

TABLE OF CONTENTS

Unit 1

Dream of Flight

1. First Attempts	9
2. Examples of the Date	10
3. Who is Who?	10
4. Kitty Hawk, December 17, 1903	11
5. Transoceanic Flight	12
6. Types of Sentences	13
7. Word Order	13
8. A Poem	14

Unit 2

At the Airport

1. About Airports	15
2. A Letter to the Travel Agency	17
3. Check-In	18

Unit 3

Companies

1. Number One of Aerospace Company in Europe	19
2. The Present Simple	22
3. My Workbench	23
4. The Present Progressive	25
5. Describe the Following Picture	26

Unit 4

Joining

1. Basics	27
2. Past Simple	29
3. Past Progressive	30
4. Riveted Joints	30
5. There-Construction (Vorsubjekt "there")	32
6. Welding and Adhering	33
7. Phrasal Verbs	34

Unit 5

Flying

1. Atmosphere	35
2. Standard Atmosphere	36
3. Measures	36
4. Lighter-Than-Air Flight	37
5. Balloon Flight Today	39
6. Heavier-Than-Air Flight	41
7. Wonder of Flight	42

Unit 6

Aeroplane

1. Main Assemblies of the Aeroplane	43
2. Fuselage	45
3. Imperative (Orders)	46
4. Wings	47
5. Empennage	48

6. All, Every, Each	49
7. Flight Controls and Surfaces	49
8. Landing Gear	52
9. Present Perfect Pimple	53
10. Power Plant or Jet Engine	53

Unit 7

Principles of Flight

1. Forces Acting on an Aeroplane	55
2. Weights and Forces	56
3. Stability	56
4. Climbing and Gliding	59
5. Present Perfect Progressive	60
6. Lift	61
7. Prepositions Over/Above, Under/Below, On, At	62
8. Drag	63

Unit 8

Supersonic Flight

1. Speed of Sound	65
2. Mach Number	65
3. Relative Clauses	66
4. Shock Waves	67
5. Critical Mach Number	67
6. Non-Defining Relative Clauses	68
7. Wave Drag	69
8. Adjectives and Adverbs	70
9. Swept Wings	71
10. Use the Adverbs	72

Unit 9

Power Plant

1. Principle of Aeroplane Propulsion	73
2. Revision of Tenses	74
3. Reciprocating Engine	75
4. Full Verbs and Auxiliary Verbs	76
5. Engine Cycle	77
6. Future Tense	79
7. Propeller	80
8. Short Forms (Contractions)	81
9. Propeller Pitch and Propeller Slip	82
10. Next, Near, and Close	83
11. Differentiate	84

Unit 10

Jet Engine

1. History	85
2. Principles of Jet Propulsion	85
3. Gas Turbine Engine and Working Cycle	89
4. Future Progressive	90
5. Avoid Mistakes	90
6. Compressor	91
7. Differentiate	92

8. Future Perfect	93
9. Combustion Section	93
10. Non-Finite Constructions	95
11. Turbine	95
12. Participle	97
13. During or While?	97
14. Exhaust System	98
15. Participles with Have and Get ("lassen")	99
16. GP7000	100

Unit 11

Fuel System

1. Basics	101
2. Structure	102

Unit 12

Hydraulic Power

1. Basics	105
2. Hydraulics	105
3. Participles After Verbs of Perception and Observation	106
4. Avoid Mistakes	106
5. Hydraulic System	107

Unit 13

Electric Power

1. Basics	111
2. Participle Constructions as Adverbial	112
3. Direct Current (DC)	113
4. Electric Generator – Alternating Current (AC)	114
5. Example of an Aeroplane Electrical System	114

Unit 14

Air-Conditioning

1. History	119
2. For (As a Preposition)	120
3. Aeromedical Factors	120
4. Pressurised Aeroplanes	121
5. From	123
6. Avoid Mistakes	123
7. Pressurising System of Airbus A310	124

Unit 15

Oxygen

1. Basics	125
2. Oxygen Supply	125

Unit 16

Ice-Protection

1. Basics	129
2. Methods	130
3. Ground De-Icing	131

Unit 17

Flight Instruments

1. Basics	133
2. Conditional	134
3. Altimeter	135
4. Vertical Speed Indicator	135
5. Airspeed Indicator	136
6. "To Infinitive" as Object	137
7. Avoid Mistakes	137
8. Gyroscopic Flight Instruments	138
9. "To Infinitive" After Adjectives	140
10. Avoid Mistakes	140
11. Magnetic Compass	141
12. Radio Navigation	141
13. "To Infinitive" After Question Words	142
14. Do you know these Instruments?	142
15. Avionics	143
16. Engine Instrumentation	144

Unit 18

Helicopters

1. Basics	145
2. Construction	146
3. Conjunctions	147
4. Avoid Mistakes	147
5. Main Rotor	148
6. Coordinating Conjunctions	150
7. Avoid Mistakes	150
8. Tail Rotor	151
9. Subordinating Conjunctions	152
10. Helicopter Flight Controlling	153
11. Hovering Flight	155
12. Horizontal Flight	155
13. "Flare"	156
14. Light, Slight, and Easy	156

Unit 19

Aircraft Maintenance

1. Basics	157
2. Maintenance, Repair, and Overhaul	158
3. Gerund	158
4. Aviation Maintenance Companies	159
5. Gerund or Infinitive	161
6. Personnel Structure	161
7. Aircraft Manual	163
8. Maintenance Schedule (Exemplar DLH)	166
9. A Typical Maintenance Work	167
10. Danger, Warning, Caution, and Note Statements	168
11. Avoid Mistakes	169
12. A Typical Structural Repair	170

Unit 20

Additional Information

1. Aluminium	173
2. Structural Repair	173
3. At the Heart of the Desert	174
4. Otto Lilienthal	175

5. Break of the Sound Barrier.....	177
6. Concorde.....	178
7. Transall C-160.....	178
8. A400M Atlas.....	179
9. Panavia 200 Tornado.....	180
10. Eurofighter Typhoon.....	181
11. Lockheed Martin F35 Lightning II.....	182
12. Beechcraft King Air 350ER.....	183
13. Airbus A380 FlightLab Zero E.....	186
14. Blisk Procedure.....	187
15. Human Factors.....	187
16. Call Right! (International telephone alphabet).....	189
17. Igor Sikorsky.....	189
18. It's a Very Lonely Place, the Sky on a Winter's Night.....	190
19. United Kingdom of Great Britain and Northern Ireland.....	192

Appendix 1

Unit Word List

UNIT 1.....	193
UNIT 2.....	194
UNIT 3.....	195
UNIT 4.....	197
UNIT 5.....	198
UNIT 6.....	200
UNIT 7.....	203
UNIT 8.....	204
UNIT 9.....	205
UNIT 10.....	207
UNIT 11.....	209
UNIT 12.....	209
UNIT 13.....	210
UNIT 14.....	211
UNIT 15.....	211
UNIT 16.....	212
UNIT 17.....	212
UNIT 18.....	214

UNIT 19.....	215
UNIT 20.....	216

Appendix 2

Alphabetical Wordlist

A.....	217
B.....	218
C.....	219
D.....	221
E.....	222
F.....	223
G.....	223
H.....	224
I.....	224
J.....	225
K.....	225
L.....	225
M.....	226
N.....	227
O.....	227
P.....	227
Q.....	228
R.....	228
S.....	230
T.....	232
U.....	233
V.....	233
W.....	233
X.....	234
Y.....	234

Appendix 3

Quellennachweis

LITERATURQUELLEN.....	235
BILDQUELLEN.....	235