APPENDIX VI

NATIONAL SCIENCE FOUNDATION
Washington, D.C. 20550

FINAL PROJECT REPORT
NSF FORM 98A

PLEASE READ INSTRUCTIONS ON REVERSE BEFORE COMPLETING

PART I—PROJECT IDENTIFICATION INFORMATION

1. Institution and Address
   Georgia Tech Research Corporation
   Centennial Research Building
   Georgia Institute of Technology
   Atlanta, Georgia 30332-0420

2. NSF Program Area
   Civil and Environmental Engineering

3. NSF Award Number
   CEE-E9216466

4. Award Period
   From June, 1985 to August 1986

5. Cumulative Award Amount
   $149,648

6. Project Title
   IMPACT ASSESSMENT OF NATURAL DISASTERS ON TRANSPORTATION LIFELINES

PART II—SUMMARY OF COMPLETED PROJECT (FOR PUBLIC USE)

Lifelines are critical to the functioning of cities and regions. This study examines the impact of natural disasters on transportation lifelines through assimilation of a data base that includes the actual cost and damage done to transportation facilities by natural disasters from 1971-1981. Data was extracted from records on disaster declarations processed by the Federal Emergency Management Agency, FEMA, under Public Law 93-288 and records of the Federal Highway Administration, FHWA, on disasters processed under Title 23 of the United States Code, Sections 120 and 125.

The primary objectives include: the preparation of a transportation damage data base; identification of the general vulnerability of transportation systems and preliminary analyses of the data. Information was collected from both FEMA and FHWA headquarters office in Washington, D.C. Additional data was collected from FEMA’s region 4 office.

Descriptive statistics and regression analysis are employed to estimate the impact of different types of disasters on transportation lifelines. Over the ten year time period, federal region 4 recorded the largest number of disasters followed by regions 3, 5, and 8 respectively. Floods have the greatest impact on the transportation system, accounting for almost 40% of FEMA and FHWA disaster expenditures. Transportation damage accounts for 25% of all disaster expenditures during the ten year period.

PART III—TECHNICAL INFORMATION (FOR PROGRAM MANAGEMENT USES)

1. ITEM (Check appropriate blocks)
   NONE   ATTACHED   PREVIOUSLY FURNISHED   TO BE FURNISHED SEPARATELY TO PROGRAM
   a. Abstracts of Theses                ✓
   b. Publication Citations
   c. Data on Scientific Collaborators
   d. Information on Inventions
   e. Technical Description of Project and Results
   f. Other (specify)

2. Principal Investigator/Project Director Name (Typed)
   Catherine L. Ross

3. Principal Investigator/Project Director—Signature

4. Date

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