

CHAPTER 1**Introduction to Flight Planning and Monitoring**

Introduction	1-1
References.....	1-1
Nautical Air Miles	1-1
Answers to Questions	1-5

CHAPTER 2**Introduction to CAP 697**

Introduction	2-1
Flight Planning and Monitoring – General Notes.....	2-1
Layout	2-1
Definitions	2-2
Conversions.....	2-3

CHAPTER 3**CAP 697 - Single Engine Piston Aeroplane (SEP 1)**

Introduction	3-1
Aeroplane Description and Data	3-1
Time, Fuel and Distance to Climb	3-1
Associated Conditions	3-1
Departure Airfield at MSL.....	3-2
Departure Airfield at an Altitude Other Than MSL.....	3-3
Allowance for Wind Component.....	3-4
Recommended and Economy Cruise Power Settings	3-5
Range Profile	3-7
Endurance Profile	3-8
SEP Example Answers	3-9

CHAPTER 4**CAP 697 - Multi-Engine Piston Aircraft (MEP 1)**

Introduction	4-1
Aeroplane Data	4-1
Details	4-1
Power Settings.....	4-1
Cruise Climb Fuel, Time, and Distance to Climb.....	4-2
Standard Temperature Range	4-3
Power Setting and Fuel Flow	4-4
Speed Power	4-5
Endurance.....	4-6
Fuel, Time, and Distance to Descend	4-7
MEP Example Answers	4-9

CHAPTER 5**CAP 697 - Medium Range Jet Transport (MRJT)**

Introduction	5-1
Aeroplane Data	5-1
Definitions	5-1
Constants	5-2
Optimum Altitude.....	5-2
Calculating the Optimum Altitude	5-2
Fuel Penalties	5-3
Off-Optimum Altitude.....	5-3
Short Distance Cruise Altitude	5-3
Simplified Fuel Planning.....	5-4
Additional Allowances	5-5
Simplified Flight Planning - Long Range Cruise.....	5-5
Stepped Climb Simplified Fuel Planning	5-7
Alternate Planning.....	5-8
Holding Fuel Planning	5-9
Detailed Fuel Planning	5-10
Enroute Climb	5-10
Wind Range Correction	5-12
Integrated Range	5-13
Temperature Deviation.....	5-14
Descent.....	5-16
MRJT Example Answers.....	5-17

CHAPTER 6**Introduction to Jeppesen Airway Manual**

Introduction	6-1
Introduction to the Jeppesen Manual	6-1
Table of Contents.....	6-1
Chart Glossary	6-1
Abbreviations	6-2
Enroute Chart Legend – General	6-2
Chart Code.....	6-2
Area of Coverage	6-3
Additional Information	6-3
Communications	6-4
Transponder Settings.....	6-4
Cruising Levels.....	6-4
The Chart	6-5
Scale	6-6
Measurements	6-7
Congestion.....	6-7
Chart Symbols.....	6-7
Class B Airspace Chart Legend	6-7
SID and STAR Legend.....	6-8
SID and STAR and Profile Descent Legend	6-8
Approach Chart Legend	6-8
ICAO Recommended Airport Signs and Runway Markings	6-8
Text Coverage Areas	6-8
Approach Chart Legend New Format.....	6-8

CHAPTER 7**Jeppesen Airway Manual – Enroute**

Introduction	7-1
Europe – Low Altitude Enroute Chart.....	7-1
United States – High Altitude Enroute Chart.....	7-4
United States – Low Altitude Enroute Charts.....	7-5
Enroute Answers.....	7-7

CHAPTER 8**Jeppesen Airway Manual – High**

Introduction	8-1
Europe – High Altitude Enroute Chart.....	8-1
Canada/Alaska – High Altitude Enroute Chart CA(HI)3/4	8-2
Atlantic Orientation Charts AT(H/L) 1/2.....	8-2
Transponder Settings.....	8-2
Cruising Levels	8-2
Volmet Broadcasts.....	8-2
Navaid Information.....	8-2
North Atlantic and Canada MNPS.....	8-3
NAT Organised Track System	8-3
North Atlantic Communications.....	8-3
North Atlantic Crossing Clearance Procedure and Frequencies.....	8-3
Position Reporting Procedures	8-3
Increased Weather Reporting	8-3
Special Procedures for In-Flight Contingencies in MNPS/RVSM Airspace.....	8-3
In-Flight Contingency Procedures for Wake Vortex Encounters Within NAT MNPS Airspace.....	8-3
Distance.....	8-4
Atlantic Polar High Altitude Enroute Chart AT(HI)5.....	8-5
Chart Projection	8-5
Beacon Alignment.....	8-6
Plotting on a Polar Chart.....	8-6
North Canada Plotting Chart (NCP).....	8-8
North Atlantic Plotting Chart (MAP/NAP).....	8-8
North Atlantic Plotting Chart (NAP/INSET).....	8-8
Equal Time Point.....	8-8
High Exercise Answers	8-10

CHAPTER 9**Jeppesen Airway Manual - ATC, Air Reporting By Voice Communications (AIREP)**

AIREP	9-1
Routine Air Reports.....	9-1
Special Air Reports	9-2
Reporting Instructions	9-2

CHAPTER 10**Jeppesen Airway Manual - ATC, The Flight Plan**

Types and Categories of Flight Plans	10-1
Filing a Flight Plan.....	10-1
Submission of a Flight Plan.....	10-2
Contents of a Flight Plan.....	10-2
Changes to a Flight Plan.....	10-3
Closing a Flight Plan	10-3
Use of Repetitive Flight Plans (RPLs).....	10-4
Change From IFR to VFR Flight.....	10-4
Adherence to Flight Plan.....	10-4
Inadvertent Changes.....	10-5
Intended Changes.....	10-5
Change of Cruising Level.....	10-5
Change of Route.....	10-6
Weather Deterioration Below the VMC	10-6
Date of Flight in a Flight Plan	10-6
Completion of the ICAO Flight Plan	10-7
Item 3 – Message Type.....	10-8
Item 7 – Aircraft Identification.....	10-9
Item 8 – Flight Rules and Type of Flight.....	10-9
Item 9 – Number of Aircraft, Type of Aircraft, Wake Turbulence Category	10-10
Item 10 – Radio Communication, Navigation and Approach Aid Equipment.....	10-10
Item 13 – Departure Aerodrome, and Time.....	10-12
Item 15 – Cruising Speed, Level, and Route.....	10-13
Route Requirements - General	10-15
North Atlantic (NAT) Flights	10-16
Item 16 – Destination Aerodrome, Total Elapsed Time, and Alternate Aerodromes	10-20
Item 18 – Other Information	10-20
Item 19 – Supplementary Information	10-23

CHAPTER 11**Jeppesen Airway Manual – Terminal**

Introduction	11-1
Area Chart (10-1).....	11-1
Standard Terminal Arrival (STAR).....	11-2
Standard Instrument Departure (SID)	11-3
Approach Chart.....	11-4
Supplementary Pages.....	11-5
Airport Charts.....	11-6
Terminal Exercise Answers.....	11-7

CHAPTER 12**Jeppesen Airway Manual - Jeppesen VFR + GPS Chart, Germany ED-6**

Introduction	12-1
Chart Information	12-1
GPS Latitude and Longitude Discrepancies.....	12-1
Aeronautical Information	12-1
Projection	12-2
VFR Answers	12-4

CHAPTER 13**Meteorological Messages**

Introduction	13-1
Aerodrome Meteorological Report	13-1
Special Aerodrome Meteorological Reports	13-1
Terminal Aerodrome Forecasts	13-1
Actual Weather Codes	13-2
Identifier	13-2
Surface Wind Velocity	13-2
Horizontal Visibility	13-3
Runway Visual Range (RVR)	13-3
Weather	13-4
Significant Present and Forecast Weather Codes	13-4
Cloud	13-5
CAVOK	13-5
Air Temperature and Dewpoint	13-6
Sea Level Pressure (QNH)	13-6
Supplementary Information	13-6
Recent Weather (RE)	13-6
Windshear (WS)	13-6
Trend	13-6
Runway State Group	13-7
'Auto' and 'Rmk'	13-8
Missing Information	13-8
Examples of METARS	13-8
Aerodrome Forecasts (TAF) codes	13-9
TAF Contents and Format	13-9
Significant Changes	13-9
Other Groups	13-10
Example 9 hr TAF	13-10
Example 18 hr TAF	13-11
VOLMET Broadcasts	13-11

CHAPTER 14**Upper Air Charts**

Introduction	14-1
Symbols For Significant Weather	14-1
Fronts and Convergence Zones and Other Symbols	14-2
Cloud Abbreviations	14-2
Cloud Amount	14-2
Cumulonimbus Only	14-3
Weather Abbreviations	14-3
Lines and Symbols on the Chart	14-3
Significant Weather Chart	14-3
Upper Wind and Temperature Charts	14-6
Averaging Wind Velocities	14-8

CHAPTER 15**Point of Equal Time, Point of Safe Return, and Radius of Action**

Introduction	15-1
Point of Equal Time.....	15-1
PET Formula.....	15-1
Engine Failure PET.....	15-4
Multi-Leg PET.....	15-5
Two Leg PET.....	15-5
Three Leg PET.....	15-6
Point of Safe Return.....	15-8
Single Leg PSR.....	15-9
Multi-Leg PSR.....	15-10
PSR with Variable Fuel Flow.....	15-11
Multi-Leg PSR with Variable Fuel Flow.....	15-13
Radius of Action.....	15-14
PET & PSR Answers.....	15-15

CHAPTER 16**Traffic Load**

Definitions	16-1
Introduction	16-1
Traffic Load Answers	16-4

CHAPTER 17**CAP 697 - Medium Range Jet Transport (MRJT) - Non-Normal Operations**

Gear Down Ferry Flight.....	17-1
Extended Range Operations.....	17-1
Critical Fuel Reserve – One Engine Inoperative.....	17-1
Critical Fuel Reserve – All Engines Operative.....	17-2
Area of Operation – Diversion Distance (one-engine inoperative).....	17-2
In-Flight Diversion (LRC) – One Engine Inoperative.....	17-3
Fuel Tankering and Fuel Price Differential.....	17-3
Non-Normal Operations Answers.....	17-5