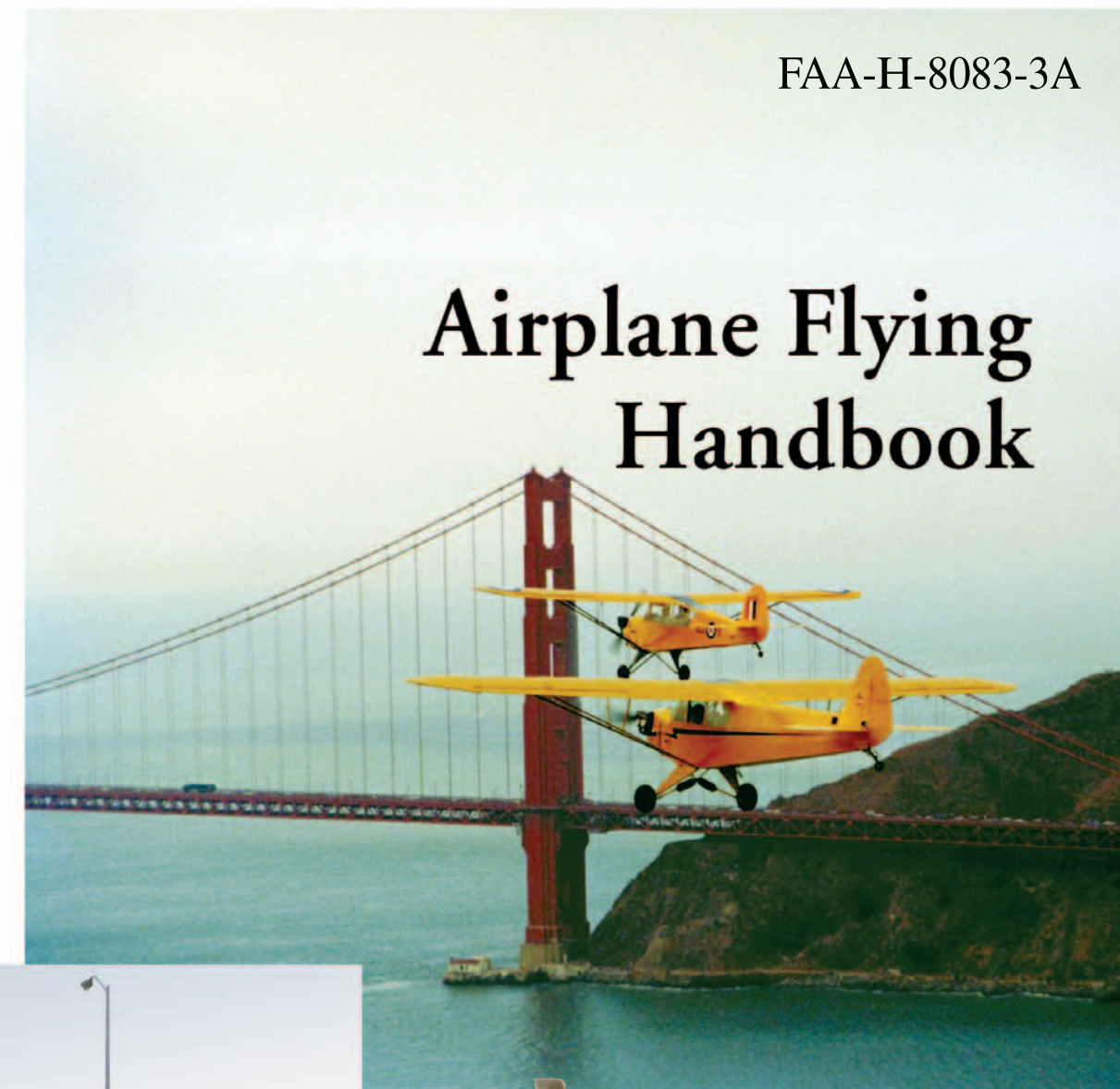


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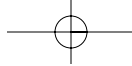
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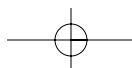
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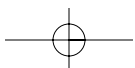
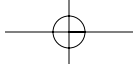


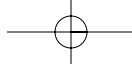
# **AIRPLANE FLYING HANDBOOK**

**2004**

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
Flight Standards Service**







## PREFACE

The *Airplane Flying Handbook* is designed as a technical manual to introduce basic pilot skills and knowledge that are essential for piloting airplanes. It provides information on transition to other airplanes and the operation of various airplane systems. It is developed by the Flight Standards Service, Airman Testing Standards Branch, in cooperation with various aviation educators and industry.

This handbook is developed to assist student pilots learning to fly airplanes. It is also beneficial to pilots who wish to improve their flying proficiency and aeronautical knowledge, those pilots preparing for additional certificates or ratings, and flight instructors engaged in the instruction of both student and certificated pilots. It introduces the future pilot to the realm of flight and provides information and guidance in the performance of procedures and maneuvers required for pilot certification. Topics such as navigation and communication, meteorology, use of flight information publications, regulations, and aeronautical decision making are available in other Federal Aviation Administration (FAA) publications.

This handbook conforms to pilot training and certification concepts established by the FAA. There are different ways of teaching, as well as performing flight procedures and maneuvers, and many variations in the explanations of aerodynamic theories and principles. This handbook adopts a selective method and concept of flying airplanes. The discussion and explanations reflect the most commonly used practices and principles. Occasionally the word “must” or similar language is used where the desired action is deemed critical. The use of such language is not intended to add to, interpret, or relieve a duty imposed by Title 14 of the Code of Federal Regulations (14 CFR).

It is essential for persons using this handbook to also become familiar with and apply the pertinent parts of 14 CFR and the *Aeronautical Information Manual (AIM)*. The AIM is available online at <http://www.faa.gov/atpubs>. Performance standards for demonstrating competence required for pilot certification are prescribed in the appropriate airplane practical test standard.

The current Flight Standards Service airman training and testing material and subject matter knowledge codes for all airman certificates and ratings can be obtained from the Flight Standards Service Web site at <http://av-info.faa.gov>.

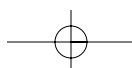
The FAA greatly acknowledges the valuable assistance provided by many individuals and organizations throughout the aviation community whose expertise contributed to the preparation of this handbook.

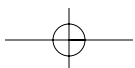
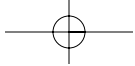
This handbook supersedes FAA-H-8083-3, *Airplane Flying Handbook*, dated 1999. This handbook also supersedes AC 61-9B, *Pilot Transition Courses for Complex Single-Engine and Light Twin-Engine Airplanes*, dated 1974; and related portions of AC 61-10A, *Private and Commercial Pilots Refresher Courses*, dated 1972. This revision expands all technical subject areas from the previous edition, FAA-H-8083-3. It also incorporates new areas of safety concerns and technical information not previously covered. The chapters covering transition to seaplanes and skiplanes have been removed. They will be incorporated into a new handbook (under development), FAA-H-8083-23, *Seaplane, Skiplane and Float/Ski Equipped Helicopter Operations Handbook*.

This handbook is available for download from the Flight Standards Service Web site at <http://av-info.faa.gov>. This web site also provides information about availability of printed copies.

This handbook is published by the U.S. Department of Transportation, Federal Aviation Administration, Airman Testing Standards Branch, AFS-630, P.O. Box 25082, Oklahoma City, OK 73125. Comments regarding this handbook should be sent in e-mail form to [AFS630comments@faa.gov](mailto:AFS630comments@faa.gov).

AC 00-2, *Advisory Circular Checklist*, transmits the current status of FAA advisory circulars and other flight information publications. This checklist is available via the Internet at [http://www.faa.gov/aba/html\\_policies/ac00\\_2.html](http://www.faa.gov/aba/html_policies/ac00_2.html).





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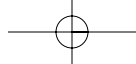
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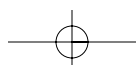
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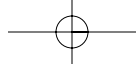
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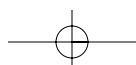
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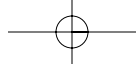
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