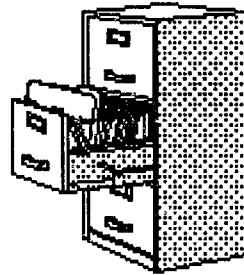


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# YUCCA MOUNTAIN GROUND MOTION STUDY

## REGRESSION MODELS, REVISION 2 VOLUME 10E



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**Yucca Mountain Ground Motion Study**

**Regression Models, Rev 2**

**Expert: Silva**

**Vol 10E**

**6/97**

Vol 10

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## 1. Introduction

This volume provides the results of the regression fits to the expert point estimates (Revision 2) using regression model 2 described below.

### 1.1 Functional Form of Regression

Regression model 2 is based on the functional forms given below. The independent variables are:

- M = moment magnitude
- R = distance (in km). This is dependent on the expert's selected distance measure.
- F = mechanism flag (0=strike-slip, 1 = normal)
- HW = Hanging wall flag (1=hanging wall, 0 = not hanging wall)
- FW = Footwall flag (1=footwall, 0=not footwall)

The resulting values for  $\mu$  are in natural logarithm of g for spectral acceleration and natural logarithm of cm/s for peak velocity. The  $\sigma$ ,  $\sigma_\mu$ ,  $\sigma_\sigma$  are all in natural log units.

#### Mu:

For  $M < a_{11}$

$$\mu = a_1 + a_2*(M-a_{11}) + a_6*(8.5-M)^2 + [a_3+a_5*(M-a_{11})] * \ln(R+a_8) \\ + a_7*F + a_9*f_1(M,R)*HW + a_{10}*f_1(M,R)*FW$$

For  $M > a_{11}$

$$\mu = a_1 + a_4*(M-a_{11}) + a_6*(8.5-M)^2 + [a_3+a_5*(M-a_{11})] * \ln(R+a_8) \\ + a_7*F + a_9*f_1(M,R)*HW + a_{10}*f_1(M,R)*FW$$

where  $f_1(M,R) =$

$$f_1(M,R) = \left\{ \begin{array}{ll} 0 & \text{for } R \leq c_{13} \\ \frac{(R-c_{13})}{(c_{14}-c_{13})} & c_{13} > R > c_{14} \\ 1 & c_{14} \geq R \leq c_{15} \\ \frac{(c_{16}-R)}{(c_{16}-c_{15})} & c_{15} > R > c_{16} \\ 0 & \text{for } R \geq c_{16} \end{array} \right\} * \left\{ \begin{array}{ll} 0 & \text{for } M < c_{11} \\ \frac{M-c_{11}}{c_{12}-c_{11}} & \text{for } c_{11} \leq M \leq c_{12} \\ 1 & \text{for } M > c_{12} \end{array} \right.$$

**Sigma:**

For  $M < b_4$

$$\sigma = b_1 + b_2*(M-b_4) + b_3*\ln(R+1)$$

For  $M \geq b_4$

$$\sigma = b_1 + b_3*\ln(R+1)$$

**Sigma Mu:**

$$\sigma_\mu = c_1 + c_2*(M-c_6) + c_3*\ln(R+1) + c_4*[\ln(R+1)]^2 + c_5*F$$

**Sigma Sigma:**

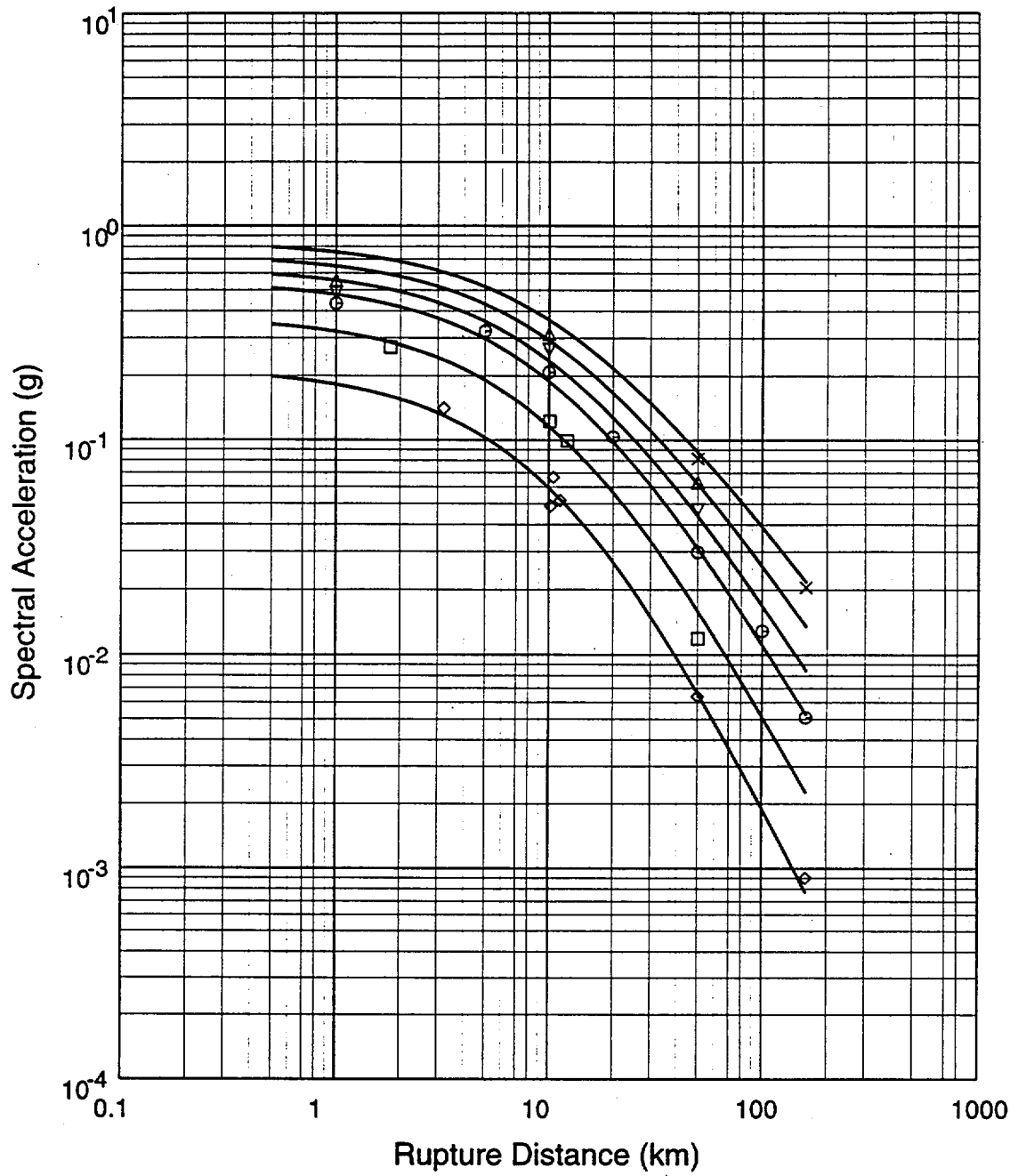
For  $M < d_4$

$$\sigma_\sigma = d_1 + d_2*(M-d_4) + d_3*\ln(R+1)$$

For  $M \geq d_4$

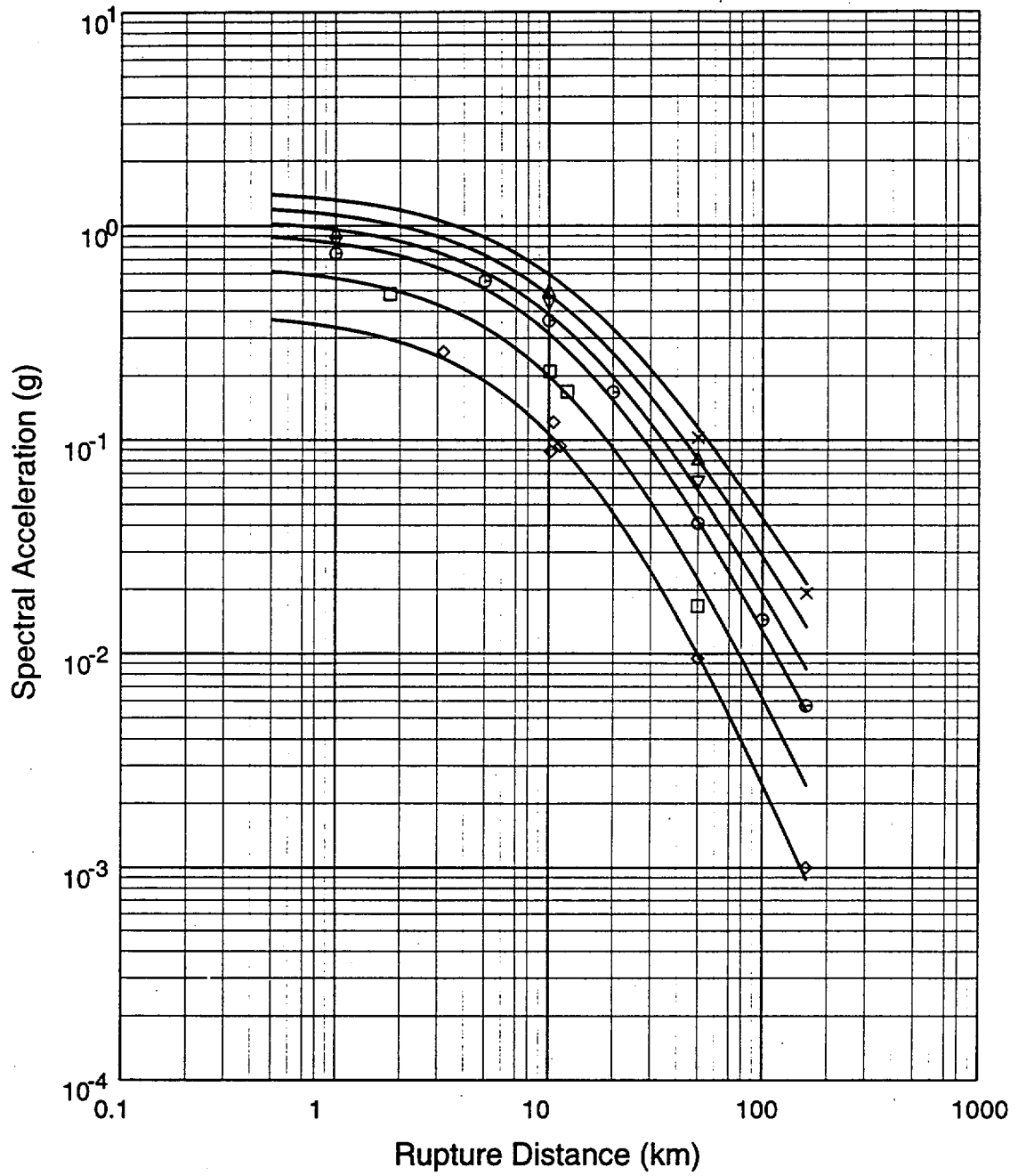
$$\sigma_\sigma = d_1 + d_3*\ln(R+1)$$

Silva, Rev1, 5/31/97, Model 2  
Strike-Slip Faulting Attenuation, Horizontal Comp  
Frequency = 100.0Hz



- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

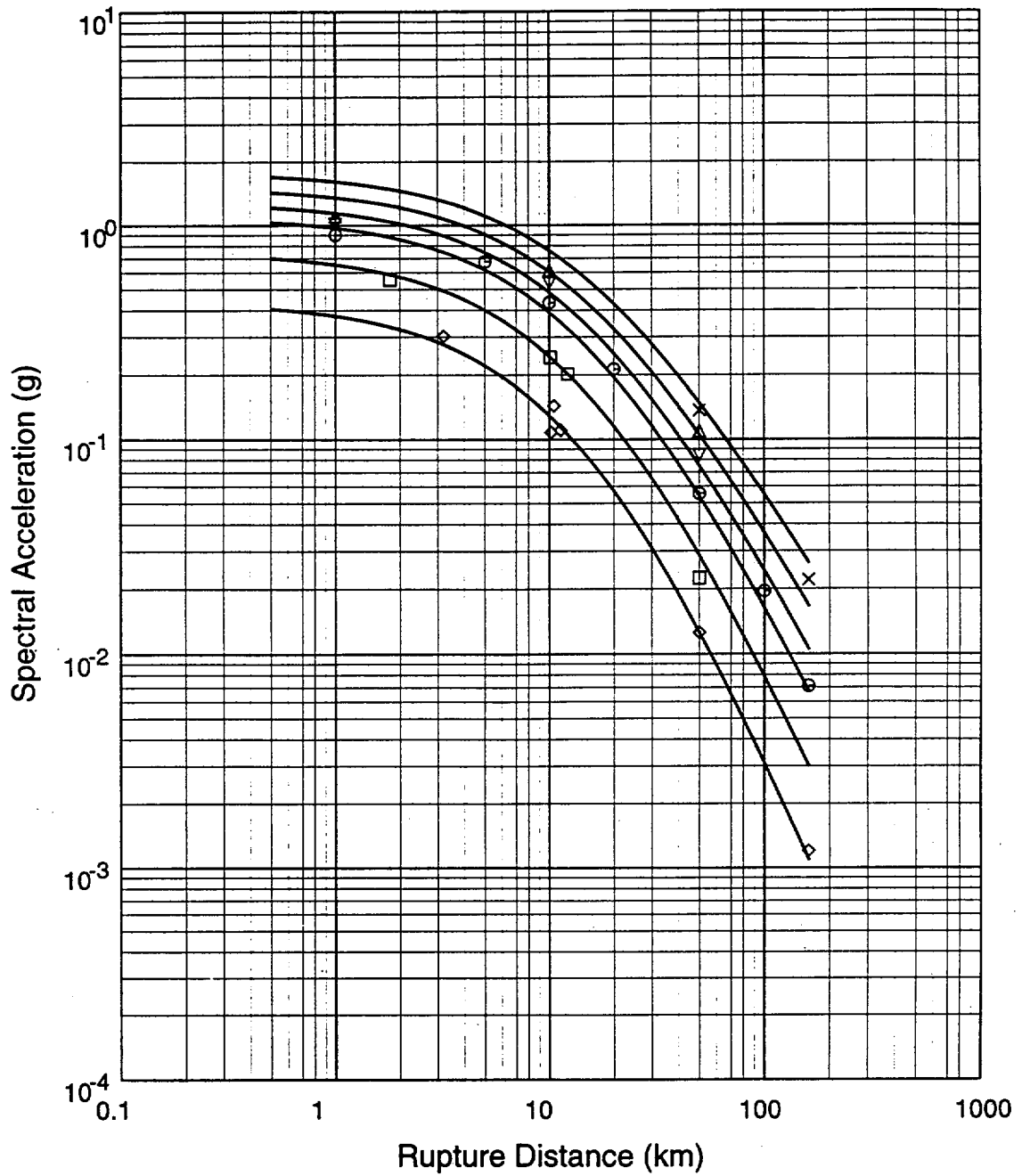
Silva, Rev1, 5/31/97, Model 2  
Strike-Slip Faulting Attenuation, Horizontal Comp  
Frequency = 20.0 Hz



- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

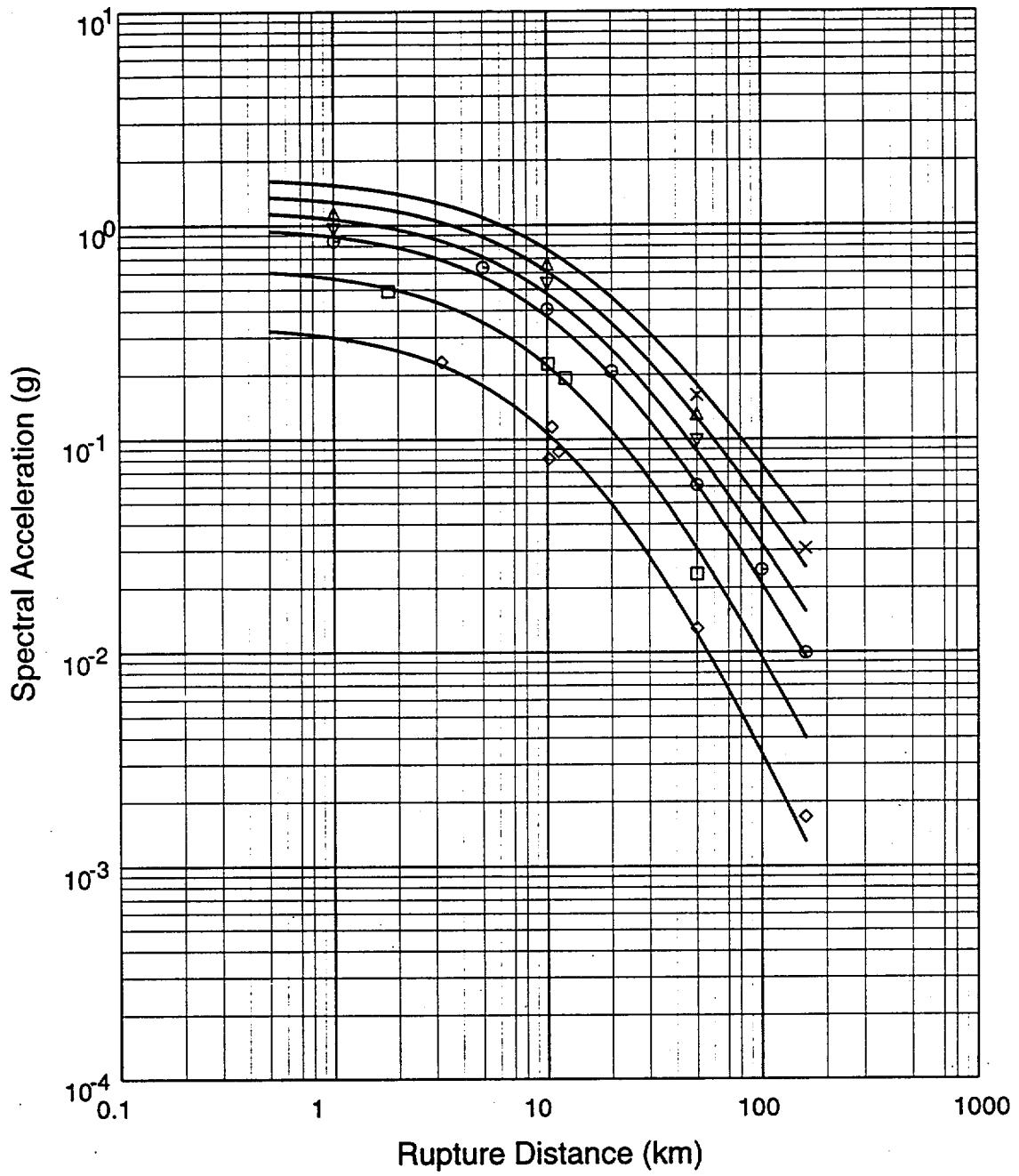


Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 10.0 Hz



- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
Strike-Slip Faulting Attenuation, Horizontal Comp  
Frequency = 5.0 Hz

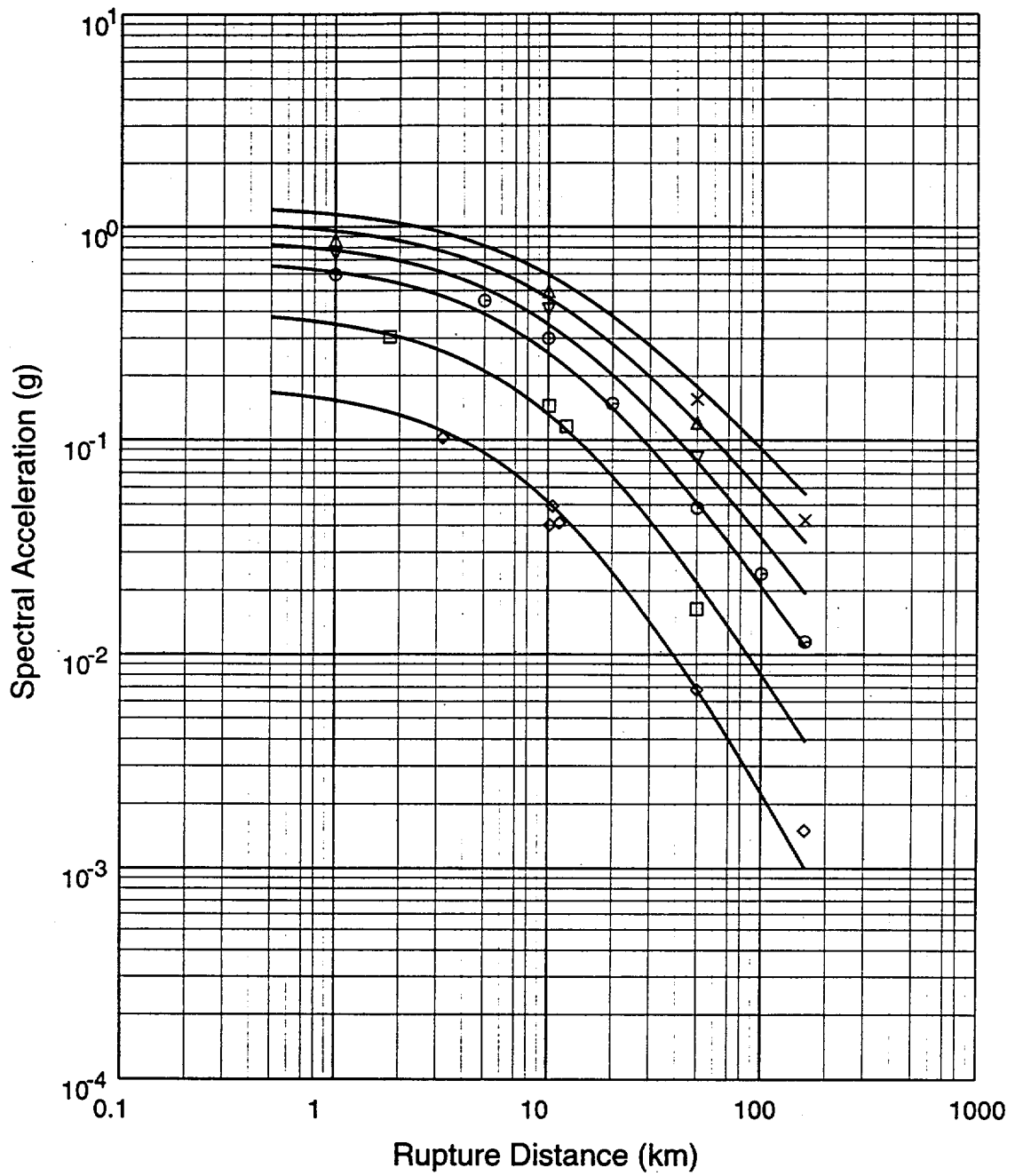


- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- X M 8.0, SS

Silva, Rev1, 5/31/97, Model 2

Strike-Slip Faulting Attenuation, Horizontal Comp

Frequency = 2.0 Hz

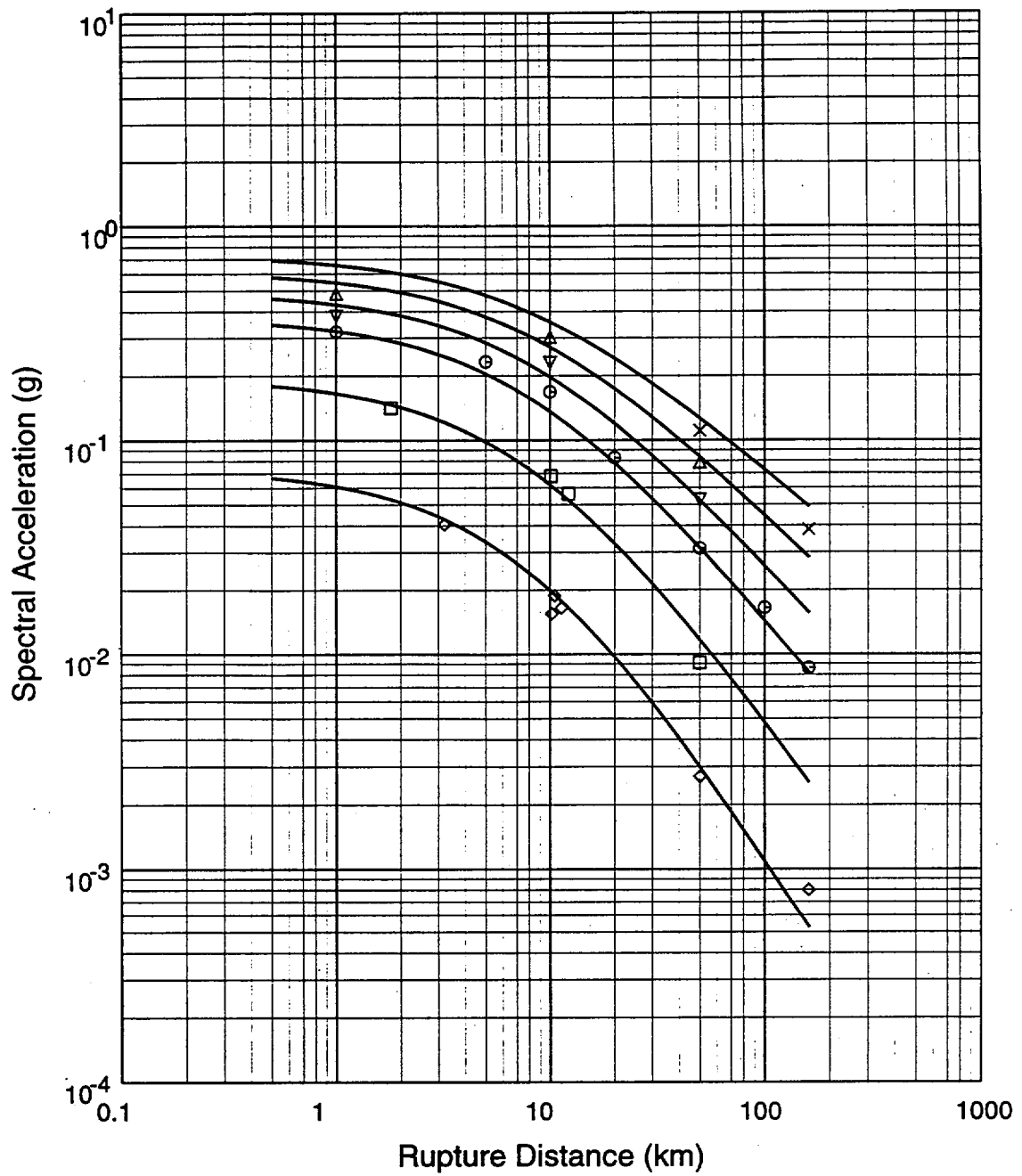


- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2

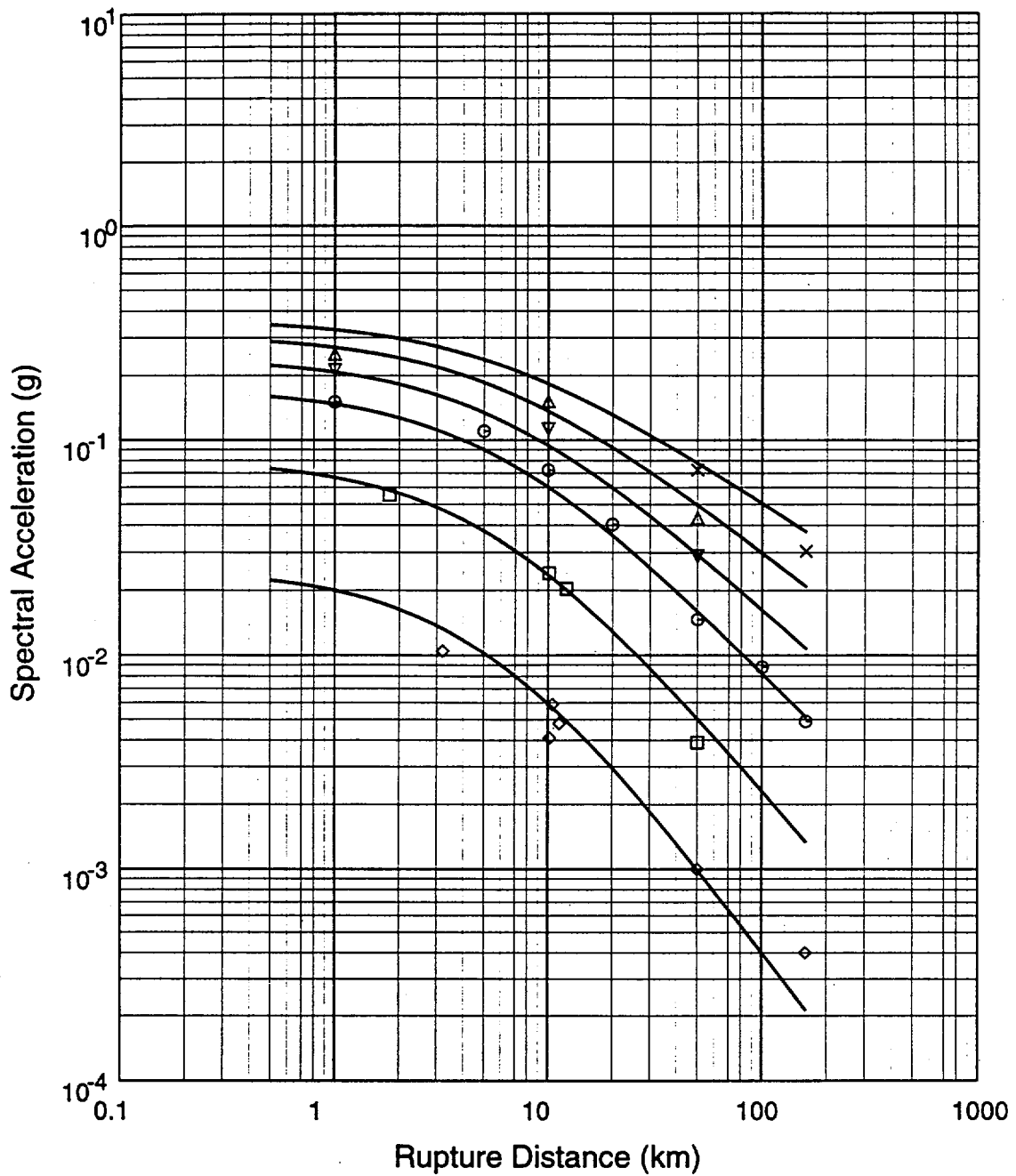
Strike-Slip Faulting Attenuation, Horizontal Comp

Frequency = 1.0 Hz



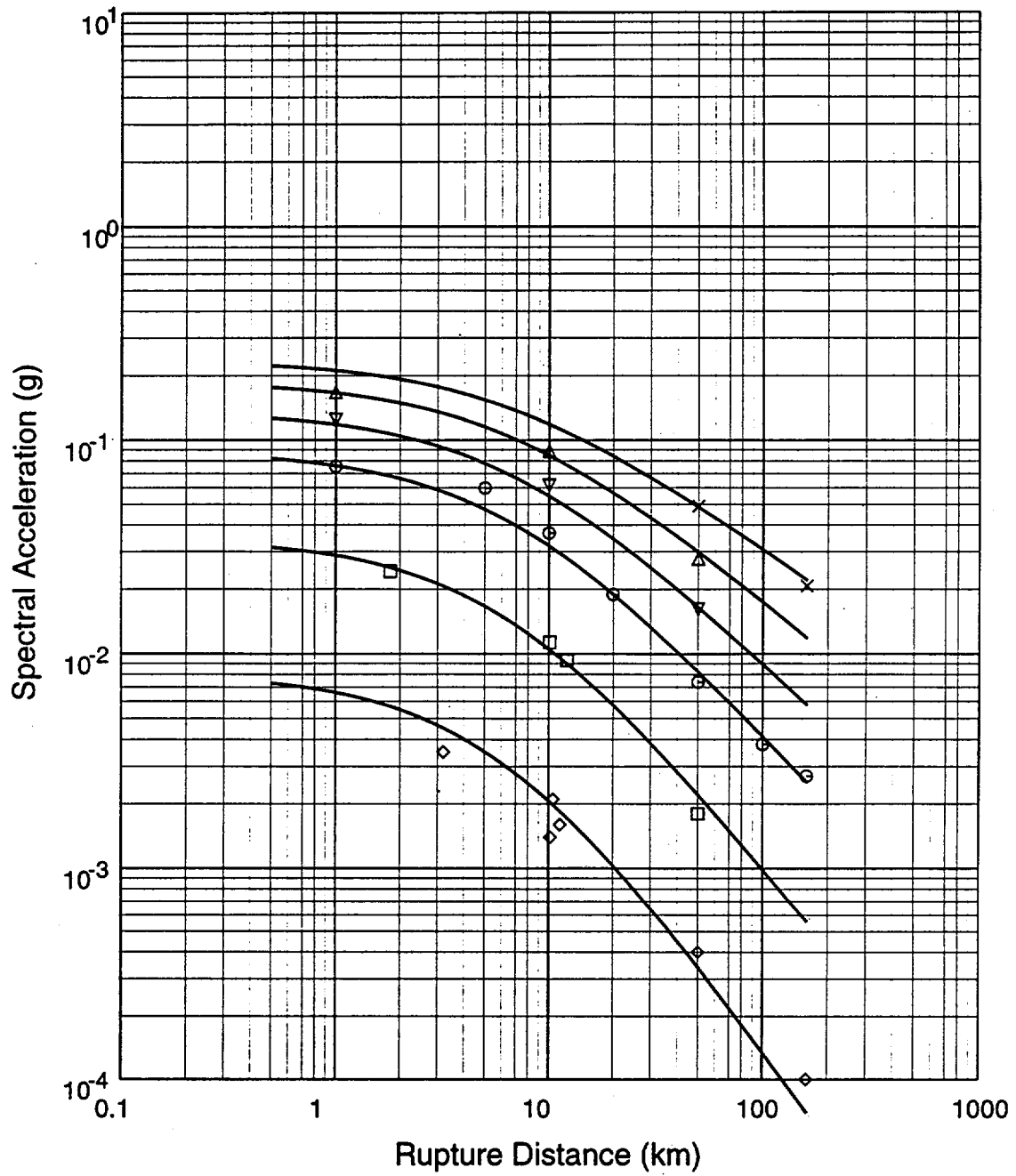
- ◇ M 5.0, SS
- M 5.8, SS
- ⊙ M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- X M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 0.5 Hz



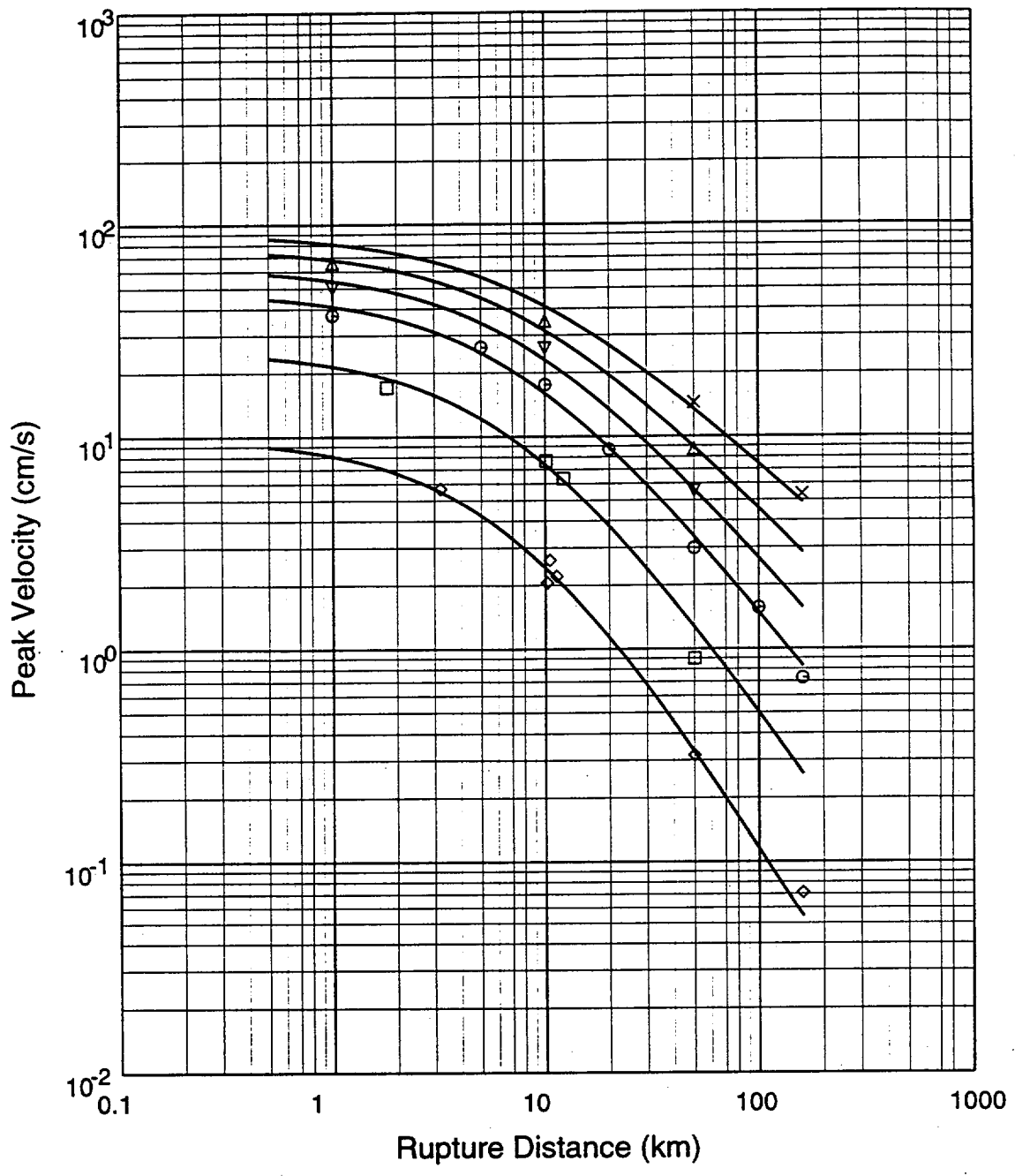
- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 0.3 Hz



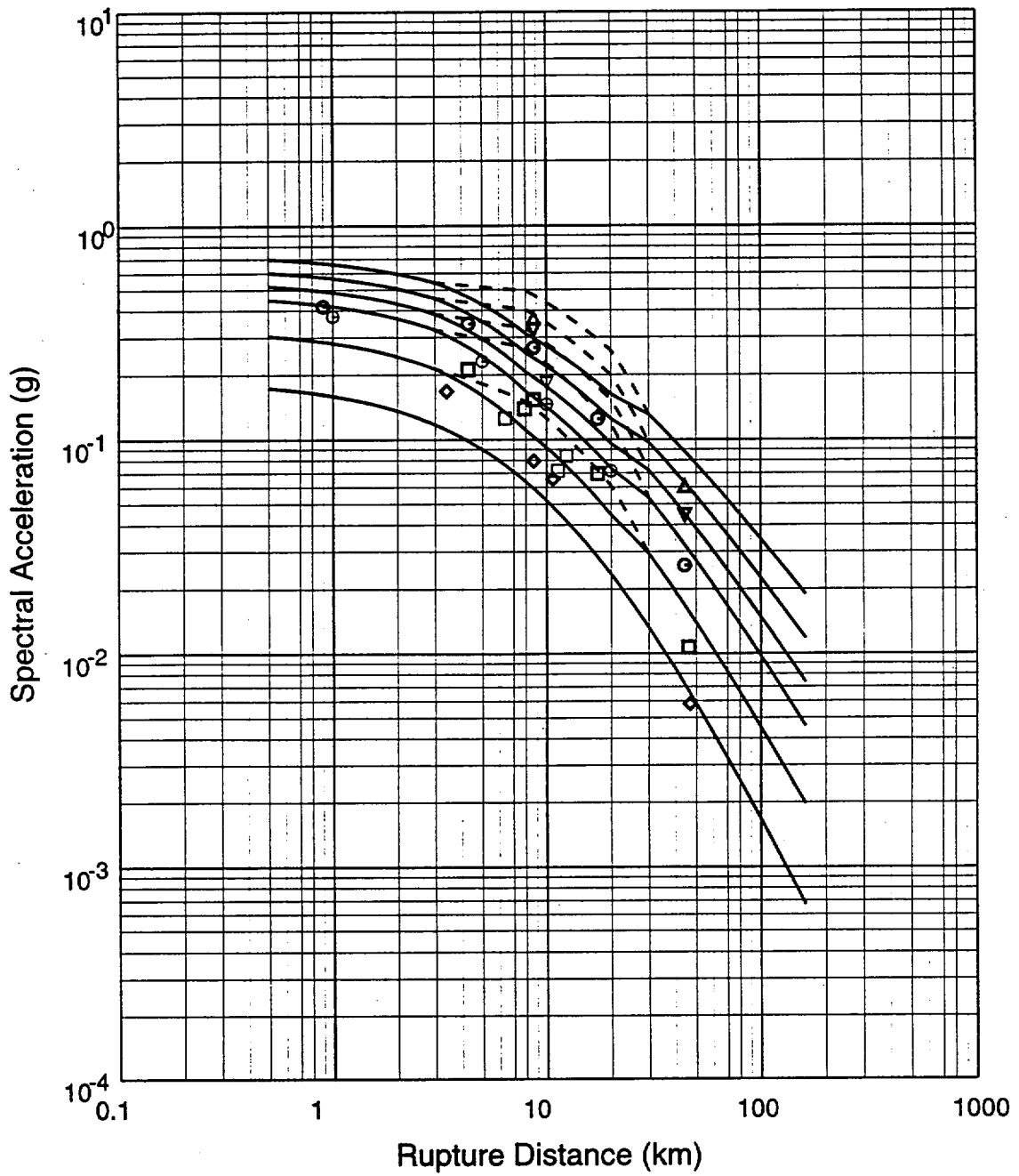
- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 6/11/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Peak Velocity



- ◇ M 5.0, SS
- M 5.8, SS
- ⊙ M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

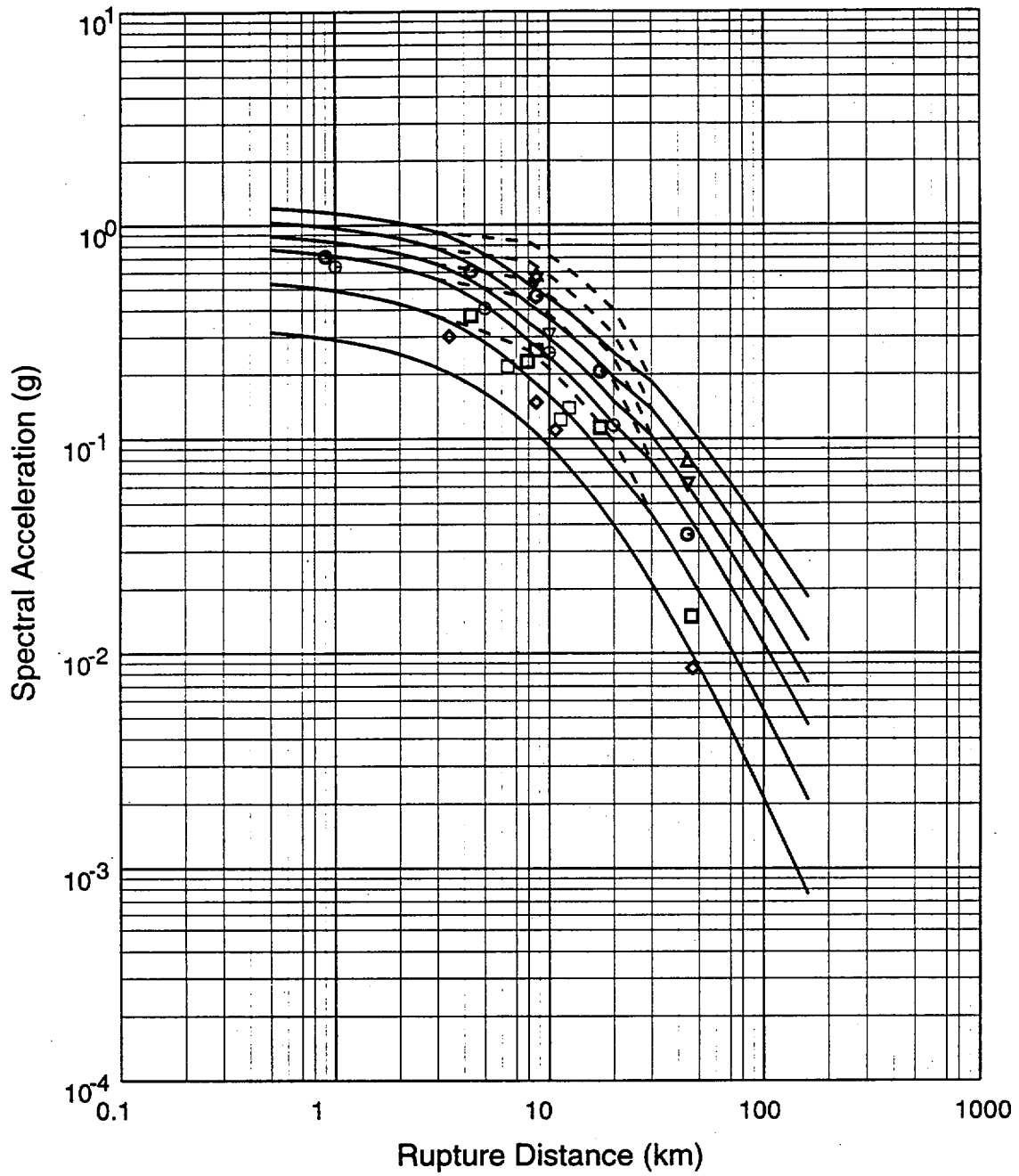
Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 100.0Hz



- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| x | M 8.0, FW |   |           |       |              |

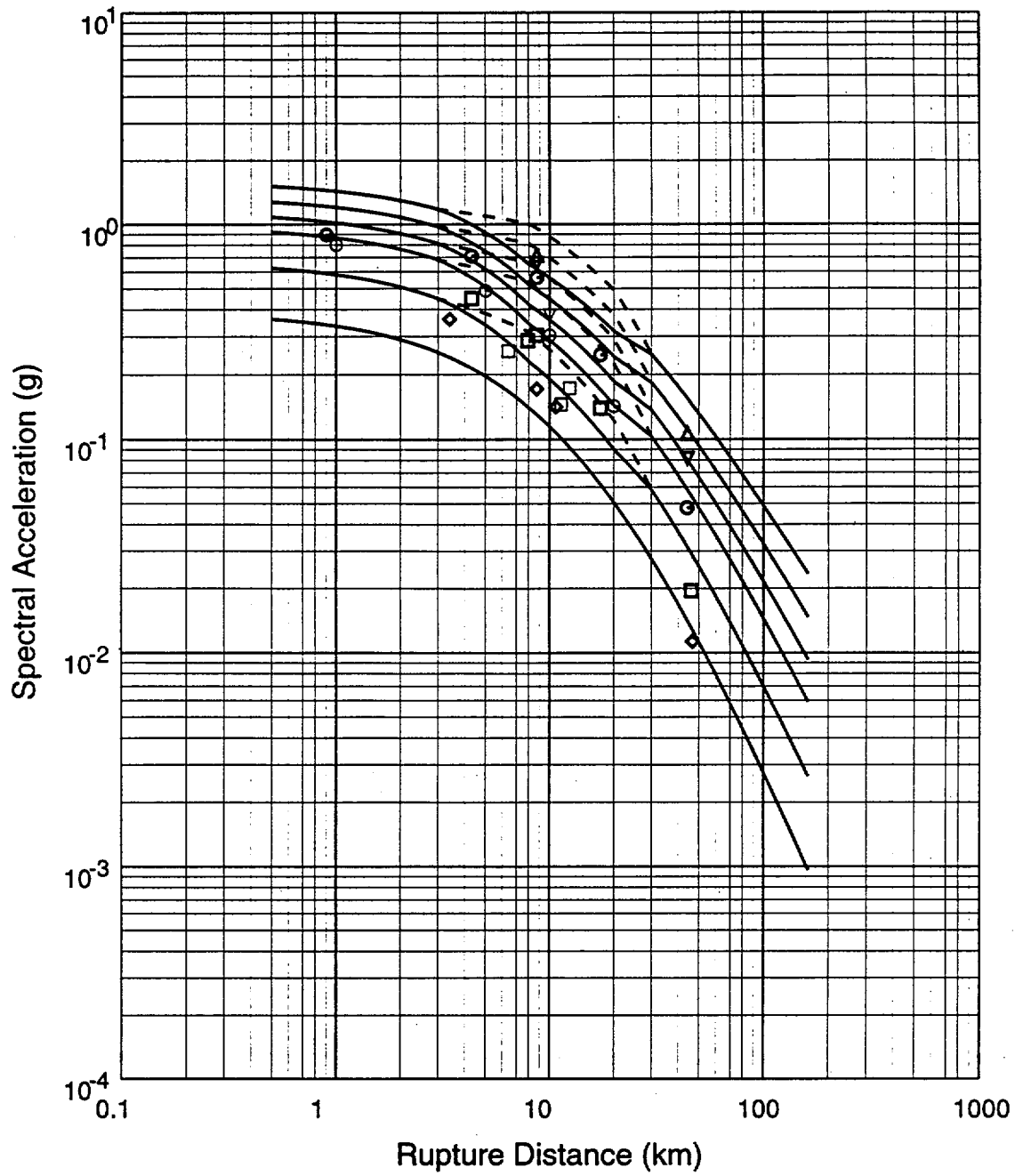


Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 20.0 Hz



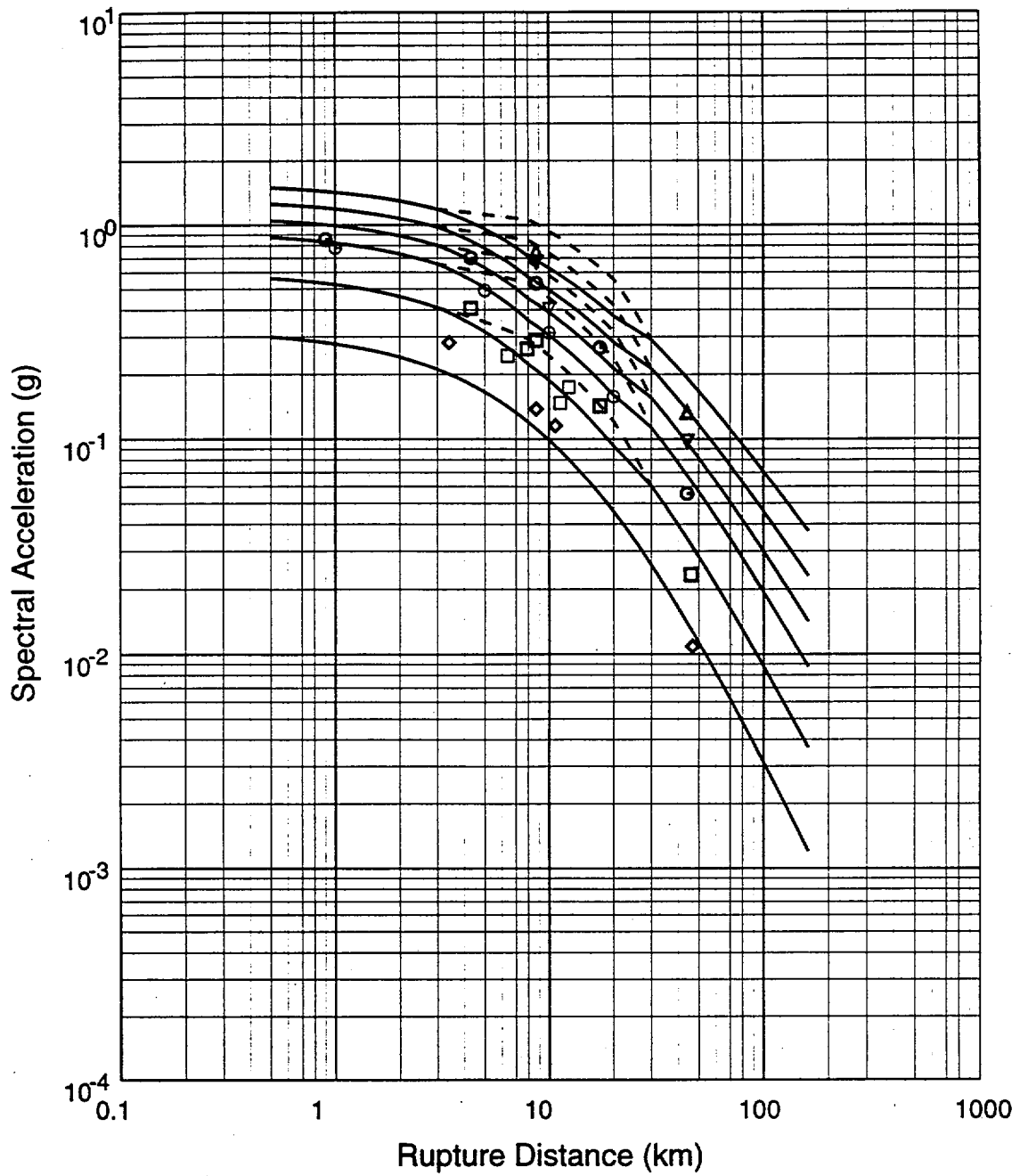
- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| x | M 8.0, FW |   |           |       |              |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 10.0 Hz



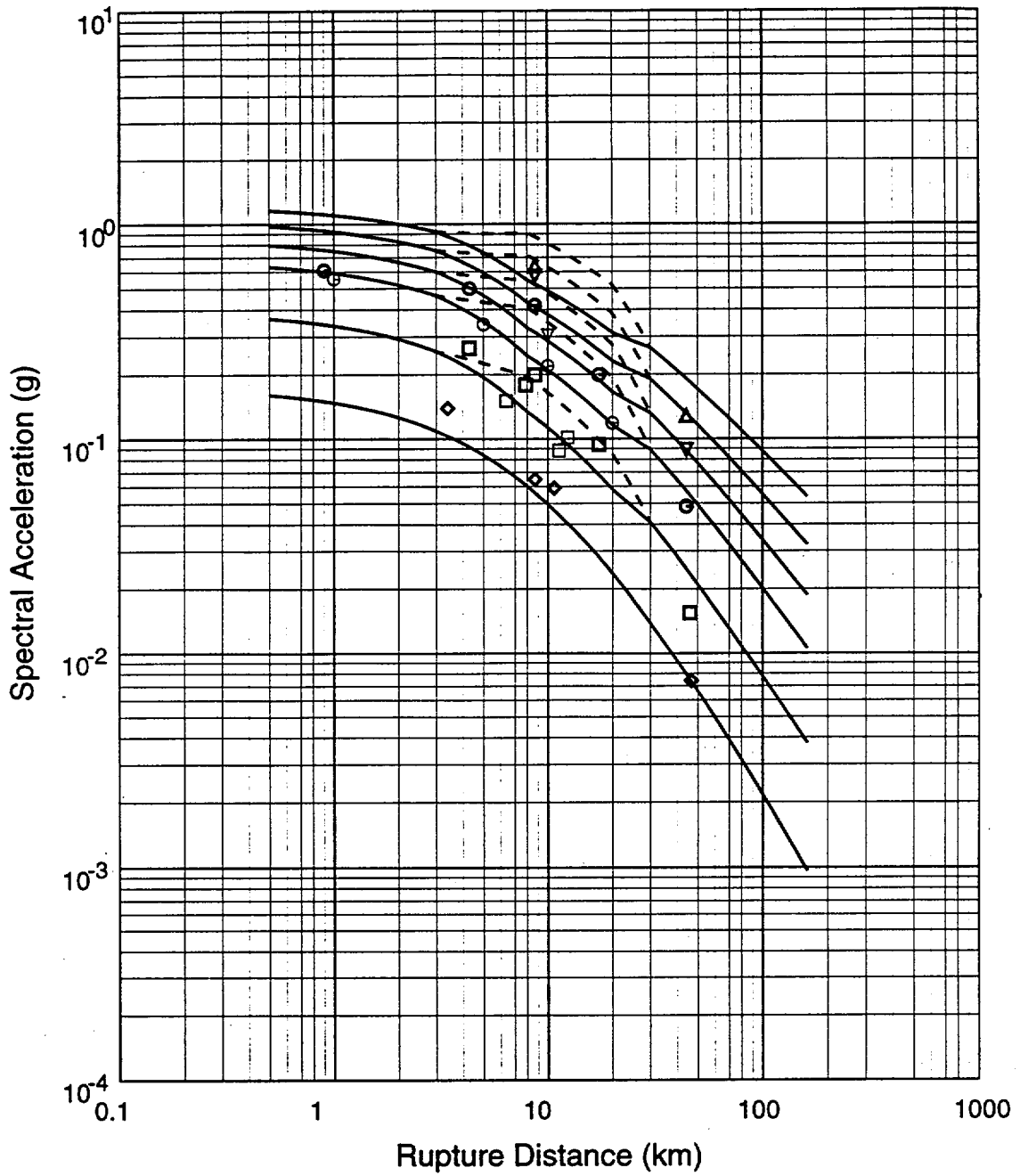
◇	M 5.0, FW	◇	M 5.0, HW	—	Footwall
□	M 5.8, FW	□	M 5.8, HW	- - -	Hanging wall
○	M 6.5, FW	○	M 6.5, HW		
▽	M 7.0, FW	▽	M 7.0, HW		
△	M 7.5, FW	△	M 7.5, HW		
x	M 8.0, FW				

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 5.0 Hz



- |   |           |   |           |           |              |
|---|-----------|---|-----------|-----------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —————     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - - - | Hanging wall |
| ○ | M 6.5, FW | ○ | M 6.5, HW |           |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |           |              |
| △ | M 7.5, FW | △ | M 7.5, HW |           |              |
| x | M 8.0, FW |   |           |           |              |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 2.0 Hz

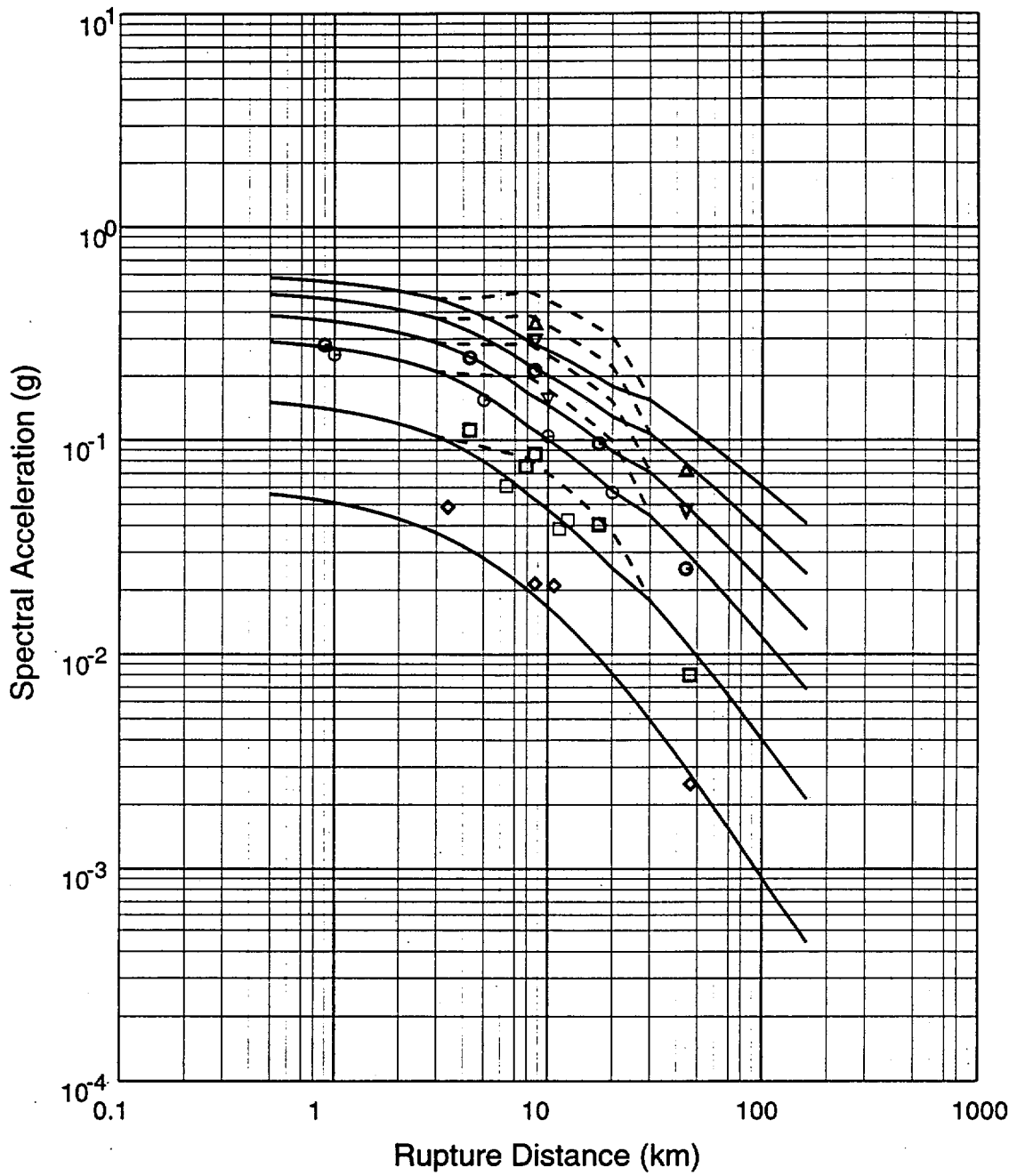


- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ○ | M 6.5, FW | ○ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| x | M 8.0, FW |   |           |       |              |

Silva, Rev1, 5/31/97, Model 2

Normal Faulting Attenuation, Horizontal Comp

Frequency = 1.0 Hz

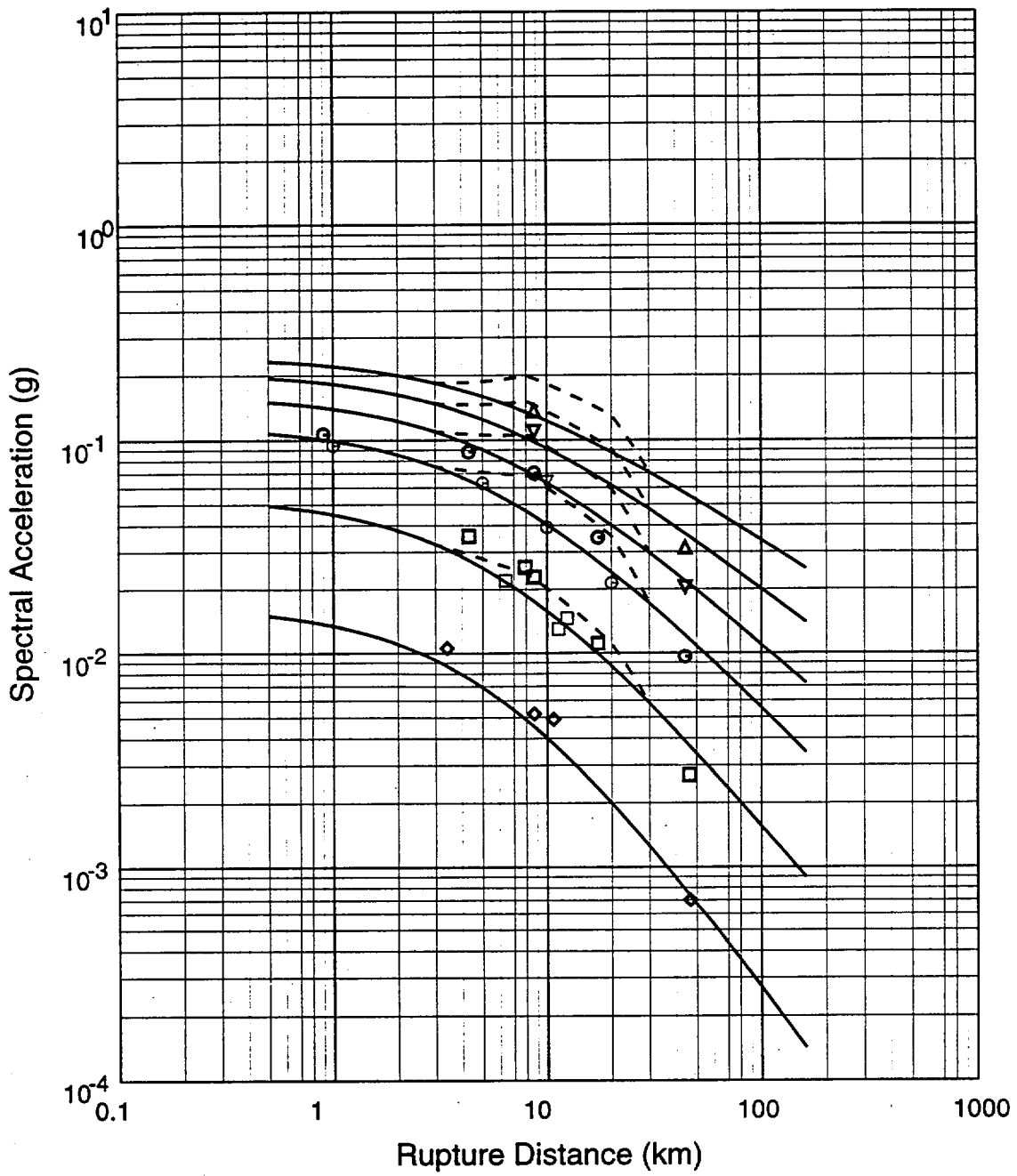


◇ M 5.0, FW  
□ M 5.8, FW  
⊙ M 6.5, FW  
▽ M 7.0, FW  
△ M 7.5, FW  
× M 8.0, FW

◇ M 5.0, HW  
□ M 5.8, HW  
⊙ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Footwall  
- - - Hanging wall

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 0.5 Hz

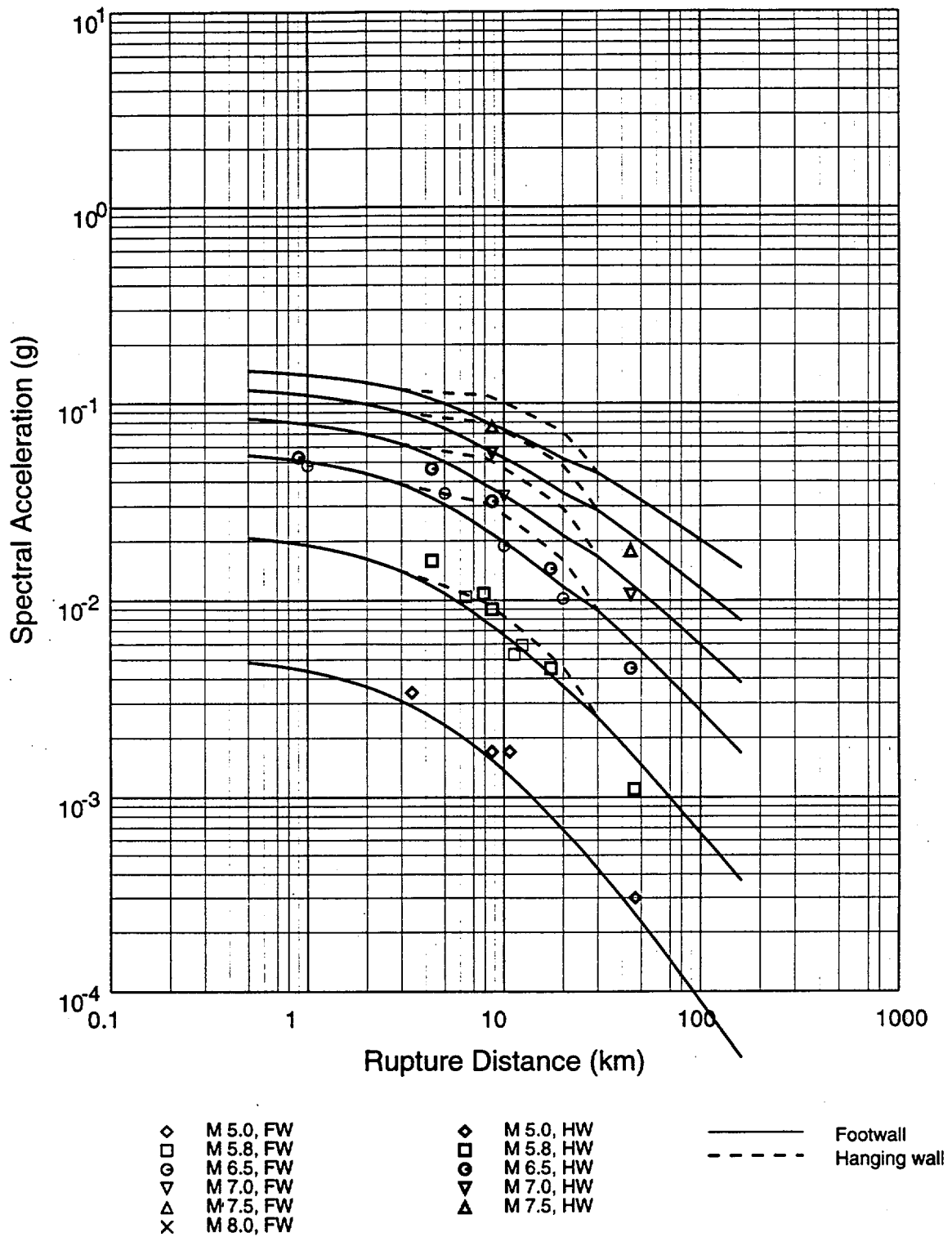


- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ○ | M 6.5, FW | ○ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| x | M 8.0, FW |   |           |       |              |

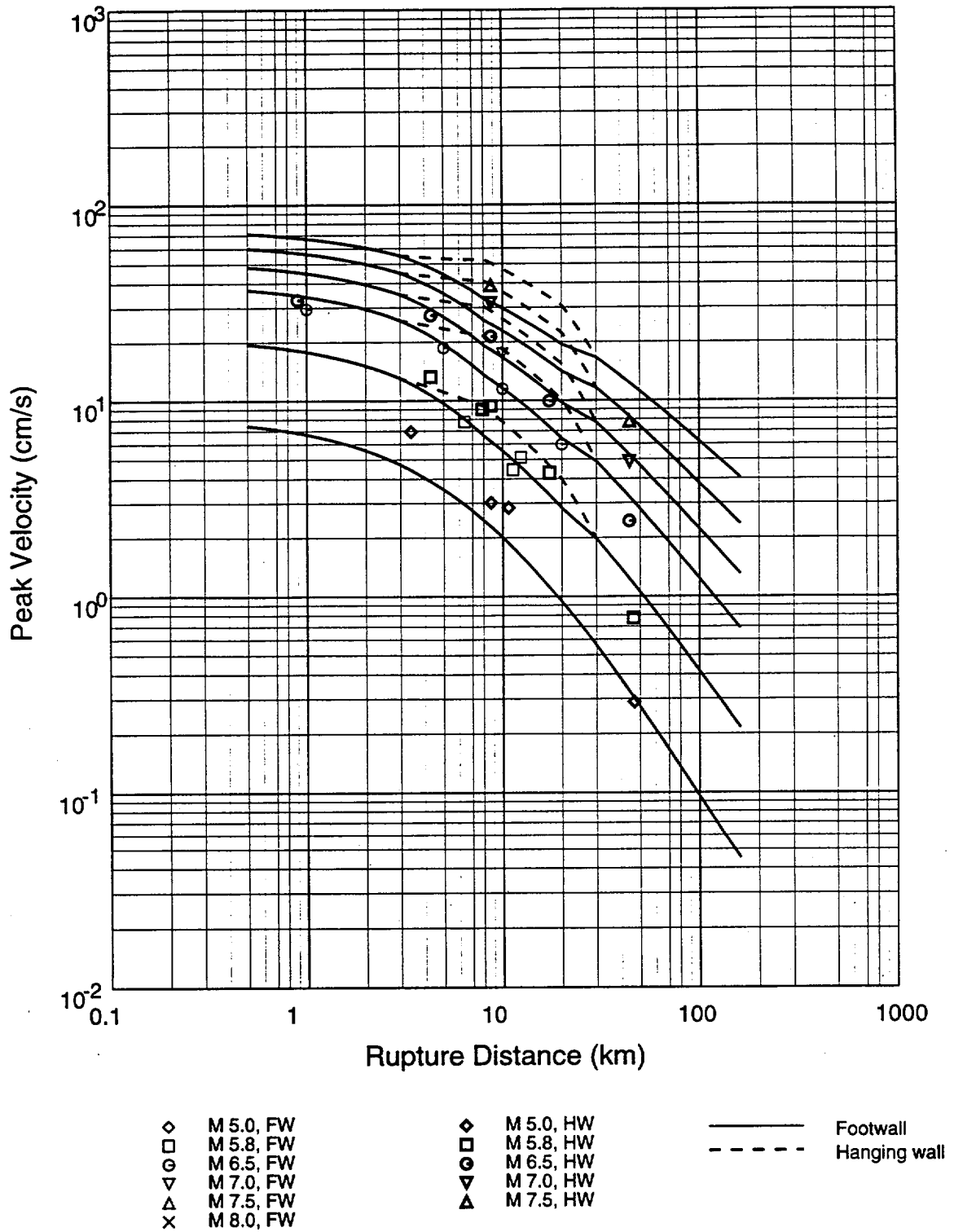
Silva, Rev1, 5/31/97, Model 2

Normal Faulting Attenuation, Horizontal Comp

Frequency = 0.3 Hz

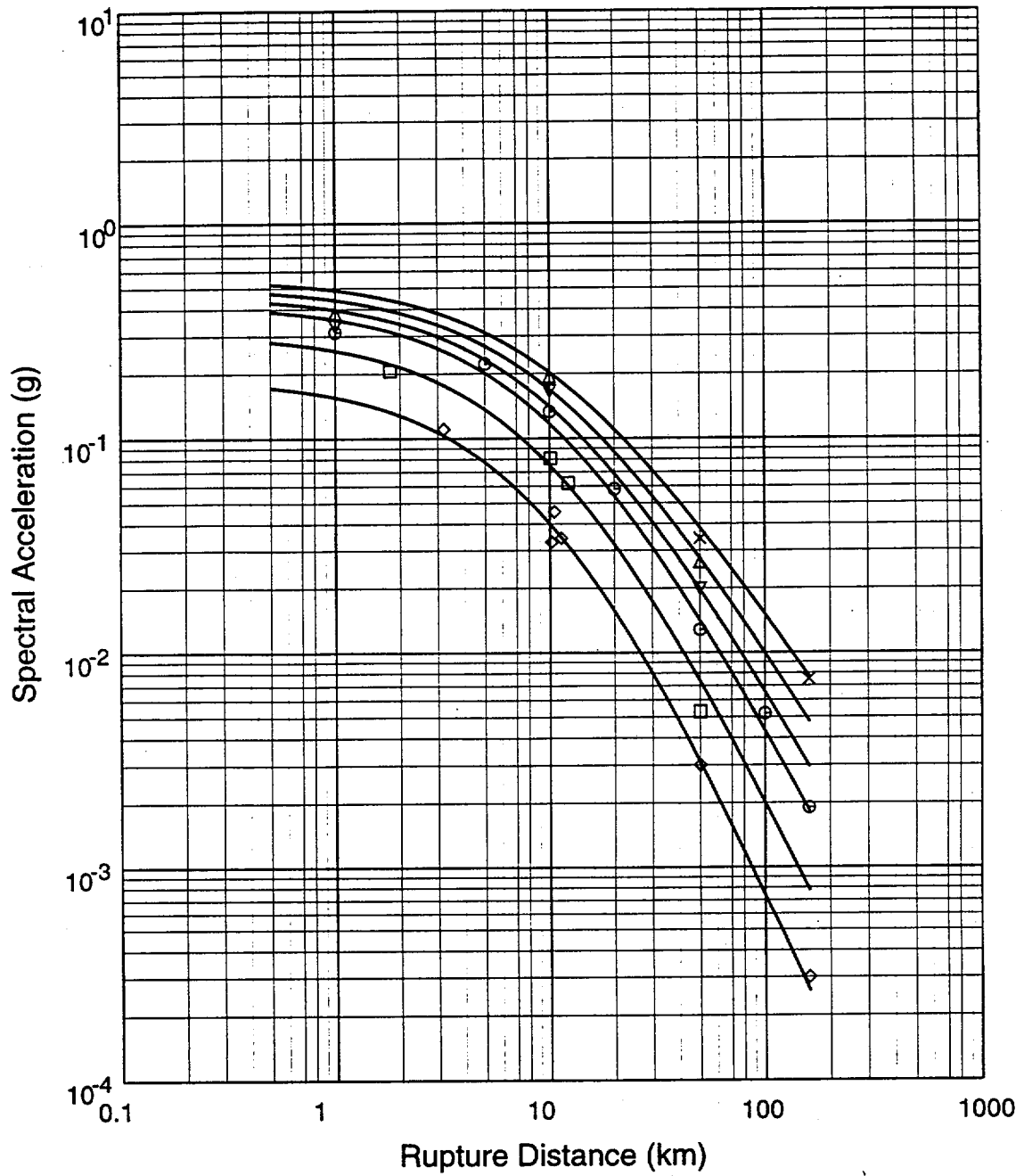


Silva, Rev1, 6/11/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Peak Velocity



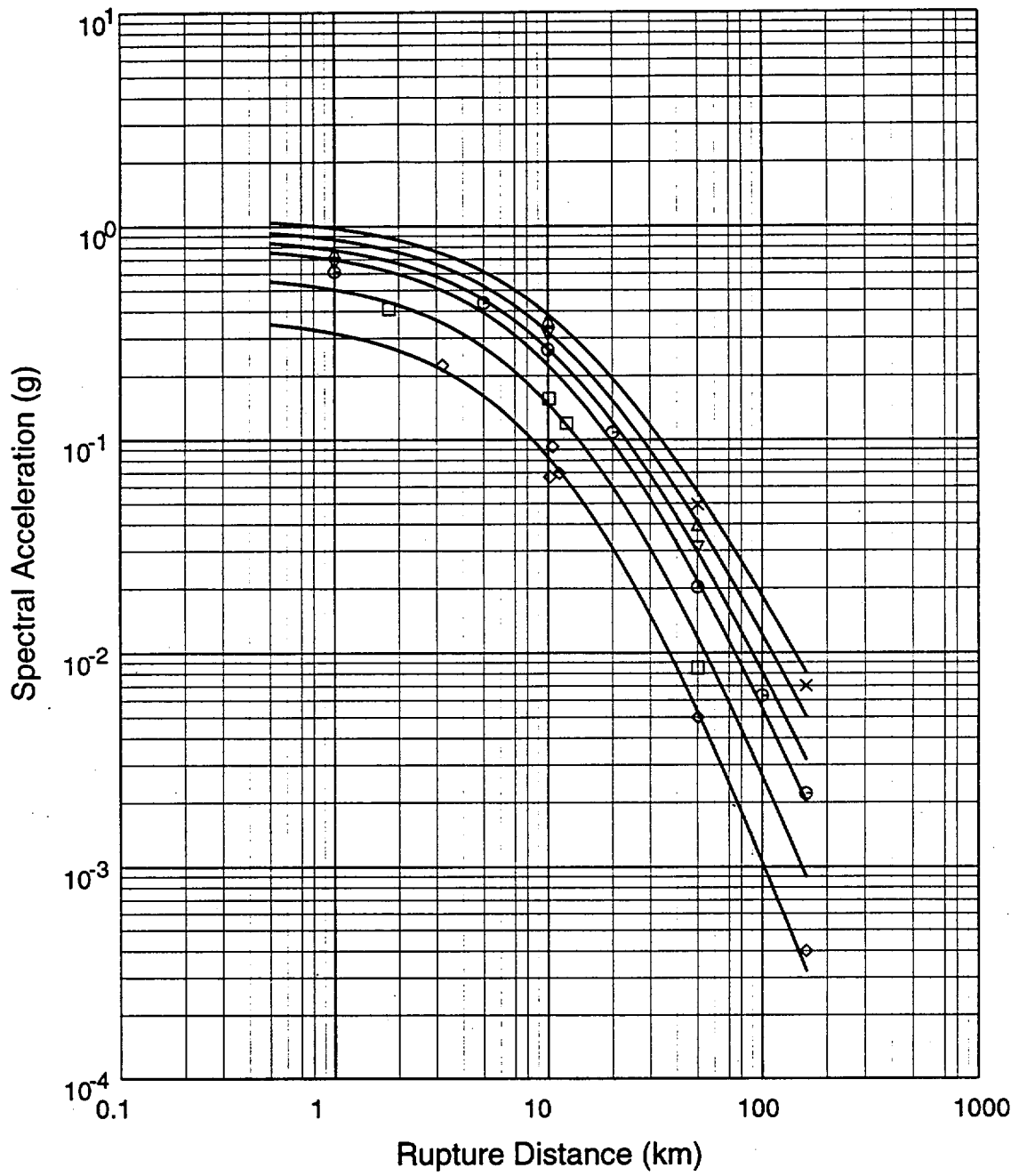


Silva, Rev1, 5/31/97, Model 2  
Strike-Slip Faulting Attenuation, Vertical Comp  
Frequency = 100.0Hz



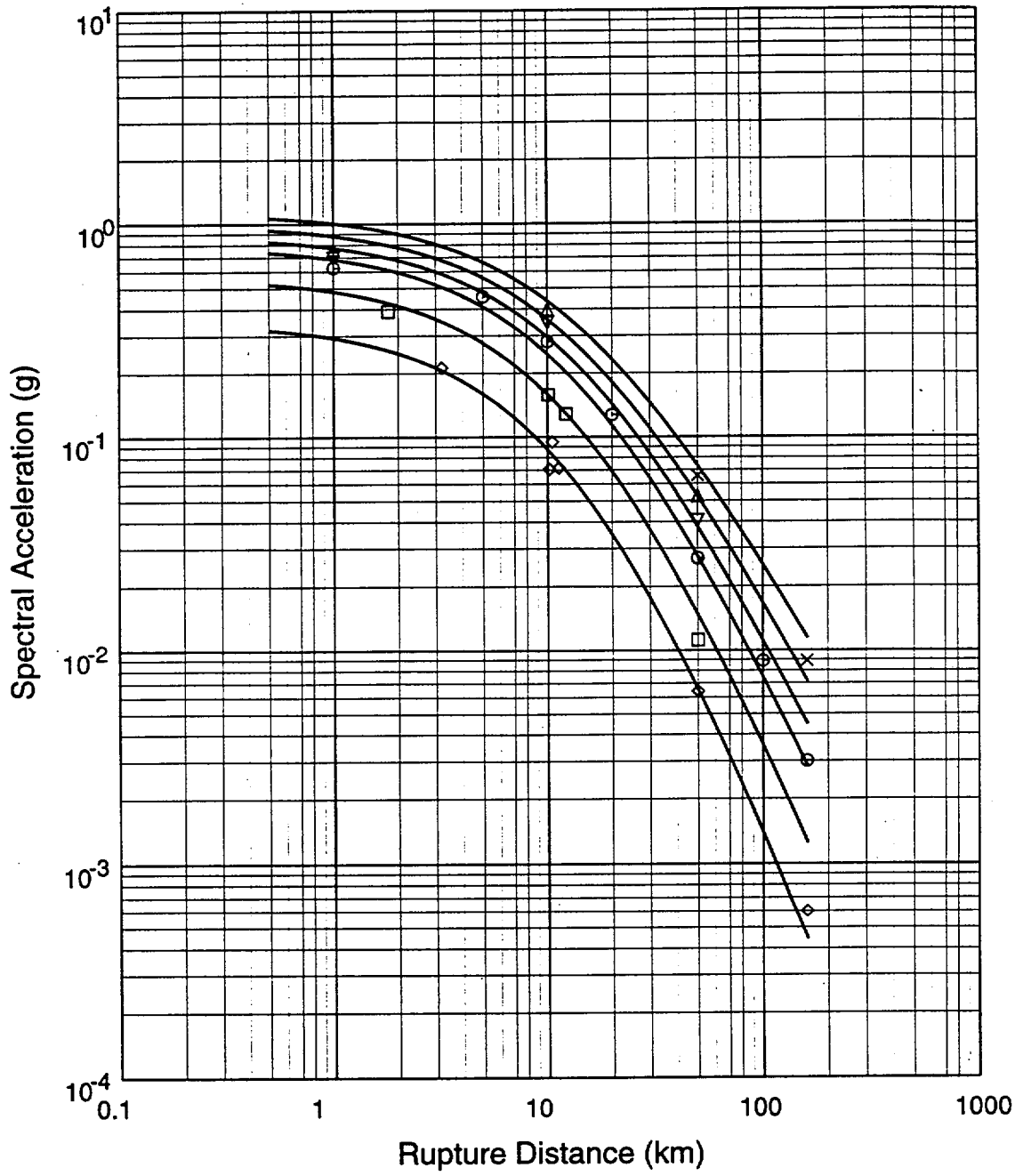
- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
Strike-Slip Faulting Attenuation, Vertical Comp  
Frequency = 20.0 Hz



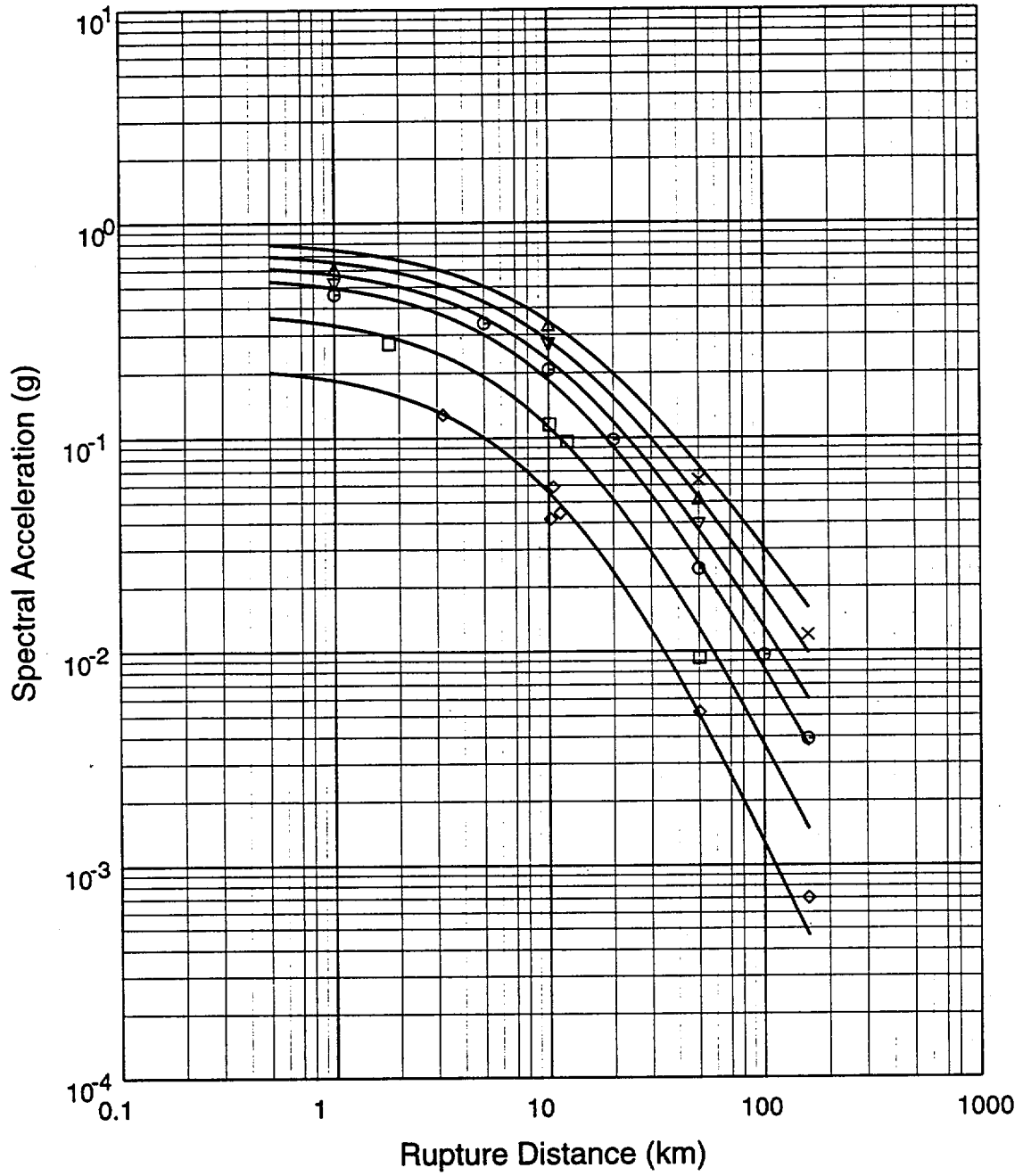
- ◇ M 5.0, SS
- M 5.8, SS
- ▽ M 6.5, SS
- M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
Strike-Slip Faulting Attenuation, Vertical Comp  
Frequency = 10.0 Hz



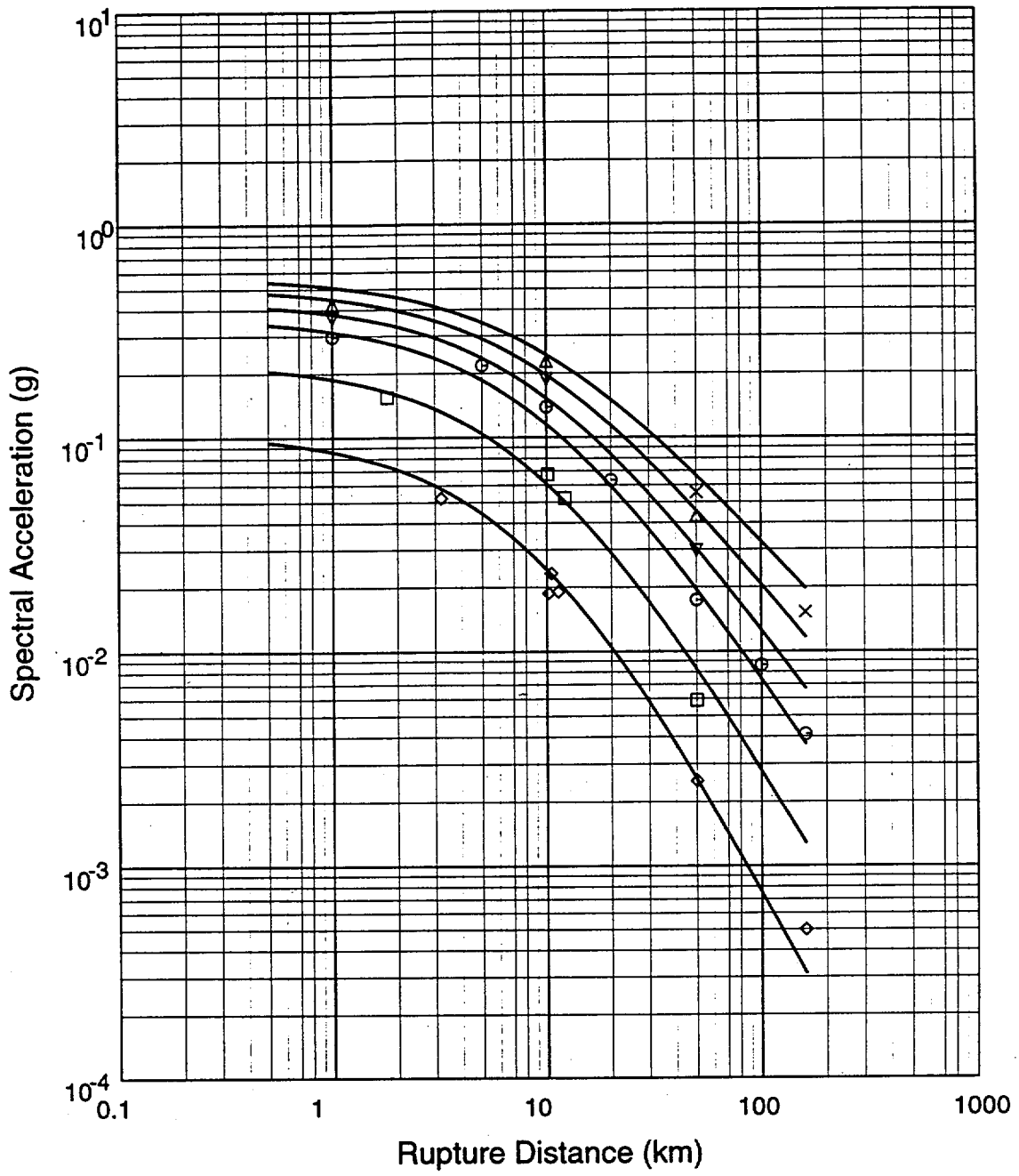
- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
Strike-Slip Faulting Attenuation, Vertical Comp  
Frequency = 5.0 Hz



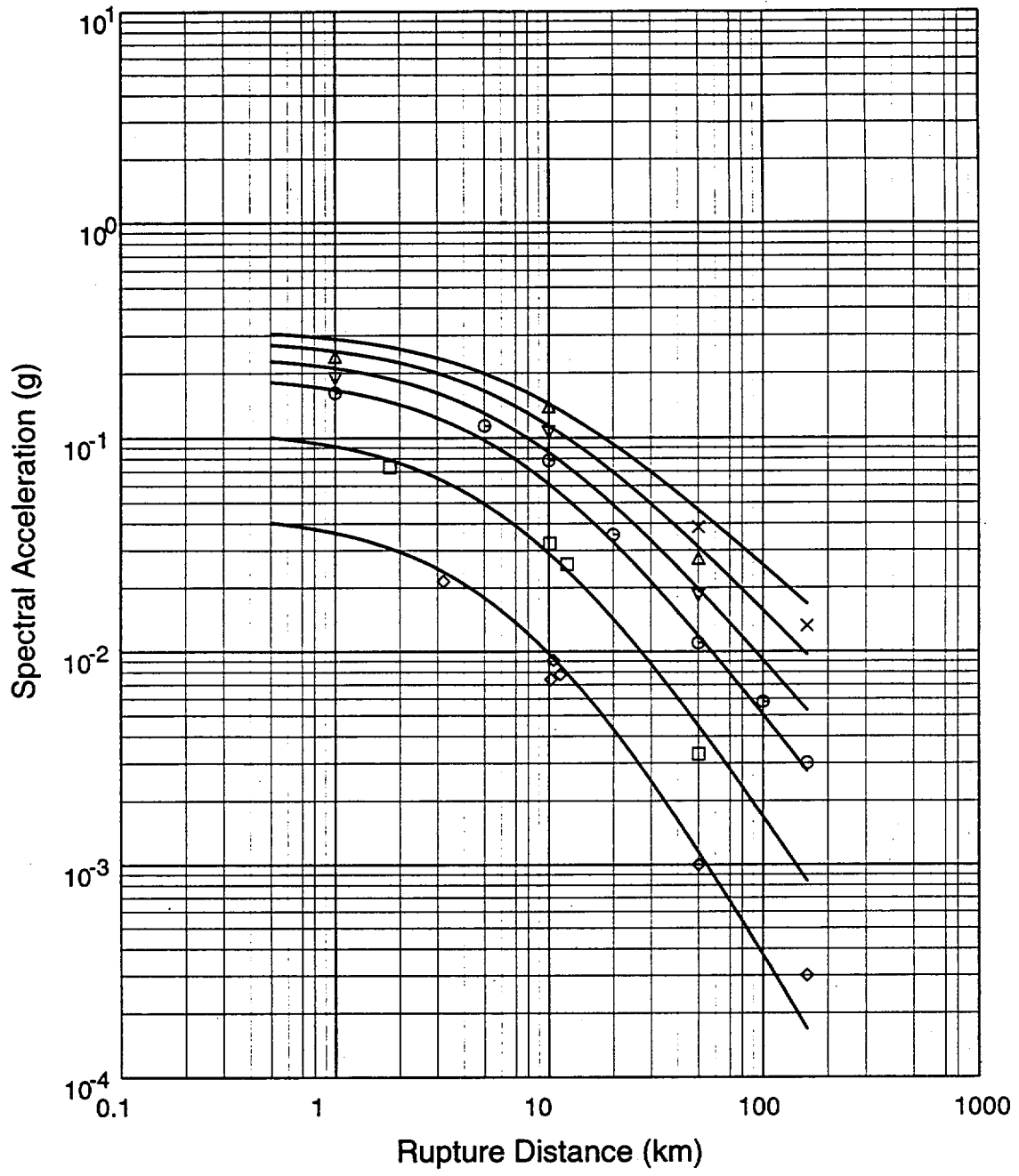
- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 2.0 Hz



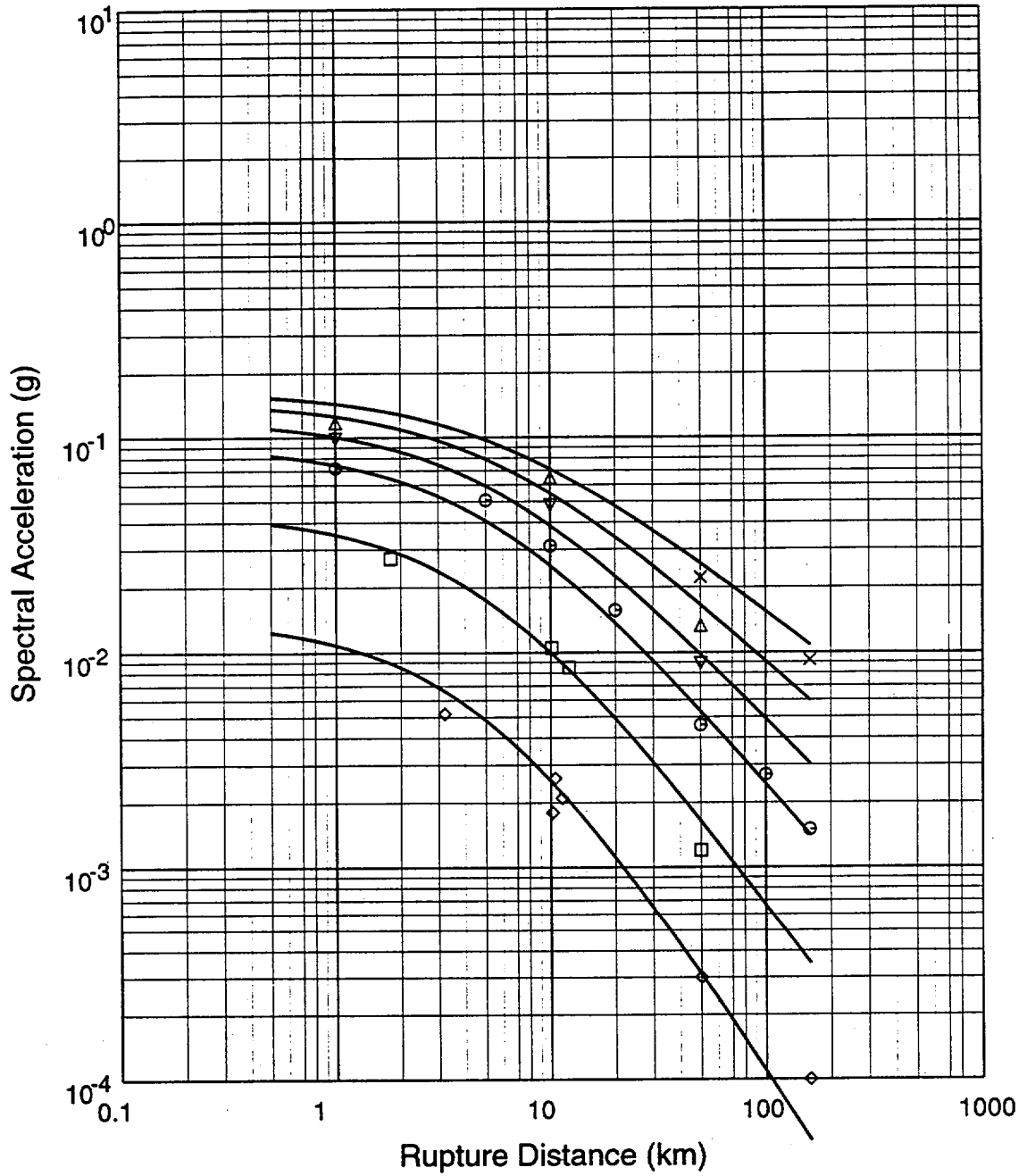
- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 1.0 Hz



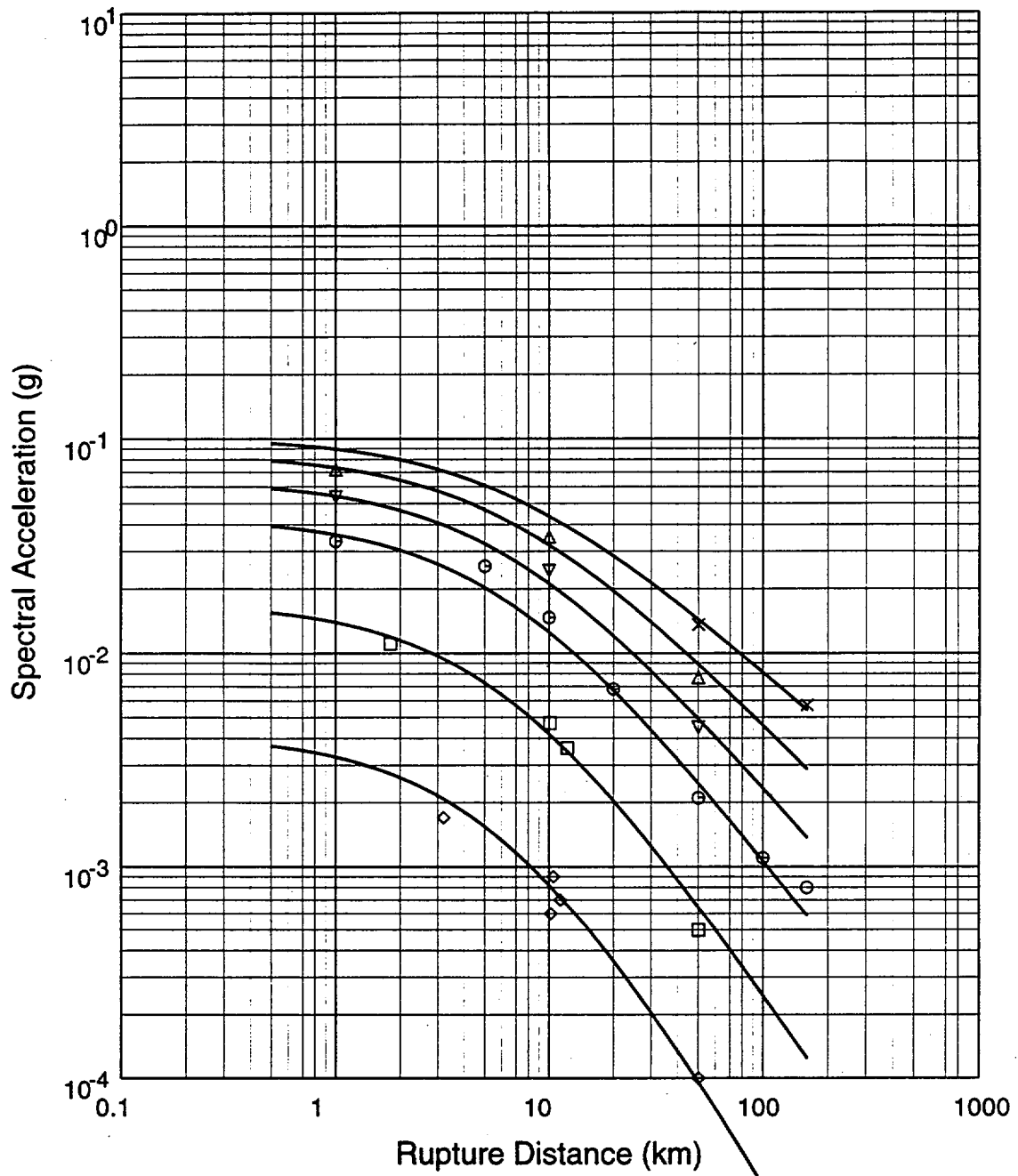
- ◇ M 5.0, SS
- M 5.8, SS
- ⊙ M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
Strike-Slip Faulting Attenuation, Vertical Comp  
Frequency = 0.5 Hz



- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

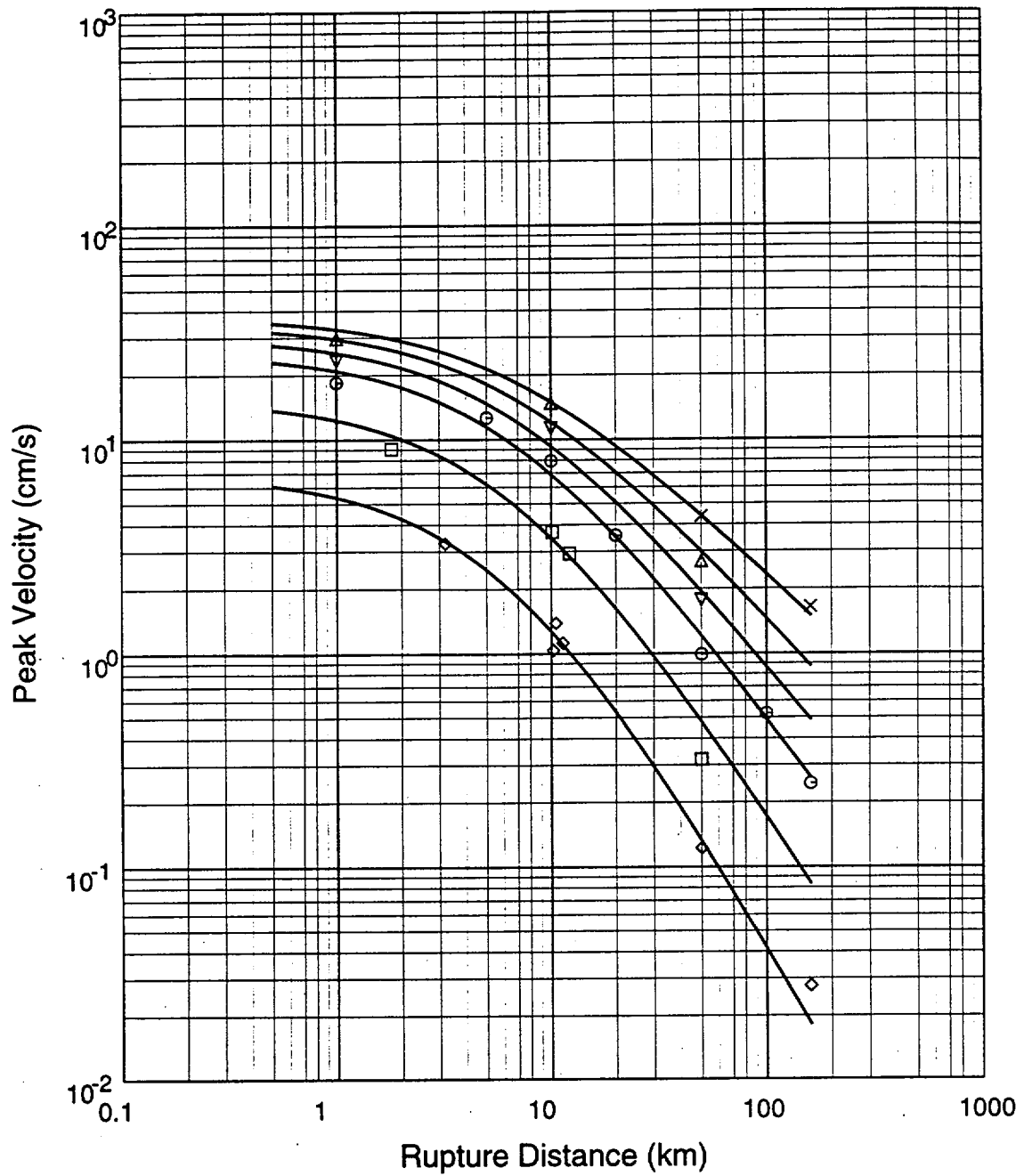
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 0.3 Hz



- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

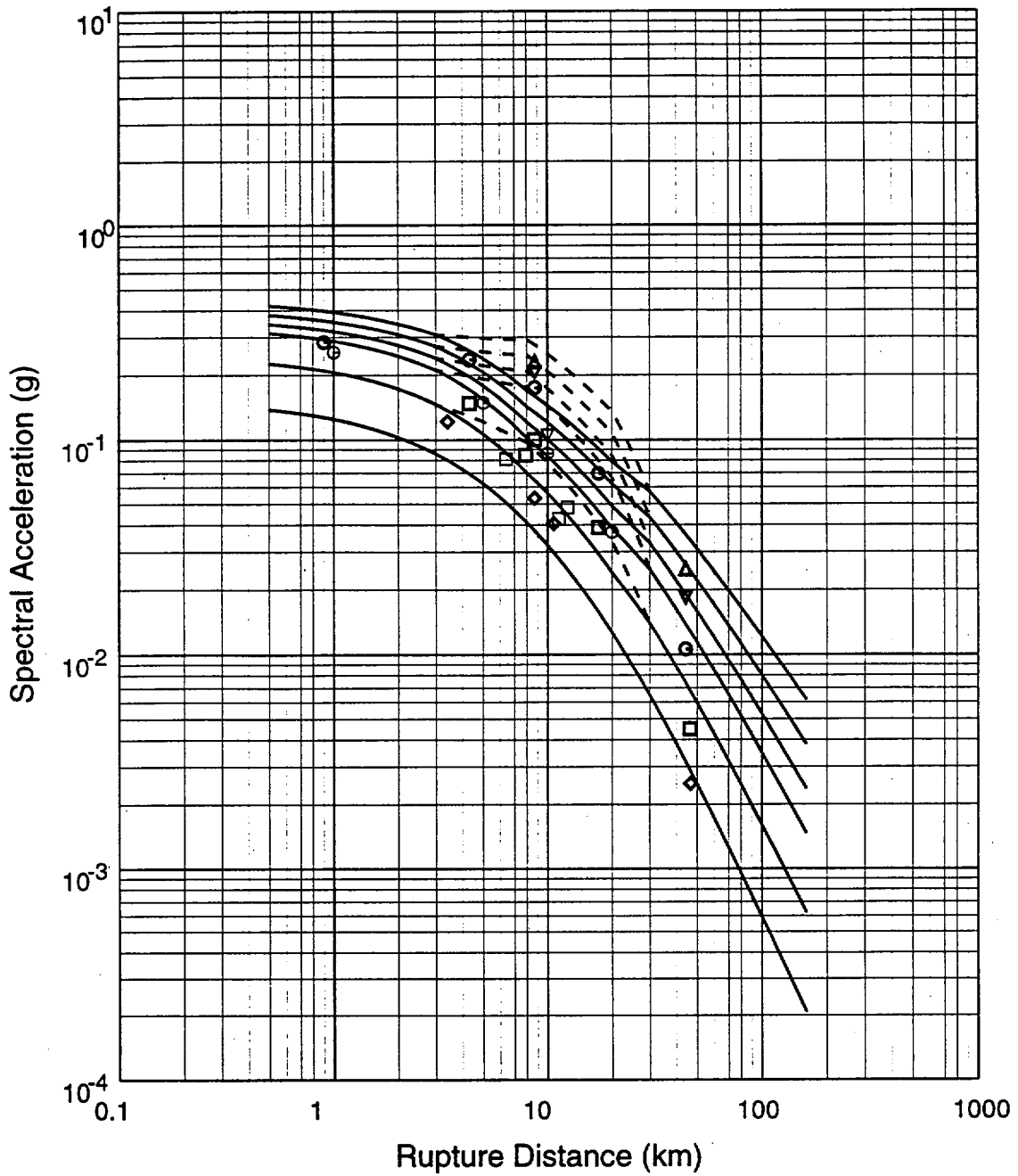


Silva, Rev1, 6/11/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Peak Velocity



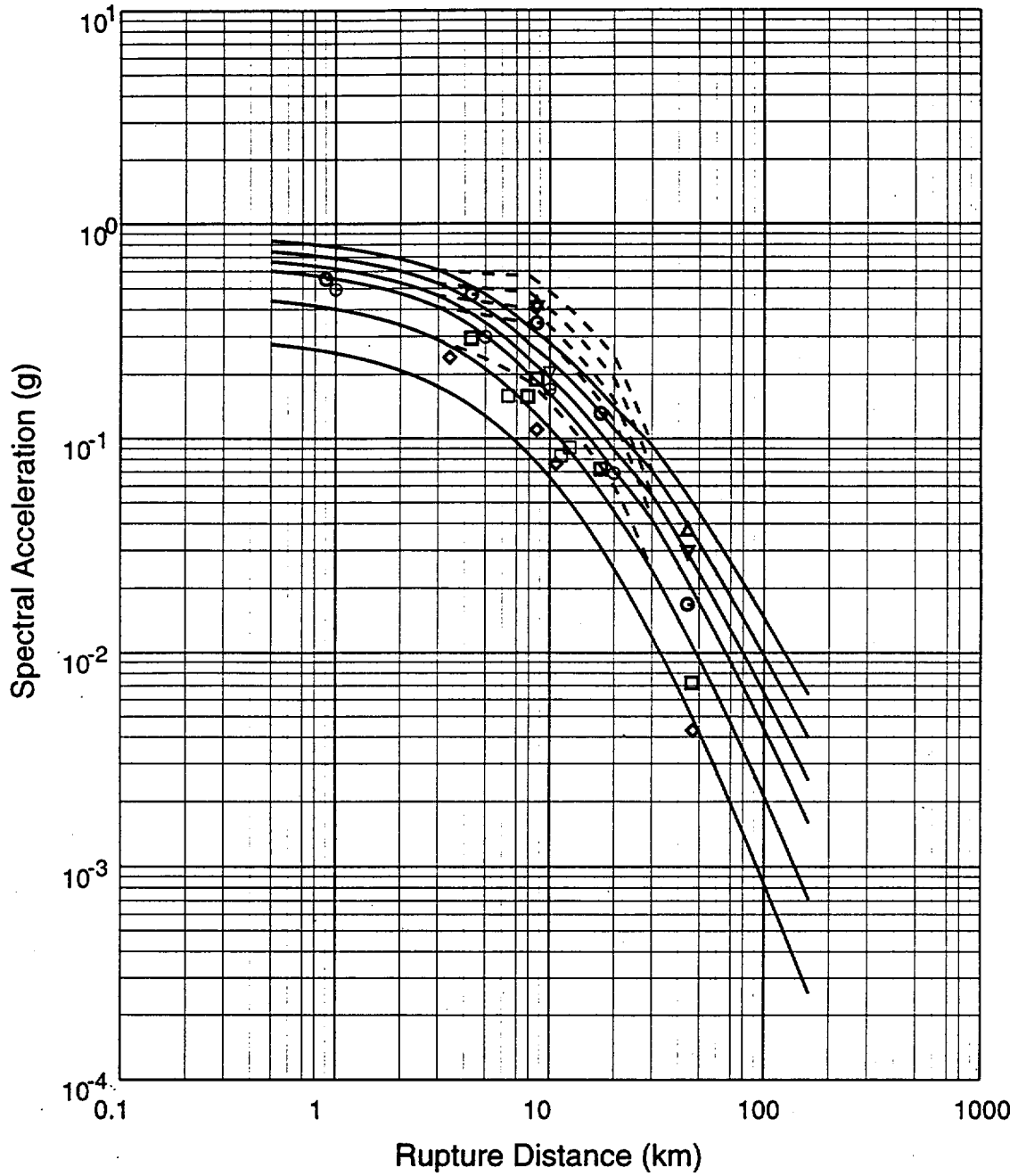
- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 100.0Hz



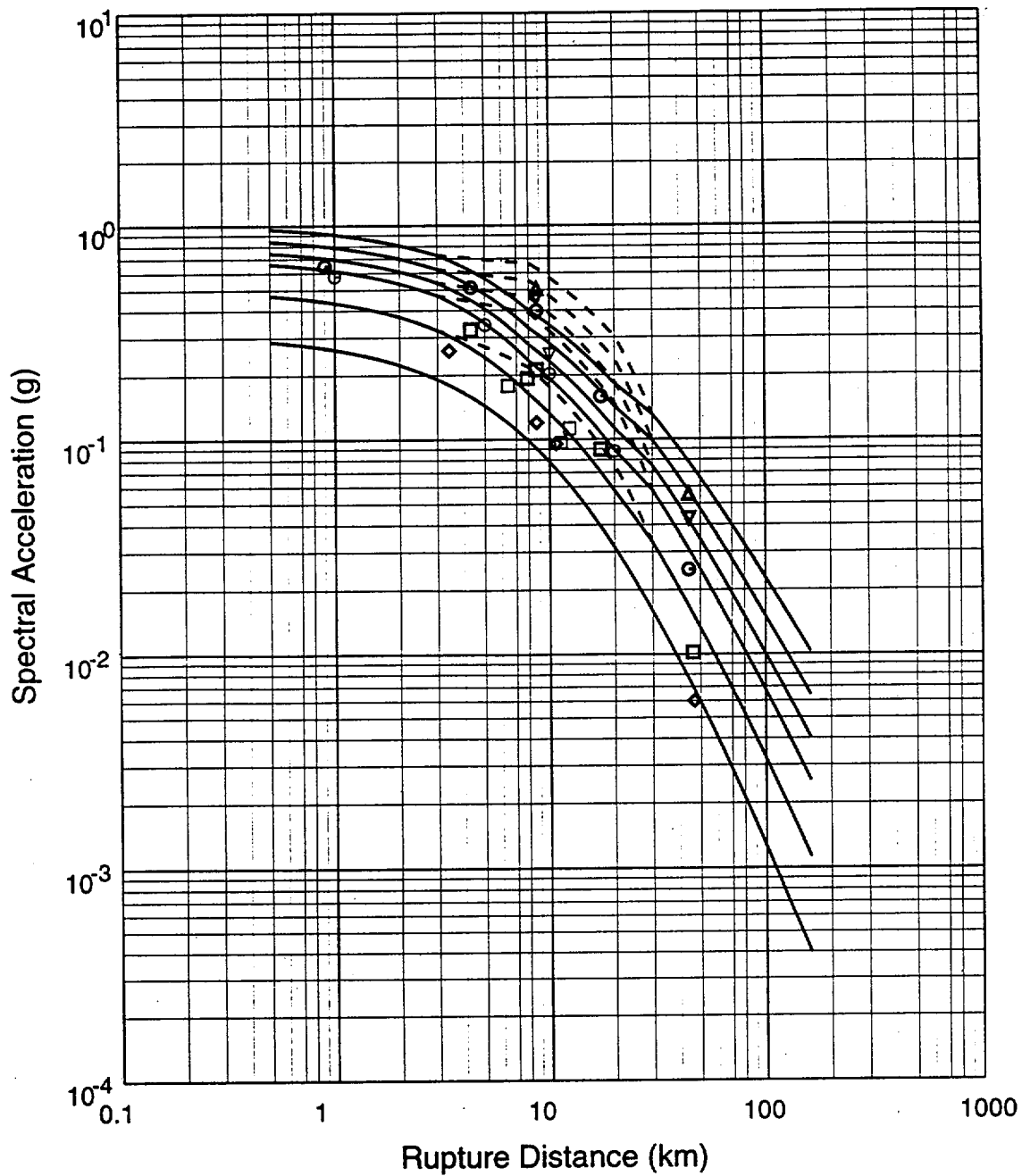
- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ○ | M 6.5, FW | ○ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| x | M 8.0, FW |   |           |       |              |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 20.0 Hz



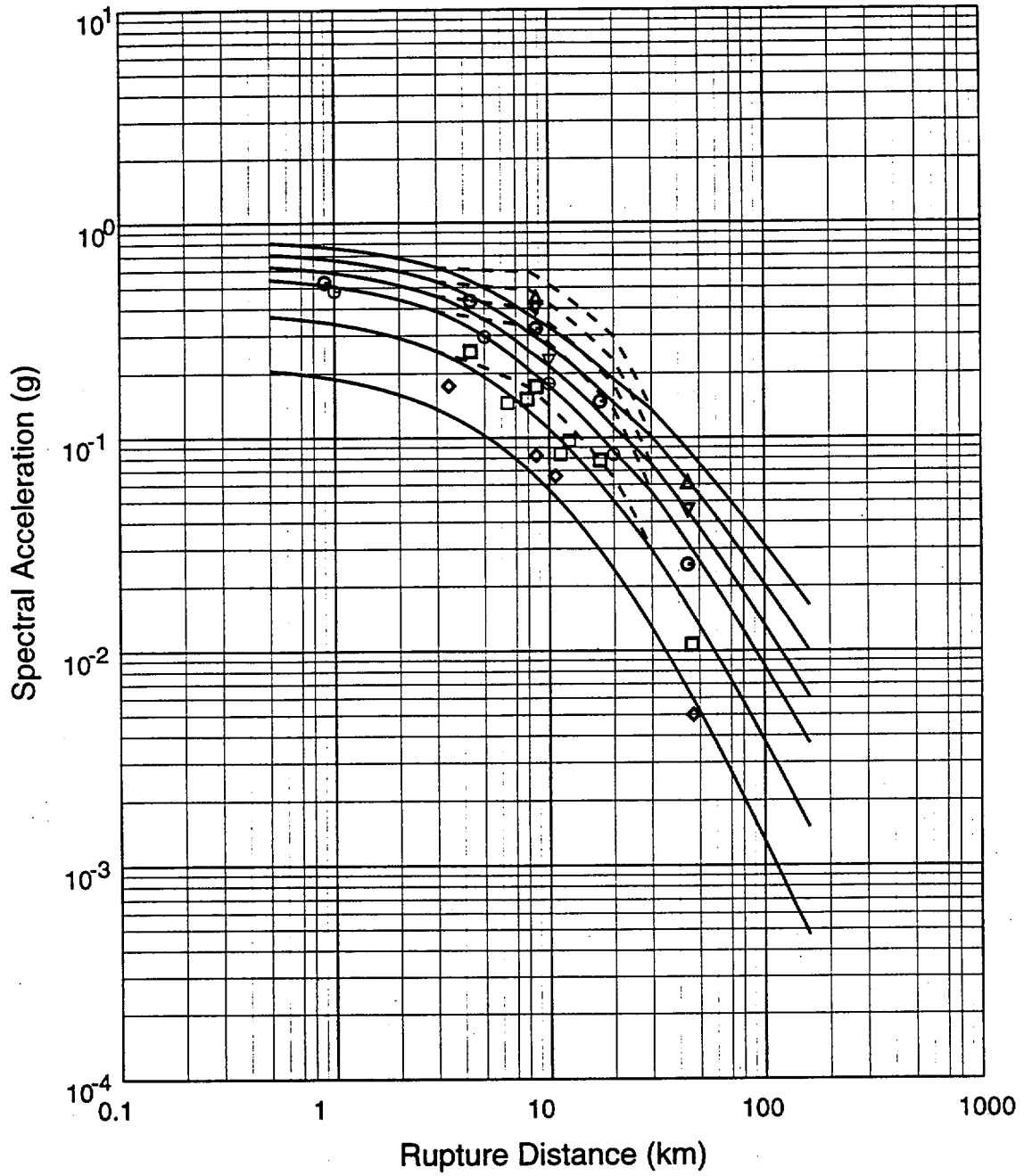
- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ○ | M 6.5, FW | ○ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| X | M 8.0, FW |   |           |       |              |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 10.0 Hz



- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ○ | M 6.5, FW | ○ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| x | M 8.0, FW |   |           |       |              |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 5.0 Hz

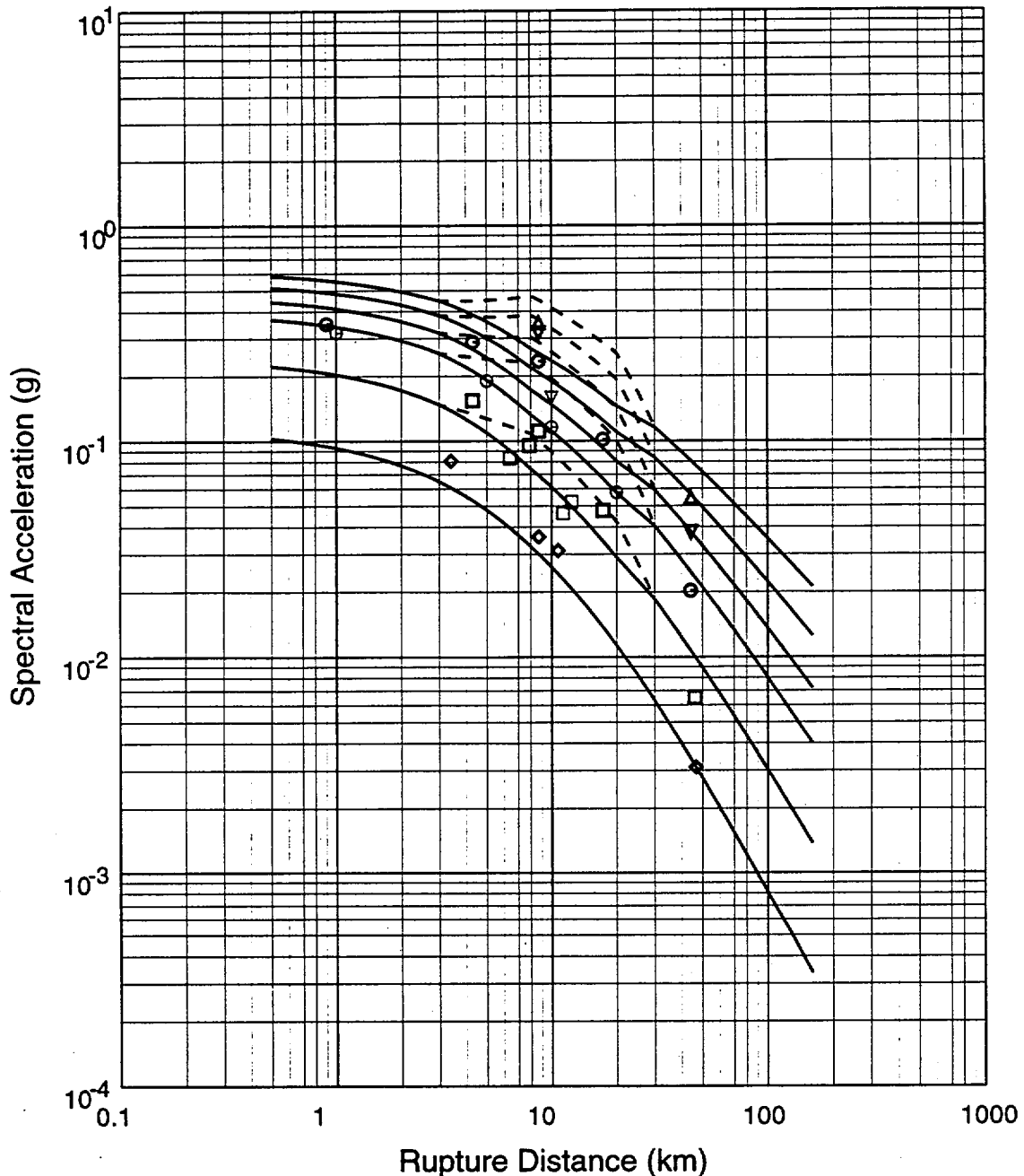


◇ M 5.0, FW  
 □ M 5.8, FW  
 ⊙ M 6.5, FW  
 ▽ M 7.0, FW  
 △ M 7.5, FW  
 X M 8.0, FW

◇ M 5.0, HW  
 □ M 5.8, HW  
 ⊙ M 6.5, HW  
 ▽ M 7.0, HW  
 △ M 7.5, HW

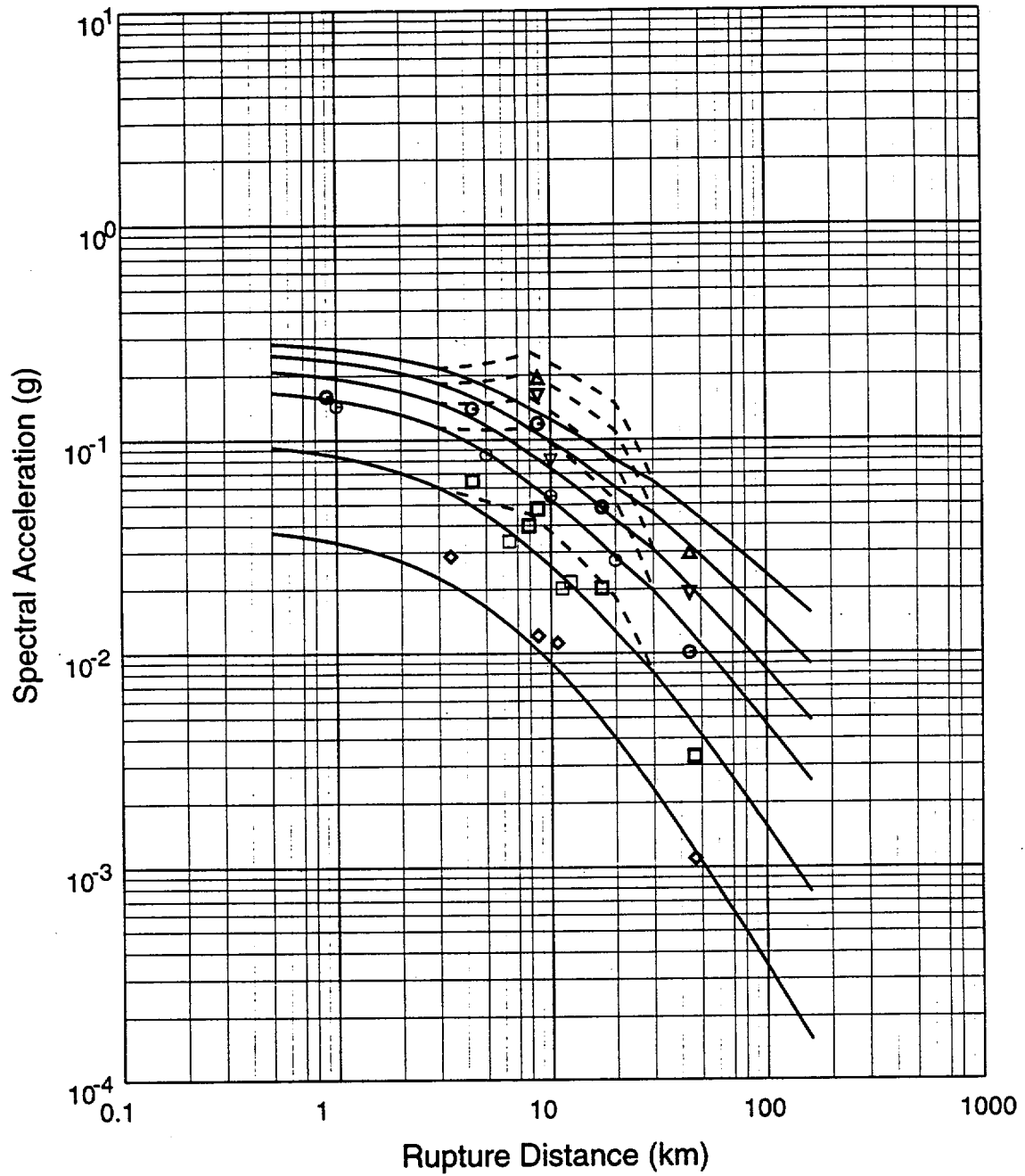
———— Footwall  
 - - - - - Hanging wall

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 2.0 Hz



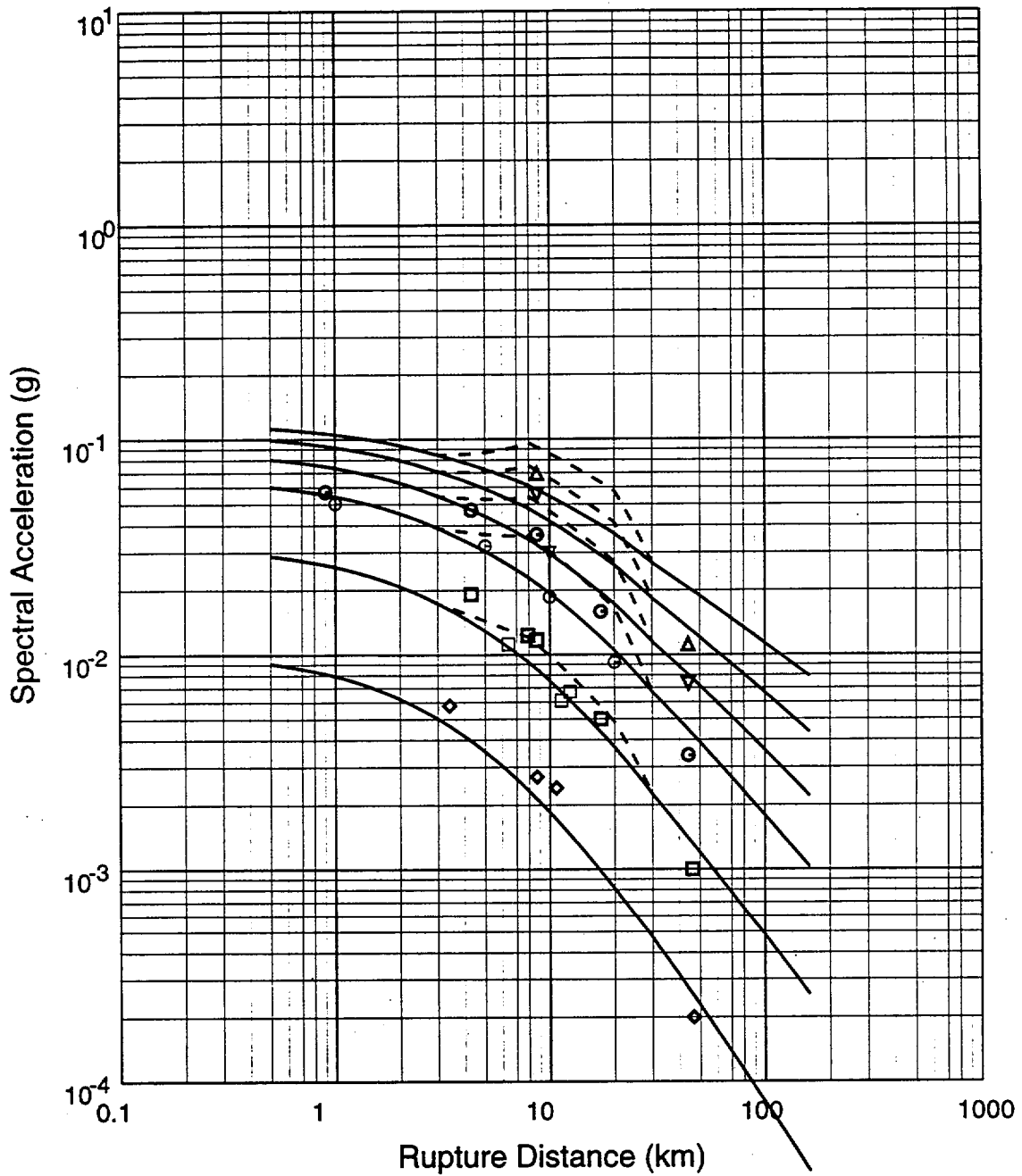
- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ○ | M 6.5, FW | ○ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| x | M 8.0, FW |   |           |       |              |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 1.0 Hz



- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ○ | M 6.5, FW | ○ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| x | M 8.0, FW |   |           |       |              |

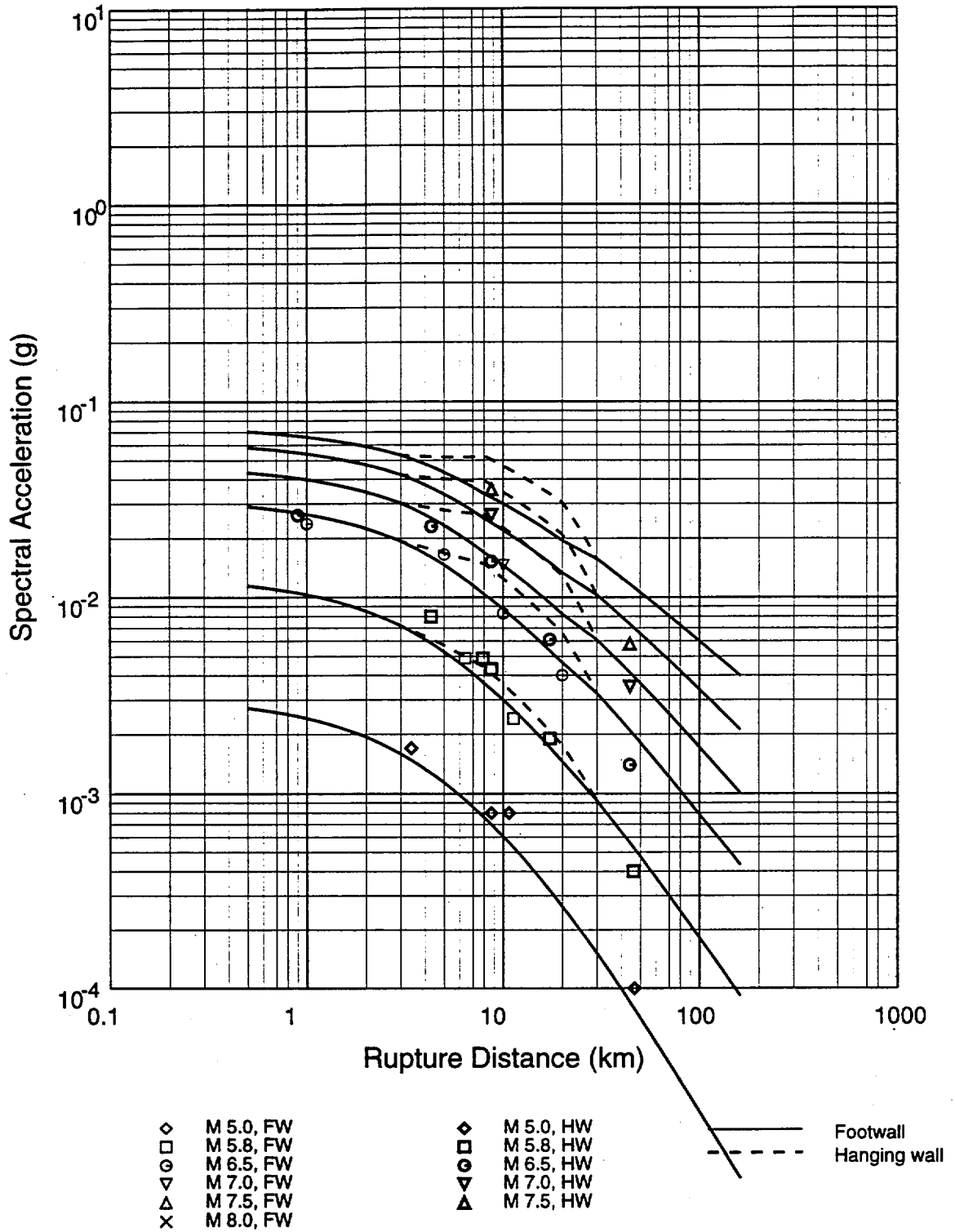
Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 0.5 Hz



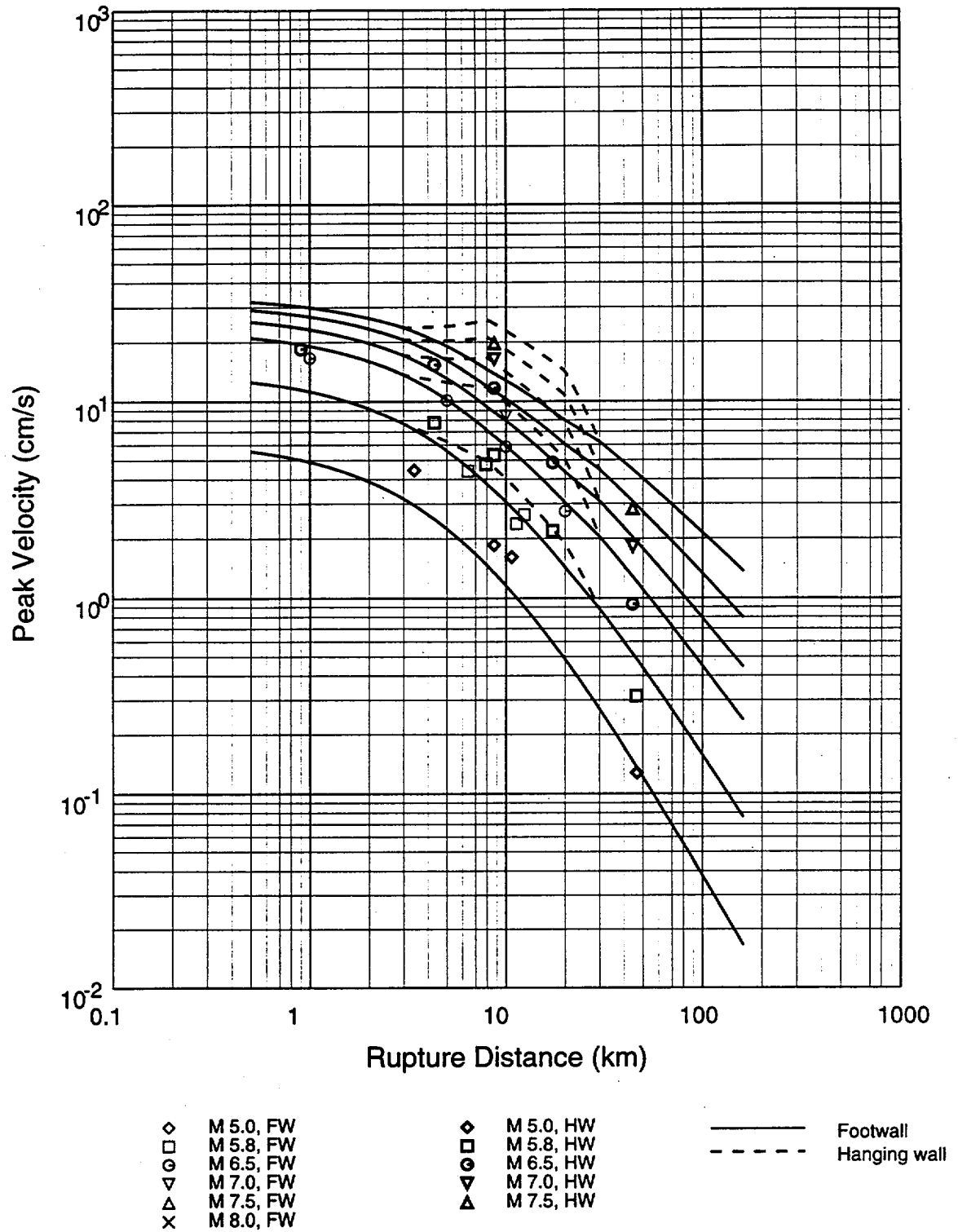
- |   |           |   |           |       |              |
|---|-----------|---|-----------|-------|--------------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —     | Footwall     |
| □ | M 5.8, FW | □ | M 5.8, HW | - - - | Hanging wall |
| ○ | M 6.5, FW | ○ | M 6.5, HW |       |              |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW |       |              |
| △ | M 7.5, FW | △ | M 7.5, HW |       |              |
| x | M 8.0, FW |   |           |       |              |



Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 0.3 Hz



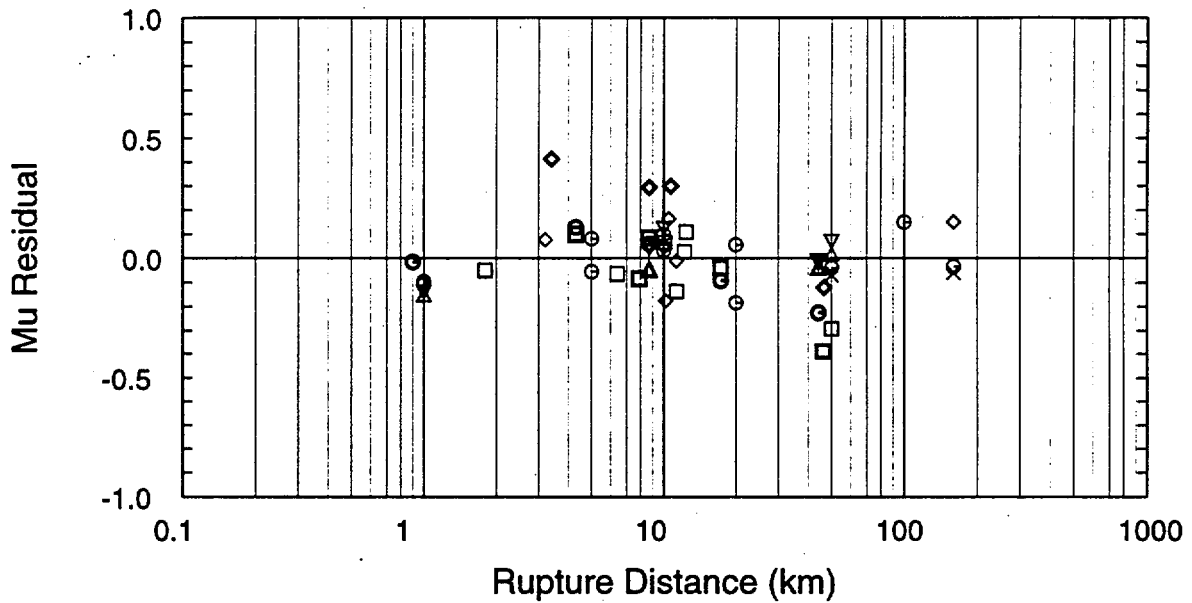
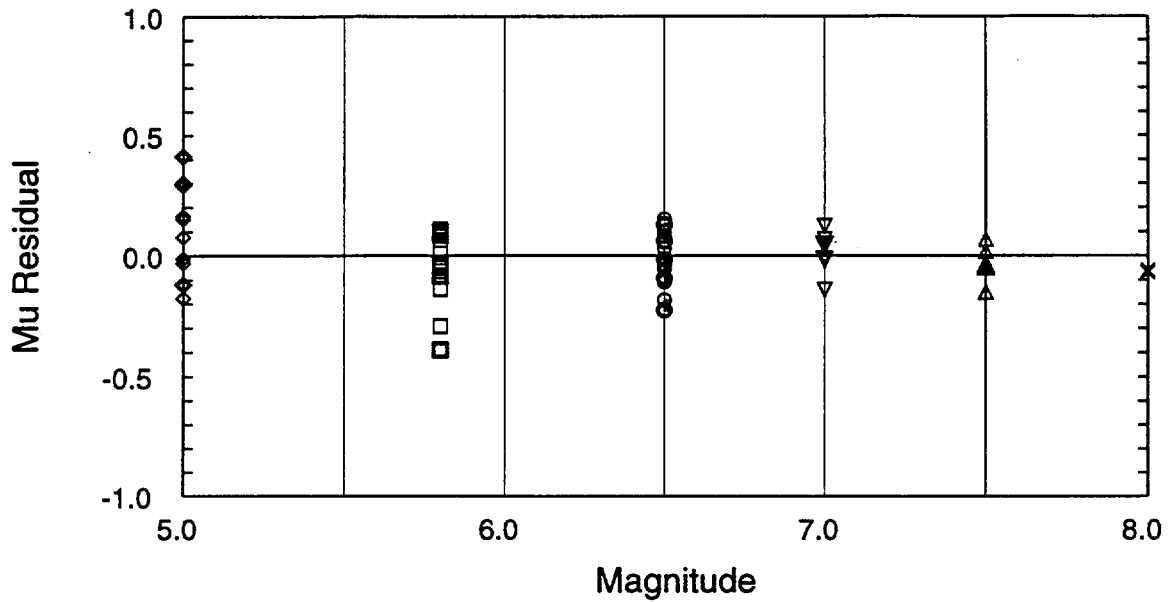
Silva, Rev1, 6/11/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Peak Velocity



Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 100.0Hz

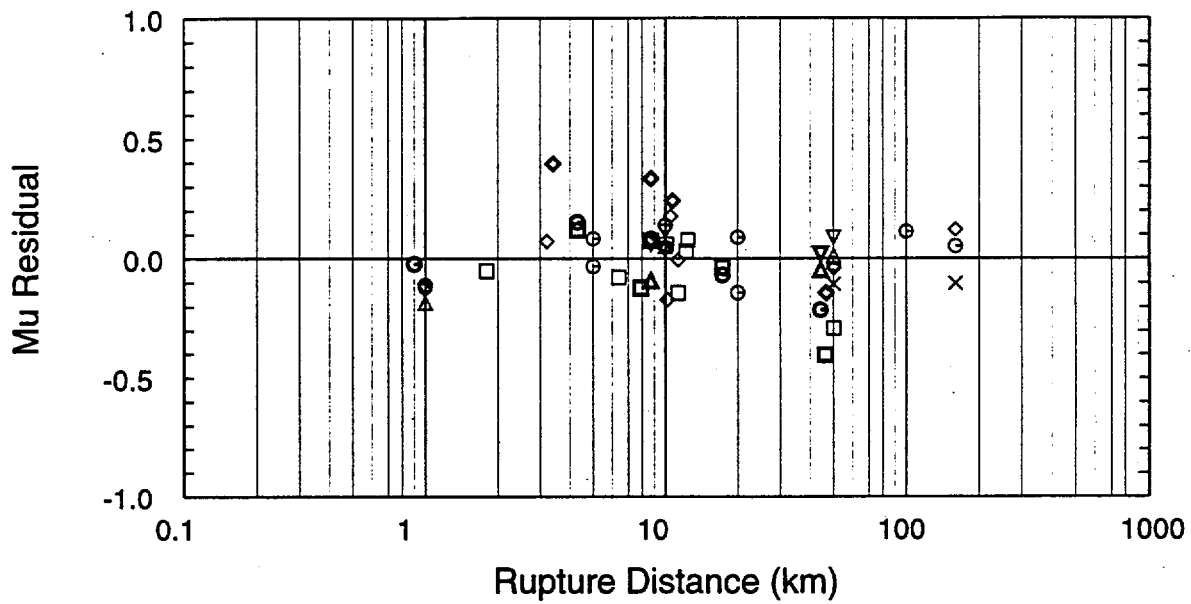
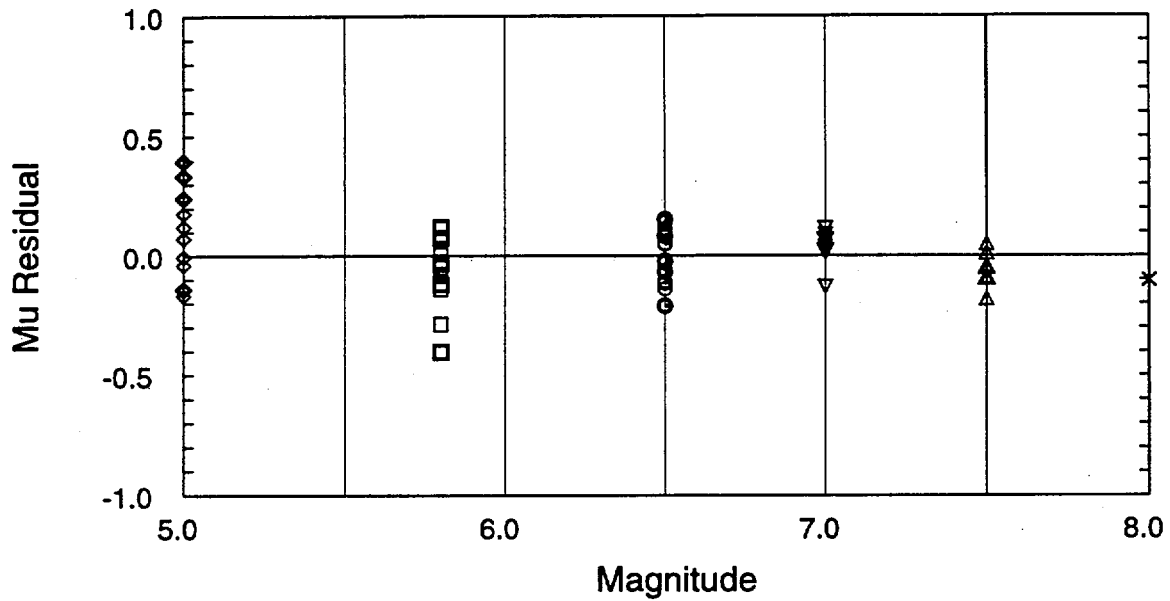


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ⊙ | M 6.5, SS and FW | ⊙ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| x | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

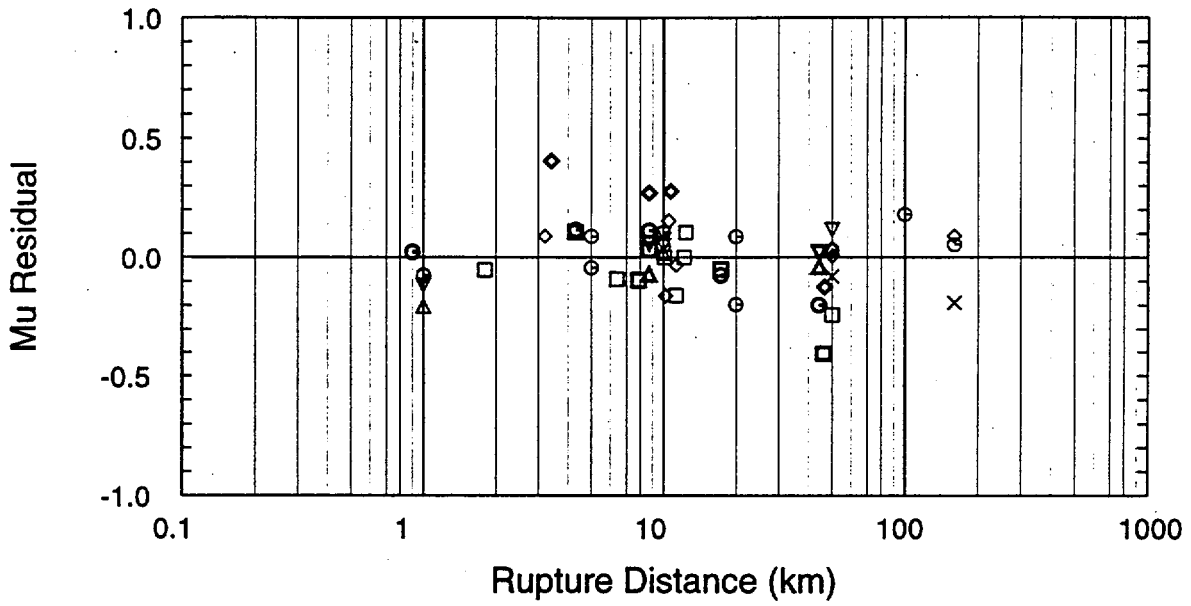
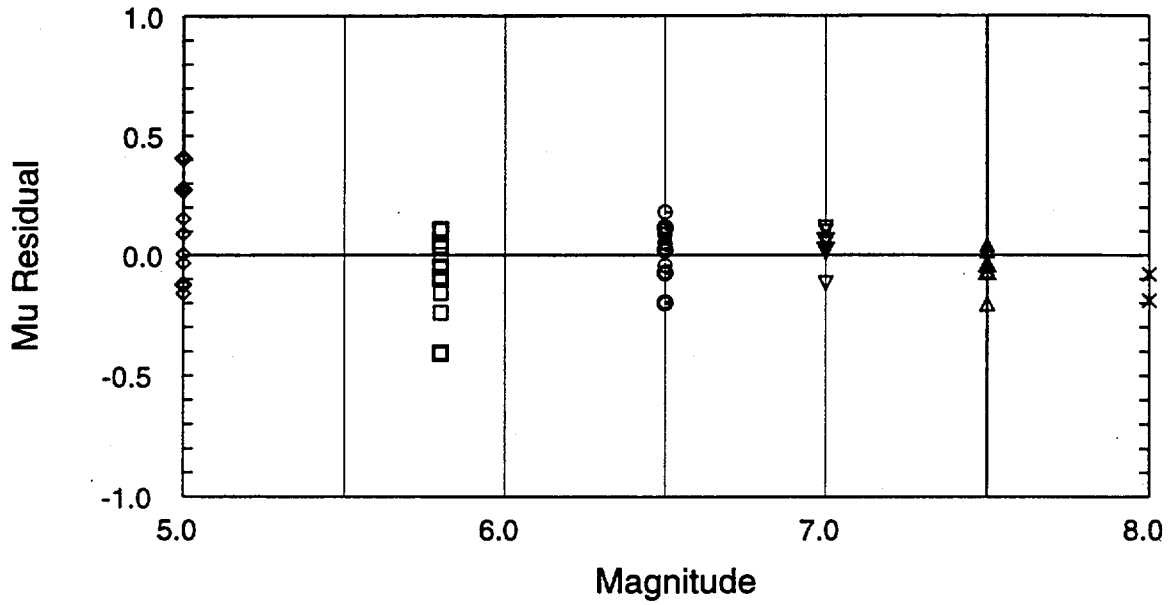
Frequency = 20.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 10.0 Hz

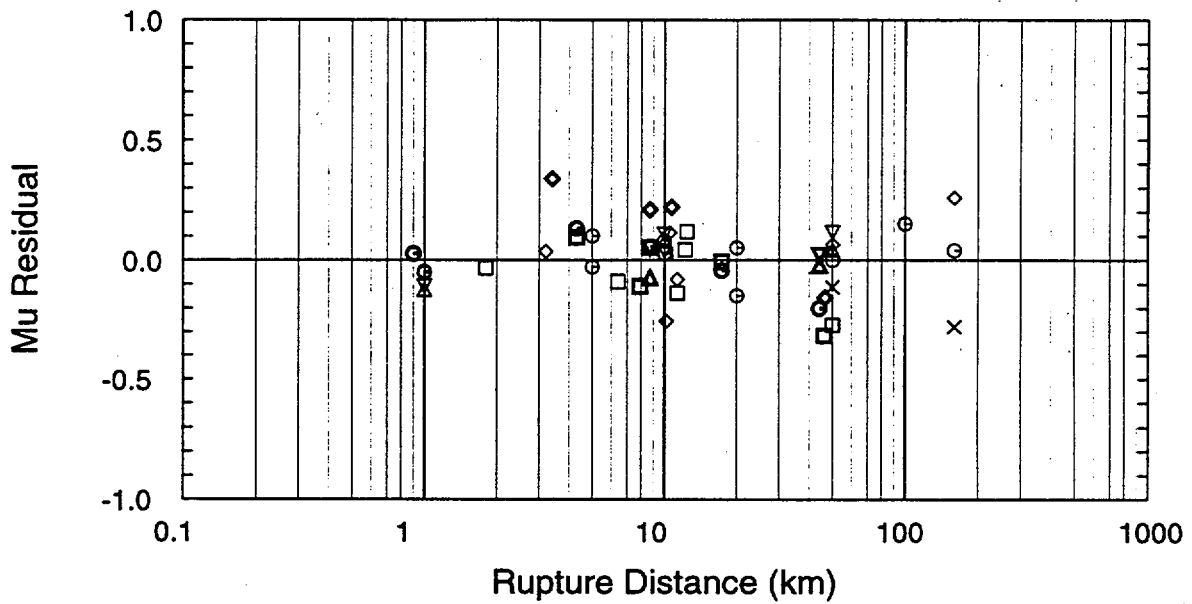
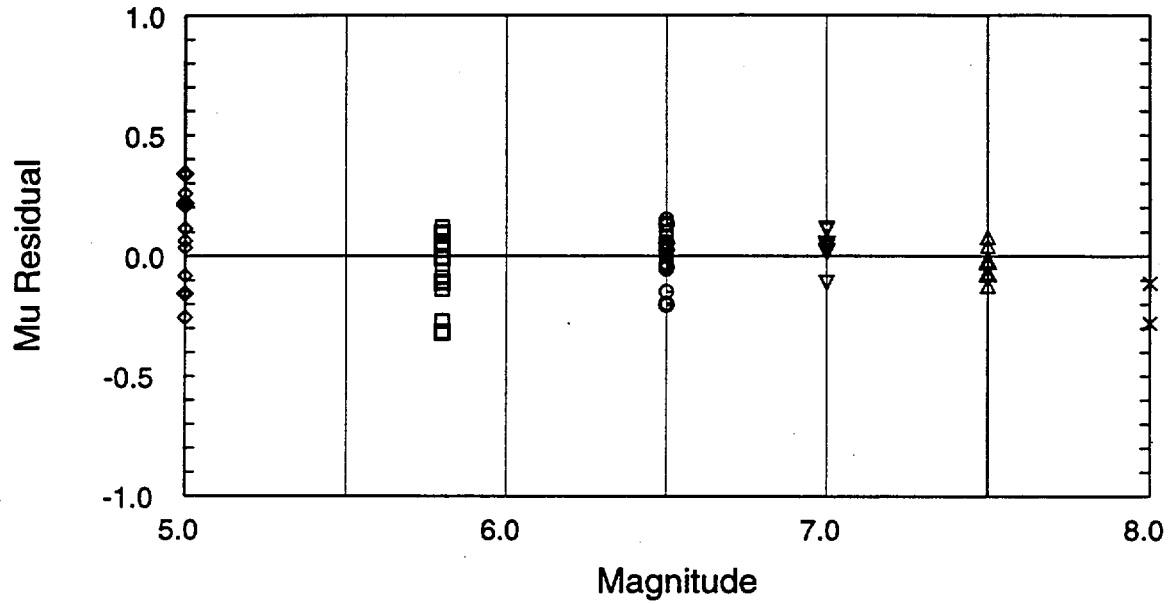


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 5.0 Hz



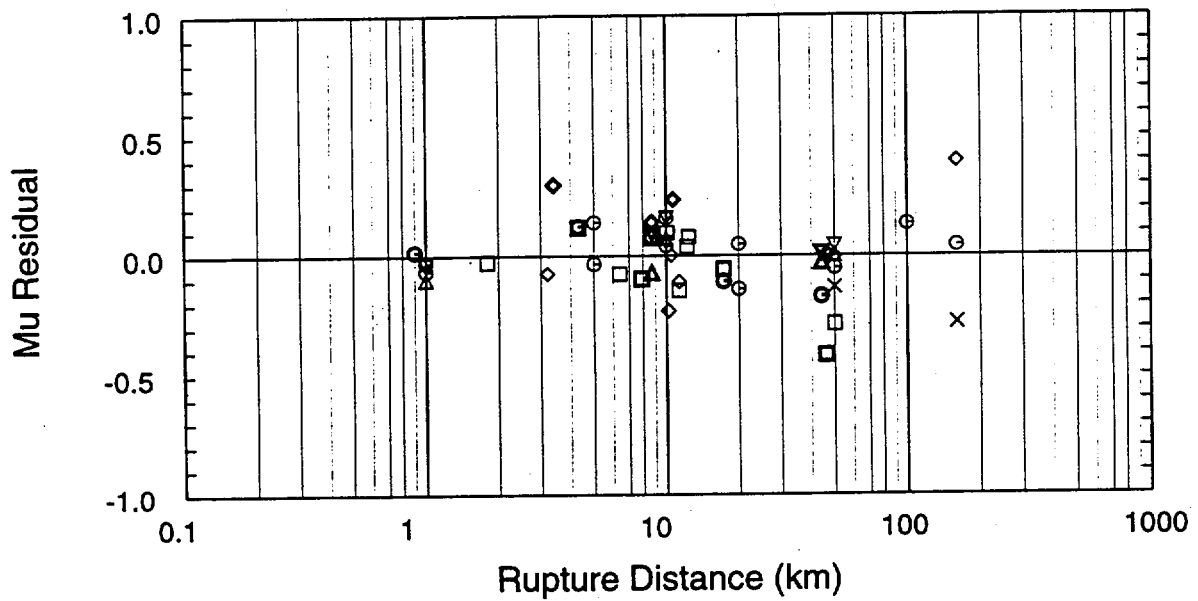
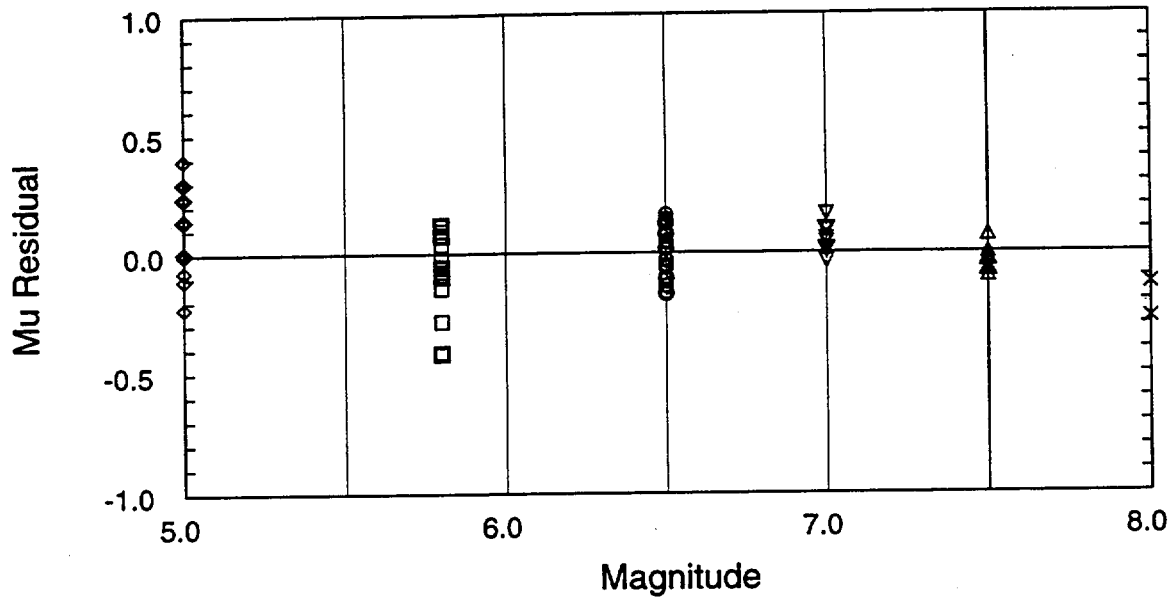
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
⊙ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
⊙ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 2.0 Hz



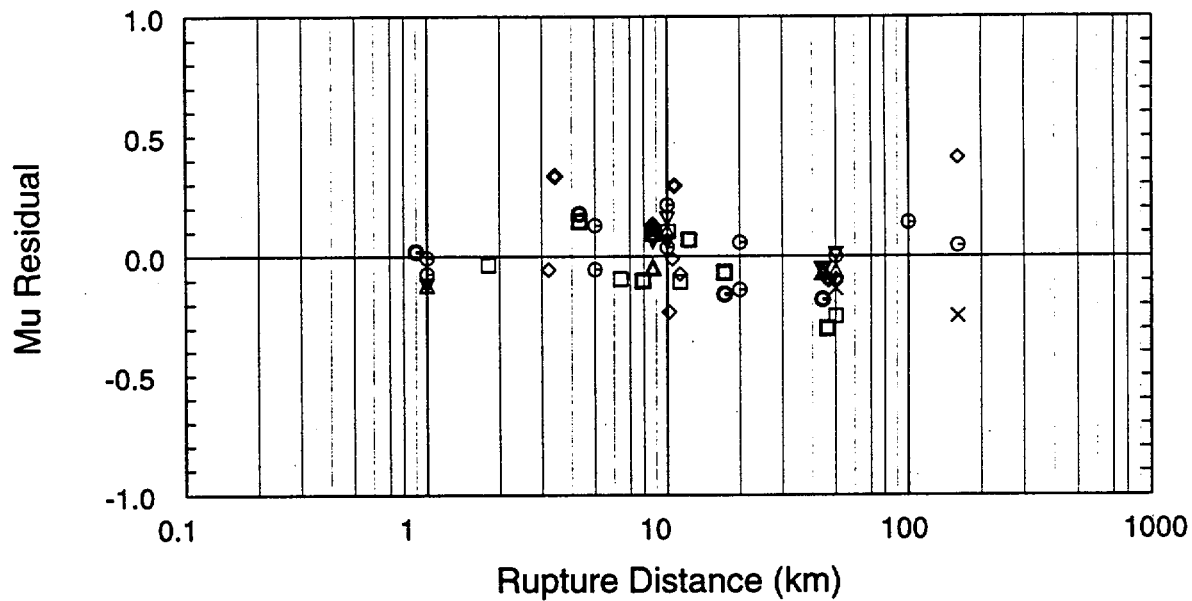
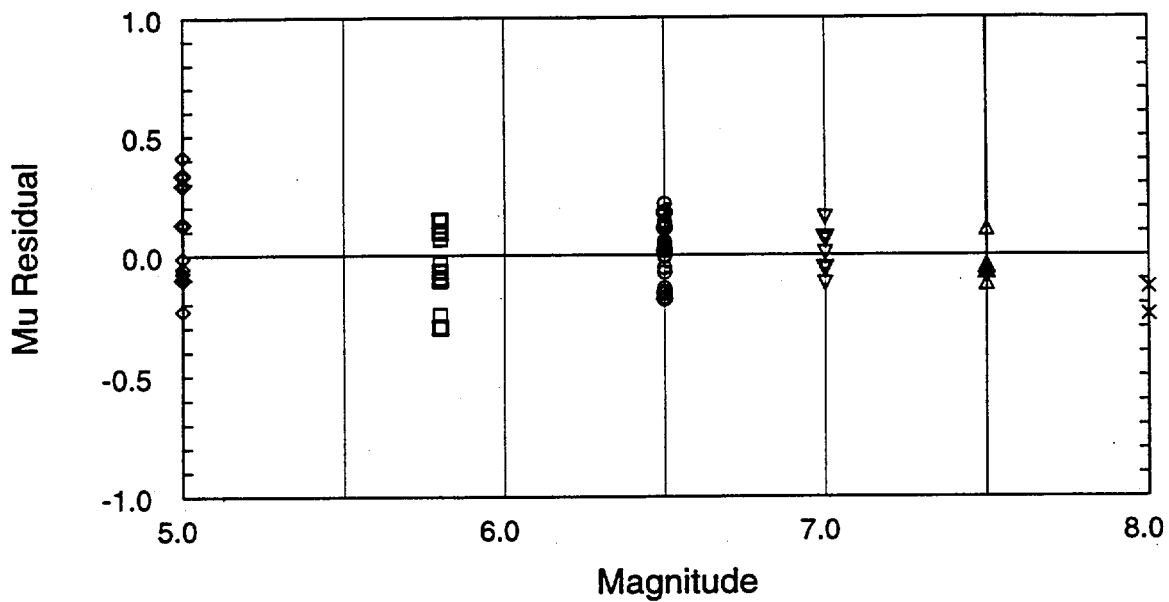
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 1.0 Hz



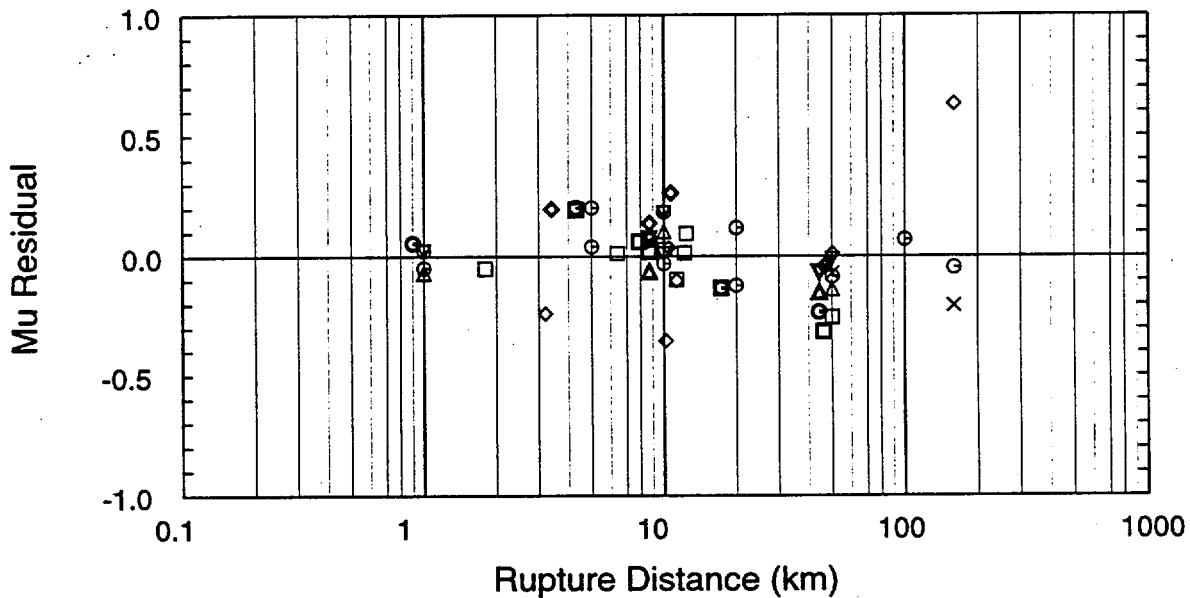
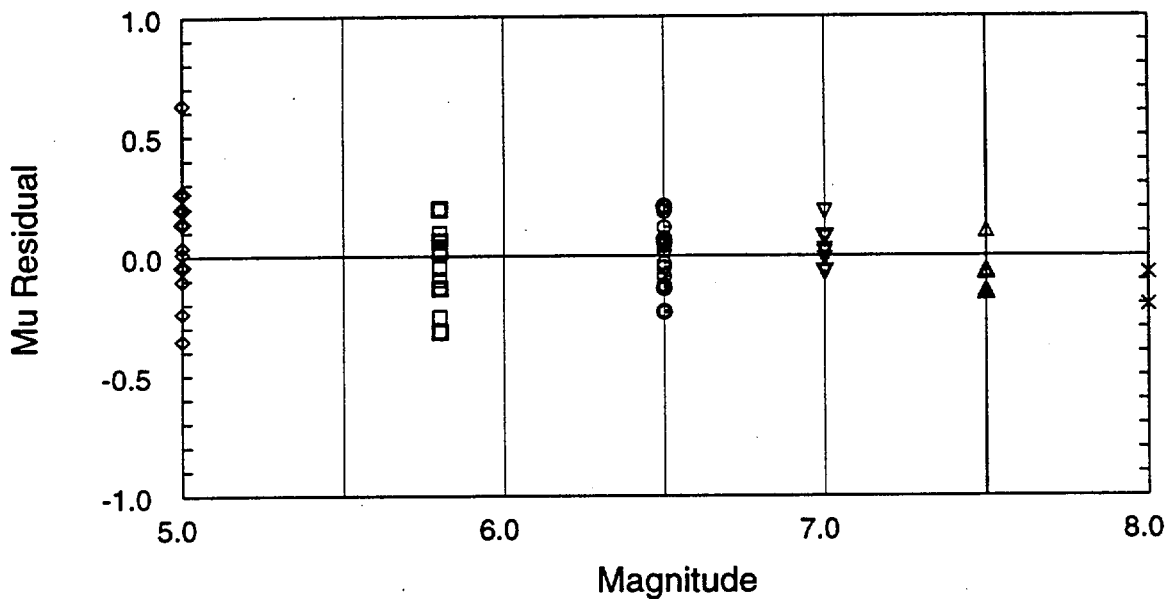
- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| X | M 8.0, SS and FW |   |           |



Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 0.5 Hz

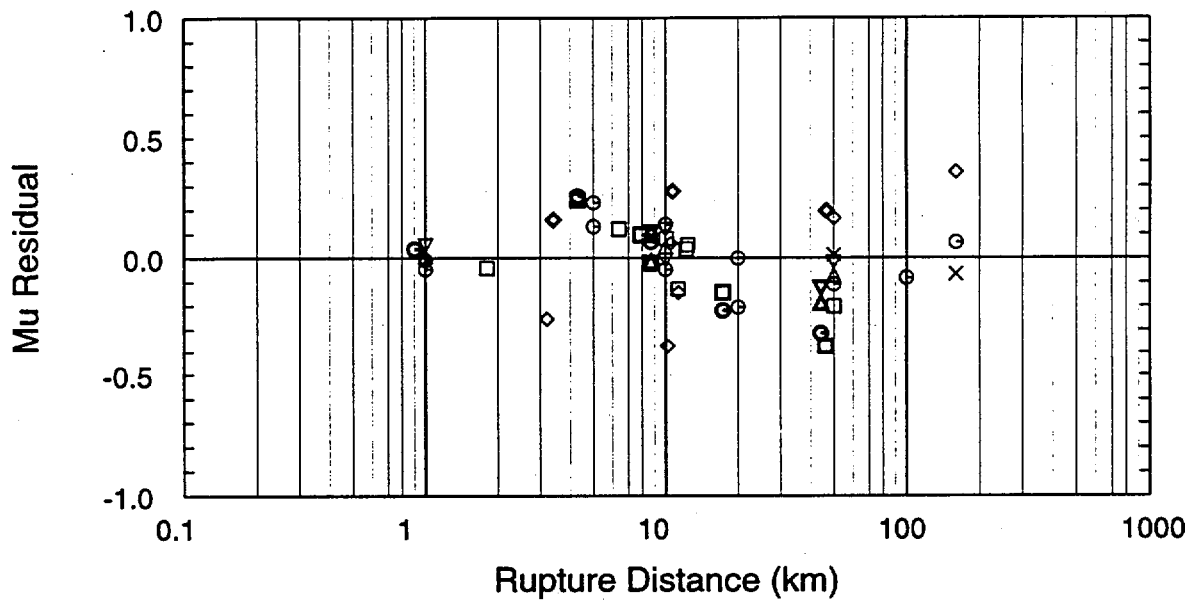
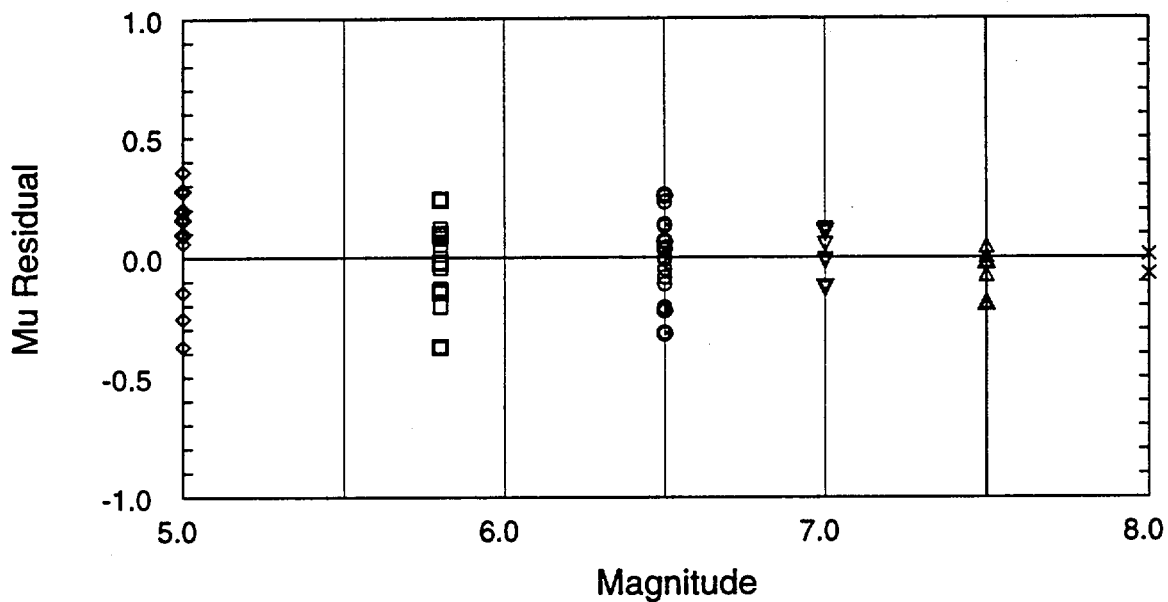


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| x | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 0.3 Hz



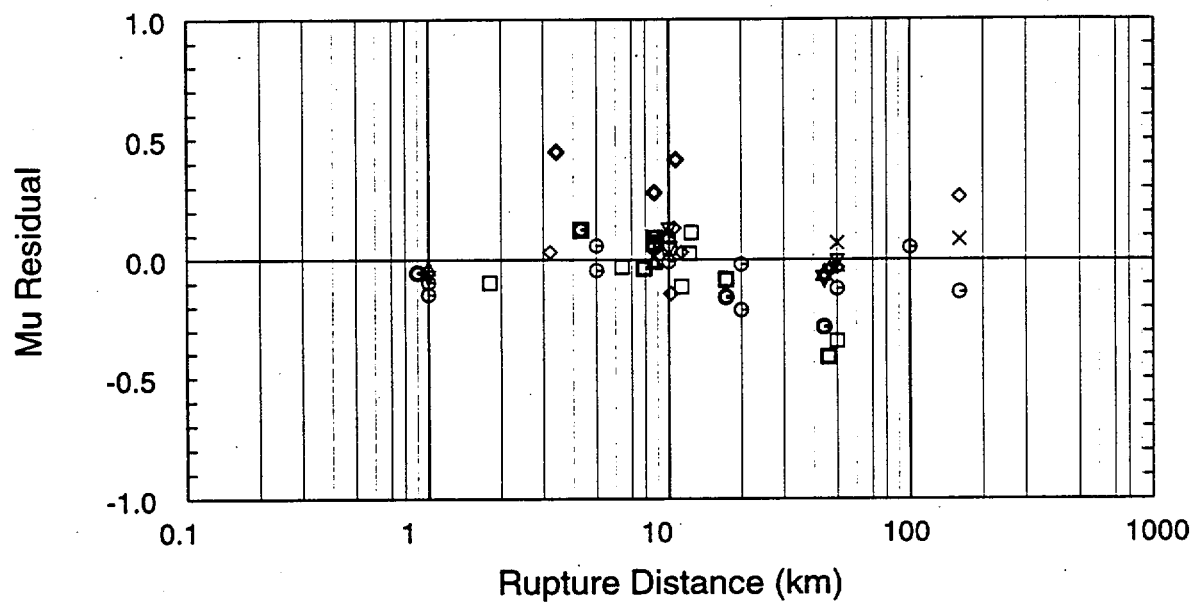
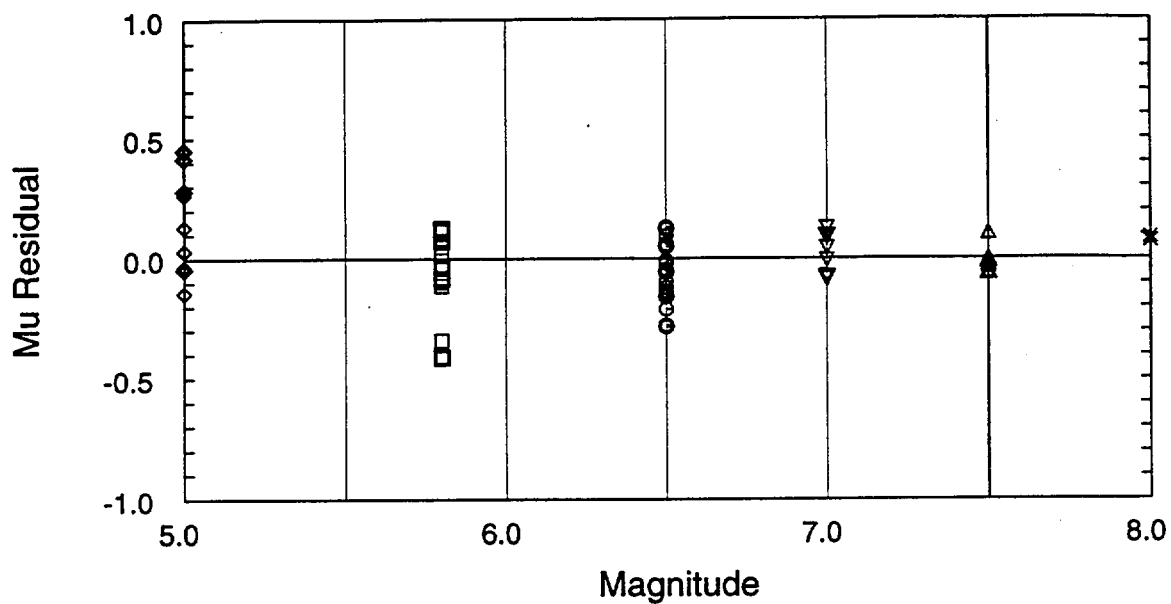
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 6/11/97, Model 2

Horizontal Comp

Peak Velocity

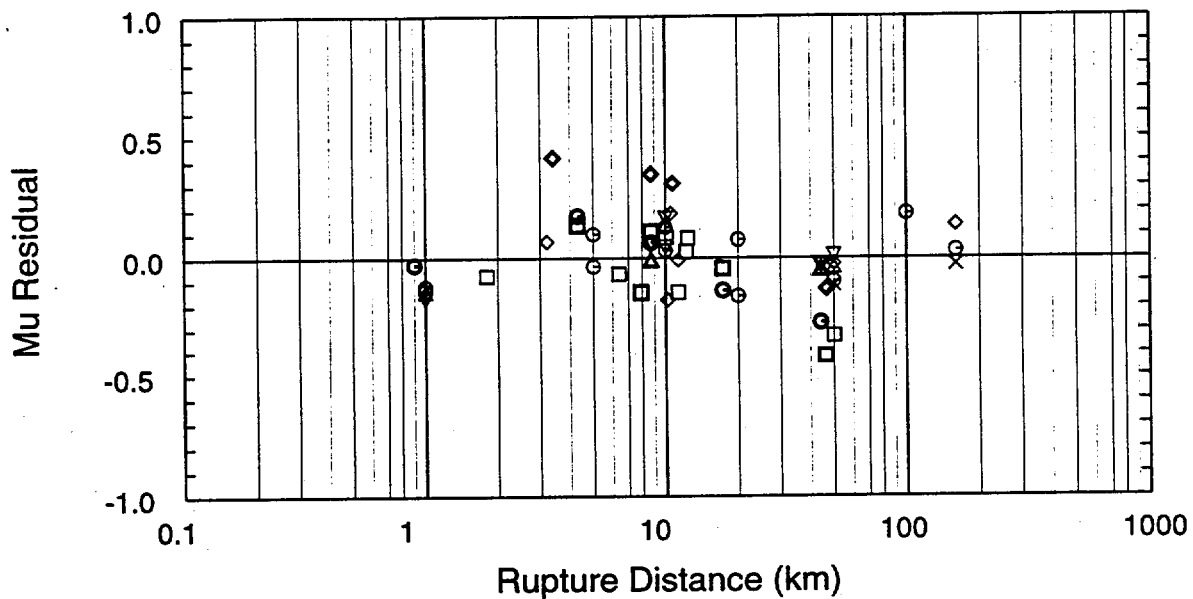
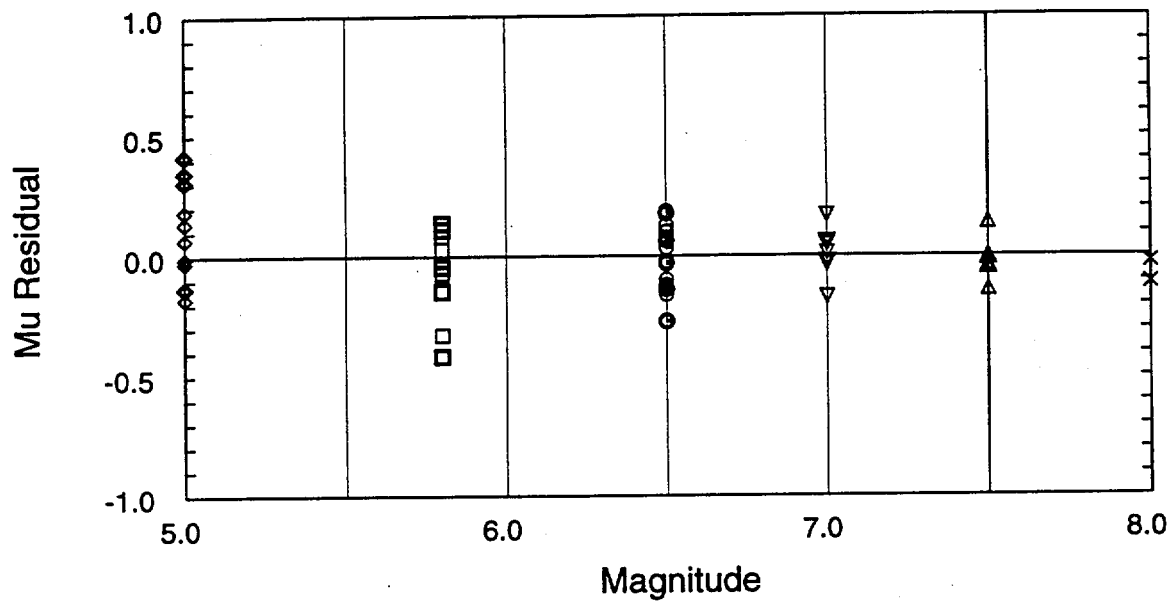


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

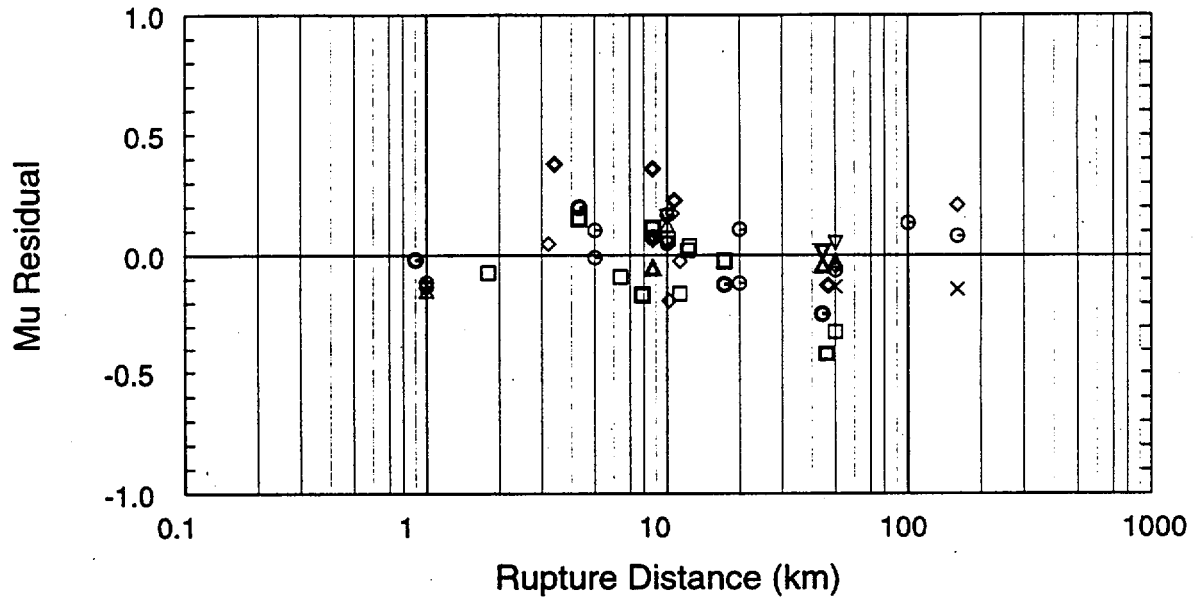
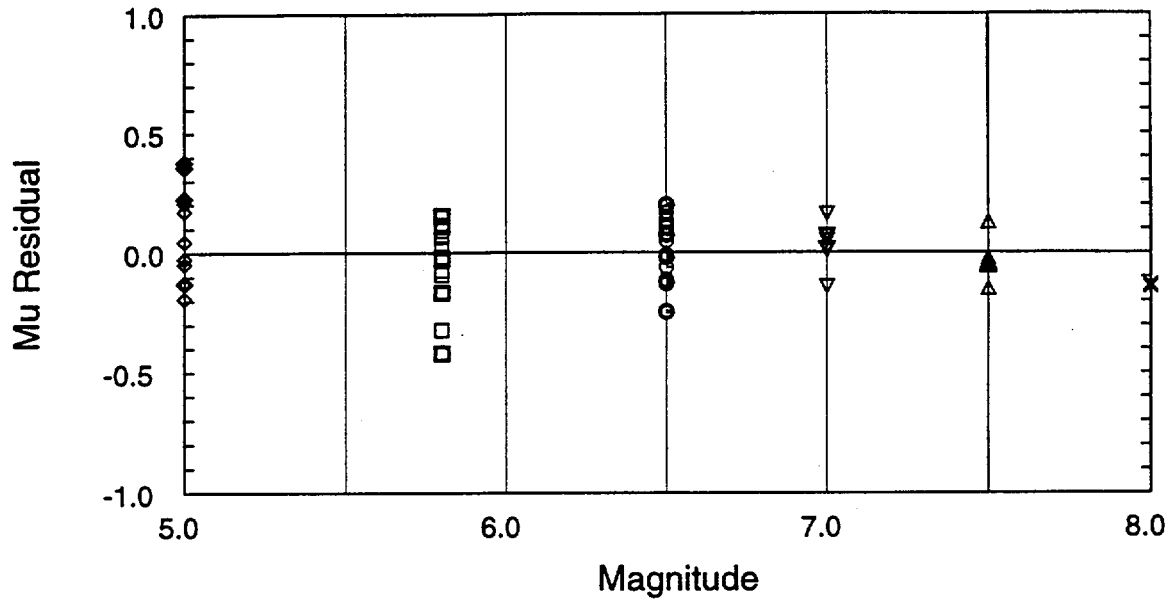
Frequency = 100.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2  
 Vertical Comp  
 Frequency = 20.0 Hz

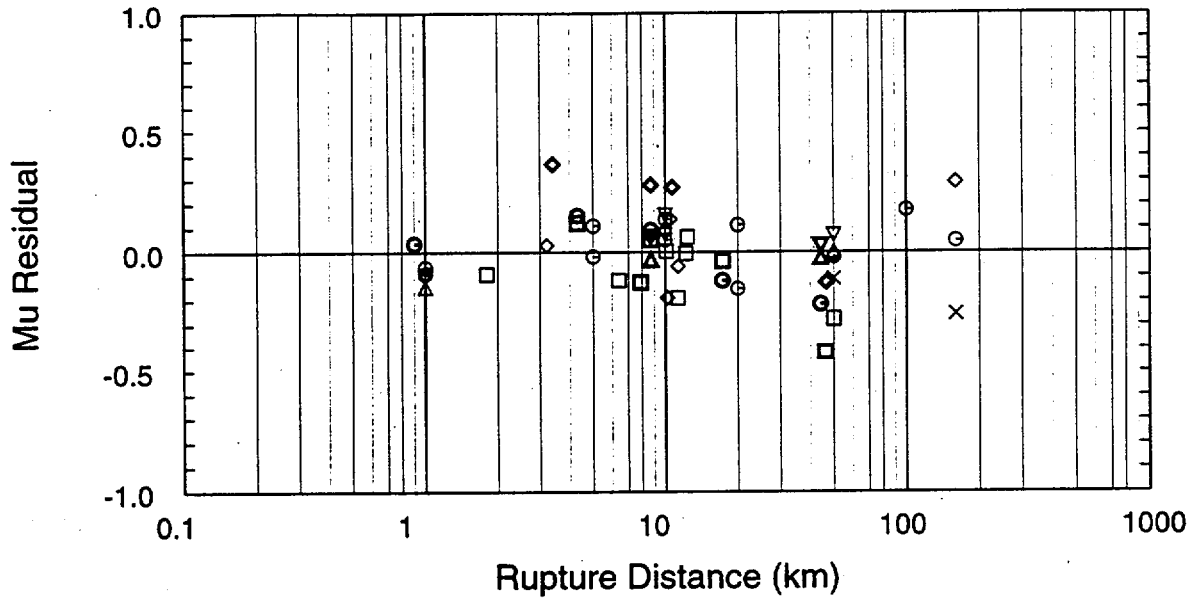
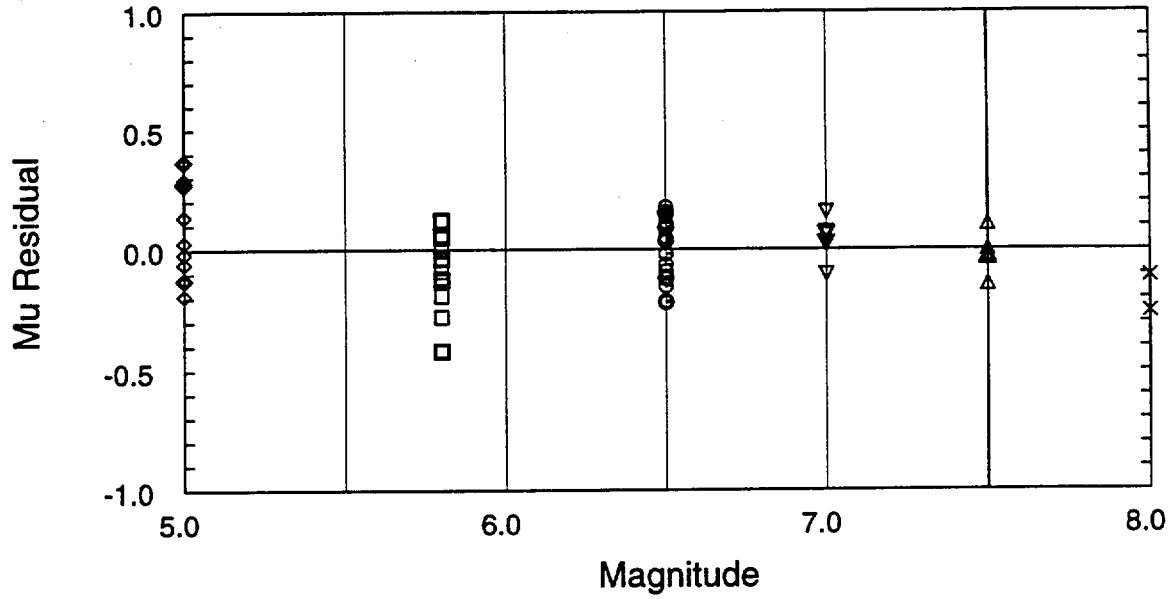


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| x | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

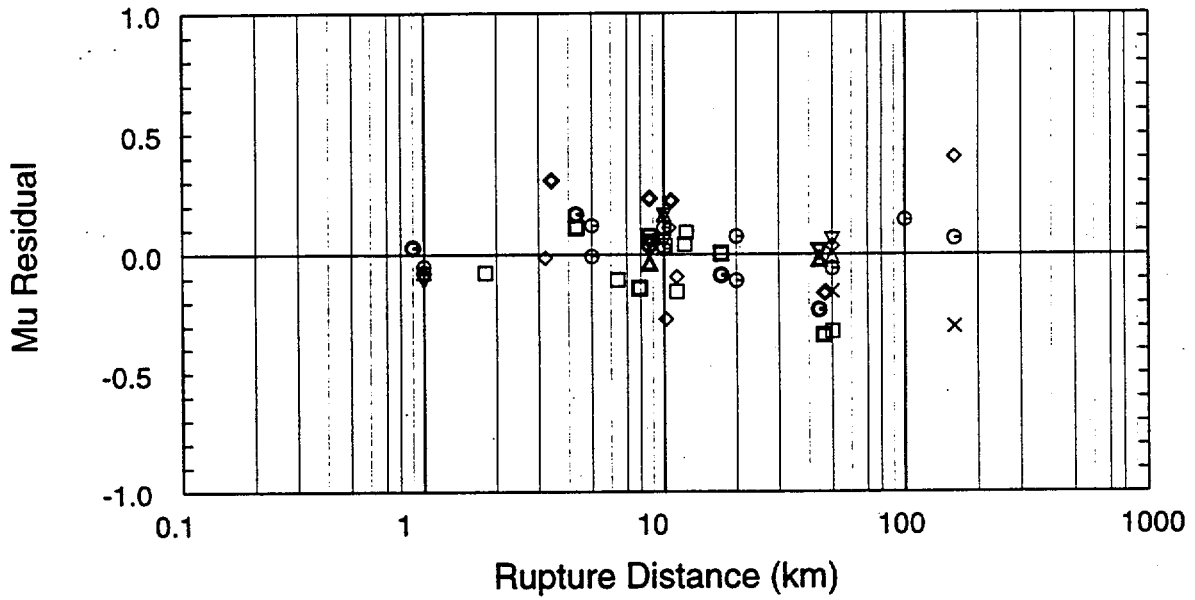
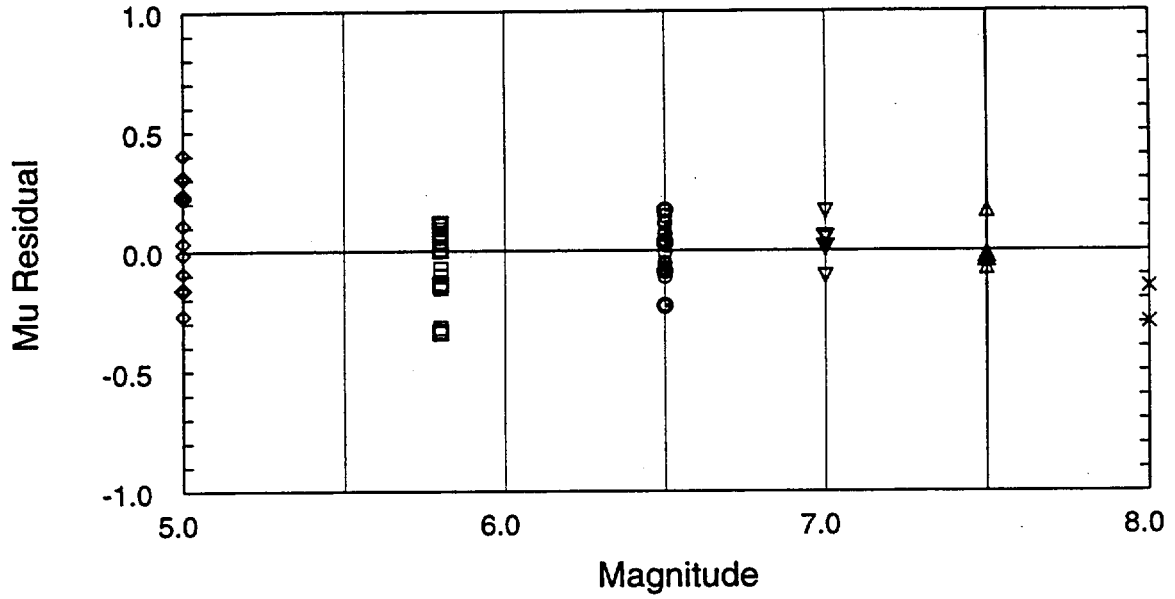
Vertical Comp

Frequency = 10.0 Hz



- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ⊙ | M 6.5, SS and FW | ⊙ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2  
 Vertical Comp  
 Frequency = 5.0 Hz

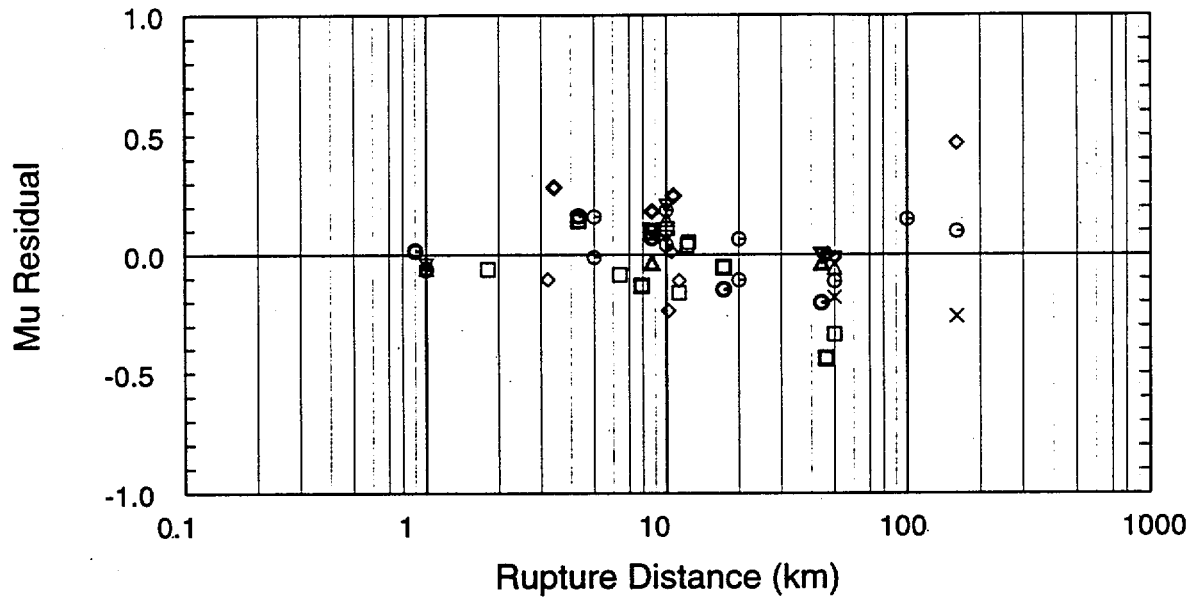
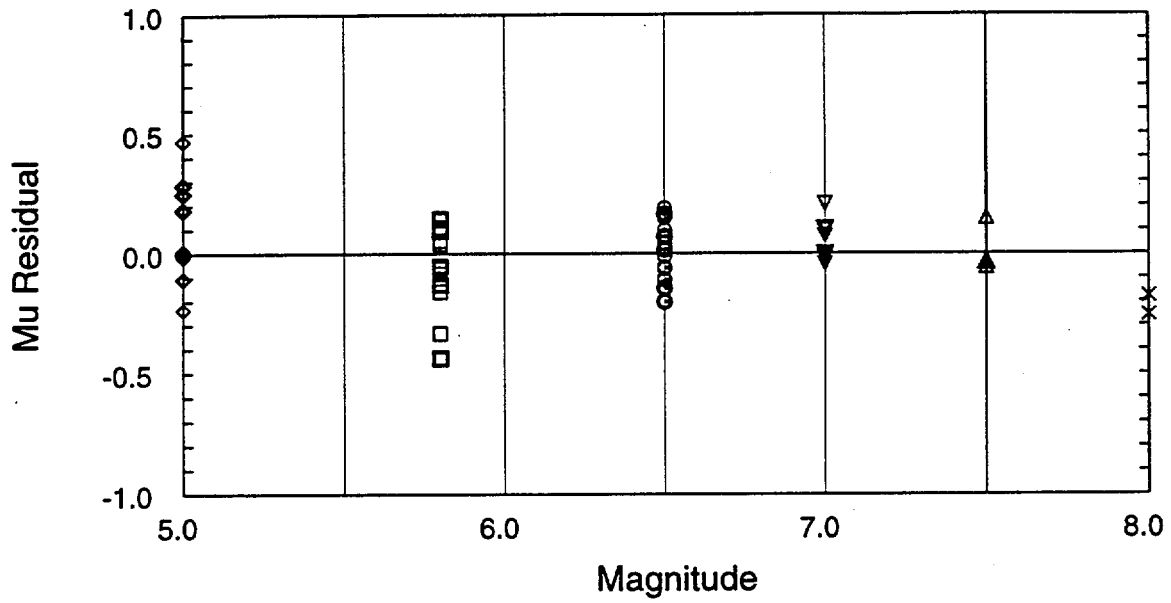


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| x | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 2.0 Hz



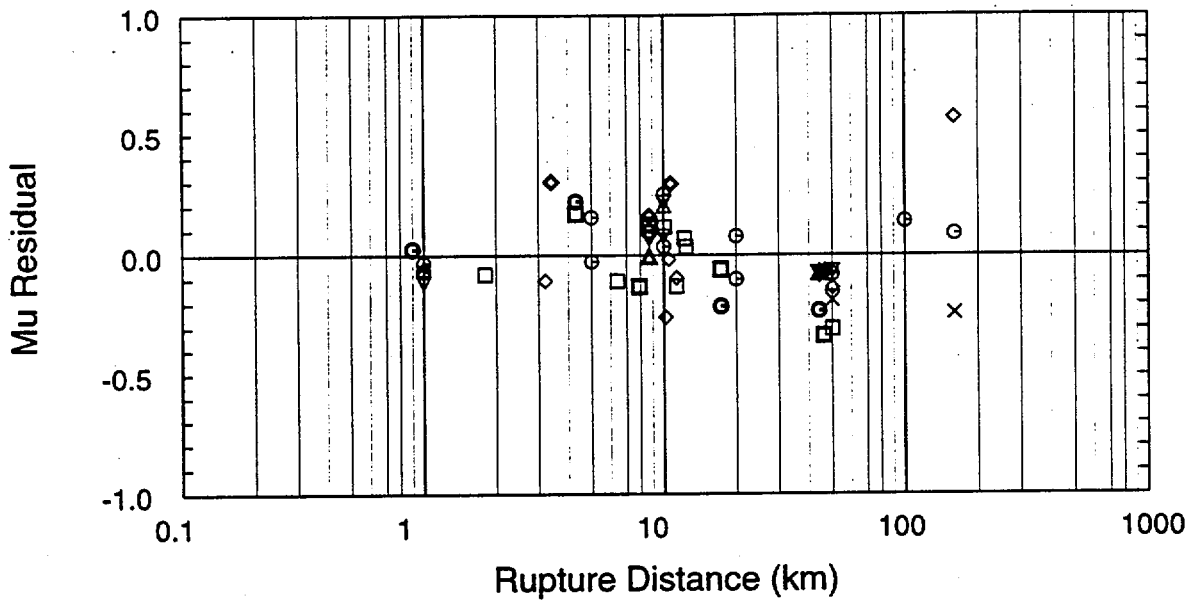
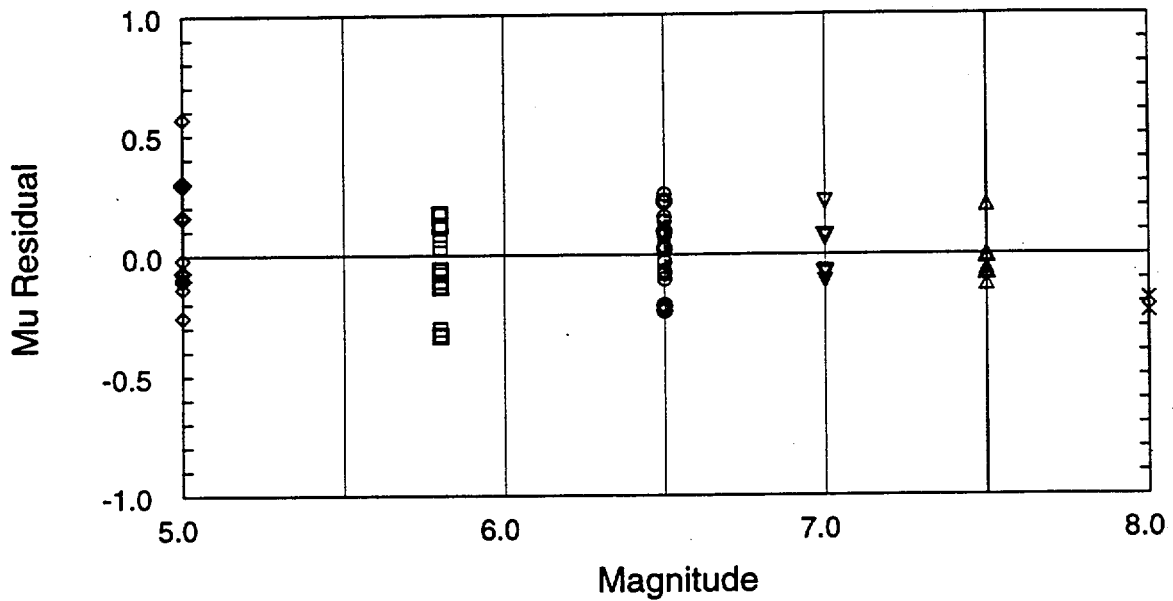
- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ⊙ | M 6.5, SS and FW | ⊙ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |



Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 1.0 Hz



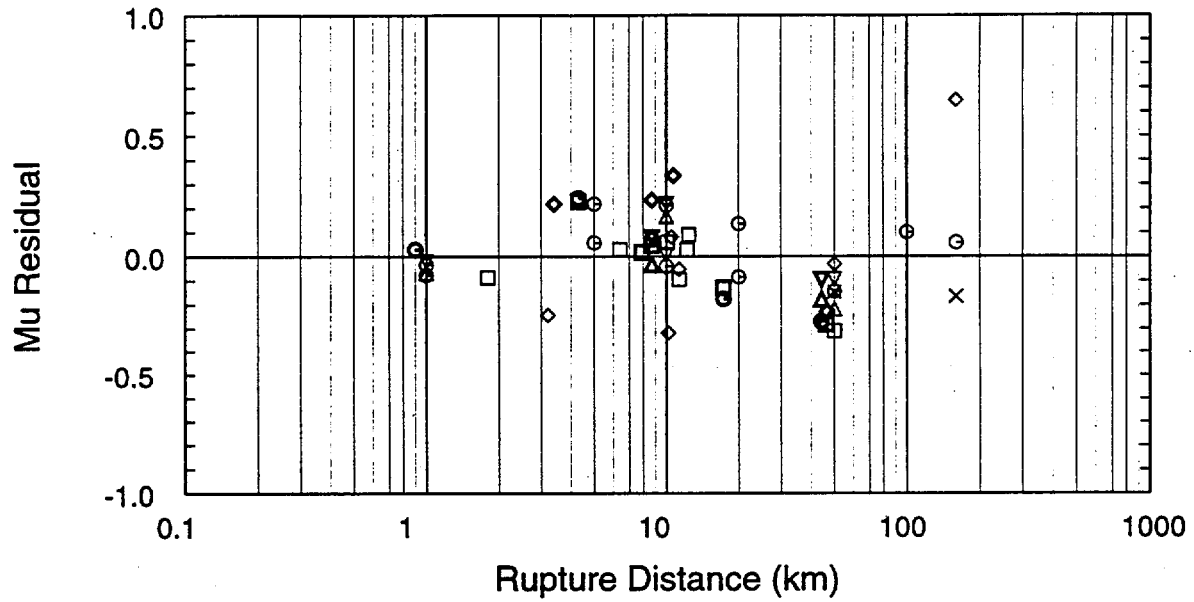
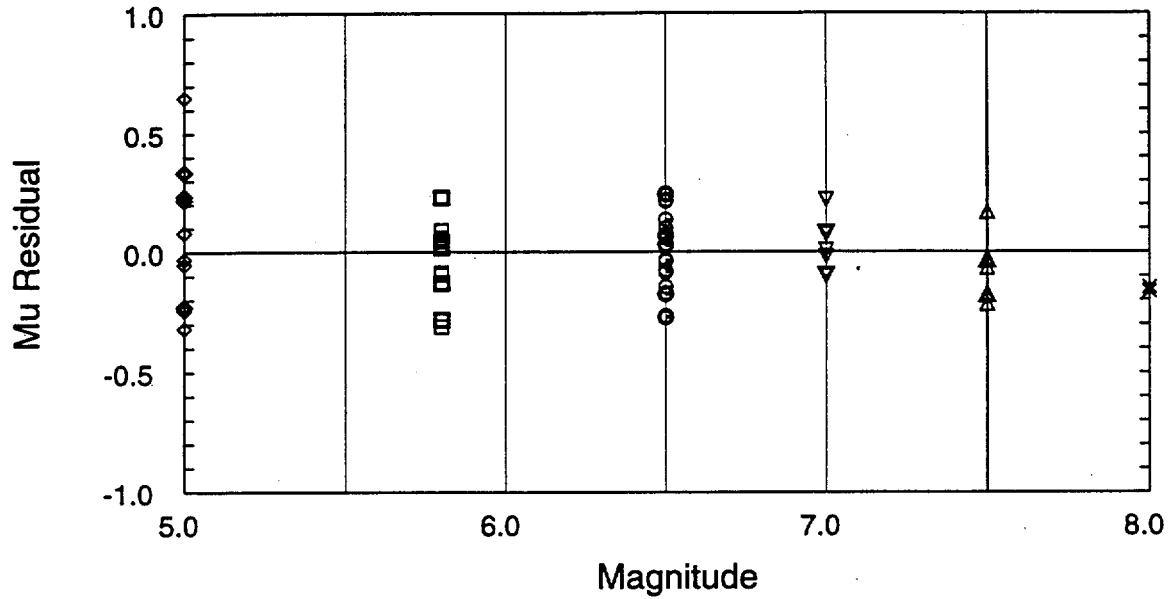
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 0.5 Hz



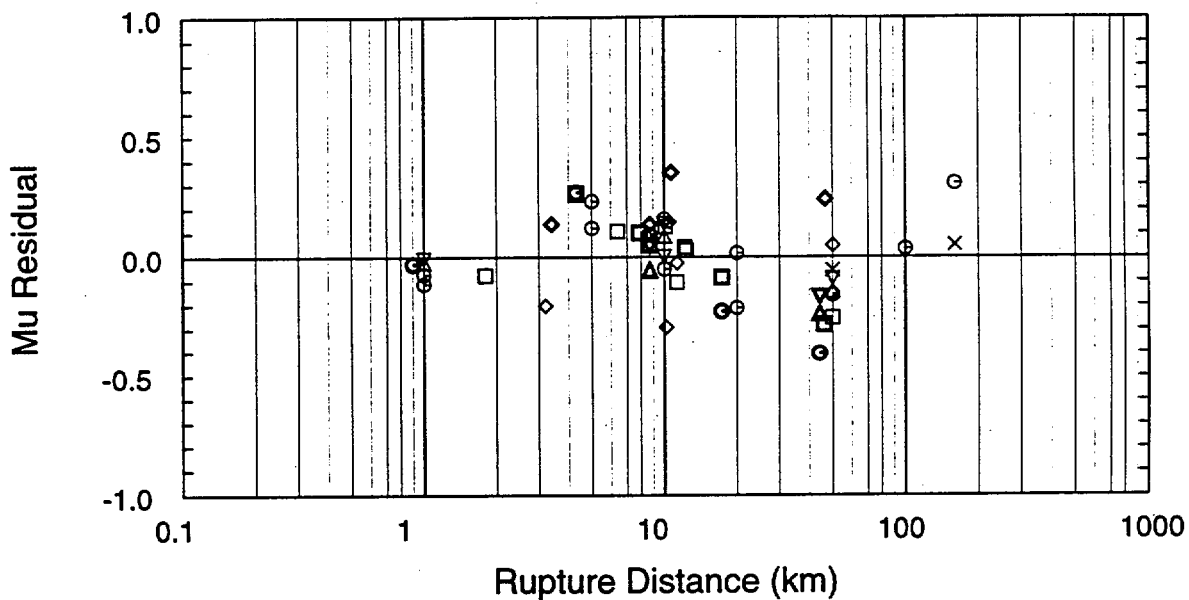
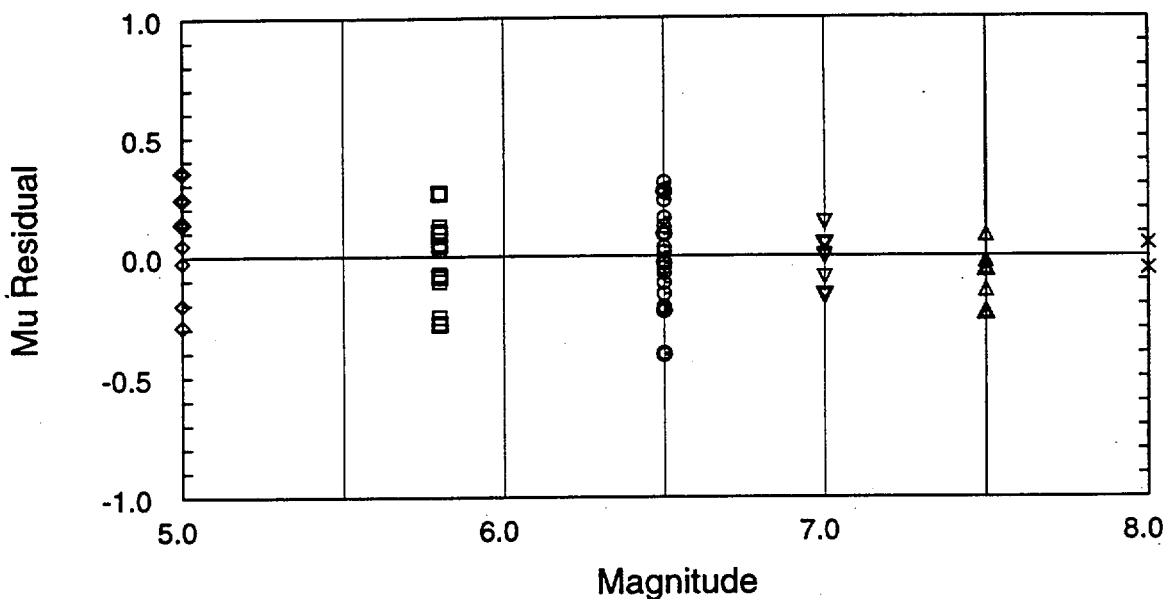
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

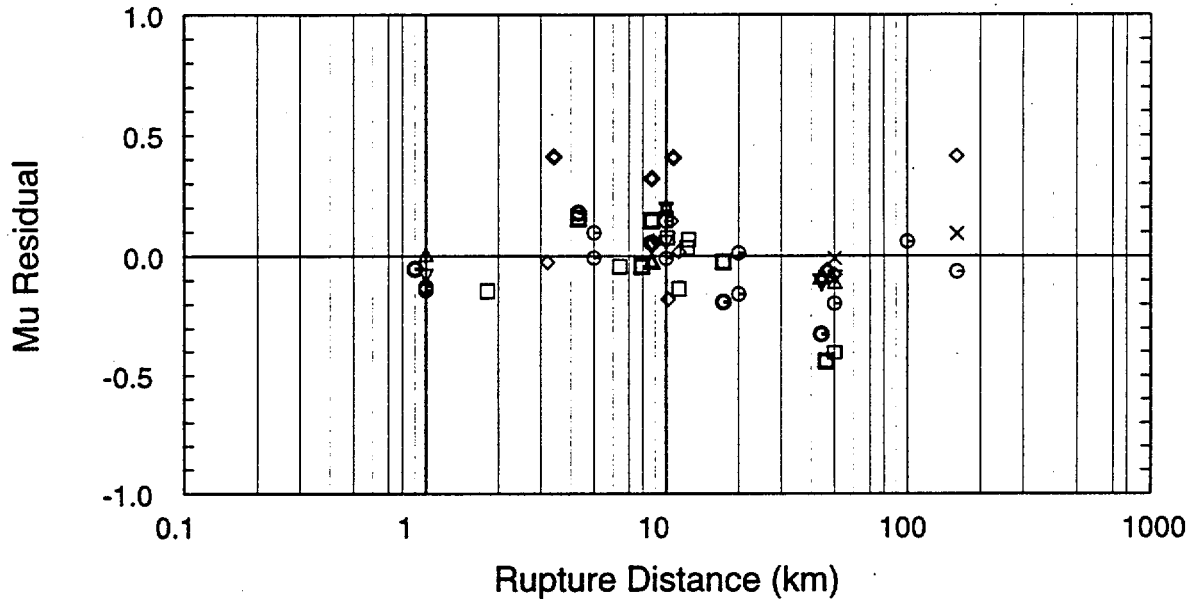
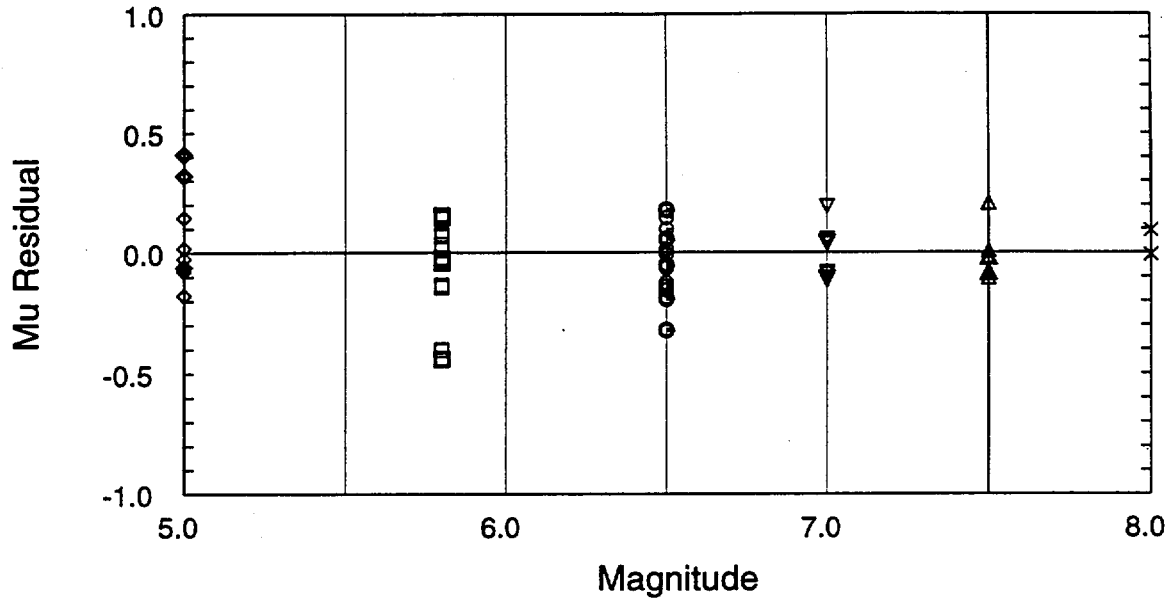
Vertical Comp

Frequency = 0.3 Hz



- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 6/11/97, Model 2  
 Vertical Comp  
 Peak Velocity

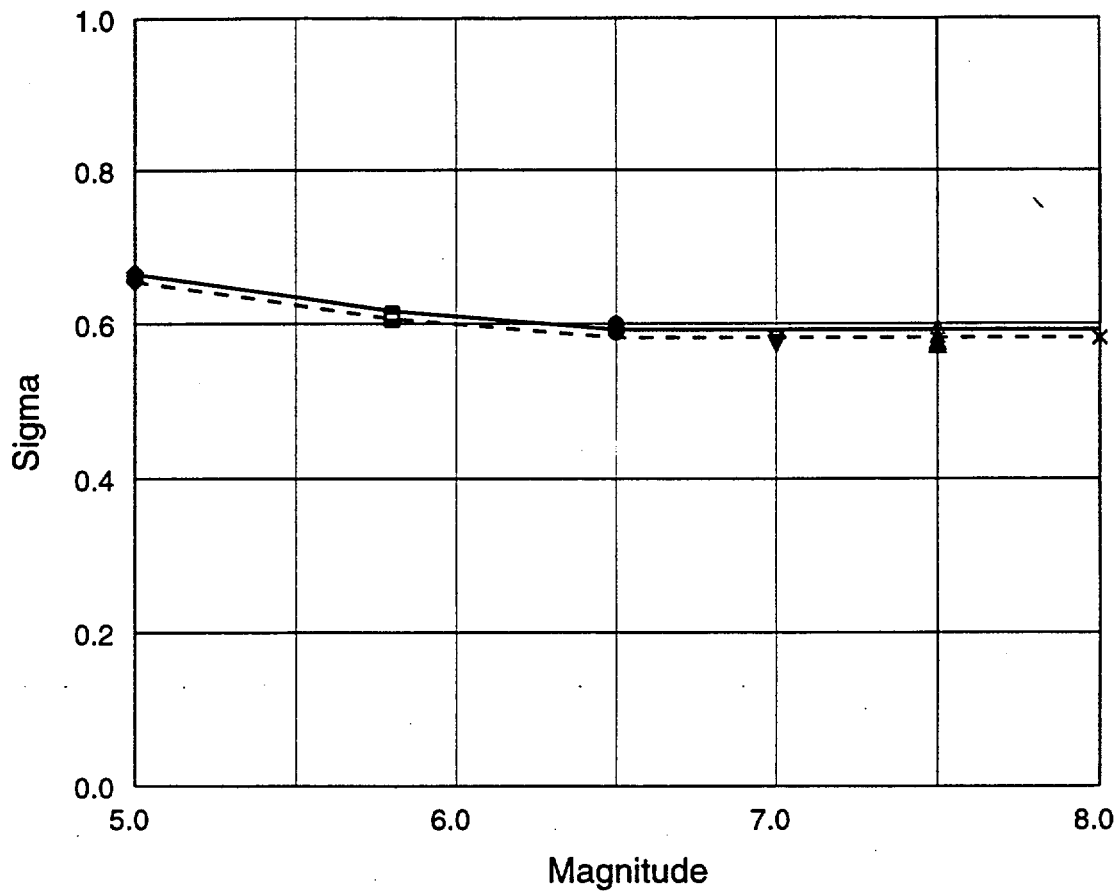


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 100.0 Hz

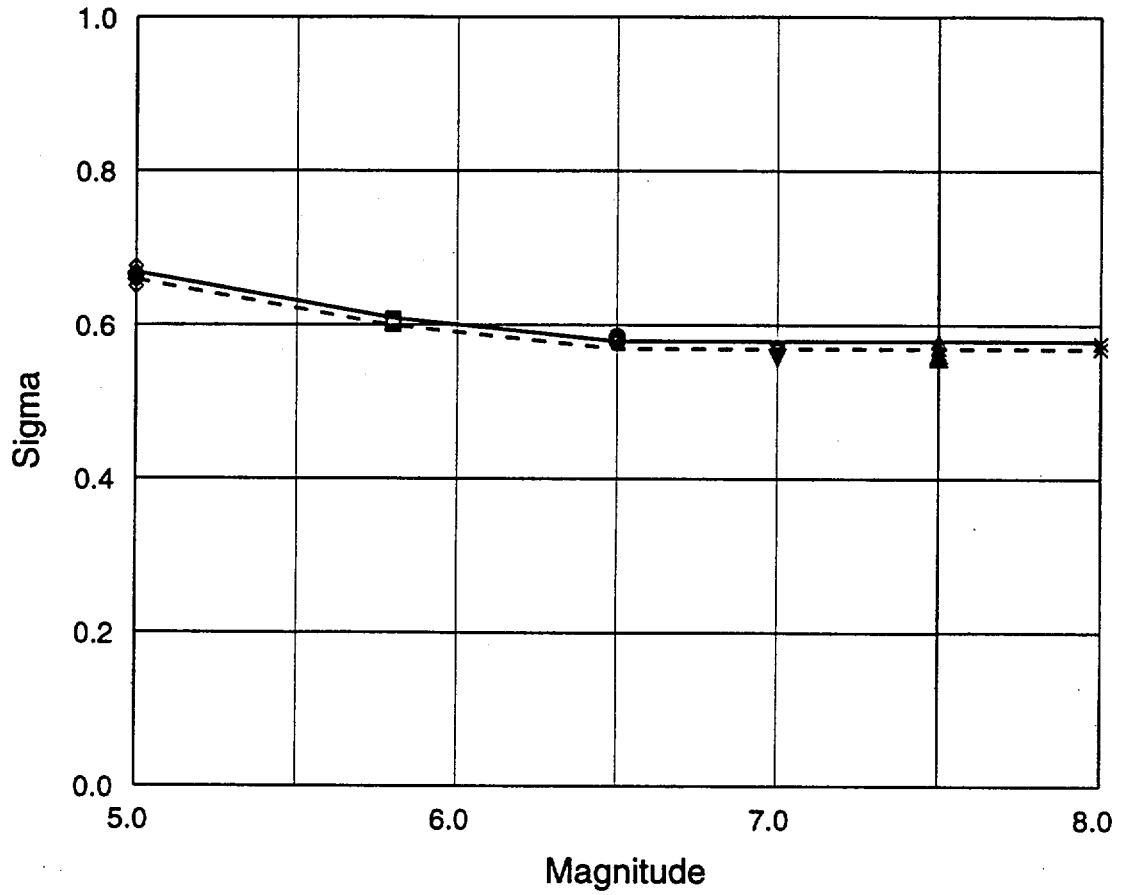


◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
⊖ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
X M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
⊖ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 20.0 Hz



◇ M 5.0, SS and FW  
 □ M 5.8, SS and FW  
 ⊙ M 6.5, SS and FW  
 ▽ M 7.0, SS and FW  
 △ M 7.5, SS and FW  
 × M 8.0, SS and FW

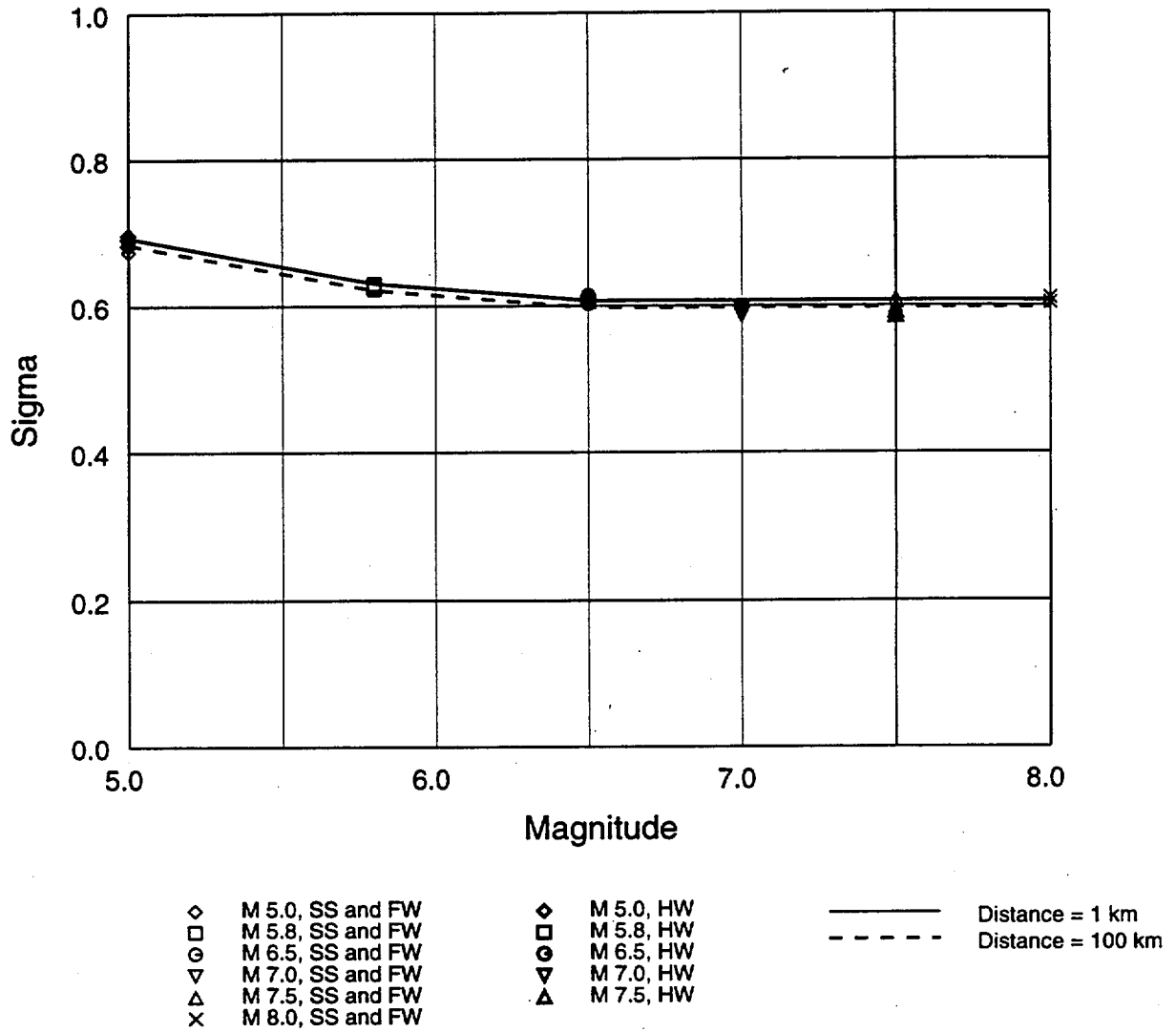
◇ M 5.0, HW  
 □ M 5.8, HW  
 ⊙ M 6.5, HW  
 ▽ M 7.0, HW  
 △ M 7.5, HW

— Distance = 1 km  
 - - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

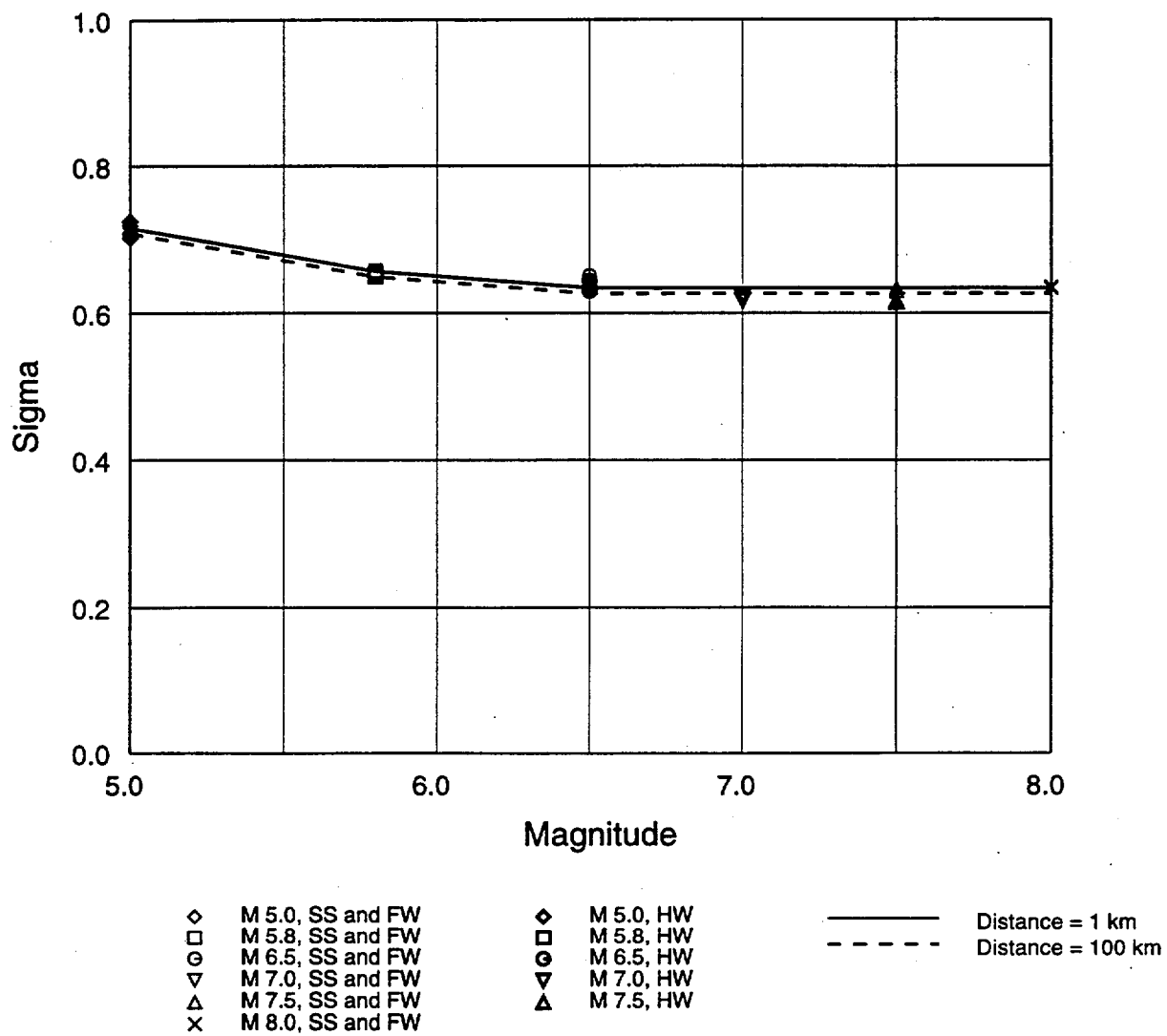
Frequency = 10.0 Hz



Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 5.0 Hz

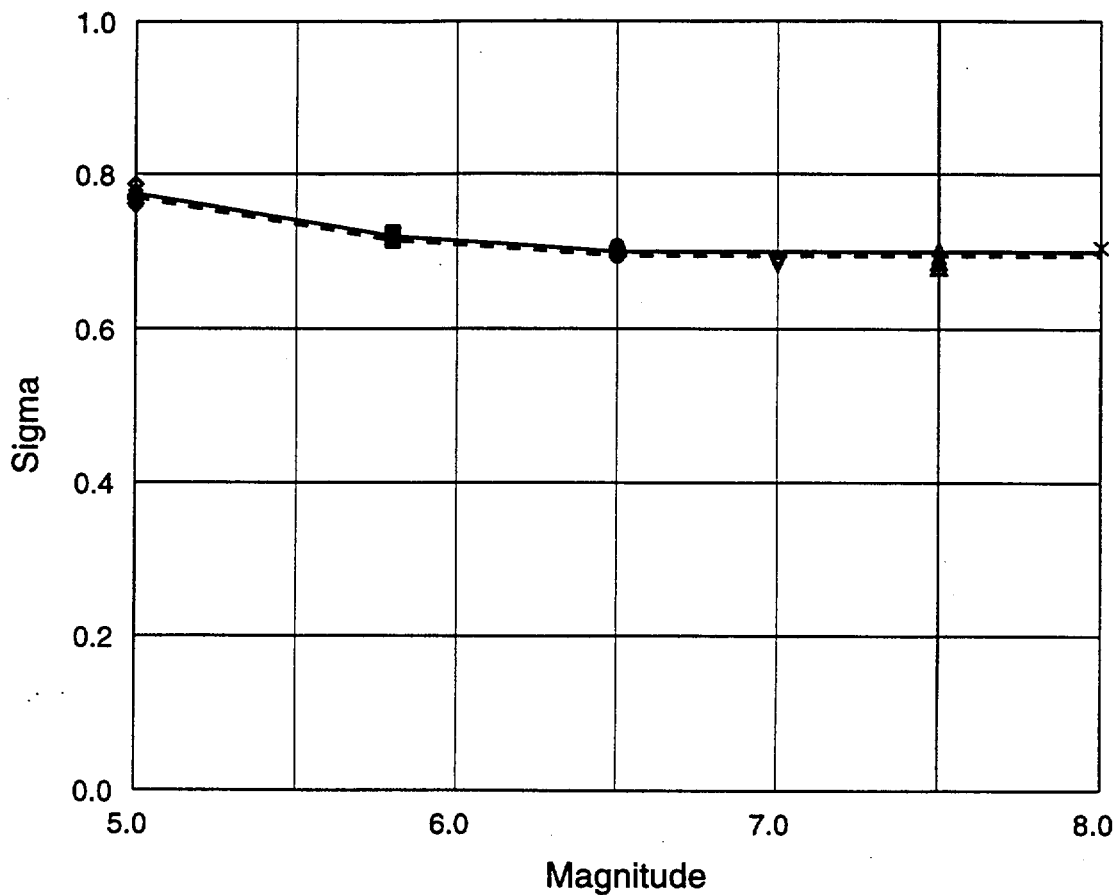




Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 2.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

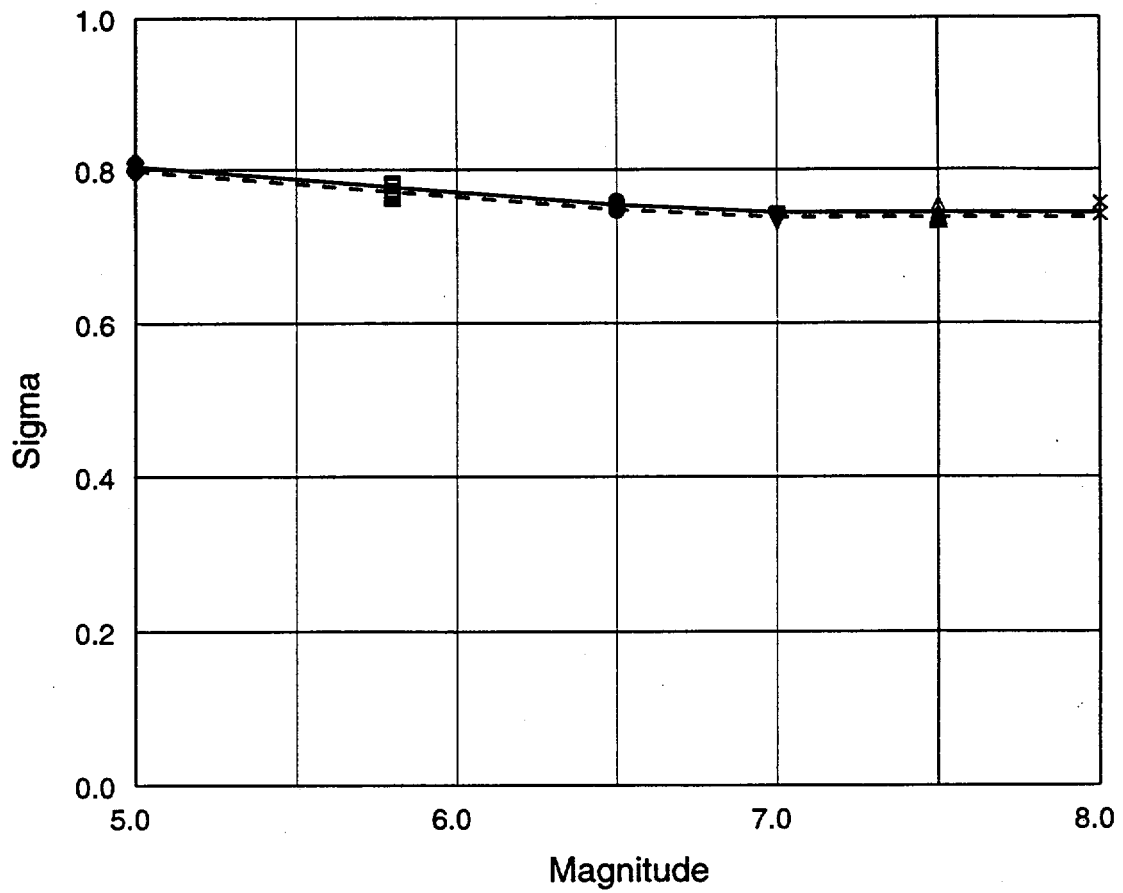
◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 1.0 Hz



- ◇ M 5.0, SS and FW
- M 5.8, SS and FW
- M 6.5, SS and FW
- ▽ M 7.0, SS and FW
- △ M 7.5, SS and FW
- × M 8.0, SS and FW

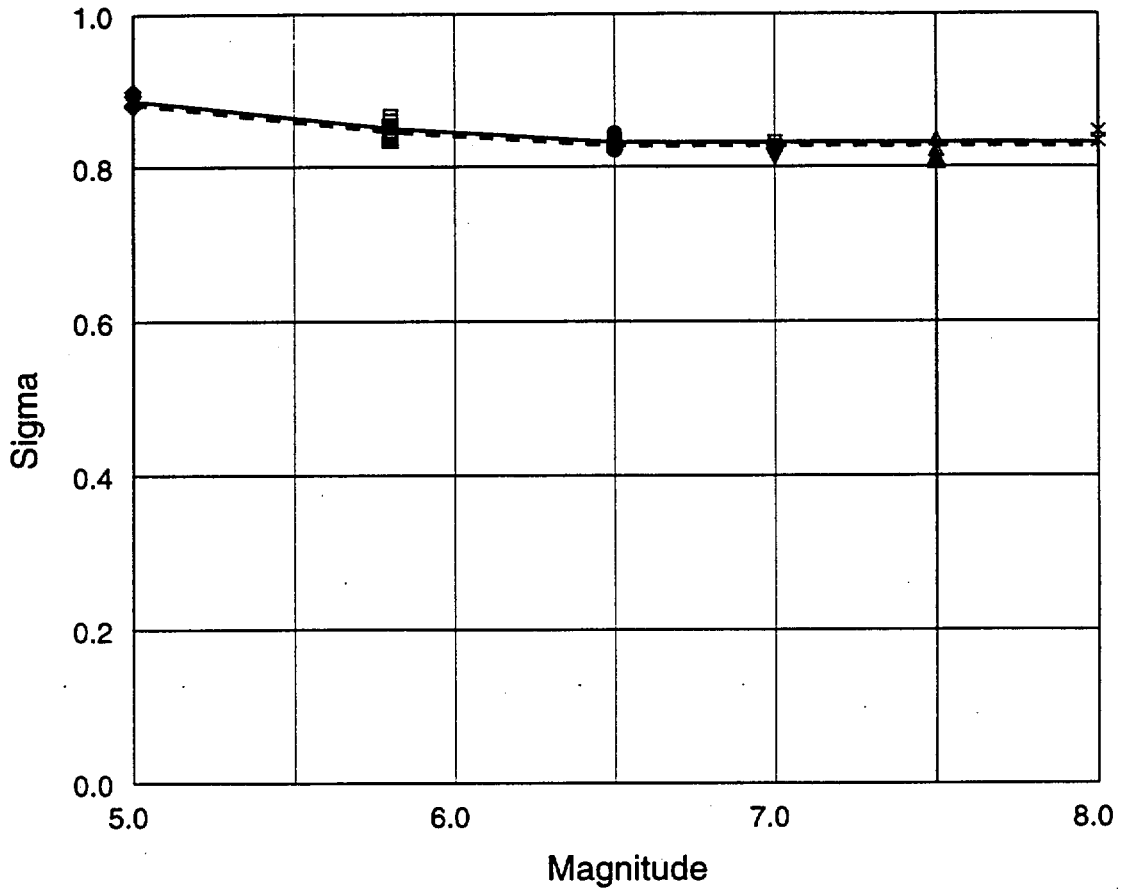
- ◇ M 5.0, HW
- M 5.8, HW
- M 6.5, HW
- ▽ M 7.0, HW
- △ M 7.5, HW

- Distance = 1 km
- - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 0.5 Hz



- ◇ M 5.0, SS and FW
- M 5.8, SS and FW
- ⊙ M 6.5, SS and FW
- ▽ M 7.0, SS and FW
- △ M 7.5, SS and FW
- x M 8.0, SS and FW

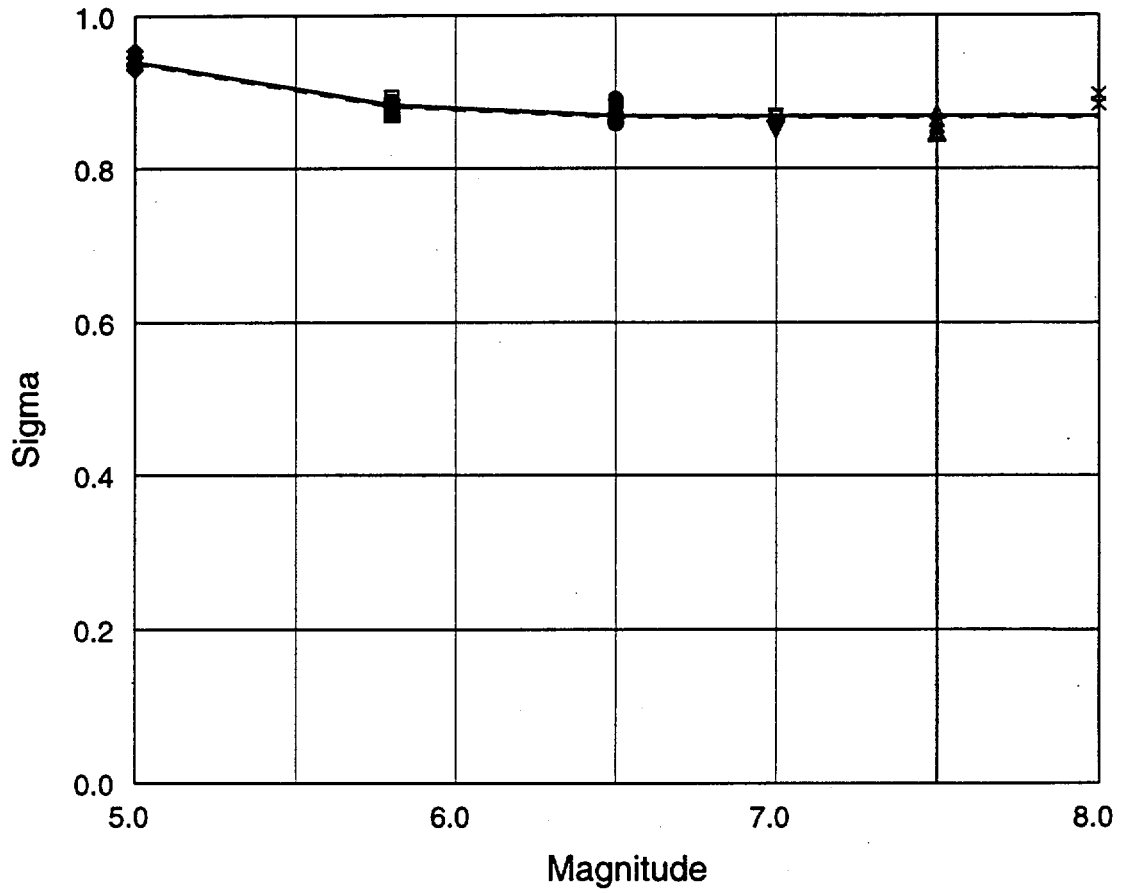
- ◇ M 5.0, HW
- M 5.8, HW
- ⊙ M 6.5, HW
- ▽ M 7.0, HW
- ▲ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 0.3 Hz

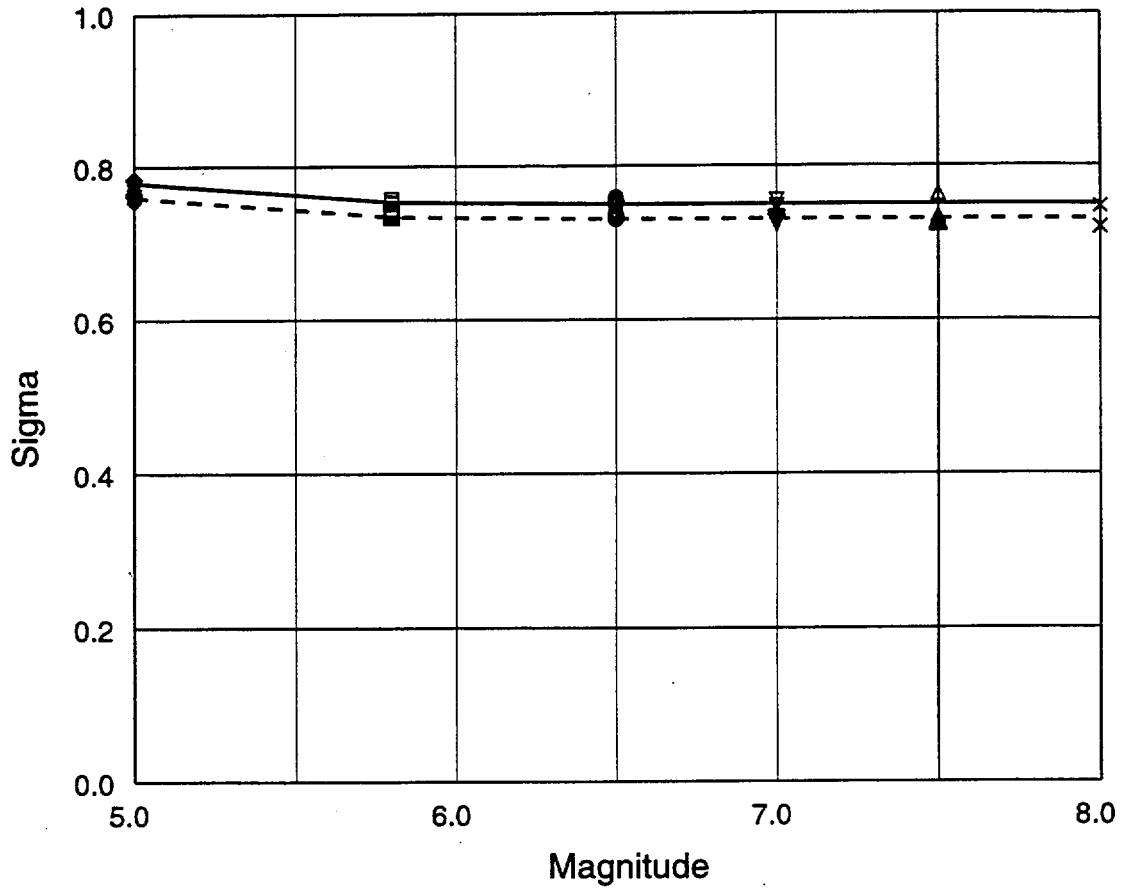


◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 6/11/97, Model 2  
 Horizontal Comp  
 Peak Velocity



◇ M 5.0, SS and FW  
 □ M 5.8, SS and FW  
 ⊙ M 6.5, SS and FW  
 ▽ M 7.0, SS and FW  
 △ M 7.5, SS and FW  
 × M 8.0, SS and FW

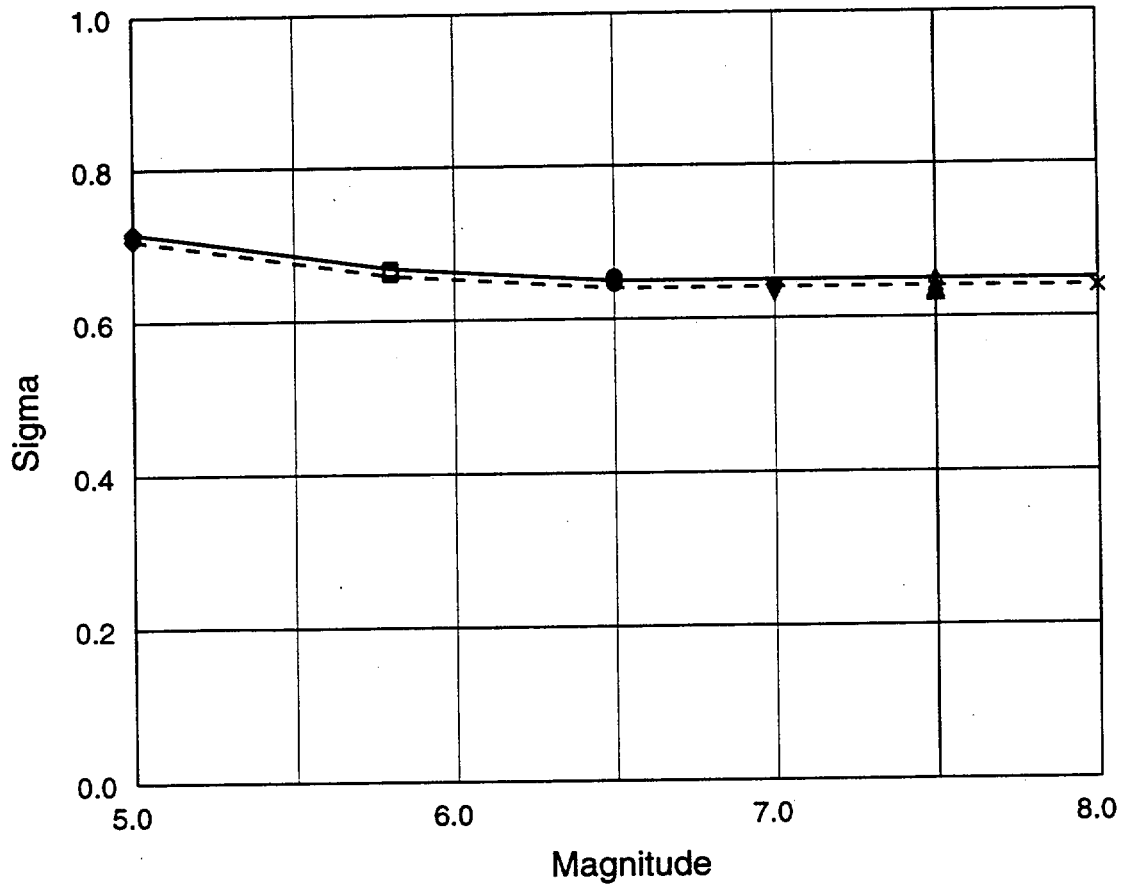
◇ M 5.0, HW  
 □ M 5.8, HW  
 ⊙ M 6.5, HW  
 ▽ M 7.0, HW  
 △ M 7.5, HW

———— Distance = 1 km  
 - - - - - Distance = 100 km

Silva, Rev1, 6/11/97, Model 2

Vertical Comp

Frequency = 100.0Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

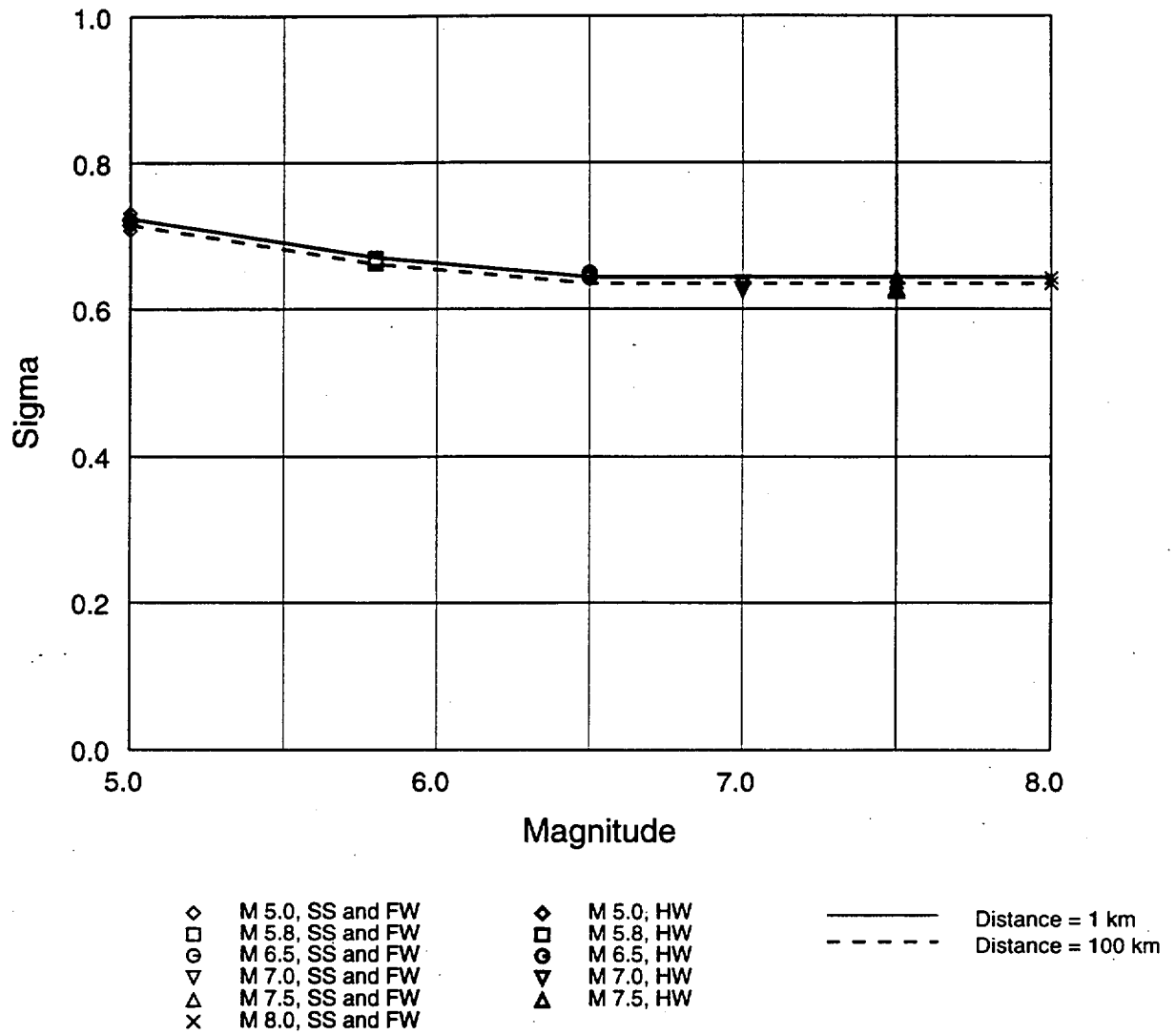
◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 6/11/97, Model 2

Vertical Comp

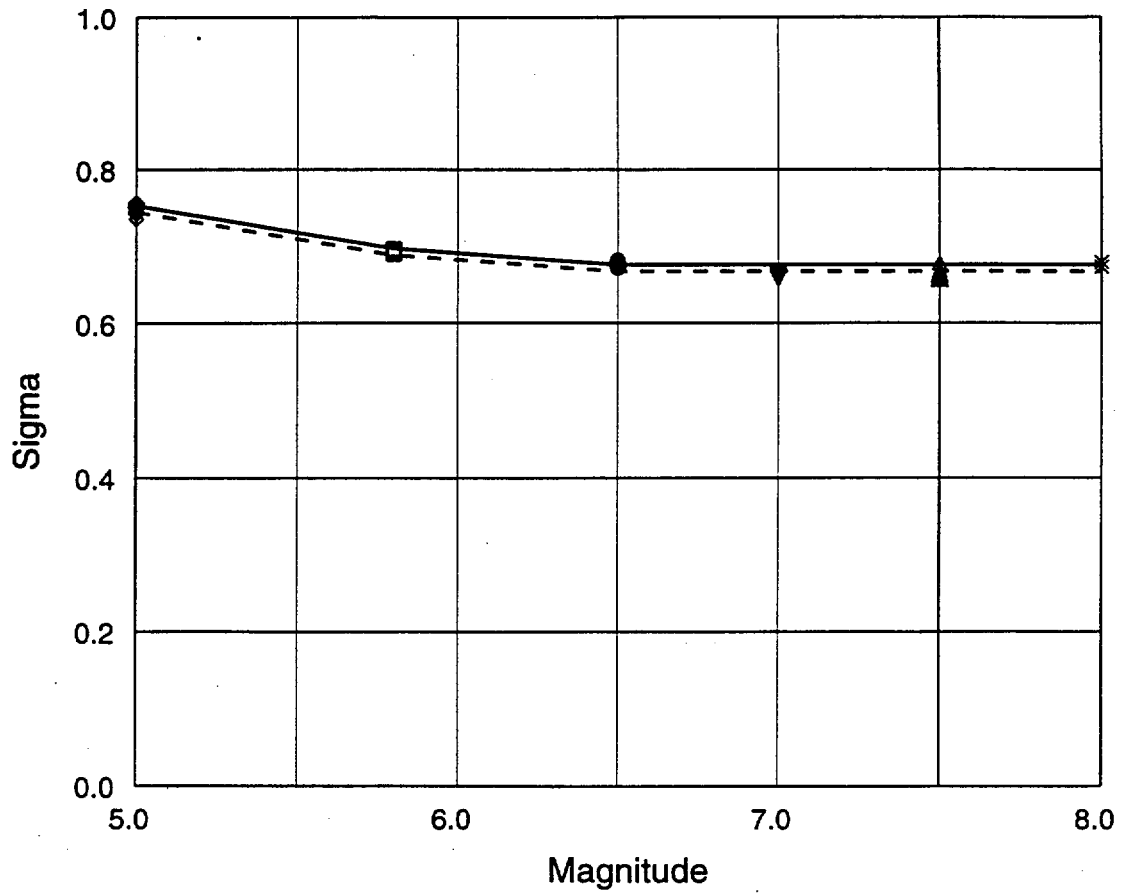
Frequency = 20.0 Hz



Silva, Rev1, 6/11/97, Model 2

Vertical Comp

Frequency = 10.0 Hz



- ◇ M 5.0, SS and FW
- M 5.8, SS and FW
- M 6.5, SS and FW
- ▽ M 7.0, SS and FW
- △ M 7.5, SS and FW
- X M 8.0, SS and FW

- ◇ M 5.0, HW
- M 5.8, HW
- M 6.5, HW
- ▽ M 7.0, HW
- △ M 7.5, HW

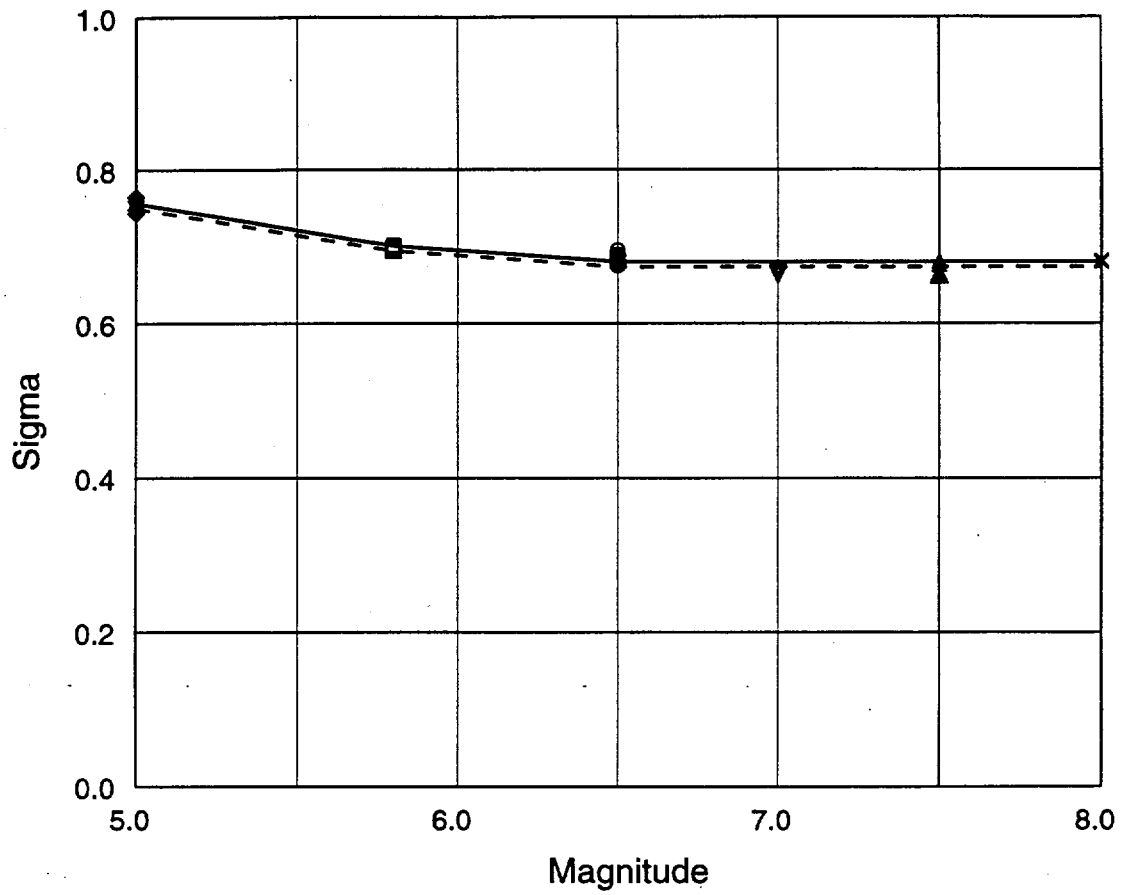
- Distance = 1 km
- - - Distance = 100 km



Silva, Rev1, 6/11/97, Model 2

Vertical Comp

Frequency = 5.0 Hz



- ◇ M 5.0, SS and FW
- M 5.8, SS and FW
- M 6.5, SS and FW
- ▽ M 7.0, SS and FW
- △ M 7.5, SS and FW
- x M 8.0, SS and FW

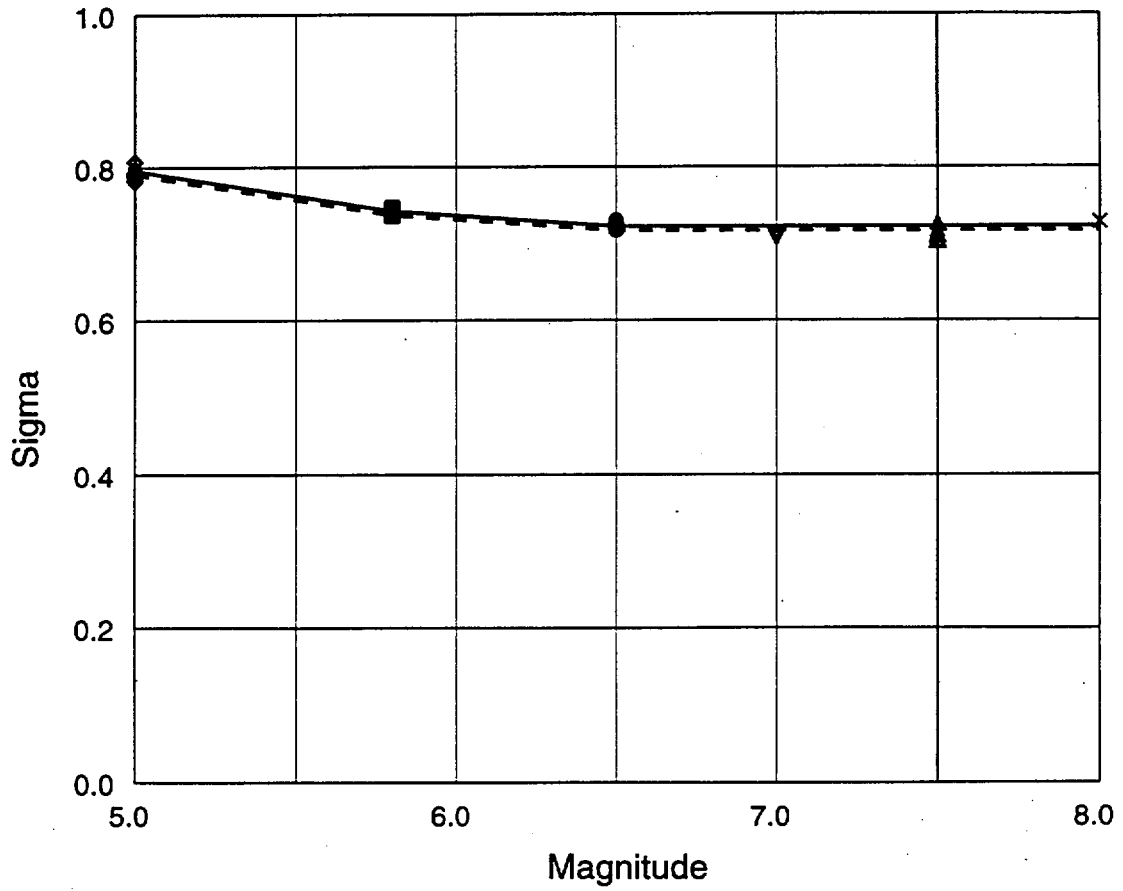
- ◇ M 5.0, HW
- M 5.8, HW
- M 6.5, HW
- ▽ M 7.0, HW
- △ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 6/11/97, Model 2

Vertical Comp

Frequency = 2.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
⊙ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

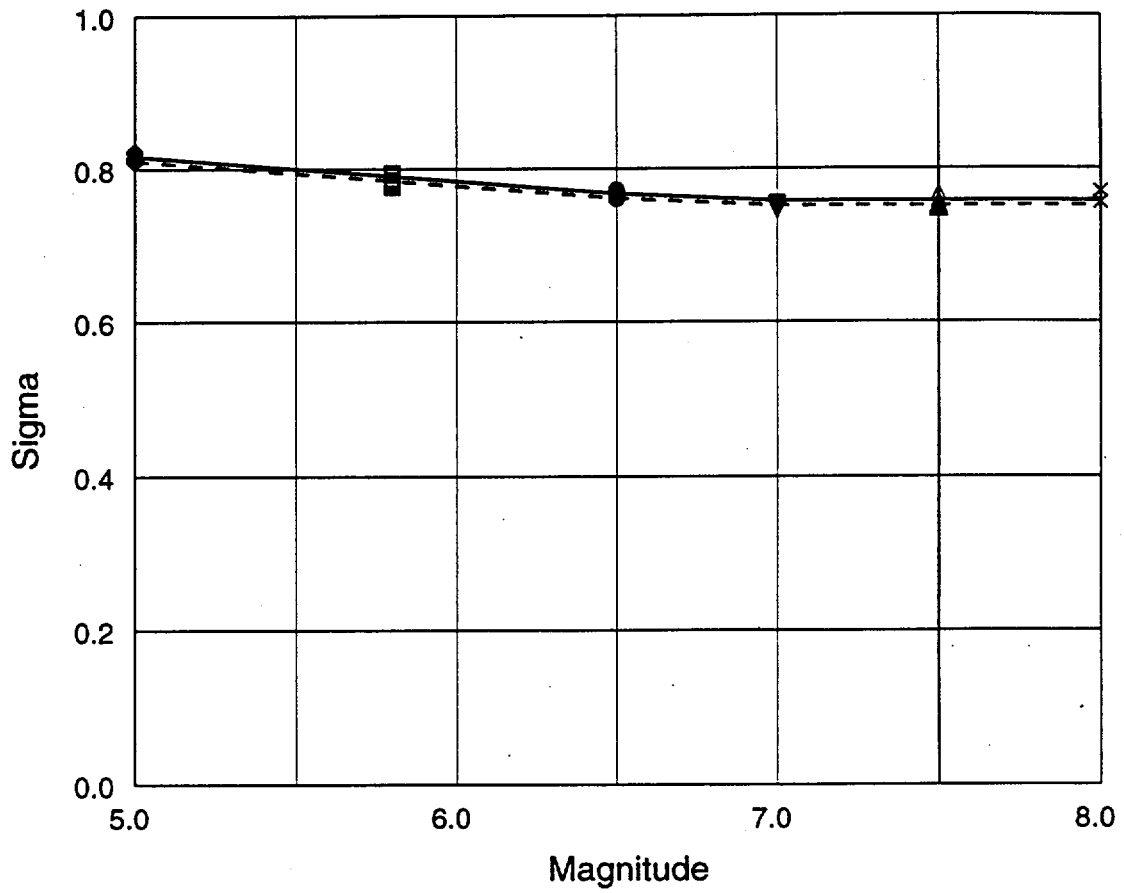
◇ M 5.0, HW  
□ M 5.8, HW  
⊙ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 6/11/97, Model 2

Vertical Comp

Frequency = 1.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▼ M 7.0, SS and FW  
▲ M 7.5, SS and FW  
x M 8.0, SS and FW

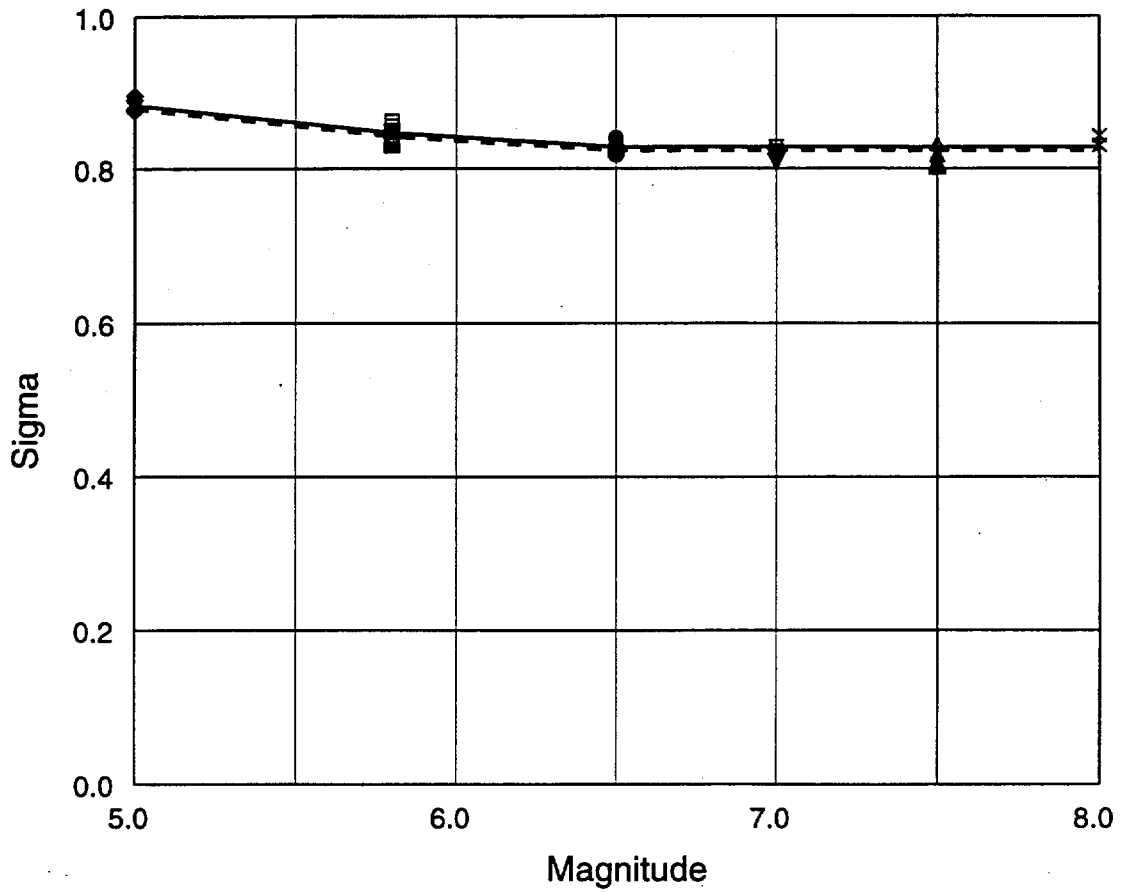
◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▼ M 7.0, HW  
▲ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 6/11/97, Model 2

Vertical Comp

Frequency = 0.5 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

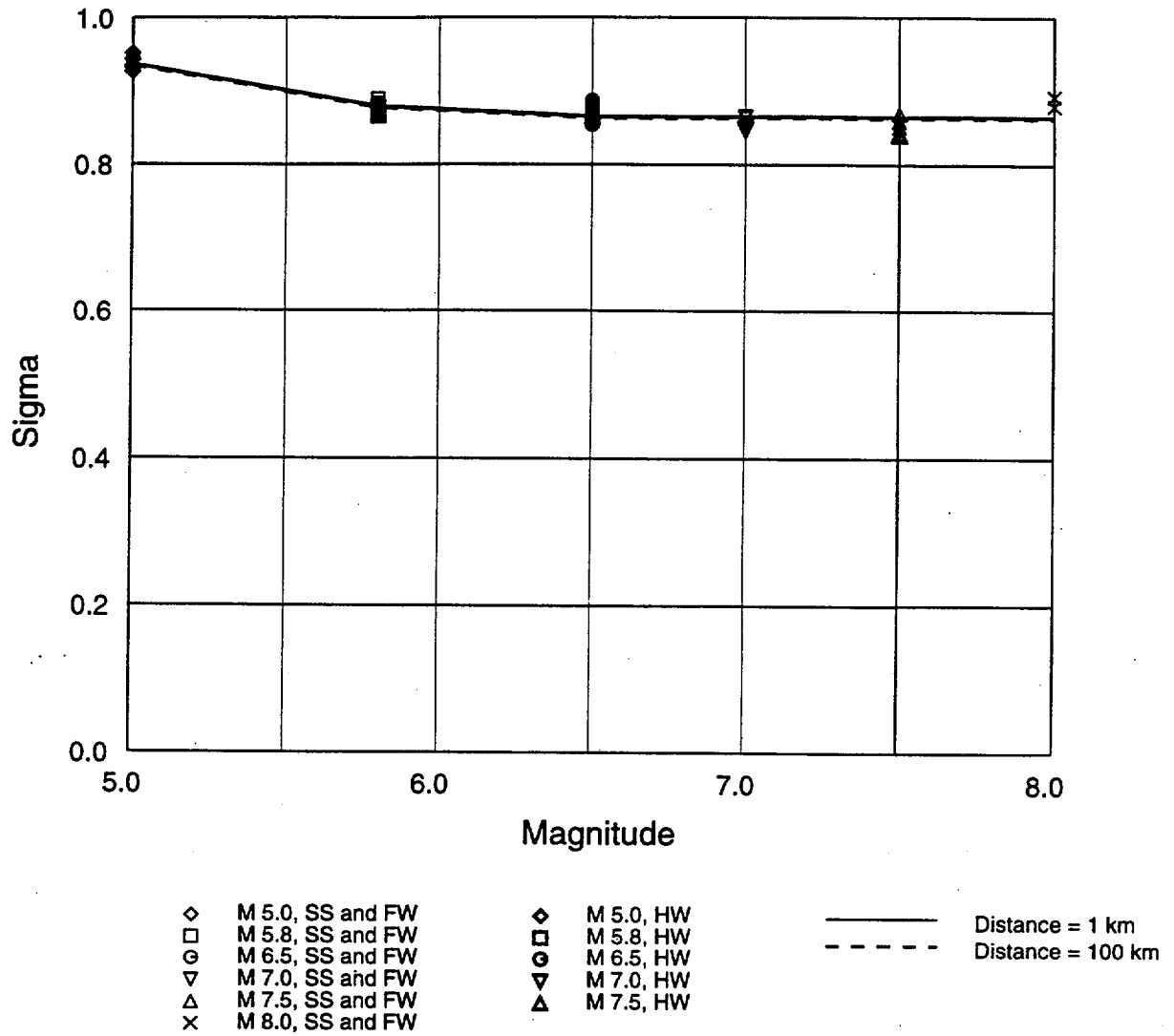
◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

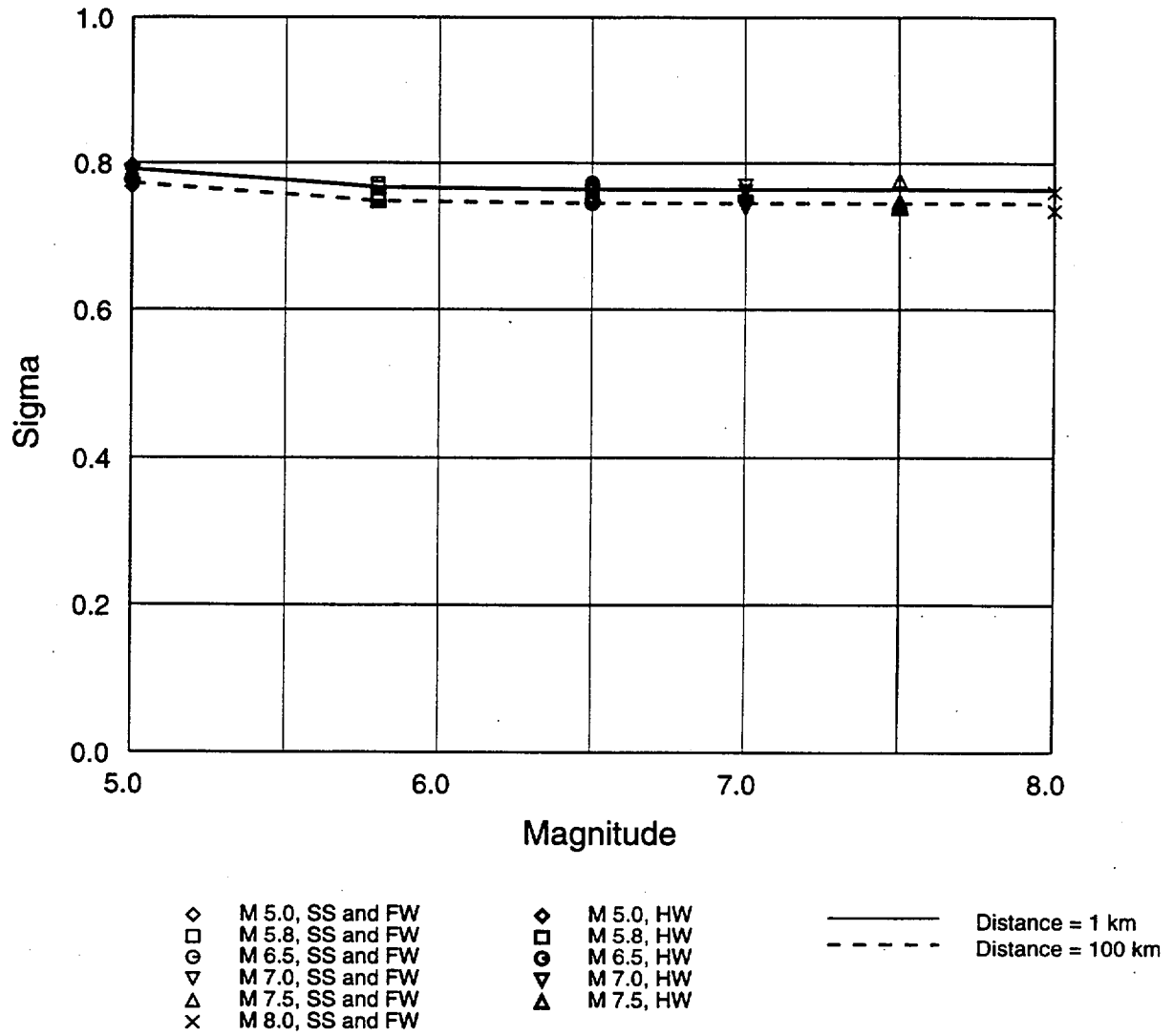
Silva, Rev1, 6/11/97, Model 2

Vertical Comp

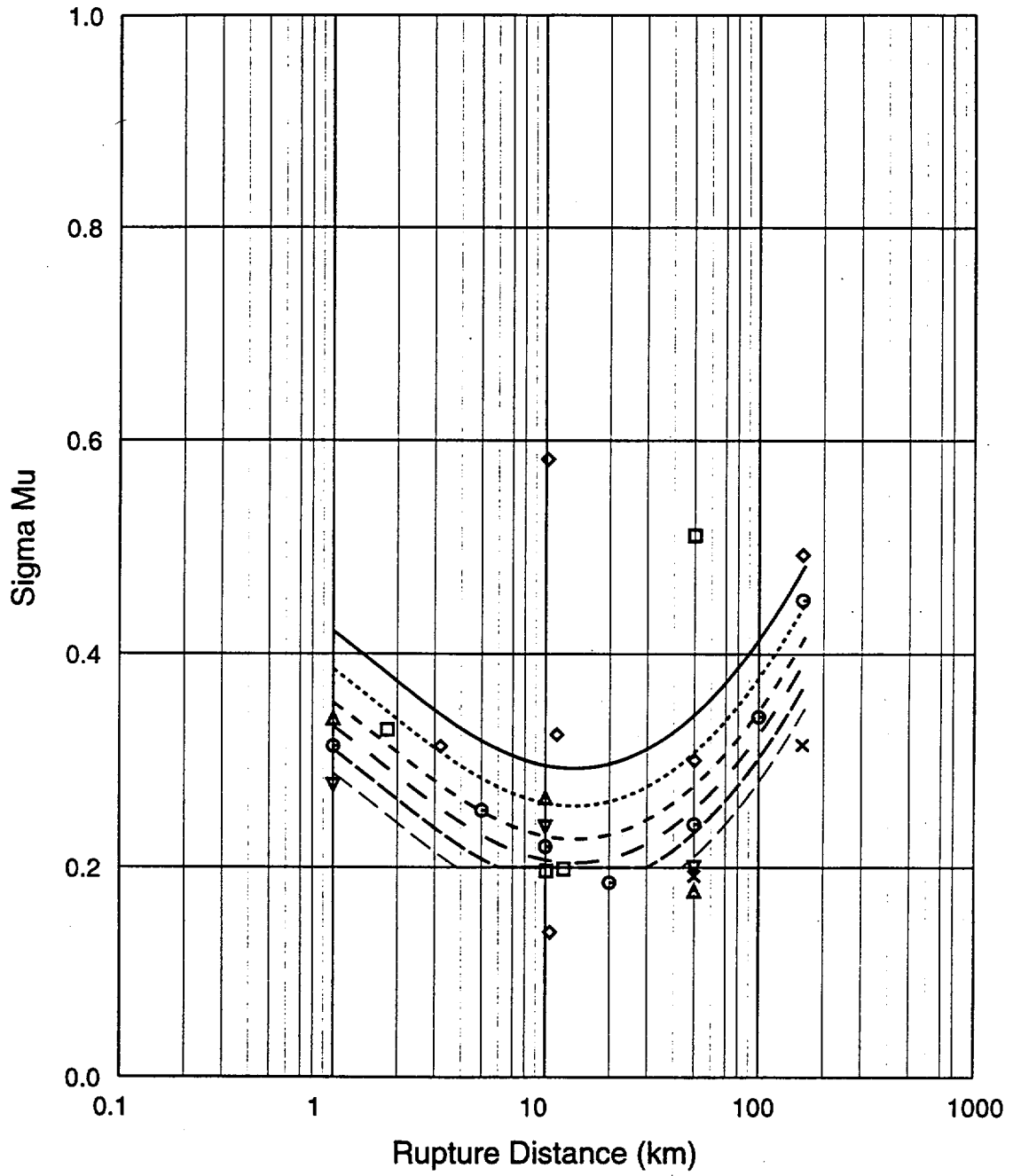
Frequency = 0.3 Hz



Silva, Rev1, 6/11/97, Model 2  
 Vertical Comp  
 Peak Velocity

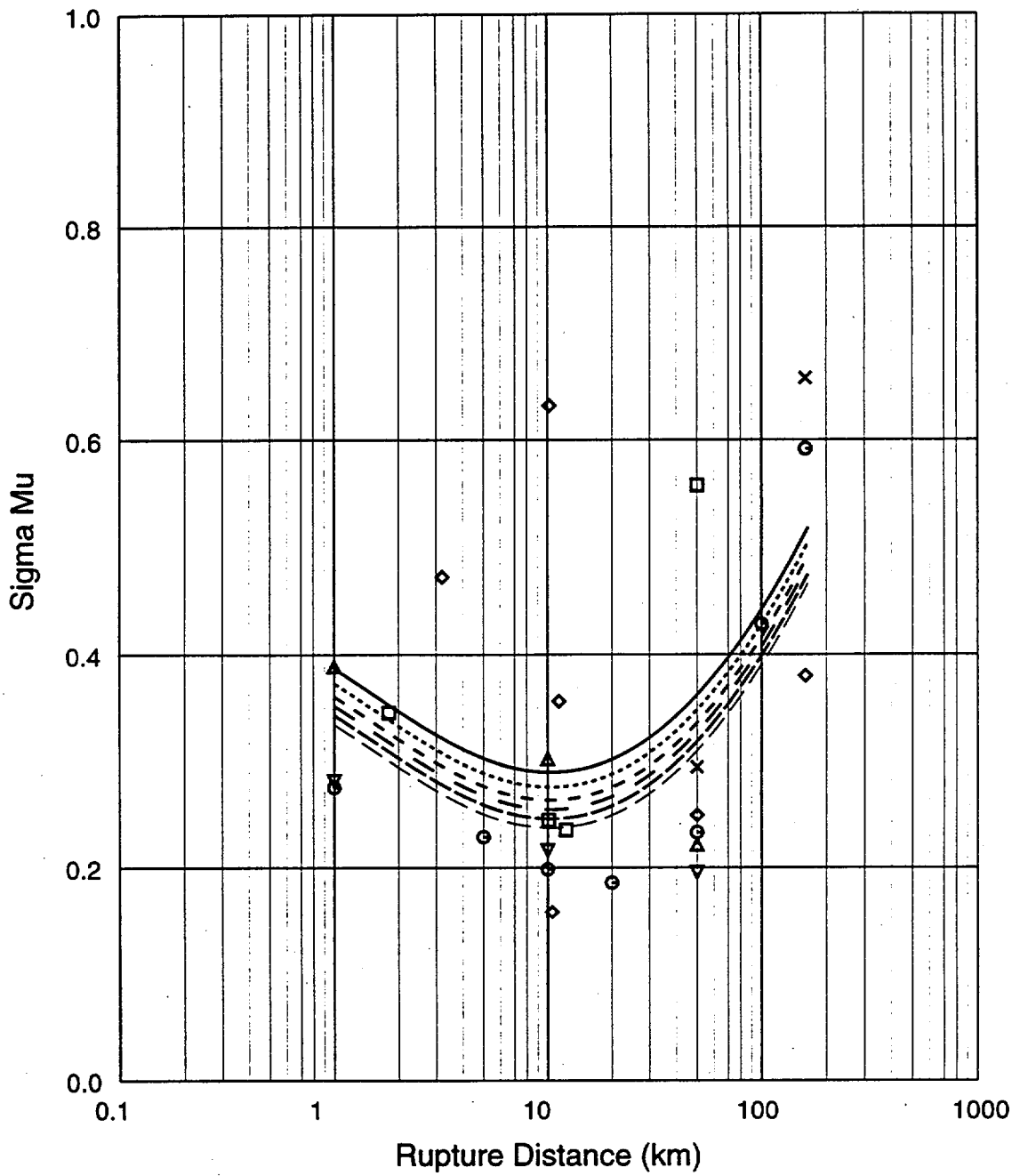


Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 100.0 Hz



- |   |           |           |       |
|---|-----------|-----------|-------|
| ◇ | M 5.0, SS | —————     | M 5.0 |
| □ | M 5.8, SS | .....     | M 5.8 |
| ○ | M 6.5, SS | - - - - - | M 6.5 |
| ▽ | M 7.0, SS | - - - - - | M 7.0 |
| △ | M 7.5, SS | - . - . - | M 7.5 |
| x | M 8.0, SS | - . - . - | M 8.0 |

Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 20.0 Hz

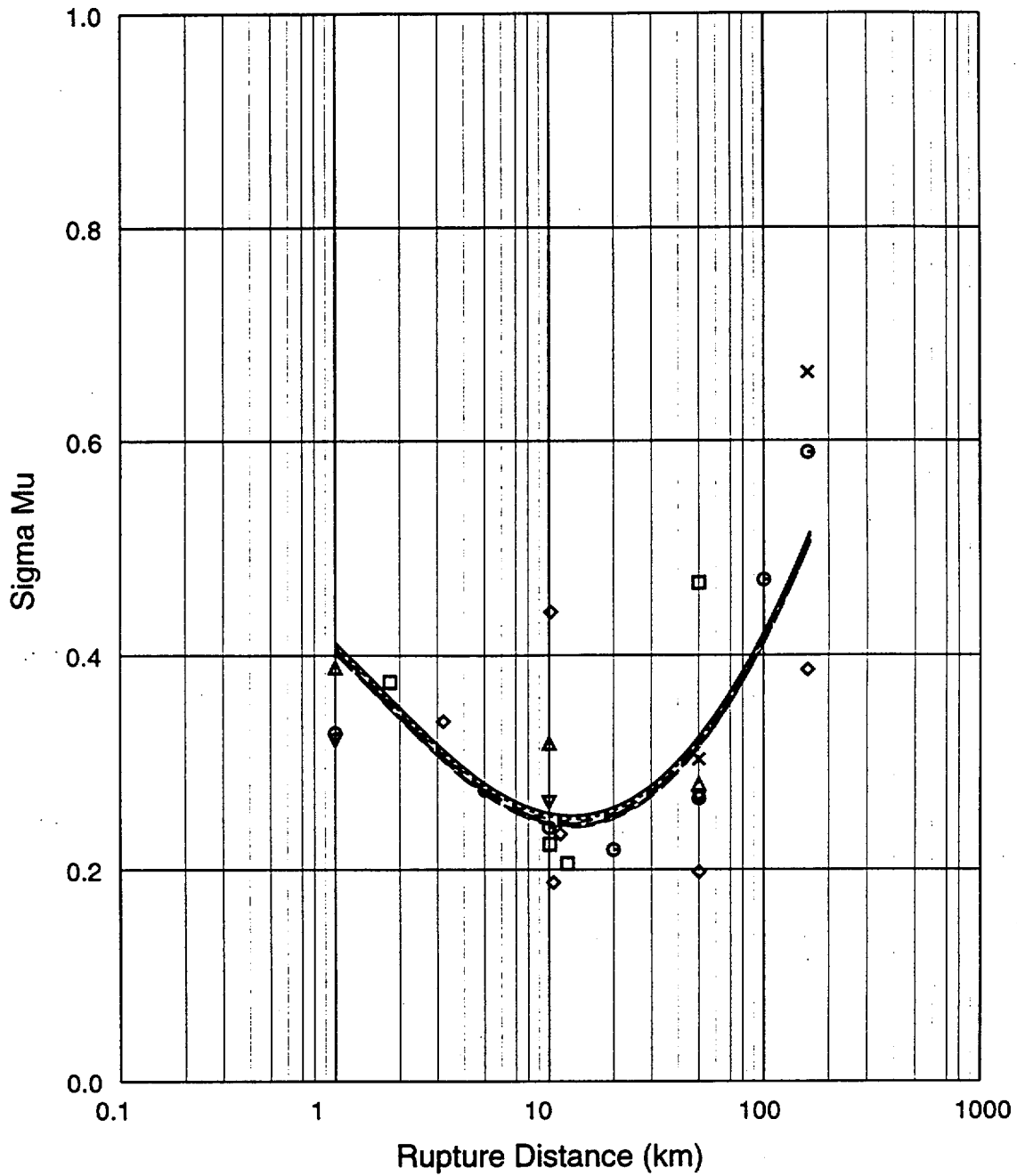


- ◇ M 5.0, SS
- M 5.8, SS
- ⊙ M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

- M 5.0
- ⋯ M 5.8
- - - M 6.5
- · - M 7.0
- - - M 7.5
- · - M 8.0



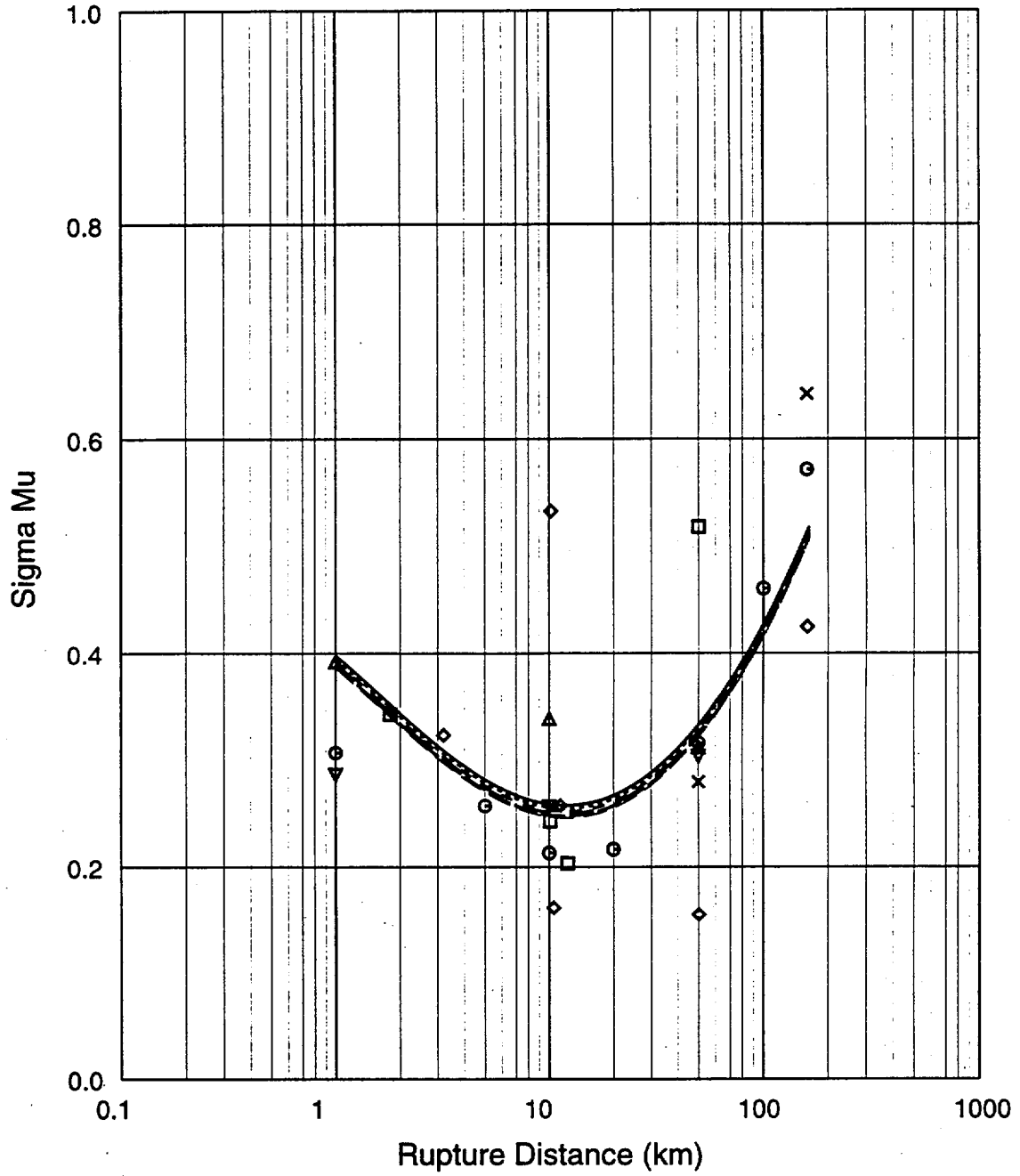
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 10.0 Hz



◇ M 5.0, SS  
 □ M 5.8, SS  
 ⊙ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 × M 8.0, SS

— M 5.0  
 ..... M 5.8  
 - - - M 6.5  
 - - - M 7.0  
 - - - M 7.5  
 - - - M 8.0

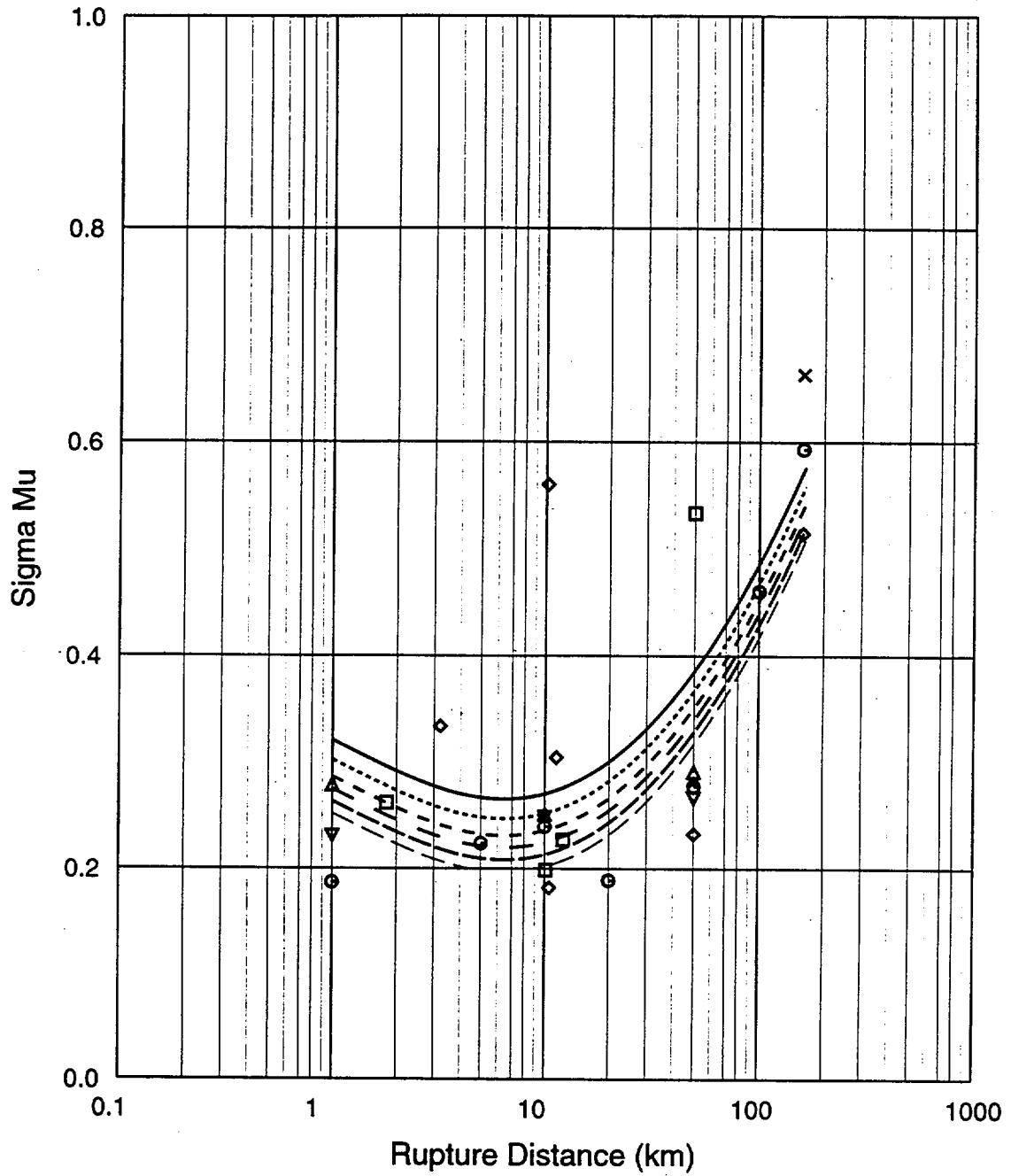
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 5.0 Hz



◇ M 5.0, SS  
 □ M 5.8, SS  
 ⊙ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 × M 8.0, SS

— M 5.0  
 - - - M 5.8  
 - - - M 6.5  
 - - - M 7.0  
 - - - M 7.5  
 - - - M 8.0

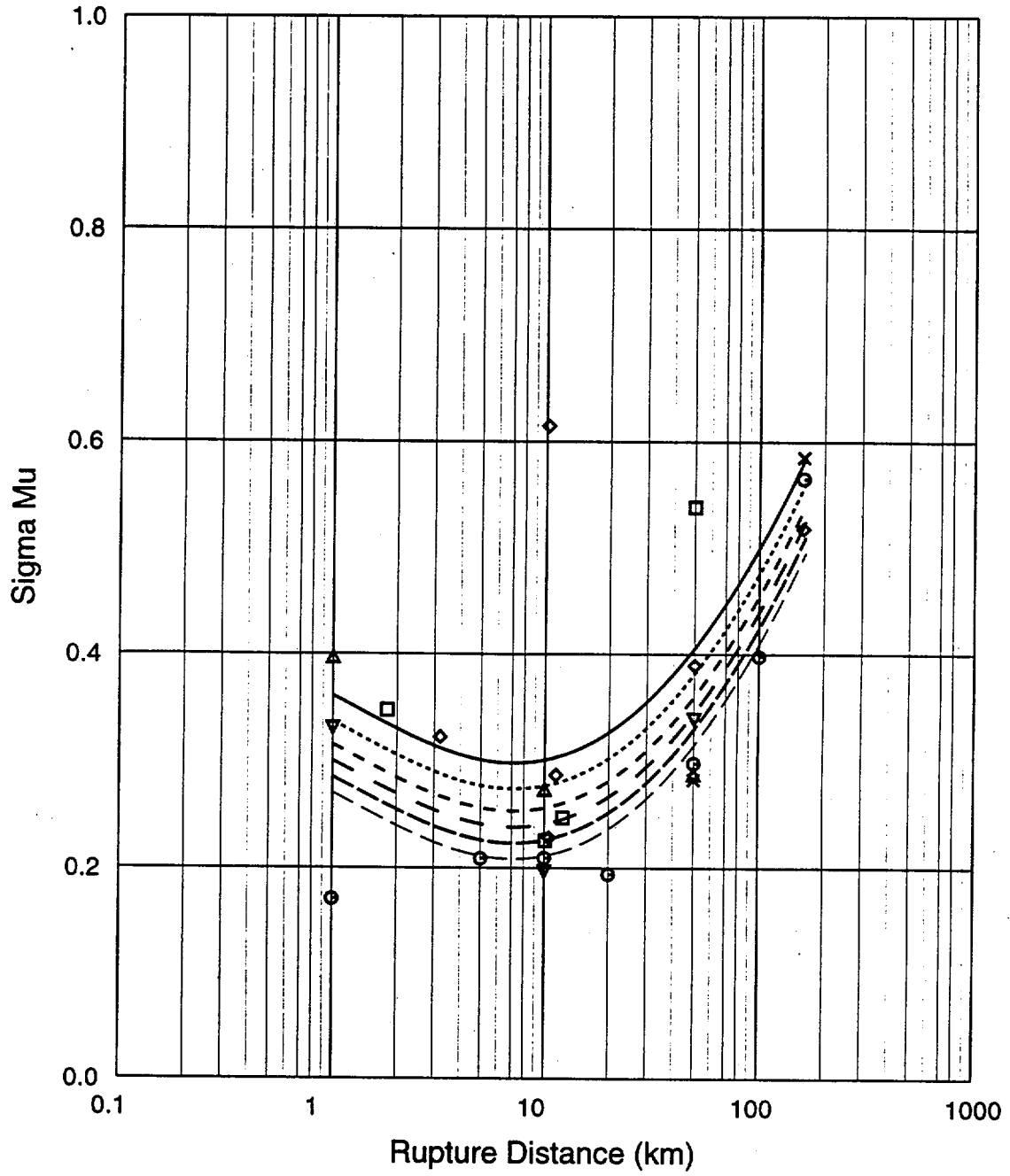
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 2.0 Hz



- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

- M 5.0
- ⋯ M 5.8
- - - M 6.5
- · - M 7.0
- · · M 7.5
- · · · M 8.0

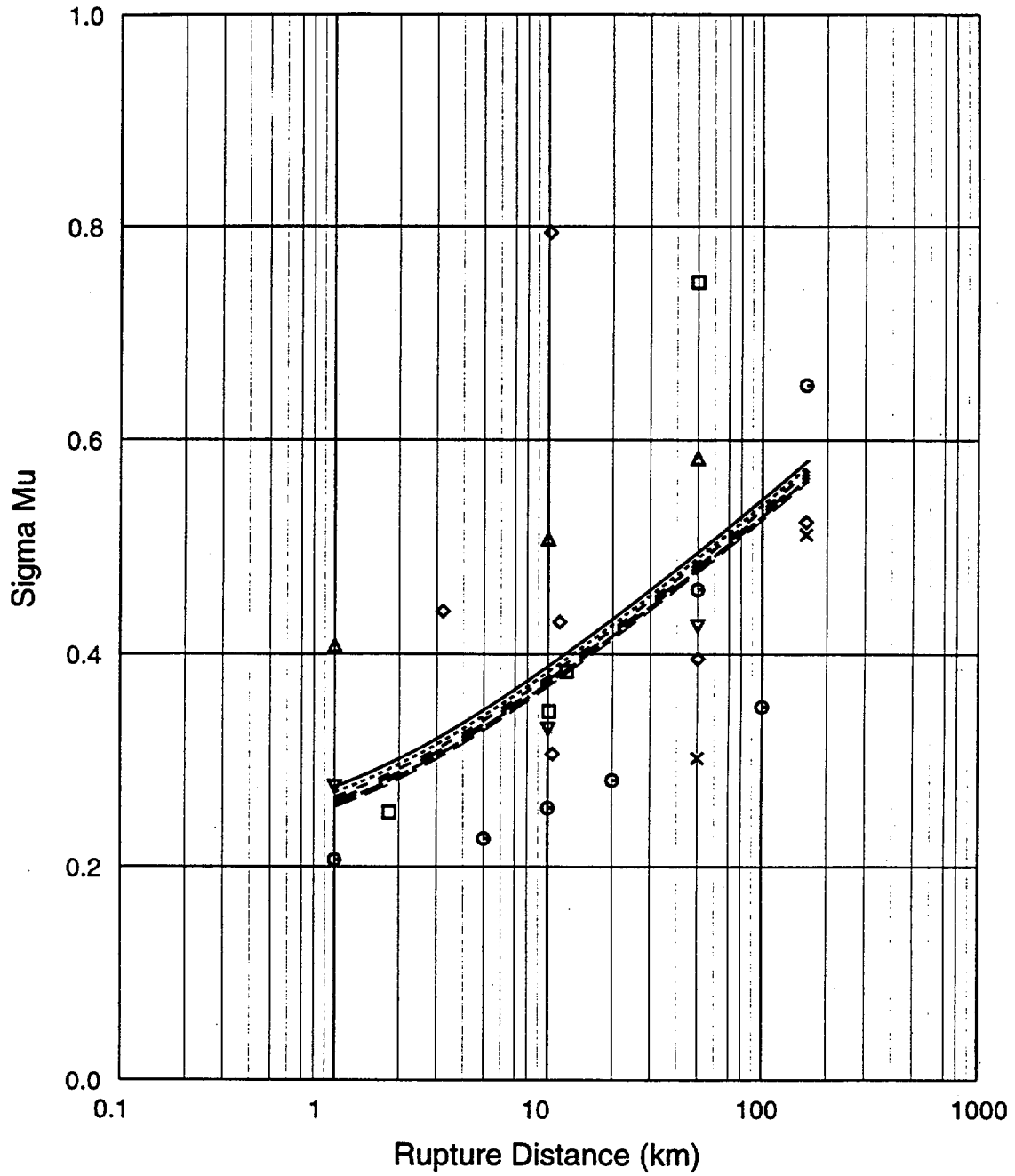
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 1.0 Hz



◇ M 5.0, SS  
 □ M 5.8, SS  
 ○ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 × M 8.0, SS

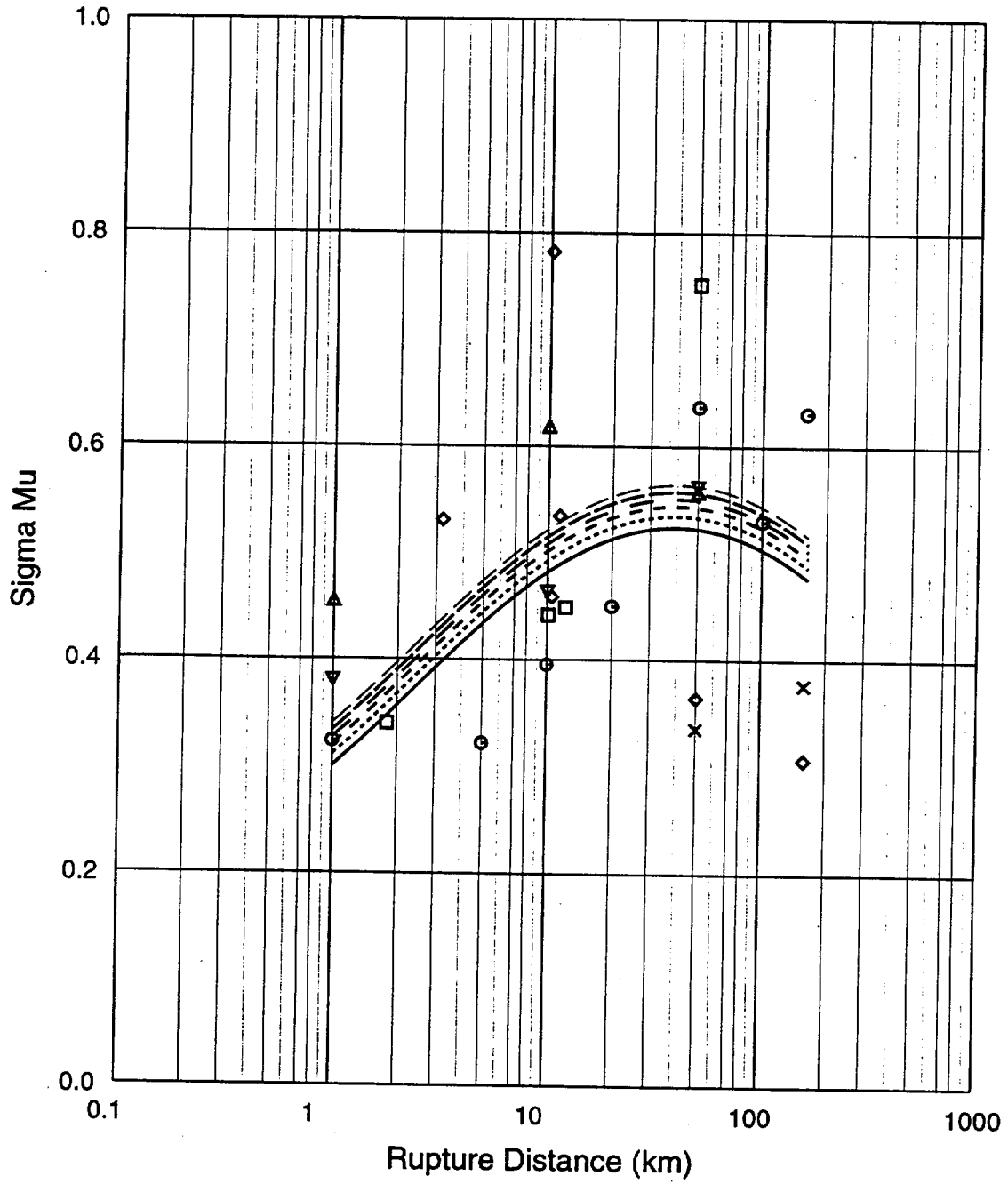
— M 5.0  
 ..... M 5.8  
 - - - M 6.5  
 - · - M 7.0  
 - - - M 7.5  
 - - - M 8.0

Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 0.5 Hz



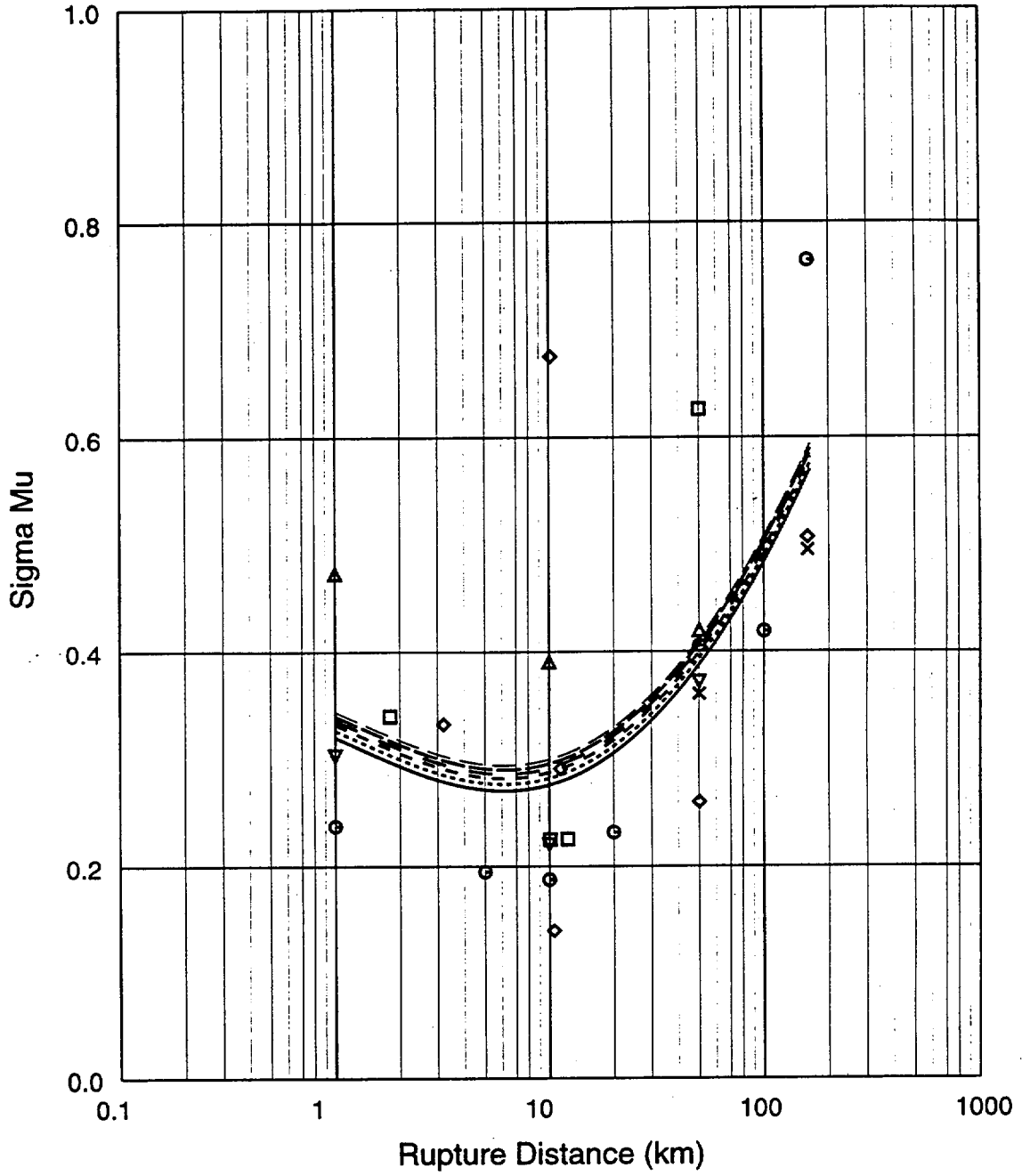
- |   |           |         |       |
|---|-----------|---------|-------|
| ◇ | M 5.0, SS | —       | M 5.0 |
| □ | M 5.8, SS | ----    | M 5.8 |
| ○ | M 6.5, SS | - - - - | M 6.5 |
| ▽ | M 7.0, SS | - - - - | M 7.0 |
| △ | M 7.5, SS | - - - - | M 7.5 |
| × | M 8.0, SS | - - - - | M 8.0 |

Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Frequency = 0.3 Hz



- |   |           |             |       |
|---|-----------|-------------|-------|
| ◇ | M 5.0, SS | —           | M 5.0 |
| □ | M 5.8, SS | ⋯           | M 5.8 |
| ○ | M 6.5, SS | - - -       | M 6.5 |
| ▽ | M 7.0, SS | - · - ·     | M 7.0 |
| △ | M 7.5, SS | - - - -     | M 7.5 |
| × | M 8.0, SS | - · - · - · | M 8.0 |

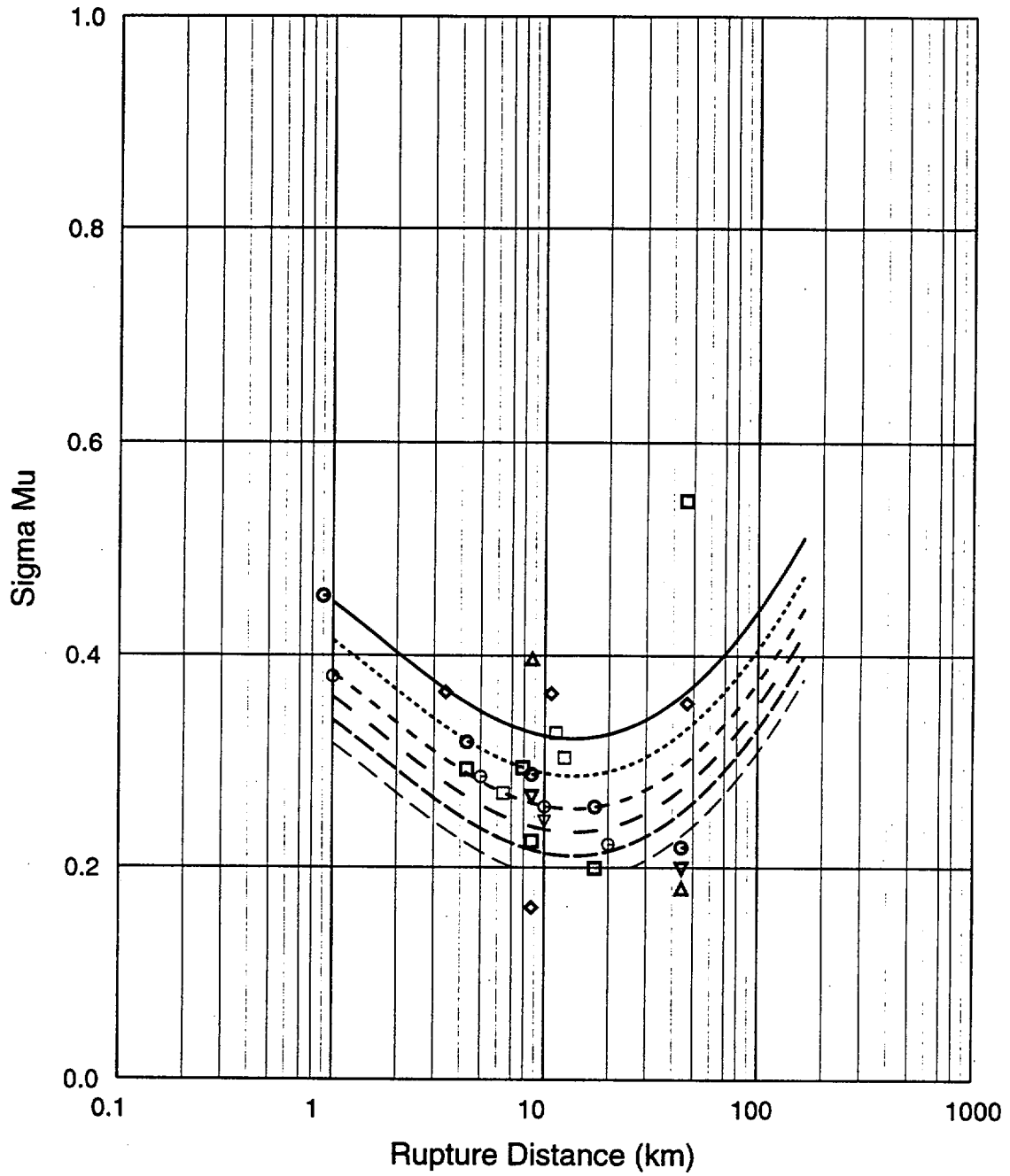
Silva, Rev1, 6/11/97, Model 2  
 Strike-Slip Faulting Attenuation, Horizontal Comp  
 Peak Velocity



- ◇ M 5.0, SS
- M 5.8, SS
- M 6.5, SS
- ▽ M 7.0, SS
- △ M 7.5, SS
- × M 8.0, SS

- M 5.0
- ⋯ M 5.8
- - - M 6.5
- · - M 7.0
- · - M 7.5
- · - M 8.0

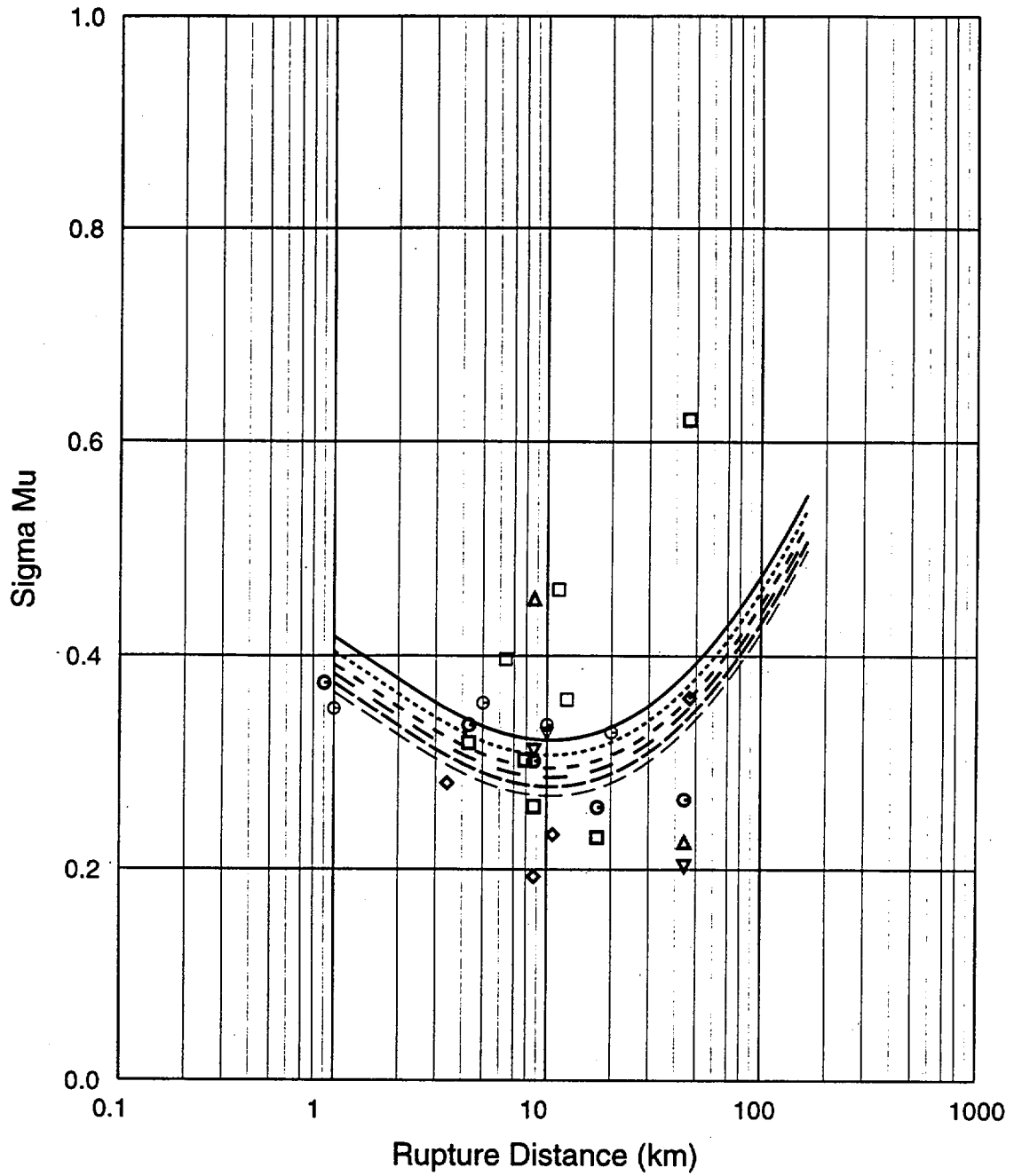
Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 100.0 Hz



- |   |           |   |           |         |       |
|---|-----------|---|-----------|---------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —       | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯       | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -   | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - · - · | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | — · — · | M 7.5 |
| x | M 8.0, FW |   |           | - - - - | M 8.0 |

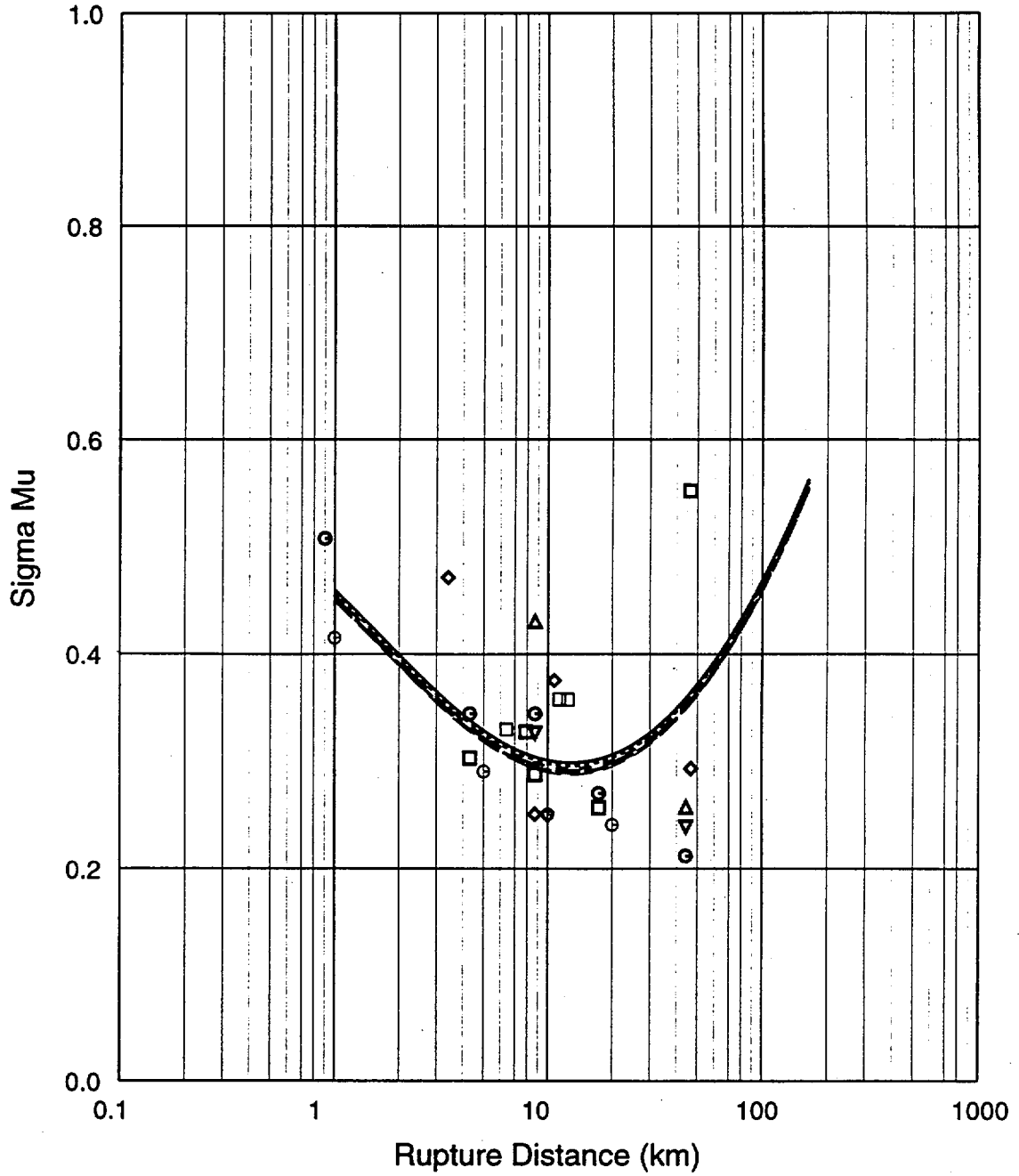


Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 20.0 Hz



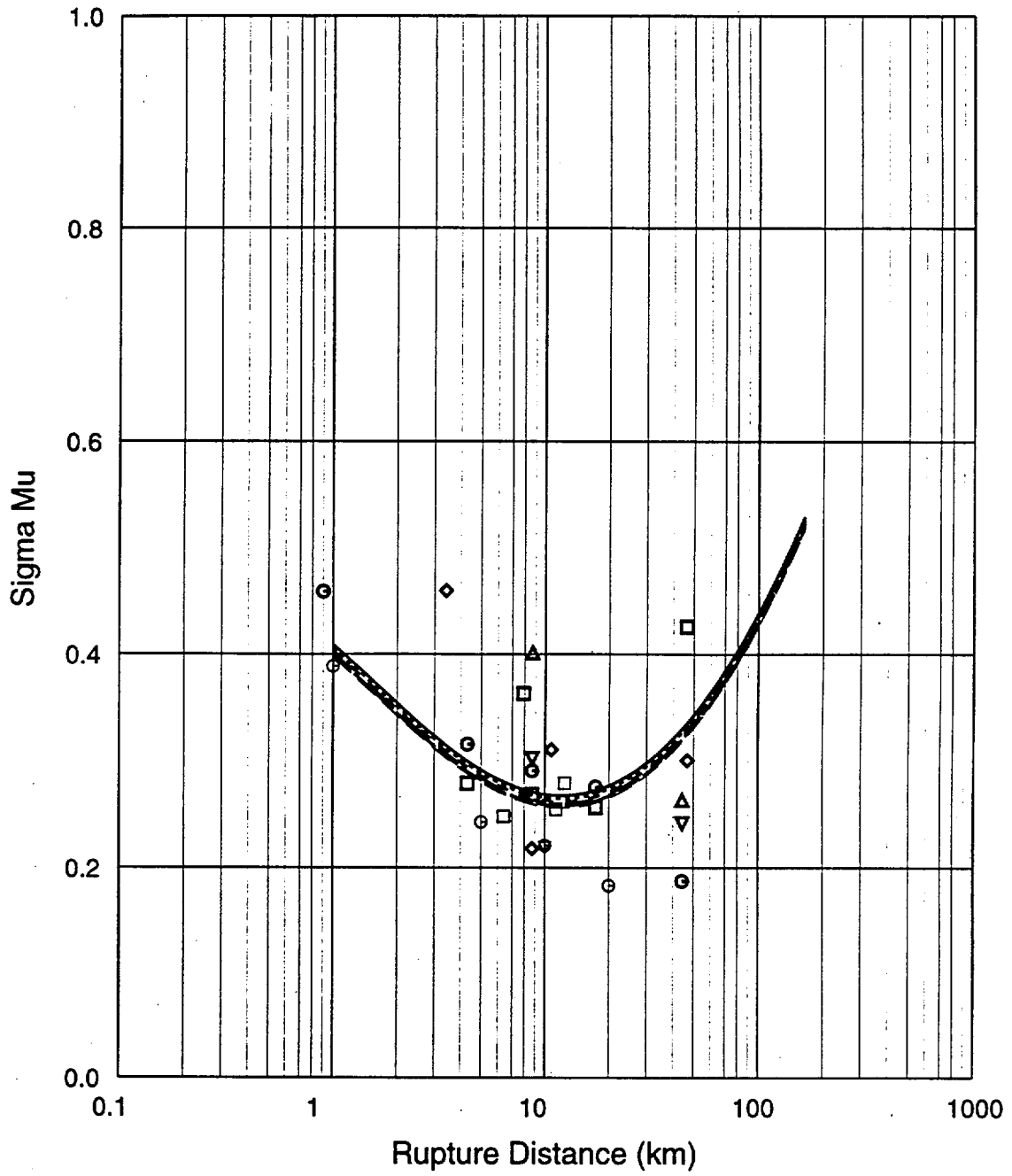
- |   |           |   |           |                 |       |
|---|-----------|---|-----------|-----------------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —               | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯               | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -           | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - · - ·         | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - · - · - ·     | M 7.5 |
| x | M 8.0, FW |   |           | - · - · - · - · | M 8.0 |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 10.0 Hz



◇	M 5.0, FW	◇	M 5.0, HW	—	M 5.0
□	M 5.8, FW	□	M 5.8, HW	⋯	M 5.8
⊙	M 6.5, FW	⊙	M 6.5, HW	- - -	M 6.5
▽	M 7.0, FW	▽	M 7.0, HW	- · - ·	M 7.0
△	M 7.5, FW	△	M 7.5, HW	- - - -	M 7.5
x	M 8.0, FW			- · - · - ·	M 8.0

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 5.0 Hz

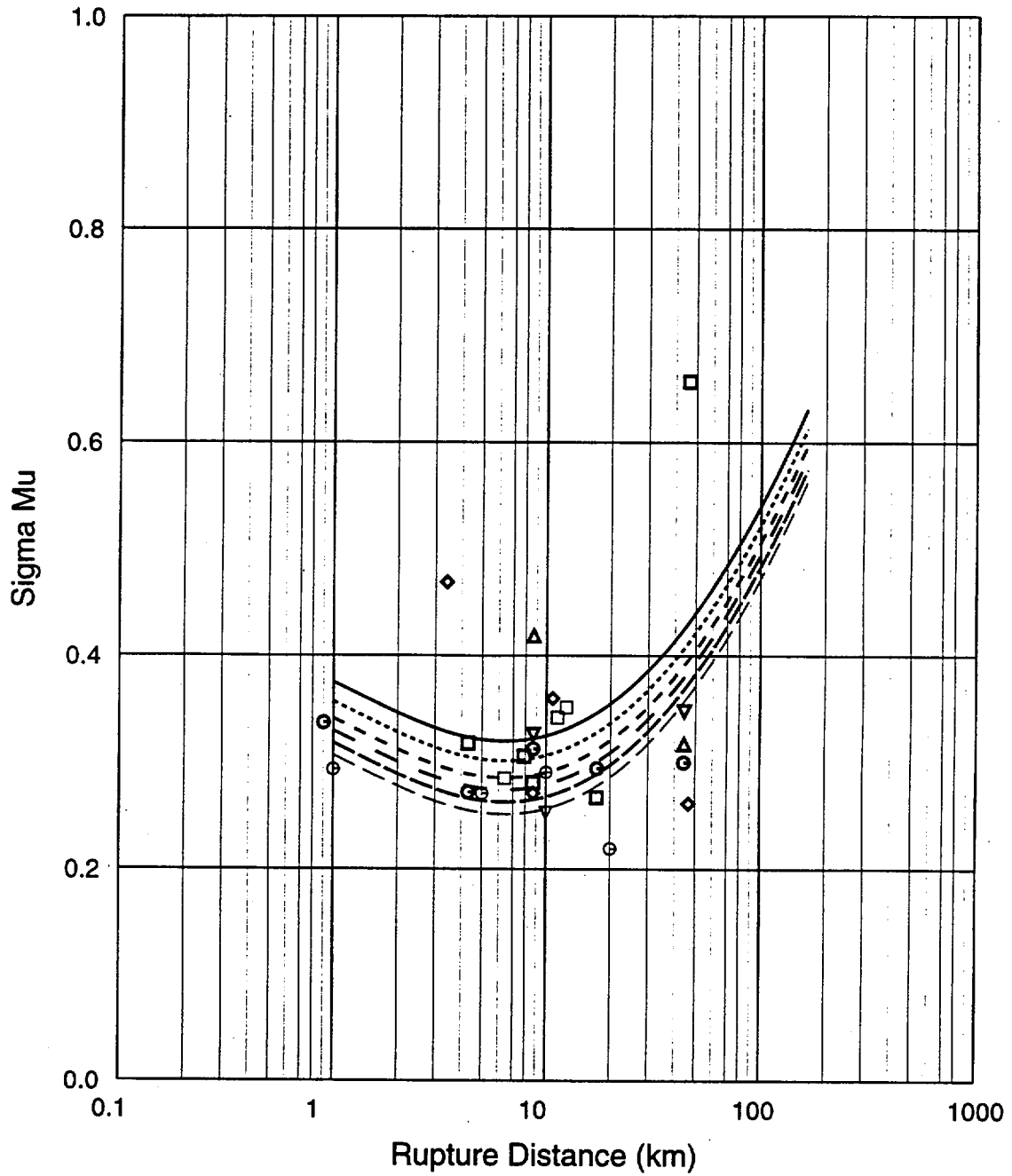


- |   |           |   |           |             |       |
|---|-----------|---|-----------|-------------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —           | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯           | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -       | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - - - -     | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - - - - -   | M 7.5 |
| × | M 8.0, FW |   |           | - - - - - - | M 8.0 |

Silva, Rev1, 5/31/97, Model 2

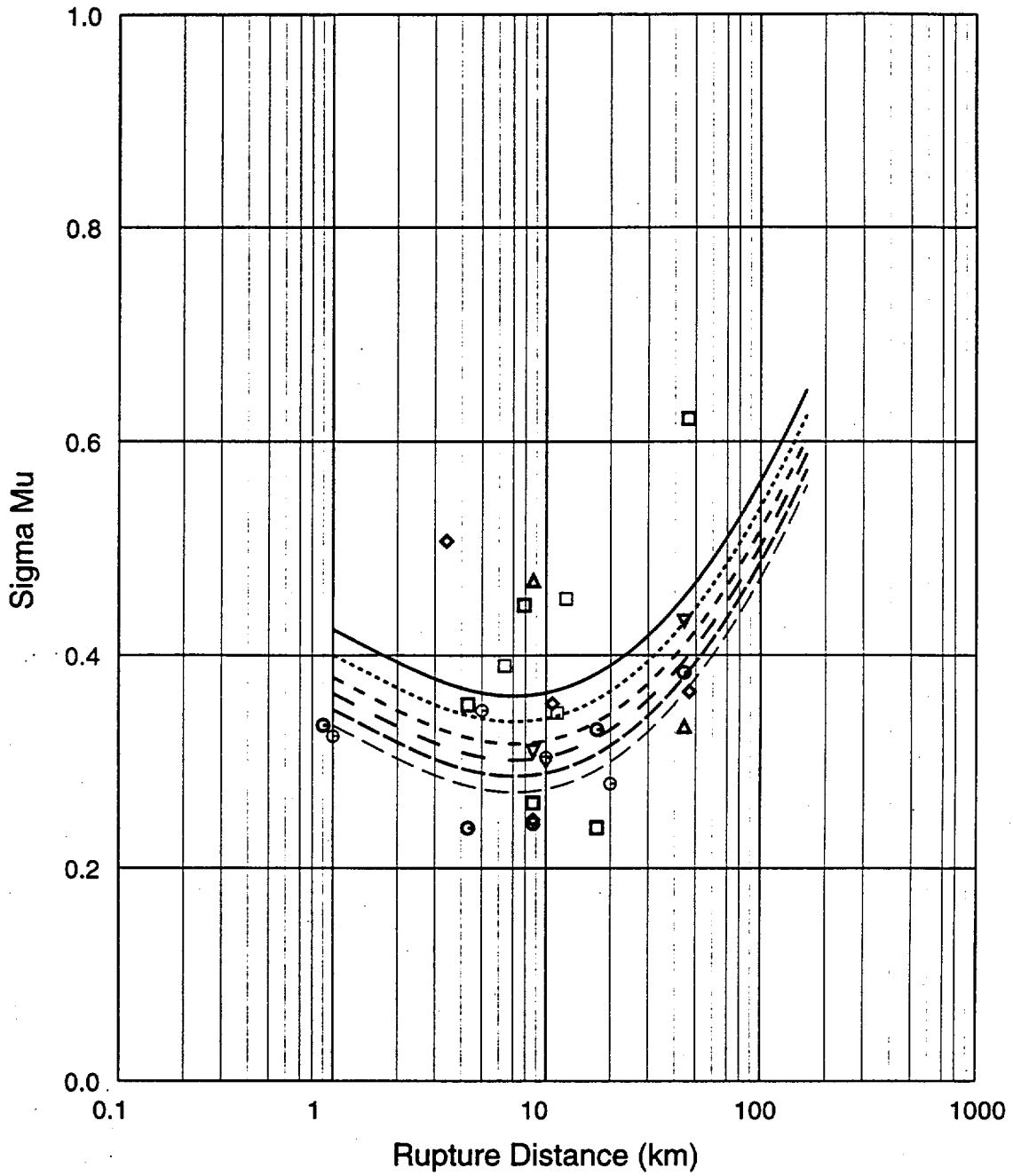
Normal Faulting Attenuation, Horizontal Comp

Frequency = 2.0 Hz



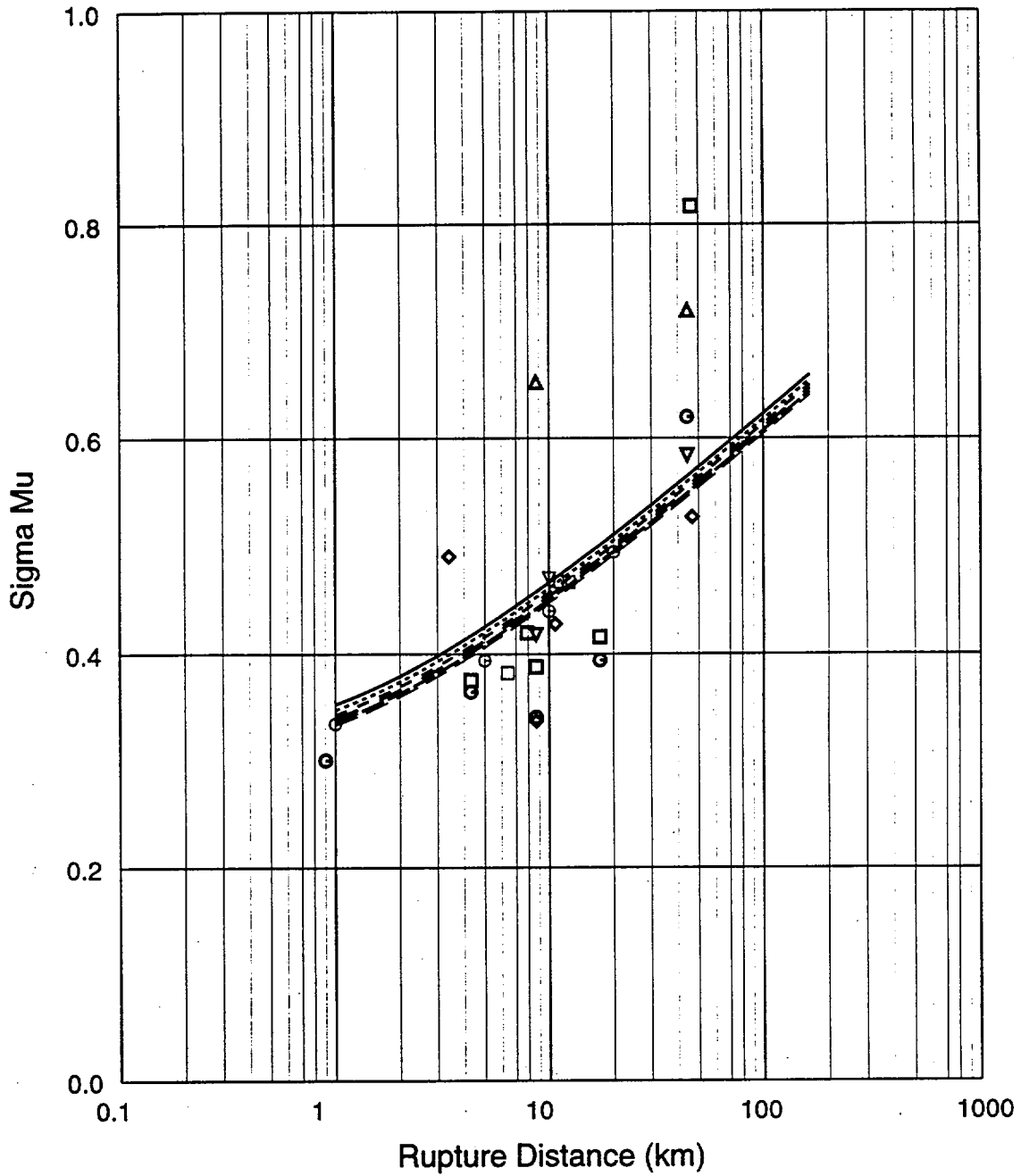
◇	M 5.0, FW	◇	M 5.0, HW	—	M 5.0
□	M 5.8, FW	□	M 5.8, HW	⋯	M 5.8
⊙	M 6.5, FW	⊙	M 6.5, HW	- - -	M 6.5
▽	M 7.0, FW	▽	M 7.0, HW	- - - -	M 7.0
△	M 7.5, FW	△	M 7.5, HW	- - - - -	M 7.5
×	M 8.0, FW			- - - - - -	M 8.0

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 1.0 Hz



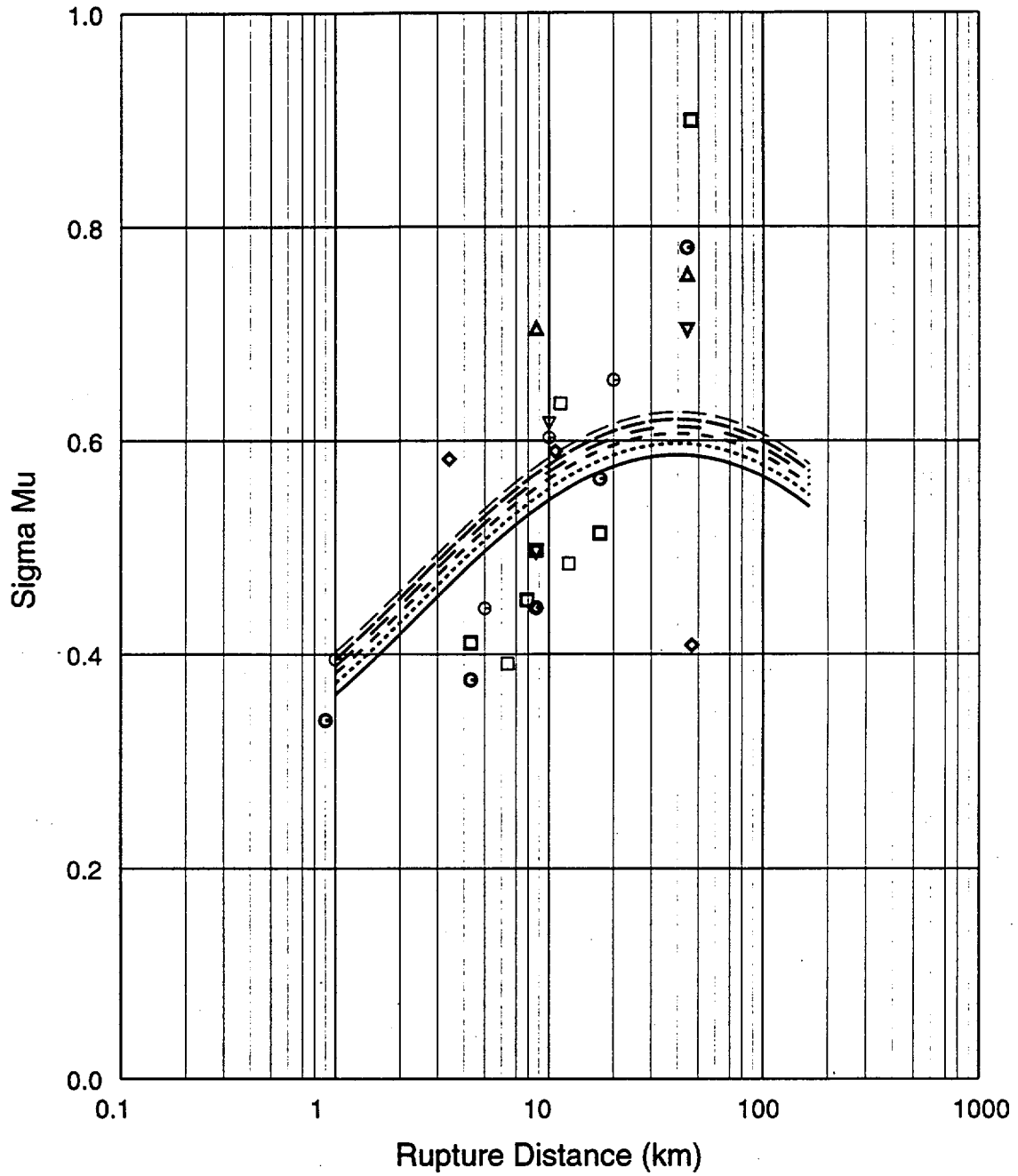
- |   |           |   |           |           |       |
|---|-----------|---|-----------|-----------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —         | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯         | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -     | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - - - -   | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - - - - - | M 7.5 |
| x | M 8.0, FW |   |           | - - - - - | M 8.0 |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 0.5 Hz



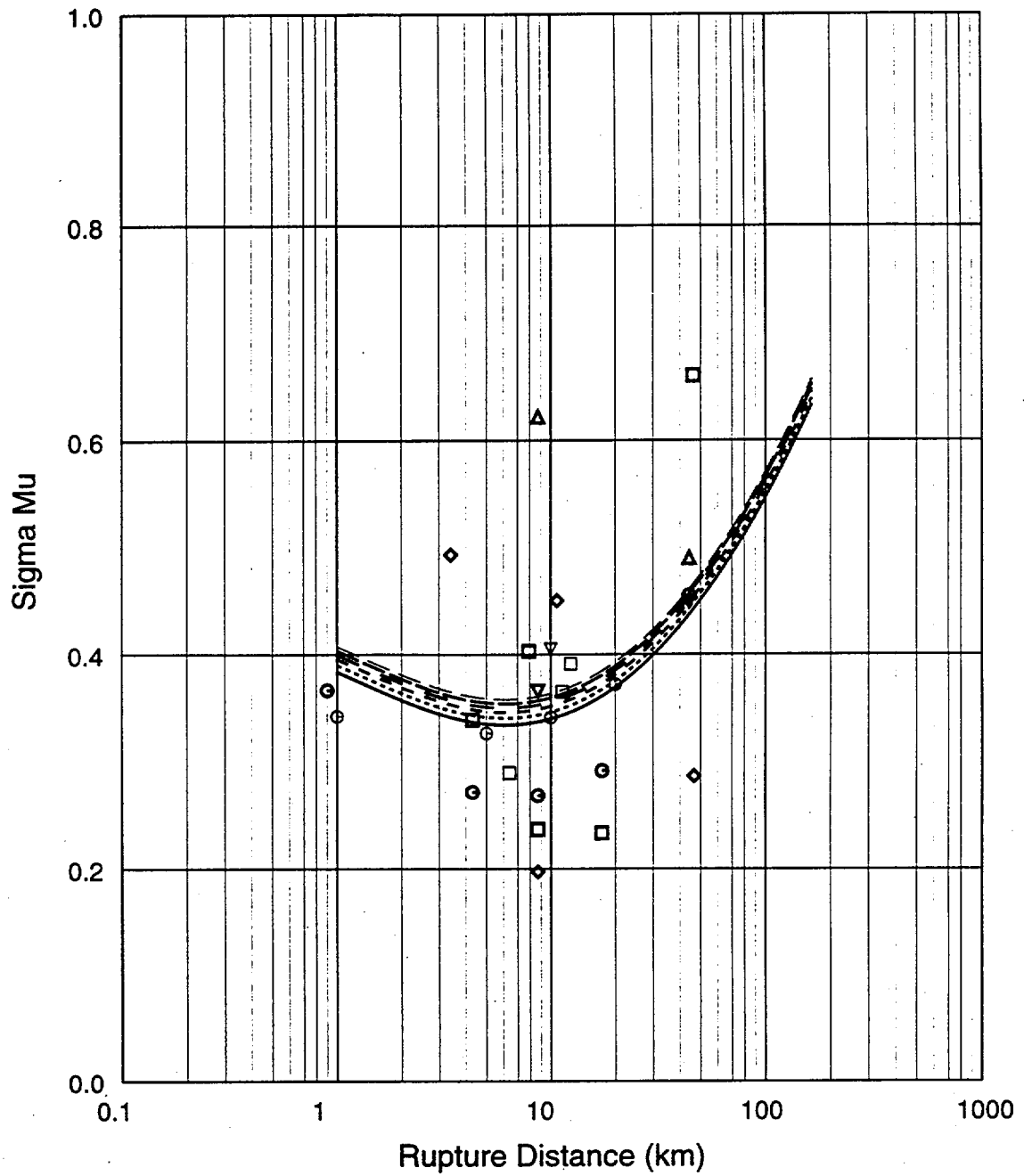
- |   |           |   |           |             |       |
|---|-----------|---|-----------|-------------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —           | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯           | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -       | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - - - -     | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - - - - -   | M 7.5 |
| x | M 8.0, FW |   |           | - . - . - . | M 8.0 |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Frequency = 0.3 Hz



◇	M 5.0, FW	◇	M 5.0, HW	—	M 5.0
□	M 5.8, FW	□	M 5.8, HW	⋯	M 5.8
⊙	M 6.5, FW	⊙	M 6.5, HW	- - -	M 6.5
▽	M 7.0, FW	▽	M 7.0, HW	- · - ·	M 7.0
△	M 7.5, FW	△	M 7.5, HW	— · — ·	M 7.5
×	M 8.0, FW			- - - -	M 8.0

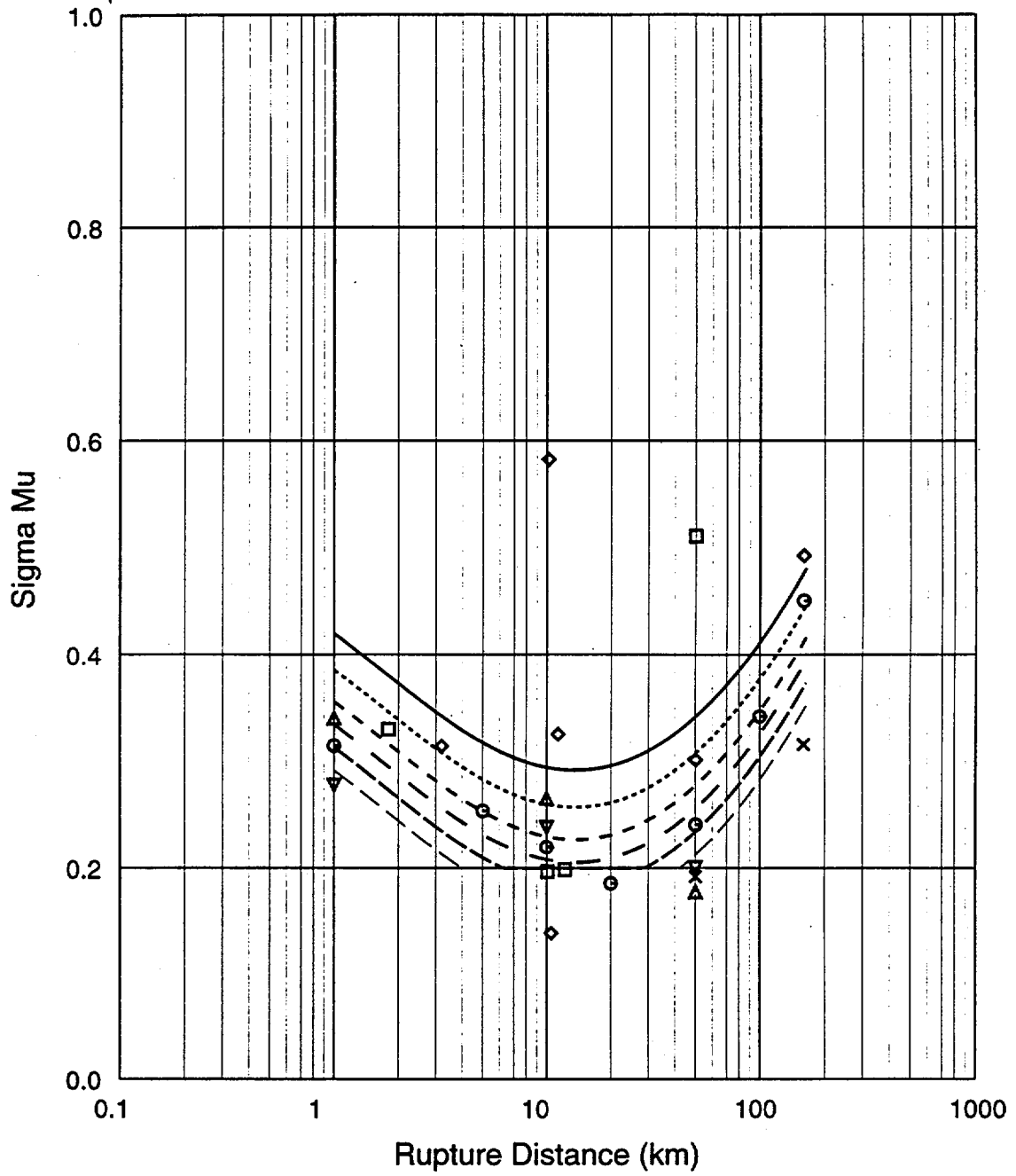
Silva, Rev1, 6/11/97, Model 2  
 Normal Faulting Attenuation, Horizontal Comp  
 Peak Velocity



- |   |           |   |           |             |       |
|---|-----------|---|-----------|-------------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —           | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯           | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -       | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - - - -     | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - - - - -   | M 7.5 |
| x | M 8.0, FW |   |           | - - - - - - | M 8.0 |



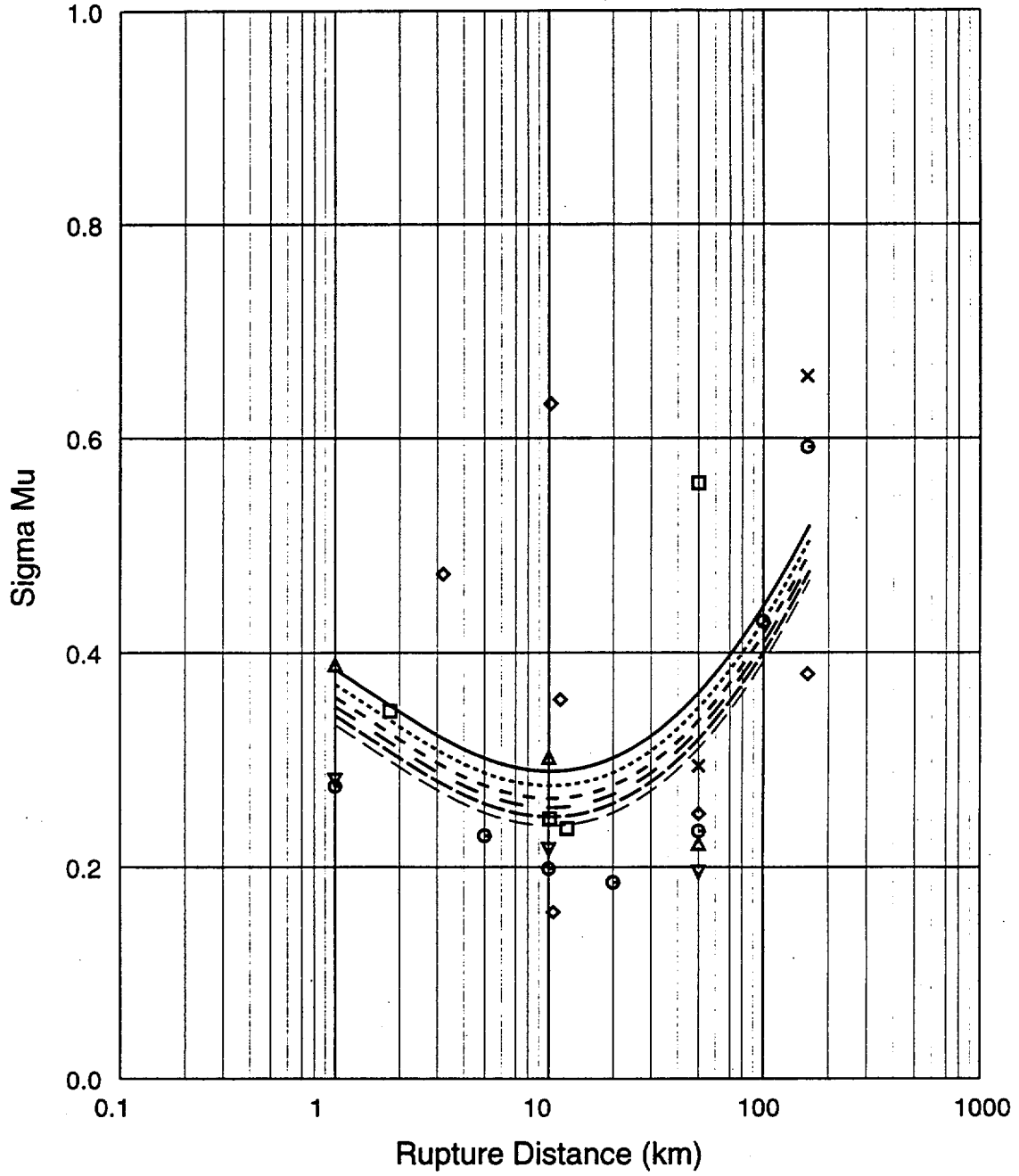
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 100.0 Hz



◇ M 5.0, SS  
 □ M 5.8, SS  
 ○ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 × M 8.0, SS

———— M 5.0  
 ..... M 5.8  
 - - - - M 6.5  
 - - - - M 7.0  
 - . - . M 7.5  
 - - - - M 8.0

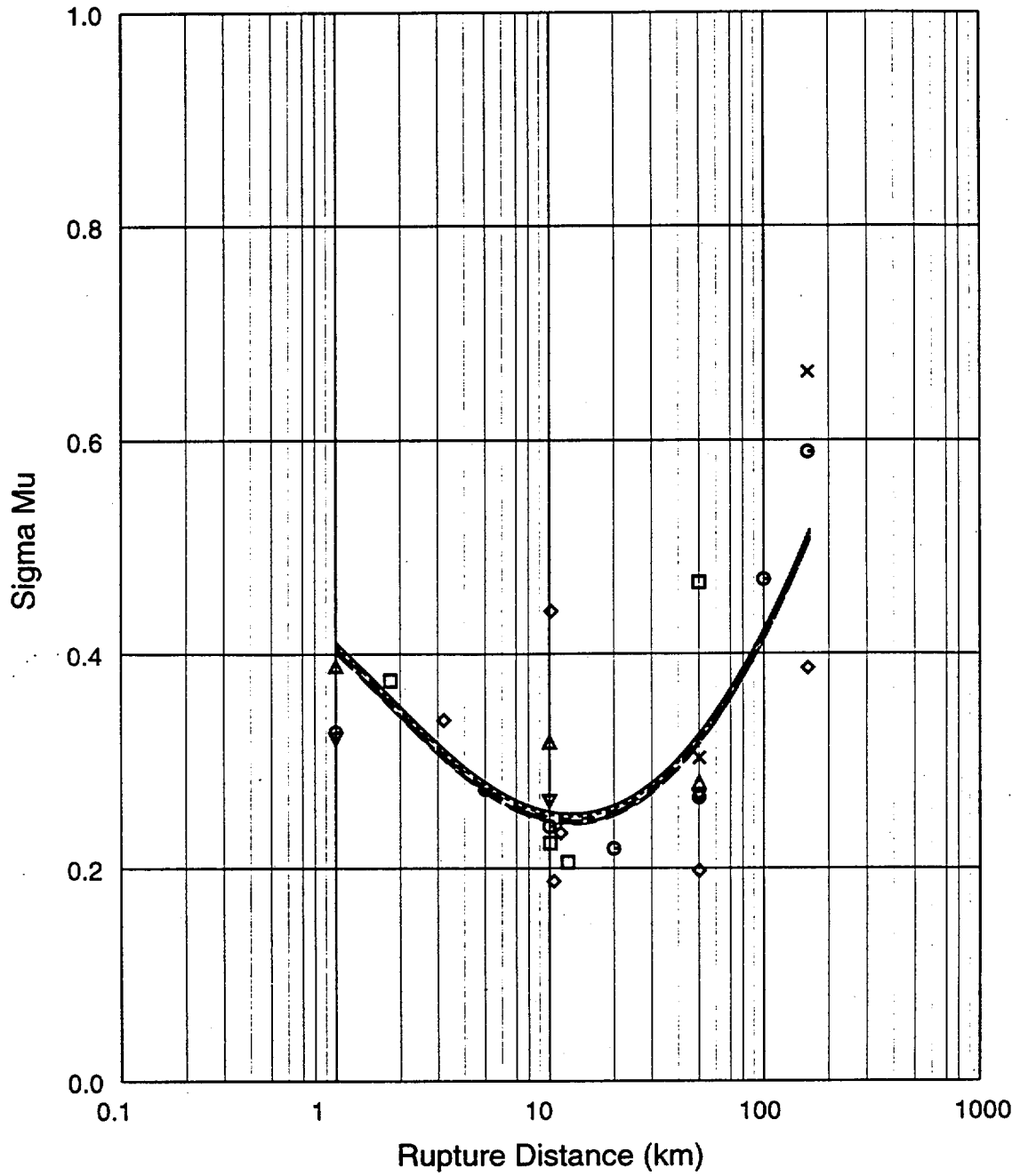
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 20.0 Hz



◇ M 5.0, SS  
 □ M 5.8, SS  
 ○ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 × M 8.0, SS

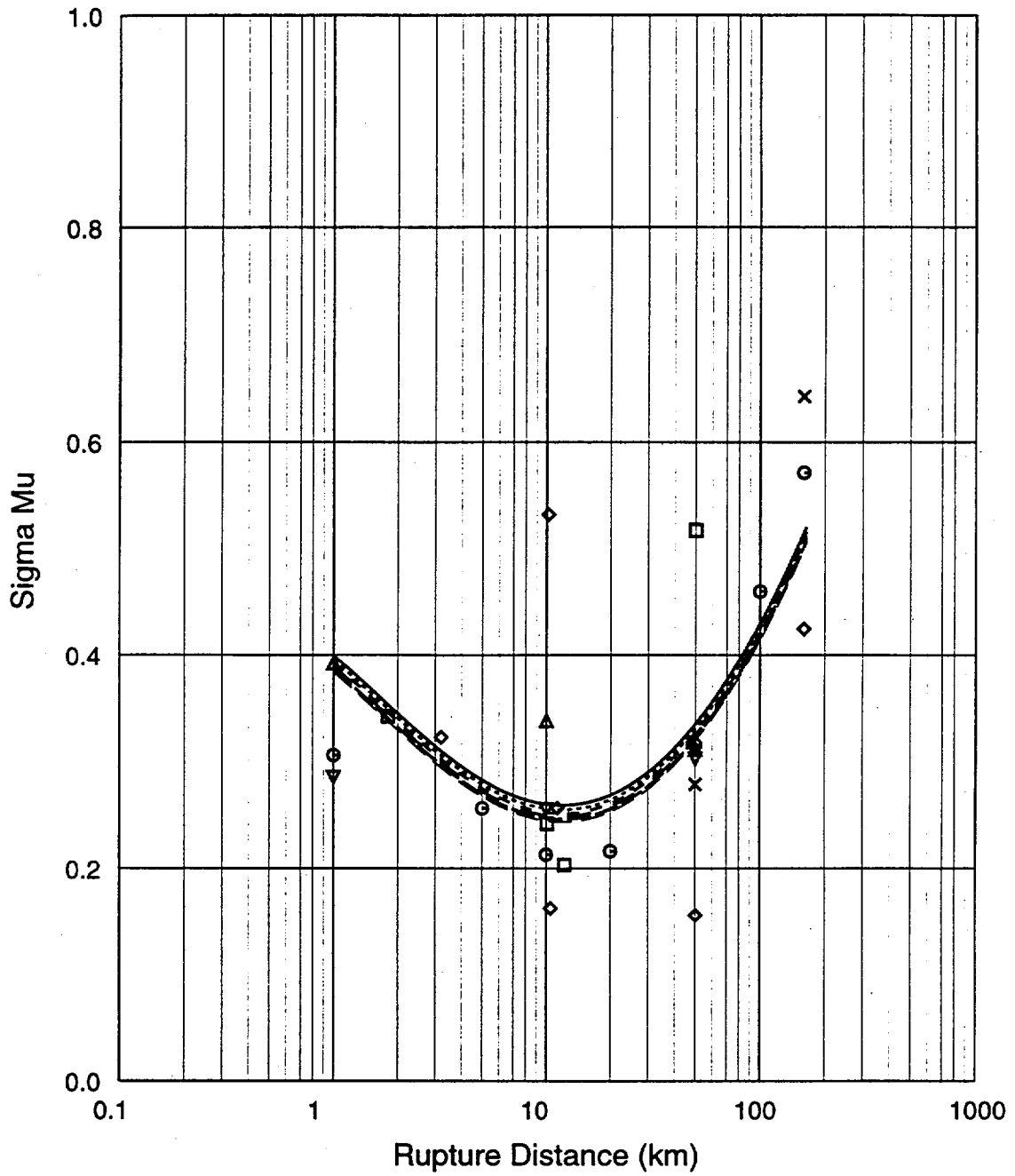
— M 5.0  
 ..... M 5.8  
 - - - M 6.5  
 - - - - M 7.0  
 - · - · M 7.5  
 - · - · - M 8.0

Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 10.0 Hz



◇	M 5.0, SS	—	M 5.0
□	M 5.8, SS	⋯	M 5.8
▽	M 6.5, SS	- - -	M 6.5
△	M 7.5, SS	- - - -	M 7.0
×	M 8.0, SS	- - - - -	M 7.5
		- - - - -	M 8.0

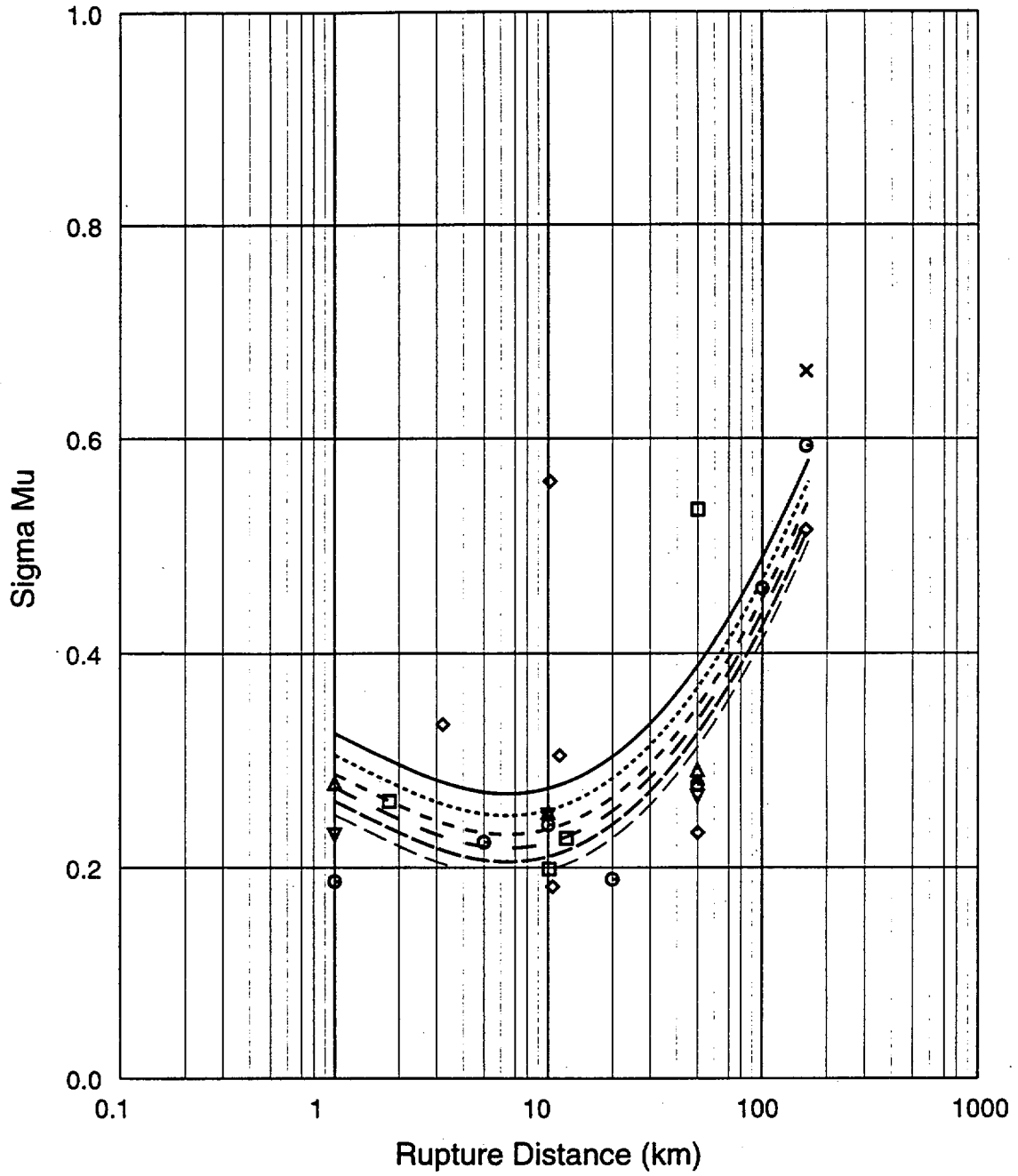
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 5.0 Hz



◇ M 5.0, SS  
 □ M 5.8, SS  
 ○ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 × M 8.0, SS

— M 5.0  
 ..... M 5.8  
 - - - M 6.5  
 - - - - M 7.0  
 - · - · M 7.5  
 - - - - M 8.0

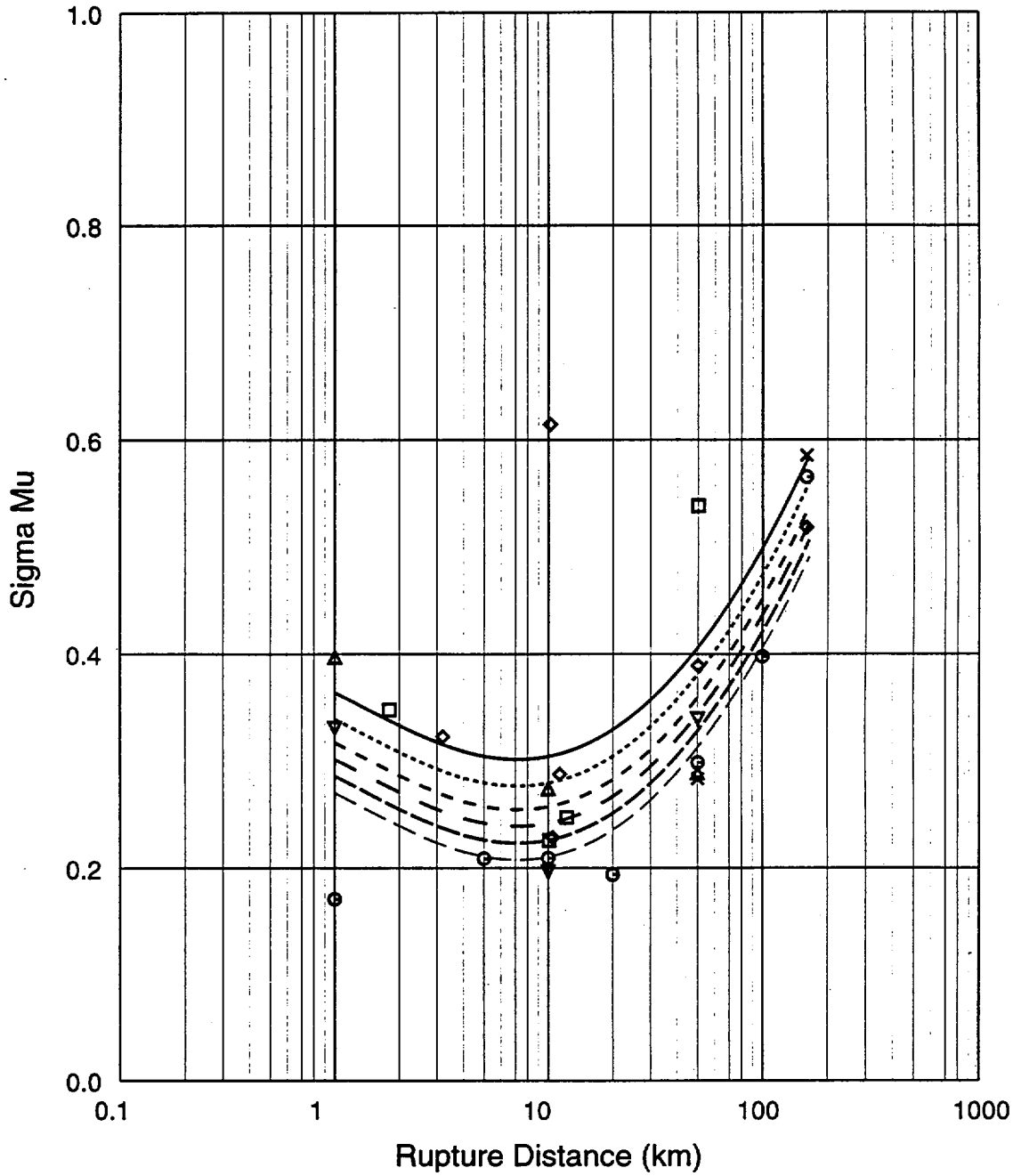
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 2.0 Hz



◇ M 5.0, SS  
 □ M 5.8, SS  
 ○ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 X M 8.0, SS

— M 5.0  
 ..... M 5.8  
 - - - M 6.5  
 - - - M 7.0  
 - - - M 7.5  
 - · - M 8.0

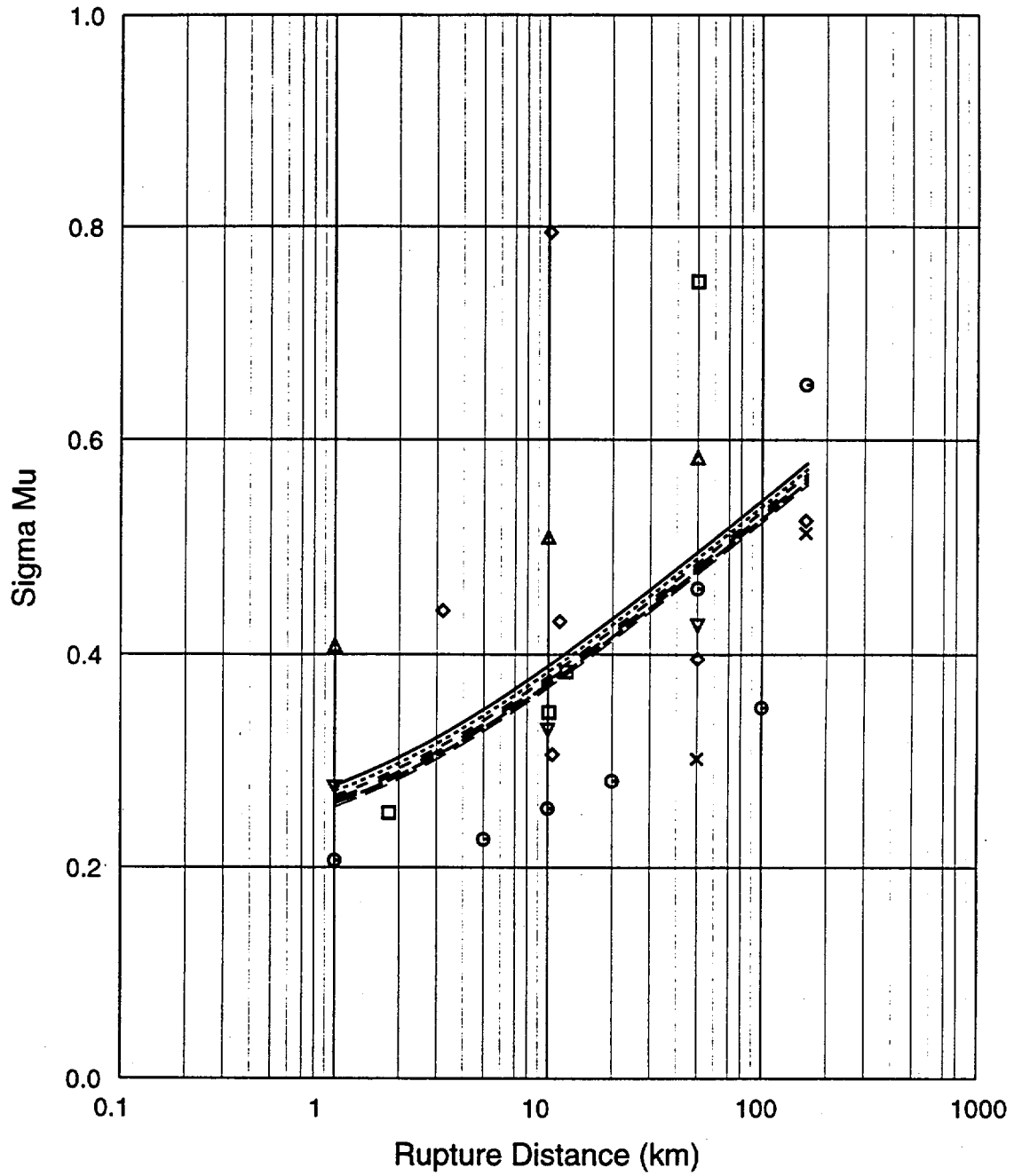
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 1.0 Hz



◇ M 5.0, SS  
 □ M 5.8, SS  
 ○ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 X M 8.0, SS

— M 5.0  
 - - - M 5.8  
 - - - M 6.5  
 - - - M 7.0  
 - - - M 7.5  
 - - - M 8.0

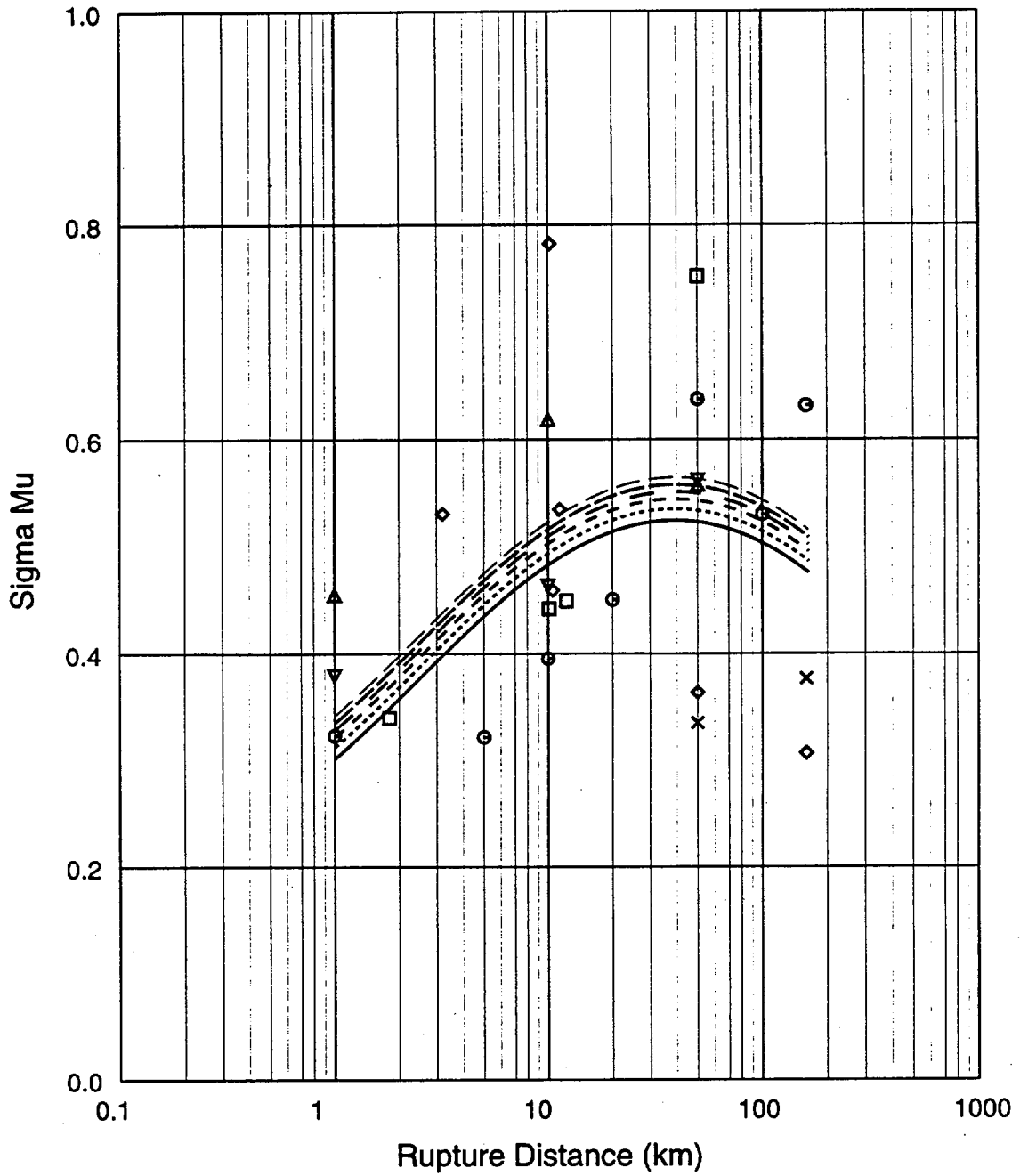
Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 0.5 Hz



◇ M 5.0, SS  
 □ M 5.8, SS  
 ○ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 × M 8.0, SS

— M 5.0  
 ..... M 5.8  
 - - - M 6.5  
 - - - - M 7.0  
 - - - - M 7.5  
 - - - - M 8.0

Silva, Rev1, 5/31/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Frequency = 0.3 Hz

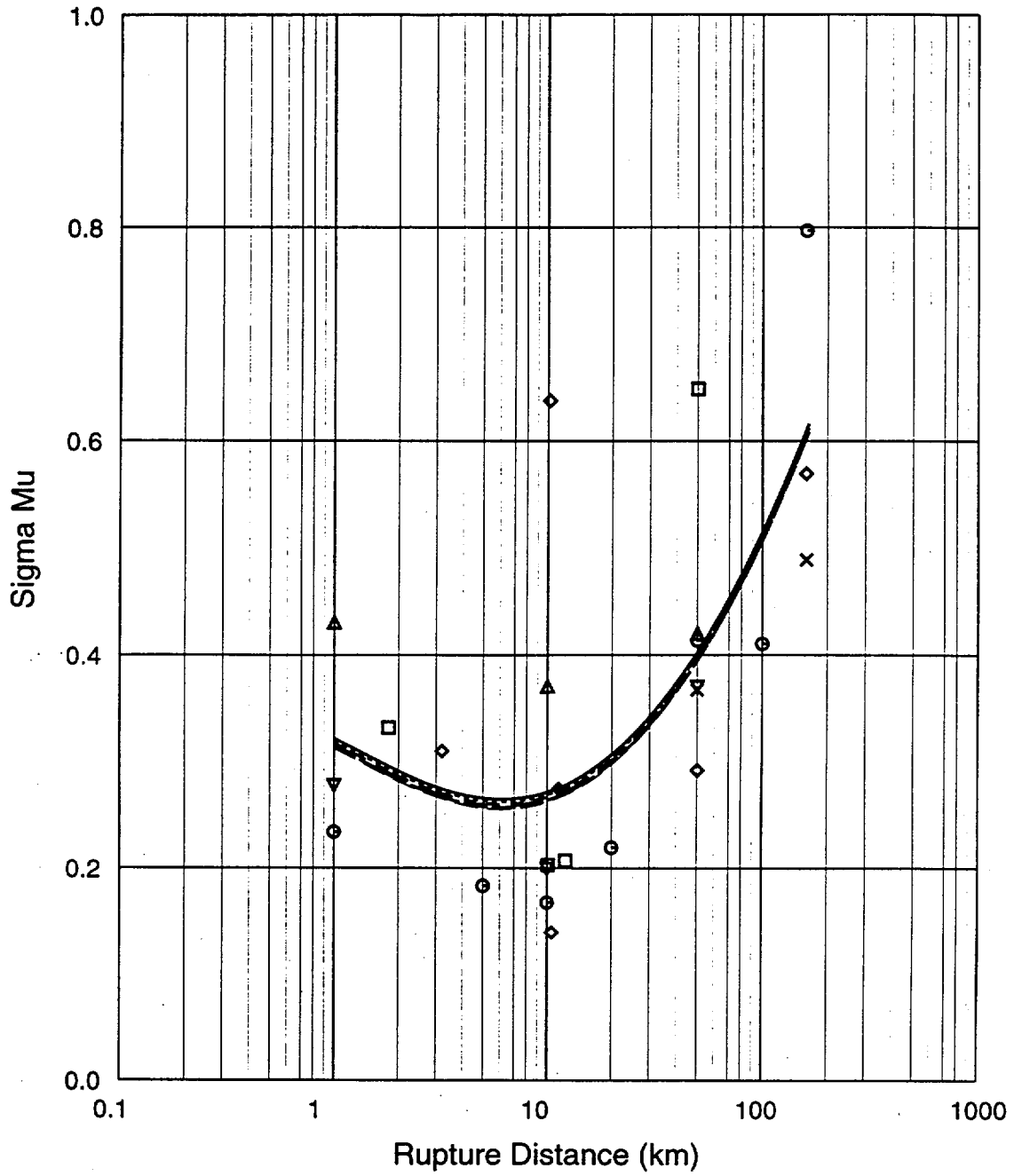


◇ M 5.0, SS  
 □ M 5.8, SS  
 ⊙ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 × M 8.0, SS

— M 5.0  
 - - - M 5.8  
 - - - M 6.5  
 - - - M 7.0  
 - - - M 7.5  
 - - - M 8.0



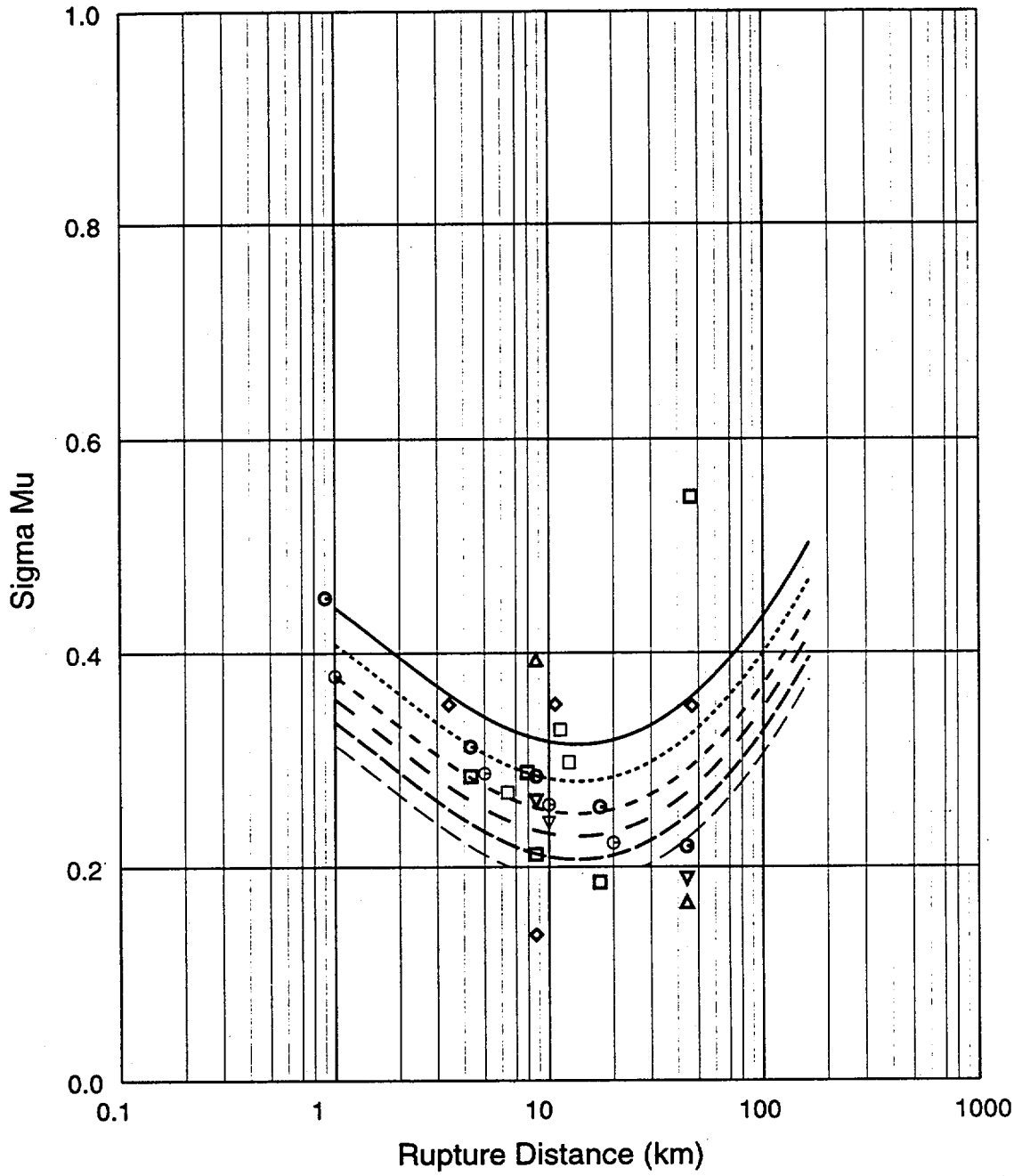
Silva, Rev1, 6/11/97, Model 2  
 Strike-Slip Faulting Attenuation, Vertical Comp  
 Peak Velocity



◇ M 5.0, SS  
 □ M 5.8, SS  
 ○ M 6.5, SS  
 ▽ M 7.0, SS  
 △ M 7.5, SS  
 × M 8.0, SS

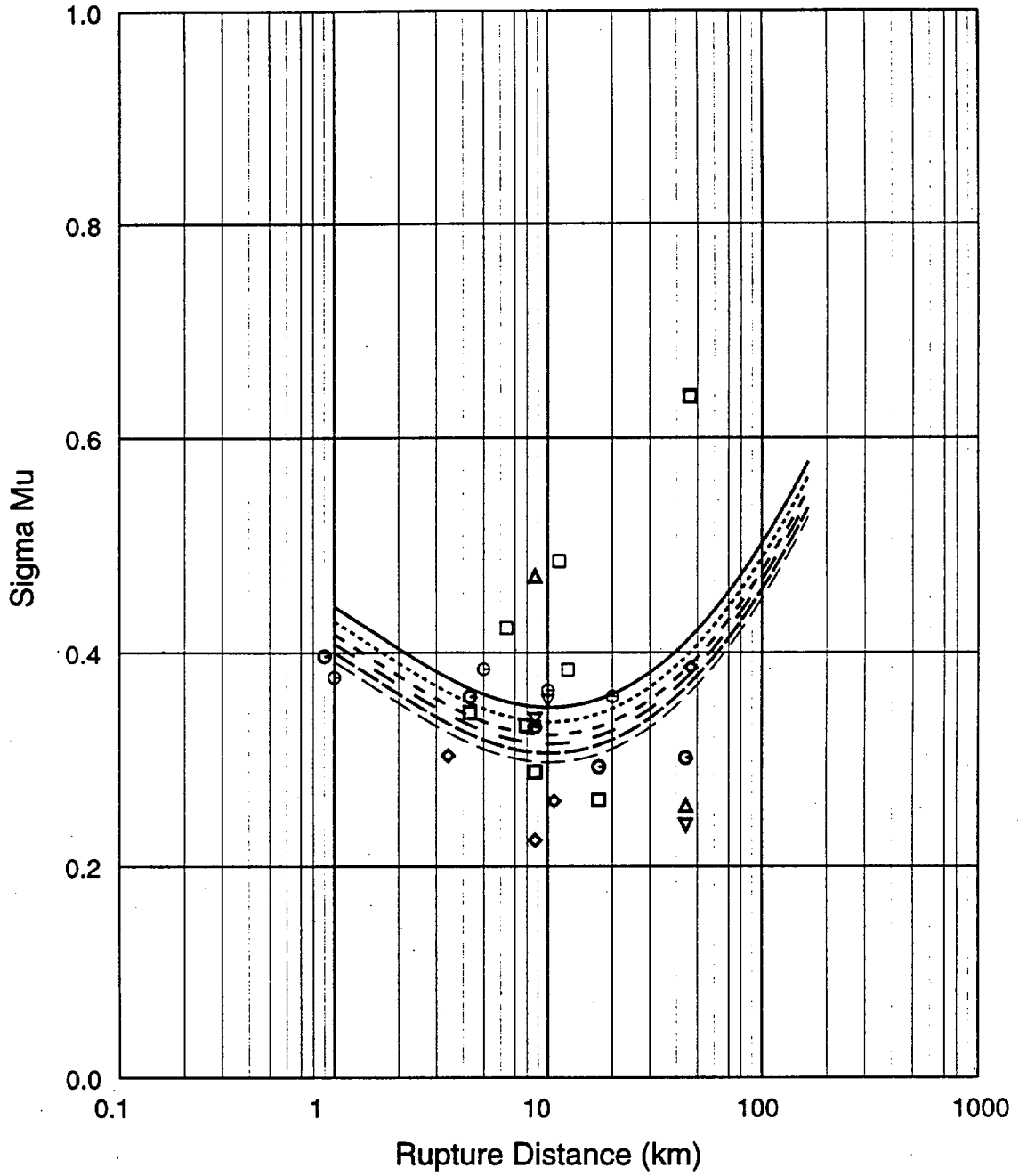
— M 5.0  
 - - - M 5.8  
 - - - M 6.5  
 - - - M 7.0  
 - - - M 7.5  
 - - - M 8.0

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 100.0 Hz



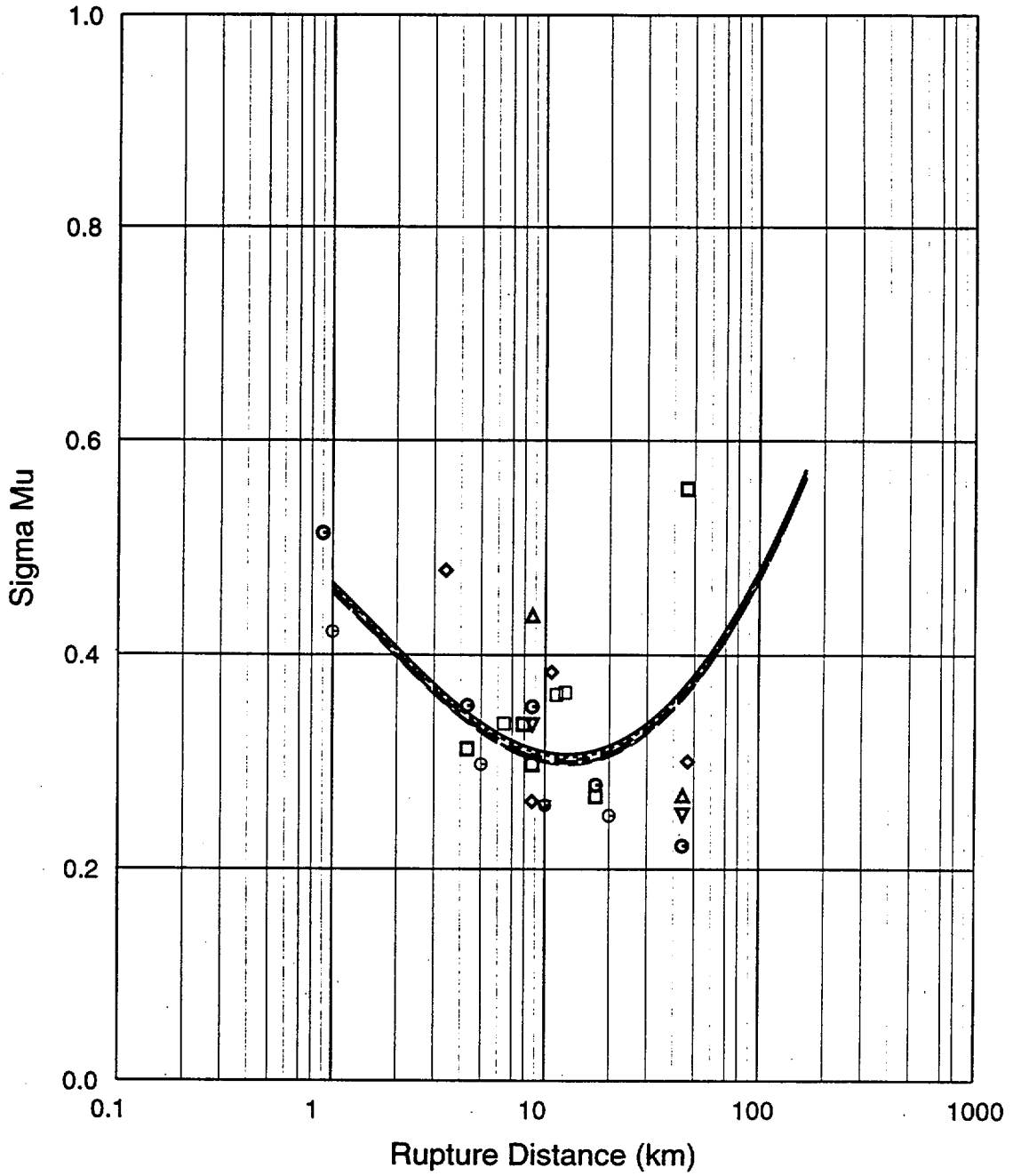
- |   |           |   |           |         |       |
|---|-----------|---|-----------|---------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —       | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯       | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -   | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - · - · | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - - - - | M 7.5 |
| x | M 8.0, FW |   |           | - - - - | M 8.0 |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 20.0 Hz



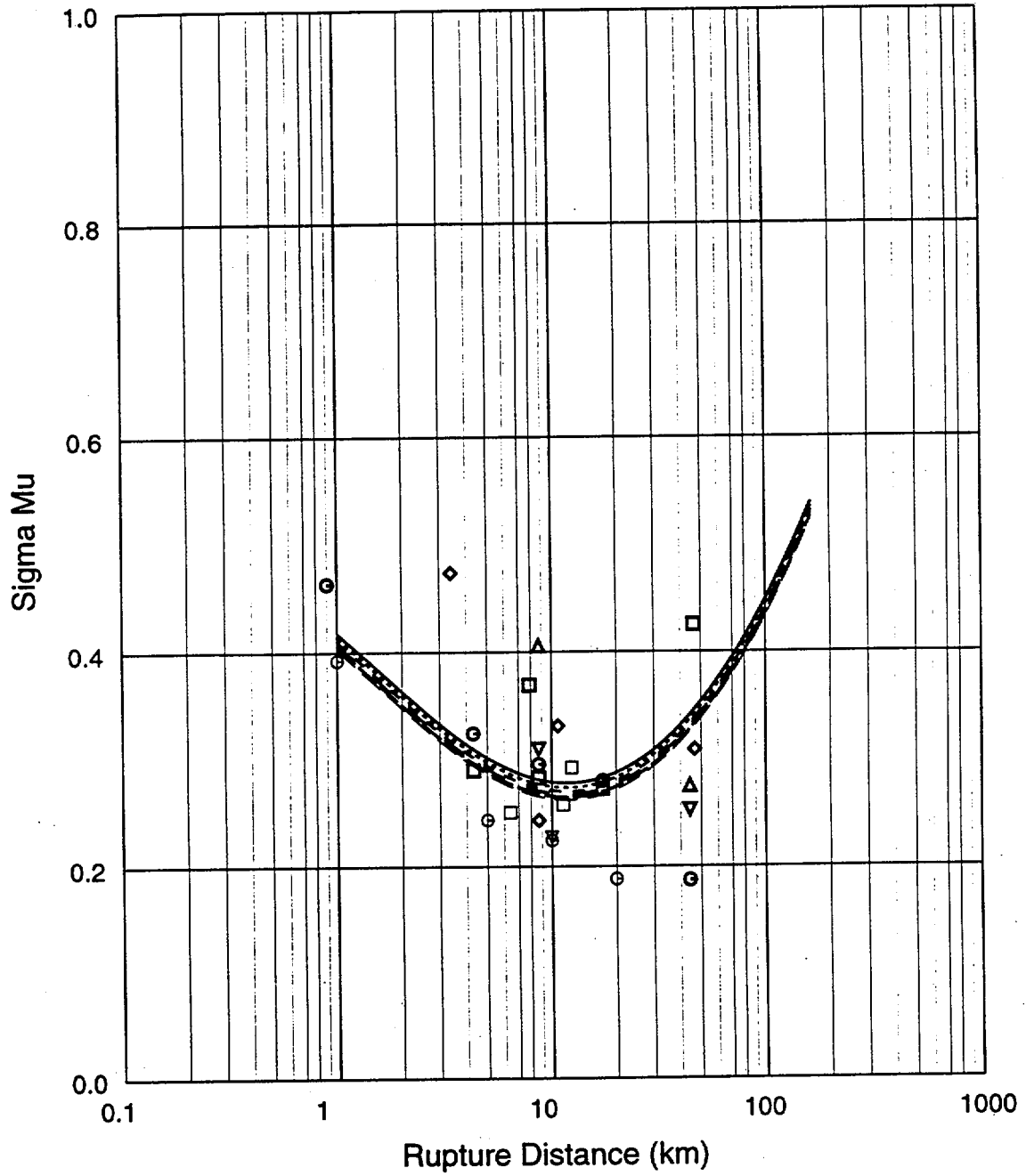
◇	M 5.0, FW	◇	M 5.0, HW	—	M 5.0
□	M 5.8, FW	□	M 5.8, HW	⋯	M 5.8
○	M 6.5, FW	○	M 6.5, HW	- - -	M 6.5
▽	M 7.0, FW	▽	M 7.0, HW	- - - -	M 7.0
△	M 7.5, FW	△	M 7.5, HW	- - - - -	M 7.5
x	M 8.0, FW			- · - · - ·	M 8.0

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 10.0 Hz



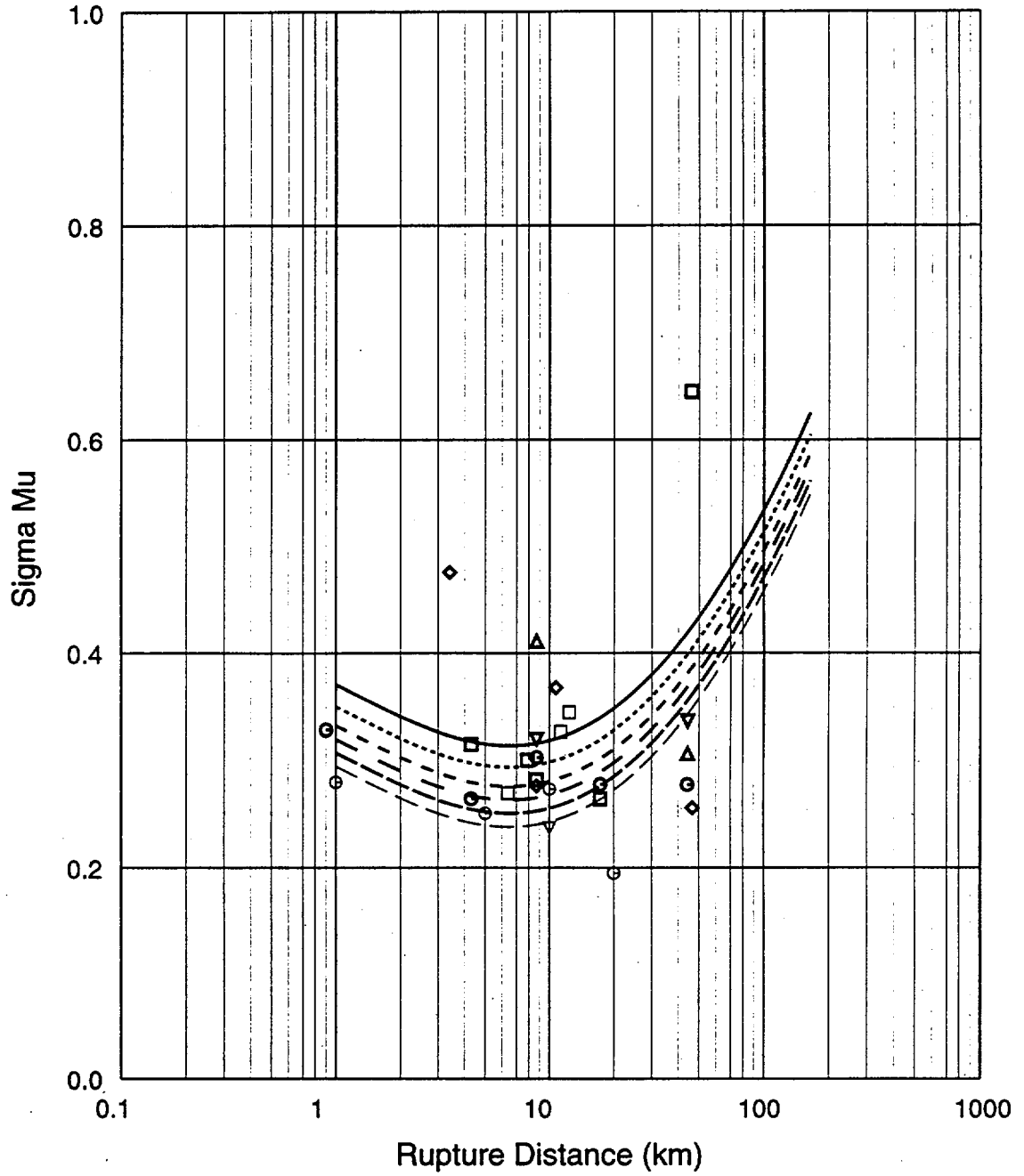
◇	M 5.0, FW	◇	M 5.0, HW	—	M 5.0
□	M 5.8, FW	□	M 5.8, HW	⋯	M 5.8
⊙	M 6.5, FW	⊙	M 6.5, HW	- - -	M 6.5
▽	M 7.0, FW	▽	M 7.0, HW	- - - -	M 7.0
△	M 7.5, FW	△	M 7.5, HW	- - - - -	M 7.5
×	M 8.0, FW			- - - - - -	M 8.0

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 5.0 Hz



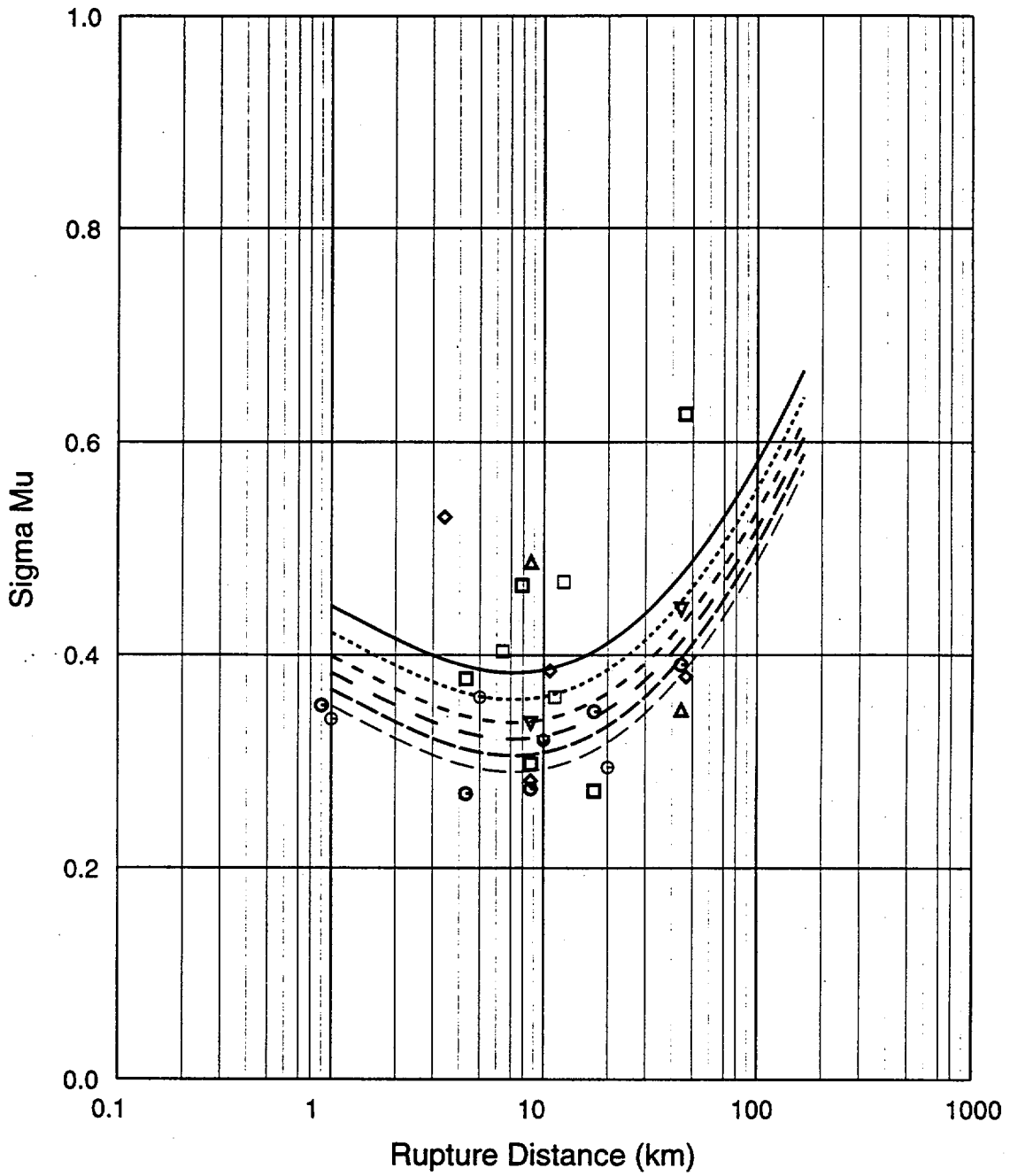
- |   |           |   |           |             |       |
|---|-----------|---|-----------|-------------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —           | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯           | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -       | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - · - ·     | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | — · — ·     | M 7.5 |
| × | M 8.0, FW |   |           | - · - · - · | M 8.0 |

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 2.0 Hz



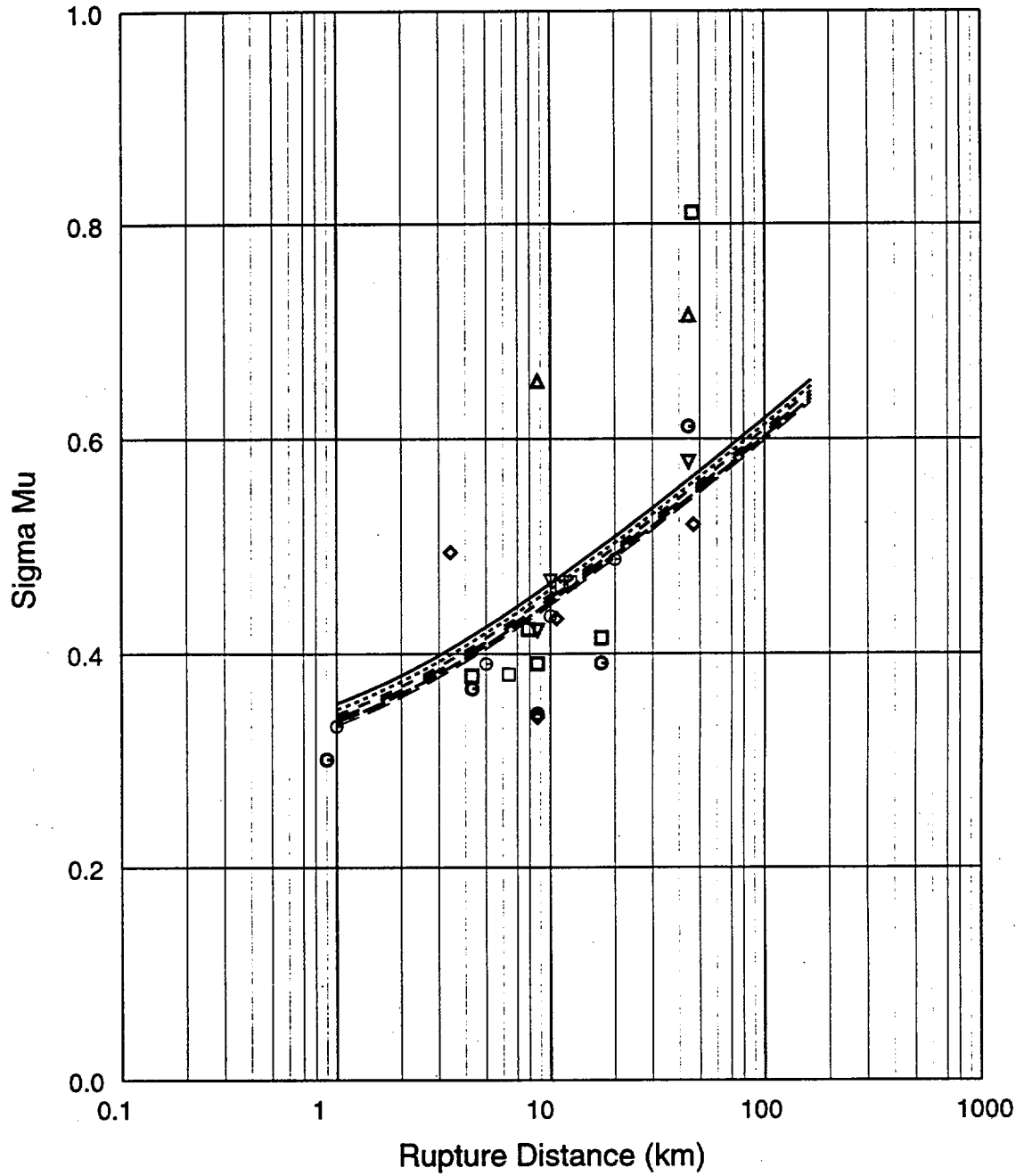
◇	M 5.0, FW	◇	M 5.0, HW	—	M 5.0
□	M 5.8, FW	□	M 5.8, HW	⋯	M 5.8
⊙	M 6.5, FW	⊙	M 6.5, HW	- - -	M 6.5
▽	M 7.0, FW	▽	M 7.0, HW	- · - ·	M 7.0
△	M 7.5, FW	△	M 7.5, HW	— · — ·	M 7.5
×	M 8.0, FW			— · — ·	M 8.0

Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 1.0 Hz



- |   |           |   |           |           |       |
|---|-----------|---|-----------|-----------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —         | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯         | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -     | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - - - -   | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - - - - - | M 7.5 |
| x | M 8.0, FW |   |           | - - - - - | M 8.0 |

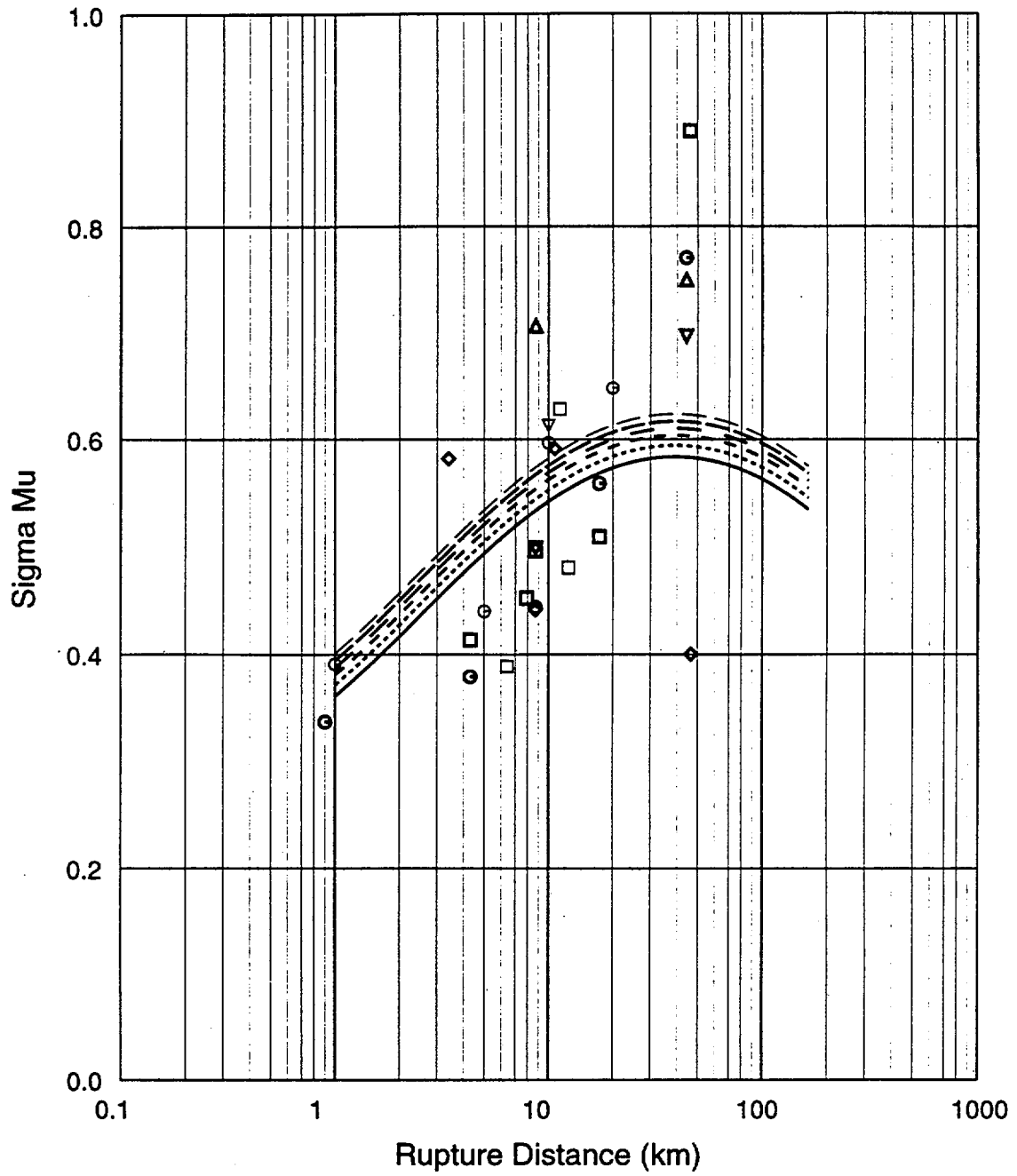
Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 0.5 Hz



- |   |           |   |           |           |       |
|---|-----------|---|-----------|-----------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —         | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯         | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -     | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - - - -   | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - - - - - | M 7.5 |
| x | M 8.0, FW |   |           | - - - - - | M 8.0 |

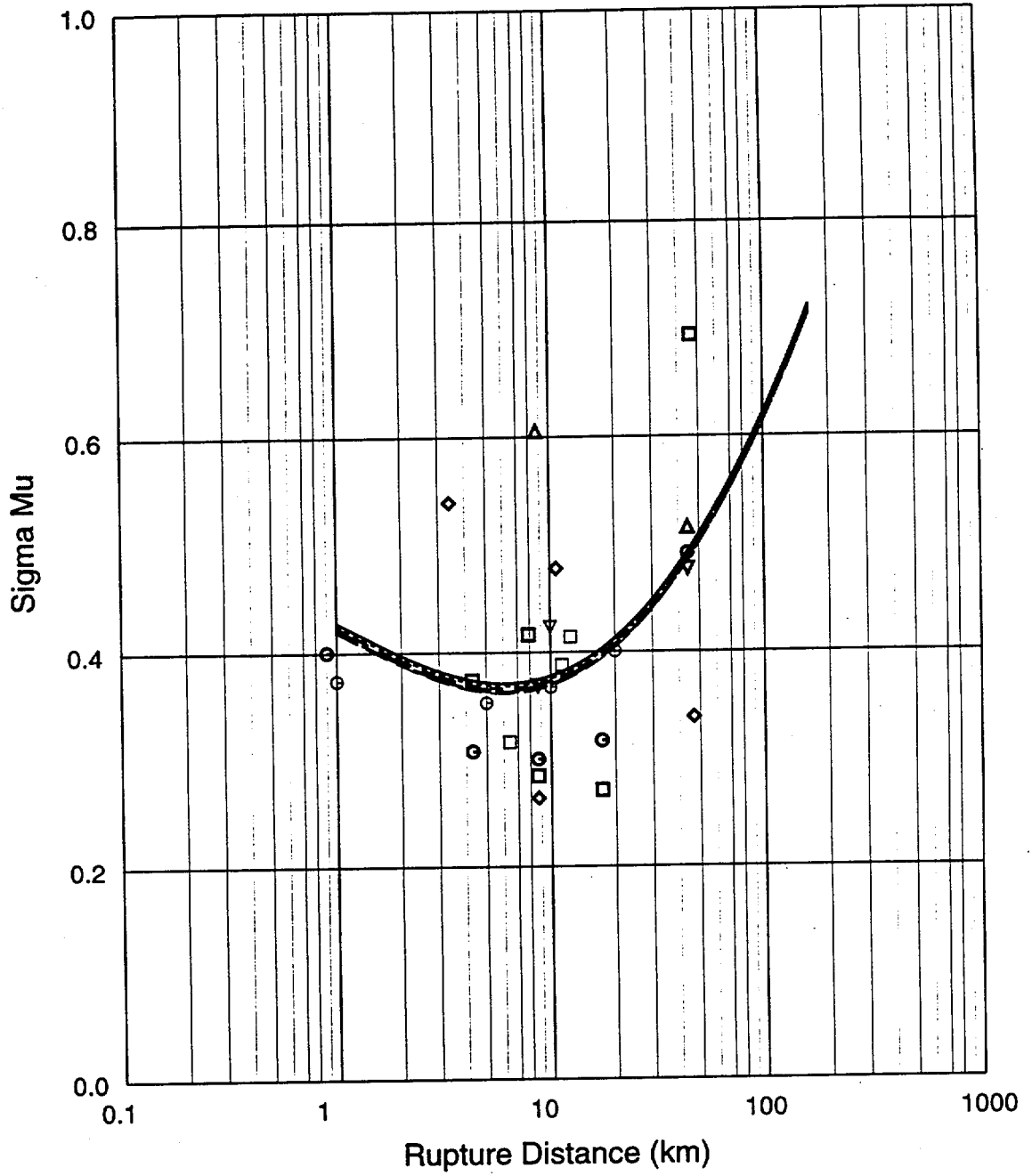


Silva, Rev1, 5/31/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Frequency = 0.3 Hz



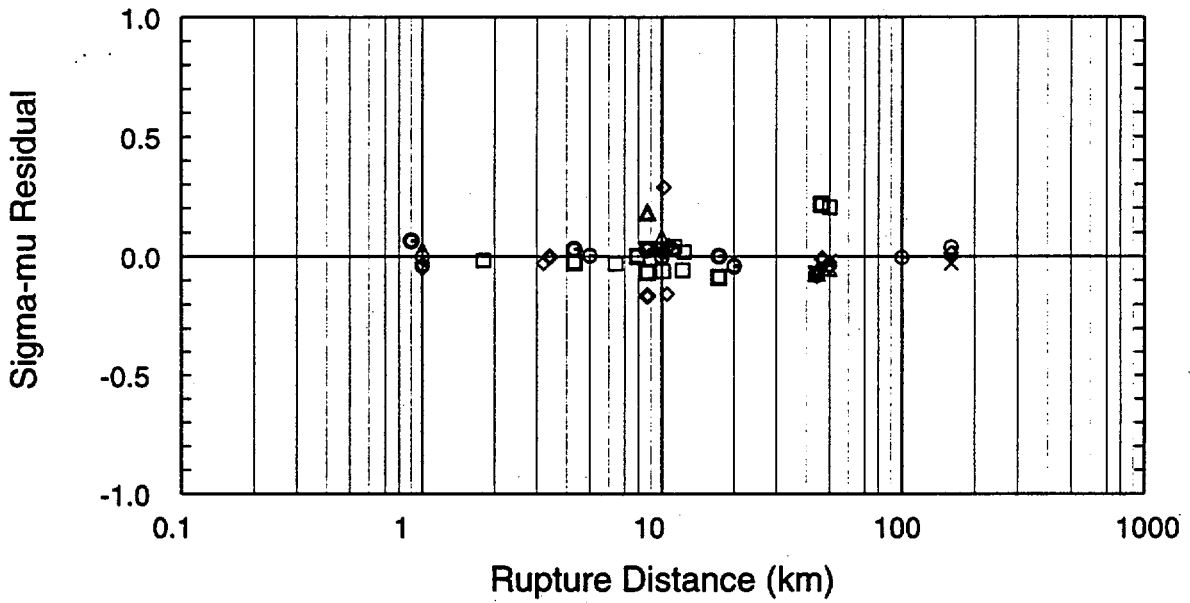
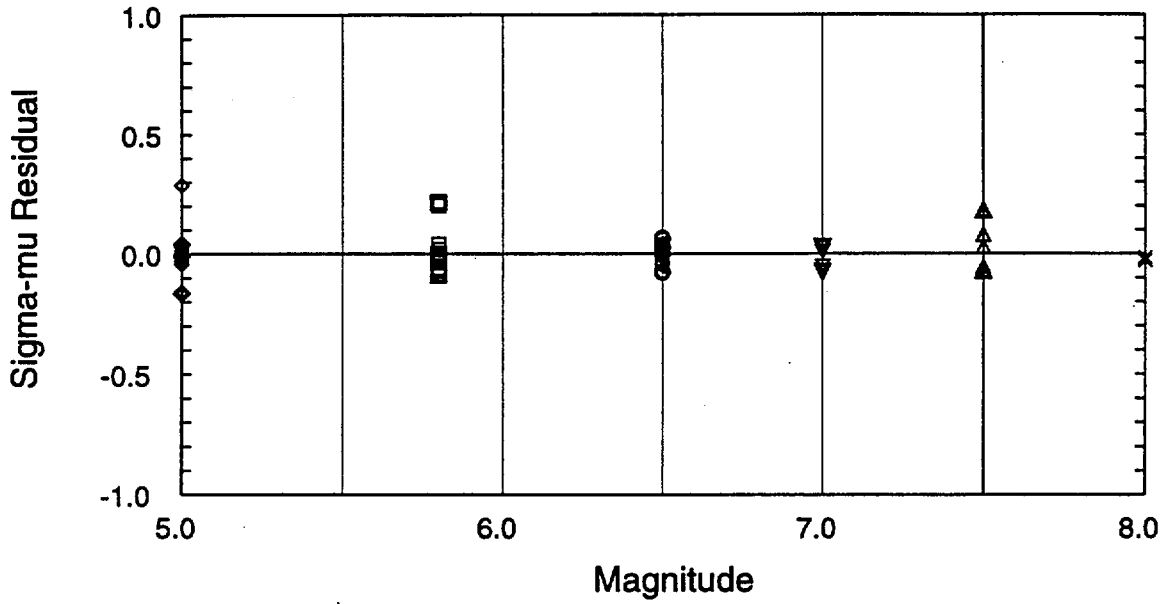
- |   |           |   |           |           |       |
|---|-----------|---|-----------|-----------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —         | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ---       | M 5.8 |
| ○ | M 6.5, FW | ○ | M 6.5, HW | - - -     | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - - - -   | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - - - - - | M 7.5 |
| x | M 8.0, FW |   |           | - - - - - | M 8.0 |

Silva, Rev1, 6/11/97, Model 2  
 Normal Faulting Attenuation, Vertical Comp  
 Peak Velocity



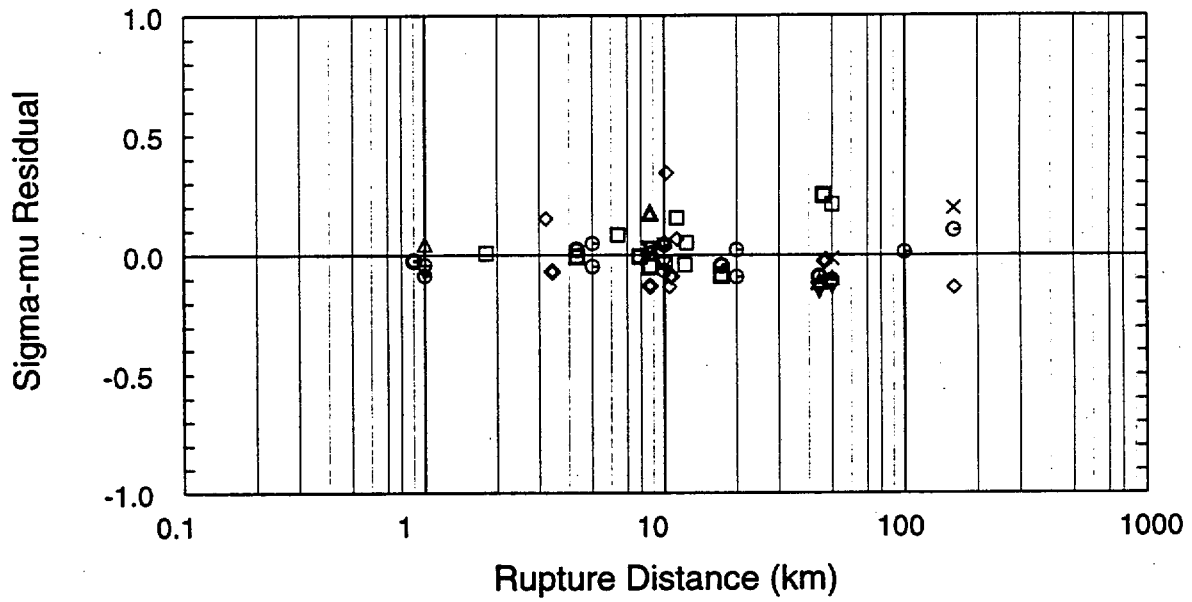
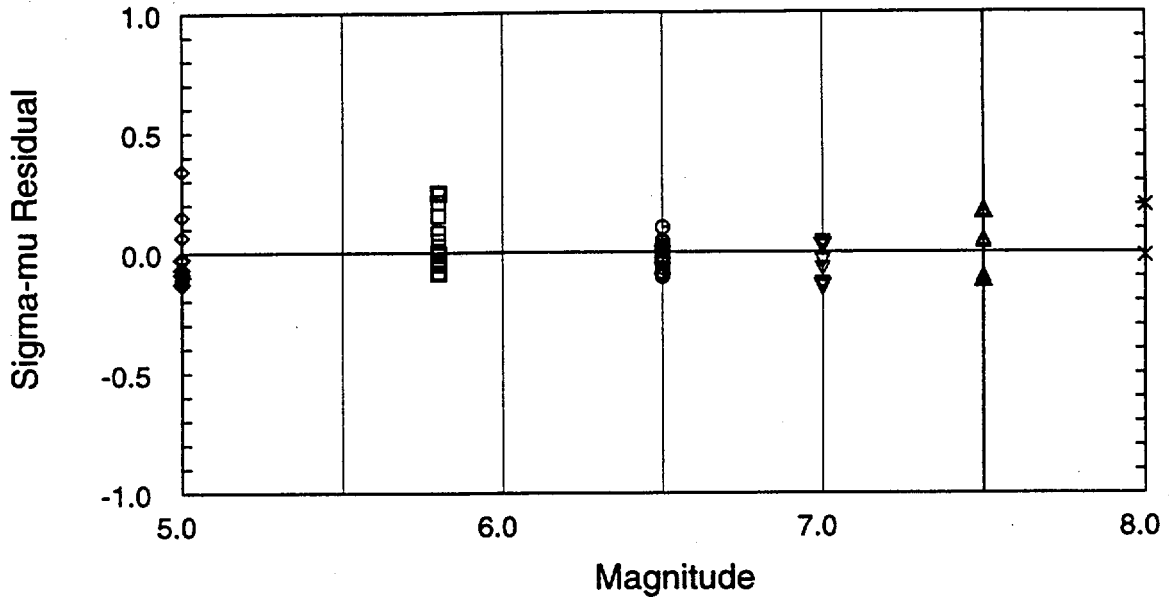
- |   |           |   |           |             |       |
|---|-----------|---|-----------|-------------|-------|
| ◇ | M 5.0, FW | ◇ | M 5.0, HW | —           | M 5.0 |
| □ | M 5.8, FW | □ | M 5.8, HW | ⋯           | M 5.8 |
| ⊙ | M 6.5, FW | ⊙ | M 6.5, HW | - - -       | M 6.5 |
| ▽ | M 7.0, FW | ▽ | M 7.0, HW | - · - ·     | M 7.0 |
| △ | M 7.5, FW | △ | M 7.5, HW | - - - -     | M 7.5 |
| x | M 8.0, FW |   |           | - · - · - · | M 8.0 |

Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 100.0 Hz



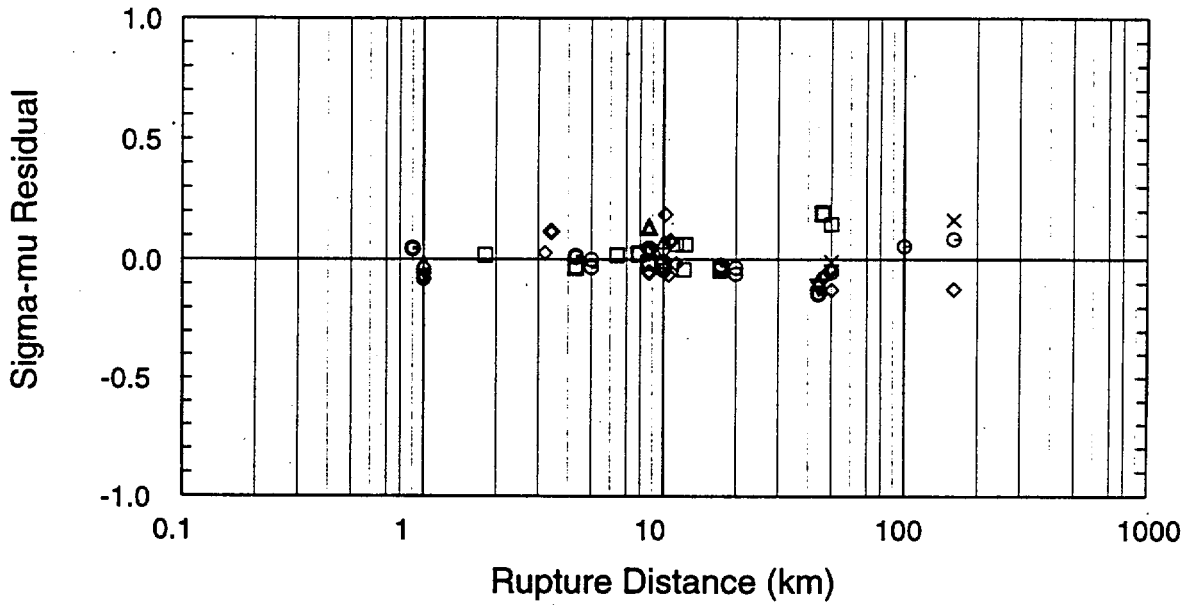
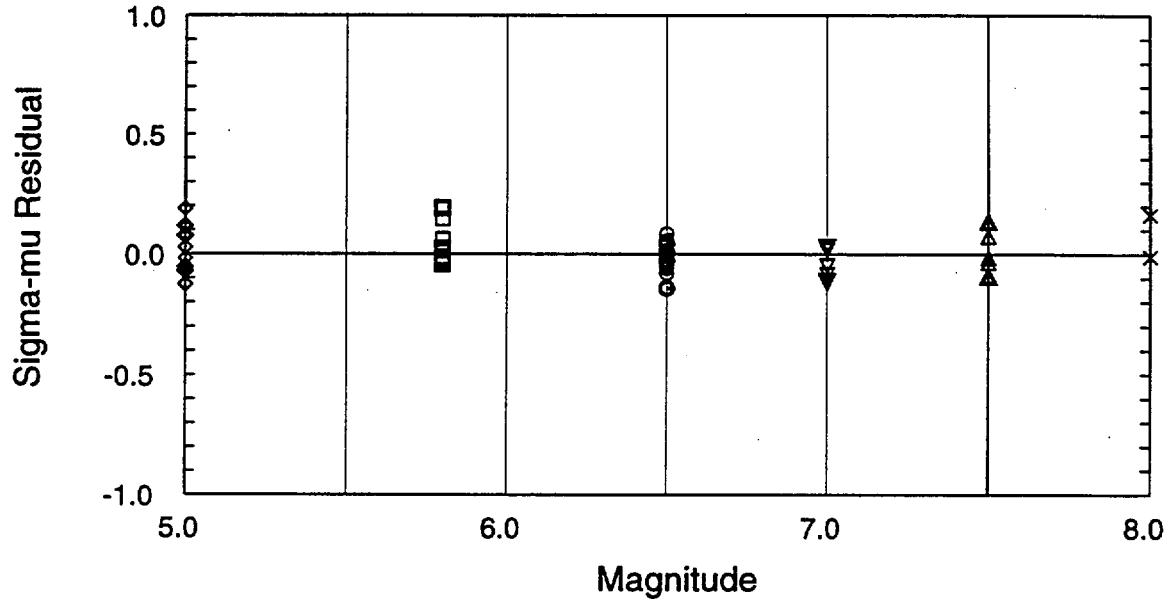
- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| X | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 20.0 Hz



- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 10.0 Hz

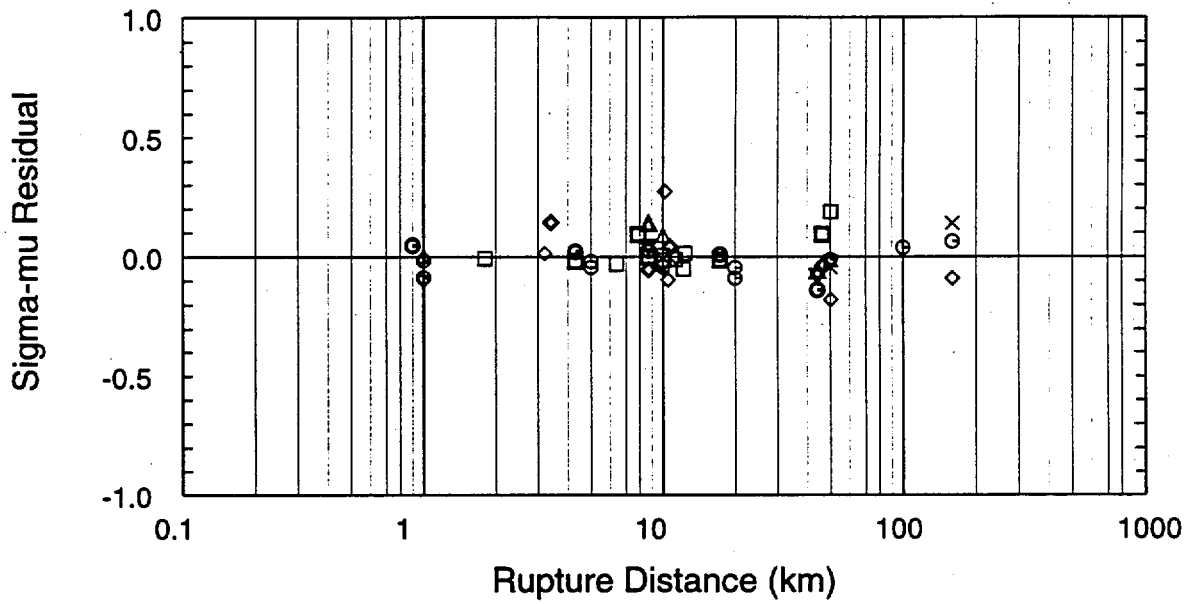
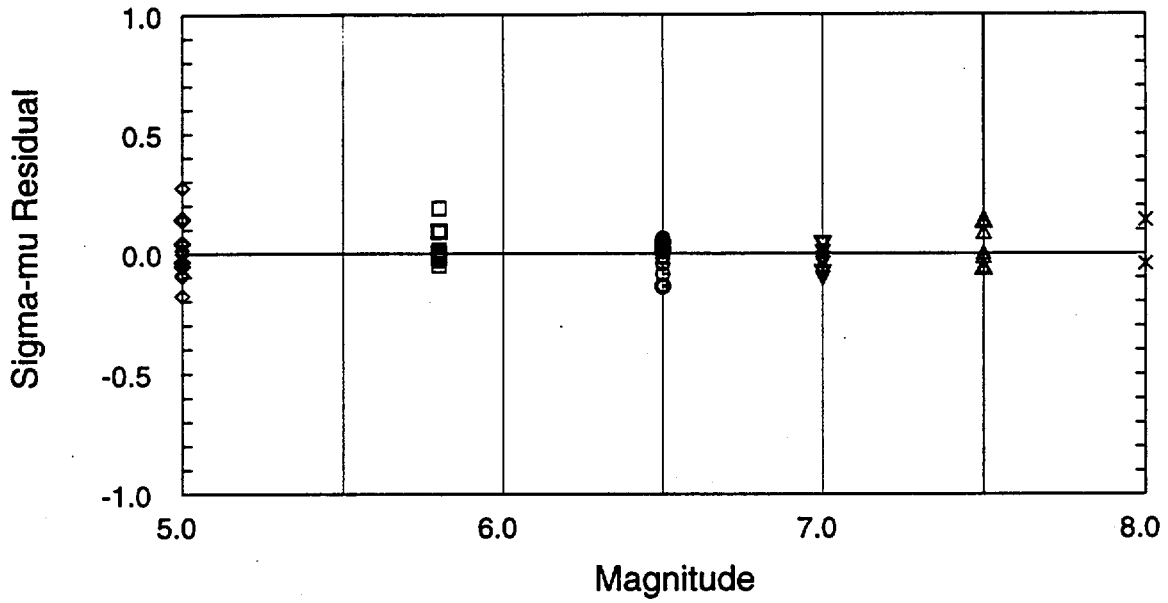


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 5.0 Hz



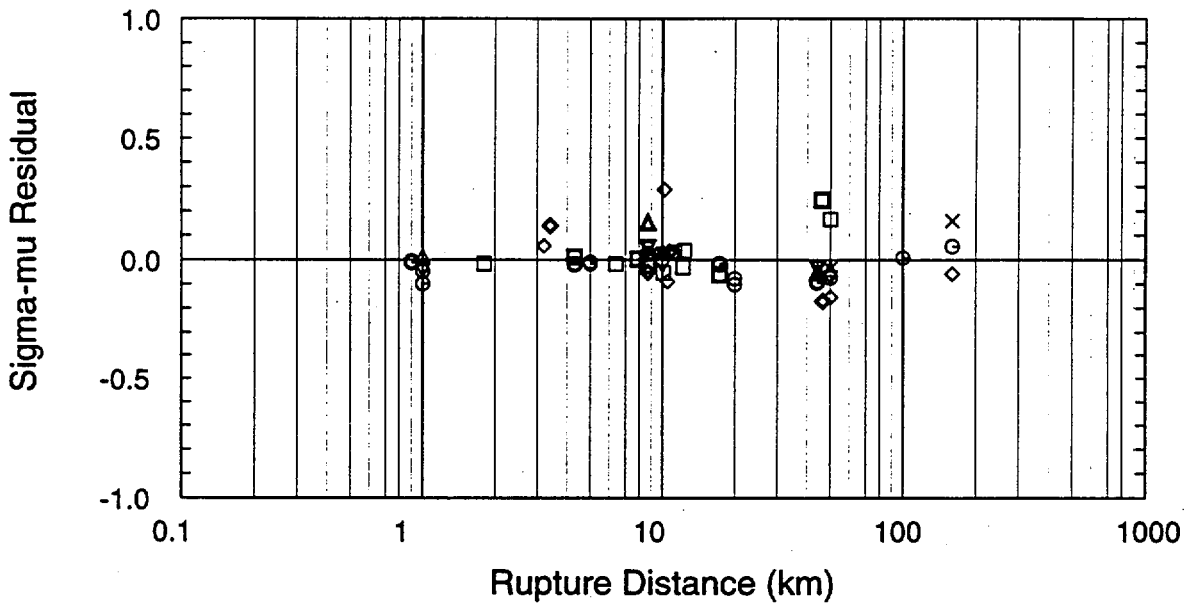
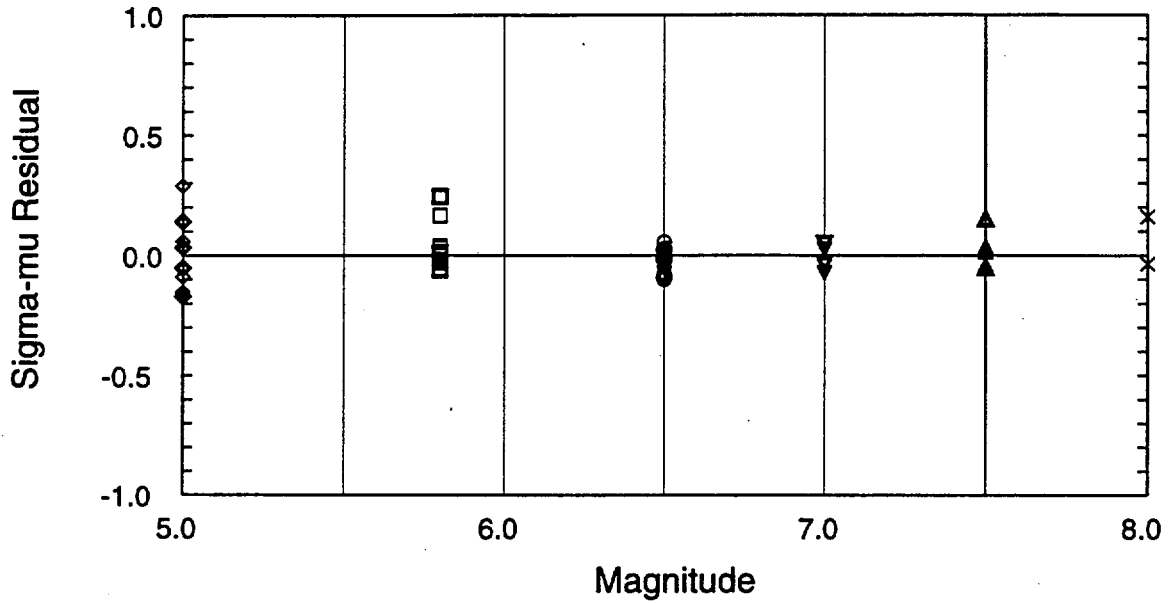
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
⊙ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
⊙ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 2.0 Hz



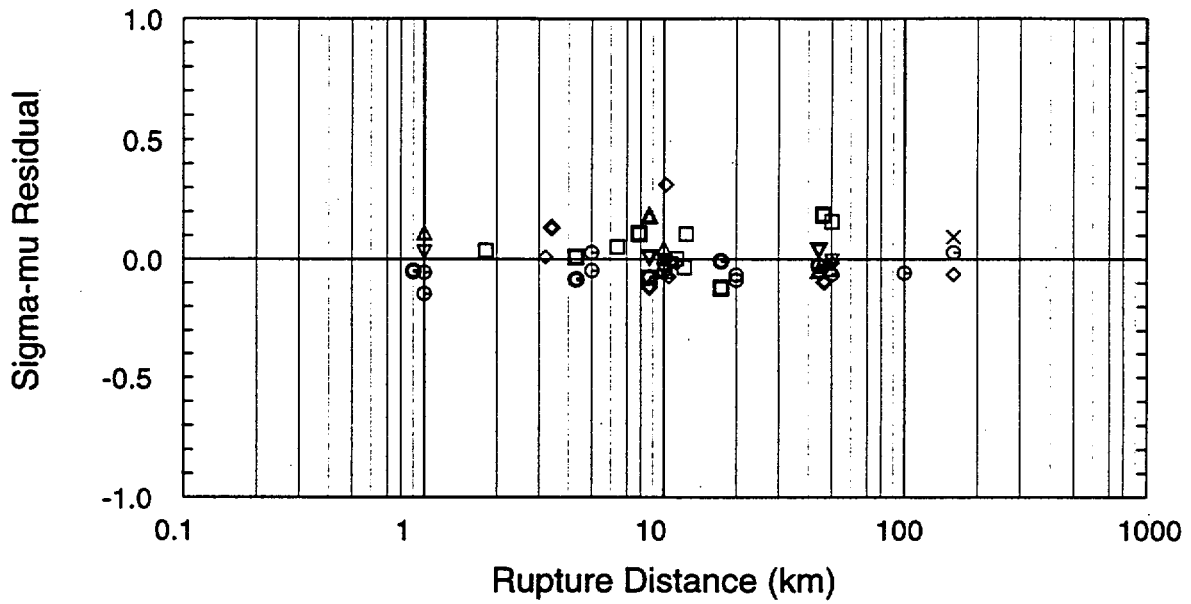
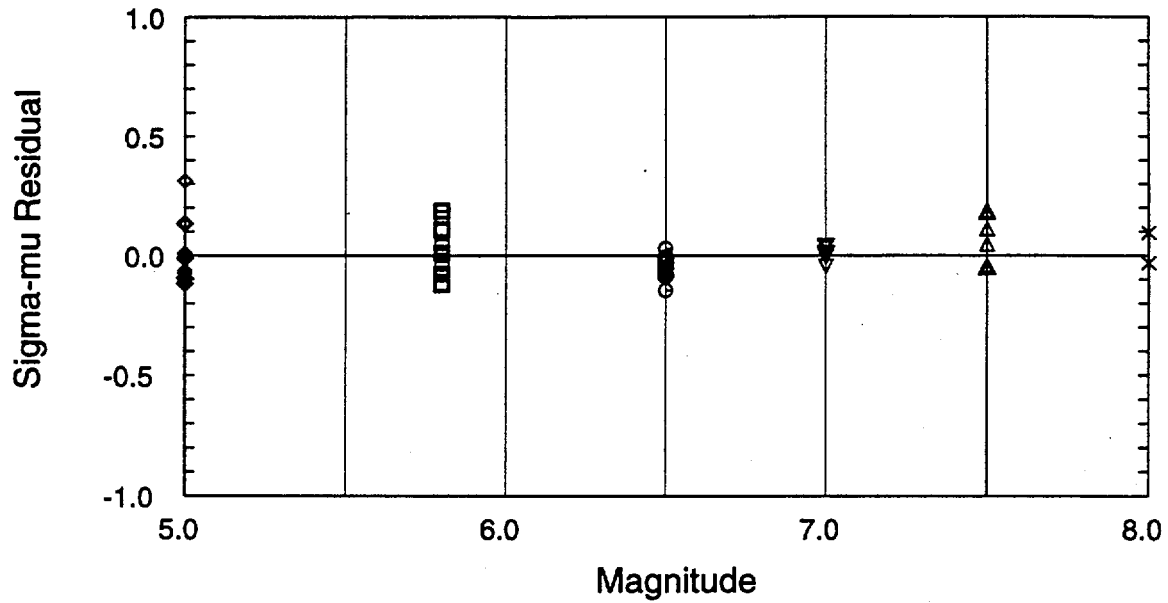
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

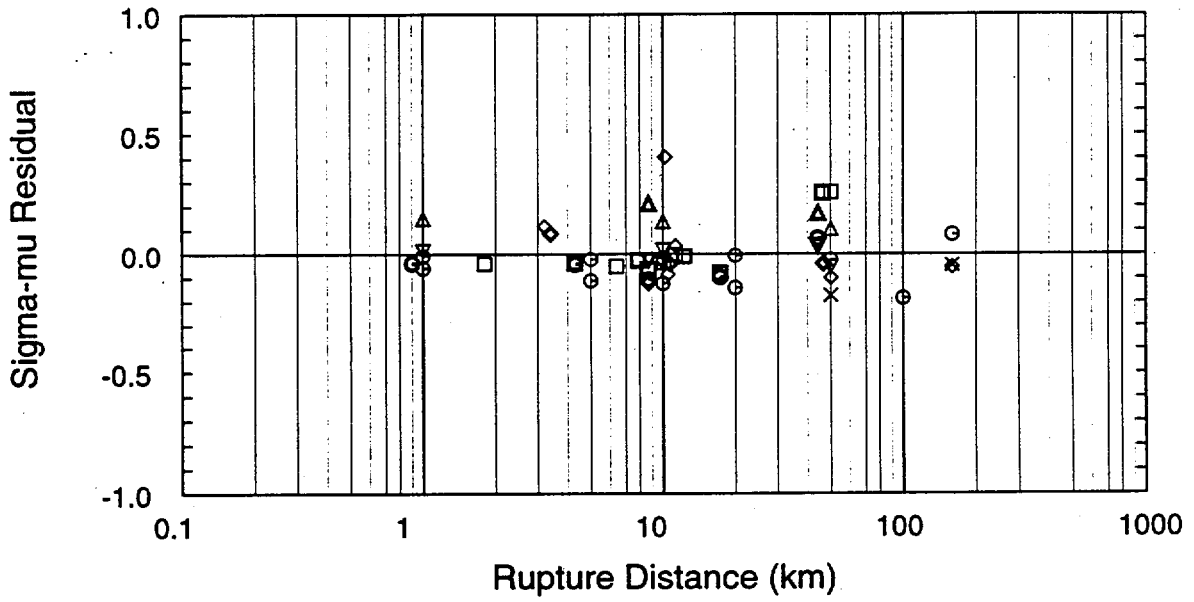
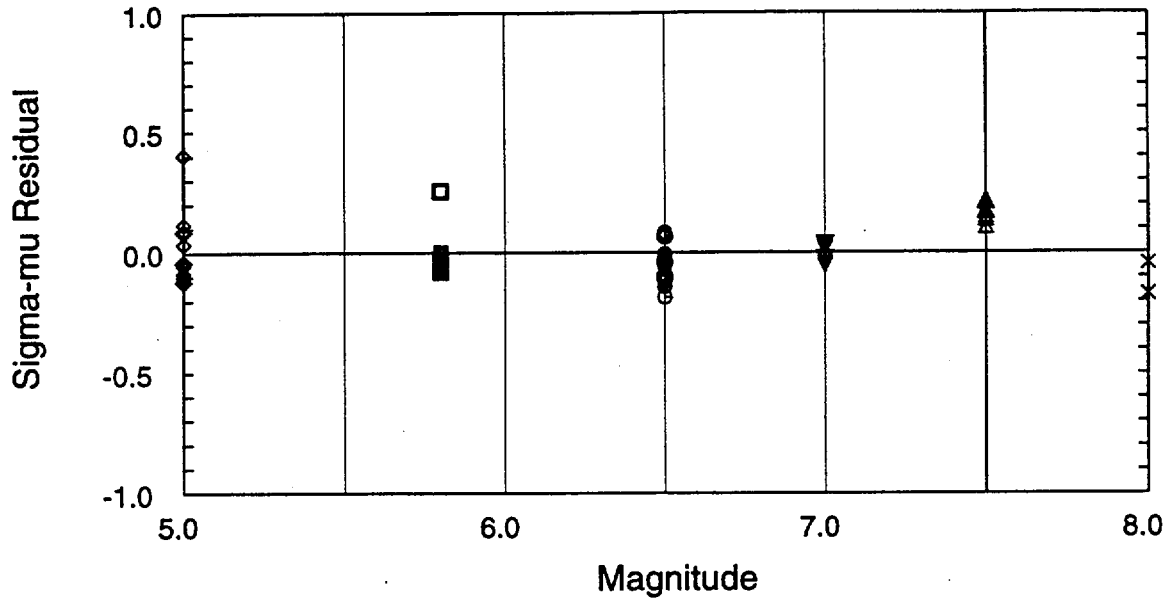
Frequency = 1.0 Hz



- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |



Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 0.5 Hz

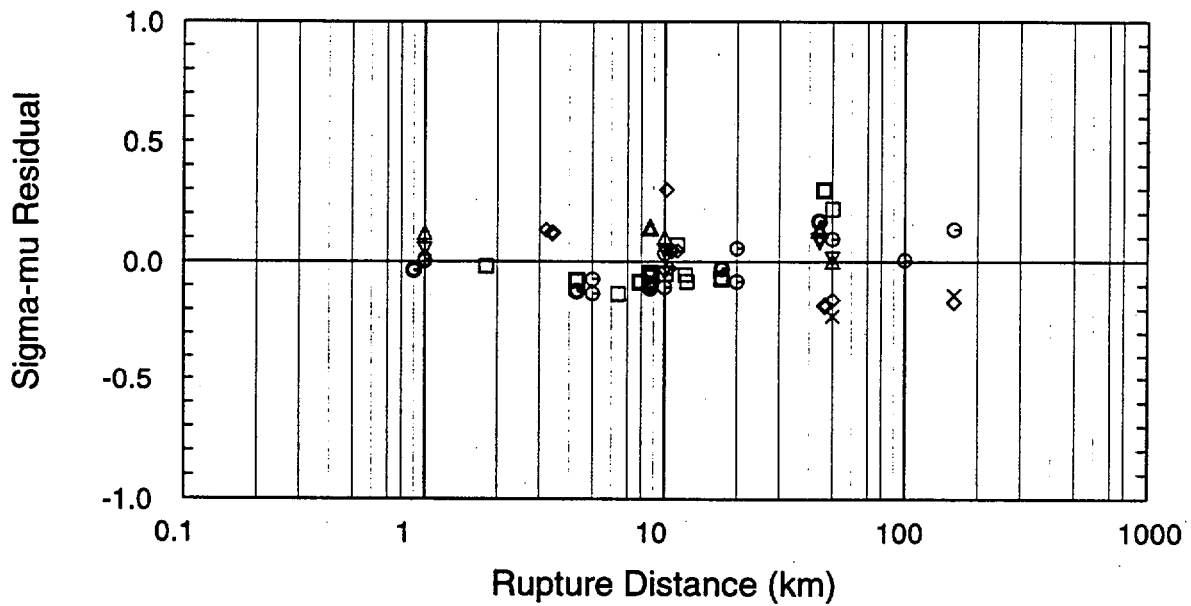
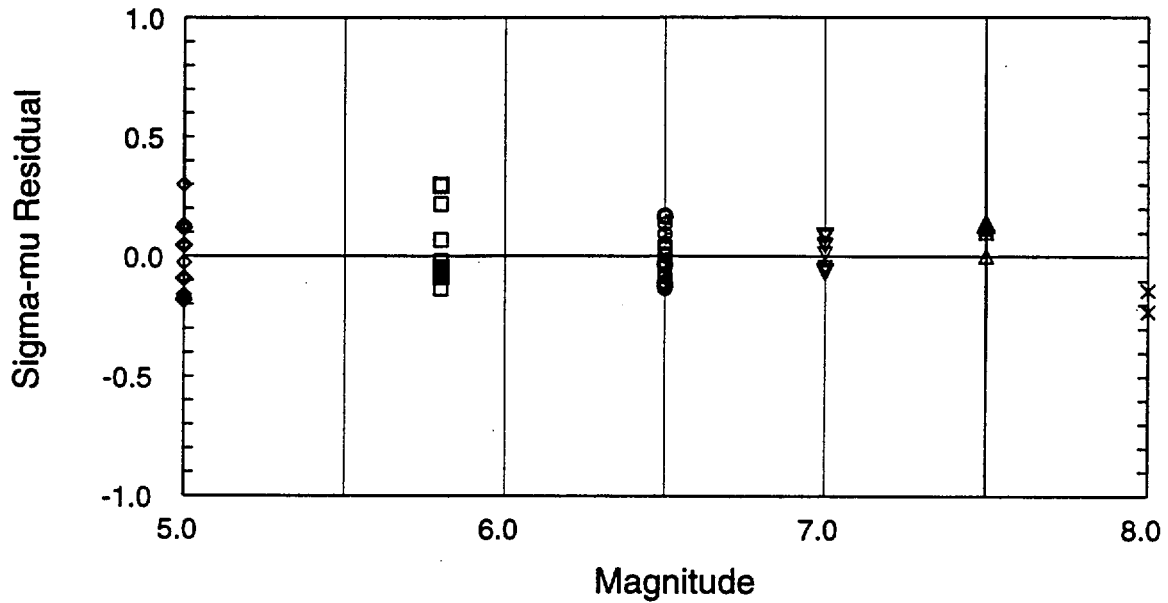


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 0.3 Hz

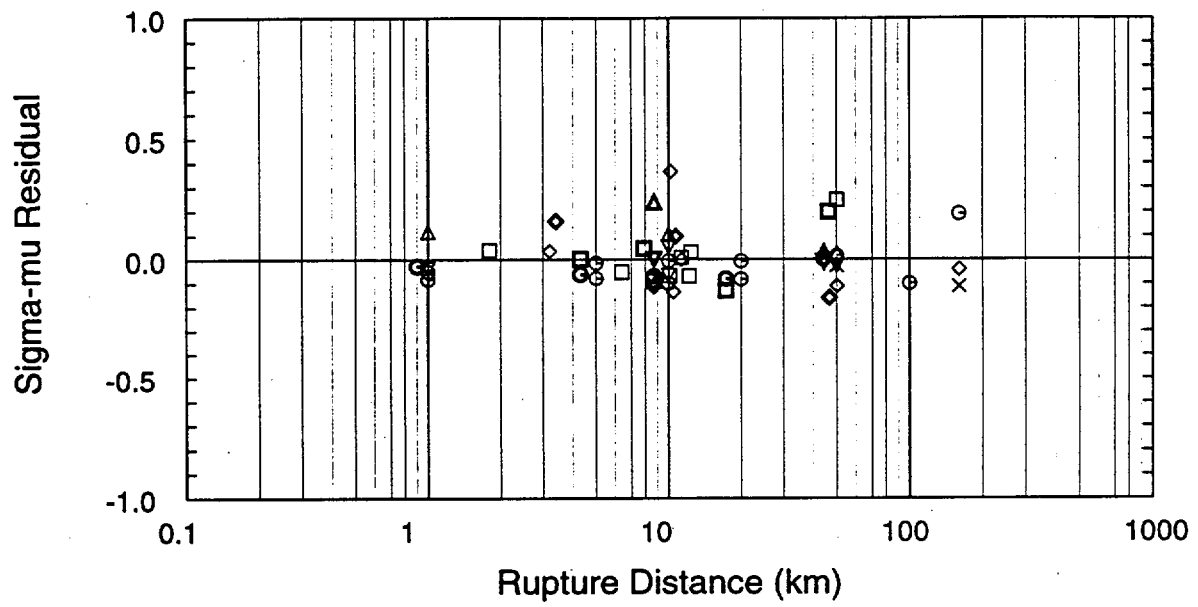
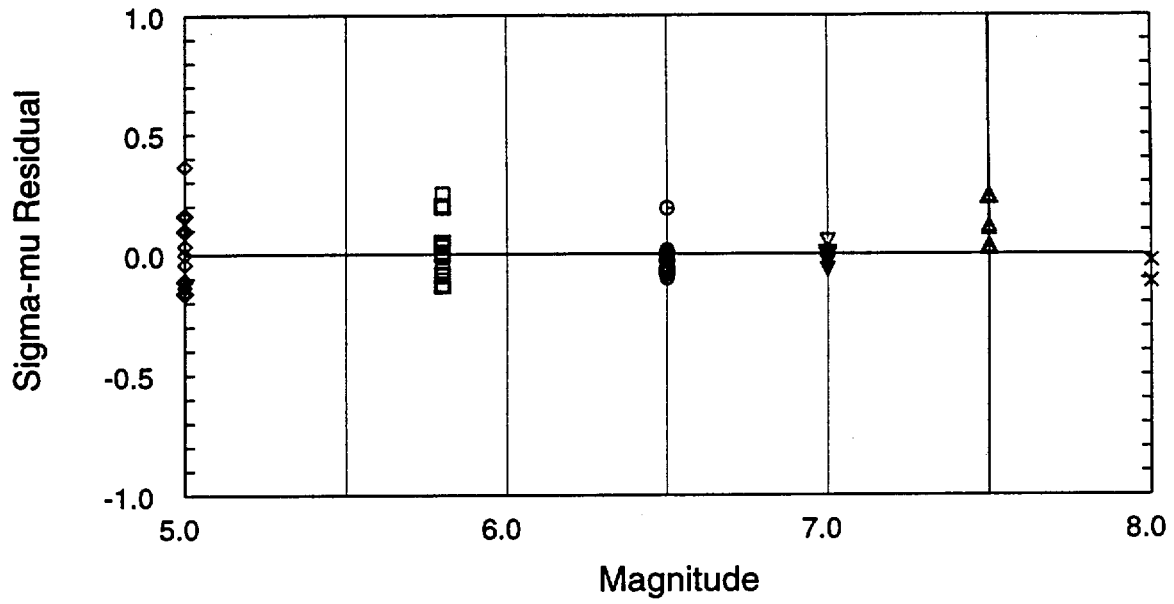


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 6/11/97, Model 2

Vertical Comp

Peak Velocity



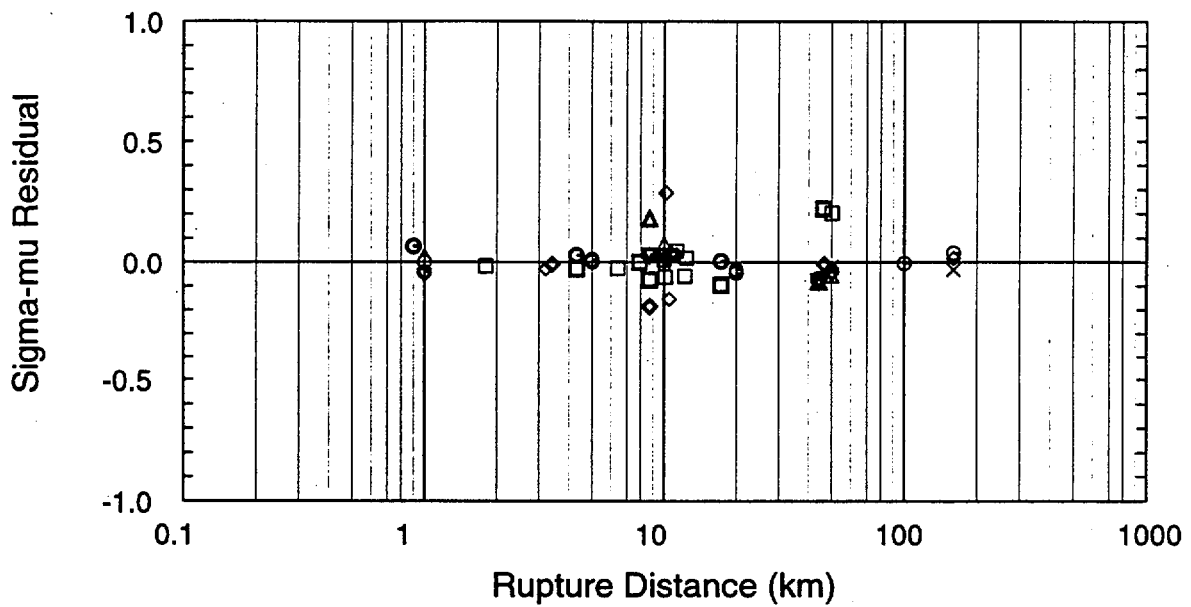
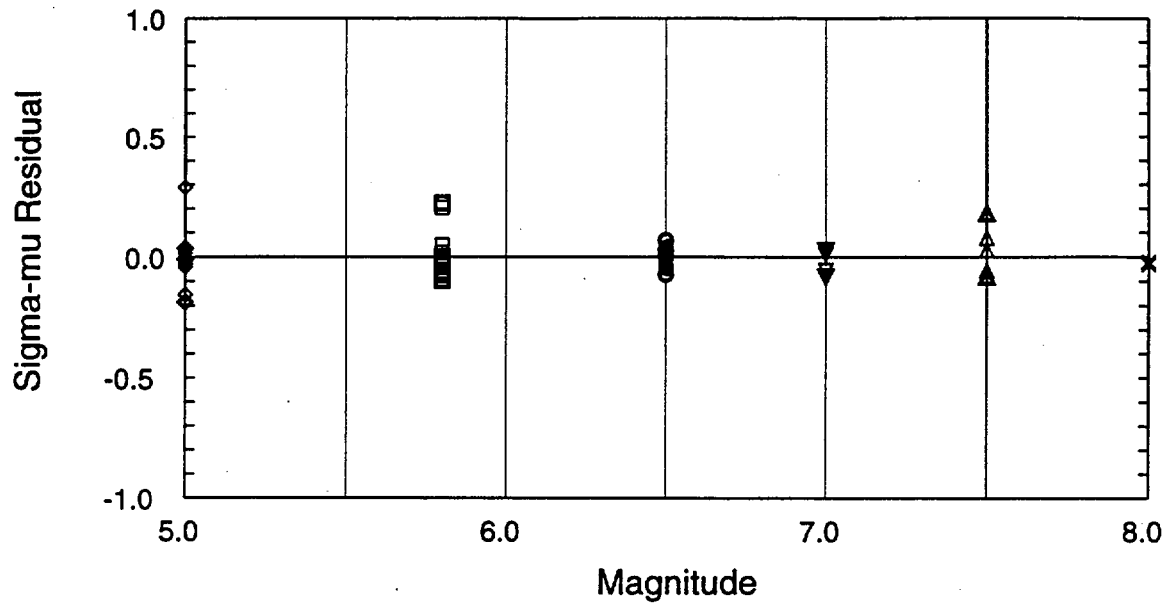
- ◇ M 5.0, SS and FW
- M 5.8, SS and FW
- M 6.5, SS and FW
- ▽ M 7.0, SS and FW
- △ M 7.5, SS and FW
- × M 8.0, SS and FW

- ◇ M 5.0, HW
- M 5.8, HW
- M 6.5, HW
- ▽ M 7.0, HW
- △ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 100.0 Hz

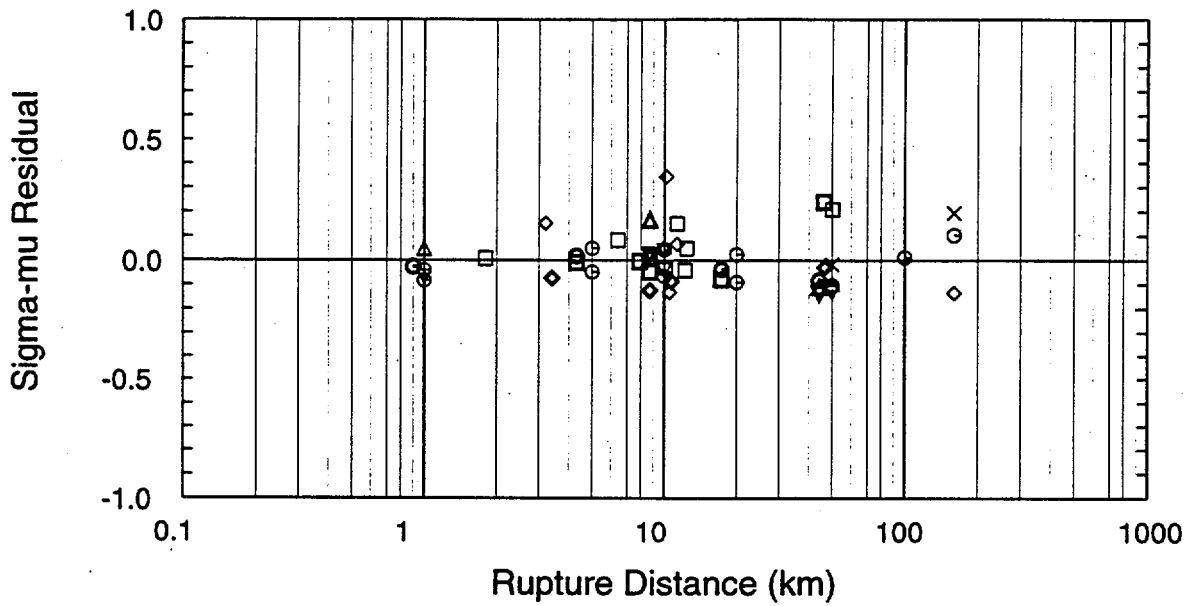
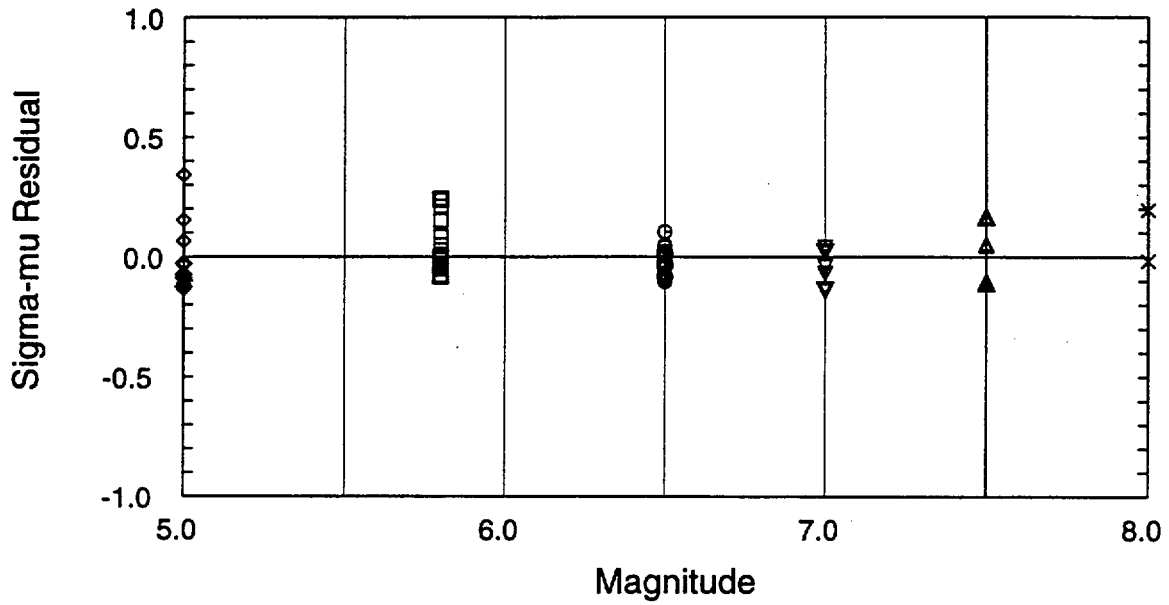


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| x | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 20.0 Hz

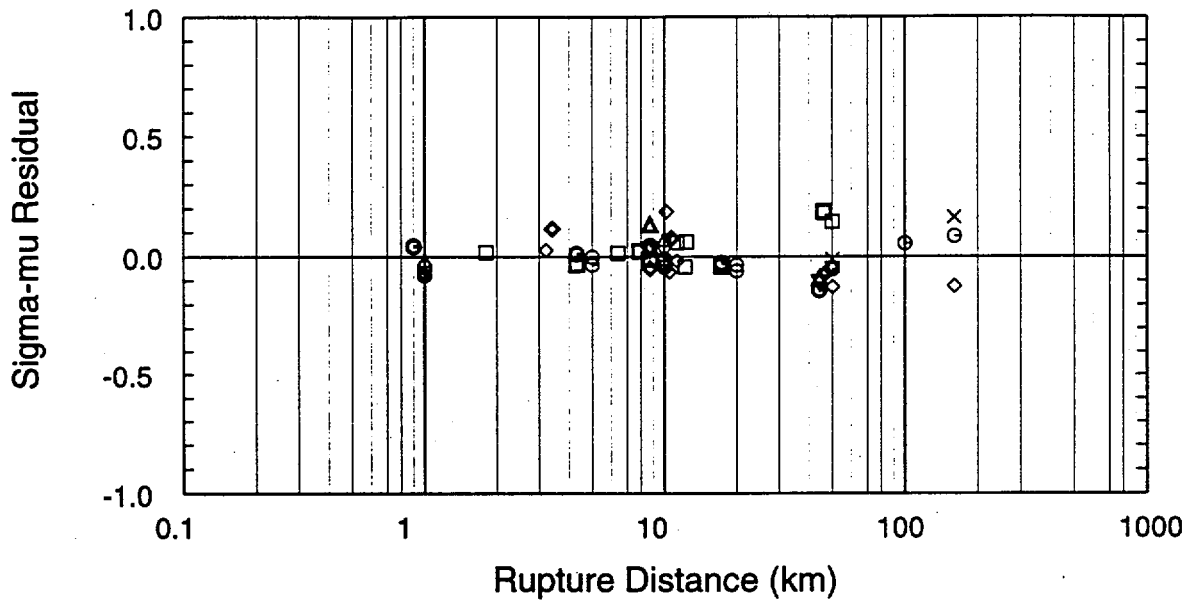
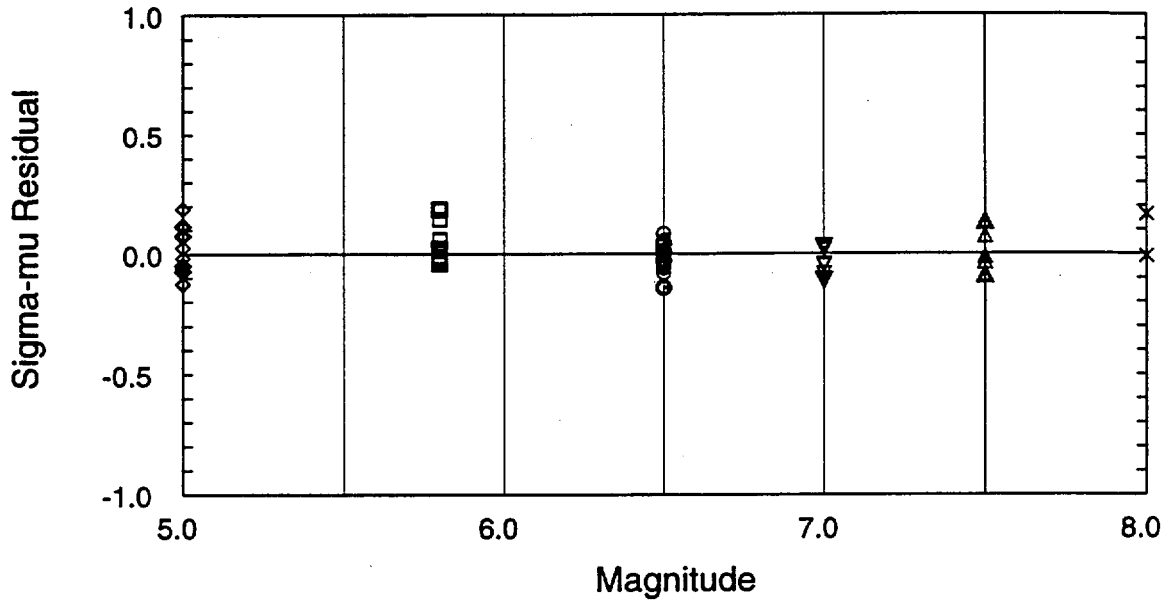


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 10.0 Hz



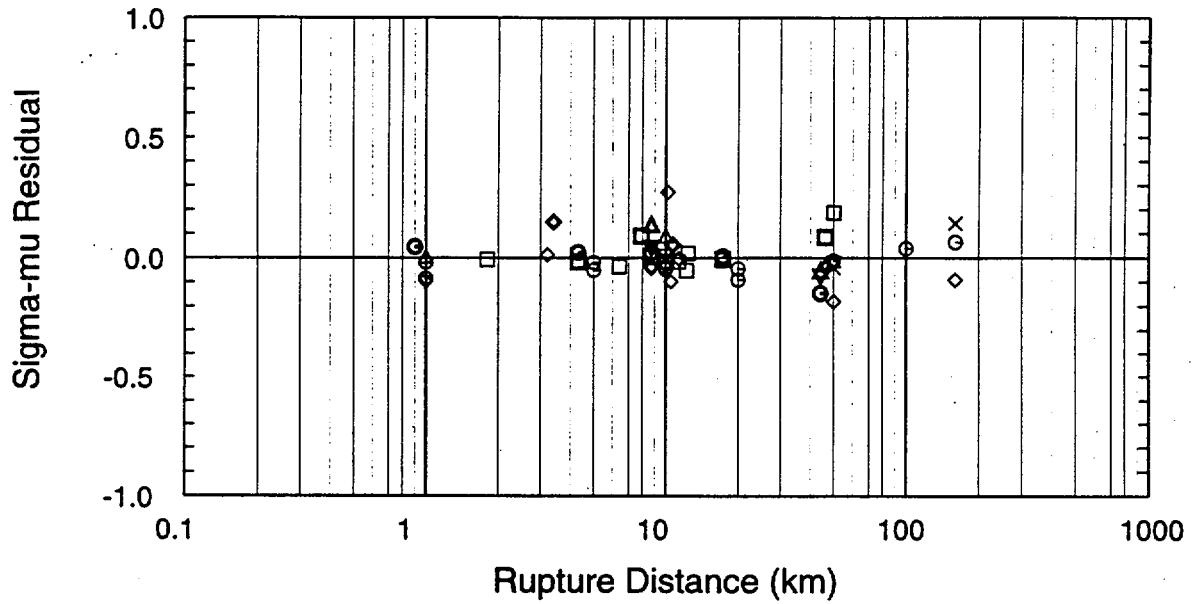
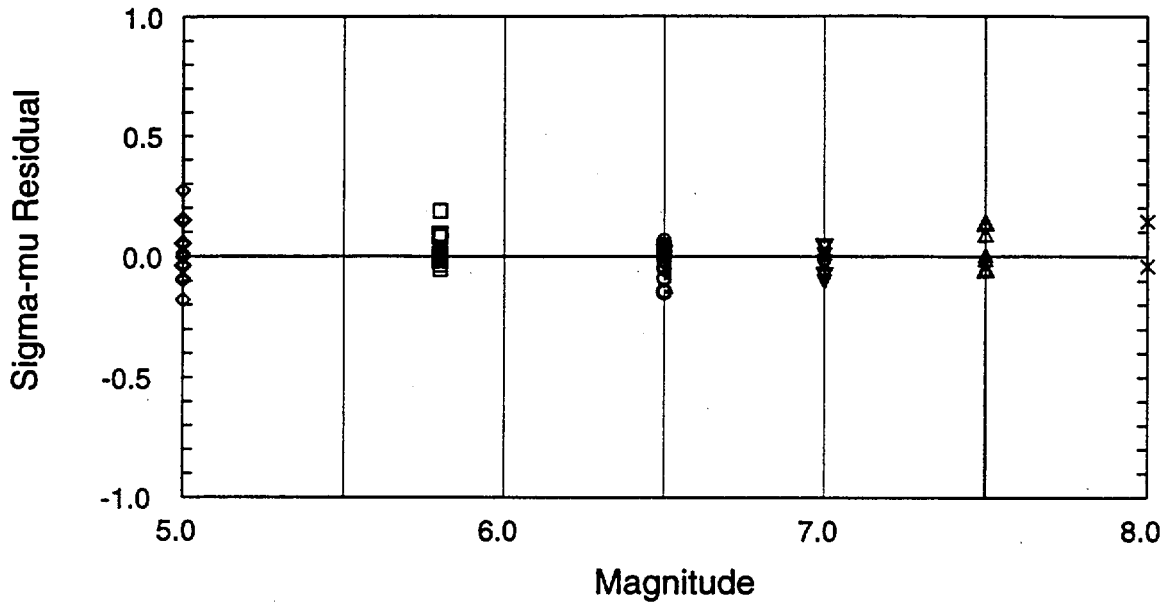
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 5.0 Hz



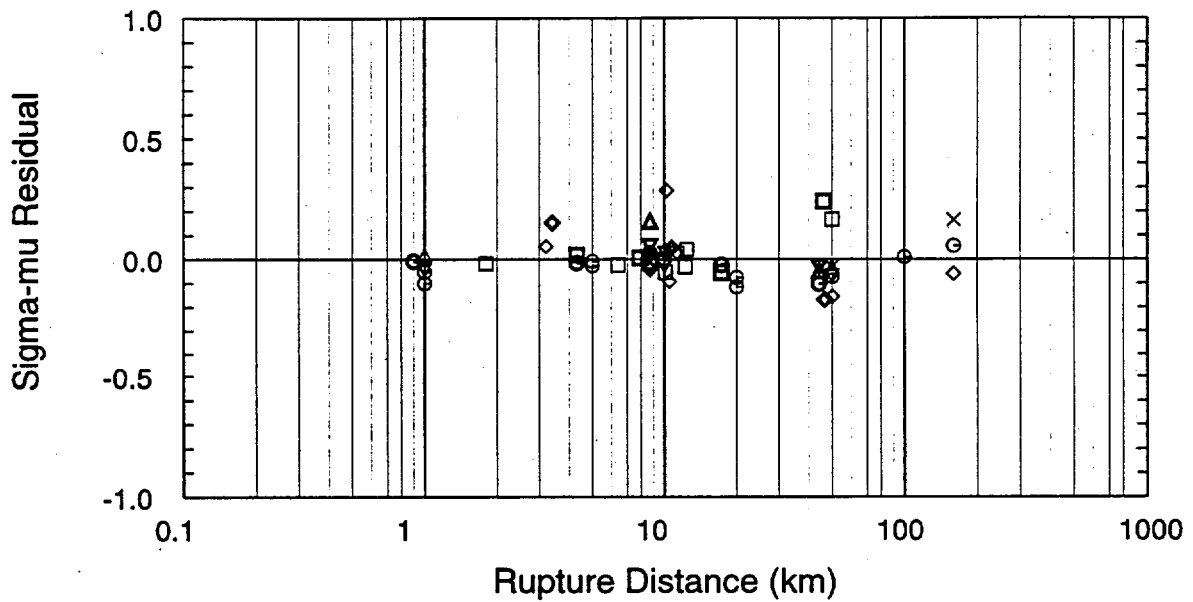
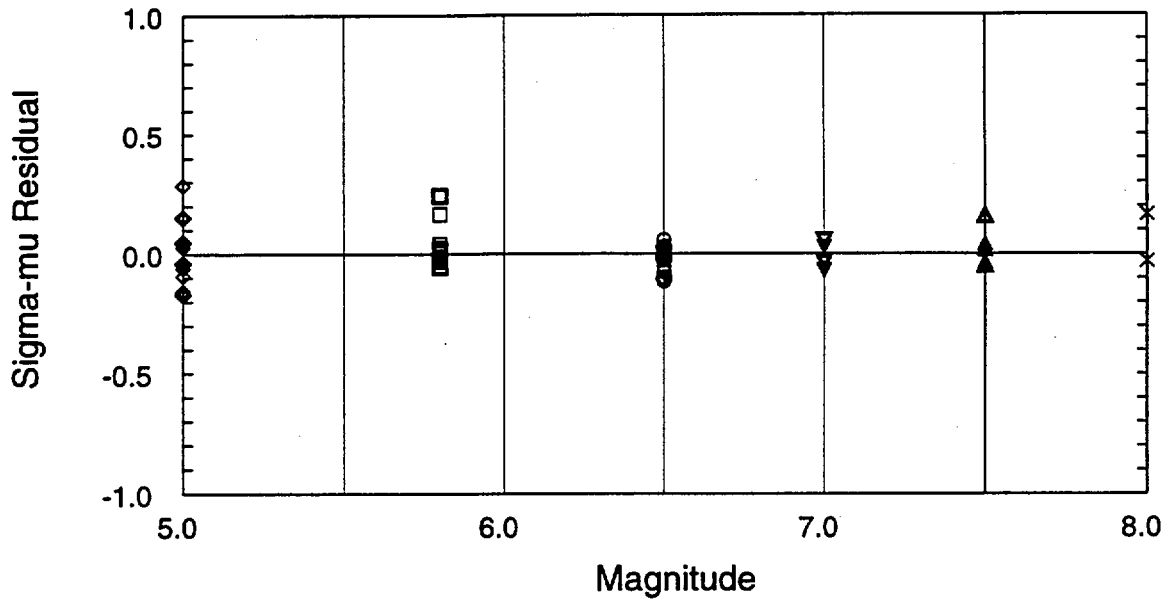
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
⊙ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
X M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
⊙ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 2.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

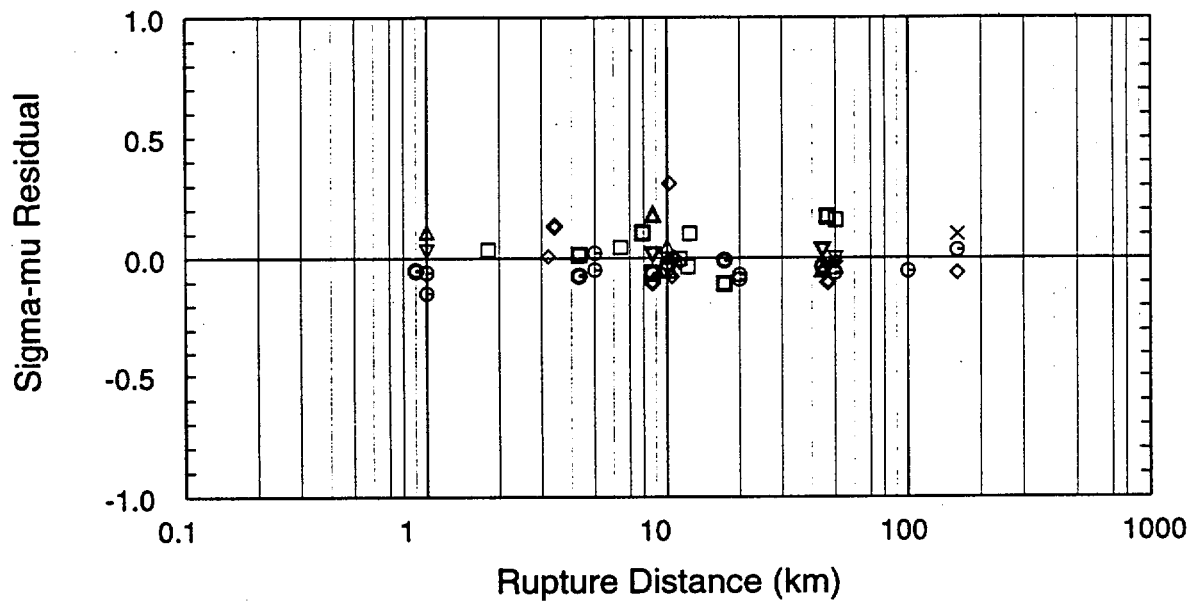
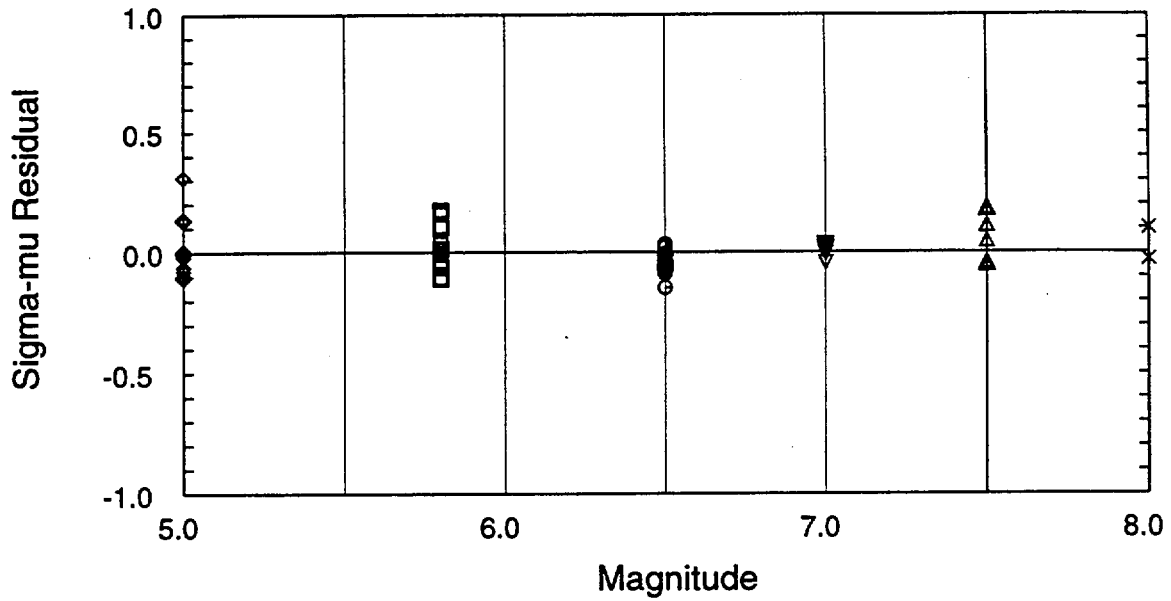
◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW



Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 1.0 Hz

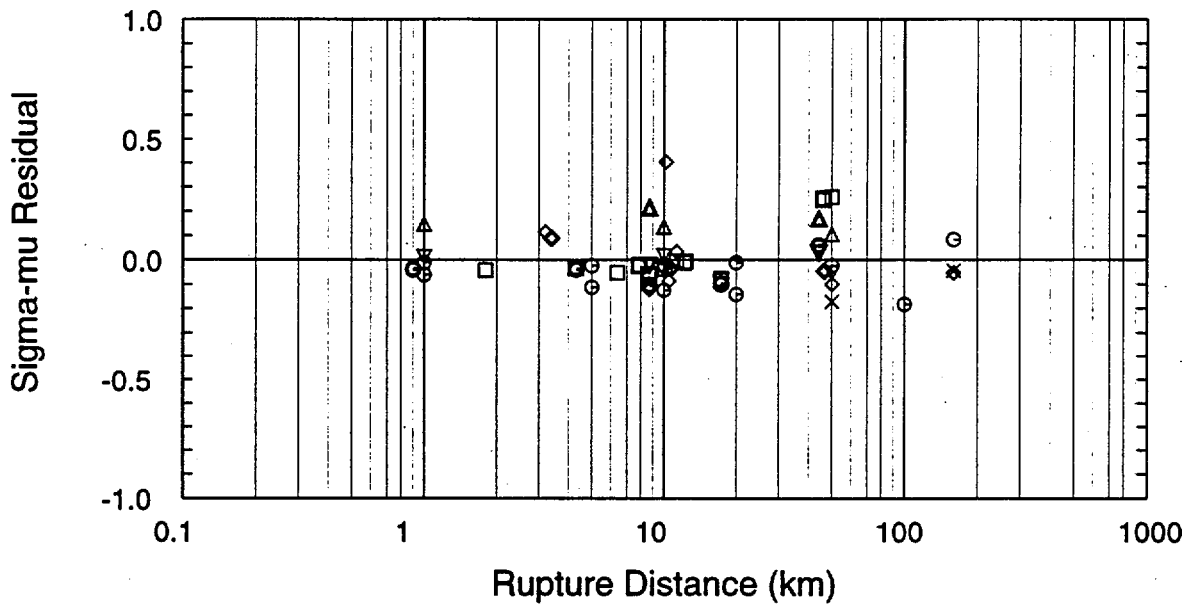
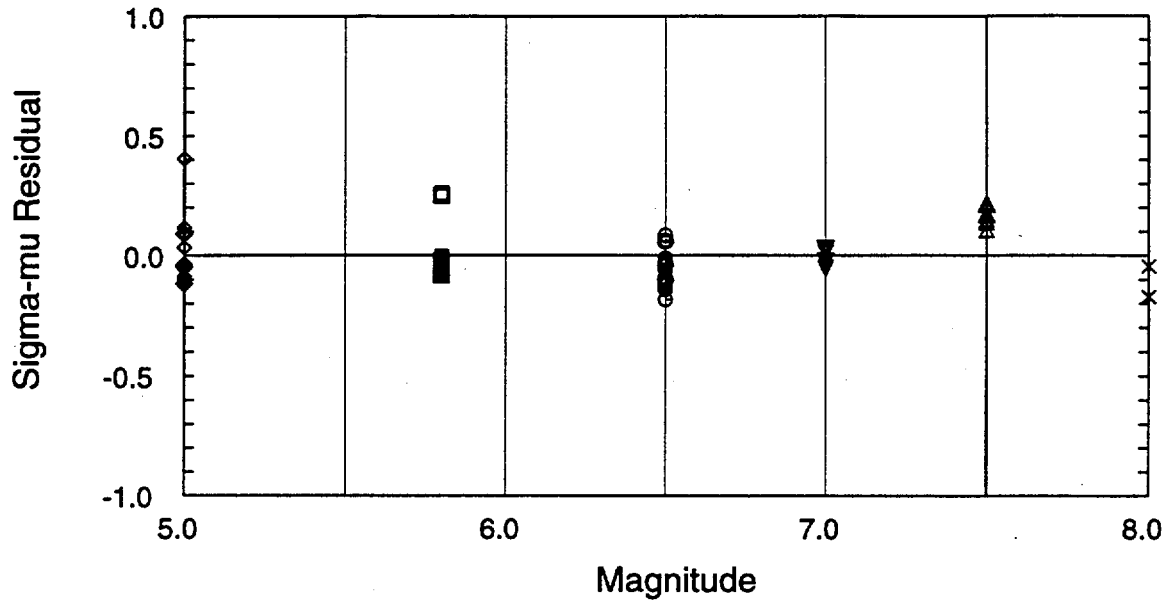


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| x | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 0.5 Hz



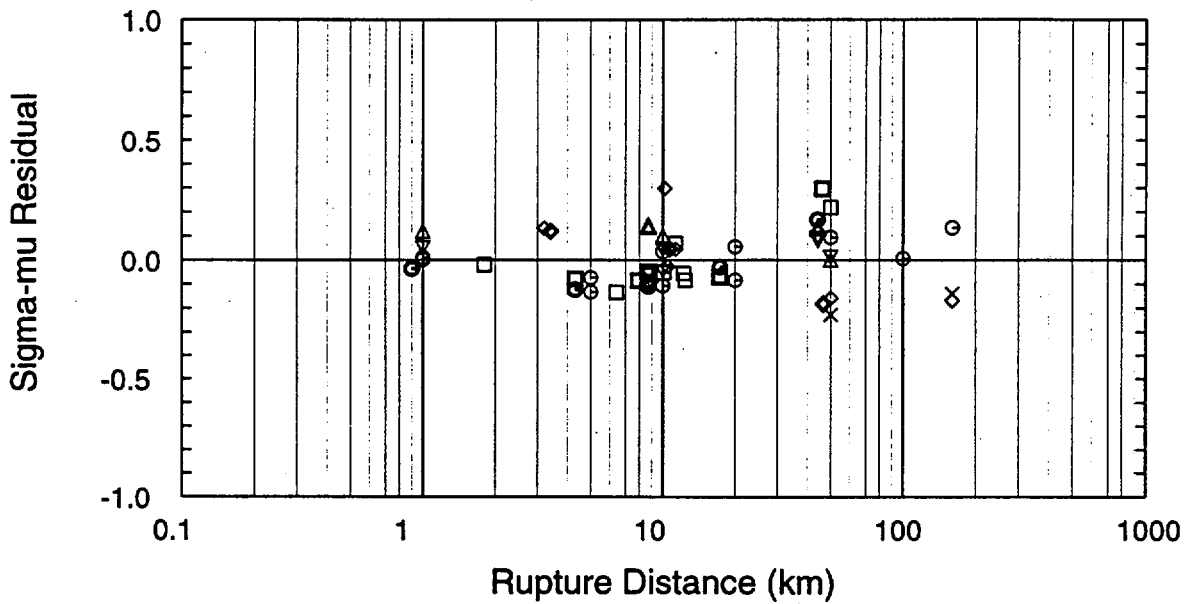
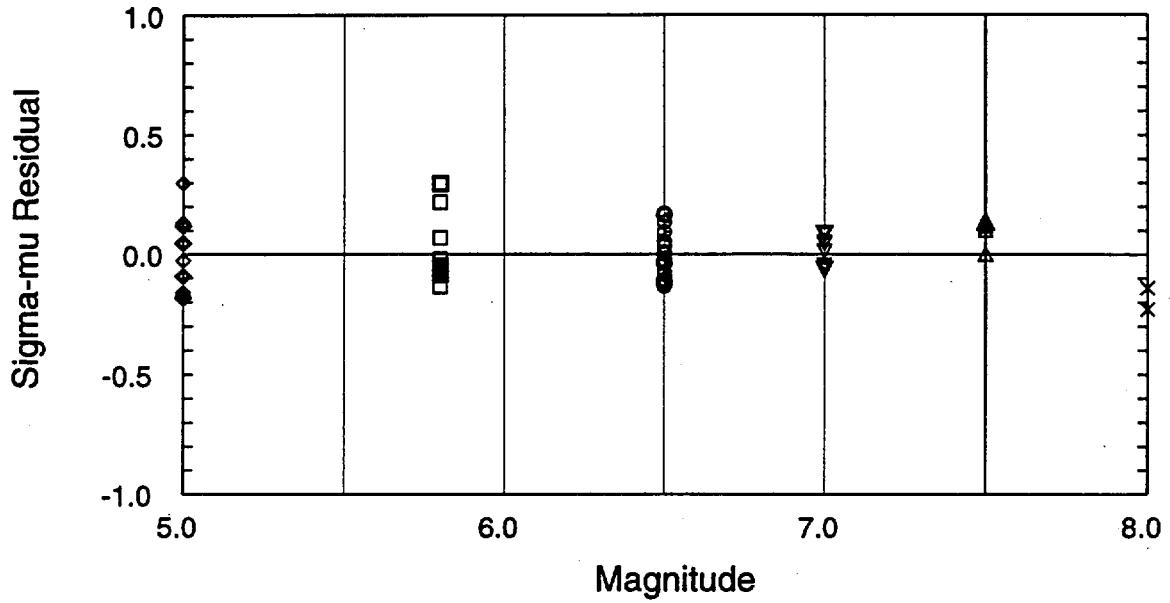
◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 0.3 Hz

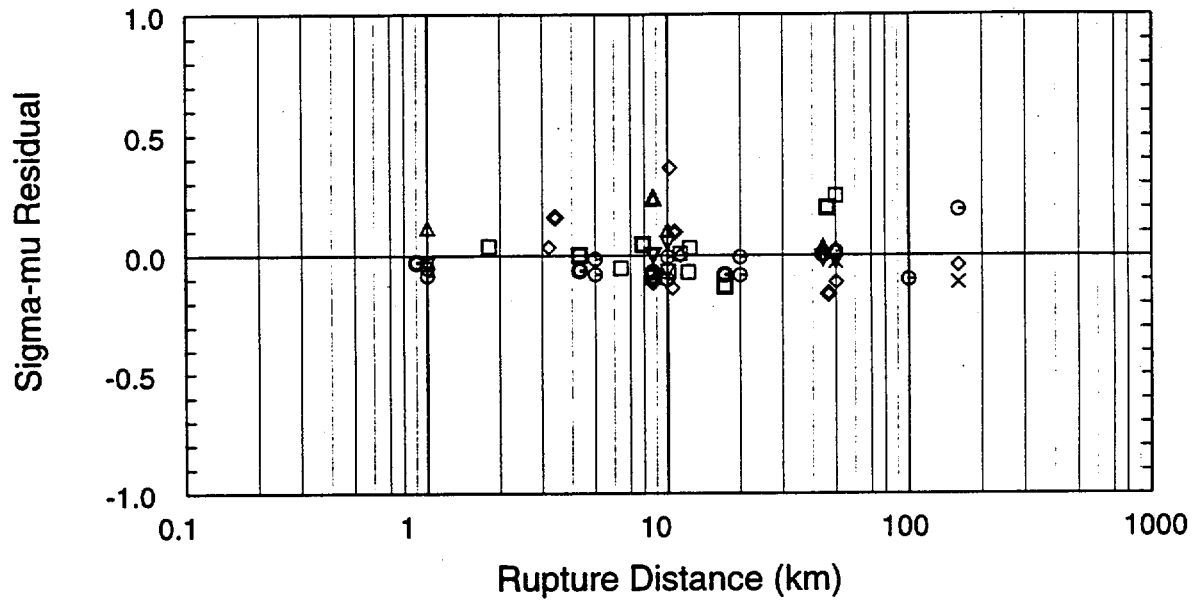
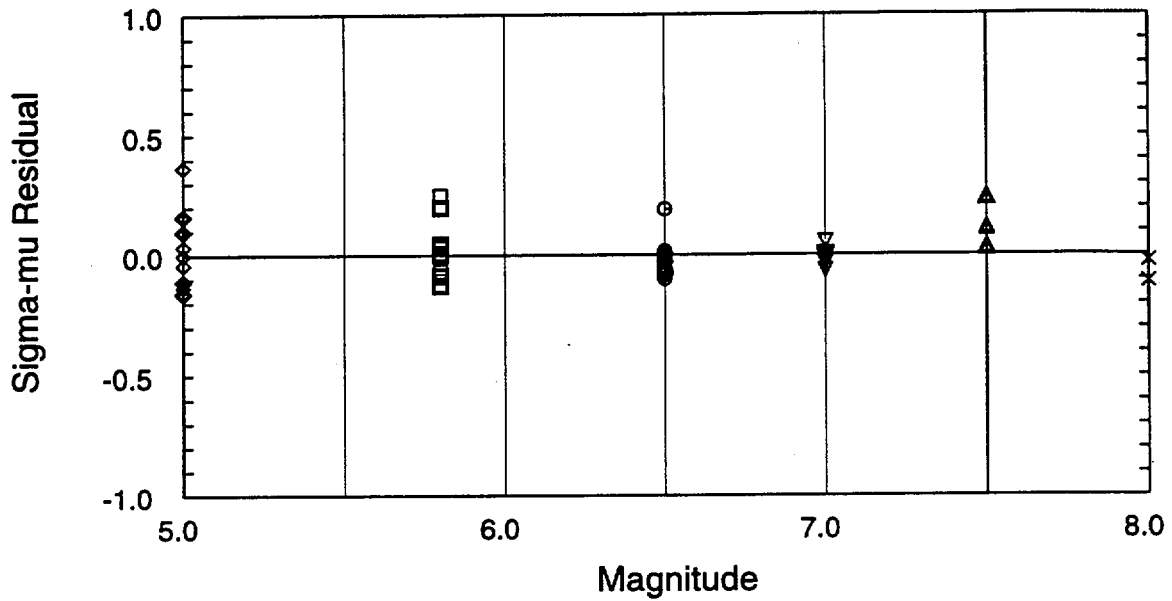


- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 6/11/97, Model 2

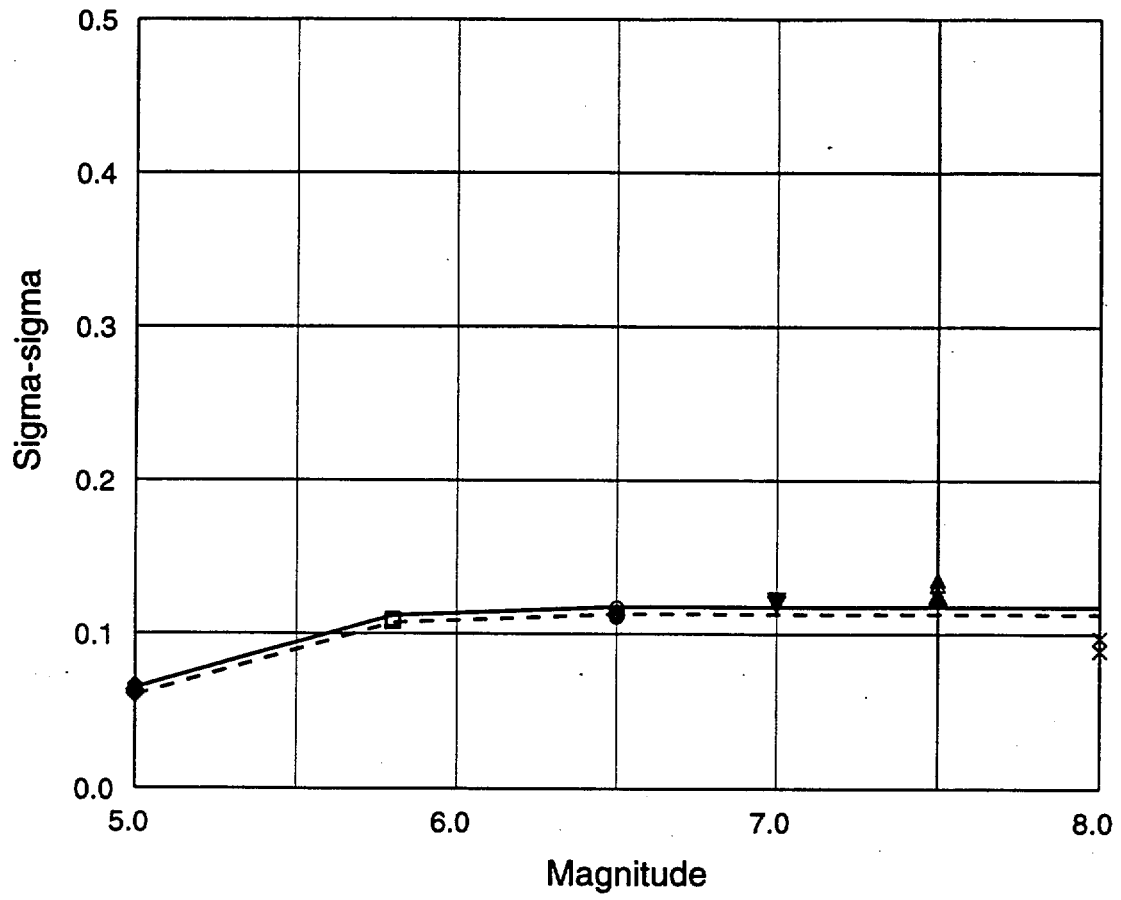
Vertical Comp

Peak Velocity



- |   |                  |   |           |
|---|------------------|---|-----------|
| ◇ | M 5.0, SS and FW | ◇ | M 5.0, HW |
| □ | M 5.8, SS and FW | □ | M 5.8, HW |
| ○ | M 6.5, SS and FW | ○ | M 6.5, HW |
| ▽ | M 7.0, SS and FW | ▽ | M 7.0, HW |
| △ | M 7.5, SS and FW | △ | M 7.5, HW |
| × | M 8.0, SS and FW |   |           |

Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 100.0Hz



◇ M 5.0, SS and FW  
 □ M 5.8, SS and FW  
 ○ M 6.5, SS and FW  
 ▽ M 7.0, SS and FW  
 △ M 7.5, SS and FW  
 x M 8.0, SS and FW

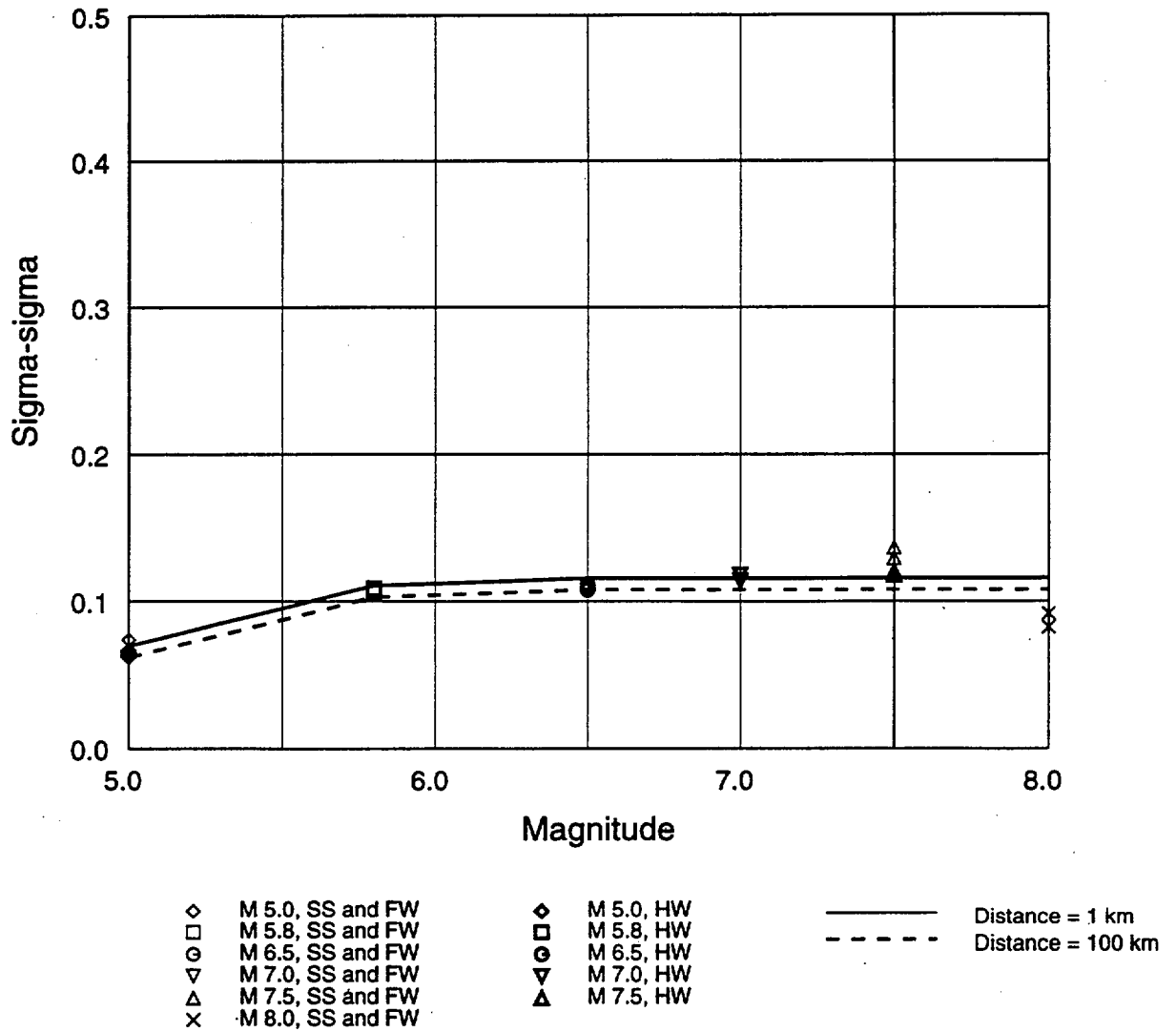
◇ M 5.0, HW  
 □ M 5.8, HW  
 ○ M 6.5, HW  
 ▽ M 7.0, HW  
 △ M 7.5, HW

— Distance = 1 km  
 - - - Distance = 100 km

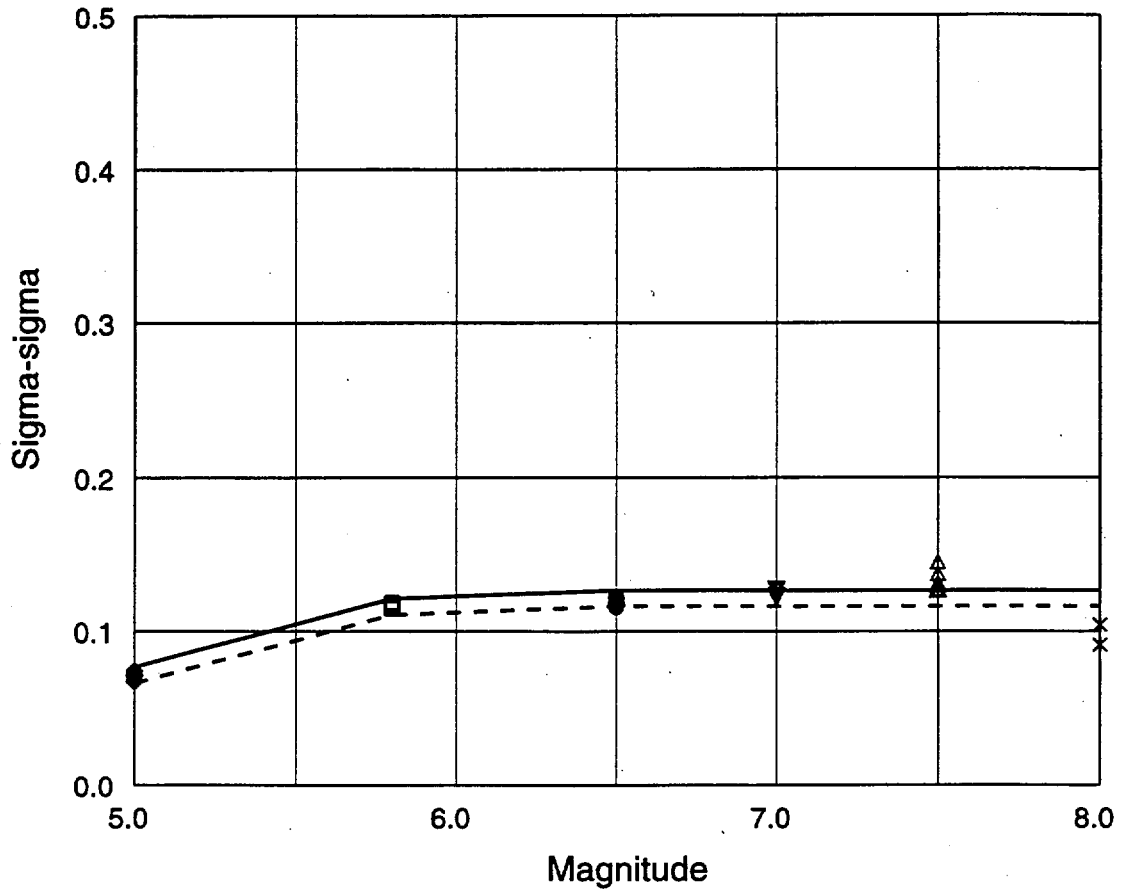
Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 20.0 Hz



Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 10.0 Hz

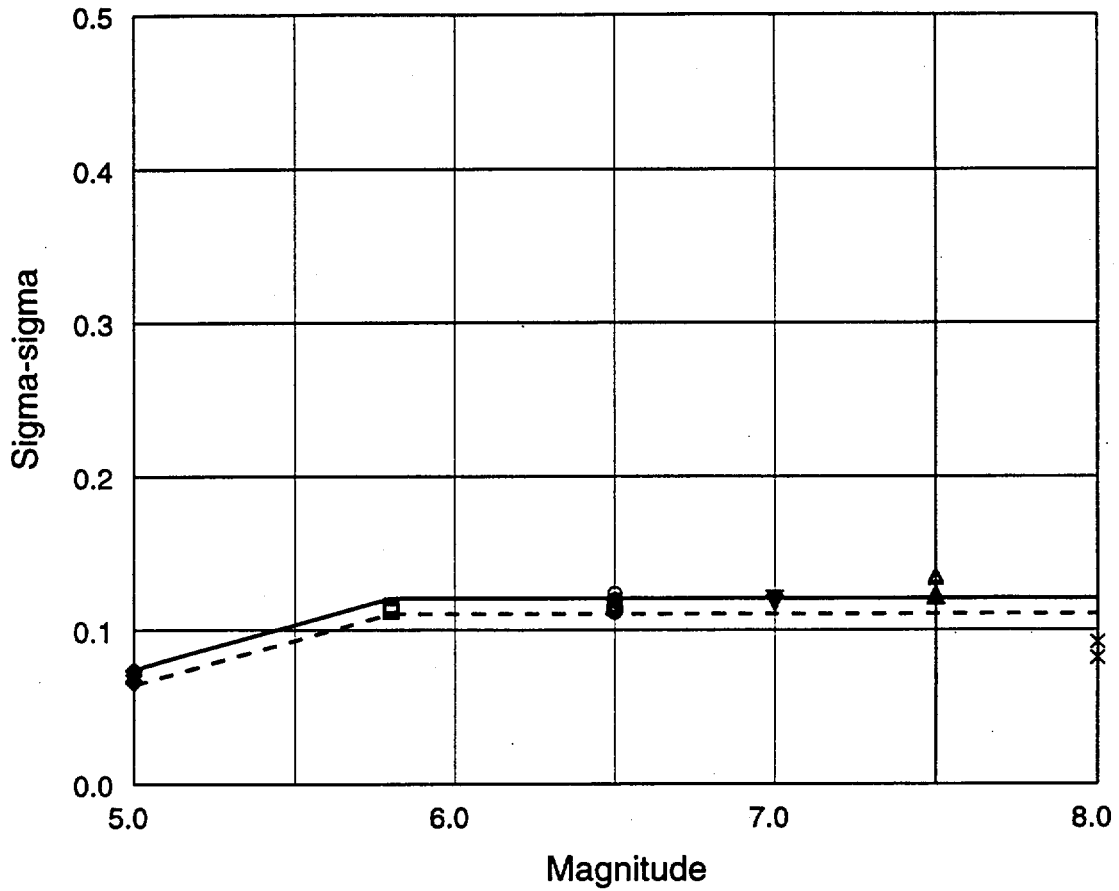


◇ M 5.0, SS and FW  
 □ M 5.8, SS and FW  
 ● M 6.5, SS and FW  
 ▽ M 7.0, SS and FW  
 △ M 7.5, SS and FW  
 X M 8.0, SS and FW

◇ M 5.0, HW  
 □ M 5.8, HW  
 ● M 6.5, HW  
 ▽ M 7.0, HW  
 △ M 7.5, HW

— Distance = 1 km  
 - - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 5.0 Hz



◇ M 5.0, SS and FW  
 □ M 5.8, SS and FW  
 ⊙ M 6.5, SS and FW  
 ▽ M 7.0, SS and FW  
 △ M 7.5, SS and FW  
 × M 8.0, SS and FW

◇ M 5.0, HW  
 □ M 5.8, HW  
 ⊙ M 6.5, HW  
 ▽ M 7.0, HW  
 △ M 7.5, HW

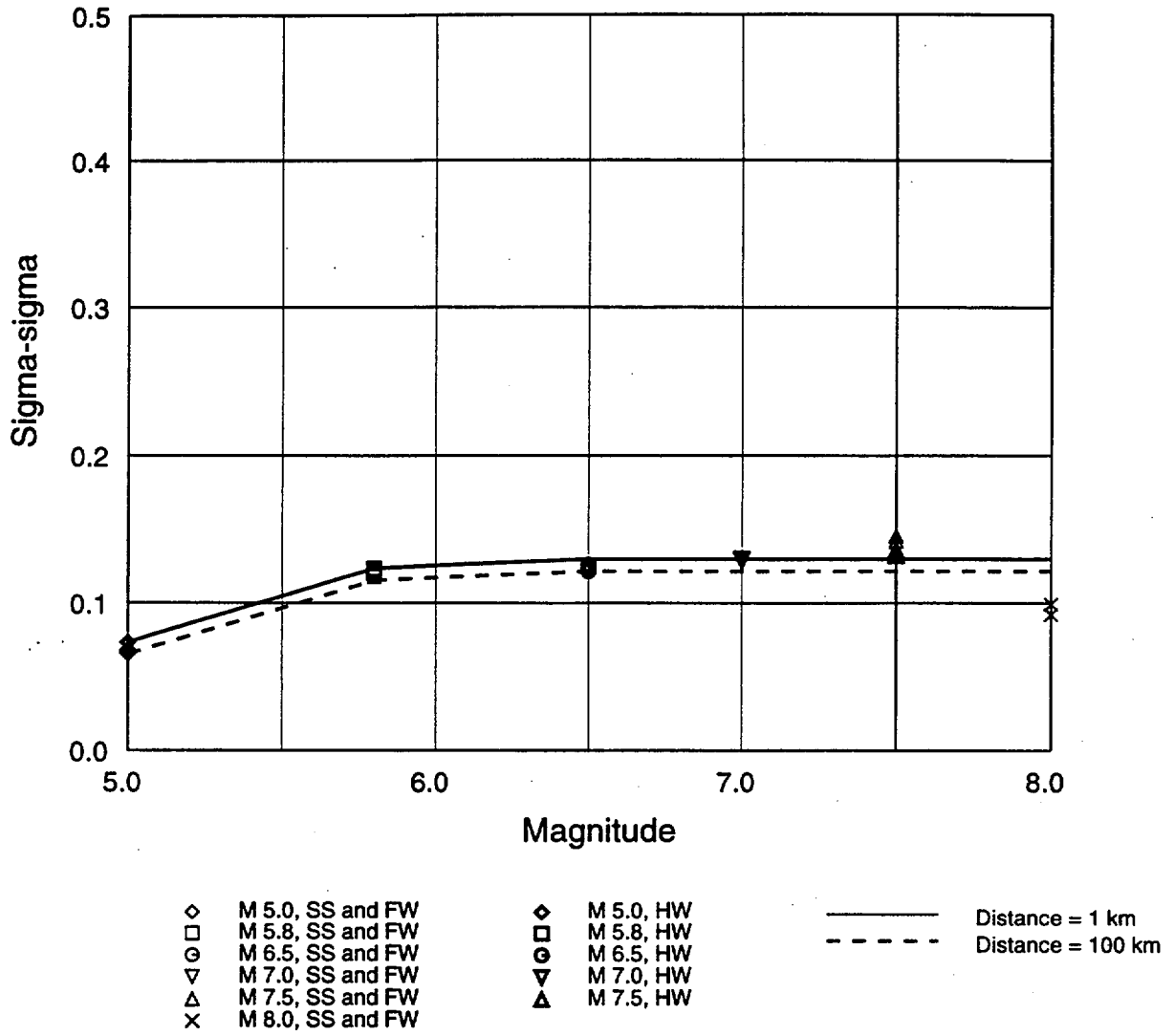
— Distance = 1 km  
 - - - Distance = 100 km



Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

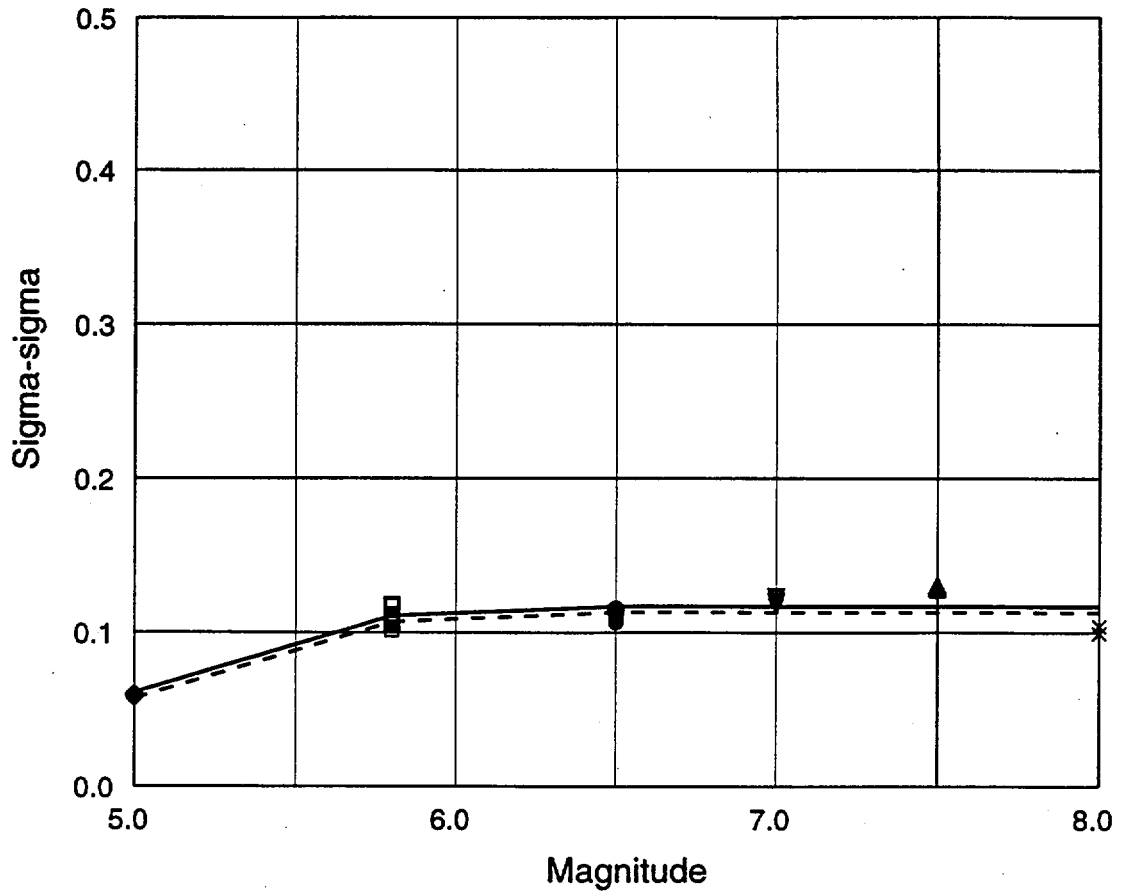
Frequency = 2.0 Hz



Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 1.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
⊙ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
X M 8.0, SS and FW

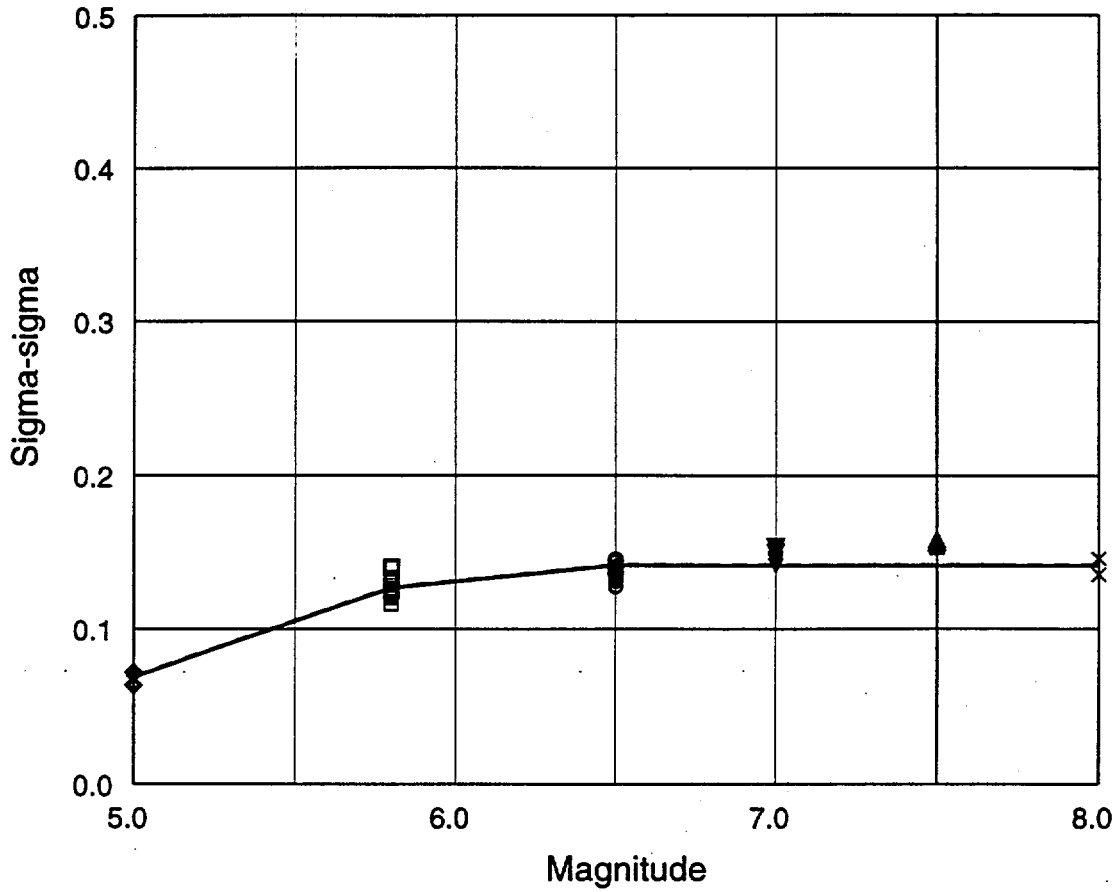
◇ M 5.0, HW  
□ M 5.8, HW  
⊙ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

———— Distance = 1 km  
----- Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Horizontal Comp

Frequency = 0.5 Hz

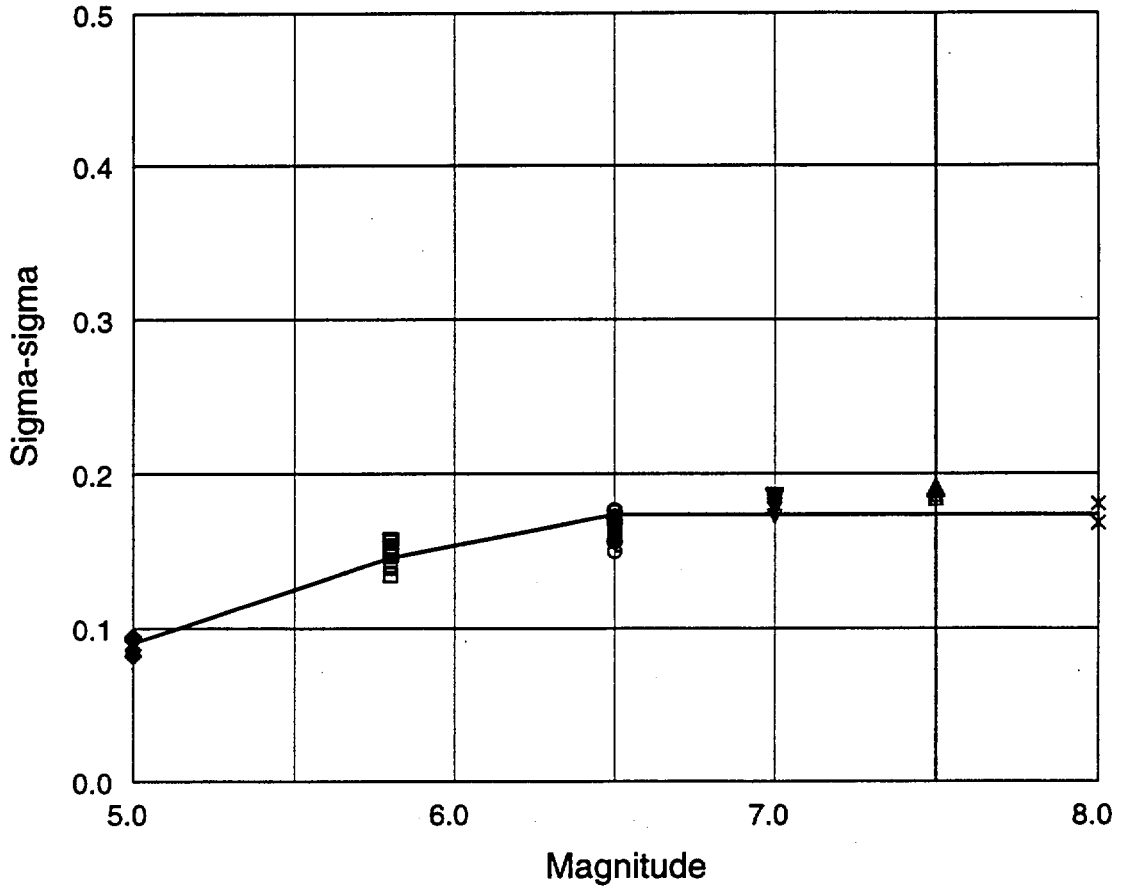


◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
⊙ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

◇ M 5.0, HW  
□ M 5.8, HW  
⊙ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2  
 Horizontal Comp  
 Frequency = 0.3 Hz

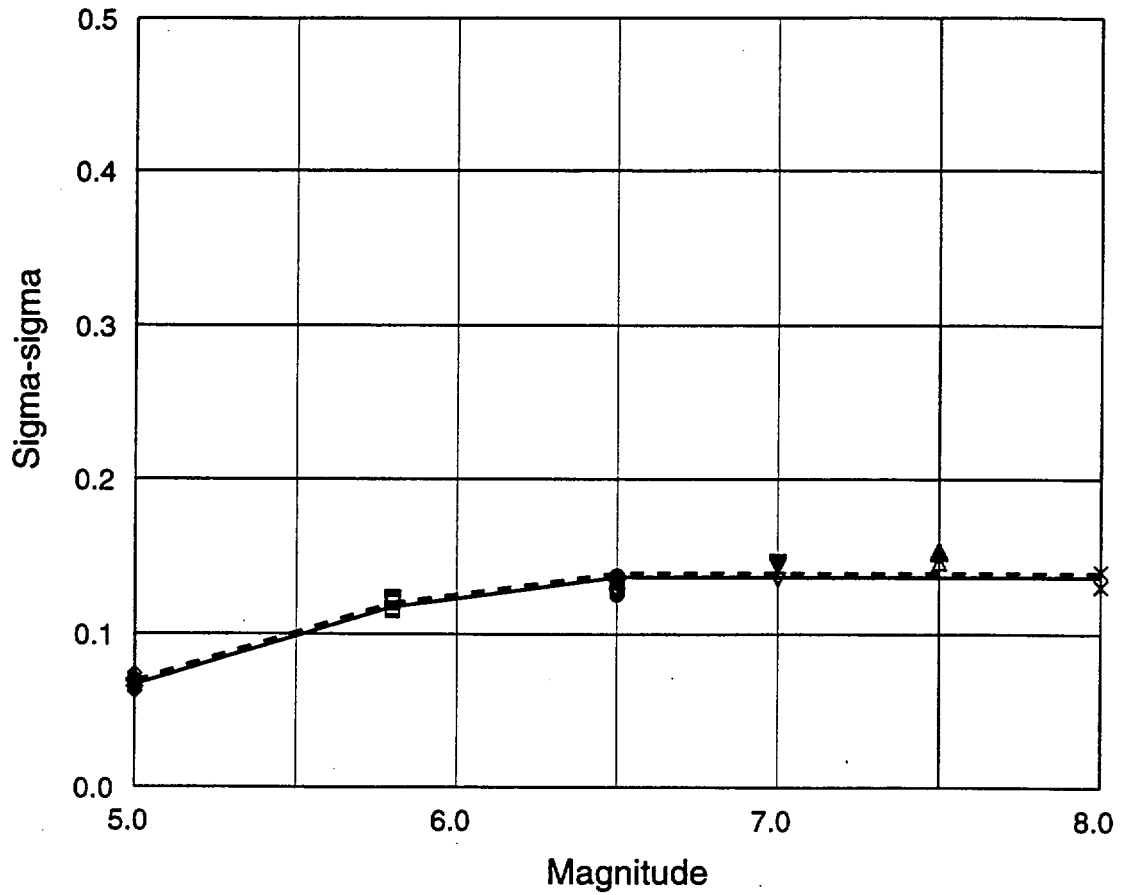


- ◇ M 5.0, SS and FW
- M 5.8, SS and FW
- ⊖ M 6.5, SS and FW
- ▽ M 7.0, SS and FW
- △ M 7.5, SS and FW
- × M 8.0, SS and FW

- ◇ M 5.0, HW
- M 5.8, HW
- ⊖ M 6.5, HW
- ▽ M 7.0, HW
- △ M 7.5, HW

— Distance = 1 km  
 - - - Distance = 100 km

Silva, Rev1, 6/11/97, Model 2  
 Horizontal Comp  
 Peak Velocity



◇ M 5.0, SS and FW  
 □ M 5.8, SS and FW  
 ○ M 6.5, SS and FW  
 ▽ M 7.0, SS and FW  
 △ M 7.5, SS and FW  
 X M 8.0, SS and FW

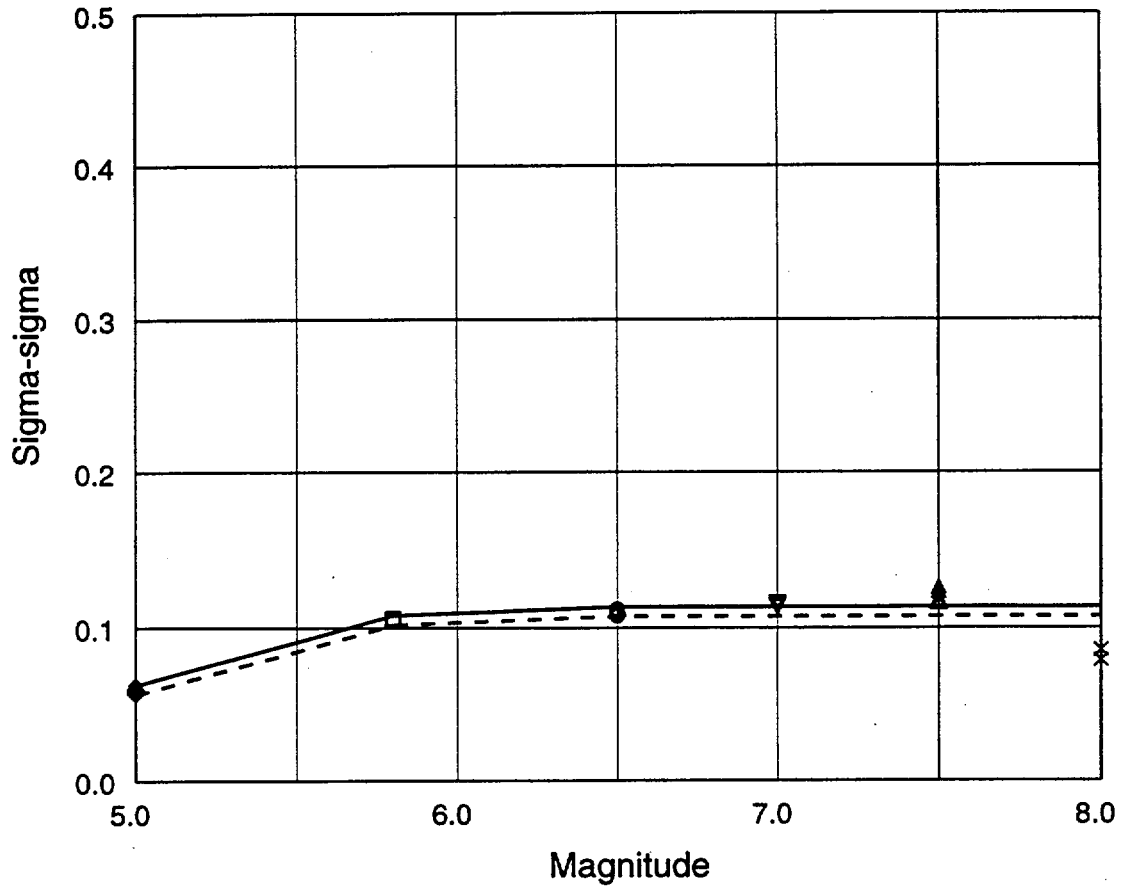
◇ M 5.0, HW  
 □ M 5.8, HW  
 ○ M 6.5, HW  
 ▽ M 7.0, HW  
 △ M 7.5, HW

— Distance = 1 kmL  
 - - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 100.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

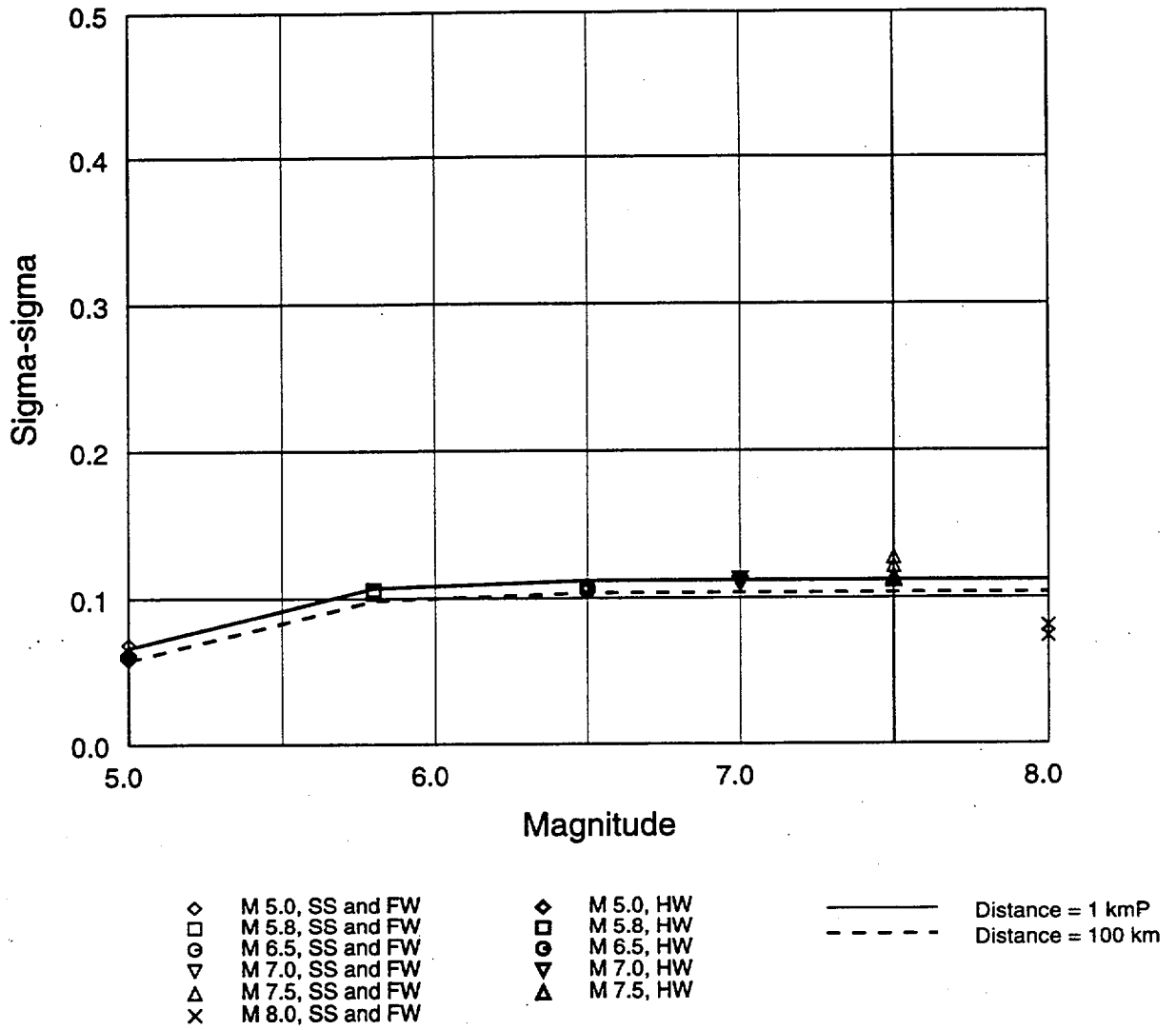
◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 kmP  
- - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

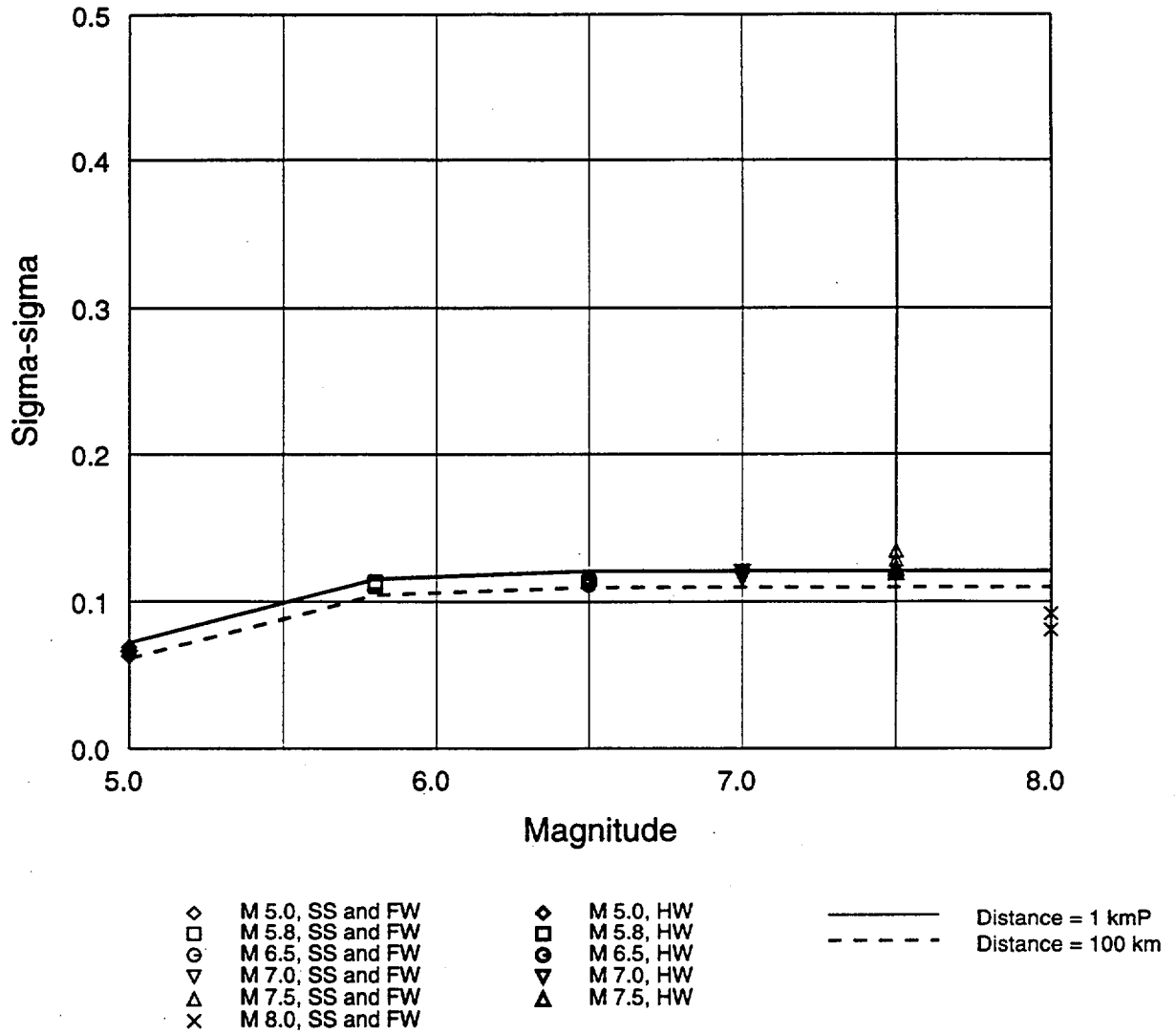
Frequency = 20.0 Hz



Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 10.0 Hz

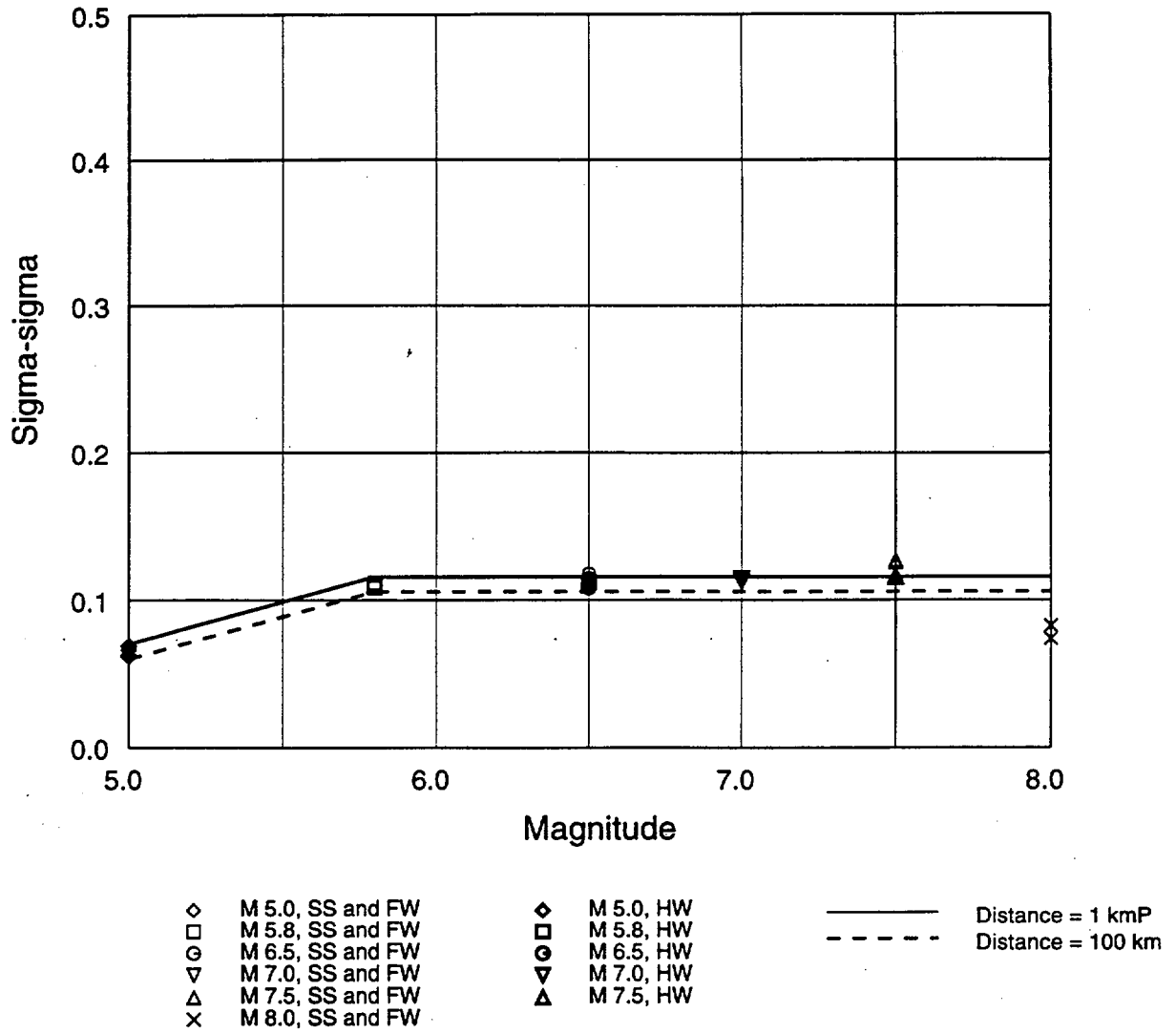




Silva, Rev1, 5/31/97, Model 2

Vertical Comp

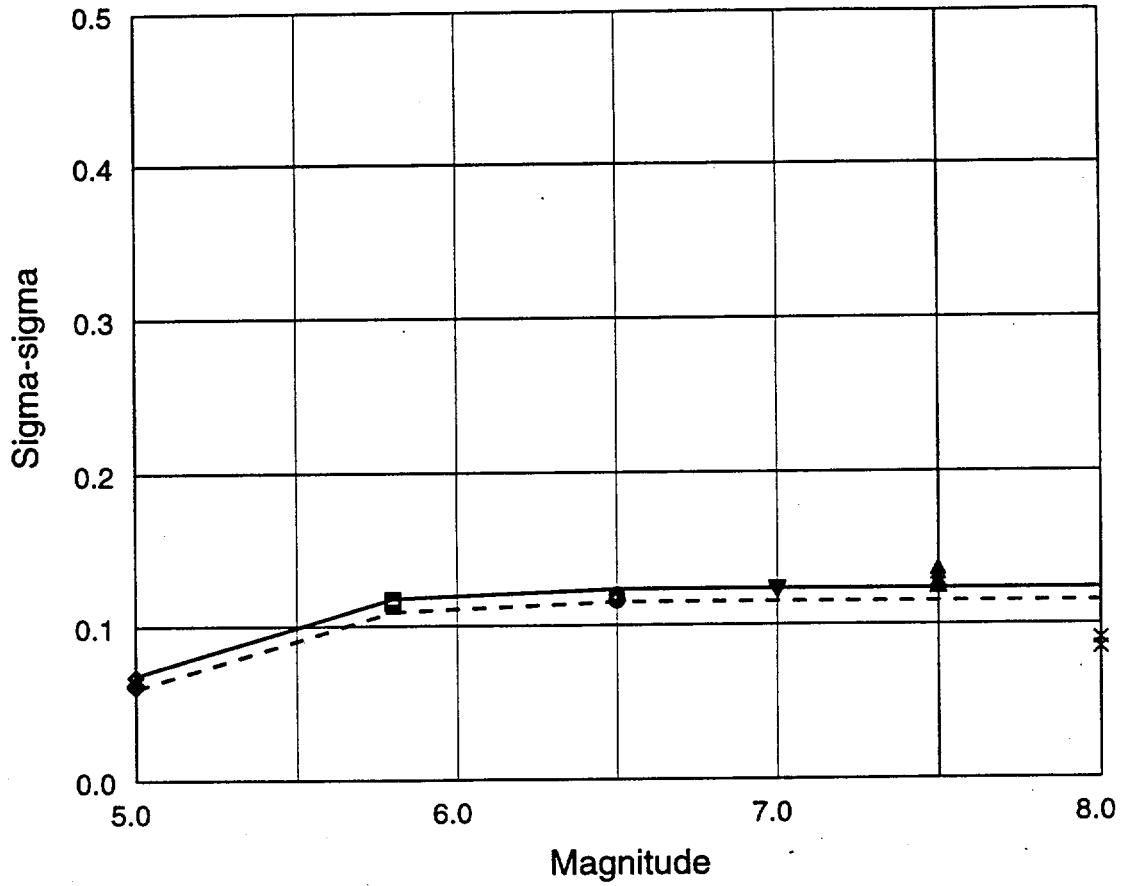
Frequency = 5.0 Hz



Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 2.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
⊙ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
X M 8.0, SS and FW

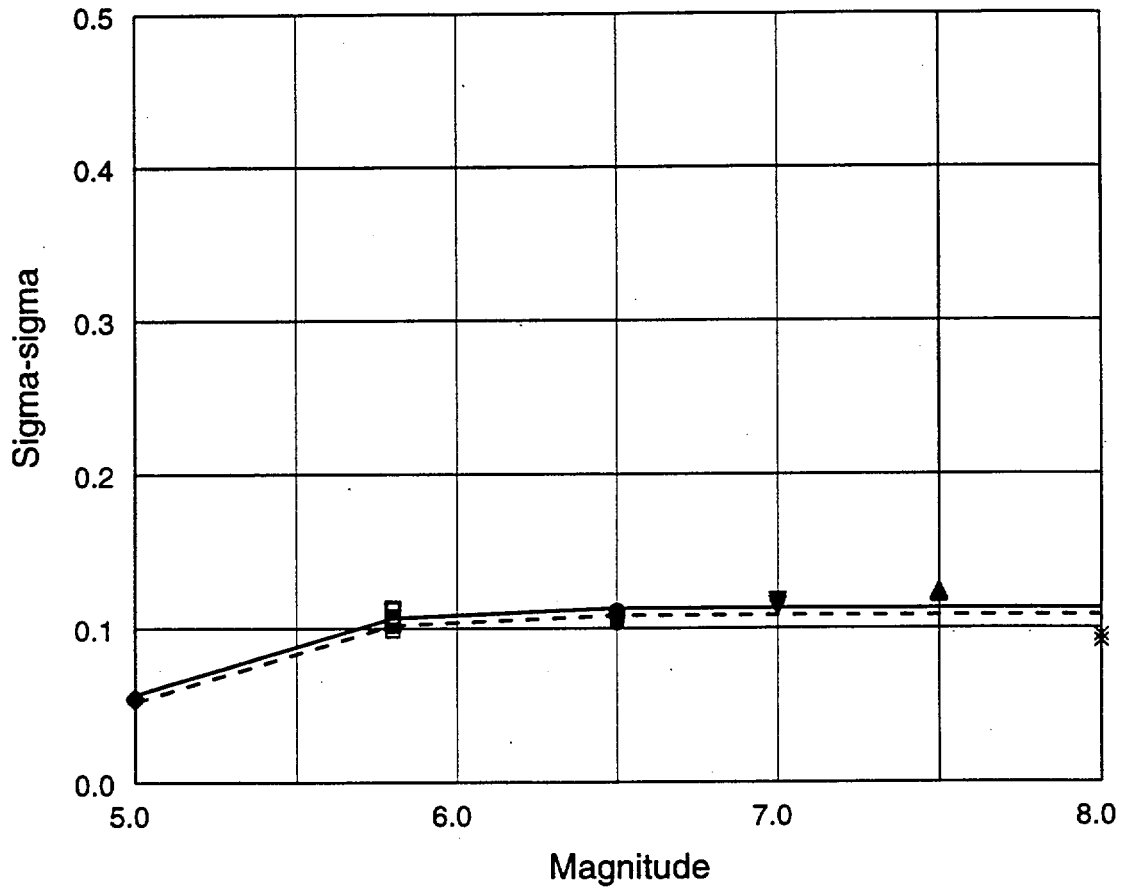
◇ M 5.0, HW  
□ M 5.8, HW  
⊙ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 1.0 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
○ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

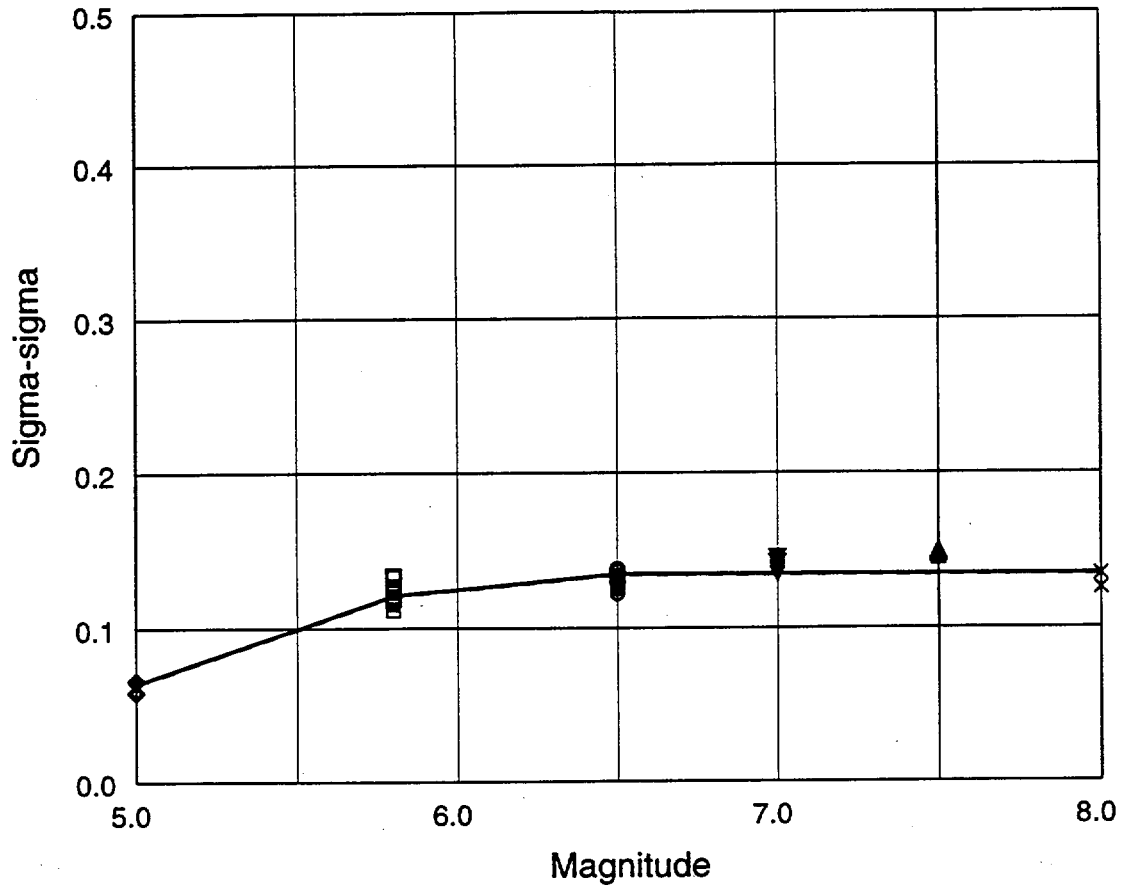
◇ M 5.0, HW  
□ M 5.8, HW  
○ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 0.5 Hz



◇ M 5.0, SS and FW  
□ M 5.8, SS and FW  
⊙ M 6.5, SS and FW  
▽ M 7.0, SS and FW  
△ M 7.5, SS and FW  
× M 8.0, SS and FW

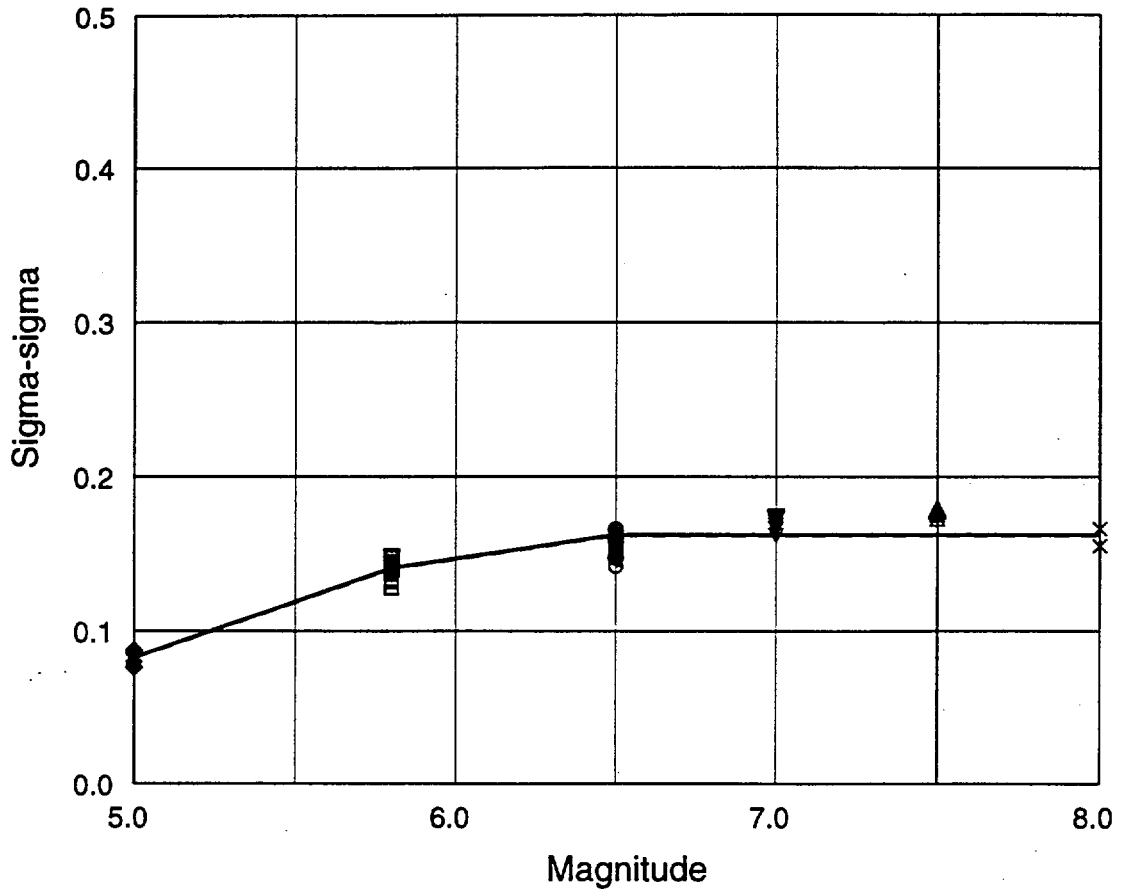
◇ M 5.0, HW  
□ M 5.8, HW  
⊙ M 6.5, HW  
▽ M 7.0, HW  
△ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 5/31/97, Model 2

Vertical Comp

Frequency = 0.3 Hz



- ◇ M 5.0, SS and FW
- M 5.8, SS and FW
- M 6.5, SS and FW
- ▽ M 7.0, SS and FW
- △ M 7.5, SS and FW
- × M 8.0, SS and FW

- ◇ M 5.0, HW
- M 5.8, HW
- M 6.5, HW
- ▽ M 7.0, HW
- △ M 7.5, HW

— Distance = 1 km  
- - - Distance = 100 km

Silva, Rev1, 6/11/97, Model 2

Vertical Comp

Peak Velocity

