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# The AMA History Project Presents: Autobiography of CHARLES DAVID (DAVE) GIERKE



Born November 2, 1941      Modeler starting in 1948  
AMA #35977

Written & Submitted by CDG (11/2002); Transcribed & Edited by SS (12/2002)

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## Career:

- Wrote his first magazine article in 1967 for *American Modeler* about his *Novi Control Line Stunt* design
- Designed, built and competed with many Control Line and Radio Control models throughout the late 1960s and the 1970s
- Some of his designs include *Novi III & IV* (Stunt), *All American Eagle* (Stunt), *XP-40Q* (Radio Control Pylon), *Blue Flame* (Radio Control Open Pylon), *Brazen Raven* (Radio Control Pattern), *Northern Eagle* (Radio Control Sport), and *Eclipse* (Radio Control Pattern)
- Developed experimental apparatus and techniques used to understand and improve miniature engines
- Became a contributing editor to *Model Airplane News* in 1992; write the “RPM” (Real Performance Measurement) column
- Published a book, Two-Stroke Glow Engines for RC Aircraft, in 1994
- Won the high appearance point’s award (Stunt) at two AMA Nationals
- Placed first 13 times at the Toledo Weak Signals Radio Control Expo

## Honors:

- 1978: New York State Teacher of the Year
- 2002: Model Aviation Hall of Fame

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Dave Gierke, 61 (as of 2002), like many youngsters of his generation, started building model airplanes early – rubber band powered stick models – at the age of seven. He obtained his first engine, a used sparker converted to glow, and learned to fly Control Line in 1952. Dave joined AMA in 1956 when he entered his first contest.

Concentrating on Control Line Speed and Stunt, Dave authored his first magazine article in 1967 (*American Modeler* magazine), chronicling his *Novi Control Line Stunt* design. Over the next decade Dave designed, built and competed with a multitude of new models in Control Line and Radio Control – many of which were published in various model magazines; some of these include: *Novi III & IV* (Stunt), *All American Eagle* (Stunt), *XP-40Q* (Radio Control Pylon), *Blue Flame* (Radio Control Open Pylon), *Brazen Raven* (Radio Control Pattern), *Northern Eagle* (Radio Control Sport) and *Eclipse* (Radio Control Pattern)

Always interested in the technical aspect of the hobby-sport, Dave developed experimental apparatus and techniques that he used to help understand and improve miniature engines; several of these he described in technical articles, including: *Dynamometer – For Engine Performance Analysis* (three parts); *Two-Stroke Oils: Their Analysis*; *The Effects of Atmospheric Conditions on Engine Performance*; and *The Power Factor*.

In 1992, Dave became a contributing editor for *Model Airplane News* magazine; his column, “RPM” (Real Performance Measurement) provides answers to problems associated with the design, operation, and maintenance of our engines. Dave’s book, Two-Stroke Glow Engines for

RC Aircraft (1994), continues to receive enthusiastic reviews from readers across the spectrum of model aviation, contributing useful information to beginners and experts alike.

Always the perfectionist, Dave won the high appearance point's award (Stunt) at two AMA Nationals and first place 13 times at the Toledo Weak Signals Radio Control Expo with his models. As an educator, Gierke credits model airplanes for helping to motivate his high school students to many science and engineering achievements over his 34-year career; Dave was designated, New York State Teacher of the Year in 1978.

### Designer

Magazine	Model	Issue
<i>American Modeler</i>	<i>Novi</i> (Control Line Stunt)	October 1967
<i>Flying Models</i>	<i>Novi III</i> (Control Line Stunt)	February 1968
<i>Model Airplane News</i>	<i>All American Eagle</i> (Control Line Stunt)	July 1968
<i>Flying Models</i>	<i>Novi VI</i> (Control Line Stunt)	May 1970
<i>Flying Models</i>	<i>Brazen Raven</i> (Radio Control Pattern)	May 1971
<i>Flying Models</i>	<i>Dee-Kay Special</i> (Radio Control Pylon Formula 2)	June 1971
<i>Flying Models</i>	<i>XP-40Q</i> (Radio Control Pylon Formula 2)	March 1972
<i>Flying Models</i>	<i>Blue Flame</i> (Radio Control Pylon open)	April 1973
<i>Flying Models</i>	<i>Northern Eagle</i> (Radio Control Pattern)	September 1973
<i>RC Sportsman</i>	<i>Eclipse</i> (Radio Control Pattern)	June 1975
<i>RC Sportsman</i>	<i>Miss San Bernardino</i> (Radio Control Pylon Formula 1)	October 1975

### Experimenter

- Since 1969, I have developed and refined a torque reaction dynamometer used in research for competition Pylon racing and my engine test reviews for Model Airplane News
- Researched and discovered the plasticizer for lacquers and dope (Monsanto Santicizer 141, marketed as Flexall)
- Developed a lightweight servo for Control Line Stunt throttle and brakes (“Control Line Stunt Throttle and Brake System, Model Airplane News, August 1968)
- Invented the bubble-less tank (positive expulsion) (“Super Tank”, Model Aviation, August 1977), used by all Pylon racers and most Pattern flyers
- Perfected the load factor for propellers (“Airframes and Prop Selection”, Model Airplane News, July 1999), used to determine propeller load RPM
- Developed the power factor for engine load/RPM comparison (“The Power Factor”, Model Airplane News, September 1999)
- Invented the roller-clutch starting system for prop-driven engines (2000) (Not yet on the market)
- Inventor and patent holder for a cold weather starting system (2001) (Not yet on the market)
- Currently (since 1999) working on fuel injection for miniature engines

### Author

Books:

- Two-Stroke Glow Engines for RC Aircraft (1994)
- RC Pilots Handbook: Chapter 11, “Maximizing Engine performance” (1994)
- Ultimate RC Flight Guide: Chapter 6, “Getting the Most from Your Engine” (2002)

Articles:

- “Langley’ Steam Powered Models,” *Aviation History*, July 1998
- “Dry transfers – Lettering and Rivets,” *Flying Models*, July 1968
- “Control Line Stunt Throttle and Brake System,” *Model Airplane News*, August 1968
- “India Ink Is Magic,” *American Aircraft Modeler*, June 1970
- “A Place For Lace,” *Flying Models*, February 1972
- “Dynamometer – For Engine Performance Analysis” (three parts), *Flying Models*, June, July, August 1973
- “Two-Stroke Oils: Their Analysis,” *Model Airplane News*, May 1974
- “The Effects of Atmospheric Conditions on Engine Performance,” *Model Aviation*, January 1976
- “Super Tank,” *Model Aviation*, August 1977
- “Breaking-in Lapped and Ringed Piston Engines,” *Model Airplane News*, September 1994
- “Voodoo Mechanics: Engines, Energy and Physics,” *Model Airplane News*, July 1995
- “Setting the Idle...Safer Landings,” *Model Airplane News*, September 1995
- “HEY! Keep the Noise Down! Reduce dB With Available Silencers,” *Model Airplane News*, December 1995
- “Control Port Technology,” *Model Airplane News*, March 1997
- “On-Board Accessories,” *Model Airplane News*, April 1997
- “Super Tank II,” *Model Airplane News*, June 1997
- “Keeping Your Stunt Engine Healthy,” *Flying Models*, July 1997
- “RPM – Fifty Years of Fox Engines,” *Model Airplane News*, November 1997
- “Airframes and Prop Selection,” *Model Airplane News*, July 1999
- “The Power Factor,” *Model Airplane News* magazine, September 1999
- “The Century of Radio Control – Engines,” *Model Airplane News*, December 1999
- “The Future of R/C: Power,” *Model Airplane News*, January 2000
- “Vanquish the Varnish – Engine Cleaning,” *Model Airplane News*, May 2000
- “Muffler Operation,” *Model Airplane News*, June 2000
- “Engine Break-in,” *Model Airplane News*, November 2001
- “Cool it! Temperature Tuning,” *Model Airplane News*, April 2002

(signed) C. David Gierke  
March 2003

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**AMA History Project**  
National Model Aviation Museum  
5151 E. Memorial Dr.  
Muncie IN 47302  
(765) 287-1256, ext. 511  
historyproject@modelaircraft.org

