

**APPENDIX (5)**  
**AERONAUTICAL DATA QUALITY REQUIREMENTS**

**Table A5-1**  
**Latitude and longitude**

| Latitude and longitude   | Accuracy<br>Data type       | Integrity<br>Classification |
|--|-----------------------------|-----------------------------|
| Aerodrome reference point .....                                    | 30 m<br>surveyed/calculated | routine                     |
| Nav aids located at the aerodrome .....                            | 3 m<br>surveyed             | essential                   |
| Obstacles in Area 3 .....  | 0.5 m<br>surveyed           | essential                   |
| Obstacles in Area 2 (the part within the aerodrome boundary) ..... | 5 m<br>surveyed             | essential                   |
| Runway thresholds .....  | 1 m<br>surveyed             | critical                    |
| Runway end (flight path alignment point) .....                     | 1 m<br>surveyed             | critical                    |
| Runway centre line points .....                                    | 1 m<br>surveyed             | critical                    |
| Runway-holding position .....                                      | 0.5 m<br>surveyed           | critical                    |
| Taxiway centre line/parking guidance line points .....             | 0.5 m<br>surveyed           | essential                   |
| Intermediate holding position marking line .....                   | 0.5 m<br>surveyed           | essential                   |
| Exit guidance line .....   | 0.5 m<br>surveyed           | essential                   |
| Apron boundaries (polygon) .....                                   | 1 m<br>surveyed             | routine                     |
| De-icing/anti-icing facility (polygon) .....                       | 1 m<br>surveyed             | routine                     |
| Aircraft stand points/INS checkpoints .....                        | 0.5 m<br>surveyed           | routine                     |

*Note 1: See Annex 15, Appendix 8, for graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in the defined areas.*

*Note 2: Implementation of Annex 15, provisions 10.1.4 and 10.1.6, concerning the availability, as of 12 November 2015, of obstacle data according to Area 2 and Area 3 specifications would be facilitated by appropriate advance planning for the collection and processing of such data.*

**Table A5-2  
Elevation/altitude/height**

| Elevation/altitude/height   | Accuracy<br>Data type | Integrity<br>Classification |
|---|-----------------------|-----------------------------|
| Aerodrome elevation .....   | 0.5 m<br>surveyed     | essential                   |
| WGS-84 geoid undulation at aerodrome elevation position .....               | 0.5 m<br>surveyed     | essential                   |
| Runway threshold, non-precision approaches .....                            | 0.5 m<br>surveyed     | essential                   |
| WGS-84 geoid undulation at runway threshold, non-precision approaches ..... | 0.5 m<br>surveyed     | essential                   |
| Runway threshold, precision approaches .....                                | 0.25 m<br>surveyed    | critical                    |
| WGS-84 geoid undulation at runway threshold, precision approaches .....     | 0.25 m<br>surveyed    | critical                    |
| Runway centre line points .....   | 0.25 m<br>surveyed    | critical                    |
| Taxiway centre line/parking guidance line points .....                      | 1 m<br>surveyed       | essential                   |
| Obstacles in Area 2<br>(the part within the aerodrome boundary) .....       | 3 m<br>surveyed       | essential                   |
| Obstacles in Area 3 .....   | 0.5 m<br>surveyed     | essential                   |
| Distance measuring equipment/precision (DME/P) .....                        | 3 m<br>surveyed       | essential                   |

*Note 1: See Annex 15, Appendix 8, for graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in the defined areas.*

*Note 2: Implementation of Annex 15, provisions 10.1.4 and 10.1.6, concerning the availability, as of 12 November 2015, of obstacle data according to Area 2 and Area 3b specifications would be facilitated by appropriate advance planning for the collection and processing of such data.*

**Table A5-3  
Declination and magnetic variation**

| Declination/variation                          | Accuracy<br>Data type | Integrity<br>Classification |
|--|-----------------------|-----------------------------|
| Aerodrome magnetic variation .....             | 1 degree<br>surveyed  | essential                   |
| ILS localizer antenna magnetic variation ..... | 1 degree<br>surveyed  | essential                   |
| MLS azimuth antenna magnetic variation .....   | 1 degree<br>surveyed  | essential                   |

**Table A5-4  
Bearing**

| Bearing                          | Accuracy<br>Data type    | Integrity<br>Classification |
|----------------------------------|--------------------------|-----------------------------|
| ILS localizer alignment .....    | 1/100 degree<br>surveyed | essential                   |
| MLS zero azimuth alignment ..... | 1/100 degree<br>surveyed | essential                   |
| Runway bearing (True) .....      | 1/100 degree<br>surveyed | routine                     |

**Table A5-5  
Length/distance/dimension**

| Length/distance/dimension   | Accuracy<br>Data<br>type | Integrity<br>Classification |
|---|--------------------------|-----------------------------|
| Runway length .....   | 1 m<br>surveyed          | critical                    |
| Runway width .....  | 1 m<br>surveyed          | essential                   |
| Displaced threshold distance .....                                  | 1 m<br>surveyed          | routine                     |
| Stopway length and width .....                                      | 1 m<br>surveyed          | critical                    |
| Clearway length and width .....                                     | 1 m<br>surveyed          | essential                   |
| Landing distance available .....                                    | 1 m<br>surveyed          | critical                    |
| Take-off run available .....  | 1 m<br>surveyed          | critical                    |
| Take-off distance available .....                                   | 1 m<br>surveyed          | critical                    |
| Accelerate-stop distance available .....                            | 1 m<br>surveyed          | critical                    |
| Runway shoulder width .....   | 1 m<br>surveyed          | essential                   |
| Taxiway width .....   | 1 m<br>surveyed          | essential                   |
| Taxiway shoulder width .....  | 1 m<br>surveyed          | essential                   |
| ILS localizer antenna-runway end, distance .....                    | 3 m<br>calculated        | routine                     |
| ILS glide slope antenna-threshold, distance along centre line ..... | 3 m<br>calculated        | routine                     |
| ILS marker-threshold distance .....                                 | 3 m<br>calculated        | essential                   |
| ILS DME antenna-threshold, distance along centre line .....         | 3 m<br>calculated        | essential                   |
| MLS azimuth antenna-runway end, distance .....                      | 3 m<br>calculated        | routine                     |
| MLS elevation antenna-threshold, distance along centre line .....   | 3 m<br>calculated        | routine                     |
| MLS DME/P antenna-threshold, distance along centre line .....       | 3 m<br>calculated        | essential                   |