

# ***BIOGRAPHY***



## **Daniel J. McCarthy MS Mfg. Mgmt., BSMET**

Design Prophet & Senior Associate, Munro & Associates, Inc.

Since joining Munro & Associates in 1989 Dan McCarthy has helped generate billions in profits for the company's clients. Dan's diverse engineering, manufacturing and consulting experience spans more than 30 years in the automotive, aerospace, defense, electronics, homeland security, industrial, marine, medical, and robotics industries.

He has led Lean Design®, DFA/DFM, 6 Sigma and Quality Report Card® events for such companies as Alliant Tech Systems, AS&E, Bose, BF Goodrich Aerospace, Boeing, Bombardier, Chrysler, Embraer, Hamilton Standard, Freightliner, General Electric, General Motors, Medtronic, Motorola, Otis Elevator, Raytheon, Rolls-Royce and the U.S. Army .

Dan was the Munro team lead on multiple military programs and systems within the following products:

- Airplanes
- Automobiles,
- Missiles,
- Submarines
- Surface ships
- Satellites
- Tanks
- Armored vehicles

This in depth involvement with product development has driven Dan's push for increasing capabilities of Munro's tools and processes to provide greater decision making capability to our clients at all stages of product development. Dan was the principal architect of Munro's tools to analyze serviceability, sustainability, producibility and total Life Cycle Costs.

Prior to Munro & Associates Dan was a Robotics Specialist at North American Philips Corporation. In this role Dan realized the designs were not conducive to automation. Dan launched a corporate-wide DFM program, taking on the role as the Corporate Design for Manufacture Coordinator. Dan was involved in product design efforts at Airpax motor, Norelco coffee makers, Genie Garage Door openers, Magnavox television and Philips Computers divisions of Philips.

Prior to Philips, Dan was a senior systems engineer with General Dynamics' Electric Boat Division. Dan was part of a specialized team to implement design standards for newly introduced CAD system as well as provide bid and proposal estimate analysis for a sister division.

Dan began his career as a tool design engineer with Pratt & Whitney Aircraft, the jet engine division of United Technologies Corporation.

Dan has been a speaker and panelist at numerous conferences and was a contributing author to the Society of Manufacturing Engineers Tool and Manufacturing Engineers Handbook in the areas of Design for Serviceability and Design for Disassembly. Additionally, Dan offered his expertise to the Defense Manufacturing Science and Technology Panel in the development of new methods to improve affordability and producibility of defense weapon systems.

Dan received a B.S. degree in Mechanical Engineering Technology at Southeastern Massachusetts University and an M.S. degree in Manufacturing Management from Rensselaer Polytechnic Institute. A native of New Rochelle, New York, he now resides in Troy, Michigan.

Dan has been involved in numerous award winning product development efforts during his tenure with Munro & Associates including:

Society of Plastics Engineers – 1992 Automotive Division  
Winner Body Interior Category 1993 LH Instrument Panel System

SPE Award – 1995 International Consumer Product of the Year  
Respironics BagEasy

Machine Design & SDRC 1997 Concurrent Engineering Award  
Co-winner Abbott Labs (with Motor Coach Industries Sandy Munro Client)

Academy of Arts and Sciences  
1998 Emmy Award for Outstanding Achievement in Engineering Development  
Texas Instruments DLP Products

Frost & Sullivan 2005 Homeland Security Product of the Year Award  
American Science & Engineering - Z® Backscatter Van™

2012 EMS World Innovation Awards  
CAE Healthcare - Caesar Patient Simulator

**The confidence our clients have in Munro is best demonstrated in their own words.**

***Following the initial design and development of the Astute Class the programme was given a challenge of reducing the Unit price Cost (UPC) for Boats 4 to 7. This required the project to challenge existing designs to reduce material and labour costs. The Lean Design work with Munro Associates provided a structured process to analyse the design and identify improvements. It contributed to a successful programme of work that delivered significant savings, meeting the challenges faced by the project.***

**Regards,**

**Peter Newman  
Head of Adjacent Business  
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***McDonnell Douglas / Douglas Aircraft first engaged Munro & Associates directly as a result of a thorough strategic analysis of what we had to do to return the commercial aircraft division to profitability. At the time we were having cost and production rate problems on our twinjet line in a very up market and we needed to improve the fundamental profitability of trijet production as we transitioned to a new model.***

***The strategy analysis pin pointed three fundamental strategic cost factors one of which was increasing complexity / high part count designs. In our first workshop with Munro we saw the power of their design for assembly methods in sharply reducing part counts in three systems while improving overall design quality – an attribute we were already known for. This led to many workshops and the affordable redesign of a number of the higher costs parts of the twinjet and trijet lines at times reducing parts counts in excess of 90%. Through this we transformed the way we looked at design and developed a process of continuous improvement in quality and cost that before we had not considered possible.***

***With the success on the commercial product line we began to migrate the process to the C-17 program with similar early success. This success became the foundation of another strategic cost analysis that supported MDC's proposal for an Air Force \$14B multi-year procurement.***

***The key was whether we could meet the cost objectives required to win the large order and the analysis showed that the continuous design improvement process established with Munro's guidance was pivotal in meeting those cost objectives. This gave the company the added certainty that they could meet the cost objectives and ultimately won the multi-year procurement which was a huge***

**success for MDC and later Boeing.**

**Finally, based on our success in the commercial division and on the C-17; Boeing Commercial began adopting the Munro design process.**

**Ron Suiter (retired) GM Product Definition Boeing Airlift and Tanker Programs.**

**“The NanoDrop 8000 development exceeded all of our goals. Thanks to Munro we are delivering a product with great customer delight and higher profitability. I’m almost embarrassed what the ND-8000 costs and how much we sell it for.”**

**Charles Robertson  
NanoDrop Founder and Chief Technology Advisor  
Thermo Fisher Scientific**

**“I can’t state in strong enough terms the overwhelming potential for cost savings demonstrated in the Munro Lean Design® methodology”  
Alden Sproul NASSCO Shipyard**

**“Munro’s Lean Design® is not just a process; it is an extension of the War Plan!”**

**Daniel F. Cheeseman  
Engineering Director  
Raytheon Missile Systems**

**“It was a smart move to bring in our friends from Munro and Associates.”  
Anthony Fabiano  
President and CEO  
American Science and Engineering**

**“The key challenge for the Stryker Mobile Gun System was improving the ammunition handling system’s reliability; your team helped us overcome that challenge.”**

**David Rohall  
Lieutenant Colonel, U.S. Army**