

Commander Joseph Dituri is a retired Naval Officer and Ph.D. who enlisted in the U.S. Navy in 1985. He served continuously on active service upon various ships and shore stations where he was involved in hyperbaric system maintenance, saturation diving and ship repair. In 1995 he made his way up through the ranks after earning his B.S. in Computer Science from the University of South Carolina and was commissioned into the Special Operations Officer pipeline. After serving three diving tours in this pipeline he changed

designator to the Engineering Duty Officer (diver).

He then transferred to Naval Post Graduate School where he earned his **Master's degree in Astronautical Engineering**. His master's thesis topic was in Orbital Determination with an accent for life support systems. He is an invited speaker on space related and system life support engineering topics.

Following completion of his masters he was assigned as Officer-in-Charge Deep Submergence Unit (DSU) Diving Systems Detachment (DSD). Under his command DSD won the white "DS" award for deep submergence excellence and certified the 2000 feet sea water Atmospheric Diving System for fleet use. Upon fielding and initial testing, the team introduced the Submarine Rescue Diving & Recompression System into Naval service and took it on two international engagements. He transferred from DSU after fleeting up to become the Executive Officer and designing the transfer under pressure saturation diving template for Navy Submarine Rescue.

His final position in the US Navy was at Special Operations Command in Special Operations Research Development and Acquisition Center Program Executive Officer - Maritime Systems where he served as the Chief Engineer, Program Manager for Undersea Systems Technical & Certification Program as well as deputy Program Manager for Combat Craft. CDR Dituri's personal awards include the Navy Achievement Medals, a Joint Service Achievement Medal, an Army Commendation Medal, five Navy Commendation Medals, a Joint Service Commendation Medal and a Joint Meritorious Service Medal.

After retirement from almost 28 years of active service to the United States, Joseph earned a **Ph.D. in Biomedical Engineering** with research areas of interest that include life support equipment design, high carbon dioxide environments as well as hyperbaric and hypobaric medicine. Joseph is a contributing author to Hyperbaric Medical Practice (4th edition), the author of numerous diver-training manuals, a coauthor of the book "Tao of Survival Underwater", as well as the Navy Diving Manual and has been published in several journals including those produced by the Undersea Hyperbaric Medical Society (UHMS), the American Society of Naval Engineers and American Institute of Aeronautics and Astronautics. Dr. Dituri is a consultant for the International Board of Undersea Medicine. He is also the Director of the Undersea Oxygen Clinic and the Course Director for a UHMS approve 40-hour introductory hyperbaric course. Dr. Dituri is an associate professor at the University of South Florida. Joseph is a member of the American Bureau of Shipping Special Committee on Building and Classing Undersea Vehicles and Hyperbaric Systems and the National Offshore Advisor Committee for Commercial Diving Safety. Joseph has three grown children and enjoys writing books, skydiving and has had a lifelong goal of being a civilian astronaut.

Dituri Special Qualifications

- 1. U.S. Navy One Atmosphere Suit Pilot
- 2. ROV Senior Pilot
- 3. U.S. Navy Saturation Diving Officer
- 4. Submersible Pilot Hyperbaric submarine Lock in / Lock out diver Instructor
- 5. IANTD Technical Diving Instructor Trainer (Trainer) -
- 6. Defense Acquisition Workforce Improvement Act (DAWIA) Level III Program Manager
- 7. DAWIA Level III Systems Engineer (Systems Planning, Research Development, and Engineering)
- 8. Retired Naval Officer (Commander) former TOP SECRET security clearance and special summary background investigation from the United States Federal Government.
- 9. IBUM Hyperbaric Physician / Advanced Clinical Hyperbaric Technician / Diving Medical Technician Advanced / Recompression Chamber Operator Instructor Trainer (Trainer)

Dituri Publications – (Specific / relevant papers bolded for ease)

- 1. Dituri, J. 1994. Can We Really Breathe Liquid? *International Association of Nitrox and Technical Divers Journal* 94(3): p. 20–21.
- 2. Dituri, J. 1997. Dräger Atlantis 1 Semi-Closed Rebreather Manual. International Association of Nitrox and Technical Divers (IANTD), Miami Shores, Florida.
- 3. Dituri, J. 1997. Semi-Closed Rebreathers: A Closer Look. *International Association of Nitrox and Technical Divers Journal* 97(2): p. 22–23.
- 4. Kellon, J., R. Carmichael, J. Jablonski & J. Dituri. 1998. Halcyon PVR-BASC Rebreather Manual. International Association of Nitrox and Technical Divers (IANTD), Miami Shores, Florida.
- 5. Dituri, J. 1998. Heliox for Treatment of Air or Nitrox Induced Decompression Illness. *IBUM Journal* 4: p. 2–4.
- 6. Dituri, J. 1998. Passive Flow Semi Closed Rebreathers A whole different breed. *Nitrox Diver Magazine* 98(2): p. 10–11.
- 7. Dituri, J. 1999. [Contributing author to various sections]. Defense Dept. U.S. Navy-Naval Sea Systems Command. United States Navy Diving Manual. 4th Ed. Claitor's Publish, Baton Rouge, LA: p. 1042
- 8. Dituri, J. 1999. Diving Medical Technician Manual. International Board of Undersea Medicine.
- 9. Dituri, J. 1999. Dräger Dolphin Semi-Closed Rebreather Manual. International Association of Nitrox and Technical Divers (IANTD), Miami Shores, Florida
- 10. Dituri, J. 1999. Dräger DrägerRay Semi-Closed Rebreather Manual. International Association of Nitrox and Technical Divers (IANTD), Miami Shores, Florida
- 11. Dituri, J. 2000. Evaluation: The Halcyon PVR BASC rebreather. *Nitrox Diver Magazine* 2000(2): p.– 16–17.

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- 13. Dituri, A. E., Horton, M. & Dituri, J., 2001. Public Safety Diver Manual. International Association of Nitrox and Technical Divers (IANTD), Miami Shores, Florida.
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15. Dituri, J. 2002. Leading Navy Diving into the 22nd Century. Engineering Duty Officer Technical Paper - Naval Sea System Command (NAVSEA) July: p. – 1–34.

- 16. Dituri, J. 2002. Rescue Diver Manual. International Association of Nitrox and Technical Divers (IANTD), Miami Shores, Florida.
- 17. Dituri, J. 2002. What to do about new technical dive shops. *Nitrox Diver Magazine* 2002(2 [Summer]): p. –6–7.
- 18. Dituri, J. 2003. Remotely Operated Vehicle Use Within Shipyards. *In: The Society of Naval Architects and Marine Engineers Journal of Ship Production (SPS Conference), February 2004*: p. 205-206 Sheridan Press.
- 19. Dituri, J. 2004. Active addition semi-closed circuit rebreather review. *Nitrox Diver Magazine* 2004(2 [Spring]): p. 18.
- 20. Dituri, J. 2004. Back mounted Mk-15 series rebreather review. *Nitrox Diver Magazine* 2004(1 [Winter]): p. 30.
- 21. Dituri, J. 2004. Cis-Lunar rebreather review. Nitrox Diver Magazine 2004(1 [Winter]): p. 12.
- 22. Dituri, J. 2004. History (Diving) is important to us. *Nitrox Diver Magazine* 2004(2 [Spring]): p. 8.
- 23. Dituri, J. 2004. Passive addition rebreather review. Nitrox Diver Magazine 2004(2 [Spring]): p. 34.
- 24. Dituri, J. 2004. Review of oxygen rebreathers. Nitrox Diver Magazine 2004(1 [Winter]): p. 37.
- 25. Dituri, J. 2005. Avoiding and Conquering Burnout. Nitrox Diver Magazine 2 [Spring]: p. 8.

- 26. Dituri, J. 2005. Exploring the unknown: Expedition Trimix. Nitrox Diver Magazine 1 [Winter]:p.-30-37.
- 27. Dituri, J. 2005. Sport KISS Rebreather Review. Nitrox Diver Magazine 2 [Spring]: p. 14–15.
- 28. Dituri, J. 2006. [Various Sections]. In: IANTD Nitrox Diver Student Manual. IANTD, Miami.
- 29. Dituri, J. 2006. Inner to outer space: A pathway to success. Alert Diver March/April: p.-14-17, 52-54.
- 30. Dituri, J et al 2006 Watchdog Capstone Project Naval Post Graduate School Paper: p. 15-20
- 31. Alfriend, T., Dituri, J. Sabol, C. Tombasco, J. *Performance Comparison of Missile Tracking Systems,* Directed Energy Directorate, Air Force Research Lab, American Institute of Aeronautics and Astronautics, p. 1-16
- 32. Dituri, J. 2006. Inner to outer space: A pathway to success + Q&A with LCDR Dituri July-August *Underwater Magazine*: p. 12–16, 18, 20–22, 24, 26–27.
- 33. Dituri, J. 2006. Optima Rebreather Review. Nitrox Diver Magazine 1 [Winter]: p. -38-39.
- 34. Dituri, J. 2006. *Ballistic Missile Trajectory Estimation* Naval Post Graduate School Master's Thesis: p. 1-60
- 35. Dituri, J. 2007. [Various Sections], IANTD Open Water Diver Student Manual. IANTD, Miami.
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- 37. Dituri, J. 2007. *Is it Time for a Revolution in Navy Diving Equipment?* Underwater Magazine Sept-Oct p. 41-52
- 38. Dituri, J. Parsley K. & Whelan, H. 2007 Lightweight, faster decompression and portable alternative to US Navy mixed gas diving, UHM Vol 34 (4): p. 255
- 39. Dituri, J. Parsley, K. Hamilton Jr, R. Whelan, H; 2008 Could the U.S. Navy benefit from technical diving techniques? UHM. Vol 35 (4)
- 40. Mount, T., Dituri, J. [Co-Author Various Sections] *Tao of Survival Underwater Exploration and Mixed Gas Diving Encyclopedia*, IANTD Press, 2008 July: p. 1-392
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- 42. Dituri, J 2008 Deep Submergence Unit Capabilities FACEPLATE, U.S. Navy, NAVSEA, Volume 12 No.1 April 2008, p. 18-19
- 43. Dituri, J. 2009 Bridging the Transfer Under Pressure gap (Saturation diving and Submarine Rescue under Hyperbarics), White Paper, Deep Submergence Unit
- 44. Dituri, J., Dituri, A., 2009 *Submarine Rescue, the Future is Now*, Underwater Magazine Sept-Oct 2009: p. 12-21
- 45. Dituri, J., Dituri, A., 2010 Deep Trouble, Diver Magazine 2009: p. 44-47
- 46. Dituri, J., Dituri, J., 2011 My Daddy Wears a Different Kind of Suit to Work, GAVI Publication (Children's book). September: p. –1-26 (English and Spanish).
- 47. Dituri, J. 2011 DCS: Over the Counter Fix, Diver Magazine Vol 37(2): p. 20-21.
- 48. Dituri, J. 2012 Alternative Methods for the emergency treatment of divers in remote areas, IANTD Publication Advanced Wreck Diving Manual April 2012: p. 92-101.
- 49. Dituri, J. 2012 Temporal Balance, U.S. Naval Institute Proceedings, September 2012; p. 79-81.
- 50. Dituri, J. Saddler, R. Alternative Methods to Treating Decompression Sickness in Remote Areas, IANTD Press Publication. January 2013: p. -1-42.
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- 57. Whelan, H., Leighton, T., Aniis, H., Dituri, J., *Ocean Exploration-Living in the Deep Sea*, Hyperbaric Medical Practice (4th Edition) (2017) BEST Publishing: p. 1107-1133.
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Joseph Dituri

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Objective

To improve the knowledge, human physiologic exploration capacity and help push the operational boundaries of diving for the Advanced Undersea Systems program office while maintaining quality and safety standards as a consultant to your team.

Summary

Extensive technical and operational experience in every facet of the research, instruction and undersea realm from saturation diving, submersible design, and operations to system certification. Adept at resource allocation and optimization, cost analysis & reporting, policy & procedure development, assessing risk & risk mitigation as well as quality assurance. Graduate of the Advanced Management Program at University of Virginia Darden, School of Business which is reserved for high-potential senior governmental leaders. Well-rounded with a superb balance of mission accomplishment, didactic prowess and leadership.

- Leadership
- Regulation Development & Q/A
- Technical Certification Expert
- Financial Management
- Strategic Planning
- Training

Accomplishments

Leadership

Expertly lead hundreds of contractors, officers enlisted personnel and government service workers toward national level goals. Coached his members to an astonishing 60% promotion rate. His teams achieved resounding success in international exercises on the world stage.

Regulation Development & Quality Assurance

U.S. Special Operations Command was unable to certify undersea systems for use with special operations forces. Created an innovative regulation and robust Quality Assurance program for undersea system certification using a blend of commercial and military standards. This watershed document is now being used as a template for rapid system certification in private industry as well as government.

Technical Certification Expert

He is the go-to undersea engineer/researcher. Respected author of peer reviewed & scientific articles, reference manuals, books on engineering & hyperbaric medicine. One-of-a-kind mix of knowledge and experience.

Financial Management

Expertly managed up to \$1.4B budgets and saved command \$500K searching for lower cost commercial training ships. Outcome was unprecedented training readiness in the face of budgetary shortfalls.

Strategic Planning

Unparalleled strategic thinker. Coordinated delivery of in excess of 700 pieces for U.S. Navy's \$100M Submarine Rescue System and spearheaded system certification SEVEN times faster than previous rescue asset with no deficiencies in safety. Lauded by for foreign Navies for forehandedness and diplomacy in planning for international exercises.

Training

Assisted in establishing a training curriculum for one atmosphere "Hard Suit" and attained an operationally effective decree from operational test and evaluation. Earned the Deep Submergence Excellence award. Trained and certified the entire crew on every diving system at the command.

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Work History

University of South Florida

2014 - Present

Ph.D. – Instructor – Medical Engineering. Design and fabricate life support equipment and conducting peer reviewed diving and hyperbaric research as well as instruction.

United States Special Operations Command (PEO Maritime) 2009 – 2013 Chief Engineer and Program Manager Undersea Systems. Expertly managed over \$1.4B over the current Future Years Defense Plan. The "go to" person in undersea who defined superb systems engineering. Captured and shared best practices, established systems engineering regulations and procedures. Focal point for developmental test, evaluation and certification. Qualified as the highest-level Systems Planning, Research Development, and Engineering manager for the Department of Defense.

United States Navy - Deep Submergence Unit 2006 – 2009 Chief Operating Officer, Program Manager's Representative and Chief Engineer. Handpicked to lead 35 military and 40 government civilian & contractor personnel in the execution of the United States Navy's Submarine Rescue capability. Executed two international submarine rescue exercises resulting in a total of 252 submariners saved. Masterful underwater engineer. Qualified as the highest-level Program Manager for the Department of Defense and delivered product to the fleet certified.

United States Navy - Naval Post Graduate School 2004 – 2006 **Student.** Culminating in a Master's Degree in Astronautical engineering. Published a peer reviewed paper which drew a parallel between aquanauts and astronauts. Demonstrated similarity in operational environments and training techniques.

Previous work experience prior to 2004 includes:

Repair Officer, Deputy Project Manager as well as Business Operations Officer. Directly supervised 200+ contractors, business agents, divers, laborers as well as professional engineers. Negotiated in excess of 600K man-days of production work on nuclear powered submarines & surface ships and administered an annual budget of \$200+M. U.S. Naval Saturation Diving Officer and Special Operations Officer stationed at various salvage and diving commands supervising recompression chamber operations, diving & hyperbaric system installation and maintenance of certification as well as the safe conduct of every type of work underwater.

Education Doctor of Philosophy University of South Florida, Tampa, FL

Biomedical Engineering

Master of Science Naval Post Graduate School, Monterey, CA

Astronautical Engineering (Orbital Mechanics)

Bachelor of Science University of South Carolina, Columbia, SC

Computer Science / Engineering

<u>Affiliations</u> American Bureau of Shipping – Member, Special Committee on Building and Classing Undersea Vehicles and Hyperbaric Systems

Association for Marine Exploration [non-profit] – Founder & CEO

Professional References

1) Harry T. Whelan, M.D.

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