

# Table of Contents

<b>Preface.....</b>	<b>iii</b>
<b>Acknowledgments.....</b>	<b>v</b>
<b>Table of Contents .....</b>	<b>vii</b>
<b>Chapter 1</b>	
<b>Introduction to Advanced Avionics.....</b>	<b>1-1</b>
Introduction.....	1-1
How To Operate Advanced Avionics Systems.....	1-2
Which Advanced Avionics Systems To Use and When.....	1-2
How Advanced Avionics Systems Affect the Pilot.....	1-3
Chapter Summary .....	1-3
<b>Chapter 2</b>	
<b>Electronic Flight Instruments.....</b>	<b>2-1</b>
Introduction.....	2-1
Primary Flight Display (PFD).....	2-2
Primary Flight Instruments.....	2-2
Cross-Checking the Primary Flight Instruments .....	2-2
Common Errors: Altitude Excursions and	
Fixation .....	2-2
Enhancements to the Primary Flight Instruments.....	2-3
Primary Flight Instrument Systems.....	2-3
Navigation Instruments .....	2-3
Other Flight Status Information .....	2-4
Making Entries on the PFD .....	2-4
Failures and the Primary Flight Display.....	2-4
Instrument System Failure.....	2-4
PFD Failure.....	2-6
Awareness: Using Standby Instruments .....	2-6
Essential Skills .....	2-6
Chapter Summary .....	2-6
<b>Chapter 3</b>	
<b>Navigation .....</b>	<b>3-1</b>
Area Navigation (RNAV) Basics.....	3-2
RNAV Concept .....	3-2
FMS/RNAV Computer .....	3-2
FMS/RNAV/Autopilot Interface: Display and	
Controls .....	3-3
Accessing Information in the FMS.....	3-3
Making Entries in the FMS.....	3-4
Integrated Avionics Systems .....	3-4
Learning: Simulators for Learning and Practice.....	3-5
Flight Planning.....	3-5
Preflight Preparation.....	3-5
FMS/RNAV Approval For IFR Operations .....	3-6
Navigation Database Currency .....	3-6
Alternative Means of Navigation .....	3-6
NOTAMs Relevant To GPS.....	3-6
GPS Signal Availability .....	3-6
Alternate Airports.....	3-7
Aircraft Equipment Suffixes.....	3-7
Suitability of an RNAV Unit for VFR Flight.....	3-7
Programming the Flight Route .....	3-7
The Flight Planning Page .....	3-8
En Route Waypoints and Procedural Waypoints....	3-8
Entering En Route Waypoints .....	3-8
Entering Airways .....	3-8
Entering Procedures.....	3-9
Risk: Taking Off Without Entering a Flight Plan....	3-9
Reviewing the Flight Route .....	3-9
Catching Errors: Using the FMs Flight Planning	
Function To Cross-Check Calculations.....	3-9
Check the Waypoints.....	3-10
Check the Distances.....	3-10
Check the Desired Tracks.....	3-11
Check for Route Discontinuities.....	3-11
Maintaining Proficiency: Aeronautical	
Knowledge .....	3-11
Coupling the FMs to the Navigation Indicator(s) .....	3-11
Common Error: Displaying the Wrong	
Navigation Source .....	3-12
Awareness: Mode Awareness.....	3-13
Essential Skills .....	3-13
En Route Navigation.....	3-13