

ACKNOWLEDGMENTS

The author is greatly indebted to Professor Dr. A. Tealeb, President of the National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, for suggesting the point of research, and his guidance and facilitating the field trips both in Egypt and Yemen.

I wish to express my heartfelt gratitude to Professor Dr. M. Naeem, Head of the Geology Department, Faculty of Science, Banha, Zagazig University, for his supervision and encouragement.

Deep gratitudes are also due to the co-supervisors Dr. Z. Hamimi, Assoc. Professor of structural geology, Geology Department, Faculty of Science, Banha, Zagazig University, for his supervision, advice and reading of the manuscript, and Dr. K. Sakr, Assoc. Professor of Geophysics Laboratory of Crustal Movement, Department of Geodynamics, (NRIAG), for his help and useful discussions during the stages of the study and field trips in Yemen.

Special thanks and gratitude are given to Dr. H. Khalil, and Dr. A. Mohammed, Laboratory of Crustal Movement, Department of Geodynamics, (NRIAG), for their continuous and valuable help in running the needed computer programs for this thesis, their help in field trips in Yemen and their continuous encouragement.

Thanks also are due to Dr. S. Mahmoud, Assoc. Professor Laboratory of Crustal Movement, Department of Geodynamics, (NRIAG), for his encouragement and help in the field trips in Yemen.

My sincere thanks go also to all the staff members of the Laboratory of Crustal movement, (NRIAG), for their valuable help in field trips, as well as to Mr. A. Ragab for helping in the field trip and in drawing the figures, maps and diagrams.

The author would like to note with appreciation the scientific supply of basic data and references by Professor Dr. S. Alsinwai, USA.

I would like to express my thanks to Dr. A. Hasoub, Laboratory of National Seismological Network, Department of Geodynamics, (NRIAG), for his help.

Also my sincere thanks go to both Dr. K. Abu El-Enean and Dr. A. Kamel, for their help in reviewing and discussing the focal mechanism.

Special thanks and gratitude are given to Prof. Dr. S. Al-Khirbash, former Dean of Faculty of Science, Sana'a University, Dr. A. Al-Subbary, Dean of Faculty of Science, Sana'a University, Dr. A. Al-Kotbah, Vice Dean of Faculty of Science, Sana'a University, Dr. A. Sofian, former Head of the Earth and Environmental Sciences Department, Sana'a University, and Dr. Mohammed Al-Wosabi, Lecturer at the Department of Earth and Environmental Sciences, Faculty of Science, Sana'a University, for helping in field trips in Yemen.

My sincere thanks go to Dr. I. Al-Ganad, Chairman of Geological Survey of Yemen, and to Mr. A. Al-Bydani, Vice Chairman (Hadramout Branch) for their help, facilitating and supporting the field trips in Yemen. Special thanks and gratitudes are given to Mr. J. Shalan the Director of the National Seismological Observatory Center Dhamar- Yemen and the staff for help.

Sincere thanks to colleagues and friends helped at various stages of the work, namely Dr. Kh. Khanbari, Mr. B. Al-Khirbash, Mr. A. Bawajeh, and Mr. A. Al-Hamza, for their help and encouragement.

Special thanks and gratitudes are given to my family (my wife, my daughter, my sisters and my brother Dr. M. El-Amoudi) for their patient and help during preparing of this thesis, to whom I dedicate this work.