

## Touchdown: The Development of Propulsion Controlled Aircraft at NASA Dryden



Filesize: 6.51 MB

### ***Reviews***

*This is actually the greatest publication i have go through right up until now. I really could comprehended every little thing using this composed e book. I realized this book from my i and dad advised this ebook to learn.*

*(Jimmie Schmidt I)*

## TOUCHDOWN: THE DEVELOPMENT OF PROPULSION CONTROLLED AIRCRAFT AT NASA DRYDEN



Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This monograph relates the important history of the Propulsion Controlled Aircraft project at NASA s Dryden Flight Research Center. Spurred by a number of airplane crashes caused by the loss of hydraulic flight controls, a NASA-industry team lead by Frank W. Burcham and C. Gordon Fullerton developed a way to land an aircraft safely using only engine thrust to control the airplane. In spite of initial skepticism, the team discovered that, by manually manipulating an airplane s thrust, there was adequate control for extended up-and-away flight. However, there was not adequate control precision for safe runway landings because of the small control forces, slow response, and difficulty in damping the airplane phugoid and Dutch roll oscillations. The team therefore conceived, developed, and tested the first computerized Propulsion Controlled Aircraft (PCA) system. The PCA system takes pilot commands, uses feedback from airplane measurements, and computes commands for the thrust of each engine, yielding much more precise control. Pitch rate and velocity feedback damp the phugoid oscillation, while yaw rate feedback damps the Dutch roll motion. The team tested the PCA system in simulators and conducted flight research in F-15 and MD-11 airplanes. Later, they developed less sophisticated variants of PCA called PCA Lite and PCA Ultralite to make the system cheaper and therefore more attractive to industry. This monograph tells the PCA story in a non-technical way with emphasis on the human aspects of the engineering and flic, ht-research effort. It thereby supplements the extensive technical literature on PCA and makes the development of this technology accessible to a wide audience.

-  [Read Touchdown: The Development of Propulsion Controlled Aircraft at NASA Dryden Online](#)
-  [Download PDF Touchdown: The Development of Propulsion Controlled Aircraft at NASA Dryden](#)

## Other eBooks

---



**Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel s System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers**

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This historic book may have numerous typos and missing text. Purchasers can download...

[Download Book »](#)

---



**Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625)**

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now...

[Download Book »](#)

---



**Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625)**

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now you...

[Download Book »](#)

---



**Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications .**

Rarebooksclub.com, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This historic book may have numerous typos and missing text. Purchasers can usually...

[Download Book »](#)

---



**A Kindergarten Manual for Jewish Religious Schools; Teacher s Text Book for Use in School and Home**

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This historic book may have numerous typos and missing text. Purchasers can download...

[Download Book »](#)