

Fly-by-Wire Systems Enable Safer, More Efficient Flight



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NASA Technology

- ◆ In preparing for a mission to the Moon, NASA developed a fly-by-wire electronic guidance system to allow pilots to control the Lunar Module digitally
- ◆ After the system worked flawlessly for the Apollo missions, NASA's engineers began developing similar systems for aircraft on Earth



Partnership

- ◆ Dryden, in partnership with Draper, adapted the Apollo navigation system for a plane, which became the Digital Fly-by-Wire (DFBW) research aircraft
- ◆ The DFBW program was divided into two phases: Phase I featured the first flight by digital input alone, and Phase II developed a full system to implement it

Benefits

- ◆ DFBW technology has sparked a revolution in design for larger airplanes, where digital controls make complex aircraft possible
- ◆ The benefits of DFBW have enabled developments in an array of vehicles, including cars, motorcycles, and submarines