

|                                                                              |  |                                                                                  |                                                                             |                                         |
|------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------|
| <b>Alitalia</b><br>Compagnia Aerea Italiana<br><b>MD80</b> OPERATIONS MANUAL |  | Elev: 779 ft<br>Length: 9626 ft (2934 m)<br>Slope: -0.28 %<br>Shift: 0 ft ( 0 m) | Runway<br><b>10</b>                                                         | Airport<br><b>BERGAMO</b><br>LIME - BGY |
| JT8D-217A<br>A/C : OFF/ON<br>A/I OFF or ENG A/I ON                           |  |                                                                                  | PTOW (ton) ; V1 (KIAS)<br>LIMIT CODE ; VR (KIAS)<br>PITCH (deg) ; V2 (KIAS) | 02 Apr 2009                             |

| VMCG<br>VRMIN<br>V2MIN | FLAP 11    |                   |                         |                                 |                                 |                                 | DRY | OPTIMUM FLAP      |                         |                           |                           |     |                   |                         |                           |                           |
|------------------------|------------|-------------------|-------------------------|---------------------------------|---------------------------------|---------------------------------|-----|-------------------|-------------------------|---------------------------|---------------------------|-----|-------------------|-------------------------|---------------------------|---------------------------|
|                        |            |                   |                         |                                 |                                 |                                 |     | 15                | 11                      |                           | 9                         |     | 9                 |                         |                           |                           |
|                        | OAT<br>°C  | W I N D (kt)      |                         |                                 |                                 |                                 |     | OAT<br>°C         | W I N D (kt)            |                           |                           |     |                   |                         |                           |                           |
|                        |            | -10               | -5                      | 0                               | 10                              |                                 |     | -10               | -5                      | 0                         | 10                        |     | -10               | -5                      | 0                         | 10                        |
| 115<br>119<br>128      | 27<br>(NA) | 66.8<br>*<br>13.5 | 142<br>147<br>154       | 68.6<br>*<br>154                | 68.7<br>S<br>154                | 68.7<br>S<br>154                | -15 | 67.4<br>S         | 69.0<br>S               | 70.4<br>S                 | 70.4<br>S                 | -10 | 67.4<br>S         | 68.9<br>S               | 70.4<br>S                 | 70.4<br>S                 |
| 115<br>119<br>128      | 29<br>(NA) | 66.6<br>*<br>13.5 | 141<br>147<br>154       | 68.4<br>*<br>154                | 68.6<br>S<br>154                | 68.6<br>S<br>154                | -10 | 67.4<br>S         | 68.9<br>S               | 70.4<br>S                 | 70.4<br>S                 | -5  | 67.4<br>S         | 68.9<br>S               | 70.4<br>S                 | 70.4<br>S                 |
| 114<br>118<br>127      | 31<br>(NA) | 65.9<br>*<br>13.5 | 141<br>146<br>153       | 67.7<br>*<br>153                | 67.8<br>S<br>153                | 67.8<br>S<br>153                | -5  | 67.4<br>S         | 68.9<br>S               | 70.4<br>S                 | 70.4<br>S                 | 0   | 67.3<br>S         | 68.9<br>S               | 70.3<br>S                 | 70.3<br>S                 |
| 113<br>118<br>127      | 33<br>(NA) | 65.0<br>*<br>13.5 | 140<br>145<br>152       | 66.7<br>S<br>154                | 66.7<br>S<br>154                | 66.7<br>S<br>154                | 0   | 67.3<br>S         | 68.9<br>S               | 70.3<br>S                 | 70.3<br>S                 | 5   | 67.3<br>S         | 68.8<br>S               | 70.3<br>S                 | 70.3<br>S                 |
| 113<br>117<br>126      | 35<br>(NA) | 64.0<br>*<br>13.5 | 139<br>144<br>151       | 65.5<br>S<br>153                | 65.5<br>S<br>153                | 65.5<br>S<br>153                | 5   | 67.3<br>S         | 68.8<br>S               | 70.3<br>S                 | 70.3<br>S                 | 10  | 67.3<br>S         | 68.8<br>S               | 70.2<br>S                 | 70.2<br>S                 |
| 112<br>116<br>125      | 37<br>(31) | 63.1<br>*<br>13.5 | 138<br>143<br>150       | 64.4<br>S<br>151                | 64.4<br>S<br>151                | 64.4<br>S<br>151                | 10  | 67.3<br>S         | 68.8<br>S               | 70.2<br>S                 | 70.2<br>S                 | 15  | 67.3<br>S         | 68.7<br>S               | 70.2<br>S                 | 70.2<br>S                 |
| 111<br>116<br>124      | 39<br>(33) | 62.4<br>*<br>13.5 | 137<br>142<br>149       | 63.4<br>S<br>150                | 63.4<br>S<br>150                | 63.4<br>S<br>150                | 15  | 67.3<br>S         | 68.7<br>S               | 70.2<br>S                 | 70.2<br>S                 | 20  | 67.3<br>S         | 68.7<br>S               | 70.2<br>S                 | 70.2<br>S                 |
| 110<br>115<br>123      | 41<br>(34) | 61.7<br>*<br>13.5 | 136<br>141<br>148       | 62.5<br>S<br>149                | 62.5<br>S<br>149                | 62.5<br>S<br>149                | 20  | 67.3<br>S         | 68.7<br>S               | 70.2<br>S                 | 70.2<br>S                 | 25  | 67.3<br>S         | 68.7<br>S               | 70.1<br>S                 | 70.1<br>S                 |
| 109<br>114<br>123      | 43<br>(36) | 60.9<br>*<br>13.5 | 135<br>141<br>147       | 61.7<br>S<br>148                | 61.7<br>S<br>148                | 61.7<br>S<br>148                | 25  | 67.3<br>*         | 68.7<br>S               | 70.1<br>S                 | 70.1<br>S                 | 27  | 67.3<br>*         | 68.7<br>S               | 70.1<br>S                 | 70.1<br>S                 |
| 109<br>113<br>122      | 45<br>(37) | 60.2<br>*<br>13.5 | 135<br>140<br>146       | 60.8<br>S<br>147                | 60.8<br>S<br>147                | 60.8<br>S<br>147                | 27  | 67.1<br>*         | 68.6<br>*               | 70.1<br>*                 | 70.1<br>S                 | 29  | 67.1<br>*         | 68.6<br>*               | 70.1<br>*                 | 70.1<br>S                 |
| 108<br>112<br>121      | 47<br>(39) | 59.3<br>*<br>13.5 | 134<br>139<br>145       | 59.8<br>S<br>146                | 59.8<br>S<br>146                | 59.8<br>S<br>146                | 29  | 67.0<br>*<br>12.5 | 68.4<br>*<br>146<br>153 | 69.9<br>*<br>146<br>153   | 70.1<br>S                 | 31  | 67.0<br>*<br>12.5 | 68.4<br>*<br>146<br>153 | 69.9<br>*<br>146<br>153   | 70.1<br>S                 |
| 107<br>112<br>120      | 49<br>(41) | 58.5<br>*<br>13.5 | 133<br>138<br>144       | 58.8<br>S<br>144                | 58.8<br>S<br>144                | 58.8<br>S<br>144                | 31  | 66.3<br>*<br>12.5 | 67.7<br>*<br>145<br>152 | 69.2<br>*<br>145<br>152   | 69.2<br>S                 | 33  | 66.3<br>*<br>12.5 | 67.7<br>*<br>145<br>152 | 69.2<br>*<br>145<br>152   | 69.2<br>S                 |
|                        | 49         | 58.0<br>13.5      | 131<br>137<br>143       | 58.0<br>132<br>137<br>143       | 58.0<br>132<br>137<br>143       | 58.0<br>132<br>137<br>143       | 33  | 65.4<br>12.5      | 140<br>144<br>151       | 66.7<br>142<br>147<br>154 | 68.1<br>S                 | 35  | 65.4<br>12.5      | 140<br>144<br>151       | 66.7<br>142<br>147<br>154 | 68.1<br>S                 |
|                        | 49         | 56.0<br>14.0      | 128<br>134<br>141       | 56.0<br>129<br>134<br>141       | 56.0<br>129<br>134<br>141       | 56.0<br>129<br>134<br>141       | 35  | 64.3<br>12.5      | 139<br>143<br>150       | 65.5<br>141<br>146<br>153 | 66.9<br>146<br>150<br>157 | 37  | 64.3<br>12.5      | 139<br>143<br>150       | 65.5<br>141<br>146<br>153 | 66.9<br>146<br>150<br>157 |
|                        | 49         | 54.0<br>14.0      | 125<br>132<br>138       | 54.0<br>126<br>132<br>138       | 54.0<br>126<br>132<br>138       | 54.0<br>126<br>132<br>138       | 37  | 63.3<br>12.5      | 137<br>142<br>148       | 64.4<br>140<br>145<br>151 | 65.8<br>144<br>149<br>155 | 39  | 63.3<br>12.5      | 137<br>142<br>148       | 64.4<br>140<br>145<br>151 | 65.8<br>144<br>149<br>155 |
|                        | 49         | 52.0<br>14.5      | 122<br>129<br>136       | 52.0<br>122<br>129<br>136       | 52.0<br>123<br>129<br>136       | 52.0<br>123<br>129<br>136       | 39  | 62.3<br>12.5      | 136<br>141<br>147       | 63.4<br>139<br>143<br>150 | 64.7<br>143<br>148<br>154 |     | 62.3<br>12.5      | 136<br>141<br>147       | 63.4<br>139<br>143<br>150 | 64.7<br>143<br>148<br>154 |
|                        | 49         | 50.0<br>15.0      | 119<br>126<br>133       | 50.0<br>119<br>126<br>133       | 50.0<br>120<br>126<br>133       | 50.0<br>120<br>126<br>133       |     | 62.0<br>12.5      | 135<br>140<br>147       | 63.0<br>137<br>143<br>150 | 64.0<br>141<br>146<br>153 |     | 62.0<br>12.5      | 135<br>140<br>147       | 63.0<br>137<br>143<br>150 | 64.0<br>141<br>146<br>153 |
|                        | 49         | 48.0<br>15.0      | 115<br>123<br>130       | 48.0<br>116<br>123<br>130       | 48.0<br>116<br>123<br>130       | 48.0<br>117<br>123<br>130       |     | 60.0<br>13.0      | 132<br>137<br>144       | 61.0<br>134<br>140<br>147 | 62.0<br>139<br>144<br>150 |     | 60.0<br>13.0      | 132<br>137<br>144       | 61.0<br>134<br>140<br>147 | 62.0<br>139<br>144<br>150 |
|                        | 49         | 46.0<br>15.5      | 112CK<br>120<br>128CK   | 46.0<br>113CK<br>120<br>128CK   | 46.0<br>113CK<br>120<br>128CK   | 46.0<br>114CK<br>120<br>128CK   |     | 58.0<br>13.0      | 128<br>135<br>142       | 59.0<br>132<br>138<br>145 | 60.0<br>136<br>141<br>148 |     | 58.0<br>13.0      | 128<br>135<br>142       | 59.0<br>132<br>138<br>145 | 60.0<br>136<br>141<br>148 |
|                        | 49         | 44.0<br>16.0      | 108CK<br>117CK<br>125CK | 44.0<br>109CK<br>117CK<br>125CK | 44.0<br>110CK<br>117CK<br>125CK | 44.0<br>110CK<br>117CK<br>125CK |     | 56.0<br>13.5      | 125<br>132<br>139       | 57.0<br>128<br>135<br>142 | 58.0<br>133<br>138<br>145 |     | 56.0<br>13.5      | 125<br>132<br>139       | 57.0<br>128<br>135<br>142 | 58.0<br>133<br>138<br>145 |
|                        | 49         | 42.0<br>16.0      | 105CK<br>114CK<br>122CK | 42.0<br>105CK<br>114CK<br>122CK | 42.0<br>106CK<br>114CK<br>122CK | 42.0<br>107CK<br>114CK<br>122CK |     | 54.0<br>13.5      | 122<br>129<br>137       | 55.0<br>125<br>132<br>140 | 56.0<br>129<br>136<br>143 |     | 54.0<br>13.5      | 122<br>129<br>137       | 55.0<br>125<br>132<br>140 | 56.0<br>129<br>136<br>143 |

**LIMITATION CODES:** F = Field length      S = 2nd Segment      \* = Obstacles      T = Tire speed      B = Brake energy  
C = Approach climb      BLANK = No limitations

BERGAMO 10

| VMCG<br>VRMIN<br>V2MIN | WET FLAP 15 |                               |                        |                               |                      |                               |                      |
|------------------------|-------------|-------------------------------|------------------------|-------------------------------|----------------------|-------------------------------|----------------------|
|                        | OAT<br>°C   | WIND (kt)                     |                        |                               |                      |                               |                      |
|                        |             | -10                           | -5                     | 0                             | 10                   |                               |                      |
| 115<br>117<br>126      | -10<br>(NA) | 66.1<br>*<br>12.5             | 130<br>144<br>152      | 67.4<br>S                     | 67.4<br>S            | 67.4<br>S                     |                      |
| 115<br>117<br>126      | -5<br>(NA)  | 65.7<br>*<br>12.5             | 130<br>144<br>151      | 67.2<br>*                     | 67.4<br>S            | 67.4<br>S                     |                      |
| 115<br>117<br>126      | 0<br>(NA)   | 65.3<br>*<br>12.5             | 129<br>143<br>151      | 66.9<br>*<br>12.5             | 132<br>145<br>153    | 67.3<br>S                     | 67.3<br>S            |
| 115<br>117<br>126      | 5<br>(NA)   | 64.9<br>*<br>12.5             | 129<br>143<br>150      | 66.6<br>*<br>12.5             | 132<br>145<br>152    | 67.3<br>S                     | 67.3<br>S            |
| 115<br>117<br>126      | 10<br>(NA)  | 64.6<br>*<br>12.5             | 128<br>143<br>150      | 66.4<br>*<br>12.5             | 131<br>145<br>152    | 67.3<br>S                     | 67.3<br>S            |
| 115<br>117<br>126      | 15<br>(NA)  | 64.2<br>*<br>13.0             | 127<br>142<br>149      | 66.1<br>*<br>12.5             | 131<br>145<br>152    | 67.3<br>S                     | 67.3<br>S            |
| 115<br>117<br>126      | 20<br>(NA)  | 63.9<br>*<br>13.0             | 127<br>142<br>149      | 65.7<br>*<br>12.5             | 130<br>144<br>151    | 67.1<br>*                     | 67.3<br>S            |
| 115<br>117<br>126      | 25<br>(NA)  | 63.5<br>*<br>13.0             | 126<br>141<br>149      | 65.4<br>*<br>12.5             | 130<br>144<br>151    | 66.9<br>*                     | 67.3<br>S            |
| 115<br>117<br>126      | 27<br>(NA)  | 63.3<br>*<br>13.0             | 126<br>141<br>148      | 65.2<br>*<br>12.5             | 130<br>144<br>151    | 66.8<br>*<br>12.5             | 133<br>145<br>152    |
| 115<br>117<br>126      | 29<br>(NA)  | 63.0<br>*<br>13.0             | 126<br>141<br>148      | 64.8<br>*<br>12.5             | 129<br>143<br>150    | 66.5<br>*<br>12.5             | 132<br>145<br>153    |
| 114<br>117<br>125      | 31<br>(NA)  | 62.3<br>*<br>13.0             | 125<br>140<br>147      | 64.1<br>*<br>12.5             | 128<br>142<br>149    | 65.7<br>*<br>12.5             | 132<br>144<br>151    |
| 113<br>116<br>124      | 33<br>(NA)  | 61.6<br>*<br>13.0             | 124<br>139<br>146      | 63.3<br>*<br>12.5             | 128<br>141<br>148    | 64.9<br>*<br>12.5             | 131<br>143<br>150    |
| 112<br>115<br>124      | 35<br>(NA)  | 60.9<br>*<br>13.0             | 124<br>139<br>145      | 62.6<br>*<br>12.5             | 127<br>141<br>147    | 63.9<br>*<br>12.5             | 130<br>142<br>150    |
| 112<br>115<br>123      | 37<br>(31)  | 60.1<br>*<br>13.0             | 123<br>138<br>145      | 61.8<br>*<br>12.5             | 127<br>140<br>147    | 63.1<br>*<br>12.5             | 129<br>141<br>148    |
| 111<br>114<br>122      | 39<br>(33)  | 59.4<br>*<br>13.0             | 122<br>137<br>144      | 61.0<br>*<br>12.5             | 126<br>139<br>146    | 62.3<br>*<br>12.5             | 129<br>141<br>147    |
| 110<br>113<br>121      | 41<br>(34)  | 58.6<br>*<br>13.0             | 122<br>136<br>143      | 60.3<br>*<br>12.5             | 125<br>138<br>145    | 61.5<br>*<br>12.5             | 128<br>140<br>146    |
|                        | 41          | 58.0<br>135<br>13.0           | 119<br>135<br>142      | 60.0<br>137<br>144            | 124<br>137<br>144    | 61.0<br>139<br>146            | 126<br>139<br>146    |
|                        | 41          | 56.0<br>116<br>132<br>13.5    | 116<br>132<br>139      | 58.0<br>120<br>142            | 120<br>135<br>142    | 59.0<br>123<br>143            | 123<br>136<br>143    |
|                        | 41          | 54.0<br>113 CK<br>129<br>13.5 | 113 CK<br>129<br>137   | 56.0<br>117<br>139            | 117<br>132<br>139    | 57.0<br>119<br>141            | 119<br>134<br>141    |
|                        | 41          | 52.0<br>109 CK<br>127<br>14.0 | 109 CK<br>127<br>134   | 54.0<br>113 CK<br>129<br>13.5 | 113 CK<br>129<br>137 | 55.0<br>116<br>138            | 116<br>131<br>138    |
|                        | 41          | 50.0<br>105 CK<br>124<br>14.5 | 105 CK<br>124<br>131   | 52.0<br>110 CK<br>127<br>14.0 | 110 CK<br>127<br>134 | 53.0<br>112 CK<br>128<br>14.0 | 113 CK<br>128<br>135 |
|                        | 41          | 48.0<br>101 CK<br>121<br>14.5 | 101 CK<br>121<br>129   | 50.0<br>106 CK<br>124<br>14.5 | 106 CK<br>124<br>131 | 51.0<br>109 CK<br>125<br>14.0 | 109 CK<br>125<br>133 |
|                        | 41          | 46.0<br>98 CK<br>118<br>15.0  | 98 CK<br>118<br>126 CK | 48.0<br>102 CK<br>121<br>14.5 | 102 CK<br>121<br>129 | 49.0<br>105 CK<br>122<br>14.5 | 105 CK<br>122<br>130 |

LIMITATION CODES: F = Field length S = 2nd Segment  
G = TOW limited by VMCG

| MAXIMUM DEPTH                                                                                                                |                                                                          |                                           |                                                                      |                                           |                                                                      |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------|
| { 0.90" (22 mm) of DRY SNOW<br>0.25" ( 6 mm) of SLUSH/WET SNOW<br>0.20" ( 5 mm) of STANDING WATER<br>PTOW (ton) / LIMIT CODE |                                                                          |                                           |                                                                      |                                           |                                                                      |
| OAT                                                                                                                          | WIND (kt)                                                                |                                           |                                                                      |                                           | FLAP                                                                 |
| °C                                                                                                                           | -10                                                                      | -5                                        | 0                                                                    | 10                                        |                                                                      |
| -10<br>-5<br>0<br>5<br>10<br>15<br>20<br>25<br>30                                                                            | 59.7<br>59.3<br>58.3<br>55.9<br>53.6<br>51.6<br>49.4<br>47.5<br>46.7     | *<br>*<br>G<br>G<br>G<br>G<br>G<br>G<br>G | 61.6<br>61.2<br>60.7<br>60.3<br>60.1<br>59.8<br>59.4<br>59.0<br>58.3 | *<br>*<br>*<br>*<br>*<br>*<br>*<br>*<br>* | 64.9<br>64.4<br>63.9<br>63.5<br>63.2<br>62.8<br>62.4<br>62.1<br>61.3 |
| -10<br>-5<br>0<br>5<br>10<br>15<br>20<br>25<br>30                                                                            | 60.2<br>59.8<br>59.0<br>56.6<br>54.3<br>52.3<br>50.0<br>NO T/O<br>NO T/O | *<br>*<br>G<br>G<br>G<br>G<br>G<br>*<br>* | 62.0<br>61.6<br>61.2<br>60.8<br>60.6<br>60.2<br>59.9<br>59.6<br>58.9 | *<br>*<br>*<br>*<br>*<br>*<br>*<br>*<br>* | 64.7<br>64.4<br>64.0<br>63.7<br>63.5<br>63.2<br>62.9<br>62.5<br>61.8 |
| MAXIMUM LANDING WEIGHT (ton)                                                                                                 |                                                                          |                                           |                                                                      |                                           |                                                                      |
| RUNWAY LENGTH LIMITATIONS<br>Runway Length : 9298 ft (2834 m)                                                                |                                                                          |                                           |                                                                      | CLIMB LIMIT<br>(Go-Around)                |                                                                      |
| FLAP                                                                                                                         | 40                                                                       |                                           | 28                                                                   |                                           | OAT                                                                  |
| RWY COND                                                                                                                     | DRY                                                                      | WET                                       | DRY                                                                  | WET                                       | °C                                                                   |
| W<br>I<br>N<br>D                                                                                                             | -10<br>-5<br>0<br>10<br>20                                               | 75.0<br>75.0<br>75.0<br>75.0<br>75.0      | 75.0<br>75.0<br>75.0<br>75.0<br>75.0                                 | 75.0<br>75.0<br>75.0<br>75.0<br>75.0      | -13<br>27<br>29<br>31<br>33<br>35<br>37<br>39                        |
| For QNH corrections, use values relevant to Go-Around                                                                        |                                                                          |                                           |                                                                      |                                           | 70.2<br>70.2<br>69.6<br>68.4<br>67.3<br>66.3<br>65.4<br>64.5         |
| WEIGHT CORRECTIONS (kg) for :                                                                                                |                                                                          |                                           |                                                                      |                                           |                                                                      |
| CONDITIONS                                                                                                                   |                                                                          | TAKEOFF                                   |                                                                      |                                           |                                                                      |
|                                                                                                                              |                                                                          | DRY                                       | WET                                                                  | SSW 15                                    | GO AROUND                                                            |
| ENG + AIRF A/I ON                                                                                                            |                                                                          | -3000                                     | -2500                                                                | -800                                      | -4000                                                                |
| QNH < 1013 (kg/hPa)                                                                                                          |                                                                          | -80                                       | -80                                                                  | -90                                       | -80                                                                  |
| QNH > 1013 (kg/hPa)                                                                                                          |                                                                          | +30                                       | +30                                                                  | +30                                       | +30                                                                  |
| max Δ hPa :                                                                                                                  |                                                                          | 28                                        |                                                                      |                                           |                                                                      |
| BGY10R01 08100709 02 Apr 2009                                                                                                |                                                                          |                                           |                                                                      |                                           |                                                                      |
| NOTE : MTOW/MLAW (structural) see AOM Vol.2 Chap.1                                                                           |                                                                          |                                           |                                                                      |                                           |                                                                      |
| ONE ENGINE OUT PROCEDURE :                                                                                                   |                                                                          |                                           |                                                                      |                                           |                                                                      |
| - At DME2 BEG right turn on heading 195 to intercept and follow R165 BEG to DME12 BEG and hold or                            |                                                                          |                                           |                                                                      |                                           |                                                                      |
| - Proceed to ORI/LOM                                                                                                         |                                                                          |                                           |                                                                      |                                           |                                                                      |
| - Acceleration altitude: 2300 ft QNH                                                                                         |                                                                          |                                           |                                                                      |                                           |                                                                      |

\* = Obstacles A = TOW limited by acceleration

|                                                                              |  |                                                                                       |                                                                             |                           |                   |
|------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------|-------------------|
| <b>Alitalia</b><br>Compagnia Aerea Italiana<br><b>MD80</b> OPERATIONS MANUAL |  | Elev: 779 ft<br>Length: 8530 ft (2600 m)<br>Slope: -0.28 %<br>Shift: 1096 ft ( 334 m) | Runway<br><b>10</b>                                                         | Airport<br><b>BERGAMO</b> | <b>LIME - BGY</b> |
| JT8D-217A<br>A/C : OFF/ON<br>A/I OFF or ENG A/I ON                           |  |                                                                                       | PTOW (ton) ; V1 (KIAS)<br>LIMIT CODE ; VR (KIAS)<br>PITCH (deg) ; V2 (KIAS) | 02 Apr 2009               |                   |

| VMCG<br>VRMIN<br>V2MIN | FLAP 11    |                   |                          |                   |                            |                   | DRY                        | OPTIMUM FLAP |                   |                   |                    |                   |                    |                    |
|------------------------|------------|-------------------|--------------------------|-------------------|----------------------------|-------------------|----------------------------|--------------|-------------------|-------------------|--------------------|-------------------|--------------------|--------------------|
|                        | OAT<br>°C  | W I N D (kt)      |                          |                   |                            | OAT<br>°C         |                            | W I N D (kt) |                   |                   |                    |                   |                    |                    |
|                        |            | -10               | -5                       | 0                 | 10                         |                   |                            | -10          | -5                | 0                 | 10                 |                   |                    |                    |
| 115<br>119<br>128      | 27<br>(NA) | 63.8<br>*<br>14.0 | 137<br>143<br>151        | 65.8<br>*<br>13.5 | 140<br>146<br>153          | 67.7<br>*<br>S    | 68.7<br>S                  | -15          | 64.8<br>S<br>13.0 | 134<br>138<br>146 | 66.1<br>S<br>13.0  | 138<br>142<br>149 | 68.2<br>S          | 68.2<br>S          |
| 115<br>119<br>128      | 29<br>(NA) | 63.7<br>*<br>14.0 | 137<br>143<br>150        | 65.6<br>*<br>13.5 | 140<br>145<br>153          | 67.5<br>*<br>S    | 68.6<br>S                  | -10          | 64.8<br>S<br>13.0 | 134<br>138<br>146 | 66.1<br>S<br>13.0  | 138<br>142<br>149 | 68.1<br>S          | 68.1<br>S          |
| 114<br>118<br>127      | 31<br>(NA) | 63.0<br>*<br>14.0 | 136<br>142<br>150        | 64.9<br>*<br>13.5 | 139<br>145<br>152          | 66.8<br>*<br>13.5 | 142<br>147<br>154          | -5           | 64.7<br>S<br>13.0 | 134<br>138<br>146 | 66.1<br>S<br>13.0  | 138<br>142<br>149 | 68.1<br>S          | 68.1<br>S          |
| 113<br>118<br>127      | 33<br>(NA) | 62.1<br>*<br>14.0 | 135<br>141<br>149        | 64.0<br>*<br>13.5 | 138<br>144<br>151          | 65.9<br>*<br>13.5 | 141<br>146<br>153          | 0            | 64.7<br>S<br>13.0 | 134<br>138<br>146 | 66.0<br>S<br>13.0  | 138<br>142<br>149 | 68.1<br>S          | 68.1<br>S          |
| 113<br>117<br>126      | 35<br>(NA) | 61.2<br>*<br>14.0 | 134<br>140<br>147        | 63.1<br>*<br>13.5 | 137<br>143<br>150          | 64.9<br>*<br>13.5 | 140<br>145<br>152          | 5            | 64.7<br>S<br>13.0 | 134<br>138<br>146 | 66.0<br>S<br>13.0  | 138<br>142<br>149 | 68.0<br>S          | 68.0<br>S          |
| 112<br>116<br>125      | 37<br>(31) | 60.4<br>*<br>14.0 | 134<br>139<br>146        | 62.2<br>*<br>13.5 | 137<br>142<br>149          | 64.0<br>*<br>13.5 | 140<br>144<br>151          | 10           | 64.7<br>S<br>13.0 | 134<br>138<br>146 | 66.0<br>S<br>13.0  | 138<br>142<br>149 | 68.0<br>S          | 68.0<br>S          |
| 111<br>116<br>124      | 39<br>(33) | 59.7<br>*<br>14.0 | 133<br>139<br>146        | 61.4<br>*<br>13.5 | 136<br>141<br>148          | 63.2<br>*<br>13.5 | 139<br>143<br>150          | 15           | 64.7<br>S<br>13.0 | 134<br>138<br>146 | 66.0<br>S<br>13.0  | 138<br>142<br>149 | 68.0<br>S          | 68.0<br>S          |
| 110<br>115<br>123      | 41<br>(34) | 59.1<br>*<br>14.0 | 132<br>138<br>145        | 60.8<br>*<br>13.5 | 135<br>140<br>147          | 62.5<br>S<br>13.5 | 138<br>142<br>149          | 20           | 64.7<br>S<br>13.0 | 134<br>138<br>146 | 66.0<br>S<br>13.0  | 138<br>142<br>149 | 67.9<br>S          | 67.9<br>S          |
| 109<br>114<br>123      | 43<br>(36) | 58.3<br>*<br>14.0 | 132<br>137<br>144        | 60.0<br>*<br>13.5 | 134<br>139<br>146          | 61.7<br>S<br>13.5 | 137<br>141<br>148          | 25           | 64.7<br>S<br>13.0 | 134<br>138<br>146 | 66.0<br>S<br>13.0  | 138<br>142<br>149 | 67.9<br>S          | 67.9<br>S          |
| 109<br>113<br>122      | 45<br>(37) | 57.6<br>*<br>14.0 | 131<br>136<br>143        | 59.3<br>*<br>13.5 | 134<br>139<br>145          | 60.8<br>S<br>13.5 | 136<br>140<br>147          | 27           | 64.7<br>*<br>13.0 | 134<br>138<br>146 | 66.0<br>S<br>13.0  | 138<br>142<br>149 | 67.8<br>*          | 67.9<br>S          |
| 108<br>112<br>121      | 47<br>(39) | 56.8<br>*<br>14.0 | 130<br>136<br>142        | 58.4<br>*<br>13.5 | 133<br>138<br>144          | 59.8<br>S<br>13.5 | 135<br>139<br>146          | 29           | 64.5<br>*<br>13.0 | 134<br>138<br>145 | 66.0<br>S<br>13.0  | 138<br>142<br>149 | 67.6<br>*          | 67.8<br>S          |
| 107<br>112<br>120      | 49<br>(41) | 56.1<br>*<br>13.5 | 129<br>135<br>141        | 57.7<br>*<br>13.5 | 132<br>137<br>143          | 58.8<br>S<br>13.5 | 134<br>138<br>144          | 31           | 63.9<br>*<br>13.0 | 133<br>138<br>145 | 65.2<br>S<br>13.0  | 137<br>141<br>148 | 66.9<br>*<br>13.5  | 141<br>146<br>153  |
|                        | 49         | 56.0              | 128<br>134<br>14.0       | 57.0              | 130<br>136<br>141          | 58.0              | 132<br>137<br>143          | 33           | 62.9<br>S<br>13.0 | 132<br>137<br>144 | 64.2<br>S<br>13.0  | 136<br>140<br>147 | 65.9<br>S<br>13.5  | 140<br>145<br>152  |
|                        | 49         | 54.0              | 125<br>132<br>14.0       | 55.0              | 127<br>133<br>140          | 56.0              | 129<br>134<br>141          | 35           | 61.8<br>S<br>13.0 | 131<br>135<br>142 | 63.1<br>S<br>13.0  | 135<br>139<br>146 | 64.8<br>S<br>13.5  | 139<br>144<br>151  |
|                        | 49         | 52.0              | 122<br>129<br>14.5       | 53.0              | 124<br>130<br>137          | 54.0              | 126<br>132<br>138          | 37           | 60.8<br>S<br>13.0 | 130<br>134<br>141 | 62.1<br>S<br>13.0  | 134<br>138<br>145 | 63.6<br>S<br>13.5  | 138<br>143<br>149  |
|                        | 49         | 50.0              | 119<br>126<br>15.0       | 51.0              | 121<br>127<br>134          | 52.0              | 123<br>129<br>136          | 39           | 59.9<br>S<br>13.0 | 129<br>133<br>140 | 61.1<br>S<br>13.0  | 133<br>137<br>143 | 62.7<br>S<br>13.5  | 137<br>141<br>148  |
|                        | 49         | 48.0              | 115<br>123<br>15.0       | 49.0              | 118<br>124<br>131          | 50.0              | 120<br>126<br>133          |              | 59.0<br>13.5      | 127<br>132<br>139 | 61.0<br>132<br>143 | 136<br>140<br>147 | 62.0<br>135<br>147 | 62.0<br>140<br>147 |
|                        | 49         | 46.0              | 112 CK<br>120<br>15.5    | 47.0              | 114 CK<br>121<br>129       | 48.0              | 116<br>123<br>130          |              | 57.0<br>13.5      | 124<br>129<br>137 | 59.0<br>128<br>141 | 136<br>138<br>141 | 60.0<br>132<br>145 | 60.0<br>133<br>145 |
|                        | 49         | 44.0              | 108 CK<br>117 CK<br>16.0 | 45.0              | 111 CK<br>118 CK<br>126 CK | 46.0              | 113 CK<br>120<br>128 CK    |              | 55.0<br>14.0      | 121<br>127<br>134 | 57.0<br>125<br>138 | 135<br>141<br>142 | 58.0<br>129<br>142 | 58.0<br>135<br>142 |
|                        | 49         | 42.0              | 105 CK<br>114 CK<br>16.0 | 43.0              | 107 CK<br>115 CK<br>123 CK | 44.0              | 110 CK<br>117 CK<br>125 CK |              | 53.0<br>14.0      | 117<br>124<br>132 | 55.0<br>122<br>136 | 133<br>139<br>140 | 56.0<br>126<br>145 | 56.0<br>133<br>140 |
|                        | 49         | 40.0              | 101 CK<br>110 CK<br>16.0 | 41.0              | 104 CK<br>112 CK<br>120 CK | 42.0              | 106 CK<br>114 CK<br>122 CK |              | 51.0<br>14.5      | 115<br>121<br>129 | 53.0<br>119<br>133 | 137<br>140<br>145 | 54.0<br>123<br>137 | 54.0<br>124<br>137 |

**LIMITATION CODES:** F = Field length S = 2nd Segment \* = Obstacles T = Tire speed B = Brake energy  
C = Approach climb BLANK = No limitations

T/O FROM 'PSN G'

# BERGAMO 10 T/O FROM 'PSN G'

| VMCG<br>VRMIN<br>V2MIN | <b>WET FLAP 15</b> |             |        |             |        |             |        |
|------------------------|--------------------|-------------|--------|-------------|--------|-------------|--------|
|                        | OAT<br>°C          | WIND (kt)   |        |             |        |             |        |
|                        |                    | -10         |        | -5          |        | 0           | 10     |
| 115                    | -10                | <b>63.3</b> | 126    | <b>65.2</b> | 130    | <b>66.9</b> | 133    |
| 117                    |                    | *           | 141    | *           | 143    | *           | 145    |
| 126                    | (NA)               | 13.0        | 148    | 12.5        | 151    | 12.5        | 153    |
| 115                    | -5                 | <b>62.9</b> | 125    | <b>64.8</b> | 129    | <b>66.5</b> | 132    |
| 117                    |                    | *           | 141    | *           | 143    | *           | 145    |
| 126                    | (NA)               | 13.0        | 148    | 12.5        | 150    | 12.5        | 152    |
| 115                    | 0                  | <b>62.5</b> | 125    | <b>64.4</b> | 128    | <b>66.2</b> | 132    |
| 117                    |                    | *           | 140    | *           | 142    | *           | 145    |
| 126                    | (NA)               | 13.0        | 147    | 13.0        | 150    | 12.5        | 152    |
| 115                    | 5                  | <b>62.1</b> | 124    | <b>64.0</b> | 128    | <b>65.8</b> | 131    |
| 117                    |                    | *           | 140    | *           | 142    | *           | 144    |
| 126                    | (NA)               | 13.0        | 147    | 13.0        | 149    | 12.5        | 151    |
| 115                    | 10                 | <b>61.9</b> | 124    | <b>63.7</b> | 127    | <b>65.5</b> | 131    |
| 117                    |                    | *           | 139    | *           | 142    | *           | 144    |
| 126                    | (NA)               | 13.0        | 147    | 13.0        | 149    | 12.5        | 151    |
| 115                    | 15                 | <b>61.5</b> | 123    | <b>63.3</b> | 127    | <b>65.1</b> | 130    |
| 117                    |                    | *           | 139    | *           | 141    | *           | 143    |
| 126                    | (NA)               | 13.0        | 146    | 13.0        | 148    | 12.5        | 151    |
| 115                    | 20                 | <b>61.2</b> | 122    | <b>63.0</b> | 126    | <b>64.7</b> | 129    |
| 117                    |                    | *           | 138    | *           | 141    | *           | 143    |
| 126                    | (NA)               | 13.0        | 146    | 13.0        | 148    | 12.5        | 150    |
| 115                    | 25                 | <b>60.8</b> | 122    | <b>62.6</b> | 126    | <b>64.4</b> | 129    |
| 117                    |                    | *           | 138    | *           | 140    | *           | 143    |
| 126                    | (NA)               | 13.0        | 145    | 13.0        | 148    | 13.0        | 150    |
| 115                    | 27                 | <b>60.7</b> | 122    | <b>62.5</b> | 125    | <b>64.2</b> | 129    |
| 117                    |                    | *           | 138    | *           | 140    | *           | 142    |
| 126                    | (NA)               | 13.0        | 145    | 13.0        | 147    | 13.0        | 149    |
| 115                    | 29                 | <b>60.3</b> | 121    | <b>62.1</b> | 125    | <b>63.8</b> | 128    |
| 117                    |                    | *           | 137    | *           | 140    | *           | 142    |
| 126                    | (NA)               | 13.0        | 145    | 13.0        | 147    | 13.0        | 149    |
| 114                    | 31                 | <b>59.7</b> | 121    | <b>61.4</b> | 124    | <b>63.1</b> | 128    |
| 117                    |                    | *           | 137    | *           | 139    | *           | 141    |
| 125                    | (NA)               | 13.0        | 144    | 13.0        | 146    | 13.0        | 148    |
| 113                    | 33                 | <b>58.9</b> | 120    | <b>60.7</b> | 124    | <b>62.4</b> | 127    |
| 116                    |                    | *           | 136    | *           | 138    | *           | 140    |
| 124                    | (NA)               | 13.0        | 143    | 13.0        | 145    | 13.0        | 147    |
| 112                    | 35                 | <b>58.2</b> | 119    | <b>60.0</b> | 123    | <b>61.6</b> | 127    |
| 115                    |                    | *           | 135    | *           | 137    | *           | 140    |
| 124                    | (NA)               | 13.0        | 142    | 13.0        | 144    | 13.0        | 146    |
| 112                    | 37                 | <b>57.6</b> | 119    | <b>59.3</b> | 122    | <b>60.9</b> | 126    |
| 115                    |                    | *           | 134    | *           | 137    | *           | 139    |
| 123                    | (31)               | 13.0        | 141    | 13.0        | 144    | 12.5        | 146    |
| 111                    | 39                 | <b>56.8</b> | 118    | <b>58.5</b> | 122    | <b>60.2</b> | 125    |
| 114                    |                    | *           | 134    | *           | 136    | *           | 138    |
| 122                    | (33)               | 13.0        | 140    | 13.0        | 143    | 12.5        | 145    |
| 110                    | 41                 | <b>56.1</b> | 117    | <b>57.8</b> | 121    | <b>59.4</b> | 124    |
| 113                    |                    | *           | 133    | *           | 135    | *           | 137    |
| 121                    | (34)               | 13.0        | 140    | 13.0        | 142    | 12.5        | 144    |
| 41                     |                    | <b>56.0</b> | 116    | <b>57.0</b> | 118    | <b>59.0</b> | 123    |
|                        |                    |             | 132    |             | 134    |             | 136    |
|                        |                    | 13.5        | 139    | 13.0        | 141    | 13.0        | 143    |
| 41                     |                    | <b>54.0</b> | 113 CK | <b>55.0</b> | 115    | <b>57.0</b> | 119    |
|                        |                    |             | 129    |             | 131    |             | 134    |
|                        |                    | 13.5        | 137    | 13.5        | 138    | 13.0        | 141    |
| 41                     |                    | <b>52.0</b> | 109 CK | <b>53.0</b> | 111 CK | <b>55.0</b> | 116    |
|                        |                    |             | 127    |             | 128    |             | 131    |
|                        |                    | 14.0        | 134    | 14.0        | 135    | 13.5        | 138    |
| 41                     |                    | <b>50.0</b> | 105 CK | <b>51.0</b> | 108 CK | <b>53.0</b> | 112 CK |
|                        |                    |             | 124    |             | 125    |             | 128    |
|                        |                    | 14.5        | 131    | 14.0        | 133    | 14.0        | 135    |
| 41                     |                    | <b>48.0</b> | 101 CK | <b>49.0</b> | 104 CK | <b>51.0</b> | 109 CK |
|                        |                    |             | 121    |             | 122    |             | 125    |
|                        |                    | 14.5        | 129    | 14.5        | 130    | 14.0        | 133    |
| 41                     |                    | <b>46.0</b> | 98 CK  | <b>47.0</b> | 100 CK | <b>49.0</b> | 105 CK |
|                        |                    |             | 118    |             | 119    |             | 122    |
|                        |                    | 15.0        | 126 CK | 15.0        | 127    | 14.5        | 130    |
| 41                     |                    | <b>44.0</b> | 93 CK  | <b>45.0</b> | 96 CK  | <b>47.0</b> | 101 CK |
|                        |                    |             | 115 CK |             | 116 CK |             | 119    |
|                        |                    | 15.5        | 123 CK | 15.0        | 124 CK | 15.0        | 127    |

| MAXIMUM DEPTH |                                                                                                                              |           |        |        |        |      |
|---------------|------------------------------------------------------------------------------------------------------------------------------|-----------|--------|--------|--------|------|
| SSW           | { 0.90" (22 mm) of DRY SNOW<br>0.25" ( 6 mm) of SLUSH/WET SNOW<br>0.20" ( 5 mm) of STANDING WATER<br>PTOW (ton) / LIMIT CODE |           |        |        |        |      |
|               | OAT                                                                                                                          | WIND (kt) |        |        |        | FLAP |
|               | °C                                                                                                                           | -10       | -5     | 0      | 10     |      |
|               | -10                                                                                                                          | 52.7 G    | 59.1 * | 61.1 * | 62.3 * | 15   |
| -5            | 49.8 G                                                                                                                       | 58.6 *    | 60.6 * | 61.8 * |        |      |
| 0             | 47.8 G                                                                                                                       | 58.2 *    | 60.2 * | 61.3 * |        |      |
| 5             | NO T/O                                                                                                                       | 57.1 G    | 59.8 * | 60.9 * |        |      |
| 10            | NO T/O                                                                                                                       | 54.7 G    | 59.6 * | 60.7 * |        |      |
| 15            | NO T/O                                                                                                                       | 52.8 G    | 59.2 * | 60.3 * |        |      |
| 20            | NO T/O                                                                                                                       | 50.6 G    | 58.8 * | 59.9 * |        |      |
| 25            | NO T/O                                                                                                                       | 48.5 G    | 58.4 * | 59.6 * | 20     |      |
| 30            | NO T/O                                                                                                                       | 47.6 G    | 57.7 * | 58.9 * |        |      |
| -10           | 54.3 G                                                                                                                       | 60.0 *    | 61.7 * | 62.3 S |        |      |
| -5            | 51.7 G                                                                                                                       | 59.7 *    | 61.4 * | 62.2 * |        |      |
| 0             | NO T/O                                                                                                                       | 59.3 *    | 61.0 * | 61.9 * |        |      |
| 5             | NO T/O                                                                                                                       | 58.7 G    | 60.7 * | 61.7 * |        |      |
| 10            | NO T/O                                                                                                                       | 56.3 G    | 60.5 * | 61.5 * |        |      |
| 15            | NO T/O                                                                                                                       | 54.4 G    | 60.2 * | 61.2 * |        |      |
| 20            | NO T/O                                                                                                                       | 52.3 G    | 59.9 * | 60.9 * |        |      |
| 25            | NO T/O                                                                                                                       | NO T/O    | 59.6 * | 60.6 * |        |      |
| 30            | NO T/O                                                                                                                       | 48.9 G    | 58.9 * | 60.0 * |        |      |

| MAXIMUM LANDING WEIGHT (ton)                          |      |      |      |                         |        |
|-------------------------------------------------------|------|------|------|-------------------------|--------|
| RUNWAY LENGTH LIMITATIONS                             |      |      |      | CLIMB LIMIT (Go-Around) |        |
| Runway Length : 9298 ft (2834 m)                      |      |      |      |                         |        |
| FLAP                                                  | 40   |      | 28   |                         |        |
| RWY COND                                              | DRY  | WET  | DRY  | WET                     |        |
|                                                       |      |      |      |                         | OAT °C |
| W -10                                                 | 75.0 | 75.0 | 75.0 | 75.0                    | 70.2   |
| I -5                                                  | 75.0 | 75.0 | 75.0 | 75.0                    | 70.2   |
| N 0                                                   | 75.0 | 75.0 | 75.0 | 75.0                    | 69.6   |
| D 10                                                  | 75.0 | 75.0 | 75.0 | 75.0                    | 68.4   |
| 20                                                    | 75.0 | 75.0 | 75.0 | 75.0                    | 67.3   |
|                                                       |      |      |      |                         | 66.3   |
|                                                       |      |      |      |                         | 65.4   |
|                                                       |      |      |      |                         | 64.5   |
| For QNH corrections, use values relevant to Go-Around |      |      |      |                         |        |

| WEIGHT CORRECTIONS (kg) for : |         |       |        |        |           |
|-------------------------------|---------|-------|--------|--------|-----------|
| CONDITIONS                    | TAKEOFF |       |        |        | GO AROUND |
|                               | DRY     | WET   | SSW 15 | SSW 20 |           |
| ENG + AIRF A/I ON             | -3000   | -2500 | -500   | -2500  | -4000     |
| QNH < 1013 (kg/hPa)           | -80     | -80   | -100   | -100   | -80       |
| QNH > 1013 (kg/hPa)           | +30     | +30   | +30    | +30    | +30       |
| max Δ hPa :                   | 28      |       |        |        |           |

|                                                                                                                                                                           |          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|
| BGY10T01                                                                                                                                                                  | 08100700 | 02 Apr 2009 |
| NOTE : MTOW/MLAW (structural) see AOM Vol.2 Chap.1                                                                                                                        |          |             |
| ONE ENGINE OUT PROCEDURE :                                                                                                                                                |          |             |
| - At DME2 BEG right turn on heading 195 to intercept and follow R165 BEG to DME12 BEG and hold or<br><br>- Proceed to ORI/LOM<br><br>- Acceleration altitude: 2300 ft QNH |          |             |

LIMITATION CODES: F = Field length S = 2nd Segment  
G = TOW limited by VMCG

\* = Obstacles A = TOW limited by acceleration

**LIMITATION CODES:** F = Field length      S = 2nd Segment      \* = Obstacles      T = Tire speed      B = Brake energy  
C = Approach climb      BLANK = No limitations

# BERGAMO 28

| VMCG<br>VRMIN<br>V2MIN | WET FLAP 15 |                   |                           |                   |                           |                   |                           |                   |                      |  |  |
|------------------------|-------------|-------------------|---------------------------|-------------------|---------------------------|-------------------|---------------------------|-------------------|----------------------|--|--|
|                        | OAT<br>°C   | WIND (kt)         |                           |                   |                           |                   |                           |                   |                      |  |  |
|                        |             | -10               |                           | -5                |                           | 0                 |                           | 10                |                      |  |  |
| 115<br>117<br>126      | -10         | 63.1<br>*<br>(NA) | 128<br>141<br>148         | 64.4<br>*<br>(NA) | 130<br>143<br>150         | 65.6<br>*<br>(NA) | 133<br>144<br>151         | 66.3<br>*<br>(NA) | 134<br>145<br>152    |  |  |
| 115<br>117<br>126      | -5          | 62.8<br>*<br>(NA) | 127<br>141<br>148         | 64.2<br>*<br>(NA) | 130<br>142<br>149         | 65.4<br>*<br>(NA) | 133<br>144<br>151         | 66.1<br>*<br>(NA) | 134<br>145<br>152    |  |  |
| 115<br>117<br>126      | 0           | 62.6<br>*<br>(NA) | 127<br>140<br>147         | 63.9<br>*<br>(NA) | 130<br>142<br>149         | 65.2<br>*<br>(NA) | 132<br>144<br>150         | 65.9<br>*<br>(NA) | 134<br>145<br>151    |  |  |
| 115<br>117<br>126      | 5           | 62.4<br>*<br>(NA) | 127<br>140<br>147         | 63.7<br>*<br>(NA) | 129<br>142<br>149         | 65.0<br>*<br>(NA) | 132<br>143<br>150         | 65.7<br>*<br>(NA) | 133<br>144<br>151    |  |  |
| 115<br>117<br>126      | 10          | 62.2<br>*<br>(NA) | 126<br>140<br>147         | 63.5<br>*<br>(NA) | 129<br>142<br>149         | 64.8<br>*<br>(NA) | 131<br>143<br>150         | 65.6<br>*<br>(NA) | 133<br>144<br>151    |  |  |
| 115<br>117<br>126      | 15          | 62.0<br>*<br>(NA) | 126<br>140<br>147         | 63.3<br>*<br>(NA) | 129<br>141<br>148         | 64.6<br>*<br>(NA) | 131<br>143<br>150         | 65.4<br>*<br>(NA) | 133<br>144<br>151    |  |  |
| 115<br>117<br>126      | 20          | 61.7<br>*<br>(NA) | 125<br>139<br>146         | 63.1<br>*<br>(NA) | 128<br>141<br>148         | 64.4<br>*<br>(NA) | 131<br>143<br>150         | 65.2<br>*<br>(NA) | 132<br>144<br>151    |  |  |
| 115<br>117<br>126      | 25          | 61.4<br>*<br>(NA) | 125<br>139<br>146         | 62.9<br>*<br>(NA) | 128<br>141<br>148         | 64.2<br>*<br>(NA) | 131<br>142<br>149         | 65.0<br>*<br>(NA) | 132<br>143<br>150    |  |  |
| 115<br>117<br>126      | 27          | 61.3<br>*<br>(NA) | 125<br>139<br>146         | 62.8<br>*<br>(NA) | 128<br>141<br>148         | 64.1<br>*<br>(NA) | 130<br>142<br>149         | 64.9<br>*<br>(NA) | 132<br>143<br>150    |  |  |
| 115<br>117<br>126      | 29          | 60.9<br>*<br>(NA) | 124<br>138<br>145         | 62.6<br>*<br>(NA) | 128<br>140<br>147         | 63.8<br>*<br>(NA) | 130<br>142<br>149         | 64.7<br>*<br>(NA) | 132<br>143<br>150    |  |  |
| 114<br>117<br>125      | 31          | 60.3<br>*<br>(NA) | 124<br>138<br>145         | 61.9<br>*<br>(NA) | 127<br>140<br>147         | 63.1<br>*<br>(NA) | 130<br>141<br>148         | 63.9<br>*<br>(NA) | 131<br>142<br>149    |  |  |
| 113<br>116<br>124      | 33          | 59.5<br>*<br>(NA) | 123<br>137<br>144         | 61.1<br>*<br>(NA) | 126<br>139<br>146         | 62.3<br>*<br>(NA) | 129<br>140<br>147         | 63.1<br>*<br>(NA) | 130<br>141<br>148    |  |  |
| 112<br>115<br>124      | 35          | 58.8<br>*<br>(NA) | 122<br>136<br>143         | 60.3<br>*<br>(NA) | 126<br>138<br>145         | 61.5<br>*<br>(NA) | 128<br>139<br>146         | 62.2<br>*<br>(NA) | 130<br>140<br>147    |  |  |
| 112<br>115<br>123      | 37          | 58.1<br>*<br>(31) | 122<br>135<br>142         | 59.4<br>*<br>(31) | 125<br>137<br>144         | 60.6<br>*<br>(31) | 127<br>139<br>145         | 61.4<br>*<br>(31) | 129<br>140<br>146    |  |  |
| 111<br>114<br>122      | 39          | 57.3<br>*<br>(33) | 121<br>134<br>141         | 58.6<br>*<br>(33) | 124<br>136<br>143         | 59.8<br>*<br>(33) | 126<br>138<br>144         | 60.5<br>*<br>(33) | 128<br>139<br>145    |  |  |
| 110<br>113<br>121      | 41          | 56.6<br>*<br>(34) | 120<br>134<br>140         | 57.9<br>*<br>(34) | 123<br>135<br>142         | 59.0<br>*<br>(34) | 126<br>137<br>143         | 59.8<br>*<br>(34) | 127<br>138<br>144    |  |  |
|                        | 41          | 56.0              | 118<br>132<br>135         | 57.0              | 120<br>134<br>141         | 57.0              | 121<br>134<br>141         | 59.0              | 125<br>136<br>143    |  |  |
|                        | 41          | 54.0              | 114 CK<br>130<br>137      | 55.0              | 117<br>131<br>138         | 55.0              | 118<br>131<br>138         | 57.0              | 121<br>134<br>141    |  |  |
|                        | 41          | 52.0              | 111 CK<br>127<br>134      | 53.0              | 113 CK<br>128<br>135      | 53.0              | 114 CK<br>128<br>135      | 55.0              | 118<br>131<br>138    |  |  |
|                        | 41          | 50.0              | 107 CK<br>124<br>131      | 51.0              | 110 CK<br>125<br>133      | 51.0              | 110 CK<br>125<br>133      | 53.0              | 114 CK<br>128<br>135 |  |  |
|                        | 41          | 48.0              | 103 CK<br>121<br>129      | 49.0              | 106 CK<br>122<br>130      | 49.0              | 107 CK<br>122<br>130      | 51.0              | 111 CK<br>125<br>133 |  |  |
|                        | 41          | 46.0              | 99 CK<br>118<br>126 CK    | 47.0              | 102 CK<br>119<br>127      | 47.0              | 103 CK<br>119<br>127      | 49.0              | 107 CK<br>122<br>130 |  |  |
|                        | 41          | 44.0              | 95 CK<br>115 CK<br>123 CK | 45.0              | 98 CK<br>116 CK<br>124 CK | 45.0              | 99 CK<br>116 CK<br>124 CK | 47.0              | 103 CK<br>119<br>127 |  |  |
|                        |             |                   |                           |                   |                           |                   |                           |                   |                      |  |  |
|                        |             |                   |                           |                   |                           |                   |                           |                   |                      |  |  |
|                        |             |                   |                           |                   |                           |                   |                           |                   |                      |  |  |

| SSW |           | MAXIMUM DEPTH                                                                                     |        |        |      | PTOW (ton) / LIMIT CODE |
|-----|-----------|---------------------------------------------------------------------------------------------------|--------|--------|------|-------------------------|
|     |           | { 0.90" (22 mm) of DRY SNOW<br>0.25" ( 6 mm) of SLUSH/WET SNOW<br>0.20" ( 5 mm) of STANDING WATER |        |        |      |                         |
| OAT | WIND (kt) |                                                                                                   |        |        | FLAP |                         |
| °C  | -10       | -5                                                                                                | 0      | 10     |      |                         |
| -10 | 57.9 *    | 59.9 *                                                                                            | 61.8 * | 62.9 * | 15   |                         |
| -5  | 57.5 *    | 59.4 *                                                                                            | 61.3 * | 62.5 * |      |                         |
| 0   | 57.1 *    | 59.0 *                                                                                            | 60.9 * | 62.1 * |      |                         |
| 5   | 56.7 *    | 58.6 *                                                                                            | 60.5 * | 61.7 * |      |                         |
| 10  | 56.5 *    | 58.4 *                                                                                            | 60.3 * | 61.4 * |      |                         |
| 15  | 54.6 G    | 58.0 *                                                                                            | 60.0 * | 61.1 * |      |                         |
| 20  | 52.5 G    | 57.7 *                                                                                            | 59.6 * | 60.7 * |      |                         |
| 25  | 50.2 G    | 57.3 *                                                                                            | 59.3 * | 60.4 * | 17   |                         |
| 30  | 49.2 G    | 56.6 *                                                                                            | 58.6 * | 59.7 * |      |                         |
| -10 | 58.3 *    | 60.1 *                                                                                            | 61.5 * | 62.3 * |      |                         |
| -5  | 57.9 *    | 59.7 *                                                                                            | 61.3 * | 62.1 * |      |                         |
| 0   | 57.5 *    | 59.4 *                                                                                            | 61.0 * | 61.8 * |      |                         |
| 5   | 57.1 *    | 59.0 *                                                                                            | 60.7 * | 61.6 * |      |                         |
| 10  | 56.9 *    | 58.8 *                                                                                            | 60.6 * | 61.5 * |      |                         |
| 15  | 55.2 G    | 58.4 *                                                                                            | 60.3 * | 61.2 * |      |                         |
| 20  | 53.2 G    | 58.1 *                                                                                            | 60.0 * | 61.0 * |      |                         |
| 25  | 50.9 G    | 57.8 *                                                                                            | 59.7 * | 60.6 * | 17   |                         |
| 30  | 49.7 G    | 57.1 *                                                                                            | 59.0 * | 60.1 * |      |                         |

| MAXIMUM LANDING WEIGHT (ton)                                  |      |      |      |      |      |                            |            |
|---------------------------------------------------------------|------|------|------|------|------|----------------------------|------------|
| RUNWAY LENGTH LIMITATIONS<br>Runway Length : 9190 ft (2801 m) |      |      |      |      |      | CLIMB LIMIT<br>(Go-Around) |            |
| FLAP                                                          |      | 40   |      | 28   |      | OAT<br>°C                  | W<br>(ton) |
| RWY                                                           | COND | DRY  | WET  | DRY  | WET  |                            |            |
| W                                                             | -10  | 75.0 | 75.0 | 75.0 | 75.0 | -13                        | 70.2       |
| I                                                             | -5   | 75.0 | 75.0 | 75.0 | 75.0 | 27                         | 70.2       |
| N                                                             | 0    | 75.0 | 75.0 | 75.0 | 75.0 | 29                         | 69.6       |
| D                                                             | 10   | 75.0 | 75.0 | 75.0 | 75.0 | 31                         | 68.4       |
|                                                               | 20   | 75.0 | 75.0 | 75.0 | 75.0 | 33                         | 67.3       |
|                                                               |      |      |      |      |      | 35                         | 66.3       |
|                                                               |      |      |      |      |      | 37                         | 65.4       |
|                                                               |      |      |      |      |      | 39                         | 64.5       |
| For QNH corrections, use values relevant to Go-Around         |      |      |      |      |      |                            |            |

| WEIGHT CORRECTIONS (kg) for : |         |       |        |        |           |
|-------------------------------|---------|-------|--------|--------|-----------|
| CONDITIONS                    | TAKEOFF |       |        |        | GO AROUND |
|                               | DRY     | WET   | SSW 15 | SSW 17 |           |
| ENG + AIRF A/I ON             | -3000   | -1800 | -1100  | -1400  | -4000     |
| QNH < 1013 (kg/hPa)           | -80     | -80   | -90    | -100   | -80       |
| QNH > 1013 (kg/hPa)           | +30     | +30   | +30    | +30    | +30       |
| max $\Delta$ hPa: 28          |         |       |        |        |           |

BGY28R01 06060709 02 Apr 2009

**NOTE : MTOW/MLAW (structural) see AOM Vol.2 Chap.1**

### ONE ENGINE OUT PROCEDURE :

- At DME4 BEG or crossing R031 TZO left turn to (DME15 - R157 BEG) or to ORI/LOM.

- Acceleration altitude: 2300 ft QNH

**LIMITATION CODES:** F = Field length S = 2nd Segment  
G = TOW limited by VMCG

\* = Obstacles      A = TOW limited by acceleration

|                                                                              |  |                                                                                       |                     |                           |                   |
|------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|---------------------|---------------------------|-------------------|
| <b>Alitalia</b><br>Compagnia Aerea Italiana<br><b>MD80</b> OPERATIONS MANUAL |  | Elev: 779 ft<br>Length: 7874 ft (2400 m)<br>Slope: +0.21 %<br>Shift: 1752 ft ( 534 m) | Runway<br><b>28</b> | Airport<br><b>BERGAMO</b> | <b>LIME - BGY</b> |
| JT8D-217A<br>A/C : OFF/ON<br>A/I OFF or ENG A/I ON                           |  | PTOW (ton) ; V1 (KIAS)<br>LIMIT CODE ; VR (KIAS)<br>PITCH (deg) ; V2 (KIAS)           |                     | 02 Apr 2009               |                   |

| VMCG<br>VRMIN<br>V2MIN | FLAP 11        |                   |                          |                   |                            |                   |                            | DRY               | OPTIMUM FLAP               |              |                   |                    |                   |                   |                   |                   |                   |                   |
|------------------------|----------------|-------------------|--------------------------|-------------------|----------------------------|-------------------|----------------------------|-------------------|----------------------------|--------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                        | OAT<br>°C      | W I N D (kt)      |                          |                   |                            |                   |                            |                   | OAT<br>°C                  | W I N D (kt) |                   |                    |                   |                   |                   |                   |                   |                   |
|                        |                | -10               | -5                       | 0                 | 10                         | -10               | -5                         |                   |                            | 0            | 10                |                    |                   |                   |                   |                   |                   |                   |
| 115<br>119<br>128      | 27<br><br>(NA) | 59.7<br>*<br>14.5 | 132<br>138<br>145        | 61.6<br>*<br>14.0 | 135<br>141<br>148          | 63.4<br>*<br>14.0 | 138<br>143<br>150          | 64.4<br>*<br>14.0 | 140<br>144<br>151          | -15          | 62.1<br>*<br>13.5 | 130<br>134<br>141  | 64.9<br>*<br>13.5 | 139<br>144<br>151 | 66.3<br>*<br>13.5 | 141<br>145<br>153 | 67.2<br>*         |                   |
| 115<br>119<br>128      | 29<br><br>(NA) | 59.5<br>*<br>14.5 | 132<br>138<br>145        | 61.4<br>*<br>14.0 | 135<br>140<br>147          | 63.3<br>*<br>14.0 | 138<br>143<br>150          | 64.1<br>*<br>14.0 | 140<br>144<br>151          | -10          | 61.9<br>*<br>13.5 | 130<br>134<br>141  | 64.5<br>*<br>13.5 | 138<br>143<br>150 | 66.0<br>*<br>13.5 | 141<br>145<br>152 | 66.8<br>*<br>13.5 |                   |
| 114<br>118<br>127      | 31<br><br>(NA) | 58.9<br>*<br>14.5 | 131<br>137<br>144        | 60.7<br>*<br>14.0 | 134<br>140<br>147          | 62.6<br>*<br>14.0 | 137<br>142<br>149          | 63.5<br>*<br>14.0 | 139<br>143<br>150          | -5           | 61.7<br>*<br>13.5 | 129<br>133<br>141  | 64.0<br>*<br>13.5 | 138<br>142<br>150 | 65.7<br>*<br>13.5 | 140<br>145<br>152 | 66.5<br>*<br>13.5 |                   |
| 113<br>118<br>127      | 33<br><br>(NA) | 58.1<br>*<br>14.5 | 130<br>136<br>143        | 59.9<br>*<br>14.0 | 133<br>139<br>146          | 61.7<br>*<br>14.0 | 136<br>141<br>148          | 62.7<br>*<br>14.0 | 138<br>142<br>149          | 0            | 61.5<br>*<br>13.5 | 129<br>133<br>140  | 63.4<br>*<br>14.0 | 137<br>142<br>149 | 65.4<br>*<br>13.5 | 140<br>144<br>151 | 66.1<br>*<br>13.5 |                   |
| 113<br>117<br>126      | 35<br><br>(NA) | 57.2<br>*<br>14.5 | 129<br>135<br>142        | 59.0<br>*<br>14.0 | 132<br>138<br>145          | 60.8<br>*<br>14.0 | 136<br>140<br>147          | 61.8<br>*<br>14.0 | 137<br>141<br>148          | 5            | 61.3<br>*<br>13.5 | 129<br>133<br>140  | 63.1<br>*<br>14.0 | 137<br>141<br>149 | 65.1<br>*<br>13.5 | 140<br>144<br>151 | 65.9<br>*<br>13.5 |                   |
| 112<br>116<br>125      | 37<br><br>(31) | 56.4<br>*<br>14.5 | 129<br>134<br>141        | 58.2<br>*<br>14.0 | 132<br>137<br>144          | 60.0<br>*<br>14.0 | 135<br>139<br>146          | 60.9<br>*<br>14.0 | 136<br>140<br>147          | 10           | 61.1<br>*<br>13.5 | 128<br>133<br>140  | 62.8<br>*<br>14.0 | 136<br>141<br>148 | 64.8<br>*<br>13.5 | 139<br>143<br>151 | 65.6<br>*<br>13.5 |                   |
| 111<br>116<br>124      | 39<br><br>(33) | 55.8<br>*<br>14.5 | 128<br>134<br>140        | 57.5<br>*<br>14.0 | 131<br>136<br>143          | 59.2<br>*<br>14.0 | 134<br>138<br>145          | 60.2<br>*<br>14.0 | 136<br>140<br>146          | 15           | 60.7<br>*<br>13.5 | 128<br>132<br>140  | 62.5<br>*<br>14.0 | 136<br>141<br>148 | 64.4<br>*<br>13.5 | 139<br>143<br>150 | 65.3<br>*<br>13.5 |                   |
| 110<br>115<br>123      | 41<br><br>(34) | 55.1<br>*<br>14.5 | 127<br>133<br>140        | 56.9<br>*<br>14.0 | 130<br>135<br>142          | 58.5<br>*<br>14.0 | 133<br>138<br>144          | 59.5<br>*<br>14.0 | 135<br>139<br>145          | 20           | 60.4<br>*<br>13.5 | 127<br>132<br>139  | 62.1<br>*<br>14.0 | 135<br>140<br>147 | 64.0<br>*<br>13.5 | 138<br>143<br>150 | 65.0<br>*<br>13.5 |                   |
| 109<br>114<br>123      | 43<br><br>(36) | 54.5<br>*<br>14.5 | 126<br>132<br>139        | 56.2<br>*<br>14.0 | 130<br>134<br>141          | 57.8<br>*<br>14.0 | 132<br>137<br>143          | 58.8<br>*<br>13.5 | 134<br>138<br>144          | 25           | 60.1<br>*<br>13.5 | 127<br>132<br>139  | 61.7<br>*<br>14.0 | 134<br>140<br>147 | 63.5<br>*<br>14.0 | 137<br>142<br>149 | 64.6<br>*<br>13.5 |                   |
| 109<br>113<br>122      | 45<br><br>(37) | 53.8<br>*<br>14.5 | 126<br>131<br>138        | 55.5<br>*<br>14.0 | 129<br>134<br>140          | 57.1<br>*<br>14.0 | 132<br>136<br>142          | 58.0<br>*<br>13.5 | 133<br>137<br>143          | 27           | 60.0<br>*<br>13.5 | 127<br>131<br>139  | 61.6<br>*<br>14.0 | 134<br>140<br>147 | 63.4<br>*<br>14.0 | 137<br>142<br>149 | 64.5<br>*<br>13.5 |                   |
| 108<br>112<br>121      | 47<br><br>(39) | 53.0<br>*<br>14.5 | 125<br>131<br>137        | 54.7<br>*<br>14.0 | 128<br>133<br>139          | 56.4<br>*<br>14.0 | 131<br>135<br>141          | 57.2<br>*<br>13.5 | 133<br>136<br>142          | 29           | 59.9<br>*<br>13.5 | 126<br>131<br>139  | 61.4<br>*<br>13.9 | 134<br>139<br>146 | 63.2<br>*<br>14.0 | 137<br>142<br>149 | 64.3<br>*<br>13.5 |                   |
| 107<br>112<br>120      | 49<br><br>(41) | 52.4<br>*<br>14.5 | 124<br>130<br>136        | 53.9<br>*<br>14.0 | 127<br>132<br>138          | 55.6<br>*<br>14.0 | 130<br>134<br>140          | 56.4<br>*<br>13.5 | 132<br>135<br>141          | 31           | 59.3<br>*<br>13.5 | 126<br>131<br>138  | 60.8<br>*<br>14.0 | 133<br>139<br>146 | 62.6<br>*<br>14.0 | 136<br>141<br>148 | 63.6<br>*<br>13.5 |                   |
|                        | 49             | 52.0              | 123<br>129<br>14.5       | 53.0              | 125<br>130<br>135          | 55.0              | 129<br>133<br>139          | 56.0              | 130<br>134<br>141          | 33           | 58.5              | 125<br>130<br>135  | 59.9              | 132<br>138<br>145 | 61.7              | 135<br>140<br>147 | 62.7              | 137<br>141<br>148 |
|                        | 49             | 50.0              | 120<br>126<br>15.0       | 51.0              | 122<br>128<br>134          | 53.0              | 125<br>130<br>137          | 54.0              | 127<br>132<br>138          | 35           | 57.7              | 124<br>129<br>135  | 59.0              | 132<br>137<br>144 | 60.8              | 134<br>139<br>146 | 61.8              | 136<br>140<br>147 |
|                        | 49             | 48.0              | 116<br>123<br>15.5       | 49.0              | 118<br>125<br>131          | 51.0              | 122<br>128<br>134          | 52.0              | 124<br>129<br>135          | 37           | 56.9              | 124<br>128<br>135  | 58.2              | 131<br>136<br>143 | 60.0              | 134<br>138<br>145 | 60.9              | 135<br>139<br>146 |
|                        | 49             | 46.0              | 113 CK<br>120<br>15.5    | 47.0              | 115<br>122<br>129          | 49.0              | 119<br>125<br>131          | 50.0              | 121<br>126<br>133          | 39           | 56.1              | 123<br>127<br>134  | 57.5              | 130<br>135<br>142 | 59.3              | 133<br>137<br>144 | 60.2              | 135<br>139<br>145 |
|                        | 49             | 44.0              | 109 CK<br>117 CK<br>16.0 | 45.0              | 112 CK<br>119 CK<br>126 CK | 47.0              | 116<br>122<br>129          | 48.0              | 118<br>123<br>130          |              | 56.0              | 122<br>127<br>14.0 | 57.0              | 128<br>134<br>141 | 59.0              | 132<br>137<br>143 | 60.0              | 134<br>138<br>145 |
|                        | 49             | 42.0              | 105 CK<br>114 CK<br>16.0 | 43.0              | 108 CK<br>115 CK<br>123 CK | 45.0              | 112 CK<br>119 CK<br>126 CK | 46.0              | 114 CK<br>120<br>127 CK    |              | 54.0              | 119<br>124<br>14.0 | 55.0              | 125<br>131<br>138 | 57.0              | 129<br>134<br>141 | 58.0              | 131<br>135<br>142 |
|                        | 49             | 40.0              | 102 CK<br>111 CK<br>16.0 | 41.0              | 104 CK<br>112 CK<br>120 CK | 43.0              | 109 CK<br>115 CK<br>123 CK | 44.0              | 111 CK<br>117 CK<br>125 CK |              | 52.0              | 116<br>122<br>14.5 | 53.0              | 122<br>129<br>136 | 55.0              | 126<br>131<br>138 | 56.0              | 128<br>133<br>140 |
|                        | 49             |                   |                          |                   |                            | 41.0              | 105 CK<br>112 CK<br>16.0   | 42.0              | 107 CK<br>114 CK<br>122 CK |              | 50.0              | 115<br>119<br>14.5 | 51.0              | 119<br>126<br>133 | 53.0              | 123<br>129<br>136 | 54.0              | 125<br>130<br>137 |
|                        | 49             |                   |                          |                   |                            |                   |                            | 40.0              | 104 CK<br>111 CK<br>16.0   |              | 48.0              | 115<br>116<br>15.0 | 49.0              | 116<br>123<br>130 | 51.0              | 119<br>126<br>133 | 52.0              | 121<br>127<br>134 |

T/O FROM 'PSN B'

**LIMITATION CODES:** F = Field length S = 2nd Segment \* = Obstacles T = Tire speed B = Brake energy  
C = Approach climb BLANK = No limitations

BERGAMO 28 T/O FROM 'PSN B'

| VMCG<br>VRMIN<br>V2MIN | WET FLAP 15 |           |      |        |      |        |      |        |  |  |
|------------------------|-------------|-----------|------|--------|------|--------|------|--------|--|--|
|                        | OAT<br>°C   | WIND (kt) |      |        |      |        |      |        |  |  |
|                        |             | -10       |      | -5     |      | 0      |      | 10     |  |  |
| 115                    | -10         | NO T/O    | 61.0 | 124    | 62.6 | 128    | 63.5 | 130    |  |  |
| 117                    |             |           | *    | 138    | *    | 140    | *    | 141    |  |  |
| 126                    | (NA)        |           | 13.0 | 146    | 13.0 | 148    | 13.0 | 149    |  |  |
| 115                    | -5          | NO T/O    | 60.6 | 124    | 62.3 | 127    | 63.3 | 129    |  |  |
| 117                    |             |           | *    | 138    | *    | 140    | *    | 141    |  |  |
| 126                    | (NA)        |           | 13.0 | 145    | 13.0 | 147    | 13.0 | 148    |  |  |
| 115                    | 0           | NO T/O    | 60.3 | 123    | 61.9 | 127    | 63.0 | 129    |  |  |
| 117                    |             |           | *    | 137    | *    | 139    | *    | 141    |  |  |
| 126                    | (NA)        |           | 13.0 | 145    | 13.0 | 147    | 13.0 | 148    |  |  |
| 115                    | 5           | NO T/O    | 59.9 | 123    | 61.6 | 126    | 62.7 | 128    |  |  |
| 117                    |             |           | *    | 137    | *    | 139    | *    | 140    |  |  |
| 126                    | (NA)        |           | 13.5 | 144    | 13.0 | 146    | 13.0 | 148    |  |  |
| 115                    | 10          | NO T/O    | 59.7 | 122    | 61.3 | 126    | 62.5 | 128    |  |  |
| 117                    |             |           | *    | 137    | *    | 139    | *    | 140    |  |  |
| 126                    | (NA)        |           | 13.5 | 144    | 13.0 | 146    | 13.0 | 147    |  |  |
| 115                    | 15          | NO T/O    | 59.3 | 122    | 61.0 | 125    | 62.1 | 127    |  |  |
| 117                    |             |           | *    | 136    | *    | 138    | *    | 140    |  |  |
| 126                    | (NA)        |           | 13.5 | 144    | 13.0 | 146    | 13.0 | 147    |  |  |
| 115                    | 20          | NO T/O    | 59.0 | 121    | 60.7 | 125    | 61.8 | 127    |  |  |
| 117                    |             |           | *    | 136    | *    | 138    | *    | 139    |  |  |
| 126                    | (NA)        |           | 13.5 | 143    | 13.0 | 145    | 13.0 | 146    |  |  |
| 115                    | 25          | NO T/O    | 58.6 | 120    | 60.4 | 124    | 61.4 | 126    |  |  |
| 117                    |             |           | *    | 135    | *    | 138    | *    | 139    |  |  |
| 126                    | (NA)        |           | 13.5 | 143    | 13.0 | 145    | 13.0 | 146    |  |  |
| 115                    | 27          | NO T/O    | 58.5 | 120    | 60.2 | 124    | 61.3 | 126    |  |  |
| 117                    |             |           | *    | 135    | *    | 137    | *    | 139    |  |  |
| 126                    | (NA)        |           | 13.5 | 143    | 13.0 | 145    | 13.0 | 146    |  |  |
| 115                    | 29          | NO T/O    | 58.2 | 120    | 59.9 | 123    | 61.0 | 126    |  |  |
| 117                    |             |           | *    | 135    | *    | 137    | *    | 138    |  |  |
| 126                    | (NA)        |           | 13.5 | 142    | 13.5 | 144    | 13.0 | 146    |  |  |
| 114                    | 31          | NO T/O    | 57.5 | 119    | 59.2 | 123    | 60.3 | 125    |  |  |
| 117                    |             |           | *    | 134    | *    | 136    | *    | 138    |  |  |
| 125                    | (NA)        |           | 13.5 | 141    | 13.5 | 143    | 13.0 | 145    |  |  |
| 113                    | 33          | NO T/O    | 56.8 | 119    | 58.5 | 122    | 59.6 | 124    |  |  |
| 116                    |             |           | *    | 133    | *    | 135    | *    | 137    |  |  |
| 124                    | (NA)        |           | 13.5 | 140    | 13.0 | 143    | 13.0 | 144    |  |  |
| 112                    | 35          | NO T/O    | 56.1 | 118    | 57.8 | 122    | 58.8 | 124    |  |  |
| 115                    |             |           | *    | 132    | *    | 135    | *    | 136    |  |  |
| 124                    | (NA)        |           | 13.5 | 140    | 13.0 | 142    | 13.0 | 143    |  |  |
| 112                    | 37          | NO T/O    | 55.4 | 118    | 57.1 | 121    | 58.1 | 123    |  |  |
| 115                    |             |           | *    | 132    | *    | 134    | *    | 135    |  |  |
| 123                    | (31)        |           | 13.5 | 139    | 13.0 | 141    | 13.0 | 142    |  |  |
|                        | 37          |           | 55.0 | 116    | 57.0 | 120    | 58.0 | 122    |  |  |
|                        |             |           |      | 131    |      | 133    |      | 135    |  |  |
|                        |             |           | 13.5 | 138    | 13.5 | 141    | 13.5 | 142    |  |  |
|                        | 37          |           | 53.0 | 112 CK | 55.0 | 116    | 56.0 | 118    |  |  |
|                        |             |           |      | 128    |      | 131    |      | 132    |  |  |
|                        |             |           | 14.0 | 135    | 13.5 | 138    | 13.5 | 139    |  |  |
|                        | 37          |           | 51.0 | 108 CK | 53.0 | 113 CK | 54.0 | 115    |  |  |
|                        |             |           |      | 125    |      | 128    |      | 129    |  |  |
|                        |             |           | 14.5 | 133    | 14.0 | 135    | 14.0 | 137    |  |  |
|                        | 37          |           | 49.0 | 105 CK | 51.0 | 109 CK | 52.0 | 111 CK |  |  |
|                        |             |           |      | 122    |      | 125    |      | 126    |  |  |
|                        |             |           | 14.5 | 130    | 14.5 | 133    | 14.0 | 134    |  |  |
|                        | 37          |           | 47.0 | 101 CK | 49.0 | 105 CK | 50.0 | 108 CK |  |  |
|                        |             |           |      | 119    |      | 122    |      | 124    |  |  |
|                        |             |           | 15.0 | 127    | 14.5 | 130    | 14.5 | 131    |  |  |
|                        | 37          |           | 45.0 | 97 CK  | 47.0 | 102 CK | 48.0 | 104 CK |  |  |
|                        |             |           |      | 116 CK |      | 119    |      | 121    |  |  |
|                        |             |           | 15.5 | 124 CK | 15.0 | 127    | 15.0 | 129    |  |  |
|                        | 37          |           | 43.0 | 92 CK  | 45.0 | 98 CK  | 46.0 | 100 CK |  |  |
|                        |             |           |      | 113 CK |      | 116 CK |      | 118    |  |  |
|                        |             |           | 15.5 | 122 CK | 15.5 | 124 CK | 15.5 | 126 CK |  |  |
|                        | 37          |           | 41.0 | 88 CK  | 43.0 | 93 CK  | 44.0 | 96 CK  |  |  |
|                        |             |           |      | 109 CK |      | 113 CK |      | 114 CK |  |  |
|                        |             |           | 15.5 | 119 CK | 15.5 | 122 CK | 15.5 | 123 CK |  |  |
|                        | 37          |           |      |        | 41.0 | 89 CK  | 42.0 | 92 CK  |  |  |
|                        |             |           |      |        |      | 109 CK |      | 111 CK |  |  |
|                        |             |           |      |        | 15.5 | 119 CK | 15.5 | 120 CK |  |  |

LIMITATION CODES: F = Field length S = 2nd Segment  
G = TOW limited by VMCG

| SSW |           |        |        |        | MAXIMUM DEPTH                                                                                                                |  |
|-----|-----------|--------|--------|--------|------------------------------------------------------------------------------------------------------------------------------|--|
|     |           |        |        |        | { 0.90" (22 mm) of DRY SNOW<br>0.25" ( 6 mm) of SLUSH/WET SNOW<br>0.20" ( 5 mm) of STANDING WATER<br>PTOW (ton) / LIMIT CODE |  |
| OAT | WIND (kt) |        |        |        | FLAP                                                                                                                         |  |
| °C  | -10       | -5     | 0      | 10     |                                                                                                                              |  |
| -10 | NO T/O    | 55.5 * | 57.6 * | 58.7 * | 15                                                                                                                           |  |
| -5  | NO T/O    | 54.6 G | 57.1 * | 58.3 * |                                                                                                                              |  |
| 0   | NO T/O    | 52.1 G | 56.7 * | 57.9 * |                                                                                                                              |  |
| 5   | NO T/O    | 49.5 G | 56.3 * | 57.5 * |                                                                                                                              |  |
| 10  | NO T/O    | 47.5 G | 56.1 * | 57.2 * |                                                                                                                              |  |
| 15  | NO T/O    | NO T/O | 55.7 * | 56.9 * |                                                                                                                              |  |
| 20  | NO T/O    | NO T/O | 55.3 * | 56.5 * | 20                                                                                                                           |  |
| 25  | NO T/O    | NO T/O | 54.8 G | 56.1 * |                                                                                                                              |  |
| 30  | NO T/O    | NO T/O | 53.7 G | 55.4 * |                                                                                                                              |  |
| -10 | NO T/O    | 56.4 * | 58.2 * | 59.2 * | 20                                                                                                                           |  |
| -5  | NO T/O    | 56.0 * | 57.9 * | 58.9 * |                                                                                                                              |  |
| 0   | NO T/O    | 53.7 G | 57.6 * | 58.5 * |                                                                                                                              |  |
| 5   | NO T/O    | 51.2 G | 57.2 * | 58.2 * |                                                                                                                              |  |
| 10  | NO T/O    | NO T/O | 57.1 * | 58.1 * |                                                                                                                              |  |
| 15  | NO T/O    | NO T/O | 56.7 * | 57.8 * |                                                                                                                              |  |
| 20  | NO T/O    | NO T/O | 56.4 * | 57.5 * |                                                                                                                              |  |
| 25  | NO T/O    | NO T/O | 56.1 * | 57.2 * |                                                                                                                              |  |
| 30  | NO T/O    | NO T/O | 55.3 G | 56.5 * |                                                                                                                              |  |

| MAXIMUM LANDING WEIGHT (ton)                                  |     |      |      |      |      |                            |       |
|---------------------------------------------------------------|-----|------|------|------|------|----------------------------|-------|
| RUNWAY LENGTH LIMITATIONS<br>Runway Length : 9190 ft (2801 m) |     |      |      |      |      | CLIMB LIMIT<br>(Go-Around) |       |
| FLAP                                                          |     | 40   |      | 28   |      | OAT                        | W     |
| RWY COND                                                      |     | DRY  | WET  | DRY  | WET  | ° C                        | (ton) |
| W<br>I<br>N<br>D                                              | -10 | 75.0 | 75.0 | 75.0 | 75.0 | -13                        | 70.2  |
|                                                               | -5  | 75.0 | 75.0 | 75.0 | 75.0 | 27                         | 70.2  |
|                                                               | 0   | 75.0 | 75.0 | 75.0 | 75.0 | 29                         | 69.6  |
|                                                               | 10  | 75.0 | 75.0 | 75.0 | 75.0 | 31                         | 68.4  |
|                                                               | 20  | 75.0 | 75.0 | 75.0 | 75.0 | 33                         | 67.3  |
|                                                               |     | 75.0 | 75.0 | 75.0 | 75.0 | 35                         | 66.3  |
|                                                               |     |      |      |      |      | 37                         | 65.4  |
|                                                               |     |      |      |      |      | 39                         | 64.5  |
| For QNH corrections, use values relevant to Go-Around         |     |      |      |      |      |                            |       |

| WEIGHT CORRECTIONS (kg) for : |         |       |        |        |           |
|-------------------------------|---------|-------|--------|--------|-----------|
| CONDITIONS                    | TAKEOFF |       |        |        | GO AROUND |
|                               | DRY     | WET   | SSW 15 | SSW 20 |           |
| ENG + AIRF A/I ON             | -3000   | -1300 | -500   | -1400  | -4000     |
| QNH < 1013 (kg/hPa)           | -80     | -80   | -90    | -90    | -80       |
| QNH > 1013 (kg/hPa)           | +30     | +30   | +30    | +30    | +30       |
| max Δ hPa :                   | 28      |       |        |        |           |

|                                                                                   |          |             |
|-----------------------------------------------------------------------------------|----------|-------------|
| BGY28T01                                                                          | 06060709 | 02 Apr 2009 |
| NOTE : MTOW/MLAW (structural) see AOM Vol.2 Chap.1                                |          |             |
| ONE ENGINE OUT PROCEDURE :                                                        |          |             |
| - At DME4 BEG or crossing R031 TZO left turn to (DME15 - R157 BEG) or to ORI/LOM. |          |             |
| - Acceleration altitude: 2300 ft QNH                                              |          |             |

\* = Obstacles A = TOW limited by acceleration

|                                                                              |  |                                                                                  |                                                                             |                                         |
|------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------|
| <b>Alitalia</b><br>Compagnia Aerea Italiana<br><b>MD80</b> OPERATIONS MANUAL |  | Elev: 779 ft<br>Length: 9626 ft (2934 m)<br>Slope: -0.28 %<br>Shift: 0 ft ( 0 m) | Runway<br><b>10</b>                                                         | Airport<br><b>BERGAMO</b><br>LIME - BGY |
| JT8D-217A<br>A/C : OFF/ON<br>A/I OFF or ENG A/I ON                           |  |                                                                                  | PTOW (ton) ; V1 (KIAS)<br>LIMIT CODE ; VR (KIAS)<br>PITCH (deg) ; V2 (KIAS) | 02 Apr 2009                             |

| VMCG<br>VRMIN<br>V2MIN | FLAP 15 DRY    |                                         |                                         |                                         |                                         |                                         |                                         |                                         |                                         |  |
|------------------------|----------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|--|
|                        | OAT<br>°C      | W I N D (kt)                            |                                         |                                         |                                         |                                         |                                         |                                         |                                         |  |
|                        |                | -10                                     |                                         | -5                                      |                                         | 0                                       |                                         | 10                                      |                                         |  |
| 115<br>117<br>126      | 27<br><br>(NA) | 67.1<br>*<br>S                          | 67.3<br>S                               | 67.3<br>S                               | 67.3<br>S                               | 67.3<br>S                               | 67.3<br>S                               | 67.3<br>S                               | 67.3<br>S                               |  |
| 115<br>117<br>126      | 29<br><br>(NA) | 67.0<br>*<br>141<br>146<br>12.5 153     | 67.3<br>142<br>S 146<br>12.5 153        | 67.3<br>142<br>S 146<br>12.5 153        | 67.3<br>142<br>S 146<br>12.5 153        | 67.3<br>142<br>S 146<br>12.5 153        | 67.3<br>142<br>S 146<br>12.5 153        | 67.3<br>142<br>S 146<br>12.5 153        | 67.3<br>142<br>S 146<br>12.5 153        |  |
| 114<br>117<br>125      | 31<br><br>(NA) | 66.3<br>*<br>141<br>145<br>12.5 152     | 66.5<br>141<br>S 145<br>12.5 152        | 66.5<br>141<br>S 145<br>12.5 152        | 66.5<br>141<br>S 145<br>12.5 152        | 66.5<br>141<br>S 145<br>12.5 152        | 66.5<br>142<br>S 145<br>12.5 152        | 66.5<br>142<br>S 145<br>12.5 152        | 66.5<br>142<br>S 145<br>12.5 152        |  |
| 113<br>116<br>124      | 33<br><br>(NA) | 65.4<br>140<br>S 144<br>12.5 151        | 65.4<br>140<br>S 144<br>12.5 151        | 65.4<br>140<br>S 144<br>12.5 151        | 65.4<br>140<br>S 144<br>12.5 151        | 65.4<br>140<br>S 144<br>12.5 151        | 65.4<br>140<br>S 144<br>12.5 151        | 65.4<br>140<br>S 144<br>12.5 151        | 65.4<br>140<br>S 144<br>12.5 151        |  |
| 112<br>115<br>124      | 35<br><br>(NA) | 64.3<br>139<br>S 143<br>12.5 150        | 64.3<br>139<br>S 143<br>12.5 150        | 64.3<br>139<br>S 143<br>12.5 150        | 64.3<br>139<br>S 143<br>12.5 150        | 64.3<br>139<br>S 143<br>12.5 150        | 64.3<br>139<br>S 143<br>12.5 150        | 64.3<br>139<br>S 143<br>12.5 150        | 64.3<br>139<br>S 143<br>12.5 150        |  |
| 112<br>115<br>123      | 37<br><br>(31) | 63.3<br>137<br>S 142<br>12.5 148        | 63.3<br>138<br>S 142<br>12.5 148        | 63.3<br>138<br>S 142<br>12.5 148        | 63.3<br>138<br>S 142<br>12.5 148        | 63.3<br>138<br>S 142<br>12.5 148        | 63.3<br>138<br>S 142<br>12.5 148        | 63.3<br>138<br>S 142<br>12.5 148        | 63.3<br>138<br>S 142<br>12.5 148        |  |
| 111<br>114<br>122      | 39<br><br>(33) | 62.3<br>136<br>S 141<br>12.5 147        | 62.3<br>137<br>S 141<br>12.5 147        | 62.3<br>137<br>S 141<br>12.5 147        | 62.3<br>137<br>S 141<br>12.5 147        | 62.3<br>137<br>S 141<br>12.5 147        | 62.3<br>137<br>S 141<br>12.5 147        | 62.3<br>137<br>S 141<br>12.5 147        | 62.3<br>137<br>S 141<br>12.5 147        |  |
| 110<br>113<br>121      | 41<br><br>(34) | 61.5<br>136<br>S 140<br>12.5 146        | 61.5<br>136<br>S 140<br>12.5 146        | 61.5<br>136<br>S 140<br>12.5 146        | 61.5<br>136<br>S 140<br>12.5 146        | 61.5<br>136<br>S 140<br>12.5 146        | 61.5<br>136<br>S 140<br>12.5 146        | 61.5<br>136<br>S 140<br>12.5 146        | 61.5<br>136<br>S 140<br>12.5 146        |  |
| 109<br>112<br>121      | 43<br><br>(36) | 60.6<br>135<br>S 139<br>12.5 145        | 60.6<br>135<br>S 139<br>12.5 145        | 60.6<br>135<br>S 139<br>12.5 145        | 60.6<br>135<br>S 139<br>12.5 145        | 60.6<br>135<br>S 139<br>12.5 145        | 60.6<br>135<br>S 139<br>12.5 145        | 60.6<br>135<br>S 139<br>12.5 145        | 60.6<br>135<br>S 139<br>12.5 145        |  |
| 108<br>112<br>120      | 45<br><br>(37) | 59.8<br>134<br>S 138<br>12.5 144        | 59.8<br>134<br>S 138<br>12.5 144        | 59.8<br>134<br>S 138<br>12.5 144        | 59.8<br>134<br>S 138<br>12.5 144        | 59.8<br>134<br>S 138<br>12.5 144        | 59.8<br>135<br>S 138<br>12.5 144        | 59.8<br>135<br>S 138<br>12.5 144        | 59.8<br>135<br>S 138<br>12.5 144        |  |
| 107<br>111<br>119      | 47<br><br>(39) | 58.8<br>133<br>S 137<br>12.5 143        | 58.8<br>133<br>S 137<br>12.5 143        | 58.8<br>133<br>S 137<br>12.5 143        | 58.8<br>133<br>S 137<br>12.5 143        | 58.8<br>133<br>S 137<br>12.5 143        | 58.8<br>133<br>S 137<br>12.5 143        | 58.8<br>133<br>S 137<br>12.5 143        | 58.8<br>133<br>S 137<br>12.5 143        |  |
| 107<br>110<br>118      | 49<br><br>(41) | 57.9<br>132<br>S 136<br>12.5 142        | 57.9<br>132<br>S 136<br>12.5 142        | 57.9<br>132<br>S 136<br>12.5 142        | 57.9<br>132<br>S 136<br>12.5 142        | 57.9<br>132<br>S 136<br>12.5 142        | 57.9<br>132<br>S 136<br>12.5 142        | 57.9<br>132<br>S 136<br>12.5 142        | 57.9<br>132<br>S 136<br>12.5 142        |  |
|                        | 49             | 57.0<br>129<br>134<br>13.0 141          | 57.0<br>129<br>134<br>13.0 141          | 57.0<br>130<br>134<br>13.0 141          | 57.0<br>130<br>134<br>13.0 141          | 57.0<br>130<br>134<br>13.0 141          | 57.0<br>130<br>134<br>13.0 141          | 57.0<br>130<br>134<br>13.0 141          | 57.0<br>130<br>134<br>13.0 141          |  |
|                        | 49             | 55.0<br>126<br>131<br>13.0 138          | 55.0<br>126<br>131<br>13.0 138          | 55.0<br>126<br>131<br>13.0 138          | 55.0<br>126<br>131<br>13.0 138          | 55.0<br>126<br>131<br>13.0 138          | 55.0<br>127<br>131<br>13.0 138          | 55.0<br>127<br>131<br>13.0 138          | 55.0<br>127<br>131<br>13.0 138          |  |
|                        | 49             | 53.0<br>123<br>129<br>13.5 135          | 53.0<br>123<br>129<br>13.5 135          | 53.0<br>123<br>129<br>13.5 135          | 53.0<br>123<br>129<br>13.5 135          | 53.0<br>123<br>129<br>13.5 135          | 53.0<br>123<br>129<br>13.5 135          | 53.0<br>123<br>129<br>13.5 135          | 53.0<br>123<br>129<br>13.5 135          |  |
|                        | 49             | 51.0<br>119<br>126<br>13.5 133          | 51.0<br>120<br>126<br>13.5 133          | 51.0<br>120<br>126<br>13.5 133          | 51.0<br>120<br>126<br>13.5 133          | 51.0<br>120<br>126<br>13.5 133          | 51.0<br>120<br>126<br>13.5 133          | 51.0<br>120<br>126<br>13.5 133          | 51.0<br>120<br>126<br>13.5 133          |  |
|                        | 49             | 49.0<br>116<br>123<br>14.0 130          | 49.0<br>116<br>123<br>14.0 130          | 49.0<br>117<br>123<br>14.0 130          | 49.0<br>117<br>123<br>14.0 130          | 49.0<br>117<br>123<br>14.0 130          | 49.0<br>117<br>123<br>14.0 130          | 49.0<br>117<br>123<br>14.0 130          | 49.0<br>117<br>123<br>14.0 130          |  |
|                        | 49             | 47.0<br>113 CK<br>120<br>14.5 127       | 47.0<br>113 CK<br>120<br>14.5 127       | 47.0<br>113 CK<br>120<br>14.5 127       | 47.0<br>113 CK<br>120<br>14.5 127       | 47.0<br>113 CK<br>120<br>14.5 127       | 47.0<br>114 CK<br>120<br>14.5 127       | 47.0<br>114 CK<br>120<br>14.5 127       | 47.0<br>114 CK<br>120<br>14.5 127       |  |
|                        | 49             | 45.0<br>109 CK<br>117 CK<br>14.5 124 CK | 45.0<br>110 CK<br>117 CK<br>14.5 124 CK | 45.0<br>110 CK<br>117 CK<br>14.5 124 CK | 45.0<br>110 CK<br>117 CK<br>14.5 124 CK | 45.0<br>110 CK<br>117 CK<br>14.5 124 CK | 45.0<br>110 CK<br>117 CK<br>14.5 124 CK | 45.0<br>110 CK<br>117 CK<br>14.5 124 CK | 45.0<br>110 CK<br>117 CK<br>14.5 124 CK |  |
|                        | 49             | 43.0<br>106 CK<br>114 CK<br>15.0 122 CK | 43.0<br>106 CK<br>114 CK<br>15.0 122 CK | 43.0<br>106 CK<br>114 CK<br>15.0 122 CK | 43.0<br>106 CK<br>114 CK<br>15.0 122 CK | 43.0<br>106 CK<br>114 CK<br>15.0 122 CK | 43.0<br>107 CK<br>114 CK<br>15.0 122 CK | 43.0<br>107 CK<br>114 CK<br>15.0 122 CK | 43.0<br>107 CK<br>114 CK<br>15.0 122 CK |  |
|                        | 49             | 41.0<br>102 CK<br>111 CK<br>15.5 119 CK | 41.0<br>103 CK<br>111 CK<br>15.5 119 CK | 41.0<br>103 CK<br>111 CK<br>15.5 119 CK | 41.0<br>103 CK<br>111 CK<br>15.5 119 CK | 41.0<br>103 CK<br>111 CK<br>15.5 119 CK | 41.0<br>103 CK<br>111 CK<br>15.5 119 CK | 41.0<br>103 CK<br>111 CK<br>15.5 119 CK | 41.0<br>103 CK<br>111 CK<br>15.5 119 CK |  |

| MAXIMUM LANDING WEIGHT (ton)                          |      |      |      |                         |        |
|-------------------------------------------------------|------|------|------|-------------------------|--------|
| RUNWAY LENGTH LIMITATIONS                             |      |      |      | CLIMB LIMIT (Go-Around) |        |
| Runway Length : 9298 ft (2834 m)                      |      |      |      |                         |        |
| FLAP                                                  | 40   |      | 28   |                         |        |
| RWY COND                                              | DRY  | WET  | DRY  | WET                     | OAT °C |
| W -10                                                 | 75.0 | 75.0 | 75.0 | 75.0                    | -13    |
| I -5                                                  | 75.0 | 75.0 | 75.0 | 75.0                    | 27     |
| N 0                                                   | 75.0 | 75.0 | 75.0 | 75.0                    | 29     |
| D 10                                                  | 75.0 | 75.0 | 75.0 | 75.0                    | 31     |
| 20                                                    | 75.0 | 75.0 | 75.0 | 75.0                    | 33     |
|                                                       |      |      |      |                         | 35     |
|                                                       |      |      |      |                         | 37     |
|                                                       |      |      |      |                         | 39     |
| For QNH corrections, use values relevant to Go-Around |      |      |      |                         | 70.2   |
|                                                       |      |      |      |                         | 70.2   |
|                                                       |      |      |      |                         | 69.6   |
|                                                       |      |      |      |                         | 68.4   |
|                                                       |      |      |      |                         | 67.3   |
|                                                       |      |      |      |                         | 66.3   |
|                                                       |      |      |      |                         | 65.4   |
|                                                       |      |      |      |                         | 64.5   |

| WEIGHT CORRECTIONS (kg) for : |         |     |        |           |       |
|-------------------------------|---------|-----|--------|-----------|-------|
| CONDITIONS                    | TAKEOFF |     |        | GO AROUND |       |
|                               | DRY     | WET | SSW 15 | SSW       |       |
| ENG + AIRF A/I ON             | -3000   |     |        |           | -4000 |
| QNH < 1013 (kg/hPa)           | -80     |     |        |           | -80   |
| QNH > 1013 (kg/hPa)           | +30     |     |        |           | +30   |
| max Δ hPa : 28                |         |     |        |           |       |

BGY10R01 08100709 02 Apr 2009

NOTE : MTOW/MLAW (structural) see AOM Vol.2 Chap.1

#### ONE ENGINE OUT PROCEDURE :

- At DME2 BEG right turn on heading 195 to intercept and follow R165 BEG to DME12 BEG and hold or
- Proceed to ORI/LOM
- Acceleration altitude: 2300 ft QNH

**LIMITATION CODES:** F = Field length S = 2nd Segment \* = Obstacles T = Tire speed B = Brake energy  
C = Approach climb BLANK = No limitations

|                                                                              |  |                                                                                  |                                                                             |                                         |
|------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------|
| <b>Alitalia</b><br>Compagnia Aerea Italiana<br><b>MD80</b> OPERATIONS MANUAL |  | Elev: 779 ft<br>Length: 9626 ft (2934 m)<br>Slope: +0.28 %<br>Shift: 0 ft ( 0 m) | Runway<br><b>28</b>                                                         | Airport<br><b>BERGAMO</b><br>LIME - BGY |
| JT8D-217A<br>A/C : OFF/ON<br>A/I OFF or ENG A/I ON                           |  |                                                                                  | PTOW (ton) ; V1 (KIAS)<br>LIMIT CODE ; VR (KIAS)<br>PITCH (deg) ; V2 (KIAS) | 02 Apr 2009                             |

| VMCG<br>VRMIN<br>V2MIN | FLAP 15 DRY |              |        |      |        |      |        |      |        |  |  |
|------------------------|-------------|--------------|--------|------|--------|------|--------|------|--------|--|--|
|                        | OAT<br>°C   | W I N D (kt) |        |      |        |      |        |      |        |  |  |
|                        |             | -10          |        | -5   |        | 0    |        | 10   |        |  |  |
| 115                    | 27          | 64.5         | 138    | 65.8 | 141    | 67.0 |        | 67.3 |        |  |  |
| 117                    |             | *            | 143    | *    | 144    | *    |        | S    |        |  |  |
| 126                    | (NA)        | 13.0         | 150    | 12.5 | 151    |      |        |      |        |  |  |
| 115                    | 29          | 64.4         | 138    | 65.7 | 141    | 66.9 | 143    | 67.3 | 144    |  |  |
| 117                    |             | *            | 143    | *    | 144    | *    | 146    | S    | 146    |  |  |
| 126                    | (NA)        | 13.0         | 150    | 12.5 | 151    | 12.5 | 152    | 12.5 | 153    |  |  |
| 114                    | 31          | 63.7         | 138    | 65.0 | 140    | 66.2 | 142    | 66.5 | 143    |  |  |
| 117                    |             | *            | 142    | *    | 144    | *    | 145    | S    | 145    |  |  |
| 125                    | (NA)        | 13.0         | 149    | 12.5 | 150    | 12.5 | 152    | 12.5 | 152    |  |  |
| 113                    | 33          | 62.8         | 137    | 64.0 | 139    | 65.3 | 141    | 65.4 | 142    |  |  |
| 116                    |             | *            | 141    | *    | 143    | *    | 144    | S    | 144    |  |  |
| 124                    | (NA)        | 13.0         | 148    | 12.5 | 149    | 12.5 | 151    | 12.5 | 151    |  |  |
| 112                    | 35          | 61.9         | 136    | 63.1 | 138    | 64.3 | 140    | 64.3 | 141    |  |  |
| 115                    |             | *            | 140    | *    | 142    | *    | 143    | S    | 143    |  |  |
| 124                    | (NA)        | 13.0         | 147    | 12.5 | 148    | 12.5 | 149    | 12.5 | 150    |  |  |
| 112                    | 37          | 61.0         | 135    | 62.2 | 137    | 63.2 | 139    | 63.3 | 140    |  |  |
| 115                    |             | *            | 139    | *    | 141    | *    | 142    | S    | 142    |  |  |
| 123                    | (31)        | 13.0         | 146    | 12.5 | 147    | 12.5 | 148    | 12.5 | 148    |  |  |
| 111                    | 39          | 60.2         | 134    | 61.3 | 136    | 62.3 | 138    | 62.3 | 139    |  |  |
| 114                    |             | *            | 138    | *    | 140    | S    | 141    | S    | 141    |  |  |
| 122                    | (33)        | 12.5         | 145    | 12.5 | 146    | 12.5 | 147    | 12.5 | 147    |  |  |
| 110                    | 41          | 59.4         | 133    | 60.5 | 135    | 61.5 | 137    | 61.5 | 138    |  |  |
| 113                    |             | *            | 137    | *    | 139    | S    | 140    | S    | 140    |  |  |
| 121                    | (34)        | 13.0         | 144    | 12.5 | 145    | 12.5 | 146    | 12.5 | 146    |  |  |
| 109                    | 43          | 58.6         | 133    | 59.7 | 135    | 60.6 | 136    | 60.6 | 137    |  |  |
| 112                    |             | *            | 136    | *    | 138    | S    | 139    | S    | 139    |  |  |
| 121                    | (36)        | 12.5         | 143    | 12.5 | 144    | 12.5 | 145    | 12.5 | 145    |  |  |
| 108                    | 45          | 57.9         | 132    | 58.9 | 134    | 59.8 | 135    | 59.8 | 136    |  |  |
| 112                    |             | *            | 136    | *    | 137    | S    | 138    | S    | 138    |  |  |
| 120                    | (37)        | 12.5         | 142    | 12.5 | 143    | 12.5 | 144    | 12.5 | 144    |  |  |
| 107                    | 47          | 57.1         | 131    | 58.1 | 133    | 58.8 | 134    | 58.8 | 135    |  |  |
| 111                    |             | *            | 135    | *    | 136    | S    | 137    | S    | 137    |  |  |
| 119                    | (39)        | 12.5         | 141    | 12.5 | 142    | 12.5 | 143    | 12.5 | 143    |  |  |
| 107                    | 49          | 56.3         | 130    | 57.3 | 132    | 57.9 | 133    | 57.9 | 134    |  |  |
| 110                    |             | *            | 134    | *    | 135    | S    | 136    | S    | 136    |  |  |
| 118                    | (41)        | 12.5         | 140    | 12.5 | 141    | 12.5 | 142    | 12.5 | 142    |  |  |
|                        | 49          | 56.0         | 129    | 57.0 | 131    | 57.0 | 131    | 57.0 | 131    |  |  |
|                        |             |              | 133    |      | 134    |      | 134    |      | 134    |  |  |
|                        |             | 13.0         | 139    | 13.0 | 141    | 13.0 | 141    | 13.0 | 141    |  |  |
|                        | 49          | 54.0         | 126    | 55.0 | 127    | 55.0 | 128    | 55.0 | 128    |  |  |
|                        |             |              | 130    |      | 132    |      | 132    |      | 132    |  |  |
|                        |             | 13.0         | 137    | 13.0 | 138    | 13.0 | 138    | 13.0 | 138    |  |  |
|                        | 49          | 52.0         | 122    | 53.0 | 124    | 53.0 | 124    | 53.0 | 125    |  |  |
|                        |             |              | 127    |      | 129    |      | 129    |      | 129    |  |  |
|                        |             | 13.5         | 134    | 13.5 | 135    | 13.5 | 135    | 13.5 | 135    |  |  |
|                        | 49          | 50.0         | 119    | 51.0 | 121    | 51.0 | 121    | 51.0 | 121    |  |  |
|                        |             |              | 125    |      | 126    |      | 126    |      | 126    |  |  |
|                        |             | 14.0         | 131    | 13.5 | 133    | 13.5 | 133    | 13.5 | 133    |  |  |
|                        | 49          | 48.0         | 115    | 49.0 | 117    | 49.0 | 118    | 49.0 | 118    |  |  |
|                        |             |              | 122    |      | 123    |      | 123    |      | 123    |  |  |
|                        |             | 14.0         | 129    | 14.0 | 130    | 14.0 | 130    | 14.0 | 130    |  |  |
|                        | 49          | 46.0         | 112 CK | 47.0 | 114 CK | 47.0 | 114 CK | 47.0 | 115 CK |  |  |
|                        |             |              | 119    |      | 120    |      | 120    |      | 120    |  |  |
|                        |             | 14.5         | 126 CK | 14.5 | 127    | 14.5 | 127    | 14.5 | 127    |  |  |
|                        | 49          | 44.0         | 108 CK | 45.0 | 111 CK | 45.0 | 111 CK | 45.0 | 111 CK |  |  |
|                        |             |              | 116 CK |      | 117 CK |      | 117 CK |      | 117 CK |  |  |
|                        |             | 15.0         | 123 CK | 14.5 | 124 CK | 14.5 | 124 CK | 14.5 | 124 CK |  |  |
|                        | 49          | 42.0         | 105 CK | 43.0 | 107 CK | 43.0 | 107 CK | 43.0 | 108 CK |  |  |
|                        |             |              | 112 CK |      | 114 CK |      | 114 CK |      | 114 CK |  |  |
|                        |             | 15.5         | 120 CK | 15.0 | 122 CK | 15.0 | 122 CK | 15.0 | 122 CK |  |  |
|                        | 49          | 40.0         | 101 CK | 41.0 | 103 CK | 41.0 | 104 CK | 41.0 | 104 CK |  |  |
|                        |             |              | 109 CK |      | 111 CK |      | 111 CK |      | 111 CK |  |  |
|                        |             | 15.5         | 117 CK | 15.5 | 119 CK | 15.5 | 119 CK | 15.5 | 119 CK |  |  |

| MAXIMUM LANDING WEIGHT (ton)                          |      |      |      |      |                         |            |
|-------------------------------------------------------|------|------|------|------|-------------------------|------------|
| RUNWAY LENGTH LIMITATIONS                             |      |      |      |      | CLIMB LIMIT (Go-Around) |            |
| Runway Length : 9190 ft (2801 m)                      |      |      |      |      |                         |            |
| FLAP                                                  | 40   |      | 28   |      | OAT<br>°C               | W<br>(ton) |
| RWY COND                                              | DRY  | WET  | DRY  | WET  |                         |            |
| W -10                                                 | 75.0 | 75.0 | 75.0 | 75.0 | -13                     | 70.2       |
| I -5                                                  | 75.0 | 75.0 | 75.0 | 75.0 | 27                      | 70.2       |
| N 0                                                   | 75.0 | 75.0 | 75.0 | 75.0 | 29                      | 69.6       |
| D 10                                                  | 75.0 | 75.0 | 75.0 | 75.0 | 31                      | 68.4       |
| 20                                                    | 75.0 | 75.0 | 75.0 | 75.0 | 33                      | 67.3       |
|                                                       |      |      |      |      | 35                      | 66.3       |
|                                                       |      |      |      |      | 37                      | 65.4       |
|                                                       |      |      |      |      | 39                      | 64.5       |
| For QNH corrections, use values relevant to Go-Around |      |      |      |      |                         |            |

| WEIGHT CORRECTIONS (kg) for : |         |     |        |     |           |
|-------------------------------|---------|-----|--------|-----|-----------|
| CONDITIONS                    | TAKEOFF |     |        |     | GO AROUND |
|                               | DRY     | WET | SSW 15 | SSW |           |
| ENG + AIRF A/I ON             | -3000   |     |        |     | -4000     |
| QNH < 1013 (kg/hPa)           | -80     |     |        |     | -80       |
| QNH > 1013 (kg/hPa)           | +30     |     |        |     | +30       |
| max Δ hPa :                   | 28      |     |        |     |           |

|                                                                                                                               |          |             |
|-------------------------------------------------------------------------------------------------------------------------------|----------|-------------|
| BGY28R01                                                                                                                      | 06060709 | 02 Apr 2009 |
| NOTE : MTOW/MLAW (structural) see AOM Vol.2 Chap.1                                                                            |          |             |
| ONE ENGINE OUT PROCEDURE :                                                                                                    |          |             |
| - At DME4 BEG or crossing R031 TZO left turn to (DME15 - R157 BEG) or to ORI/LOM.<br><br>- Acceleration altitude: 2300 ft QNH |          |             |

LIMITATION CODES:
F = Field length
C = Approach climb

S = 2nd Segment
BLANK = No limitations

\* = Obstacles
T = Tire speed
B = Brake energy