

**LAI SUPPLIER NETWORKS RESEARCH GROUP
THESES AND PUBLICATIONS**

Developments in Aerospace Supply Chain Management Practices

- Dr. Maryellen Kelley (NIST; formerly Carnegie-Mellon Univ.) and Cynthia Cook (Harvard Univ.), *The Institutional Context and Manufacturing Performance: The Case of the U.S. Defense Industrial Network*, Working Paper (Revised/Updated Mar 98). Paper based in part on LAI-supported research.
- Ernest (Jay) Campbell, *Transition to Commercial Practices in the U.S. Aircraft Industry*, MS Thesis, Sloan School of Management; Thesis Supervisors: Dr. Donald Rosenfield and Dr. K. Bozdogan (May 98)
- William Gostic, *Supply Chain Management Practices in the U.S. Engine Sector*, MS Thesis, Sloan School of Management, Sloan Fellows Program; Thesis Supervisors: Dr. Donald Rosenfield and Dr. K. Bozdogan (May 98)
- Michael H. Bravo, *Achieving Supplier Integration through Implementation of Supplier Managed Inventory Programs*, MS Thesis, Engineering and Management, System Design and Management Program; Thesis Supervisor: Dr. K.Bozdogan (Feb 99)
- Daglar Cizmeci, *Boeing and Global Large Commercial Aircraft Supply Networks*, Master of Engineering in Logistics (MLOG) Thesis; Thesis Supervisor: Dr. K. Bozdogan (May 05)
- Mohit Tiwari, *Study of Supply Chain Practices in the Aerospace Industry and in Rolls-Royce*, Master of Engineering in Logistics (MLOG) Thesis; Thesis Supervisor: Dr. K. Bozdogan (May 05)
- Tzu-Ching Horng, *A Comparative Analysis of Supply Chain Management Practices by Boeing and Airbus: Long-Term Strategic Implications*, MS Thesis in Transportation. Systems, Dept. of Civil and Environmental Engineering; Thesis Supervisor: Dr. K. Bozdogan (Nov 06)

Supplier Network Architecture; Strategic Make-Buy Decisions

- Robert Perrons, *Make-Buy Strategies in the U.S. Aerospace Industry*, MS Thesis in Technology and Policy; Thesis Supervisor: Dr. K. Bozdogan (Aug 97)
- Prof. Todd Watkins (Lehigh Univ.), *Dual-Use Supplier Management and Strategic International Sourcing in Aircraft Manufacturing*, Working Paper (Oct 97)
- Rudy Prudente, *Strategic Outsourcing and Supplier Integration in the Helicopter Sector*, MS Thesis in Engineering and Management, System Design and Management (SDM) Program; Thesis Supervisor: Dr. K. Bozdogan (Feb 99); collaborative project with the Lean Aircraft Research Program (LARP) at Linköping University (Sweden)
- Prof. Charles Fine (MIT) and Prof. Morris Cohen (Wharton School), *Three-Dimensional Concurrent Engineering: Product, Process and Supply Chain Development*, main results published in Charles Fine, *CLOCKSPEED* (Reading, MA: Perseus Books, 1998)
- Reine Wasser, *The Outsourcing Process -- Strategic and Operational Realities*, Licentiate Thesis, Linköping University (Sweden); Supervisors: Prof. Ove Brandes and

Prof. Staffan Brege (Oct 99); collaborative project with the Lean Aircraft Research Project (LARP) at Linköping University

Supplier Network Integration

(product development, production; information infrastructure)

- Teng-Cheng (Ted) Hsu, *Causes and Impacts of Class One Engineering Changes: An Exploratory Study Based on Three Aircraft Acquisition Programs*, MS Thesis in Aeronautics and Astronautics and Technology and Policy (TPP); Thesis Supervisors: Dr. K. Bozdogan and Prof. John Deyst (May 99)
- Michael Bravo, *Achieving Supplier Integration through Implementation of Supplier Managed Inventory Programs*, MS Thesis in Engineering and Management, System Design and Management (SDM) Program, Thesis Supervisor: Dr. K.Bozdogan (May 99)
- Michelle Antonelli, *Building Information Systems to Integrate the Manufacturing Supply Chain*, MS Thesis in Electrical Engineering and Computer Science and Technology and Policy (TPP); Thesis Supervisors: Dr. K.Bozdogan and Dr. Daniel Whitney (May 99)
- Anna Öhrwall Rönnbäck, *Information Infrastructure for Collaborative Product Development*, Licentiate Thesis, Linköping University (Sweden); Thesis Supervisor: Prof. Staffan Brege (March 2000); collaborative project with the Lean Aircraft Research Project (LARP) at Linköping University
- William Blake, *Using System Dynamics to Understand Barriers to Cost Reduction*, MS Thesis in Engineering and Management, System Design and Management (SDM) Program; Thesis Supervisors: Prof. Daniel Frey and Dr. K. Bozdogan (May 2000)
- Pedzisayi (Pedzi) O. Makumbe, *Systems Development Technical Interactions and Innovation: A Network-Based Investigation*, MS Thesis in Engineering Systems; Thesis Supervisors: Prof. James M. Utterback and Dr. K.Bozdogan (June 06)

Managing Supplier Networks

(Coordination, cooperation, collaborative relationships; knowledge-sharing; fostering innovation; capabilities development; transformation)

- Malee V. Lucas, *Supplier Management Practices of the Joint Direct Attack Munition Program*, MS Thesis in Aeronautics and Astronautics and Technology and Policy (TPP); Thesis Supervisors: Dr. David Hoult and Prof. John Deyst (Jun 96)
- Kirkor Bozdogan, John Deyst, David Hoult and Malee Lucas, *“Architectural Innovation in Product Development through Early Supplier Integration,” R& D MANAGEMENT*, Vol. 28, No. 3 (July 1998), 163-173.
- Cynthia Cook, *Production Networks Revisited: Causes and Consequences of Supplier and Customer Linkages in the Metal Manufacturing Sector*, Ph.D. Thesis, Harvard University, Dept. of Sociology; Thesis Supervisor: Prof Peter Marsden (Jun 99). LAI-funded doctoral research at Harvard University.

- Prof. Duncan Simester (MIT) and Prof. Marc Knez (Univ. of Chicago; Sibson Consulting), "Direct and Indirect Bargaining Costs and the Scope of the Firm," *The Journal of Business*, Vol. 75, No.2 (June 2000), 282-304. LAI-funded research project.
- Prof. Sandy D. Jap (MIT), "Pie-Expansion Efforts: Collaboration Processes in Buyer-Supplier Relationships," *Journal of Marketing Research*, Vol. XXXVI (Nov 1999), 461-475. LAI-funded research project.
- Aaron Kirtley, *Fostering Innovation Across Supplier Networks*, MS Thesis in Mechanical Engineering and Technology and Policy (TPP); Thesis Supervisor: Dr. K.Bozdogan (Jun 02)
- Christopher Glazner, *Enterprise Integration Strategies Across Virtual Extended Enterprise Networks: A Case Study of the F-35 Joint Strike Fighter Program Enterprise*, MS Thesis in Technology and Policy, Engineering Systems Division; Thesis Supervisor: Dr. K. Bozdogan (Feb 2006)
- Hee Sung Moon, *Developing and Managing Organizational Capabilities to Meet Customer Needs: Insights from the Joint Strike Fighter Program*, MS Thesis in Engineering and Management, System Design and Management (SDM) Program; Thesis Supervisor: K.Bozdogan (May 06)
- Steven M. Patneade, *Transforming the Commercial Aerospace Supply Chain Utilizing Toyota Production System Principles, Practices, and Methodologies*, MS Thesis in Engineering and Management, System Design and Management (SDM) Program; Thesis Supervisor: K.Bozdogan (Dec 07)

Aerospace Offset Policy Issues

- K. Bozdogan, "Emerging Challenges and Diverging Interests," in Charles W. Wesner (ed.), *Trends and Challenges in Aerospace Offsets*, National Research Council, Board on Science, Technology and Economic Policy (Washington, DC: National Academy Press, 1999)
- Todd A. Watkins (Lehigh Univ.), "Dual-use Supplier Management and Strategic International Sourcing in Aircraft Manufacturing," in Charles W. Wesner (ed.), *Trends and Challenges in Aerospace Offsets*, National Research Council, Board on Science, Technology and Economic Policy (Washington, DC: National Academy Press, 1999)