ANN R. KARAGOZIAN

University of California, Los Angeles
Department of Mechanical & Aerospace Engineering
Los Angeles, California 90095-1597
Email: ark@seas.ucla.edu

Website: http://www.seas.ucla.edu/~ark/
Phone 1-310-825-5653
Dept. Fax 1-310-206-4830

PROFESSIONAL EXPERIENCE

University of California, Los Angeles

Department of Mechanical and Aerospace Engineering

Distinguished Professor, July 2016 to present
Professor, July, 1993 to June, 2016
Associate Professor, July, 1988 to June, 1993
Assistant Professor, July, 1982 to June, 1988

The Promise Armenian Institute

Inaugural Director, 2020 to present

Office of the Vice Chancellor for Research

Interim Vice Chancellor for Research, January 2016 to June 2017

Head, UCLA Energy and Propulsion Research Laboratory

Director, UCLA-AFRL Collaborative Center for Aerospace Sciences

Member, Board of Trustees:

Institute for Defense Analyses (2011 – present)
Chair, Visiting Committee (2015 – 2021)
Member, Executive Committee (2015 – 2021)
Mentor, Defense Science Study Group (2014 – present)

American University of Armenia Corporation, a UC affiliate (2012 – present)
Chair, Educational Policy Committee (2013 – present)

Technical Consultant:

Aerospace Corporation Technology Research Advisory Committee (2019 – present)
U.S. Air Force (1997-2001, 2002-10, 2018-2021)
Sandia National Laboratories (2003-5)
TechFinity (2004-5)
Pacific-Sierra Research (1986-8)
Rand Corporation (1979-83)

Registered Professional Engineer (Mechanical Engineering), State of California, 1983-present
Associate Member of the Technical Staff, Aerospace Corp. (1978)
Engineering Student Intern, Hughes Aircraft Co. Missile Systems Division (1976-8)

EDUCATION

California Institute of Technology

Ph.D. in Mechanical Engineering, June, 1982
Thesis Advisor: Professor Frank E. Marble
Thesis: "An Analytical Study of Diffusion Flames in Vortex Structures"
M.S. in Mechanical Engineering, June, 1979

University of California, Los Angeles

B.S. in Engineering, summa cum laude, June, 1978

HONORS, AWARDS & SPECIAL RECOGNITION

Distinguished Lectures at MIT, Georgia Tech, Texas A&M, Univ. of Michigan, 2019-present
Member, U.S. National Academy of Engineering, 2018
Member, Air Force Scientific Advisory Board, 2018 – 2021, 2002-2010 and 1997-2001
W. Duncan Rannie Memorial Invited Lecture, Caltech, 2014

American Physical Society/Division of Fluid Dynamics Invited Lecture, Nov, 2013
Fellow, American Society of Mechanical Engineers, 2013
Midwest Mechanics Seminar Invited Speaker (10 universities), 2013-14
Chair, American Physical Society/Division of Fluid Dynamics, 2011
U.S. Air Force Decoration for Exceptional Civilian Service, 2010 and 2001
UCLA Henry Samueli Teaching Award, MAE Department, 2009
Vice Chair, Air Force Scientific Advisory Board (AFSAB), 2005-2009
Fellow, American Physical Society, 2004
Fellow, American Institute of Aeronautics and Astronautics, 2004
UCLA Faculty-Staff Partnership Award, 2004
Invited Topical Speaker, SIAM 50th Anniversary and Annual Meeting, 2002
Recipient, NASA Recognition for Exemplary Service, 2001
Member, Defense Science Study Group, 1994-96
TRW-UCLA Excellence in Teaching Award, 1987
NASA-ASEE Summer Faculty Fellowship, 1983
Shell Companies Fellowship, Caltech, 1980-81
Daniel and Florence Guggenheim Fellowship, Caltech, 1978-79
Outstanding Young Women of America Award, 1978, 1982
Phi Beta Kappa Honor Society
Tau Beta Pi Engineering Honor Society
Sigma Xi Scientific Research Honor Society

UNIVERSITY ADMINSTRATIVE/LEADERSHIP EXPERIENCE

The UCLA Promise Armenian Institute

Inaugural Director of $20M+ endowed Institute, January 2020 - present

Office of the Vice Chancellor for Research

Interim Vice Chancellor for Research for UCLA campus, January 2016 to June 2017

UCLA/University of California Academic Senate

Member, Lawrence Livermore Natl. Lab UC Science & Technology Committee, 2021-
Chair of the UCLA Academic Senate, 2010-11 (also Vice Chair/Chair-Elect, Past Chair)
Senate Parliamentarian, 2015
Chair and Member of various Administration/Senate Committees, 2009 - 2015
Member, Council on Academic Personnel, 2003-2007
Reviews cases for faculty tenure, promotion, and tenured appointments

UCLA Department of Mechanical and Aerospace Engineering

Vice Chair for Industrial Relations, 2008 – 2010 and 2011 - 2012
Industrial Liaison, 2000-2002
Vice Chair for Undergraduate Affairs, 1993-1994
Chair of various recruitment, review, and departmental committees, 1990-present

UCLA Henry Samueli School of Engineering and Applied Science

Chair, Faculty of Engineering (elected position), 1999-2001
Member, Faculty Executive Committee, 2012-15

PROFESSIONAL SERVICE

Air Force Scientific Advisory Board

Member, 2018 – 2021, 2002-2010 and 1997-2001
AFSAB Vice Chair, 2005-2009
Chair, AFSAB Study on Future Launch Vehicle Systems, 2009-10
Chair, AFSAB Study on Improved Air Vehicle Fuel Efficiency, 2005-6
Chair, AFSAB Study on Persistence at Near Space Altitudes, 2005
Chair, Air Force Research Lab Science & Technology Review, Propulsion, 2004
Chair, AFSAB Panel on Targets and Effects, Long Range Strike Study, 2003
Chair, AFSAB Panel, Sensor Technologies - Hard & Deeply Buried Targets, 2001
Member of various SAB technical studies and reviews, 1997 - 2021

American Physical Society/Division of Fluid Dynamics

Division Councilor, 2015 – 2018
Division Chair (also Vice-Chair, Chair-Elect, Immediate Past Chair), 2009 – 2012
Chair, Fellowship Committee, 2009 – 2010
Member, Local Organizing Committee, APS/DFD Long Beach meeting, 2010
Member, Frankiel award committee, 2005-7
Member, Fluid Dynamics Prize Committee, 2004-6
Member, Executive Committee, 1998-2001
Member and Chair, Nominating Committee, 1998-2000 and 1993-95

US National Committee on Theoretical and Applied Mechanics (USNC/TAM) and International Union of Theoretical and Applied Mechanics (IUTAM)

Member, Congress Committee, IUTAM, 2012-20
Member, Congress Committee Nominations Subcommittee, IUTAM, 2020
Member, IUTAM Symposia Panel for Fluid Mechanics, 2018-present
Member-at-Large and Representative (CC), USNC/TAM, 2011-present
Member, Executive, USNC/TAM Strategic Planning, Reports Committees, 2014 - 2017
Co-Chair, Combustion and Flames Thematic Sessions, ICTAM Montreal, 2016

Combustion Institute

Member, Silver Medal Award Committee, 2013-15
Member, Gold Medal Awards Committee, 2007-10
Member, Editorial Board, **Proceedings of the Combustion Institute**, 2008 – 2015
Chair, Western States Section/The Combustion Institute Fall meeting, UCLA, 2003
Member, Executive Committee, Western States Section, 1999-present
Co-Organizer, Colloquium on Supersonic Combustion, 26th Int. Symposium, 1996

Technical Committees for the U.S. National Academies/National Research Council

Member, NRC Committee on NASA's Strategic Directions, 2012
Member, Science Council, National Center for Microgravity Research, 2004-7
Member, ASEB Committee on Breakthrough Technologies and Long-term R&D Goals in Aeronautics and Space Transportation Technology, 1997-98
Member, NAS NSB Technology for Future Naval Forces Study, 1996-1997
Member, NAS ASEB Committee on Space Facilities, 1993-94

NASA

Member, NASA Aerospace Technology Advisory Committee, 1995-2001
Member, NASA Federal Lab Review Task Force, 1994-95

AIAA

Editorial Advisory Board Member, **Journal of Propulsion and Power**, 2018 – present
Member, AIAA Fellow Selection Committee, periodically since 2005
Member, AIAA Publications Awards Committee, 2002 – 2009
Associate Editor, **AIAA Journal**, 2002-5
Associate Editor, **Journal of Propulsion and Power**, 1996-98

External University Advisory/Review Committees

Member, Advisory Board, UK Fluids Network, 2015 - present
Chair, Review of University of Arizona Dept of Aerospace & Mechanical Engr., 2015
Member, Princeton Univ. Mechanical & Aerospace Engr Advisory Council, 2014-present
Member, Exec Bd, U. Michigan/AFRL Collab. Center in Control Science, 2012 – present
Member, Caltech External Advisory Board, Mechanical & Civil Engr., 2007-present
Member and Chair, Visiting Committee, University of Washington Department of Aeronautics and Astronautics, 1998-2002
Member, Review Team, University of Colorado Dept of Mech Engr., 1996
Member, Review Committee, UC Irvine Dept of Mech & Aero Engr., 1996

Department of Energy/Sandia National Laboratories

Chair, External Advisory Board, Sandia National Laboratories' Grand Challenge Laboratory Director's R&D Project on Sensing for HDBT Defeat, 2003-5
Member, DOE Basic Energy Sciences Review Team, Sandia Natl. Labs, 2002
Chair, Review Team for Caltech DOE ASCI Center, 1999

Other Technical/Professional Activities

Member, Mayor's Advisory Council on Aerospace, City of Los Angeles, 2014-16
Member, NSF proposal and other review panels, periodically since 1991
Co-organizer, 70th Birthday Symposium in honor of Prof. Robert Kelly, Nov., 2004
Co-Coordinator, Advanced School on "Modeling, Manipulation, and Control of Transverse Jets", Centre International des Sciences Mecaniques, Italy, June, 2001
Reviewer, **AIAA Journal, Journal of Fluid Mechanics, Physics of Fluids, Phys Rev Fluids, The Physical Review and Physical Review Letters, Combustion Symposia, ASME Journal of Heat Transfer, Journal of Propulsion and Power, Combustion and Flame, Combustion Science and Technology, Shock Waves Proc. of the Royal Society A, Experiments in Fluids, Theoretical & Computational Fluid Dynamics, Combustion Theory & Modeling**

PRESENT/FORMER GRADUATE STUDENTS AND POST-DOCTORAL RESEARCHERS

Doctoral Students

Bose V. S. Manda, Ph.D., 1987; currently MTS, Structural Research & Analysis Corp.
Stephen D. Heister, Ph.D., 1988; currently Raisbeck Distinguished Professor, Purdue Univ.
Trinh T. Nguyen, Ph.D., 1989; currently MTS, Aerospace Corporation
Hsi-Shang Li, Ph.D., 1992; currently President, Contex Engineering Intl., Inc.
Kevork Madooglu, Ph.D., 1992; currently Physics Instructor, Burbank USD
Vinh Ton, Ph.D., 1993; currently MTS, Boeing Space and Communications
Jeffrey Willis, Ph.D., 1994; currently Group lead, Turbopumps, SpaceX
Christopher Cadou, Ph.D., 1996; currently Professor, Dept. of Aero. Engr., Univ. of Maryland
Yungmo Kang, Ph.D., 1997; currently MTS, Solar Turbines
Thomas Selerland, Ph.D., 1997; currently faculty member, American University of Sharjah
Ari Majamaki, Ph.D., 2001; currently MTS, Aerospace Corporation
Xing He, Ph.D., 2004; currently Quantitative Analyst, Bloomberg, NYC
Srinivasan Dattarajan, Ph.D., 2004; currently Manager, R&D, Forbes Marshall Pvt Ltd, India
Leonardo Alves, Ph.D., 2006; currently Professor, Universidade Federal Fluminense, Brazil
Juliett Davitian, Ph.D., 2008; currently Member of Technical Staff, Aerospace Corporation
Juan Rodriguez, Ph.D., 2009; currently faculty member, CETYS Universidad Posgrado
Christopher Zeineh, Ph.D., 2010; currently MTS, Aerospace Corporation
Brian Boyce, Ph.D., 2010; currently MTS, Aerojet-Rocketdyne
Sophonias Teshome, Ph.D., 2012; currently MTS, Aerospace Corporation
Daniel Getsinger, Ph.D., 2012; currently Senior Associate, Thermal Sciences, Exponent
Lord Cole, Ph.D., 2012; currently Trade Logic Developer, TransMarket Group, Chicago IL
Jeffrey Wegener, Ph.D., 2014; currently Group Leader, Physical Sciences, Inc.
Hai Le, Ph.D, 2014; currently Computational Physicist, Lawrence Livermore National Lab
Levon Gevorkyan, Ph.D., 2015; currently Manager, Comb. & Dynamics, Aerospace Corporation
Ayaboe Edoh, Ph.D., 2017; currently Research Scientist, Air Force Research Lab
Takeshi Shoji, Ph.D., 2017; currently Researcher, Japan Aerospace Exploration Agency (JAXA)
Richard Abrantes, Ph.D., 2018; currently NRC Postdoctoral Researcher, Air Force Research Lab
Andrea Besnard, Ph.D., 2019; currently MTS, Aerospace Corporation
Elijah Harris, Ph.D., 2020; currently Experimental Physicist, Lawrence Livermore National Lab
Salvador Badillo Rios, Ph.D., 2020; currently, Associate, Defense Innovation Unit (DIU)
Miguel Plascencia, Ph.D., 2021; currently Postdoctoral Researcher, Air Force Research Lab
Andres Vargas, Ph.D. in progress
Mathias Ross, Ph.D. in progress
David Ren, Ph.D. in progress

Masters Thesis/Research Students

Trinh T. Nguyen, M.S., 1986; currently MTS, Aerospace Corporation
Yutaka Suganuma, M.S., 1987; currently MTS, Boeing Corp.
Thomas G. Kalman, M.S., 1987; currently MTS, Raytheon Corp.
Hsi-Shang Li, M.S., 1990; currently President, Contex Engineering Intl., Inc.
Li-Ming Lee, M.S., 1990; currently Animator, SKG Dreamworks
Anh-Tuan Le, M.S., 1991; currently Engr. Scientist, Advatech Pacific, Inc.
Christopher Cadou, M.S., 1991; currently Professor, Dept. of Aero. Engr., Univ. of Maryland
Jeffrey Willis, M.S., 1991; currently Group lead, Turbopumps, SpaceX
K. S. Charles Wang, M.S., 1993; currently Group Supervisor, NASA/Jet Propulsion Lab
Annik Neill Majamaki, M.S., 1993; currently MTS, Northrop-Grumman Space Technology
Silvia H. Karlsson, M.S., 1993; currently MTS, General Motors Research
Brian J. Petersen, M.S., 1995; currently MTS, Boeing Phantom Works
Timothy Gerk, M.S., 1996; currently MTS, HyperParallel, Inc.
Mark Mitchell, M.S., 1996; currently Senior Engineer, GE Power & Water
Ari Majamaki, M.S., 1996; currently MTS, Aerospace Corporation

Guillermo Pont, M.S., 1996; currently MTS, Honeywell
Ivan Lam, M.S., 1996; currently Senior Technical Staff, Oracle Computing Corp.
Peter Hwang, M. S., 1998; currently Managing Director of Iron Mountain, Greater China
Ryan Pfeiffer, M. S., 1999; currently MTS, Aerospace Corp.
Indy Lee, M. S., 2001; currently MTS, Loral Space and Communications
Jonathan King, M. S., 2002; currently MTS, Northrop-Grumman Corp.
Stephen Shapiro, M. S., 2003; currently Post Production Film Editor, New Line Cinema
Caesar Mak, M. S., 2004; currently MTS, Northrop-Grumman Corp.
Tony Tang, M.S., 2004; currently MTS, Aerospace Corporation
Sevan Megerian, M.S., 2005; currently MTS, Lockheed-Martin Skunk Works
Mark Lee, M.S., 2005; currently Mechanical Engineer, Knolls Atomic Power Laboratory
Marcus George, M.S., 2006; currently Member of Technical Staff, Aerospace Corporation
Juliett Davitian, M.S., 2006; currently Member of Technical Staff, Aerospace Corporation
Juan Rodriguez, M.S., 2006; currently faculty member, CETYS Universidad Posgrado
Edson Rodriguez, M.S., 2007; currently MTS, Aerospace Corporation
Timothy Roth, M.S., 2008; currently MTS, Northrop-Grumman Electronic Systems
Reza Tavassoli, M.S., 2008; currently MTS, Northrop-Grumman Electronic Systems
Daniel Getsinger, M.S., 2008; currently Senior Associate, Thermal Sciences, Exponent
Cory Hendrickson, M.S., 2008; currently MTS, Ford Scientific Research Laboratory
Sophonias Teshome, M.S., 2008; currently MTS, Aerospace Corporation
Lord Cole, M.S., 2008; currently Trade Logic Developer, TransMarket Group, Chicago IL
Haykaz Mkrtchyan, M.S., 2009; currently Manager, Enertech/Curtiss-Wright
Kevin Canzonieri, M.S., 2009; currently Engineer, General Atomics
Jeffrey Wegener, M.S., 2011; currently Group Leader, Physical Sciences, Inc.
Levon Gevorkyan, M.S., 2011; currently Manager, Comb. & Dynamics, Aerospace Corporation
Hai Le, M.S., 2012; currently Computational Physicist, Lawrence Livermore National Lab
Ayaboe Edoh, M.S., 2012; currently Research Scientist, Air Force Research Lab
Cristhian Sevilla, M.S., 2013; currently Environmental Control Systems Manager, Boeing
William Quan, M.S., 2013; currently MTS, Boeing
Takeshi Shoji, M.S., 2013; currently Researcher, Japan Aerospace Exploration Agency (JAXA)
Phuoc Hai Tran, M.S., 2014; currently Engineer, Air Force Research Laboratory
Richard Abrantes, M.S., 2014; currently NRC Postdoctoral Researcher, Air Force Research Lab
Jonathan Tovar, M.S., 2015; currently Manager, Solid Propulsion & Stages, Aerospace Corp.
Andrea Besnard, M.S., 2016; currently MTS, Aerospace Corporation
Elijah Harris, M.S., 2016; currently Experimental Physicist, Lawrence Livermore National Lab
Salvador Badillo Rios, M.S., 2017; currently Associate, Defense Innovation Unit (DIU)
Miguel Plascencia, M. S., 2017; currently Postdoctoral Researcher, Air Force Research Lab
Jonathan Tran, M. S., 2017; currently, Technical Analyst, RAND Corporation
Andres Vargas, M.S., 2018; currently Ph.D. student, UCLA
Daniel Kerr, M. S., 2019; currently MTS, Northrop-Grumman Electronic Systems
David Ren, M.S., 2019; currently Ph.D. student, UCLA
Sarina Kiani, M.S., 2021; currently MTS, M4 Engineering, Inc.
Arin Hayrapetyan, M.S., in progress

Postdoctoral and Visiting Scholars

Farrokh Issacci, Ph.D.; currently Group Manager, Amgen
Pamela Logan, Ph.D.; currently Researcher, Department of Energy, Richland, WA
James McDonough, Ph.D.; currently Professor, University of Kentucky
Lance Smith, Ph.D.; currently Research Engineer, United Technologies Research Center
Luca Cortelezzi, Ph.D.; currently Associate Professor, Politecnico di Milano
Heon-Chang Kim, Ph.D.; currently Assistant Professor, Hoseo University, Korea
Chaouki Ghenai, Ph.D.; currently Assistant Professor, Florida Atlantic University
Daniel Getsinger, Ph.D.; currently Senior Associate, Thermal Sciences, Exponent
Daniel Chalhub, Ph.D.; currently Professor, Universidade do Estado do Rio de Janiero
Mario Roa, Ph.D.; currently Technical Staff, Air Force Research Laboratory, Edwards AFB

Dario Valentini, Ph.D.; currently an engineer at SITAEL, Pisa, Italy
John Bennewitz, Ph.D.; currently Research Scientist, Air Force Research Lab, Edwards AFB
Hyung Sub Sim, Ph.D.; currently Asst. Prof., Aerospace Engr., Sejong University, Seoul, Korea
Rosa Padilla, Ph.D.; currently research scientist, NASA Glenn Research Center
Davi Bernhard, currently Postdoctoral Researcher, Universidade Federal Fluminense, Brazil
Elijah Harris, Ph.D.; currently Experimental Physicist, Lawrence Livermore National Lab

INSTRUCTIONAL ACTIVITIES

Courses regularly taught at UCLA, 1982 – present (100 level: undergraduate; 200 level: graduate)

- MAE 103, Elementary Fluid Mechanics
- MAE 150A, Intermediate Fluid Mechanics (co-instructor in charge)
- MAE 150P/250P, Aircraft Propulsion Systems (creator, instructor in charge)
- MAE 150R/250R, Rocket Propulsion Systems (creator, co-instructor in charge)
- MAE 157, Basic Mechanical Engineering Laboratory
- MAE 250B, Viscous and Turbulent Flows (co-instructor in charge)
- MAE 250C, Compressible Flows (co-instructor in charge)
- MAE 252C, Fluid Mechanics of Combustion Systems (creator, instructor in charge)

PUBLICATIONS (* = corresponding author)

Air Force Scientific Advisory Board Publications (as lead author):

1. **Karagozian**, **A. R.,** Judd, O. P., Lacoss, R., et al., "Sensor Technologies for Difficult Targets: Chapters on Sensors for Hard and Deeply Buried Targets", AF SAB Technical Report, 2001.

2. **Karagozian, A. R**., Glasgow, E., Kroo, I., et al., "Persistence at Near Space Altitudes", Air Force SAB-TR-05-06, August, 2005.

3. **Karagozian, A. R.,** Dahm, W., Kroo, I., Murray, R., et al., "Technology Options for Improved Air Vehicle Fuel Efficiency", Air Force SAB-TR-06-04, May, 2006.

4. **Karagozian, A. R.,** Yarymovych, M. I., Heister, S., Van Wie, D., et al., "The Future of Launch Vehicle Systems for the United States Air Force", Air Force SAB-TR-10-02, August, 2010.

Archival (Peer-Reviewed) Journal Papers:

1. **Karagozian**, **A. R**. and Marble, F. E.*, "Study of a diffusion flame in a stretched vortex", ***Combustion Science and Technology***, Vol. 45, Issue 1-2, pp. 65-84, 1986

2. **Karagozian**, **A. R**.*, "An analytical model for the vorticity associated with a transverse jet", ***AIAA Journal***, Vol. 24, No. 3, pp. 429-436, March, 1986

3. **Karagozian**, **A. R.***, "The flame structure and vorticity generated by a chemically reacting transverse jet", ***AIAA Journal***, Vol. 24, No. 9, pp. 1502-1507, September, 1986

4. **Karagozian**, **A. R.*** and Manda, B. V. S., "Flame structure and fuel consumption in the field of a vortex pair", ***Combustion Science and Technology***, Vol. 49, pp. 185-200, 1986

5. **Karagozian**, **A. R.***, Nguyen, T. T., and Kim, C. N., "Vortex modeling of single and multiple dilution jet mixing in a crossflow", ***Journal of Propulsion and Power***, Vol. 2, No. 4, pp. 354-360, July, 1986

6. **Karagozian**, **A. R.*** and Nguyen, T. T., "Effects of heat release and flame distortion in the transverse fuel jet", ***Proceedings of the Combustion Institute***, Vol. 21, pp. 1271-1279, 1986

7. **Karagozian**, **A. R.***, Suganuma, Y., and Strom, B. D., "Experimental Studies in Vortex Pair Motion Coincident with a Liquid Reaction", ***The Physics of Fluids***, Vol. 31, pp. 1862-1871, 1988; also in ***Turbulent Reactive Flows***, Lecture Notes in Engineering, Vol. 40, Springer-Verlag, 1989

8. Manda, B. V. S. and **Karagozian**, **A. R.***, "Effects of Heat Release on Diffusion Flame-Vortex Pair Interactions", ***Combustion Science and Technology***, Vol. 61. pp. 101-119, 1988

9. Heister, S. D., Nguyen, T. T., and **Karagozian**, **A. R.***, "Modeling of Liquid Jets Injected Transversely into a Supersonic Crossflow", ***AIAA Journal***, Vol. 27, No. 12, pp. 1727-1734, 1989

10. Heister, S. D. and **Karagozian**, **A. R.***, "Vortex Modeling of Gaseous Jets in a Compressible Cross Flow", ***Journal of Propulsion and Power***, Vol. 6, No. 1, pp. 85-92, 1990. Translated into Russian and published in ***Aerokosmecheskaya Technika***, Vol. 8, pp. 76-86, August, 1990.

11. Heister, S. D. and **Karagozian**, **A. R.***, "Gaseous Jet in Supersonic Crossflow", ***AIAA Journal***, Vol. 28, No. 5, pp. 819-827, 1990

12. Logan, P., Lee, J. W., Lee, L. M., **Karagozian**, **A. R.***, and Smith, O. I., "Acoustics of a Low Speed Dump Combustor", ***Combustion and Flame***, Vol. 84, pp. 93-109, 1991

13. Smith, O. I.*, Marchant, R., Willis, J., Lee, L. M., Logan, P., and **Karagozian**, **A. R.**, "Incineration of Surrogate Wastes in a Low Speed Dump Combustor", ***Combustion Science and Technology***, Vol. 74, 1-6, pp. 199-210, 1990

14. Heister, S. D., McDonough, J. M., **Karagozian**, **A. R.***, and Jenkins, D. W., "The Compressible Vortex Pair", ***Journal of Fluid Mechanics***, 220, pp. 339-354, 1990

15. Nguyen, T. T. and **Karagozian**, **A. R.***, "A Liquid Fuel Jet in Subsonic Crossflow", ***Journal of Propulsion and Power***, Vol. 8, No. 1, pp. 21-29, 1992

16. Marchant, R., Hepler, W., Smith, O. I., Willis, J., Cadou, C., Logan, P., and **Karagozian**, **A. R.***, "Development of a Two-Dimensional Dump Combustor for the Incineration of Hazardous Wastes", ***Combustion Science and Technology***, 82, pp. 1-12, 1992

17. Li, H. S. and **Karagozian**, **A. R.***, "Breakup of a Liquid Jet in Supersonic Crossflow", ***AIAA Journal***, Vol. 30, No. 7, pp. 1919-1921, 1992

18. Cadou, C., Logan, P., **Karagozian**, **A. R.**, Marchant, R., and Smith, O. I.*, "Laser Diagnostic Techniques in a Resonant Incinerator", ***Environmental Sensing and Combustion Diagnostics***, SPIE, Vol. 1434, pp. 67-77, 1991.

19. Willis, J. W., Lee, L-M, **Karagozian**, **A. R.***, and Smith, O. I., "Acoustic Mode Alteration in a Dump Combustor Arising from Halon Addition", ***Combustion Science and Technology***, 94, 1-6, pp.469-481, 1993.

20. Madooglu, K. and **Karagozian**, **A. R.***, "Burning of a Spherical Fuel Droplet in a Uniform Flowfield with Exact Property Variation", ***Combustion and Flame***, 94, pp. 321-329, 1993.

21. Ton, V. T., **Karagozian**, **A. R.***, Marble, F. E., Osher, S. J., and Engquist, B. E., "Numerical Simulations of High Speed Chemically Reacting Flow", ***Theoretical and Computational Fluid Dynamics***, 6, pp. 161-179, 1994 (invited).

22. Madooglu, K. and **Karagozian**, **A. R.***, "A Simplified Approach to Transient Convective Droplet Evaporation and Burning", ***Combustion and Flame***, 98, pp. 170-174, 1994.

23. Willis, J., Cadou, C., Mitchell, M., **Karagozian**, **A. R.***, and Smith, O. I., "Destruction of Liquid and Gaseous Waste Surrogates in an Acoustically Excited Dump Combustor", ***Combustion and Flame***, 99, pp. 280-287, 1994.

24. Wang, K. S. C., Smith, O. I., and **Karagozian**, **A. R.***, "In-Flight Imaging of Gas Jets Injected into Subsonic and Supersonic Crossflows", ***AIAA Journal***, 33(12), pp. 2259-2263, 1995.

25. **Karagozian**, **A. R.***, Wang, K. C., Le, A.-T., and Smith, O. I., "Transverse Gas Jet Injection Behind a Rearward-Facing Step", ***Journal of Propulsion and Power***, 12(6), pp. 1129-1136, 1996.

26. Pont, G., Willis, J. W., **Karagozian**, **A. R.***, and Smith, O. I., "Effects of External Acoustic Excitation on Waste Surrogate Destruction in an Resonant Incinerator", ***Proceedings of the Combustion Institute***, Vol. 26, pp. 2463-2470, 1996

27. Gerk, T. J. and **Karagozian**, **A. R.***, "Ignition Delay Associated with a Strained Fuel Strip", ***Proceedings of the Combustion Institute***, Vol. 26, pp. 1095-1102, 1996.

28. Smith, L. L., Majamaki, A. J., Lam, I. T., Delabroy, O., **Karagozian**, **A. R.***, Marble, F. E., and Smith, O. I., "Mixing Enhancement in a Lobed Injector", ***The Physics of Fluids***, 9, pp. 667-678, 1997.

29. Pont, G., Cadou, C. P., **Karagozian**, **A. R.***, and Smith, O. I., "Emissions Reduction and Pyrolysis Gas Destruction in an Acoustically Driven Dump Combustor", ***Combustion and Flame***, 113, pp. 249-257, 1998.

30. Selerland, T. and **Karagozian**, **A. R.***, "Ignition, Burning, and Extinction of a Strained Fuel Strip with Complex Kinetics", ***Combustion Science and Technology***, 131, No. 1-6, pp. 251-276, 1998.

31. Kang, Y., **Karagozian**, **A. R.***, and Smith, O. I., "Transport Enhancement in Acoustically Excited Cavity Flows, Part I: Non-Reactive Flow Diagnostics", ***AIAA Journal***, Vol. 36, No. 9, pp. 1562-1567, 1998.

32. Cadou, C., Smith, O. I., and **Karagozian**, **A. R.***, "Transport Enhancement in Acoustically Excited Cavity Flows, Part II: Reactive Flow Diagnostics", ***AIAA Journal***, Vol. 36, No. 9, pp. 1568-1574, 1998.

33. Strickland, J. H., Selerland, T., and **Karagozian**, **A. R.***, "Numerical Simulations of a Lobed Fuel Injector", ***The Physics of Fluids***, Vol. 10, No. 11, pp. 2950-2964, 1998.

34. Mitchell, M. G., Smith, L. L., **Karagozian**, **A. R.***, and Smith, O. I., "Burner Emissions Associated with Lobed and Non-Lobed Fuel Injectors", ***Proceedings of the Combustion Institute***, Vol. 27, pp. 1825-1831, 1998.

35. Hwang, P., Fedkiw, R. P., Merriman, B., Aslam, T. D., **Karagozian**, **A. R.***, and Osher, S. J., "Numerical Resolution of Pulsating Detonation Waves", ***Combustion Theory and Modelling***, Vol. 4, No. 3, pp. 217-240, September, 2000.

36. Cortelezzi, L. and **Karagozian**, **A. R.***, "On the Formation of the Counter-Rotating Vortex Pair in Transverse Jets", ***Journal of Fluid Mechanics***, Vol. 446, pp. 347-373, November, 2001.

37. M'Closkey, R. T., King, J. M., Cortelezzi, L., and **Karagozian**, **A. R.***, "The actively controlled jet in crossflow", ***Journal of Fluid Mechanics***, Vol. 452, pp. 325-335, February, 2002.

38. Lee, I., Smith, O. I., and **Karagozian**, **A. R.***, "Hydrogen-Helium Leak Rates from Micromachined Orifices", ***AIAA Journal***, Vol. 41, No. 3, pp. 457-464, March, 2003.

39. Majamaki, A. J., Smith, O. I., and **Karagozian**, **A. R.***, "Passive Mixing Control via Lobed Injectors in High Speed Flow", ***AIAA Journal***, Vol. 41, No. 4, pp. 623-632, April, 2003.

40. He, X. and **Karagozian**, **A. R.***, "Numerical Simulation of Pulse Detonation Engine Phenomena", ***Journal of Scientific Computing***, Vol. 19, Nos. 1-3, pp.201-224, December, 2003 (invited).

41. Mitchell, M. G., Smith, O. I., and **Karagozian**, **A. R.***, "Effects of Passive Fuel-Air Mixing and Emissions Control via Lobed Injectors", ***AIAA Journal***, Vol. 42, No. 1, pp. 61-69, January, 2004.

42. Dattarajan, S., Lutomirski, A., Lobbia, R., Smith, O. I., and **Karagozian**, **A. R.***, "Acoustic Excitation of Droplet Combustion in Microgravity and Normal Gravity", ***Combustion and Flame***, Vol. 144, Issues 1-2, pp. 299-317, January, 2006.

43. Shapiro, S., King, J., M'Closkey, R. T., and **Karagozian**, **A. R.***, "Optimization of Controlled Jets in Crossflow", ***AIAA Journal***, Vol. 44, No. 6, pp. 1292-1298, 2006.

44. He, X. and **Karagozian**, **A. R.***, "Pulse Detonation Engine Simulations with Alternative Geometries and Reaction Kinetics", ***Journal of Propulsion and Power***, Vol. 22, No. 4, pp. 852-861, 2006.

45. Alves, L. S. de B., Kelly, R. E., and **Karagozian**, **A. R.***, "Local Stability Analysis of an Inviscid Transverse Jet", ***Journal of Fluid Mechanics***, Vol. 581, pp. 401-418, 2007.

46. Megerian, S., Davitian, J., Alves, L. S. de B., and **Karagozian**, **A. R.***, "Transverse Jet Shear Layer Instabilities. Part I: Experimental Studies.", ***Journal of Fluid Mechanics***, Vol. 593, pp. 93-129, 2007.

47. Alves, L. S. de B., Kelly, R. E., and **Karagozian**, **A. R.***, "Transverse Jet Shear Layer Instabilities. Part II: Linear Analysis for Large Jet-to-Crossflow Velocity Ratios.", ***Journal of Fluid Mechanics***, Vol. 602, pp. 383-401, 2008.

48. Mak, C., Gleason, L., Smith, O. I., and **Karagozian, A. R.*,** "Hydrogen-Helium Leak Detection at Elevated Pressures and Low Temperatures", ***AIAA Journal***, Vol. 47, No. 5, pp. 1303-1307, 2009.

49. **Karagozian, A. R.*,** "Transverse Jets and their Control", ***Progress in Energy and Combustion Science*** (invited); 36(5), pp. 531–553, 2010.

50. Davitian, J., Hendrickson, C., Getsinger, D., M'Closkey, R. T., and **Karagozian, A. R.*,** "Strategic Control of Transverse Jet Shear Layer Instabilities", ***AIAA Journal***, Vol. 48, No. 9, pp. 2145-2156, 2010 (doi: 10.2514/1.51248).

51. Davitian, J., Getsinger, D., Hendrickson, C., and **Karagozian, A. R.*,** "Transition to Global Instability in Transverse Jet Shear Layers", ***Journal of Fluid Mechanics,*** Vol. 661, pp. 294-315, 2010.

52. Zeineh, C. F., Cole, L. K., Roth, T., **Karagozian, A. R.*,** and Cambier, J.-L., "Magnetohydrodynamic Augmentation of Pulse Detonation Rocket Engines", ***Journal of Propulsion and Power***, Vol. 28, No. 1, pp. 146-159, 2012.

53. Getsinger, D., Hendrickson, C., and **Karagozian, A. R.*,** "Shear Layer Instabilities in Low Density Transverse Jets", ***Experiments in Fluids***, Vol. 53, Issue 3, pp. 783-801 2012, DOI 10.1007/s00348-012-1329-x.

54. Cole, L. K., **Karagozian, A. R**.*, and Cambier, J.-L., "Stability of Flame-Shock Coupling in Detonation Waves: 1D Dynamics", ***Combustion Science and Technology,*** Vol. 184, Issue 10-11, pp. 1502-1525, 2012; DOI:10.1080/00102202.2012.690316**.**

55. Le, H. P., **Karagozian, A. R.,** and Cambier, J.-L.*, "Complexity Reduction of Collisional-Radiative Kinetics for Atomic Plasma", ***Physics of Plasmas***, Vol. 20, No. 12, 123304, 2013; http://dx.doi.org/10.1063/1.4849417.

56. Sevilla-Esparza, C. I., Wegener, J. L., Teshome, S., Rodriguez, J. I., Smith, O. I., and **Karagozian, A. R.*,** "Droplet Combustion in the Presence of Acoustic Excitation", ***Combustion and Flame***, Vol. 161, pp. 1604-1619, 2014.

57. **Karagozian, A. R.*,** "The Jet in Crossflow", ***Physics of Fluids***, **26**, 101303, 2014; http://dx.doi.org/10.1063/1.4895900 (invited).

58. Getsinger, D. R., Gevorkyan, L., Smith, O. I., and **Karagozian, A. R.*,** "Structural and Stability Characteristics of Jets in Crossflow", ***Journal of Fluid Mechanics,* 760**, pp. 342-367, 2014, DOI: http://dx.doi.org/10.1017/jfm.2014.605

59. **Karagozian, A. R.*,** "Frank Marble (1918-2014): Tribute to an Aerospace Giant", ***Proceedings of the National Academy of Sciences***, vol. 112 no. 18, pp. 5550–5551, May, 2015 (invited).

60. Gevorkyan, L., Shoji, T., Getsinger, D. R., Smith, O. I., and **Karagozian, A. R.*,** "Transverse Jet Mixing Characteristics", ***Journal of Fluid Mechanics,* 790**, pp. 237-274, 2016.

61. **Karagozian, A. R.*,** "Acoustically Coupled Fuel Droplet Combustion", ***Applied Mechanics Reviews,*** 68(4):040801-040801-1, 2016 (invited).

62. Gevorkyan, L., Shoji, T., Peng, W.-Y., and **Karagozian, A. R.*,** "Influence of the Velocity Field on Scalar Transport in Gaseous Transverse Jets", ***Journal of Fluid Mechanics***, **834**, pp. 173-219, 2018. Image from this article chosen for journal cover.

63. Bennewitz, J., Valentini, D., Plascencia, M., Vargas, A., Sim, H. S., Lopez, B., Smith, O. I., and **Karagozian, A. R.***, "Periodic Partial Extinction in Acoustically Coupled Fuel Droplet Combustion", ***Combustion and Flame,*** Vol. 189, pp. 46-61, 2018.

64. Abrantes, R. J. E.*, **Karagozian, A. R.**, Bilyeu, D., and Le, H. P., "Complexity Reduction Effects on Transient, Atomic Plasmas", ***Journal of Quantitative Spectroscopy and Radiative Transfer***, Vol. 216, pp. 47-55, 2018.

65. Sim, H. S.*, Plascencia, M. A., Vargas, A., Bennewitz, J. W., Smith, O. I., and **Karagozian, A. R.**, "Effects of Inert and Energetic Nanoparticles on Burning Liquid Ethanol Droplets", ***Combustion Science and Technology,*** 2018. DOI: 10.1080/00102202.2018.1509857

66. Edoh, A. K.*, Mundis, N. L., Merkle, C. L., **Karagozian, A. R**., Sankaran, V., "Comparison of Artificial-dissipation and Solution-filtering Stabilization Schemes for Time-accurate Simulations", ***Journal of Computational Physics,*** 2018. https://doi.org/10.1016/j.jcp.2018.08.019**.**

67. Shoji, T., Besnard, A., Harris, E. W., M'Closkey, R. T., and **Karagozian, A. R.***, "Effects of Axisymmetric Square Wave Excitation on Transverse Jet Structure and Mixing", ***AIAA Journal***, Vol. 57, No. 5, 2019, https://arc.aiaa.org/doi/pdf/10.2514/1.J057982.

68. Sim, H. S.*, Plascencia, M. A., Vargas, A., and **Karagozian, A. R.**, "Acoustically-Forced Droplet Combustion of Liquid Fuel with Reactive Aluminum Nanoparticulates", ***Combustion Science and Technology***, 2019. DOI: https://doi.org/10.1080/00102202.2019.1593971.

69. Shoji, T., Harris, E. W., Besnard, A., Schein, S. G., and **Karagozian, A. R.*,** "Transverse Jet Lock-In and Quasiperiodicity", ***Physical Review Fluids,*** Vol. 5, 013901, 2020. DOI: https://doi.org/10.1103/PhysRevFluids.5.013901.

70. Sim, H. S., Vargas, A., Ahn, D. C., and **Karagozian, A. R.***, "Laminar Microjet Diffusion Flame Response to Transverse Acoustic Excitation", ***Combustion Science and Technology***, 2020 (invited). DOI: 10.1080/00102202.2020.1726897.

71. Shoji, T., Besnard, A., Harris, E. W., M'Closkey, R. T., and **Karagozian, A. R.***, "Correction: Effects of Axisymmetric Square Wave Excitation on Transverse Jet Structure and Mixing", ***AIAA Journal***, 2020. https://doi.org/10.2514/1.J057982.c1

72. Shoji, T., Harris, E. W., Besnard, A., Schein, S. G., and **Karagozian, A. R.*,** "On the origins of transverse jet shear layer instability transition", ***Journal of Fluid Mechanics***, Vol. 890 A7, May 10, 2020. DOI: https://doi.org/10.1017/jfm.2020.127.

73. Getsinger, D. R., Gevorkyan, L., Shoji, T., Smith, O. I. and **Karagozian, A. R.***, "Structural and stability characteristics of jets in crossflow – CORRIGENDUM", ***Journal of Fluid Mechanics***, Vol. 890, May 10, 2020. DOI: https://doi.org/10.1017/jfm.2020.156.

74. Edoh, A. K.*, Mundis, N. L., **Karagozian, A. R**., and Sankaran, V., "Balancing Numerical Dispersion, Dissipation, and Aliasing in Time-Accurate Simulations", ***International Journal for Numerical Methods in Fluids***, 1-22, 2020. DOI: http://dx.doi.org/10.1002/fld.4837

75. Shoji, T., Harris, E. W., Besnard, A., and **Karagozian, A. R.*,** "Effects of Sinusoidal Excitation on Transverse Jet Dynamics, Structure and Mixing", ***AIAA Journal***, Vol. 58, No. 9, pp. 3889-3901 2020. DOI: https://doi.org/10.2514/1.J059295**.**

76. Kerr, D. H., **Karagozian, A. R.,** Bilyeu, D., and Eckhardt, D.*, "Non-Deterministic Analysis of Monopropellant Catalyst Bed Model", ***Journal of Propulsion and Power,*** 2020. DOI: https://doi.org/10.2514/1.B37853.

77. Harris, E. W., Besnard, A., and **Karagozian, A. R.***, "Effect of tabs on transverse jet instabilities, structure, vorticity dynamics, and mixing", ***Journal of Fluid Mechanics****, 918*, A8, 2021. DOI:10.1017/jfm.2021.323.

78. Mok, Thalia, Harris, Elijah, Vargas, Andres, Afshar, Yalda, Han, Christina S., **Karagozian, Ann**, and Rao, Rashmi*, "Evaluation of Respiratory Emissions During Labor and Delivery: Potential Implications for Transmission of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)", ***Obstetrics & Gynecology***, September 9, 2021 - Volume - Issue - 10.1097/AOG.0000000000004533 doi: 10.1097/AOG.0000000000004533.

79. Harris, E. W., Shoji, T., Besnard, A., Schein, S. G., M'Closkey, R. T., Cortelezzi, L., and **Karagozian, A. R**.*, "Effects of Controlled Vortex Generation and Interactions in Transverse Jets", ***Physical Review Fluids***, Vol. 7, No. 1, 013902, January, 2022. DOI: https://doi.org/10.1103/PhysRevFluids.7.013902.

Books, Book Chapters, and Published Reports (* = corresponding author):

1. **Karagozian**, **A. R.***, "Jet Propulsion", ***Encyclopedia of Physical Science and Technology***, 7, pp. 35-47, 1987 **(invited)**

2. **Karagozian**, **A. R.***, "Jet Propulsion", ***Encyclopedia of Physical Science and Technology***, 8, pp. 339-351, 1992. **(invited)**

3. **Karagozian**, **A. R.***, "Fuel Injection and Flame Holding in High Speed Combustion Systems", Proceedings of the ICASE High Speed Combustion Workshop, NASA Langley, October, 1989; also in ***Major Topics in Combustion***, Hussaini, M. Y., Kumar, A., and Voigt, R. G., eds., Springer-Verlag, 1992 **(invited)**

4. Strickland J. H., Selerland T. and **Karagozian A. R.*** "Numerical Simulation of Vorticity Dynamics in a Lobed Injector Flowfield", ***Numerical Methods for Fluid Dynamics VI***, Editor M. J. Baines, ICFD, Oxford, UK, pp. 515-522, 1998.

5. **Karagozian**, **A. R.**, Cortelezzi, L., and Soldati, A., eds., ***Manipulation and Control of Transverse Jets***, CISM Courses and Lectures No. 439, Springer-Wein New York, 2003.

6. **Karagozian**, **A. R.***, "Background on and Applications of Jets in Crossflow", in ***Manipulation and Control of Transverse Jets***, Karagozian, A. R., Cortelezzi, L., and Soldati, A., eds., CISM Courses and Lectures No. 439, Springer-Wein New York, 2003

7. **Karagozian**, **A. R.***, Wang, K. S. C., and Smith, O. I., "Jets Injected Normally into Compressible Crossflow", in ***Manipulation and Control of Transverse Jets***, Karagozian, A. R., Cortelezzi, L., and Soldati, A., eds., CISM Courses and Lectures No. 439, Springer-Wein New York, 2003.

8. Cortelezzi, L. and **Karagozian**, **A. R.***, "Three-Dimensional Vortex Modeling of Unforced Transverse Jets", in ***Manipulation and Control of Transverse Jets***, Karagozian, A. R., Cortelezzi, L., and Soldati, A., eds., CISM Courses and Lectures No. 439, Springer-Wein New York, 2003.

9. M'Closkey, R. T., King, J. M., Cortelezzi, L., and **Karagozian**, **A. R.***, "Active Control of Jets in Crossflow", in ***Manipulation and Control of Transverse Jets***, Karagozian, A. R., Cortelezzi, L., and Soldati, A., eds., CISM Courses and Lectures No. 439, Springer-Wein New York, 2003.

10. Cortelezzi, L., M'Closkey, R. T., and **Karagozian**, **A. R.***, "A Framework to Design Controllers for Engineering Applications of Transverse Jets", in ***Manipulation and Control of Transverse Jets***, Karagozian, A. R., Cortelezzi, L., and Soldati, A., eds., CISM Courses and Lectures No. 439, Springer-Wein New York, 2003.

11. **Karagozian**, **A. R.***, "Control of Mixing and Reactive Flow Processes" (**invited**), in ***Control of Fluids***, Igor Mezic, Manfred Morari, and Petros Koumoutsakos, editors; Springer-Verlag, pp. 75-90, 2006.

12. **Karagozian, A. R**.*, Dabiri, J. O., Dunn B. S., Hong , Z., Longmire , E. K., Mahendra, S., Paulson, S. E., Randolph, J., Saar, M. O, and Yang, Y., "U.S. Energy and Environmental Challenges and Fundamental Contributions from Mechanics Research", ***Research Trends in Mechanics***, US. National Committee on Theoretical and Applied Mechanics, National Academies Press, 2014.

13. D. J. Forliti*, I. A. Leyva, D. G. Talley, J. I. Rodriguez, S. Teshome, J. L. Wegener, M. Roa, and **A. R. Karagozian**, "Forced and unforced shear coaxial mixing and combustion at subcritical and supercritical pressures", Chapter 6 in ***High Pressure Flows for Propulsion Applications, AIAA Progress in Astronautics and Aeronautics***, pp. 233-279, March, 2020. DOI: https://doi.org/10.2514/5.9781624105814.0233.0280.

Conference Publications (Abstracts Peer-Reviewed) (* = corresponding author):

1. **Karagozian**, **A. R.*** and Marble, F. E., "An analytical study of diffusion flames in vortex structures", Proceedings of the Western States Section/The Combustion Institute, Paper 83-31, Pasadena, CA, April, 1983

2. **Karagozian**, **A. R.***, "An analytical model for the vorticity associated with a transverse jet", AIAA Paper no. 84-1662, June, 1984

3. **Karagozian**, **A. R.***, "The flame structure and vorticity generated by a chemically reacting transverse jet", Proceedings of the Western States Section/The Combustion Institute, Paper 84-85, October, 1984

4. **Karagozian**, **A. R.*** and Manda, B. V. S., "Flame structure and fuel consumption in the field of a vortex pair", Proceedings of the Central and Western States Sections/The Combustion Institute, Paper 85-3-1B, April, 1985

5. **Karagozian**, **A. R.***, Nguyen, T. T., and Kim, C. N., "Vortex modeling of single and multiple dilution jet mixing in a crossflow", AIAA Paper no. 85-1580, July, 1985

6. **Karagozian**, **A. R.***, Small, R. D., and Remetch, D., "Large Buoyant Fire Plumes", AIAA Paper No. 86-0574, January, 1986

7. **Karagozian**, **A. R.***, "Modeling of Overfire Air Jets in Hazardous Waste Incinerators", ASME Paper No. 86-WA/HT-26, December, 1986

8. Heister, S. D., Nguyen, T. T., and **Karagozian**, **A. R.***, "Modeling of Liquid Jets Injected Transversely into a Supersonic Crossflow", AIAA Paper No. 88-0100, January, 1988

9. Heister, S. D. and **Karagozian**, **A. R.***, "Vortex Modeling of Gaseous Jets in a Compressible Cross Flow", AIAA Paper No. 88-3270, July, 1988

10. Heister, S. D. and **Karagozian**, **A. R.***, "Gaseous Jet in Supersonic Crossflow", AIAA Paper No. 89-2547, July, 1989

11. Logan, P., Lee, J. W., Lee, L. M., **Karagozian**, **A. R.***, and Smith, O. I., "Acoustics of a Low Speed Dump Combustor", WSS/CI Paper No. 89-25

12. Madooglu, K. and **Karagozian**, **A. R.***, "Burning of a Spherical Fuel Droplet in a Uniform Subsonic Flowfield", Paper No. 89-65, Proceedings of the Western States Section/The Combustion Institute Fall Meeting, Livermore, CA, October, 1989

13. **Karagozian**, **A. R.***, "Fuel Injection and Flame Holding in High Speed Combustion Systems", Proceedings of the ICASE High Speed Combustion Workshop, NASA Langley, October, 1989

14. Nguyen, T. T. and **Karagozian**, **A. R.***, "A Liquid Fuel Jet in Subsonic Crossflow", AIAA Paper No. 90-0445

15. Willis, J. W., Lee, L. M., **Karagozian**, **A. R.***, and Smith, O. I., "Effect of Perturbation of the Heat Release Rate on the Acoustics of a Two-Dimensional Dump Combustor", Paper presented at the Western States/ Canadian Section Meeting of the Combustion Institute, Banff, Alberta, April, 1990

16. Marchant, R., Hepler, W., Smith, O. I., Willis, J., Cadou, C., Logan, P., and **Karagozian**, **A. R.***, "Development of a Two-Dimensional Dump Combustor for the Incineration of Hazardous Wastes", Proceedings of the AIChE Winter Meeting, December, 1990

17. Li, H. S. and **Karagozian**, **A. R.***, "Breakup of a Liquid Jet in Supersonic Crossflow", AIAA Paper No. 91-0689

18. Cadou, C., Willis, J., Logan, P., **Karagozian**, **A. R.***, Marchant, R., and Smith, O. I., "Reaction Processes Associated with Waste Destruction in a Two-Dimensional Dump Combustor", Paper WSS/CI 91-6, Proceedings of the Western States Section/The Combustion Institute Spring Meeting, March, 1991.

19. Willis, J. W., Lee, L-M, **Karagozian**, **A. R.***, and Smith, O. I., "Acoustic Mode Alteration in a Dump Combustor Arising from Halon Addition", Paper B-1, Proceedings of the International Symposium on Pulsating Combustion, August, 1991

20. Issacci, F., **Karagozian**, **A. R.***, and Smith, O. I., "Turbulent Reactive Gaseous Jet Flow in an Axisymmetric Enclosure", Paper 91-83, Proceedings of the Western States Section/The Combustion Institute Fall Meeting, October, 1991.

21. Willis, J., Cadou, C., Logan, P., **Karagozian**, **A. R.***, and Smith, O. I., "Diagnostic Methods for Visualization of Heat Release in Unsteady Combustion", Paper 91-68, Proceedings of the Western States Section/The Combustion Institute Fall Meeting, October, 1991.

22. Ton, V. T., Engquist, B. E., Osher, S. J., and **Karagozian**, **A. R.***, "Numerical Simulation of Inviscid Detonation Waves with Finite Rate Chemistry", Paper 91-101, Proceedings of the Western States Section/The Combustion Institute Fall Meeting, October, 1991; also documented as UCLA CAM Report 91-22, October, 1991.

23. Jenkins, D. W. and **Karagozian**, **A. R.***, "Flame Deformation and Entrainment Associated with an Isothermal Transverse Fuel Jet", AIAA Paper 92-0236, January, 1992.

24. Madooglu, K. and **Karagozian**, **A. R.***, "Droplet Burning in a Convective Flowfield with Exact Variation of Gas Properties", Paper 92-56, Proceedings of the Western States Section/The Combustion Institute Fall Meeting, October, 1992.

25. Cadou, C., Willis, J., **Karagozian**, **A. R.***, Marchant, R., and Smith, O. I., "Time Resolved Measurements of Two-Dimensional Temperature Fields in Acoustically Excited Flames", Paper 92-63, Proceedings of the Western States Section/The Combustion Institute Fall Meeting, October, 1992.

26. Ton, V. T., **Karagozian**, **A. R.***, Marble, F. E., Osher, S. J., and Engquist, B. E., "Numerical Simulations of High Speed Chemically Reacting Flow", Paper 93-068, Proceedings of the Western States Section/The Combustion Institute Fall Meeting, October, 1993

27. Willis, J., Cadou, C., Mitchell, M., **Karagozian**, **A. R.***, and Smith, O. I., "Destruction of Liquid and Gaseous Waste Surrogates in an Acoustically Excited Dump Combustor", Proceedings of the 25th International Combustion Symposium, 1994

28. Wang, K. S. C., Smith, O. I., and **Karagozian**, **A. R.***, "In-Flight Imaging of Gas Jets Injected into Subsonic and Supersonic Crossflows", AIAA Paper 95-0516

29. Pont, G., Willis, J. W., **Karagozian**, **A. R.***, and Smith, O. I., "Effects of External Acoustical Excitation on Waste Surrogate Destruction in an Resonant Incinerator", Paper 95S-071, Proceedings of the Western States/Central States Section/The Combustion Institute Spring Meeting, April, 1995.

30. Smith, L. L., Delabroy, O., Lam, I. T., Majamaki, A. J., **Karagozian**, **A. R.***, Marble, F. E., and Smith, O. I., "PLIF Measurements of Mixing in a Lobed Injector", Paper 95S-140, Proceedings of the Western States/Central States Section/The Combustion Institute Spring Meeting, April, 1995.

31. **Karagozian**, **A. R.***, Wang, K. C., Le, A.-T., and Smith, O. I., "Modeling and In-Flight Imaging of Transverse Gas Jets Injected Behind a Rearward-Facing Step", AIAA Paper No. 96-0914, 34th AIAA Aerospace Sciences Meeting, January, 1996.

32. **Karagozian**, **A. R.***, "Technical Issues Pertaining to Environmentally Sound Ships", Defense Science Study Group IV: Study Reports, Volume 1, Institute for Defense Analyses, IDA Paper P-3296, Log H 97-000050, W. J. Hurley and N. P. Licato, Eds., pp. 123-145, February, 1996

33. Pont, G., Cadou, C. P., Kang, Y., **Karagozian**, **A. R.***, and Smith, O. I., "Emissions Reduction and Pyrolysis Gas Destruction in an Acoustically Driven Dump Combustor", Paper 96F-076, Western States Section/The Combustion Institute Fall Meeting, 1996.

34. L. L. Smith, A. J. Majamaki, I. T. Lam, O. Delabroy, **A. R. Karagozian***, F. E. Marble, and O. I. Smith, "Mixing Enhancement in a Lobed Injector" Paper 96F-074, Western States Section/The Combustion Institute Fall Meeting, October 29, 1996.

35. Mitchell, M. G., Smith, L. L., **Karagozian**, **A. R.***, and Smith, O. I., "NOx Emissions from a Lobed Fuel Injector/Burner", Paper 96F-075, Western States Section/The Combustion Institute Fall Meeting, 1996.

36. Selerland, T. and **Karagozian**, **A. R.***, "Ignition, Burning, and Extinction of a Strained Fuel Strip", Paper 96F-100, Western States Section/The Combustion Institute Fall Meeting, 1996.

37. Selerland, T. and **Karagozian**, **A. R.***, "Numerical Simulation of Reactive Flows Associated with a Lobed Fuel Injector", Paper 97F-108, Western States Section/The Combustion Institute Fall Meeting, October, 1997.

38. Mitchell, M. G., Smith, L. L., **Karagozian**, **A. R.***, and Smith, O. I., "Emissions Measurements from a Lobed Fuel Injector/Burner", AIAA Paper No. 98-0802, 36th AIAA Aerospace Sciences Meeting, January, 1998.

39. Smith, O. I., **Karagozian**, **A. R.***, Kim, H.-C., and Ghenai, C., "Acoustically Forced, Condensed Phase Fuel Combustion under Microgravity Conditions", Proc. of the Fifth International Microgravity Combustion Workshop, May 18-20, 1999.

40. Mitchell, M. G., Smith, O. I., and **Karagozian**, **A. R.***, "Effects of Passive Fuel-Air Mixing Control on Burner Emissions via Lobed Fuel Injectors", AIAA Paper No. 99-2400, 35th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, June, 1999.

41. **Karagozian**, **A. R.***, "Control of Mixing and Reactive Flow Processes" (Invited), AIAA Paper No. 99-3572, 30th AIAA Fluid Dynamics Conference, June, 1999.

42. Kim, H.-C., **Karagozian**, **A. R.***, and Smith, O. I., "Numerical Simulations of Acoustically Driven, Burning Droplets", Paper 99F-50, Western States Section/The Combustion Institute Fall Meeting, October 26, 1999

43. Cortelezzi, L.*, King, J., Lobbia, R., M'Closkey, R. T., and **Karagozian**, **A. R.**, "Actively Controlled Transverse Gas Injection", IEEE Conference on Decision and Control Invited paper CDC00-INV4905, 2000.

44. Ghenai, C., Lobbia, R., Smith, O. I., and **Karagozian**, **A. R.***, "Acoustical Excitation of Burning Fuel Droplets", AIAA Paper no. 2001-0328, 39th AIAA Aerospace Sciences Meeting, January, 2001.

45. Ghenai, C., Lobbia, R., Dattarajan, S., Smith, O. I., and **Karagozian**, **A. R.***, "Control of Droplet Combustion via Acoustical Excitation", Paper 47, 2nd Joint Meeting of the U.S. Sections of the Combustion Institute, March, 2001.

46. Smith, O. I., **Karagozian**, **A. R.***, Ghenai, C., Lobbia, R., and Dattarajan, S., "Control of Droplet Combustion via Acoustical Excitation", paper presented at the NASA Microgravity 2001 Combustion Workshop, May, 2001.

47. Majamaki, A. J., Smith, O. I., and **Karagozian**, **A. R.***, "Passive Mixing Control via Lobed Injectors in High Speed Flow", Paper 2001-3737, 37th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 8-11, 2001

48. He, X. and **Karagozian**, **A. R.***, "Numerical Simulation of Pulse Detonation Engine Phenomena", Paper 02S-77, Proceedings of the Western States Section/The Combustion Institute Spring meeting, March, 2002.

49. He, X. and **Karagozian**, **A. R.***, "Reactive Flow Phenomena in Pulse Detonation Engines", Paper no. AIAA-2003-1171, 41st AIAA Aerospace Sciences Meeting, January, 2003.

50. Shapiro, S., King, J., **Karagozian**, **A. R.***, and M'Closkey, R. T., "Optimization of Controlled Jets in Crossflow", Paper no. AIAA-2003-634, 41st AIAA Aerospace Sciences Meeting, January, 2003.

51. He, X. and **Karagozian**, **A. R.***, "Numerical Simulation of Pulse Detonation Engine Reactive Flow Processes", Paper No. C-29, 3rd Joint Meeting of the U.S. Sections of the Combustion Institute, March, 2003.

52. Dattarajan, S., Lutomirski, A., Lobbia, R., Smith, O.I., and **Karagozian**, **A. R.***, "Acoustic Excitation of Droplet Combustion in Microgravity", Paper 03F-15, Western States Section/The Combustion Institute Fall Meeting, UCLA, October, 2003.

53. He, X. and **Karagozian**, **A. R.***, "Detonation Engine Simulations with Alternative Reaction Kinetics and Geometrical Features", Paper 03F-70, Western States Section/The Combustion Institute Fall Meeting, UCLA, October, 2003.

54. Dattarajan, S., Lutomirski, A., Lobbia, R., Smith, O. I., and **Karagozian**, **A. R.***, "Acoustical Excitation of Burning Fuel Droplets in Normal Gravity and Microgravity", AIAA Paper AIAA-2004-0955, 42nd AIAA Aerospace Sciences Meeting, January, 2004 (**WINNER**, **BEST STUDENT PRESENTATION**, AIAA Microgravity Technical Committee).

55. He, X. and **Karagozian**, **A. R.***, "Performance and Noise Characteristics of Pulse Detonation Engines", AIAA Paper AIAA-2004-0469, 42nd AIAA Aerospace Sciences Meeting, January, 2004.

56. Megerian, S. and **Karagozian**, **A. R.***, "Evolution of Shear Layer Instabilities in the Transverse Jet", AIAA student paper, AIAA Region VI Student Conference, UCLA, April, 2004 (**FIRST PRIZE WINNER**, M.S. student division).

57. Gleason, L., Mak, C., Smith, O. I., and **Karagozian**, **A. R.***, "Hydrogen-Helium Leak Detection at Elevated Pressures and Low Temperatures", AIAA student paper, AIAA Region VI Student Conference, UCLA, April, 2004.

58. Alves, L. S. de B., Kelly, R. E., and **Karagozian**, **A. R.***, "Linear Stability Analysis of Jets in Crossflow", AIAA Paper AIAA-2005- 1118, 43rd AIAA Aerospace Sciences Meeting, January, 2005.

59. Megerian, S. and **Karagozian**, **A. R.***, "Evolution of Shear Layer Instabilities in the Transverse Jet", AIAA Paper AIAA-2005- 0142, 43rd AIAA Aerospace Sciences Meeting, January, 2005.

60. **Karagozian**, **A. R.***, Megerian, S., Alves, L, George, M., Kelly, R. E., and M'Closkey, R. T., "Control of Vorticity Generation in an Acoustically Excited Jet in Crossflow", AIAA Paper 2005- 0303, 43rd AIAA Aerospace Sciences Meeting, January, 2005 (**INVITED**).

61. Davitian, J., Megerian, S., Alves, L., and **Karagozian, A. R**.*, "Control of Transverse Jet Shear Layer Instabilities", AIAA Paper AIAA-2006-4976, 42nd AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 9-12, 2006.

62. Rodriguez, J. I., Smith, O. I., and **Karagozian, A. R.*,** "Acoustically Coupled Droplet Combustion with Alternative Fuels", Paper G09, 5th U.S. National Combustion Meeting, March 25-28, 2007.

63. Davitian, J., Hendrickson, C., M'Closkey, R. T.., and **Karagozian, A. R**.*, "Strategic Control of Transverse Jet Flows", Paper AIAA-2008-0741, 46th AIAA Aerospace Sciences Meeting, January, 2008.

64. Rodriguez, J. I., Teshome, S., Mao, H.-S., Pezeshkian, A., Smith, O. I., and **Karagozian, A. R.*,** "Acoustically Driven Droplet Combustion with Alternative Liquid Fuels", Paper AIAA-2008-1002, 46th AIAA Aerospace Sciences Meeting, January, 2008.

65. Davitian, J., Hendrickson, C., Getsinger, D., M'Closkey, R. T., and **Karagozian, A. R**.*, "Controlled Excitation of Transverse Jet Shear Layer Instabilities", Paper 08S-24, Western States Section/The Combustion Institute Spring Meeting, USC, March, 2008.

66. Cambier, J.-L., Roth, T., Zeineh, C., and **Karagozian, A. R.*,** "The Pulse Detonation Rocket Induced MHD Ejector (PDRIME) Concept" Paper AIAA-2008-4688, 44th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July, 2008.

67. Alves, L. S. de B.*, **Karagozian, A. R.** and Kelly, R. E., "On the Solution of the Compressible Flow Equations at Small Mach Numbers", Proceedings of ENCIT 2008, 12th Brazilian Congress of Thermal Engineering and Sciences, November, 2008.

68. Canzonieri, K., Getsinger, D., Hendrickson, C., Smith, O. I., and **Karagozian, A. R.*,** "Shear Layer Instabilities in Low Density Jets in Crossflow", Paper 09F-17, Western States Section/The Combustion Institute Fall Meeting, UC Irvine, October, 2009.

69. Teshome, S., Smith, O. I., and **Karagozian, A. R.*,** "Droplet Combustion in the Presence of Altered Acceleration Fields via Acoustic Excitation", Paper 09F-82, Western States Section/The Combustion Institute Fall Meeting, UC Irvine, October, 2009.

70. He, X.*, Jain, R., Munipalli, R., Pilon, L., and **Karagozian, A. R**., "Efficient Radiative Transfer Equation Solver Using the Discontinuous Galerkin Method and the GPU", Paper

AIAA-2010-4316, 10th AIAA/ASME Joint Thermophysics and Heat Transfer Conference, Chicago, Illinois, June 28-1, 2010.

71. Getsinger, D., Hendrickson, C., and **Karagozian, A. R.*,** "Transition to Self-Excited Oscillations in Low Density Transverse Jet Shear Layers", Paper AIAA-2011-0040, 49th AIAA Aerospace Sciences Meeting, Orlando, FL, January 4-7, 2011.

72. Cole, L. K., **Karagozian, A. R.*,** and Cambier, J.-L., "Stability of Flame-Shock Coupling in Detonation Waves: 1D Dynamics", Paper 89, 23rd International Colloquium on the Dynamics of Explosions and Reactive Systems (ICDERS), UC Irvine, July 24-29, 2011.

73. Teshome, S.*, Leyva, I. A., Talley, D., and **Karagozian, A. R**., "Cryogenic High-Pressure Shear-Coaxial Jets Exposed to Transverse Acoustic Forcing", Paper AIAA-2012-1265, 50th AIAA Aerospace Sciences Meeting, Nashville, TN, January 9-12, 2012.

74. Getsinger, D.*, Gevorkyan, L., Hendrickson, C., Smith, O. I., and **Karagozian, A. R**., "Scalar and Velocity Field Measurements in Acoustically Excited Variable Density Transverse Jets", Paper AIAA-2012-1225, 50th AIAA Aerospace Sciences Meeting, Nashville, TN, January 9-12, 2012.

75. Getsinger, D., Gevorkyan, L., Hendrickson, C., Smith, O. I., and **Karagozian, A. R.*,** "Shear Layer Instabilities in Variable Density Transverse Jets", 23rd International Congress of Theoretical and Applied Mechanics, Beijing, China, August 19-24, 2012.

76. Wegener, J., Teshome, S., Sevilla, C., Smith, O. I., and **Karagozian, A. R.*,** "Fuel Droplet Combustion in the Presence of Acoustic Excitation", 23rd International Congress of Theoretical and Applied Mechanics, Beijing, China, August 19-24, 2012.

77. Gevorkyan, L.*, Getsinger, D., Smith, O. I., and **Karagozian, A. R.,** "Structural and Stability Characteristics of Jets in Crossflow", Paper AIAA-2014-0230, 52nd AIAA Aerospace Sciences Meeting/Science and Technology Forum and Exposition, National Harbor, MD, January, 2014.

78. Edoh, A.*, **Karagozian, A. R.,** Sankaran, V., and Merkle, C., "Comparison of Artificial Dissipation and Filtering Schemes for Time-Accurate Simulations", Paper AIAA-2015-0284, 53rd AIAA Aerospace Sciences Meeting/Science and Technology Forum and Exposition, Kissimee, Florida, January, 2015.

79. Edoh, A.*, Mundis, N. L., **Karagozian, A. R.**, and Sankaran, V., "The Role of Dispersion and Dissipation on Stabilization Strategies for Time-Accurate Simulations", Paper AIAA-2016-0071, 54th AIAA Aerospace Sciences Meeting/Science and Technology Forum and Exposition, San Diego, CA, January, 2016.

80. Edoh, A.*, Mundis, N. L., **Karagozian, A. R.**, and Sankaran, V., "Efficient Filtering Formulations for Large-Eddy Simulation", Paper AIAA-2016-3794, 46th AIAA Fluid Dynamics Conference, AIAA Aviation and Aeronautics Forum and Exposition, June 2016.

81. Bennewitz, J.*, Plascencia, M., Vargas, A., Valentini, D., Smith, O. I., and **Karagozian, A. R.**, "Periodic Partial Extinction in Acoustically Coupled Fuel Droplet Combustion", 24th International Congress of Theoretical and Applied Mechanics, Montreal, Canada, August, 2016.

82. Shoji, T.*, Besnard, A., Harris, E., M'Closkey, R. T., and **Karagozian, A. R.**, "Effects of external forcing on transverse jet structure and mixing", 24th International Congress of Theoretical and Applied Mechanics, Montreal, Canada, August, 2016.

83. Edoh, A.* and **Karagozian, A. R.**, "A Stabilized Scale-Similarity Model Formulation for Large-Eddy Simulations", Paper AIAA-2017-1227, 55th AIAA Aerospace Sciences Meeting/Science and Technology Forum and Exposition, Grapevine, Texas, January, 2017.

84. Sim, H. S.*, Plascencia, M., Vargas, A., Bennewitz, J., Smith, O. I., and **Karagozian, A. R.**, "Effects of Aluminum Nanoparticle Additives on Liquid Fuel Droplet Combustion with and without Acoustic Excitation", Paper 3C09, 10th U.S. National Combustion Meeting, Univ. of Maryland, April, 2017.

85. Edoh, A.* and **Karagozian, A. R.**, "Inspecting Interactions of Discretization, Filter Formulation, and Stabilization in LES: Lessons from the Taylor-Green Vortex", Paper AIAA 2017-3952, 23rd AIAA Computational Fluid Dynamics Conference, AIAA AVIATION Forum, Denver, CO, June, 2017.

86. Besnard, A.*, Shoji, T., Schein, S., Harris, E. W., and **Karagozian, A. R.,** "Exploration of Asymmetric Forcing on Mixing and Structural Characteristics for Transverse Jets", AIAA 2019-032, 57th AIAA Aerospace Sciences Meeting/Science and Technology Forum and Exposition, January 2019.

87. Badillo-Rios, S.* and **Karagozian, A. R.**, "Effect of turbulence on chemistry in single element shear coaxial rocket injector", Paper 1C01, 11th U.S. National Combustion Meeting, Pasadena, California, March, 2019.

88. Vargas, A.*, Sim, H. S., Plascencia, M., and **Karagozian, A. R.**, "Effect of aluminum nanoparticle additives on sooting hydrocarbon fuel droplet combustion", Paper 3G04, 11th U.S. National Combustion Meeting, Pasadena, California, March, 2019.

89. Vargas, A., Guerrero, J., and **Karagozian, A. R.***, "Laminar Flame Dynamics of Multi-Port Fuel Jets Under Acoustic Forcing", Paper 111001Q-000, accepted for presentation at the Western States Section/The Combustion Institute Spring 2020 meeting, Stanford California, March, 2020 [POSTPONED].

90. Plascencia, M.*, Roa, M., **Karagozian, A. R.**, and Talley, D. G., "Round Jet Diffusion Flames Under Transverse Acoustic Forcing", accepted for presentation at the Western States Section/The Combustion Institute Spring 2020 meeting, Stanford California, March, 2020 [POSTPONED].

91. Plascencia, M. A.*, Roa, M., **Karagozian, A. R.**, and Talley, D. G., "Turbulent Nonpremixed Jet Flames under Transverse Acoustic Forcing", Paper AIAA-10.2514/6.2020-3905, AIAA Propulsion & Energy Conference, August, 2020.

92. Vargas, A., Kiani, S., and **Karagozian, A. R.***, "Dynamics of Multi-Port Jet Diffusion Flames Under Acoustic Forcing", Paper 3E01, 12th U.S. National Combustion Meeting, May, 2021.

93. Harris, E.*, Ren, D., Schein, S., M'Closkey, R. T., Cortelezzi, L., and **Karagozian, A. R.,** "Dynamics of an Axisymmetrically Excited Jet in Crossflow", Paper FM08.O05, 25th International Congress of Theoretical and Applied Mechanics, Milan, Italy, August, 2021.

MAJOR AIR FORCE BRIEFINGS

A. **Karagozian**, **A. R.**, "**Persistence at Near Space Altitudes**", briefing based on findings and recommendations of the Air Force Scientific Advisory Board study on the subject chaired by Prof. Karagozian; presented during **2005-2007** to:
   1. Vice Chief of Staff Gen. John Corley and the Air Force Scientific Advisory Board, June 30, 2005
   2. Chief of Staff of the U.S. Air Force, General John Jumper and the Acting Secretary of the Air Force, Michael Dominguez, July 6, 2005
   3. Deputy Asst. Under Sec. of Defense Dr. Charles Perkins, Mr. Charles Riechers and Dr. Hriar Cabayan, Office of the Secretary of Defense, July 6, 2005
   4. Naval Research Advisory Committee, July 7, 2005
   5. Army Science Board, July 18, 2005
   6. Gen. Lance Lord, Commander of the AF Space Command, August 8, 2005
   7. Mrs. Natalie Crawford, Vice President of RAND Corp. and RAND staff, August 22, 2005
   8. Dr. William Ballhaus, President and CEO of Aerospace Corp. and staff, August 23, 2005
   9. Dr. Pedro (Pete) Rustan, Director of advanced systems and technology, National Reconnaissance Office, October 5, 2005
   10. BGen Ellen Pawlikowski, Director, Military Satellite Communications Joint Program Office, Space and Missile Systems Center, LA Air Force Base, November 9, 2005
   11. Dr. Gary Graham and DARPA staff members in Special Projects Office and Tactical Technology Office, January 27, 2006
   12. Air Force Air Combat Command Maxflyer Concept Assessment Team, April 20, 2007
   13. Staff, AF Air Combat Command, Langley AFB, July 30, 2007

B. **Karagozian**, **A. R.**, "**Technology Options for Improved Air Vehicle Fuel Efficiency**", briefing based on findings and recommendations of the Air Force Scientific Advisory Board study on the subject chaired by Prof. Karagozian; presented during **2006-2007** to:
   1. Dr. Ron Sega, Under Secretary of the Air Force, and staff, January 26, 2006
   2. Dr. Andre van Tilborg, Acting Deputy Undersecretary of Defense for Science and Technology, and staff, March 9, 2006
   3. Lt. Gen. Donald Hoffman, SAF/AQ, and Air Force Scientific Advisory Board, April 10, 2006
   4. Dr. Michael McGrath, Dep. Asst. Sec. of the Navy, Chris DiPetto, Dep. Director of SE DT&E, Office of the Sec. of Defense, and other staff, April 26, 2006
   5. Mr. Terry Jaggers, Dep. Asst. Secretary of the Air Force for Science, Technology and Engr., May 9, 2006
   6. National Academies' Air Force Studies Board panel on fuel efficiency for large transport aircraft, May 23, 2006.
   7. JASONs Fuel Efficiency study, June 28, 2006.
   8. Gen. John Corley, Vice Chief of Staff, US Air Force; Lt. Gen. Christopher Kelly, AF Air Mobility Command, Lt. Gen. Michael Hamel, AF Space & Missile Systems Command, Lt. Gen. Frank Klotz, AF Space Command, and the AF Scientific Advisory Board, June 30, 2006.
   9. Defense Studies Board Task Force on DOD Energy Strategy, July 18, 2006.
   10. Mr. Michael Wynne, Secretary of the Air Force, and staff, August 2, 2006.
   11. Dr. Lisa Porter, NASA Assoc. Administrator for Aeronautics, and staff, August 2, 2006.
   12. Gen. Duncan McNabb, Commander, AF Air Mobility Command, Scott AFB, May, 2007
   13. Staff, AF Air Combat Command, July 30, 2007

C. **Karagozian**, **A. R.**, "**The Future of Launch Vehicle Systems for the U.S. Air Force**", briefing based on findings and recommendations of the Air Force Scientific Advisory Board study on the subject chaired by Prof. Karagozian; presented during **2010-2013** to:

1. Lt.Gen. Mark Shackelford, SAF/AQ, Lt. Gen. Thomas Sheridan, AF/SMC commander, and the Air Force Scientific Advisory Board, June 24, 2010
2. Vice Chief of Staff Gen. C. H. Chandler, Deputy Under Secretary Gary Payton, BGen Ed Bolton and staff, AF Pentagon, July 7, 2010
3. Gen. Robert Kehler, Commander, AF Space Command and staff, August 23, 2010
4. NASA Associate Administrator Chris Scolese and staff, NASA HQ, August 26, 2010
5. Secretary of the Air Force, Michael Donley, Chief of Staff of the AF, Gen. Norton Schwartz, SAF/US(D) Richard McKinney, and staff, AF Pentagon, August 27, 2010
6. MGen Ellen Pawlikowski, Commander, Air Force Research Lab, Wright-Patterson AFB, Sept 1, 2010
7. Director of National Reconnaissance Office, Gen (r) Bruce Carlson, Sept 14, 2010
8. NASA launch and propulsion leads, NASA HQ, October 6, 2010
9. LtGen Larry James, Commander, 14th AF, Vandenberg AFB, December 1, 2010
10. Propulsion Directorate, Air Force Research Lab, Edwards AFB, February 1, 2011
11. DOD/NASA IHPRPT Steering Committee, March 16, 2011
12. National Academies' Space Studies Board Executive Committee, August 18, 2011
13. National Academies' Aeronautics and Space Engineering Board, October 18, 2011
14. Air Force Space Command Independent Strategic Assessment Group (SC-ISAG) Launch Strategy Review, August 1, 2013

INTERVIEWS IN THE NEWS MEDIA AND OTHER TESTIMONY

July, **2000**: Television interviews on the Air France Concorde accident (local channels KTLA and UPN)
June, **2004**: BBC interview on SpaceShipOne and the Ansari X-prize (http://news.bbc.co.uk/1/hi/sci/tech/3746313.stm); picked up by other news agencies
October, 2004: Wisconsin Public Radio's "Here on Earth" interview on the Ansari X-Prize with Jean Fereca
July and Aug., **2005**: Radio interviews on Space Shuttle with Metro networks
January, **2006**: Interview on AF SAB Study on "Persistence at Near Space Altitudes", ***Defense Daily*** (http://aimpoints.hq.af.mil/display.cfm?id=9427&printer=no)
March, 2006: Interview on AF SAB Study on Improved Air Vehicle Fuel Efficiency, ***Inside the Air Force***, Vol. 17, No. 12, March 24, 2006.
September, 2006*:* Testimony to Calif. Assembly Select Committee on Aerospace, "UCLA's Contributions to California's Aerospace Workforce for the 21st Century, Sept. 13, 2006
June, 2008: Trends in the Aerospace Engineering Job Market, ***Los Angeles Times***, June 29, 2008.
June, 2009: "The Future of Aircraft Turbine Engine Technology", ***Engine Air Magazine***, Summer, 2009 issue
January, 2012: "Military Goes Green", KCET SoCal Connected public television.
August, 2012: "X-51 Hypersonic Waverider failure", KPCC-89.3 FM, Aug. 16, 2012
January, 2013: "Drive for Innovation Chapter 229: State of Research in Universities"***, EE Times***
January, 2013: "Drive for Innovation Chapter 228: Alternative Fuels for Friendlier Skies"***, EE Times***
November, 2014: "Virgin Galactic and Antares crashes: What now for commercial space efforts?", **Christian Science Monitor**, posted November 1, 2014. "Spaceflight's no good, very bad week", ***The Verge***, posted November 4, 2014. Happenings Q&A: space launch failures and systems, **WLIP AM 1050 Radio**, November 13, 2014.
April, 2016: "The final frontier: cheap space travel", ***Los Angeles Times***
July, 2017: "A new generation of giant rockets is about to blast off", ***Los Angeles Times***
February, 2019: "SpaceX test-fire of Mars spaceship's flight engine is milestone for its engine development"***, Los Angeles Times***
July, 2019: "The History and Revival of Southern California's Aerospace Industry", ***KCET Television Blue Sky Metropolis***