

# WELCOME

The publishers of this Aviation Maintenance Technician Certification Series welcome you to the world of aviation maintenance. As you move towards EASA certification, you are required to gain suitable knowledge and experience in your chosen area. Qualification on basic subjects for each aircraft maintenance license category or subcategory is accomplished in accordance with the following matrix. Where applicable, subjects are indicated by an "X" in the column below the license heading.

For other educational tools created to prepare candidates for licensure, contact Aircraft Technical Book Company.

We wish you good luck and success in your studies and in your aviation career!

## REVISION LOG

VERSION	EFFECTIVE DATE	DESCRIPTION OF CHANGE
001	2015 01	Module Creation and Release
002	2016 07	Format Update and Minor Content Revisions
003	2018 07	Refined content sequencing to Appendix 1.
003.1	2023 04	Inclusion of Measurement Standards for clarification, page iv. Minor appearance and format updates.

Version 003 - The following content was added for clarity:

Sub-Module 02	Free Stream Air Flow, Wash-In/Wash-Out
Sub-Module 03	Steady State Flight; High Speed Aerodynamics; Helicopter Aerodynamics
Sub-Module 04	Passive and Active Stability

### MODULE EDITIONS AND UPDATES

ATB EASA Modules are in a constant state of review for quality, regulatory updates, and new technologies. This book's edition is given in the revision log above. Update notices will be available Online at [www.actechbooks.com/revisions.html](http://www.actechbooks.com/revisions.html)

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# MEASUREMENT STANDARDS

## SI Units

Measurements in this book are presented with International System of Units (SI) standards in all cases except when otherwise specified by ICAO (for example, altitude expressed in feet or performance numbers as specified by a manufacturer). The chart below can be used should your studies call for conversions into imperial numbers.

## Number Groups

This book uses the International Civil Aviation Organization (ICAO) standard of writing numbers. This method separates groups of 3 digits with a space, versus the European method by periods and the American method by commas. For example, the number one million is expressed as:

ICAO Standard	1 000 000
European Standard	1.000.000
American Standard	1,000,000

## Prefixes

The prefixes in the table below form names of the decimal equivalents in SI units.

MULTIPLICATION FACTOR	PREFIX	SYMBOL
1 000 000 000 000 000 000 = 10 <sup>18</sup>	exa	E
1 000 000 000 000 000 = 10 <sup>15</sup>	peta	P
1 000 000 000 000 = 10 <sup>12</sup>	tera	T
1 000 000 000 = 10 <sup>9</sup>	giga	G
1 000 000 = 10 <sup>6</sup>	mega	M
1 000 = 10 <sup>3</sup>	kilo	k
100 = 10 <sup>2</sup>	hecto	h
10 = 10 <sup>1</sup>	deca	da
0.1 = 10 <sup>-1</sup>	deci	d
0.01 = 10 <sup>-2</sup>	centi	c
0.001 = 10 <sup>-3</sup>	milli	m
0.000 001 = 10 <sup>-6</sup>	micro	μ
0.000 000 001 = 10 <sup>-9</sup>	nano	n
0.000 000 000 001 = 10 <sup>-12</sup>	pico	p
0.000 000 000 000 001 = 10 <sup>-15</sup>	femto	f
0.000 000 000 000 000 001 = 10 <sup>-18</sup>	atto	a

## COMMON CONVERSIONS

IMPERIAL SYSTEM	TO	SI (METRIC)
<b>Distance</b>		
1 Inch	is equal to	2.54 Centimeters
1 Foot	is equal to	0.304 Meters
1 (Statute) Mile	is equal to	1.609 Kilometers
<b>Weight</b>		
1 Pound	is equal to	0.454 Kilograms
<b>Volume</b>		
1 Quart	is equal to	0.946 Liters
1 Gallon	is equal to	3.785 Liters
<b>Temperature</b>		
°0 Fahrenheit	is equal to	(-)17.778 Celsius (°C)
°0 Fahrenheit	is equal to	255.37 Kelvin (K)
<b>Area</b>		
1 Square Inch	is equal to	6.451 Square Centimeters
1 Square Foot	is equal to	0.093 Square Meters
1 Square Mile	is equal to	2.59 Square Kilometers
<b>Velocity</b>		
1 Foot Per Second	is equal to	0.304 Meters Per Second
1 Mile Per Hour	is equal to	1.609 Kilometers Per Hour
1 Knot	is equal to	1.852 Kilometers Per Hour

SI (METRIC)	TO	IMPERIAL SYSTEM
<b>Distance</b>		
1 Centimeter	is equal to	0.394 Inches
1 Meter	is equal to	3.28 Feet
1 Kilometer	is equal to	0.621 Miles
<b>Weight</b>		
1 Kilogram	is equal to	2.204 Pounds
<b>Volume</b>		
1 Liter	is equal to	1.057 Quarts
1 Liter	is equal to	0.264 Gallons
<b>Temperature</b>		
°0 Celsius (°C)	is equal to	33.8° Fahrenheit
°0 Kelvin (K)	is equal to	(-)437.87 Fahrenheit
<b>Area</b>		
1 Square Centimeter	is equal to	0.155 Square Inches
1 Square Meter	is equal to	10.764 Square Feet
1 Square Kilometer	is equal to	0.386 Square Miles
<b>Velocity</b>		
1 Meter Per Second	is equal to	3.281 Feet Per Second
1 Kilometer Per Hour	is equal to	0.621 Miles Per Hour
1 Kilometer Per Hour	is equal to	0.540 Knots

### Pressure

pounds per square inch (psi)	kiloPascals (kPa)	6.897
pounds per square inch (psi)	Pascals (Pa)	6.894