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Techniques for accomplishing port security tasks; 8.8 Development of TTPs for port security; 8.9 Results of procedures testing by sizes; Chapter 9 Explosive ordnance disposal and mine countermeasures; 9.1 Background; 9.2 EOD applications; 9.3 MCM today; Chapter 10 Public safety diving; 10.1 Public safety diving defined; 10.2 Mission objectives and finding items underwater with the ROV
10.3 When to use the diver/when to use the ROV 10.4 Search theory and electronic search techniques; Chapter 11 Commercial, scientific, and archaeological; 11.1 Video documentation; 11.2 High current operations; 11.3 Operations on or near the bottom; 11.4 Enclosed structure penetrations; 11.5 Aquaculture; 11.6 Documentation and disposition; Chapter 12 Standard operating procedures; 12.1 Overall operational objectives; 12.2 Equipment mobilization; 12.3 Operational considerations; 12.4 Pre-dive operations and checks; 12.5 Specific considerations for operational deployment of ROVs
12.6 Task list and guidelines 12.7 Post-dive procedures; Chapter 13 Servicing and troubleshooting; 13.1 Maintenance; 13.2 Basics of ROV troubleshooting; 13.3 Tools and spares for field work; 13.4 Standard preventative maintenance checklist; 13.5 Operational forms; Chapter 14 Putting it all together; 14.1 Attention to detail; 14.2 Training and personnel qualifications; 14.3 Equipment setup considerations; 14.4 Division of responsibility; 14.5 Boat handling; 14.6 Marking the target (s); 14.7 Methods for navigating to the target; 14.8 Sonar/ROV interaction; Appendix A: Test questions and answers; Bibliography

Sommario/riassunto

Many underwater operations that were once carried out by divers can now be carried out more efficiently and with less risk with Remotely Operated Vehicles (ROVs). This is the first ROV how-to manual for those involved with smaller observation class ROVs used for surveying, inspection, observation and research purposes. As ROV technology becomes increasingly efficient and affordable, their use is rapidly spreading throughout a myriad of industries, everything from aquaculture to port and harbour security to underwater crime scene investigation, marine salvage, deep sea archaeology and commercial diving even deep sea rescue missions are handled by ROVs. Any industry involved with underwater investigation and surveying will inevitably rely on these machines. The ROV Manual is the first user guide to provide complete training and knowledge on ROV operations for engineers, technicians or underwater recreational enthusiasts, whether working inland or offshore. *The first book to focus on observation class ROV underwater deployment and usage in real conditions for industrial, commercial, scientific and recreational tasks *A complete user guide to ROV operation with basic information on the usage of underwater robotics and navigation equipment to obtain mission results quickly and efficiently *Ideal for anyone involved with ROVs whether in research, business or leisure underwater activities, or for heavier offshore projects, complete with self-learning questions and answers.