The final report, Extension of the General Sensitivity Analysis, consists of three volumes.

Volume I, Methodology, discusses the methodology derived for civil defense sensitivity analyses and the results of demonstration runs employing the methodology on a statewide basis.

Volume II, Technical Appendixes, gives details on derivations of the analytical expressions in the model. Volume II also reports: (1) supplementary sensitivity analyses using the model on a limited basis and (2) sensitivity analysis of population exposure to nuclear weapons effects.

Volume III, The ANCET Computer Program, reports on the detailed structure of the FORTRAN computer model utilized to perform the casualty calculations for the sensitivity analyses.

The detailed structure of a FORTRAN computer program of a model designed specifically to assist in performing national sensitivity analyses of total Civil Defense Systems is reported in this volume. The model, known by the acronym ANCET, features simplified input data variation and rapid computation of the expected number of casualties from a specified attack. These are accomplished by the use of readily varied analytical expresions throughout the model. These expressions approximate areal population and shelter distributions, prompt effects casualty functions, and various relationships in the fallout model.

Included in this report are:

(1) instructions for preparation of program input,

(2) detailed flow diagrams and verbal descriptions of each of the program subroutines,

(3) a description of program output, and

(4) a FORTRAN listing of each of the model subroutines.