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EQUATIONS OF MOTION

Adventure, Risk and Innovation

An Engineering Autobiography
by William F. Milliken

Foreword by Dan Gurney

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over 680 pages, over 700 b&w photos,
technical illustrations & charts

William F. Milliken's handling research is fundamental to modern automobile design, and his definitive books on vehicle dynamics provide engineers and racers with practical understanding of chassis design for maximum performance. **Equations of Motion** is the story of Milliken's lifetime of experimentation and innovation in vehicle stability and control.

In 1933, at age 22, Milliken built and flew his own wood-and-fabric airplane from Old Orchard Beach, Maine. During the war he helped resolve the Vought F4U Corsair fighter's aerodynamics, and risked his own neck as a test-pilot to push the Boeing B-17 bomber's operating ceiling above the flak and to make the experimental B-29 flyable.

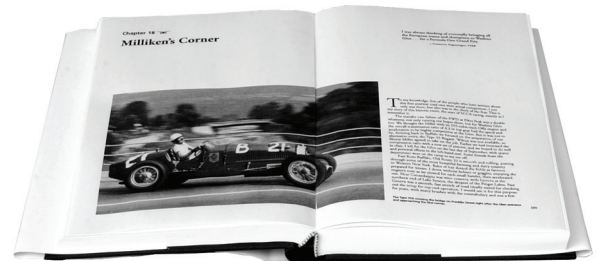
While at CAL, Milliken joined the infant Sports Car Club of America (SCCA), driving a variety of Bugatti, Miller, and other race cars at the first Watkins Glen, Sebring, and Bridgehampton races, as well as in the Pikes Peak, Mt. Equinox, Giant's Despair and other hillclimbs. Ever the engineer, he analyzed each performance in light of his aeronautical progress, laying the foundation for modern automotive chassis design.

General Motors, DaimlerChrysler, Rolls-Royce, Goodyear, Lotus, Nissan and other major automotive companies have consulted with Milliken to improve the safety and controllability of their products. Jim Hall's Chaparral team was the first major racing organization to seek Milliken's advice, and today Milliken Research Associates assists many major racing teams and suppliers, including the Dodge NASCAR team.

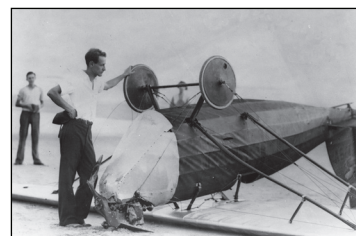
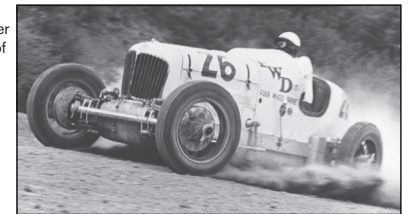
In **Equations of Motion: Adventure, Risk and Innovation**, Milliken vividly recounts his experiences pushing airplanes and race cars beyond their limits. His exciting life provides singular, real-world insight into the challenge and joy of engineering and the history of vehicle dynamics as he created it in the air and on the track.

For more information on this title, please visit

www.bentleypublishers.com/milliken



Bill Milliken corners his Front-Wheel-Drive Miller on the way to the top of Pike's Peak, 1948.



Bill Milliken, age 22, assesses his M-1, Maine's first handbuilt airplane to achieve sustained flight, following its landing on Old Orchard Beach, 1933.

Sections

1. Growing up Down East, 1911-1932
2. An Engineer's Education at MIT, 1932-1936
3. War Effort, 1936-1943
4. Transition to Research, 1944-1947
5. Automobile Racing, 1947-1960
6. Automotive Research, 1956-2002