

## **Amado Cordova, PH.D.**

[cordova@rand.org](mailto:cordova@rand.org)

(310) 666-6624

### **Research Interests**

Dr. Cordova is a senior engineer at the RAND Corporation with research interests aimed at answering policy questions in national defense and homeland security. During his years at RAND he has participated in the research programs of Project Air Force (PAF), the Arroyo Center, the National Security Research Division (NSRD), the Homeland Security Operational Analysis Center (HSOAC), and RAND Health. He has led and co-led projects for PAF, the Arroyo Center, HSOAC and Health. When leading these projects, he and his teams addressed technical, organizational, policy, strategy, personnel and educational issues brought about by RAND's Air Force, Army, Department of Homeland Security (DHS) and Health customers.

He recently led the Communications and Information Technology (Comms/IT) team for the HSOAC Puerto Rico recovery project, the largest project at the RAND corporation both in terms of dollars and researcher participation. His team collected data, interviewed stakeholders, prepared thirty-three courses of action worth 3.2 billion dollars, and wrote the recovery plan for the Comms/IT sector of the island. He was also the forward liaison member of the Comms/IT team, and, as such, he was deployed for six months to Puerto Rico and had the opportunity to see the recovery efforts first hand.

His most recent work for PAF includes: 1) Assessing what improvements in timeliness, reliability and maintainability can be achieved in the Minuteman ICBM by implementing new navigation and guidance technologies (he led this congressionally- mandated study); helping in identifying the risks of adopting common components and subsystems between two legs of the nuclear triad, namely, the GBSD (Global Strategic Deterrent), which is the successor of Minuteman, and SLBM (submarine launched ballistic missile); and 2) Assessing the state-of-the-art of solid-state laser technologies to be used as part of directed energy (DE) weapons on board AFSOC gunships.

His most recent work in Arroyo focused on investigating the benefits and disadvantages of adopting common architectures, components and subsystems across the family of helicopters to be part of the Future Vertical Lift (FVL) program, and, by using FVL as a case study, to formulate a methodology to assess the benefits and shortcomings of adopting commonality.

His PAF research has also addressed Intelligence, Surveillance and Reconnaissance (ISR) and Processing, Exploitation and Dissemination (PED). He has been project leader of Air Force projects that pertain to ISR, PED and targeting intelligence. His PAF leadership roles have allowed him to closely interact with the Intelligence Community (IC), in particular, with the National Security Agency (NSA).

He was one of the initial members of the modeling team of COMPARE (Comprehensive Assessment of Reform Efforts) since this initiative was launched in the year 2005. He worked on analyzing the

outcomes of the health reform provisions of the Affordable Care Act (ACA) and was the principal investigator of two Health contracts.

## **Experience**

**RAND Corporation. Senior Engineer.** From 11/2003 to present date.  
RAND projects (examples):

“An Economic and Disaster Recovery Plan for Puerto Rico.” **Communications/ Information Technology (Comms/IT) sector leader.** Per the Bipartisan Budget Act of 2018, Congress mandated the government of Puerto Rico to submit an economic and disaster recovery plan after the island was devastated by Hurricanes Irma and Maria. Under contract with DHS-FEMA, HSOAC provided substantial support in developing this plan by soliciting and integrating inputs from a wide variety of stakeholders, contributing analysis where needed, and assisted drafting the plan. The team led by Dr. Cordova performed a thorough analysis of the damage caused by the hurricanes in the Comms/IT sector and developed thirty-three courses of action (COAs) worth \$3.2 billion for the recovery of this sector. These COAs also lay the foundation for the digital transformation of Puerto Rico,

“Video Evidence Collection and Distribution System.” **Project co-leader.** HSOAC project for Homeland Security Investigations (HSI). The goal of this project is to provide HSI with a third-party assessment of the gaps in their current video collection and distribution system and to make recommendations for improvements.

“Examining Intercontinental Ballistic Missile Readiness.” **Project leader.** Congressionally-mandate study to answer whether new inertial navigation and guidance (N&G) technologies allow U.S. intercontinental ballistic missile (ICBM) forces to remain at the same strategic alert posture while providing additional decision time associated with launch. This PAF project satisfied the requirement for a report that appears in the Senate Armed Services Committee (SASC) report accompanying the FY15 NDAA. In addition to timeliness, congressional staff wanted to know whether reliability and/or maintainability could be improved if new N&G technologies were implemented.

“Understanding the Value of Commonality in Army Systems.” Arroyo project, sponsored by the Deputy for Acquisition and Systems Management, Office of the Assistant Secretary of the Army. Using the Future Vertical Lift (FVL) program as a focus, the project aimed at developing a framework and methodology to determine whether developing commonality across the classes of platforms and within a family of systems could reduce life cycle costs.

“Air Force ISR Enterprise: Leveraging the Past to Prepare for the Future.” PAF project, sponsored by Lt Gen Robert Otto, HAF/A2. This project aimed at making recommendations on analytical processes, tradecraft, skills, toolsets, training, force management and career development that the AF ISR analytical enterprise can take to address lessons since 9/11 and to meet future challenges.

“Acquisition of an Airborne Intelligence, Surveillance and Reconnaissance, Electronic Warfare (AISREW) Capability” by the Australian Military. NDRI project, sponsored by the Australian Department of Defense (ADoD). ADoD plans to acquire three to five long-range/endurance business jets equipped with specialized mission equipment to provide an AISREW capability to replace an existing

system that will be retired over the next decade. ADoD asked RAND to provide independent cost assurance of its major capabilities.

“Leveraging the National SIGINT Enterprise for Air Force Component Operations.” **Project leader.** PAF project sponsored by: Maj Gen Scott J. Zobrist, ACC A5/8/9; Brig Gen Jeffrey B. Taliaferro, ACC/A5; and Maj Gen Dash Jamieson, ACC/A2. This project aimed at assessing how the Air Force could better leverage the capabilities of the National Intelligence Enterprise to support Air Force intelligence requirements, with emphasis on National SIGINT.

“Improving Air Force Target Intelligence.” **Project leader.** PAF project sponsored by Lt Gen Larry D. James, HAF/A2. Its objective was to determine how the Air Force Targeting Enterprise could better integrate cyber and space target intelligence analysis and materials with “traditional” target intelligence to create cross-domain target intelligence that is accessible and useable by COMAFFOR and JFACC for planning and execution of operations.

“Technology for Automating ISR PED for Efficiency and Effectiveness.” **Project Leader.** PAF project sponsored by the Air Force Vice Chief, Gen Philip M. Breedlove, and by Lt Gen Larry D. James, HAF/A2. The project’s objective was to assess how the Air Force ISR community should leverage new technologies to yield improvements in PED efficiency and effectiveness. The study focused on the potential of automated tools, process improvements, and related organizational constructs to enhance the AF ISR Enterprise

“Planning the Remotely Piloted Aircraft (RPA) ISR Force in the Post-OIF/OEF-A World.” **Project Leader.** PAF project sponsored by Maj Gen Thomas K. Andersen, ACC/A8, and by Maj Gen James O. Poss, HAF/AA2. The project’s objective was to help the Air Force prepare for the future employment of the Predator (MQ-1), the Reaper (MQ-9), and the Global Hawk (RQ-4) in the post-OND/OEF-A world.

“Structuring the USAF Processing, Exploitation and Dissemination Force to Meet Current and Future Challenges.” **Project Co-leader.** PAF project sponsored by Lt Gen David Deptula, HAF/A2. This project aimed at advising the Air Force on options on how to handle the information explosion faced by Air Force analysts.

“Post-Reform Consumer Landscape Market Analytics and Implementation.” RAND’s **Principal Investigator** under Econometrica contract with the Center for Medicare and Medicaid Services. This project aimed at producing detailed post-ACA state-level estimates for selected states and identifying challenges for the health insurance exchanges,

“Simulation of potential participants in Multistate Health Plans.” **Principal Investigator.** Contract with the Office of Personnel Management (OPM) and the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (DHHS/ASPE). The project aimed at generating a methodology to project participation in multistate health plans.

“RDECOM Business Plan for Systems of Systems Engineering.” **Project Co-leader.** Arroyo project sponsored by the RDECOM and the Army Materiel Command (AMC) commanders. Its objectives were to assess RDECOM’s tools, engineering methodologies, business methods, education and training policies, human capital development plans, and cross Army coordination activities as these apply to the

command's system and system-of-systems (SoS) capabilities. (RDECOM = Research, Development and Engineering Command)

“Assessing the State of Automated Fusion.” **Project Co-leader**. Arroyo project sponsored by the Deputy Chief of Staff, G-2, U.S. Army. Its objective was to project what is reasonably achievable in the area of automated intelligence fusion in the near future.

“Satisfying the Demand for Surveillance and Reconnaissance in the European and African Theaters.” Project sponsored by U.S. Air Force Europe (USAFE). The project's objective was to analyze past demand and project future demand for ISR assets in the EUCOM and AFRICOM areas of operation.

**Copley Networks. Chief Technology Officer (CTO).** From 12/2000 to 08/2003

Provided strategic direction for the company's product development. Also, responsible for an R&D team and for intellectual property activities such as preparation and coordination of patent applications. Copley was a small telecommunications start-up company that later changed its name to Formerica International.

**Litton Guidance and Control Systems (now part of Northrop-Grumman). Senior Engineer, Member of Technical Staff and Principal Investigator.** From 12/1987 to 12/2000.

Leader of Litton's Fiber Optic Gyroscope Technology and Research Group and, before that, leader of the LN-200 Gyro and Coil Development Group. Led a team that designed and manufactured fiber optic gyroscope coils with the world's lowest sensitivity to environmental perturbations such as those due to thermal shock and stringent vibration.

Principal investigator of the DARPA-Mantech Optical Fiber task, an effort to produce low-cost, navigation-grade, optical fiber. Before that, he was a senior engineer investigating different aspects of fiber optic sensor technologies.

## **Education**

Ph.D., Electrical Engineering, Stanford University, Stanford, California, 01/1988.

Diplome d'Ingenieur, Ecole Superieure d'Electricite, Paris, France, 07/1982.

B.S., Physics, Universidad Autonoma Metropolitana, Mexico City, Mexico, 07/1979.

## **Honors and Awards**

RAND Silver Merit Bonus Award, together with Chrissy Eibner, Sarah Nowak and Carter Price, for “their use of the COMPARE microsimulation model to assist in the implementation of the Patient Protection and Affordable Care Act.” 2012.

RAND Bronze Merit Bonus Award for “positioning RAND to speak authoritatively on emerging health care legislation.” 2010.

Charles B. Thornton Advanced Technology Achievement Award. The most prestigious award provided by the Litton Industries conglomerate for technical innovation. 1994.

Appointed twice member of the Group "The Best Students of Mexico." The first time in 1978 and the second time in 1979.

## **Publications**

*Building a Resilient Telecommunications Sector in Puerto Rico in the Aftermath of Hurricanes Irma and Maria*, by **Amado Cordova**, Karlyn D. Stanley, Ajay Kochhar, Ryan Consaul and Justin Hodiak. Journal article to be submitted for publication to the *Disaster Recovery* journal

*Public-Private Partnership for Building a Resilient Broadband Infrastructure in Puerto Rico*, by **Amado Cordova** and Karlyn D. Stanley. Journal article to be submitted for publication to the *Telecommunications Policy* journal

*Recovery Plan for the Communications and Information Technology Sector after Hurricanes Irma and Maria: Laying the Foundation for the Digital Transformation of Puerto Rico*, by **Amado Cordova**, Ryan Consaul, Karlyn D. Stanley, Ajay Kochhar, Ricardo Sanchez, David Metz. RAND RR-2599-DHS. 2020.

*Developing Recovery Options: Process and Methodology to Support the Building of an Economic and Disaster Recovery Plan for Puerto Rico*, by the HSOAC Puerto Rico Recovery Team (including **Amado Cordova**). RAND RR-2597-DHS. 2020.

*After Hurricane Maria: Pre-Disaster Conditions, Hurricane Damage, and Recovery Needs for Puerto Rico*, by Jordan R. Fischbach, Linnea Warren May, Katie Whipkey, Shoshana R. Shelton, Christine Vaughan, Devin Tierney, Kristin Leuschner, Lisa Meredith, Hilary Peterson and the HSOAC Puerto Rico Recovery Team (including **Amado Cordova**). RAND RR-2595-DHS. 2020.

*Leveraging the Past to Prepare for the Future of Air Force Intelligence Analysis*, by Brien Alkire, Abbie Tingstad, Dale Benedetti, **Amado Cordova**, Irina Danescu, William Fry, D. Scott George, Lawrence M. Hanser, Lance Menthe, Erik Nemeth, David Ochmanek, Julia Pollak, Jessie Riposo, Timothy Smith, Alexander Stephenson. RAND RR-1330. May 2016. Available at [http://www.rand.org/content/dam/rand/pubs/research\\_reports/RR1300/RR1330/RAND\\_RR1330.pdf](http://www.rand.org/content/dam/rand/pubs/research_reports/RR1300/RR1330/RAND_RR1330.pdf)

*Modifying the ACA's Family Subsidy Rules to Help Ensure Affordability*, by **Amado Cordova**, Sarah Nowak and Evan Saltzman. The Commonwealth Fund Blog. January 2016. Available at <http://www.commonwealthfund.org/publications/blog/2016/jan/the-impact-of-modifying-acas-family-subsidy>.

*Alternatives to the ACA's Affordability Firewall*, by Sarah Nowak, **Amado Cordova** and Evan Saltzman. RAND RR-1296. November 2015. Available at [http://www.rand.org/pubs/research\\_reports/RR1296.html](http://www.rand.org/pubs/research_reports/RR1296.html)

*Motion imagery processing and exploitation (MIPE)* by Amado Cordova, Lindsay Millard, Lance Menthe, Carl Rhodes and Robert Guffey. RAND RR-154-AF (2013)

*Virtual Collaboration for a Distributed Enterprise*, by **Amado Cordova**, Kirsten Keller, Lance Menthe, Carl Rhodes. RAND RR-153-AF. March 2013. Available at [http://www.rand.org/pubs/research\\_reports/RR153.html](http://www.rand.org/pubs/research_reports/RR153.html)

“The COMPARE Microsimulation Model and the U.S. Affordable Care Act,” by **Amado Cordova**, Sarah Nowak, Christine Eibner, Kenneth Finegold, Federico Girosi. *International Journal of Microsimulation*, 6(3), 78-117 (2013).

*The Affordable Care Act and Health Insurance Markets: Simulating the Effects of Regulation*, by Christine Eibner, **Amado Cordova**, Sarah Nowak, Carter Price, Evan Saltzman, Dulani Woods. RAND RR-189-DHHS. June 2013. Available at [http://www.rand.org/pubs/research\\_reports/RR189.html](http://www.rand.org/pubs/research_reports/RR189.html)

*A Two-step Procedure to Estimate Participation and Premiums in Multistate Health Plans*, by **Amado Cordova**, Carter Price, Evan Saltzman. RAND RR-202-DHHS. March 2013. Available at [http://www.rand.org/pubs/research\\_reports/RR202.html](http://www.rand.org/pubs/research_reports/RR202.html)

“Modeling Employer Self-Insurance Decisions after the Affordable Care Act,” by **Amado Cordova**, Christine Eibner, Raffaele Vardavas, James Broyles, Federico Girosi. . *Health Services Research (HSR) Journal*. On-line publication on 24 January 2013. Available at <http://onlinelibrary.wiley.com/doi/10.1111/1475-6773.12027/abstract>

*The Future of Air Force Motion Imagery Exploitation: Lessons from the Commercial World*, by Lance Menthe, **Amado Cordova**, Carl Rhodes, Rachel Costello, Jeffrey Sullivan. RAND TR-1133. 2012. Available at [http://www.rand.org/pubs/technical\\_reports/TR1133.html](http://www.rand.org/pubs/technical_reports/TR1133.html)

“Small Firms’ Actions in Two Areas, And Exchange Premium and Enrollment Impact,” by Christine Eibner, Carter C. Price, Raffaele Vardavas, **Amado Cordova**, Federico Girosi. *Health Affairs*, 31(2):324-331. February 2012.

*Employer Self-Insurance Decisions and the Implications of the Patient Protection and Affordable Care Act as Modified by the Health Care and Education Reconciliation Act of 2010 (ACA)*, by Christine Eibner, Federico Girosi, Amalia Miller, **Amado Cordova**, Elizabeth McGlynn, Nicholas Pace, Carter Price, Raffaele Vardavas and Carole Gresenz. RAND TR-971, March 2011. [http://www.rand.org/pubs/technical\\_reports/2011/RAND\\_TR971.pdf](http://www.rand.org/pubs/technical_reports/2011/RAND_TR971.pdf)

“Could We Have Covered More People At Less Cost? Technically, Yes; Politically, Probably Not,” by Elizabeth .A. McGlynn, **Amado Cordova**, Jeffrey Wasserman and Federico Girosi. *Health Affairs*, 29(6):1142-1146. June 2010.

“Modeling Health Care Policy Alternatives,” by Jeanne S. Ringel, Christine Eibner, Federico Girosi, **Amado Cordova** and Elizabeth A. McGlynn. *Health Services Research*. 2010.

*Establishing State Health Insurance Exchanges: Implications for Health Insurance Enrollment, Spending and Small Business*, by Christine Eibner, Federico Girosi, Carter C. Price, **Amado Cordova**, Peter S. Hussey, Alice Beckman, Elizabeth A. McGlynn. RAND TR-825. 2010.  
[http://www.rand.org/pubs/technical\\_reports/2010/RAND\\_TR825.pdf](http://www.rand.org/pubs/technical_reports/2010/RAND_TR825.pdf)

*Analysis of the Patient Protection and Affordable Care Act (H.R. 3590)*, by Jeanne S. Ringel, Federico Girosi, **Amado Cordova**, Carter C. Price, Elizabeth A. McGlynn. RAND RB-9514. 2010.

[http://www.rand.org/pubs/research\\_briefs/2010/RAND\\_RB9514.pdf](http://www.rand.org/pubs/research_briefs/2010/RAND_RB9514.pdf)

“Coverage, Spending, and Consumer Financial Risk: How Do the Recent House and Senate Health Care Bills Compare?” by Elizabeth A. McGlynn, Jeanne S. Ringel, Federico Girosi, **Amado Cordova**, Carter C. Price. 2010.

[http://www.rand.org/pubs/research\\_briefs/2010/RAND\\_RB9515.pdf](http://www.rand.org/pubs/research_briefs/2010/RAND_RB9515.pdf)

*RAND COMPARE Analysis of President Obama's Proposal for Health Reform*, by Elizabeth A. McGlynn, **Amado Cordova**, Jeanne S. Ringel, Christine Eibner, Federico Girosi. 2009.

[http://www.rand.org/pubs/research\\_briefs/RB9519/](http://www.rand.org/pubs/research_briefs/RB9519/)

*Overview of the COMPARE Microsimulation Model*, by Federico Girosi, **Amado Cordova**, Christine Eibner, Carole Roan Gresenz, Emmett Keeler, Jeanne Ringel, Jeffrey Sullivan, John Bertko, Melinda Beeuwkes Buntin, Raffaele Vardavas. RAND Working Paper. January 2009.

[http://www.randcompare.org/sites/default/files/docs/pdfs/COMPARE\\_Model\\_Overview\\_0.pdf](http://www.randcompare.org/sites/default/files/docs/pdfs/COMPARE_Model_Overview_0.pdf)

*Methodology for Improving the Planning, Execution, and Assessment of Intelligence, Surveillance, and Reconnaissance Operations*, by Sherill Lingel, Carl Rhodes, **Amado Cordova**, Jeff Hagen, Joel Kvitky, Lance Menthe. RAND TR-459. 2008.

*High-Performance Computing Opportunities and Challenges for Army R&D*, by R. Anderson, **A. Cordova**, C. Hearn, R. Lewis, J. Matsumura, I. Porche, R. Steeb. RAND TR-310. 2006.

*New Approaches to Planning, Executing, and Assessing Intelligence, Surveillance, and Reconnaissance Operations*, by Sherrill Lingel, Carl Rhodes, **Amado Cordova**, Jeff Hagen, Joel Kvitky, Lance Menthe. RAND RB-242. 2008.

*Proposed Missions and Organization of the U.S. Army Research, Development and Engineering Command*, by B. Held, **A. Cordova**, E. Axelband, A. Wong, S. Wiseman. RAND DB-465. 2004.

“Osmotic Shock and the Strength of Viral Capsids,” by **Amado Cordova**, Markus Deserno, William M. Gelbart and Avinoam Ben-Shaul, *Biophysical Journal*, Vol 85, p.70. July 2003.

“Interferometric Fiber Optic Gyroscope with Inertial Navigation Performance over Extended Dynamic Environments,” by **A. Cordova**, R. Patterson, E. Goldner and D. Rozelle. SPIE Proceedings Vol. 2070, *Fiber Optic and Laser Sensors XI*, p. 164. 1993.

“A Rate-Integrating Fiber Optic Gyro: from the Theoretical Concept to System Mechanization,” by B. Fidric, D. Tazartes, **A. Cordova** and J. Mark. SPIE Proceedings Vol. 1585, *Fiber Optic Gyros: 15th Anniversary Conference*, p. 437. 1991.

“Environmentally Robust Fiber Optic Gyroscope Components Development and Productionization,” by Y.A. Choi, **A. Cordova**, C. Chen and C.L. Chang. SPIE Proceedings Vol.1585, *Fiber Optic Gyros: 15th Anniversary Conference*, p. 417. 1991.

“Extended Environmental Performance of Attitude and Heading Reference Grade Fiber Optic Rotation Sensors,” by G. H. Chin, **A. Cordova** and E. Goldner. SPIE Proceedings Vol. 1367, *Fiber Optic and Laser Sensors VIII*, p. 107. 1990.

“Nd:MgO:LiNbO<sub>3</sub> continuous-wave laser pumped by a laser diode,” by **A. Cordova-Plaza**, T.Y. Fan, M.J.F. Digonnet, R.L. Byer and H.J. Shaw. *Optics Letters*, Vol. 13, p. 209. 1988.

“MgO:LiNbO<sub>3</sub> single-crystal fiber with magnesium-ion in-diffused cladding,” by S. Sudo, **A. Cordova-Plaza**, R.L. Byer and H.J. Shaw. *Optics Letters*, Vol. 12, p. 938. 1987.

“Miniature CW and Active Internally Q-Switched Nd:MgO:LiNbO<sub>3</sub> Lasers,” by **Amado Cordova-Plaza**, Michel J.F. Digonnet and Herbert J. Shaw. *IEEE Journal of Quantum Electronics*, Vol. 23, No. 2, p. 262. 1987.

“Nd:MgO:LiNbO<sub>3</sub> spectroscopy and laser devices,” by T.Y. Fan, **A. Cordova-Plaza**, M.J.F. Digonnet, R.L. Byer and H.J. Shaw. *Journal of the Optical Society of America B*, Vol. 3, No.1, p. 140. 1986.

“Self Q-switched Nd:MgO:LiNbO<sub>3</sub> laser,” by **A. Cordova-Plaza** and M.J.F. Digonnet. *Journal of the Optical Society of America A*, Vol. 12, No. 13, p. 55. 1985.

## Conference Briefs

“Modeling Health Policy Alternatives,” by Jeanne Ringel, Christine Eibner, Federico Girosi, **Amado Cordova** and Elizabeth McGlynn. *Academy of Health’s Submit on the Future of HSR*. June 2009.

“Consequences of a Subsidized Individual Mandate Plus a National Insurance Connector,” by Federico Girosi, Melinda Beeukes Buntin, **Amado Cordova**, Christine Eibner, and Alice Beckman. *American Economics Association (AEA) Annual Meeting*. January 2009.

“Assessing the state of Army automated fusion,” by Louis Moore and **Amado Cordova**. *75th MORS Symposium*. June 2007.

“Polarization Maintaining Fiber Development for Navigation Grade Interferometric Fiber Optic Gyroscope,” by **A. Cordova**, J.C. Novack, J.R. Onstott. *Annual Meeting of the Optical Society of America*. October 1998.



“Manufacturing Technology for Navigation-Grade IFOGs: Polarization Maintaining Fiber Development,” by J. Onstott, J. Novack, **A. Cordova** and R. Patterson. *Defense Manufacturing Conference*. December 1997.

“Manufacturing Technology for Low-Cost navigation-Grade IFOGs" PM Optical Fiber Task,” by J. Onstott, **A. Cordova**, J. Rahn, J. Novack, M. Messerly and E. Dowd. *23rd Joint Services Data Exchange Conference*. November 1996.

“Progress in Navigation-Grade IFOG Performance,” by **A. Cordova**, R. Patterson, J. Rahn, L. Lam and D. Rozelle. *SPIE 20th Anniversary Conference in Fiber Optic Gyroscopes*. August 1996.

“Inertial Navigation IFOG Performance Over Static and Dynamic Environment,” by R. Patterson, D. Rozelle, **A. Cordova** and E. Goldner, August 1994.

“Environmentally Rugged Coil for Fiber Gyro,” by **A. Cordova**. *Litton Corporate Advanced Engineering Symposium*. May 1994.

“Inertial Navigation Performance of an IFOG Over Dynamic Environments,” by R. Patterson, E. Goldner, **A. Cordova** and D. Rozelle. *Sixteenth Biennial Guidance Test Symposium*. October 1993.

“Low-threshold miniature Q-switched Nd:MgO:LiNbO<sub>3</sub> laser,” by **A. Cordova-Plaza**, M.J.F. Digonnet, and H.J. Shaw. Presented at the Annual Meeting of the Optical Society of America, October 1986.

“Diode-pumped Nd:MgO:LiNbO<sub>3</sub> laser,” by T.Y. Fan. **A. Cordova-Plaza**, M.J.F. Digonnet, R.L. Byer and H.J. Shaw. *Annual Meeting of the Optical Society of America*. October 1986.

"Self Q-switched Nd:MgO:LiNbO<sub>3</sub> laser" by **A. Cordova-Plaza** and M.J.F. Digonnet. *Annual Meeting of the Optical Society of America*. 1985.

## **Patents**

Patents for which Dr. Cordova is either an inventor or a co-inventor:

Tuned Fiber Optic Interleaver. Patent No. 6,654,514, issued November 25, 2003.

Optical Interleaver with Image Transfer Element. Patent No. 6,597,842, issued July 22, 2003.

Potting Compound for Fabrication of Fiber Optic Gyro Sensor Coil and Method for Fabricating Sensor Coil. Patent No. 6,054,068, issued April 24, 2000.

Method for Stress Tuning Fiber Optic Sensor Coils. Patent No. 6,040,908, issued March 21, 2000.

Fiber Optic Gyroscope Coil Lead Dressing and Method for Forming the Same. Patent No. 5,973,783, issued October 26, 1999)

Apparatus and Method for Scale Factor Stabilization in Interferometric Fiber Optic Rotation Sensors. Patent No. 5,949,930, issued September 7, 1999.

High Efficiency Magnetic Shield for a Fiber Optic Gyroscope. Patent No. 5,896,199, issued April 20, 1999.

Gyro Sensor Coil with Filled Optical Fiber. Patent No. 5,870,194, issued February 9, 1999.

Potted Gyro Sensor Coil with Inter-turn Stress Relief. Patent 5,742,390, issued April 21, 1998.

Fiber Optic Gyro with Optical Intensity Spike Suppression. Patent No. 5,850,286, issued December 15, 1998.

Reduction of Fiber Optic Gyroscope Vibration and Temperature-Ramp Sensitivities by Controlling Coil Geometrical Parameters. Patent No. 5,847,829, issued December 8, 1998.

Conically Arranged Fiber Optic Gyroscope Coils. Patent No. 5,822,065, issued October 13, 1998.

Bonded Fiber Optic Gyro Sensor Coil Including Voids. Patent No. 5,767,970, issued June 16, 1998.

Fiber Optic Sensor Coil including Buffer Regions. Patent No. 5,767,509, issued June 16, 1998.

Method and Apparatus for Overcoming Cross-Coupling in a Fiber Optic Gyroscope Employing Over Modulation. Patent No. 5,682,241, issued October 28, 1997.

Fiber Optic Gyro Sensor Coil with Improved Temperature Stability. Patent No. 5,668,908, issued September 16, 1997.

Gyro Sensor Coil with Low-Friction Hub Interface. Patent No. 5,545,892, issued August 13, 1996.

Potted Fiber Optic Gyro Sensor Coil for Stringent Vibration and Thermal Environments. Patent No. 5,546,482, issued August 13, 1996.

Sensor Coil with Thermo mechanically-Matched Spool for Fiber Optic Gyroscope. Patent No. 5,486,922, issued January 23, 1996.

Sensor Coil for Low Bias Fiber Optic Gyroscope. Patent No. 5,371,593, issued December 6, 1994.

Fiber Optic Gyroscope with Low-Birefringence and PM Networks. Patent No. 5,260,768, issued November 9, 1993.

Bi-Domain Two-Mode Single-Crystal Fiber Devices. Patent No. 5,082,349, issued January 21, 1992.

Method for Cladding Single Crystal Optical Fiber. Patent No. 5,077,087, issued December 31, 1991.  
Claddings for Single Crystal Optical Fibers and Devices and Methods and Apparatus for Making such Claddings. Patent 5,037,181, issued August 6, 1991.

