Flight Test Principles and Practices
Instructors: Donald T. Ward, George Cusimano

Description
An introduction to and definition of the basic flight test process, application of engineering principles to flight test and description of common flight test practices: a survey of the flight test discipline embellished with a variety of examples from completed flight test programs.

Highlights
- Flight test introduction/overview and brief history
- The atmosphere
- Mass, center of gravity and moment of inertia determination
- Time/space position measurements
- Air data calibration methods
- Instrumentation system principles
- Data recording and processing methods
- Proper use of digital bus data
- In-flight measurement of thrust and power
- Stall tests
- Flight test planning and interaction with program planning
- Preliminary preparation: modeling and simulation preparation, and value of ground testing
- Takeoff and landing and cruise performance
- Climb performance
- Advanced performance methods
- Static stability and control
- Structural flight tests
- Spin testing
- Systems testing and evaluation

Who should attend?
The course is designed for all levels of engineers and managers in industry working on flight test projects, military and civil project engineers, test pilots and flight test engineers, government research laboratory personnel and FAA and other regulatory agency engineers. It is ideally suited for engineers and managers from other disciplines who are moving into the flight test discipline for the first time or who must interact with flight test engineers regularly on a given project.

“Flight Test Principles and Practices” course gave me a clear picture pertinent to aircraft parameters to be measured during flight testing. Also, what instrumentation is required including personnel, test facilities, planning, budgeting, report writing and time frame for testing.”
—Mnoneleli Justice Makaula, Certification Engineer, SACAA (South Africa)