

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OPEN FILE REPORT

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Pamphlet accompanies map

Map of Quaternary faults in the vicinity of Managua, Nicaragua

A project of International Lithosphere Program Task Group II-2,
Major Active Faults of the World

A cooperative project between the U.S. Geological Survey (USGS) and Institute of
Geosciences, □University of Panama

Data compiled by Hugh Cowan and Xavier Amador. Digital representation by Karen S.
Morgan and □Richard L. Dart. Graphical representation by Lee-Ann Bradley. Project
coordination by Michael N. Machette □(Co-chairman, ILP Task Group II-2).

2000

Scale 1:750,000 Mercator Projection

(Longitude of central meridian, 85 W; latitude of true scale, 0 ; Clarke 1866 spheroid)

Mapa de fallas Cuaternarias del region de Managua, Nicaragua

Como parte del Programa Internacional de la Litósfera, Grupo de Trabajo II-2,
Principales Fallas Activas del Mundo

Un proyecto de cooperación entre el U.S. Geological Survey (USGS) y Instituto de
Geociencias, □University of Panama

Datos compilados por Hugh Cowan y Xavier Amador. Representacion digital por Karen
S. Morgan y
Richard L. Dart. Representacion grafico por Lee-Ann Bradley. Proyecto coordinado por
Michael N. Machette
(Co-chairman, ILP Grupo de Trabajo II-2).

2000

Escala 1:750,000 Proyección de Mercator

(longitud de meridiano central, 85 W; latitud de escala verdadera 0 ; con base en el
esferoide de Clarke 1866)

Plate Motion Data

No.	Location	Fixed Plate	Moving Plate	Relative	Direction
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			Velocity	(Azimuth)
1 88.4 W/10.7 N	Caribbean	Cocos	13.2 cm	320
2 88.4 W/16.6 N	Caribbean	North America	0.3 cm	43
3 89.4 W/16.0 N	North America	Caribbean	0.3 cm	226

MAP EXPLANATION

TIME OF MOST RECENT SURFACE RUPTURE

Historic (year)

Holocene (<10,000 yrs) or post glacial (<15,000 yrs)

Quaternary, undifferentiated (<1,600,000 yrs)

SLIP RATE

> 5 mm/yr

1-5 mm/yr

< 1 mm/yr

QUALITY

Continuous at map scale

Poor or discontinuous at map scale

Inferred or concealed

STRUCTURE TYPE

Thrust or reverse fault (teeth on upper block)

Strike-slip fault (sense unknown)

Right-lateral (dextral) strike-slip fault

Left-lateral (sinistral) strike-slip fault

Normal fault

SIMBOLOGIA DEL MAPA

EDAD DE ULTIMA RUPTURA SUPERFICIAL

Histórica (año)

Holocena (<10,000 años) o post glacial (<15,000 años)

Cuaternaria, sin diferenciar (<1,600,000 años)

TASA DE DESPLAZAMIENTO

> 5 mm/año

1-5 mm/año

< 1 mm/año (o desconocida)

CALIDAD

Continua a la escala del mapa

Pobre o discontinua a la escala del mapa

Inferida u oculta

TIPO DE ESTRUCTURA

Falla inversa o corrimiento (triángulos en bloque superior)

Transcurrante (senso desconocida)

Falla de rumbo dextral

Falla de rumbo sinistral

Falla normal (círculo en bloque hundido)

QUATERNARY FAULTS OF NICARAGUA
 LAS FALLAS CUATERNARIAS DE NICARAGUA

Number	Name of structure	Sense of movement (major/minor)	Time of most recent movement
Número	Nombre de estructura	Sentido de movimiento (mayor/menor)	Edad del último movimiento
NI-01	La Pelona fault zone	Unknown	<15 ka
NI-02	La Paz Centro fault zone	Unknown	<15 ka
NI-03	Mateare fault zone	Unknown	<1.6 Ma
NI-04	Asososca-Acahualinca and San Judas fault zone (Managua graben)	Unknown	<15 ka
NI-05	Estadio fault	Left-lateral	Historic (1931)
NI-06	Tiscapa fault	Left-lateral	Historic (1972)
NI-07	Aeropuerto fault	Strike slip	Historic (1650-1880, possibly 1765 or 1772)
NI-08	Unnamed faults, Eastern Managua graben	Strike slip	<15ka, possibly historic (1772?)
NI-09	Cofradia Fault, Eastern Managua graben	Normal	<15 ka
NI-10	Ochomogo fault zone	Not reported	<15 ka

This map was produced on request, directly from digital files, on an electronic plotter. It is also available as a PDF file at <http://geology.cr.usgs.gov> Digital data prepared with ARC/INFO version 7.2.1 running under Solaris version 2.7 on a Unix workstation. Last revision July, 2000. Map prepared by L.-A. Bradley using Adobe Illustrator version 9.0. Last revision September 2000.

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