NOAA Diving Manual



Diving for Science and Technology

5th EDITION



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

NOAA DIVING MANUAL

Diving for Science and Technology

Fifth Edition



David A. Dinsmore CONTENT EDITOR

Jeffrey E. Bozanic, PhD TECHNICAL EDITOR



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION Jane Lubchenco, PhD, Under Secretary for Oceans and Atmosphere

OFFICE OF MARINE AND AVIATION OPERATIONS
Rear Admiral Jonathan W. Bailey, Director

NOAA DIVING PROGRAM Douglas R. Schleiger, Manager



TABLE OF CONTENTS

vii ix xi xiii xv

OF	
	FOREWORD
	PREFACE
	CONTRIBUTORS & REVIEWERS
	ACKNOWLEDGEMENTS
	DEDICATION
CHAPTER 1	HISTORY OF DIVING AND NOAA CONTRIBUTIONS
CHAPTER 2	DIVE EQUIPMENT
CHAPTER 3	DIVING PHYSICS
CHAPTER 4	DIVING PHYSIOLOGY
CHAPTER 5	AIR DIVING AND DECOMPRESSION
CHAPTER 6	REBREATHERS
CHAPTER 7	NITROX DIVING
CHAPTER 8	MIXED-GAS DIVING
CHAPTER 9	HAZARDOUS AQUATIC ANIMALS
CHAPTER 10	SURFACE-SUPPLIED DIVING
CHAPTER 11	DIVE PLANNING
CHAPTER 12	PROCEDURES FOR SCIENTIFIC DIVES
CHAPTER 13	PROCEDURES FOR WORKING DIVES
CHAPTER 14	SATURATION DIVING
CHAPTER 15	DIVING UNDER SPECIAL CONDITIONS
CHAPTER 16	POLLUTED WATER DIVING
CHAPTER 17	DIVER LOCATION AND RECOVERY
CHAPTER 18	DIVING ACCIDENT MANAGEMENT AND EMERGENCY
**********	PROCEDURES
CHAPTER 19	EMERGENCY MEDICAL CARE
CHAPTER 20	HYPERBARIC CHAMBERS AND SUPPORT EQUIPMENT
APPENDIX A	NITROX DIVE TABLES
APPENDIX B	FIELD NEUROLOGICAL ASSESSMENT
APPENDIX C	FLOW CHARTS AND TABLES
APPENDIX D	U.S. NAVY AIR DECOMPRESSION TABLES
APPENDIX E	NOAA AIR DIVING TABLE
APPENDIX F	REBREATHER CHECKLISTS
APPENDIX G	RECOGNITION OF DIVING MALADIES
APPENDIX H	DIVING GLOSSARY
APPENDIX I	REFERENCES
APPENDIX J	INDEX