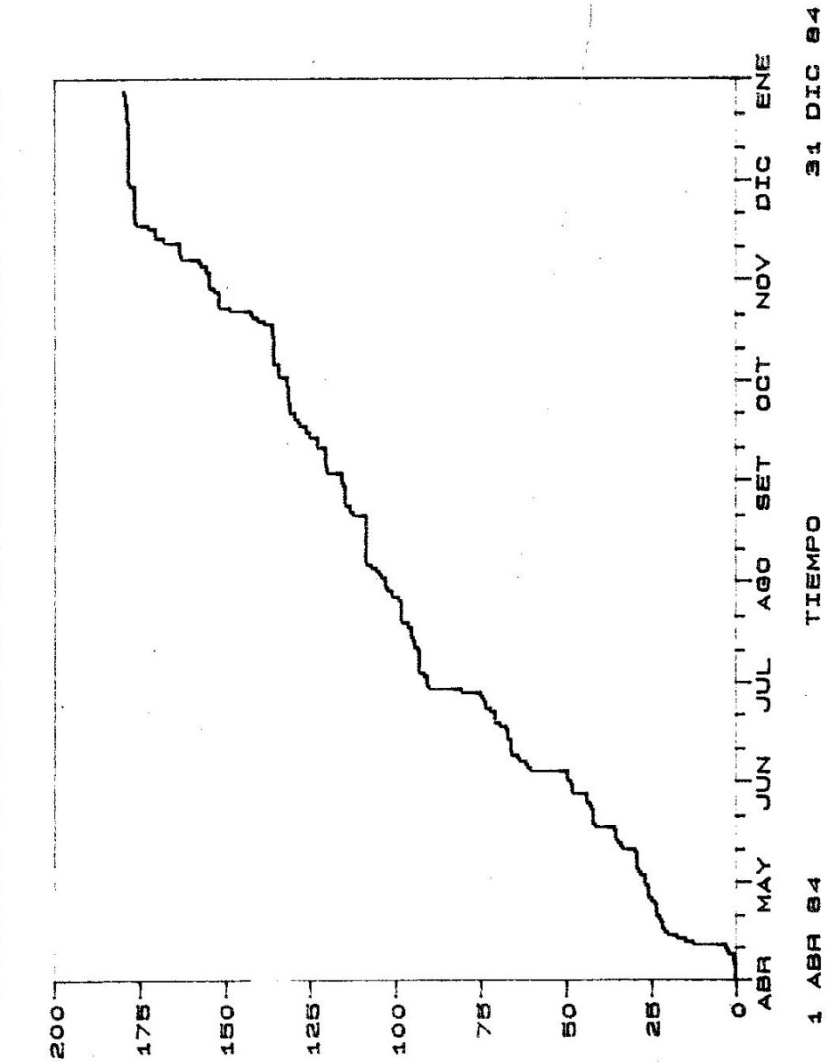
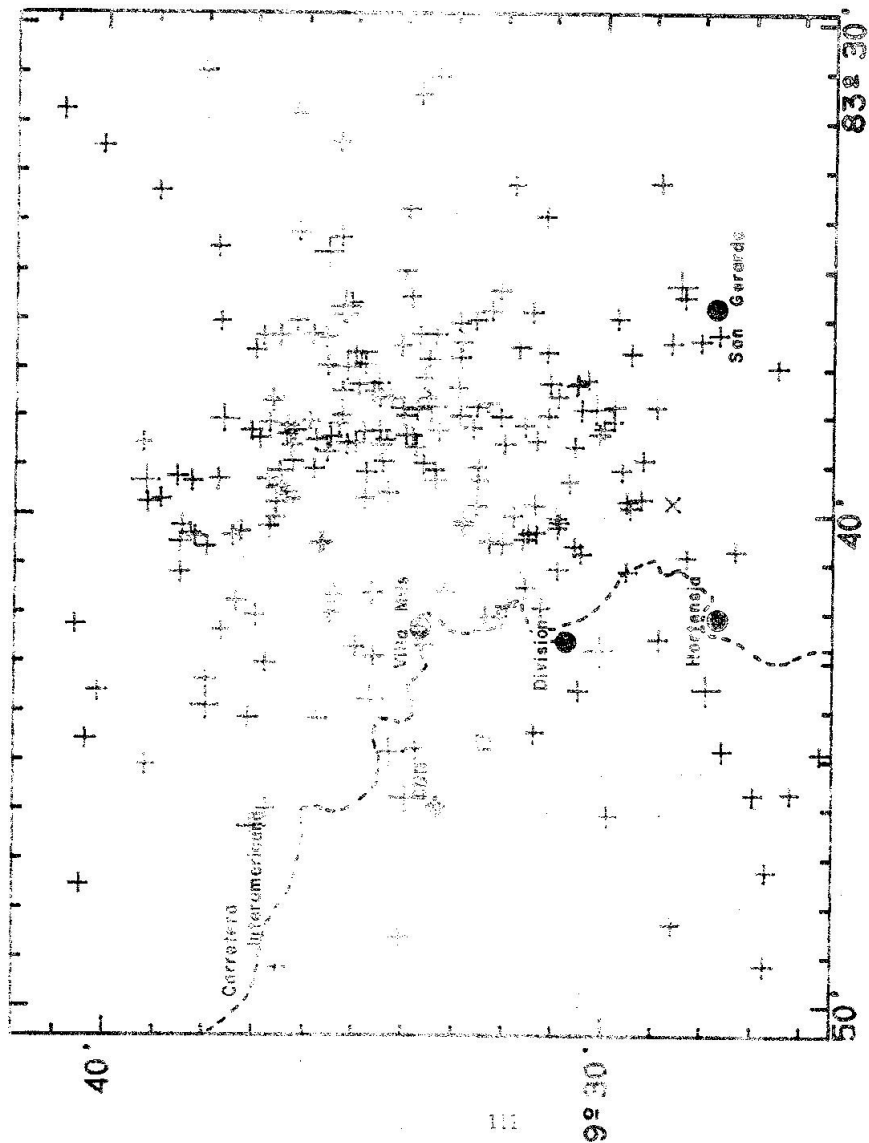


GRAFICO V-4

CERRO DE LA MUERTE (1984)



MAPA V-2

SISMICIDAD CERRO DE LA MUERTE

ENERO-DICIEMBRE 1985

MAGNITUD CONT.
1.0-1.9 1
2.0-2.9 209
3.0-3.9 16
4.0-4.9 0
5.0-5.9 0

PROFUNDIDAD CONT.
0.-24.9 324
25.-49.9 1
50.-74.9 0
75.-99.9 1
100.-250.0 0

GRAFICADOS CONT.
CERRO 1985 226
SIN GRAFICAR 2

ESTACION

10 KM

Observatorio Vulcanológico
y Sismológico de Costa Rica
UNA - Heredia

HISTOGRAMA DEL NUMERO DE EVENTOS POR DIA

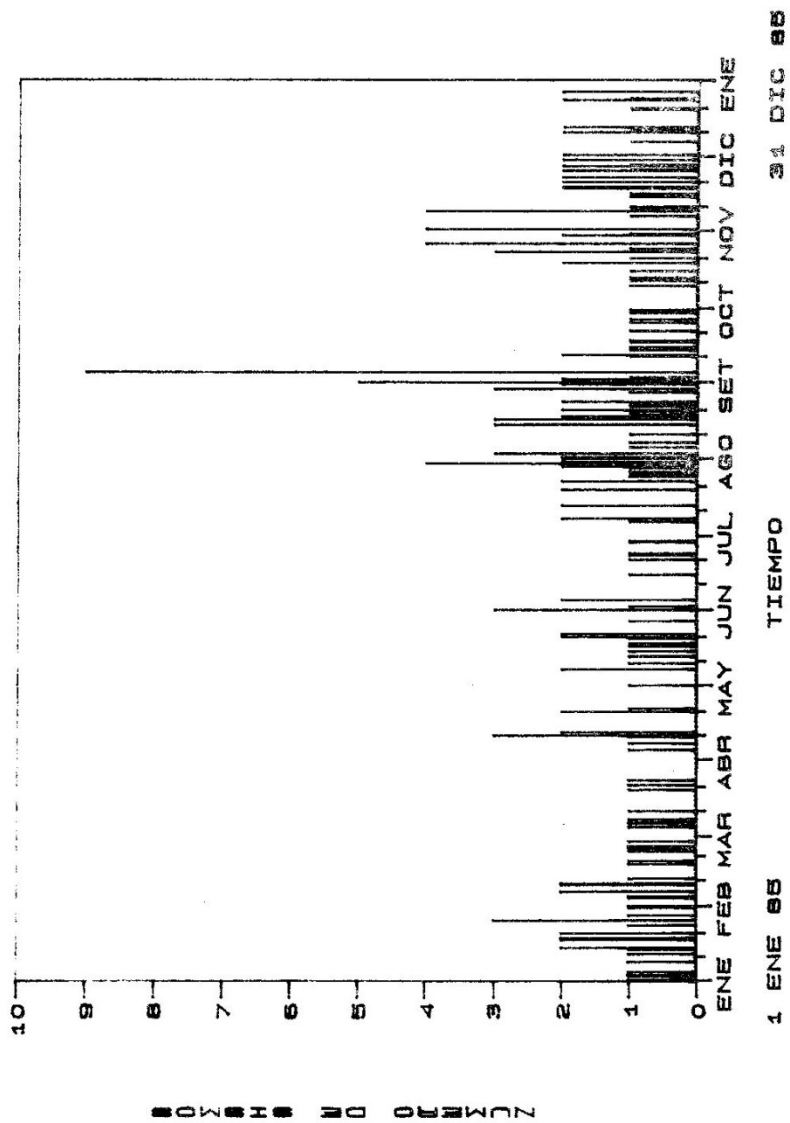


GRAFICO V-5
CERRO DE LA MUERTE (1985)

DIAGRAMA ACUMULATIVO DEL NUMERO DE EVENTOS POR DIA

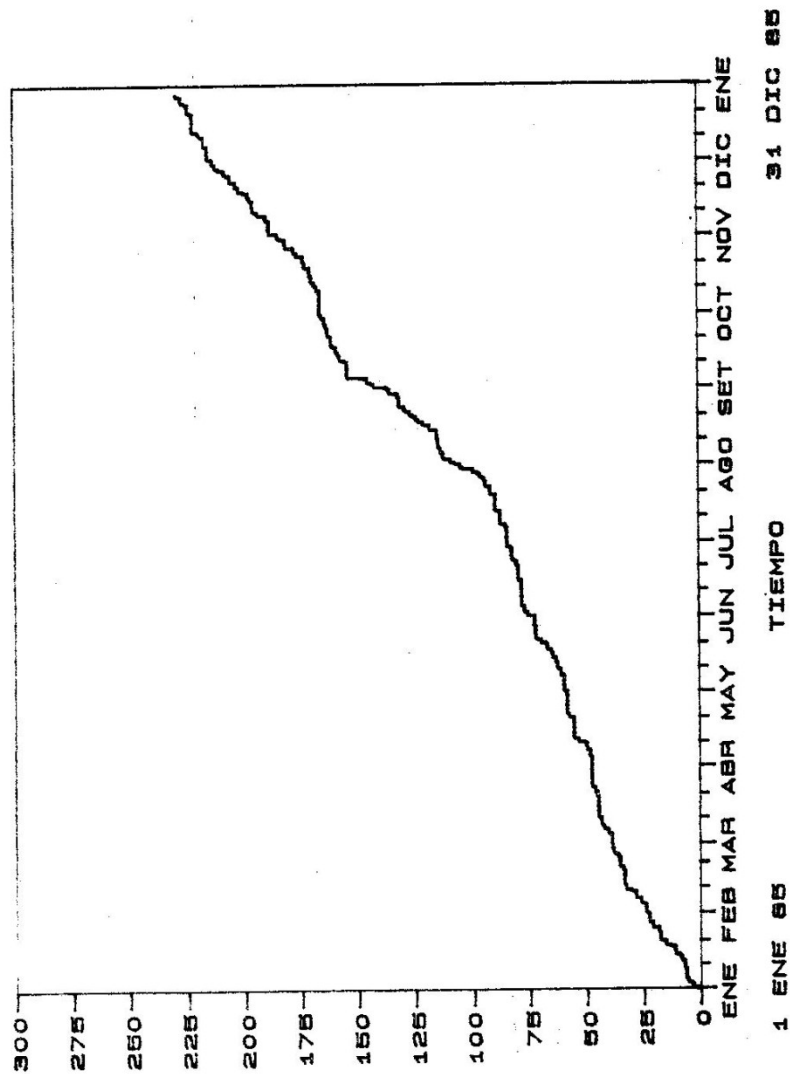


GRAFICO V-6
CERRO DE LA MUERTE (1985)

HISTOGRAMA DEL MOMENTO SISMICO POR DIA

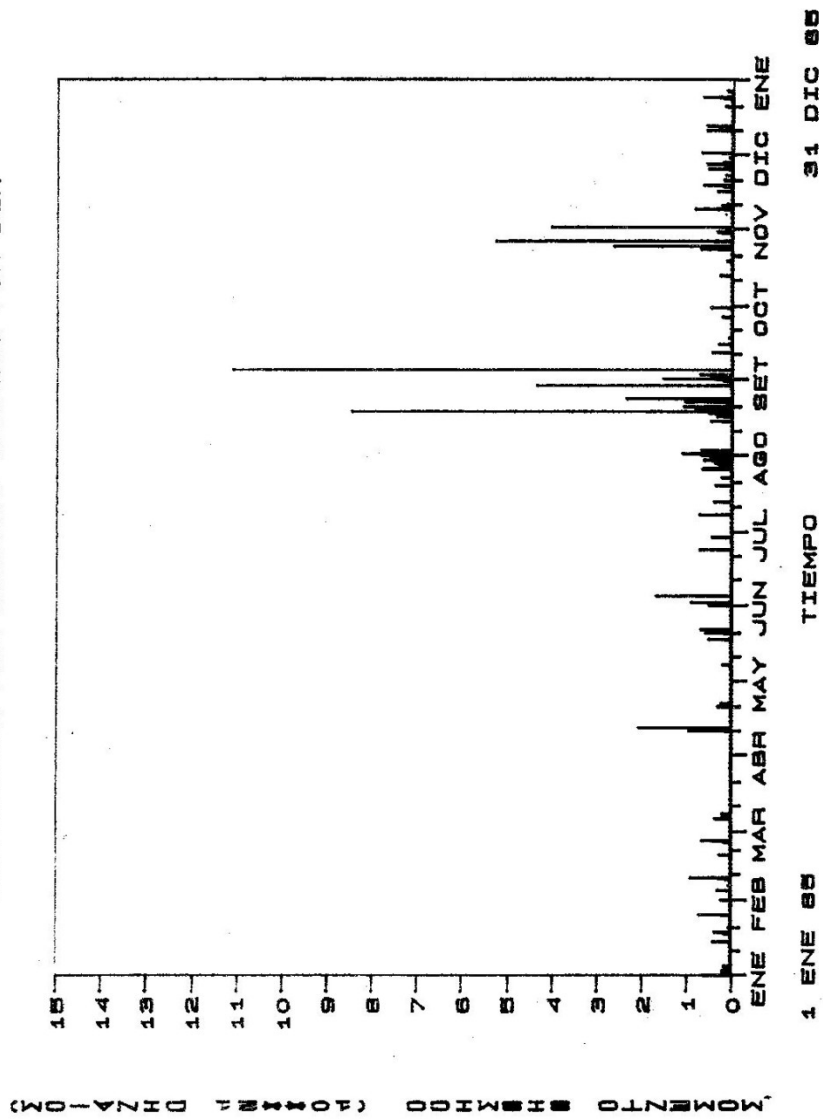


GRAFICO V-7

CERRO DE LA MUERTE (1985)

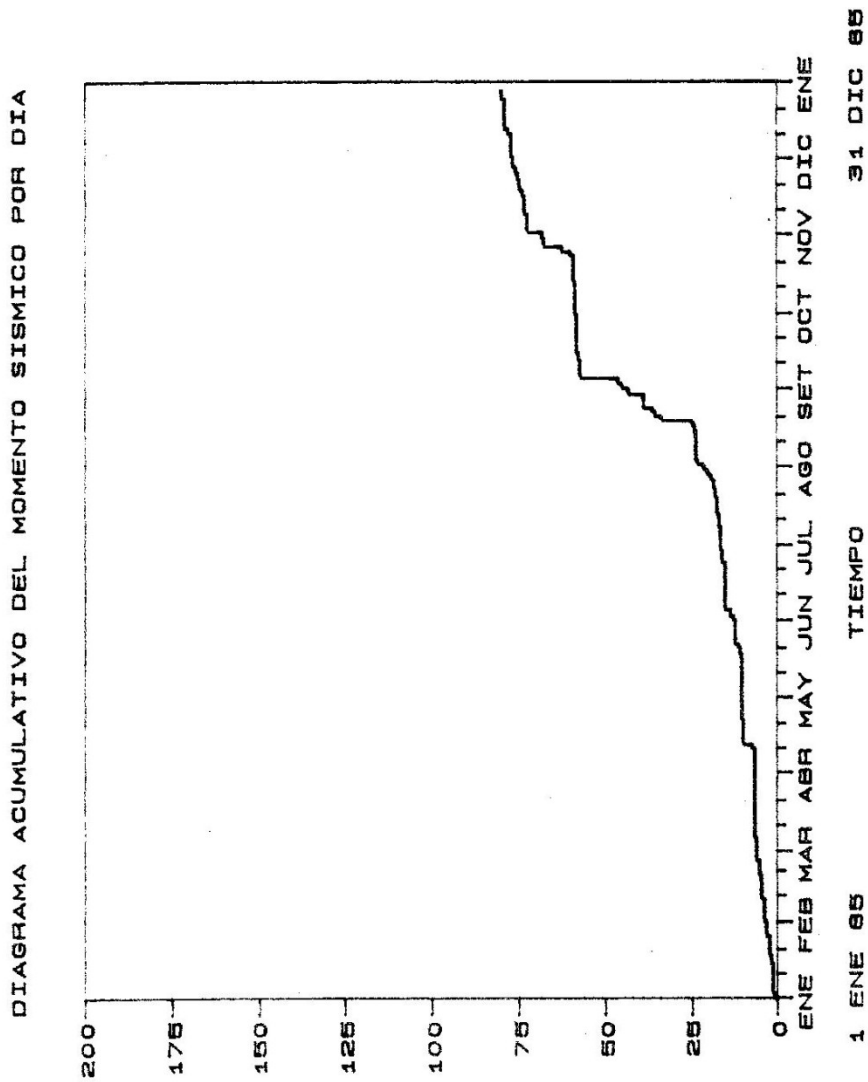
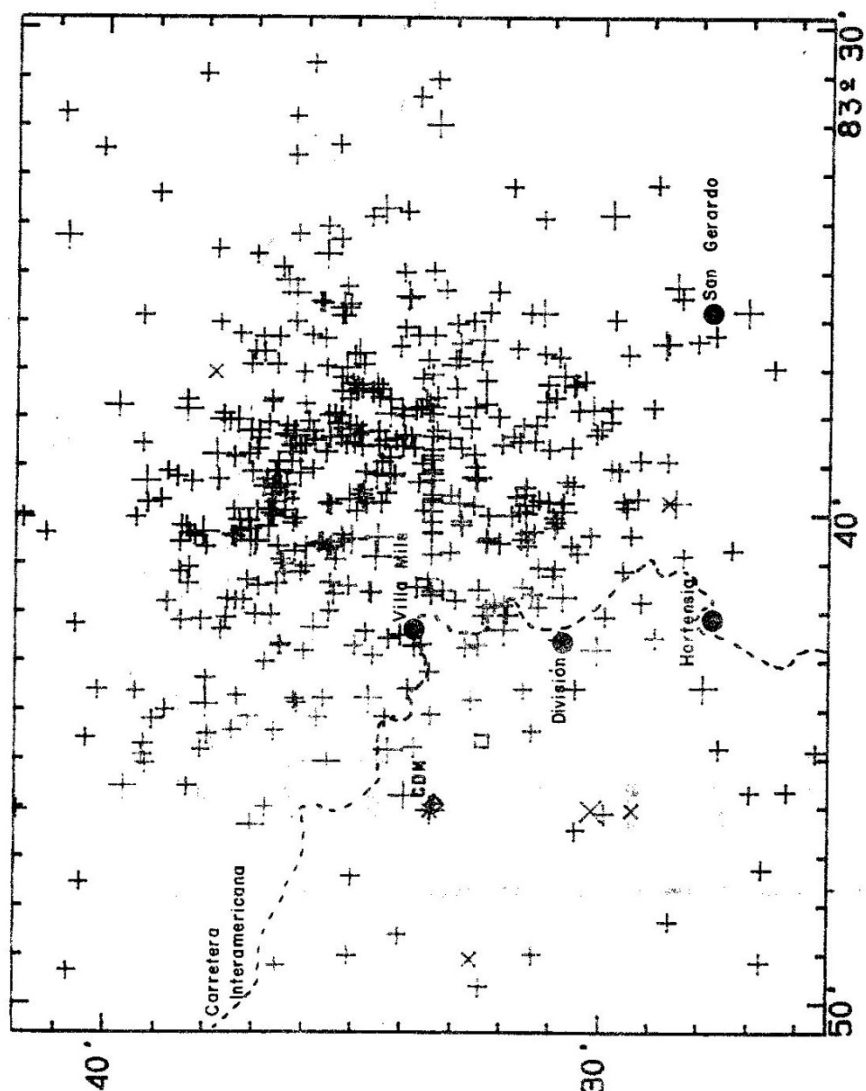


GRAFICO V-8

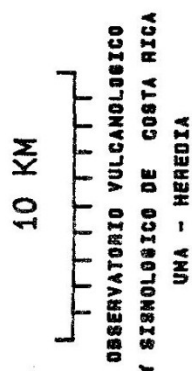
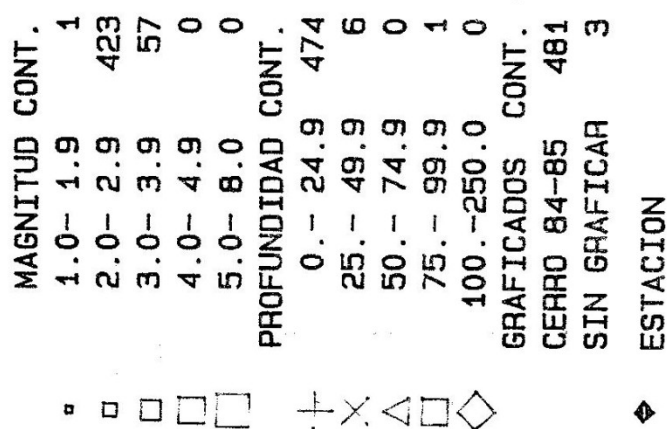
CERRO DE LA MUERTE (1985)



MAPA V-3

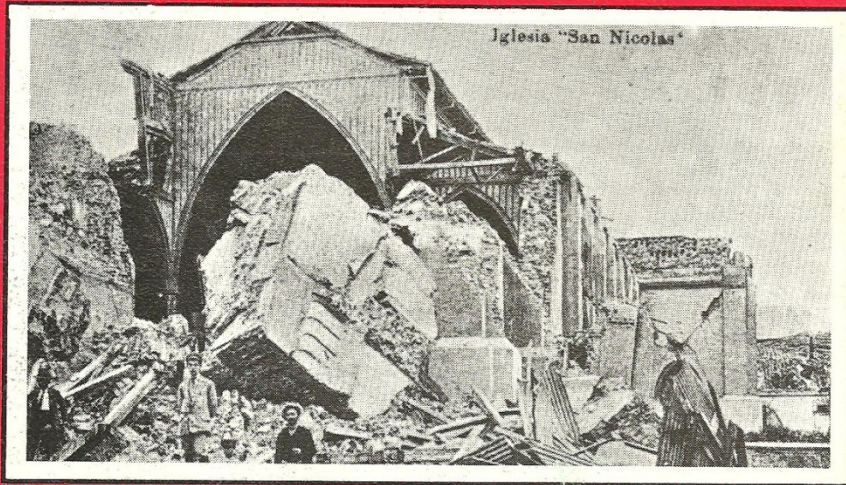
SISMICIDAD CERRO DE LA MUERTE

1984-1985



ESTE CATALOGO SE IMPRIMIO
EN EL DEPARTAMENTO DE PUBLICACIONES
DE LA UNIVERSIDAD NACIONAL.

AGRADECEMOS AL PERSONAL DE ESTE DEPARTAMENTO
POR LA GRAN COLABORACION BRINDADA
EN LA PUBLICACION DE ESTA EDICION.



Fotografías tomadas de: F. Fernández Esquivel, Terremoto de Cartago 1910. Universidad de Costa Rica. Serie Historia y Geografía No. 21. San José, Costa Rica. 1974.

