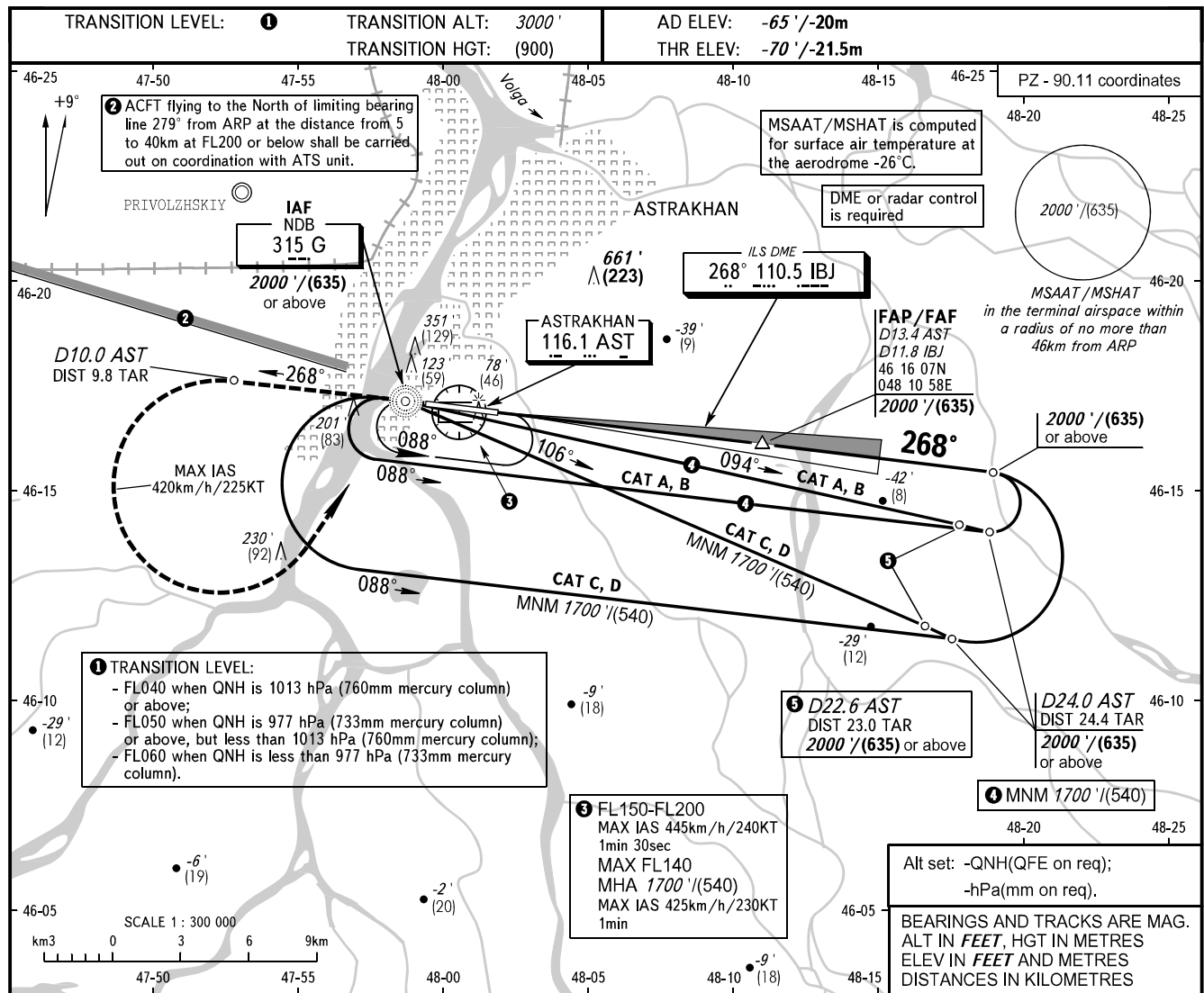


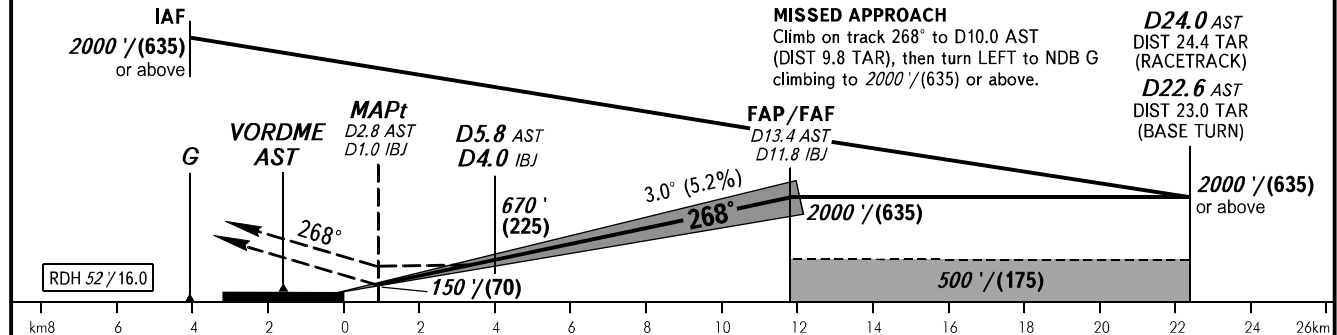
**INSTRUMENT  
APPROACH  
CHART - ICAO**

RADAR 120.600  
TOWER 118.600

**ASTRAKHAN, RUSSIA**  
ASTRAKHAN  
ILS X CAT I, LOC X RWY 27



|                 |            |            |             |             |             |
|-----------------|------------|------------|-------------|-------------|-------------|
| DME IBJ         | 2.0        | 4.0        | 6.0         | 8.0         | 10.0        |
| ALTITUDE/HEIGHT | 320'/(120) | 670'/(225) | 1010'/(330) | 1350'/(435) | 1690'/(540) |



| OCA(H)               |        | A                        | B                        | C                        | D                        |     |     |     |      |
|----------------------|--------|--------------------------|--------------------------|--------------------------|--------------------------|-----|-----|-----|------|
| Straight-in Approach | CAT I  | 130' (200')<br>39 (60)   | 130' (200')<br>39 (60)   | 130' (200')<br>39 (60)   | 130' (200')<br>39 (60)   |     |     |     |      |
|                      | LOC    | 280' (350')<br>85 (110)  | 280' (350')<br>85 (110)  | 280' (350')<br>85 (110)  | 280' (350')<br>85 (110)  |     |     |     |      |
| Circling             |        | 380' (450')<br>120 (140) | 500' (570')<br>155 (175) | 600' (670')<br>185 (205) | 630' (700')<br>195 (215) |     |     |     |      |
| GROUND SPEED         | km/h   | 150                      | 180                      | 210                      | 240                      | 270 | 300 | 330 | 360  |
|                      | kt     | 81                       | 97                       | 113                      | 130                      | 146 | 162 | 178 | 195  |
| RATE OF DESCENT      | m/s    | 2.2                      | 2.6                      | 3.0                      | 3.5                      | 3.9 | 4.3 | 4.8 | 5.2  |
|                      | ft/min | 427                      | 512                      | 597                      | 682                      | 768 | 853 | 938 | 1024 |

**NOTE:**  
1. ILS DME IBJ reads zero at RWY 27 THR.  
2. TAR distance is indicated from ARP  
3. MAPt at D1.0 IBJ (D2.8 AST).  
Timing not authorized for defining MAPt.  
4. Turn before passing NDB G is PROHIBITED.

**WARNING**  
Visual manoeuvring to the north of AD is PROHIBITED.