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Civil Aviation Authority of Kosovo

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Aerodrome Protective Zones

Guidance Material

Foreword

The purpose of this manual is to describe the Aerodrome Protective Zones System and to provide guidance to those who, by the associated legislation, are involved in its operation.

Stakeholders involved in safeguarding aircraft operations are those whose actions impact on physical developments in the defined zones around aerodromes such that these developments do not compromise the requirements of air navigation safety.

In order for the System to make a real contribution to flight safety in civil aviation in the Republic of Kosovo, it is most important that all stakeholders comply with the procedures for Aerodrome Protective Zones.

This manual offers guidance to those responsible for the safe operation of an aerodrome or technical facilities and those responsible for building permits for physical developments to assess the impact of the proposed development or construction on the safety of air navigation. This assessment is known as Aerodrome Protective Zones. Under Law No. 03/L-051 on Civil Aviation and based on Regulation No. 17/2017 on requirements and administrative procedures related to aerodromes CAA has the responsibility for Aerodrome Protective Zones in the territory of the Republic of Kosovo.

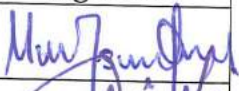
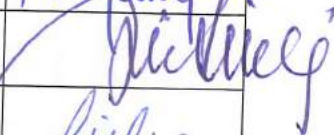
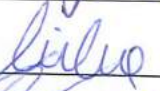
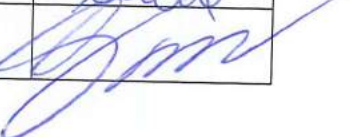
This manual sets out the procedures on Aerodrome Protective Zones to be followed by the responsible authorities. CAA requires that all parties are familiar with the contents and procedures described herein.

Dritan Gjonbalaj
Director General
Civil Aviation Authority

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Table of Approval

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Terms and Definitions

Aerodrome	A defined area (including any buildings, installations and equipment) on land or water or on a fixed, fixed offshore or floating structure intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.
Heliport	An aerodrome or a defined area on structure intended to be used wholly or in part for the arrival, departure and surface movements of helicopters
Aerodrome elevation	The elevation of the highest point of the landing area.
Aerodrome references point	The designated geographical location of an aerodrome.
Aerodrome Operator	An Aerodrome Certificate holder or Aerodrome Approval holder.
Annex 14	Annex 14, Volume I “Aerodromes” and Annex 14, Volume II “Heliports” to the Chicago Convention.
Approved aerodrome	An aerodrome whose operator has been granted an aerodrome approval.
Birdstrike	A collision between an airborne bird and an aircraft. It is a common threat to aircraft safety and has caused a number of fatal accidents.
CAA	Civil Aviation Authority of Kosovo.
Certified aerodrome	An aerodrome whose operator has been granted an aerodrome certificate.
Construction	Erection, installation, replacement, renovation, enlargement, alteration, conversion or demolition of construction building, excluding works for maintaining existing buildings.
Developer	Any legal or natural person that has shown the interest to build or has applied for a building permission.

Electronic aids	Non-visual or instrumental aids used for air navigation at the aerodrome.
Heliport	An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movements of helicopters.
ICAO	International Civil Aviation Organization.
Instrument flight paths	or IFR flights means a flight conducted in accordance with instrument flight rules.
Ministry/ies	The relevant Ministry or Ministries which may be jointly or severally responsible for issuing construction permits in accordance with the Law on Construction.
Municipalities	Municipalities that have an aerodrome or its Obstacle Limitation Surfaces within its municipal boundaries.
Obstacle	<p>All all fixed (whether temporary or permanent) and mobile objects, or parts thereof, that:</p> <ul style="list-style-type: none">- are located on an area intended for the surface movement of aircraft; or- extend above a defined surface intended to protect aircraft in flight; or- stand outside those defined surfaces and that have been assessed as being a hazard to air navigation;
Obstacle Limitation Surfaces	a series of surfaces that define the volume of airspace at and around an aerodrome to be kept free of obstacles in order to permit the intended aeroplane operations to be conducted safely and to prevent the aerodrome from becoming unusable by the growth of obstacles around the aerodrome.
“Obstacle-free zone (OFZ)”	the airspace above the inner approach surface, inner transitional surfaces, and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangibly mounted one required for air navigation purposes.

“Obstacle protection surface”	a surface established for visual approach slope indicator system above which objects or extensions of existing objects shall not be permitted except when, in the opinion of the appropriate authority, the new object or extension would be shielded by an existing immovable object ;.
Runway	A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.
Radar	A radio detection device which provides information on range, azimuth and/or elevation of objects.
Safeguarding of aerodromes	Ensuring the safety of Aerodromes or protecting aerodromes.
TORA	Take-off run available. The length of runway declared available and suitable for the ground run of an aeroplane taking off.
TODA	Take-Off Distance Available. The length of the take-off run available plus the length of the clearway, if provided.
ASDA	Accelerate-Stop Distance Available. The length of the take-off run available plus the length of the stopway, if provided.
LDA	Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.
Visual aids	Aids at the aerodrome that visually assist air navigation at the aerodrome.
Visual flight paths	or VFR flights means a flight conducted in accordance with visual flight rules.

Chapter 1

Objectives and Purpose

1.1. Objectives

The Objectives of Aerodrome Protective Zones are as follows:

- a) To provide for legally enforceable zoning/land use control measures in vicinity of Aerodromes in Kosovo and flight path areas.
- b) To ensure that future physical development projects in the defined zones do not, in any way, compromise the requirements of air navigation safety and are compatible with aerodrome operations
- c) To develop a process for permitting or not permitting the constructions in the defined zones around aerodromes.

1.2. Purpose

1.2.1 The purpose of this guidance manual on Aerodrome Protective Zones is to offer guidance to enable those responsible for the safe operation of an aerodrome or technical site to assess the impact of proposed development or construction might have on that operation.

1.2.2 Aerodrome Protective Zones is achieved by a process of checking proposed developments so as to:

- protect the blocks of air through which aircraft fly, by preventing penetration of surfaces created to identify their lower limits;
- protect the integrity of radar and other Electronic aids to air navigation, by preventing reflections and diffractions of the radio signals involved;
- protect visual aids, such as Approach and Runway lighting, by preventing them from being obscured, or preventing the installation of other lights which could be confused for them;
- avoid any increase in the risk to aircraft of a bird strike by preventing an increase in hazardous bird species in the vicinity of the aerodrome and, whenever the opportunity arises, to reduce the level of risk.

1.2.3 This assessment is based on information contained in Annex 14 of the ICAO Convention. Aerodrome Protective Zones is, therefore, carrying out this assessment

and taking the measures necessary to ensure the safety of aircraft, and thereby the passengers and crews aboard them, while taking-off or landing, or while flying in the vicinity of an aerodrome.

1.3. Regulatory Requirements

1.3.1 The Kosovo Law No. 03/L-051 on Civil Aviation, Article 64 Aerodrome Protective Zones reads:

64.1 The CAA may determine that an aerodrome requires a protective zone around it. The CAA may make such a determination (i) because of the scale of traffic of the , (ii) to ensure the safety and security of the airport, (iii) to ensure the integrity of customs and immigration operations conducted at the airport, and/or (iv) for other circumstances specific to that aerodrome that raise compelling public interest concerns.

64.2 If the CAA determines that an aerodrome requires a protective zone, the CAA shall establish the parameters of such protective zone, and shall have the authority to impose restrictions (i) on the classes of persons who may have access to the zone and (ii) on the activities, including construction activities, that may take place in the zone. In establishing the parameters of a protective zone, the CAA shall consult with the Ministry of Internal Affairs to ensure that such parameters are sufficient to ensure aerodrome security.

64.3 Interference with aeronautical navigation services shall be avoided in a protective zone. Aviation obstacles, such as buildings, trees, wires, poles, dams and the like, shall also be prohibited in a protective zone. Only the public, a public authority or a publicly owned enterprise may own buildings or other immovable property within a protective zone.

1.3.2 Regulation on Aerodrome Protective Zones

This Regulation is applicable to all legal entities and individual persons owning or planning to erect one or more constructions in the vicinity of an aerodrome and to the competent authorities which pursuant to Law on Construction, are responsible for issuing permissions for all types of constructions enlisted thereunder.”

1.3.3 This Guidance Manual on Aerodrome Protective Zones describes the process of aerodrome safeguarding such that the Ministry of Environment and Spatial Planning, the concerned Municipalities, the aerodrome operator and CAA will carry out their statutory functions in a coordinated manner regarding developments and constructions in the defined areas in the vicinity of aerodromes.

Chapter 2

Planning Applications and the Aerodrome Protective Zones Process

2.1. Consultation on Aerodrome Protective Zones

CAA certified Aerodrome Protective Zones maps relevant to safeguarded aerodromes shall be used by the relevant competent authority in the review of development and construction permits whenever such development and constructions are located within the boundaries of the certified maps pertinent to that specific aerodrome. These authorities will consult the aerodrome operator in such cases to ensure that Aerodrome Protective Zones requirements are met and maintained.

Appendix A describes how to produce an Aerodrome Protective Zones map

2.2. Aerodrome Protective Zones Process

All applications for construction or development within the safeguarded area of the aerodrome submitted to the relevant competent authority shall be subject to assessment by the aerodrome operator and endorsement by the CAA.

The relevant competent authority shall inform in writing together with appropriate documentation of the development or construction relating to the height and location of the proposed development. In addition, any proposed developments with bird attractant properties within 13km of the aerodrome will also be referred for consultation to the aerodrome operator.

If the location of the proposed development is within 6km from the aerodrome, regardless of the height required, the aerodrome operator shall be consulted to verify the interference the building might have with the radar signal.

To enable accurate assessment of a proposed development, the aerodrome operator shall be provided with relevant information about the proposals, namely:

- the location as an OS (Ordnance Survey) Grid Reference (to at least 6 figures for each of easting and northing);
- the elevation of the site [to an accuracy of 0.25m Above Sea Level (ASL)];
- the layout, dimensions and, particularly, heights of the proposed development;
- other information as may be necessary, for example, landscaping details to enable the bird strike potential to be assessed, or the types of cladding materials proposed so that the potential for radar reflection can be modelled.

The aerodrome will assess the Planning Application with reference to:

- Obstacle Limitation Surfaces;
- Effects on Visual and Electronic Aids to Air Navigation;
- Potential to attract wildlife.

Aerodrome operator shall within fifteen working days upon receiving the application, review and provide its final assessment with substantiated reasoning to the CAA by stating any of the following findings:

- no objection;
- no objection subject to certain stated conditions duly stated;
- objection (with reasons given).

Aerodrome operator may, on exceptional basis and due to the complexity of the subject matter, request extension of the time referred to above.

Subject to the final assessment carried out by the aerodrome operator, the CAA will issue appropriate decision in respect of the compliance of the application for the construction permit in compliance with Regulation on Aerodrome Protective Zones

Without prejudice to the exercise of competences and powers granted by the applicable law to the competent authority, the latter shall take into account the finding of an assessment as endorsed by the CAA when taking the appropriate decision over an application for a construction permit within the scope of Regulation on Aerodrome Protective Zones

The response of the aerodrome operator shall be taken into account, together with all the other responses, when the competent authority determines the outcome of the planning application.

The aerodrome operator shall advise CAA on the response made together with all information pertaining to the development in respect of height, layout and location.

Aerodrome operator shall notify the competent authority on any new development in the vicinity of the aerodrome, whose permit to build has not been granted by municipal authorities.

Developers may seek advice from the aerodrome operator and from CAA regarding the planning of the development/construction, and the competent authority may refer the developer accordingly.

The Aerodrome Protective Zones process is illustrated in Fig.1.

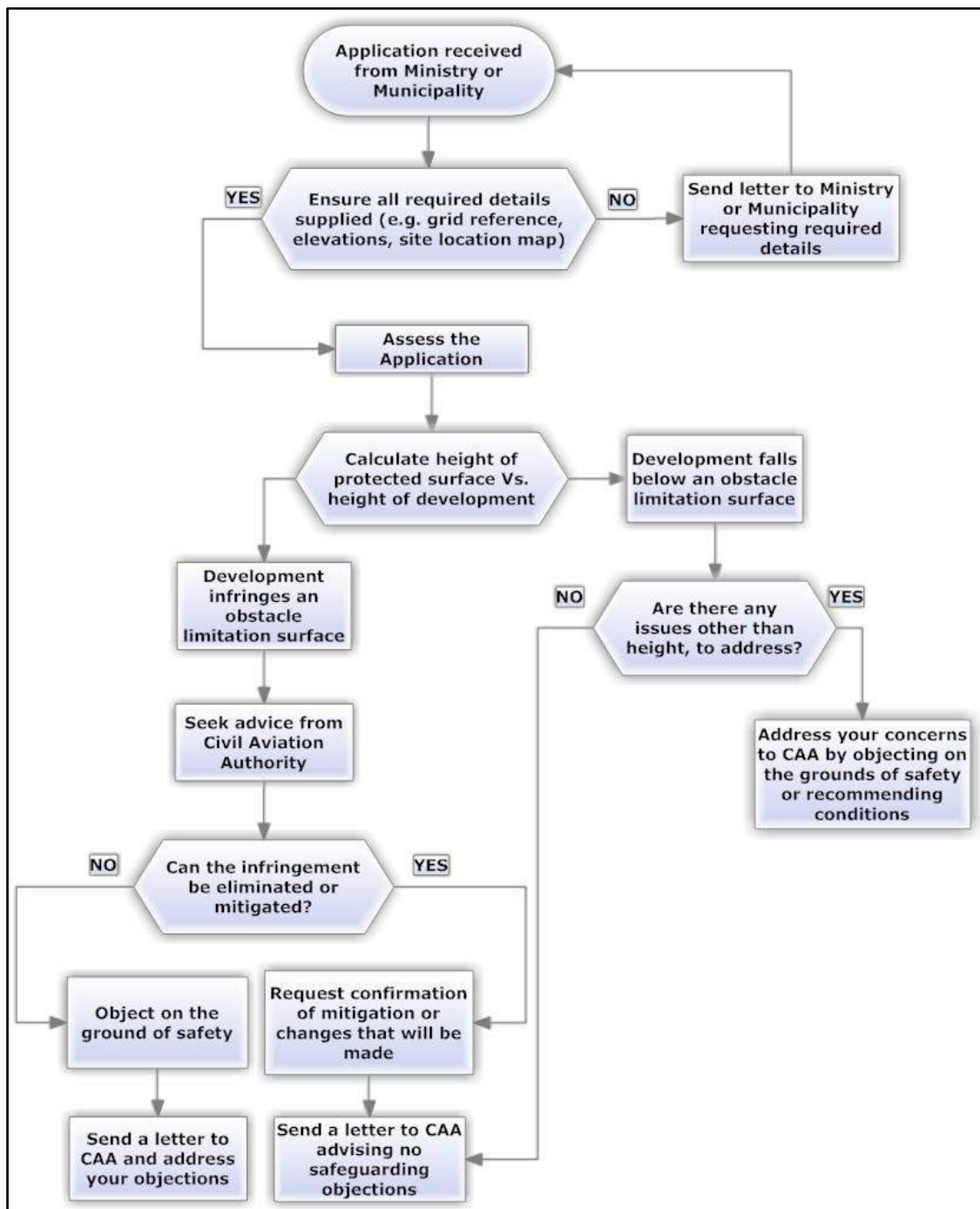


Figure 1. Aerodrome Protective Zones Flowchart

2.3. Aerodrome Protective Zones Assessment Procedure by the Aerodrome Operator

The Aerodrome Protective Zones assessment procedure is as follows:

- ✓ Generate an 'Aerodrome Protective Zones case slip' to annotate all relevant information (see Appendix C for sample case slip).
- ✓ Plot the location of the proposed development on a suitable map.

- ✓ Measure the distance of the site from the aerodrome. If the site layout does not clearly indicate the exact location of the structure, use the part of the site nearest to the aerodrome.
- ✓ Determine the most critical, normally the highest, point of the proposed structure.
- ✓ Determine the exact ground height and add to the height of the structure to achieve an above ordnance datum (AOD) maximum height of the proposed development.
- ✓ Establish the prevailing surface or surfaces using the Standards and recommended practices of Annex 14 of ICAO (see Section 4 below and Figure 2 and 3).
- ✓ Calculate the height of the applicable Obstacle Limitation Surface(s) at the site.
- ✓ Compare the height of the applicable obstacle limitation surface(s) at the site, with that of the maximum AOD height of the proposed structure to determine if there is an infringement and by how much.
- ✓ Consider the potential impact of the issues outlined in 2.5
- ✓ Respond to the CAA with a clear answer: **no objection**, **no objection subject to certain stated conditions** or **objection** with reasons given.
- ✓ Record the details of the assessment on the Aerodrome Protective Zones case slip.
- ✓ Keep a record of all calculations and correspondence, and of the reasoning behind the decision made.

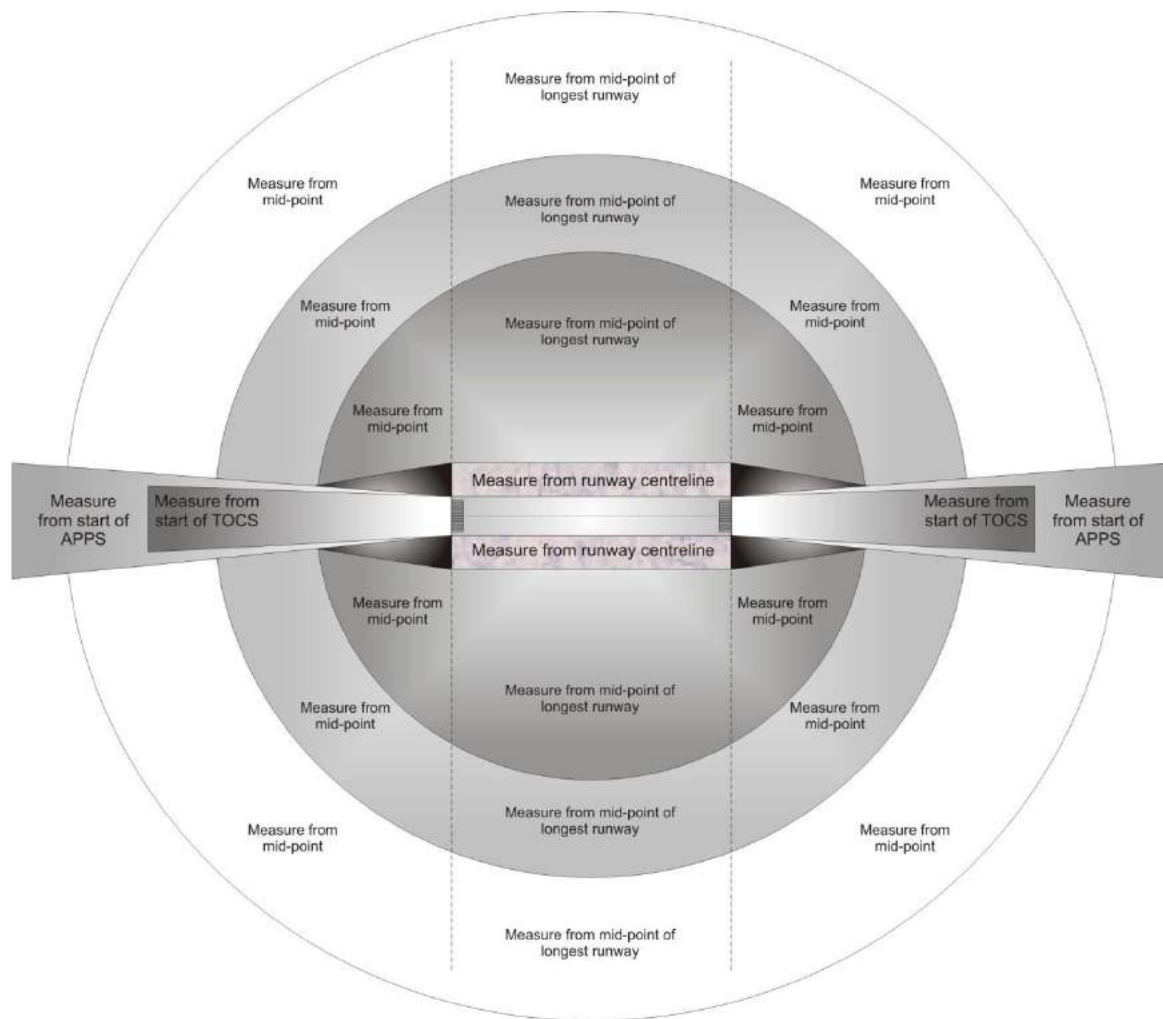
2.4. Obstacle Limitation Surfaces (OLS)

According to Regulation 17-2017 on Aerodromes CS ADR-DSN.H.405 Obstacle Limitation Surfaces, ICAO Annex 14, Chapter 4, the objectives of the specifications of OLS are to define the volume of airspace around aerodromes to be maintained free from obstacles so as to permit the intended aeroplane operations at the aerodromes to be conducted safely and to prevent the aerodromes from becoming unusable by the growth of obstacles around the aerodromes. This is achieved by establishing a series of OLS that define the limits to which objects may project into the airspace.

OLS represent the lower limit of the blocks of protected airspace around an aerodrome. They take the form of a complex set of 3-Dimensional surfaces, which extend upwards and outwards from the runway(s).

The OLS completely surround the aerodrome, but those surfaces aligned with the runway(s) used to protect aircraft landing or taking-off can be more limiting than those surrounding the rest of the aerodrome, particularly as you get closer to the aerodrome. Details of the OLS can be found in Fig.2 and 3.

Under the terms of their Certification or Approval, aerodromes are normally required to prevent new developments or extensions to existing structures from infringing the OLS. It is for this reason that accurate information on the location and height of the proposed development is required. The height of vehicles is taken into account when evaluating roads and parking areas within proposed developments, unless any lighting involved is taller. Railways are treated in a similar manner.



NOT TO SCALE

NOTE: May not apply in all cases

KEY








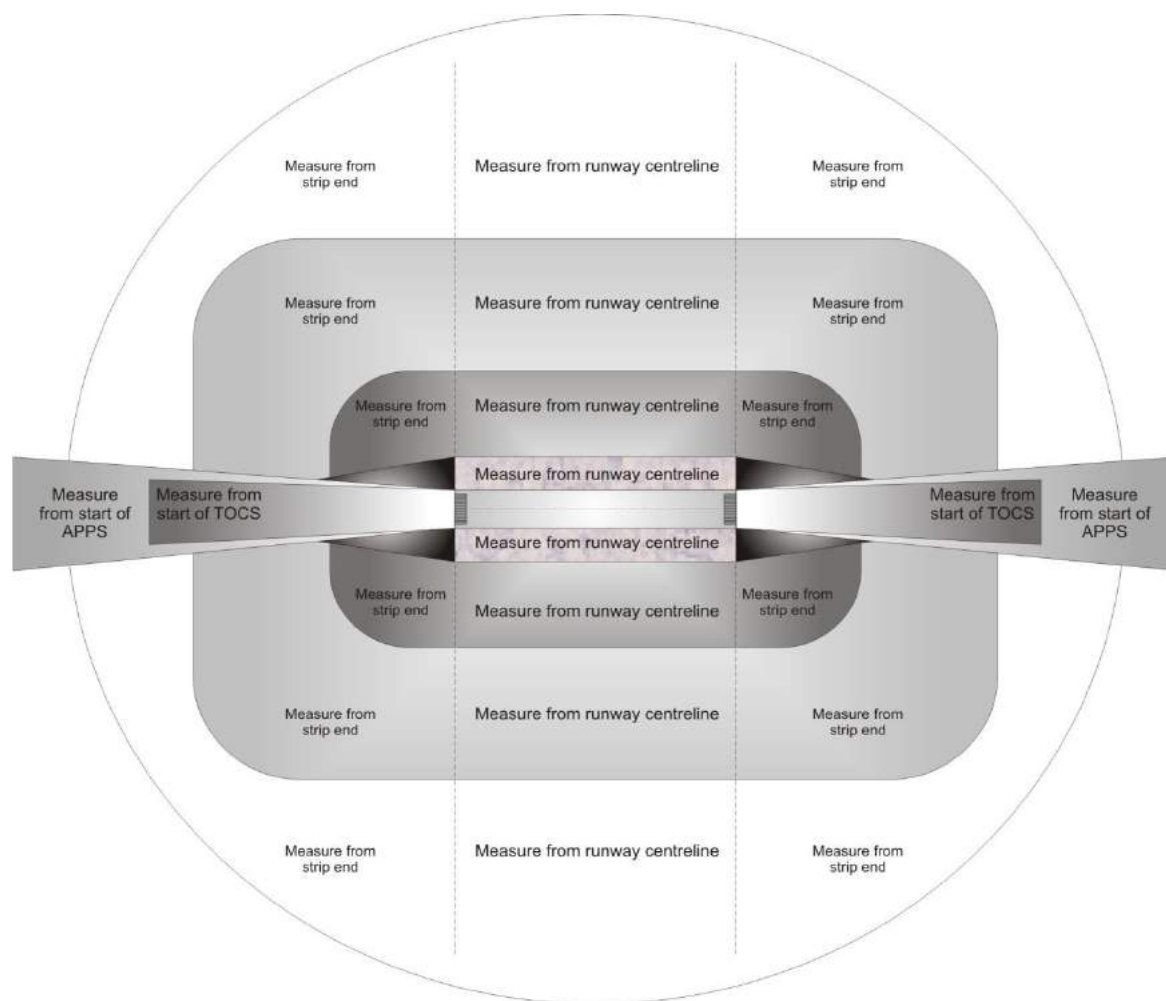
	Inner Horizontal Surface [IHS]		Take-Off Climb Surface [TOCS]	
	Conical Surface		Approach Surface [APPS]	
	Outer Horizontal Surface [OHS]		Transitional Surface	


Figure 2. Guidance on the measurement of the location of a proposed development in relation to the aerodrome and its obstacle limitation surfaces, where the longest runway is less than 1800 m in length




NOT TO SCALE

NOTE: May not apply in all cases


KEY

 Inner Horizontal Surface [IHS]

 Take-Off Climb Surface [TOCS]

 Conical Surface

 Approach Surface [APPS]

 See Annex 14 [chapter 4]

 Outer Horizontal Surface [OHS]

 Transitional Surface

Figure 3. Guidance on the measurement of the location of a proposed development in relation to the aerodrome and its obstacle limitation surfaces, where the longest runway is greater than 1800 m in length

2.5. Other Considerations

Other considerations to take into account include the following:

- a) **Bird strike Hazard.** It may be appropriate to place a condition, which would normally be included as a landscaping condition, in the response that gives assurance that the proposal does not include landscaping or water features that may increase the risk of a bird strike to aircraft using the aerodrome. It is recommended that expert advice be sought on potential bird hazard developments such as landfill sites, wetlands and nature reserves.
- b) **Radar and other Electronic Aids to Air Navigation.** In low visibility conditions pilots are entirely dependent on the accuracy of the information displayed on the instruments in the cockpit to navigate and land their aircraft. Similarly, air traffic controllers rely on the accuracy of the information displayed on the radar screens in front of them to maintain safe separation between aircraft. It is essential, therefore, that this information has not been distorted by interference to the radio signals involved used in the operation of the navigation aids. The Aerodrome Protective Zones process is used to protect such installations from:
- radio frequency interference from other sources of radio emissions;
 - radio signal reflections or diffractions caused by physical objects.
- A recent and less obvious source of radio frequency interference is the wind-driven generator.
- c) **Visual Aids** Visual aids, consisting primarily of aeronautical ground lighting, assist pilots to line up the aircraft with the runway when approaching to land. These are protected by:
- preventing them from being obscured;
 - preventing the installation and display of other lights, particularly street lighting, in a pattern or colour which could be mistaken for visual aids;
 - preventing a high level of background lighting which could diminish their effectiveness;
 - preventing other lights which could dazzle pilots.
- d) **Lighting.** It may be appropriate to place a condition in the response that gives assurance that the proposal does not include lighting that may dazzle or distract pilots or air traffic controllers on or in the vicinity of the aerodrome.
- e) **Cranage.** The appointed person should consult the aerodrome/airfield manager for permission to work if a crane is to be used within 6 km of the aerodrome/airfield and its height exceeds 10 m or that of the surrounding structures or trees." It may be appropriate to place an informative in the response that gives assurance that safety will be maintained where cranes are used in the

construction of the proposed development, especially when within 6 km of the boundary of the aerodrome.

- f) **Technical Site Aerodrome Protective Zones.** Physical characteristics, such as the size, shape and construction materials, of a proposed development may affect the performance of aeronautical systems at or near an aerodrome. In addition, the siting of telecommunication or other radiating equipment can cause adverse electromagnetic interference to these systems. It may be appropriate to approach other aviation organizations, especially where the Air Traffic Services (ATS) are provided by a third party organization, on the aerodrome to ensure the proposal does not impact on their electronic systems. It is the responsibility of aerodromes with their ATS Providers for the technical Aerodrome Protective Zones of all of the radio sites for which they hold approvals under the ANO. Where necessary, procedures should be established to meet this requirement.
- g) **Wind turbines.** Apart from the potential to be a physical obstacle, wind generator turbines can distort radar performance. Where it has been determined that a planning application for a proposed development may have an effect on navigational or other aeronautical systems, it is common for simulation or other types of interference modelling of the effects of the development to be conducted. It is usual for the developer to bear the cost of the modelling.
- h) **Roads and railways.** Road or rail vehicles may be potential obstructions to aircraft. The International Civil Aviation Organization (ICAO) provides for this by considering a road to be a mobile obstruction of 4.8 meters and a railway to be a mobile obstruction of 5.4 meters. Consultations where a road or railway is an element should be assessed accordingly. Street furniture, signal gantries, lighting poles and other associated structures should also be the subject of consultation appropriate to their height.
- i) **Consultations which fall outside the protective zone.** If a proposal is sent for consultation but the development falls outside the protective zone, it may be appropriate to advise the consuler to seek the comment of CAA and aerodrome operator.

If the proposed development does not infringe an OLS and there are no associated issues as detailed in 2.5, a response should be sent to the competent authority or developer indicating that there are no Aerodrome Protective Zones objections to the proposed development.

2.6. Lighting of Obstacles

The addition of warning lights to obstacles is intended to reduce the hazards to aircraft operating visually at low level while taking-off or landing at an aerodrome, particularly at night or in conditions of poor daylight visibility. The lighting of

obstacles will be as per Regulation on Marking of the Obstacles. This is applicable to temporary obstacles, such as cranes, as well as to permanent structures.

Where it is deemed necessary that obstacle light(s) would be required, it would be advised to the competent authority as a Condition for attachment to any Planning Permission that may be granted.

2.7. Advice on Aerodrome Protective Zones

Prior to a formal Planning Application by developer being made, the aerodrome may be prepared to offer informal advice to the developer on how to comply with the Aerodrome Protective Zones requirements. The aerodrome's advice will depend on the level of detail provided, but it is likely to be limited to lighting, landscaping and height limits. If it believes a detailed study is required in relation to specialist aspects such as the Bird Hazard or Navigational Aid installations, it may just advise that a suitable consultant be engaged so that their report(s) can be included with any subsequent Planning Application. Any advice would be informal and without prejudice to detailed consideration of any future Planning Application(s). The absence of any Aerodrome Protective Zones concerns should not be construed as support for any proposed development.

Other than aerodrome operator applicants may also seek advice from CAA.

2.8. Control of Temporary Obstacles

It is responsibility of the competent authority to inform the requester for construction permit, and require the assessment from the Aerodrome Responsible Officer and endorsement from CAA, if there will be a use of the crane or lifting equipment

The developer or crane operator should approach the Aerodrome concerned at least *one month* in advance of requiring using a crane or other tall construction equipment to find out if there are any limitations and regulatory procedures that must be agreed before work commences. In certain circumstances it will be necessary to approach the CAA in which case the applicant will need to co-operate in developing a safety case. Once all procedures have been agreed the developer or project manager can arrange for the crane or other lifting equipment to be delivered to the site.

At least three days prior to delivery at the location of the crane or other lifting equipment, the operator must report to the Aerodrome and to CAA with precise details of the crane or lifting equipment to be used on site and applies for the permit to set up and use the specified equipment. The permit will set out the criteria and any specific restrictions.

A copy must remain with the crane operator for the duration of its operation and must be produced if requested by an Aerodrome or CAA official, or a police officer.

The following details will be required:

- The precise location of the equipment is to be provided on an Ordnance Survey Grid. Either a reference to at least six figures for Easting's and Nothings or marked out on a map that shows the Ordnance Survey Grid.
- The maximum operating height in meters Above Ordnance Datum (AOD) or the height of crane Above Ground Level (AGL) plus ground level in AOD.
- Information must be provided on the type of Crane or tall construction equipment that is to be used, Tower Crane, Mobile Crane, etc.
- The radius of the jib or boom of a fixed crane;
- The area of operation of a mobile crane;
- The intended dates and times of operation;
- Applicant's name and contact details;
- Contact details for the crane when operating.

Once these details have been considered it will be determined whether the operation can proceed and whether restrictions need to be applied. Any of the following conditions may be imposed to ensure the safety of aircraft:

- The fitting of obstacle lights;
- Restrictions on crane operating times;
- Crane operations dependant on the runways in use;
- Restrictions on crane operating height;
- Restrictions during poor visibility (whether caused by fog or low cloud).

Operating Height:

- The maximum operating height of the equipment must be provided in meters:
 - Above Ordnance Datum (AOD) or
 - Above Ground Level (AGL) provided that ground levels are indicated.

When the design of crane allows, it should normally be lowered when not in use, or when requested by an Aerodrome official, such as during periods of low visibility.

Where it cannot be lowered, it may be necessary for the jib to be parked in a specified direction when not in use.

Obstacle Lights:

- The obstacle lighting will be as per Regulation on Marking of the Obstacles.

For a tower crane, the lights should be provided on top of the tower and at the end of the jib. They should be visible throughout 360 degrees and be illuminated at all times.

Unserviceable lamps should be replaced immediately after failure, and in any event within 24 hours.

The 24 hour requirement may be relaxed if pairs of lights are fitted and one is still working.

Appendix A

Producing an Aerodrome Protective Zones Map

Appendix A

Producing an Aerodrome Protective Zones Map

1. The maps currently used as standard for civil aerodromes reflect the need to protect certified surfaces around the aerodromes and have a squared format superimposed on the national grid. In this system each square of the national grid is coloured to represent the most critical interaction between the obstacle limitation surface and ground height within that square. It is acceptable to reduce the notification height within a square, as desired, to include a safety factor. The following colour coding is normally used:

Grey	All developments should be notified
Red	Developments exceeding 10 m Aerodrome should be notified
Green	Developments exceeding 15 m Aerodrome should be notified
Yellow	Developments exceeding 45 m Aerodrome should be notified
Blue	Developments exceeding 90 m Aerodrome should be notified

2. An Aerodrome Protective Zones map should also show a circle of 13-kilometre radius about the aerodrome reference point representing the need for consultation about potential bird attractant developments. These developments would comprise any of the following: waste disposal sites, reservoirs, sewage works, major landscaping schemes, areas of water, and bird sanctuaries. The 13-kilometre bird strike circle is based on the fact that 99% of bird strikes occur below 2000 feet. An aircraft on a normal approach will descend into this zone when approximately 8 statute miles from the runway, which converts as 13 km.
3. Future developments may be represented on the map. First you must decide what it is that you want to safeguard. Is it the present configuration of the aerodrome or a different configuration planned for the future? Is it the full use of the infrastructure or some more limited use? Is it intended to install radar or other navigation aids?

If, for example, radar is to be moved to a new position at some time in the future, both positions can be marked on the map and safeguarded simultaneously. The map may also be designed to take other special considerations into account, which affect the use of the airspace around the aerodrome.

4. To develop an Aerodrome Protective Zones map, first determine the Aerodrome (Runway) Reference Code. The Code comprises a number and a letter and is determined by selecting the higher value of declared Take off Distance Available (TODA) or Accelerate-Stop Distance Available (ASDA). It indicates the extent of the lateral, longitudinal and sloping planes of the airspace and ground surfaces surrounding each runway that should be kept free of obstacles.

5. Having established the Aerodrome (Runway) Reference Code you may find that the following will be under consideration in the case of each runway to be safeguarded:

- a) Runway designation and magnetic heading;
- b) Whether the runway is Instrument or Visual;
- c) National Grid Reference and elevation, in meters, of the following:

i) start and end of Landing Distance Available (LDA) (threshold);

ii) start and end of Take Off Run Available (TORA);

iii) end of ASDA and TODA.

- d) National Grid Reference of:

i) mid-point of main runway (if less than 1800 m long) for the determination of the Inner Horizontal and Conical Surfaces;

ii) Aerodrome Reference Point for the determination of the Outer Horizontal Surface (where applicable).

6. Having identified the present and future landing and take-off distances you should base the map on the most demanding elements of the existing and planned aerodrome features. This will enable the map to be used as a "worst case" reference.

7. Runway Strip and Obstacle Limitation Surfaces

Once you have identified the present and future landing and take-off distances you can plot the runway strip and obstacle limitation surfaces. The starting point is the Aerodrome (Runway) Reference Code. When the strip is drawn on the map you can add the approach surface slope and dimensions, then the take-off surfaces, the transitional surfaces, the inner horizontal surface, the conical surface, and the outer horizontal surface.

8. Instrument Flight Procedures

The protected areas for instrument flight procedures are complex and, if they are to be safeguarded, advice on their exact shape and location should be sought from an expert. It cannot be assumed that the obstacle limitation surfaces will provide sufficient protection for instrument flight procedures.

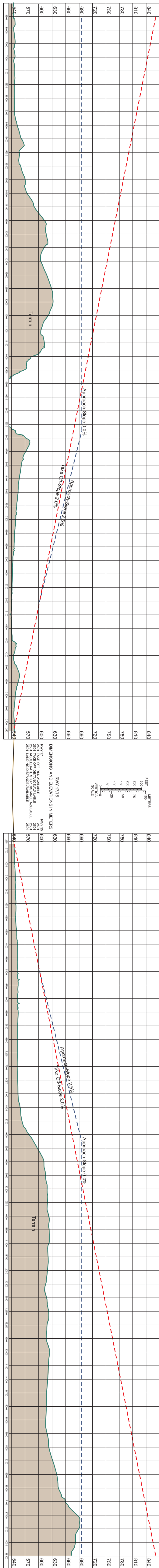
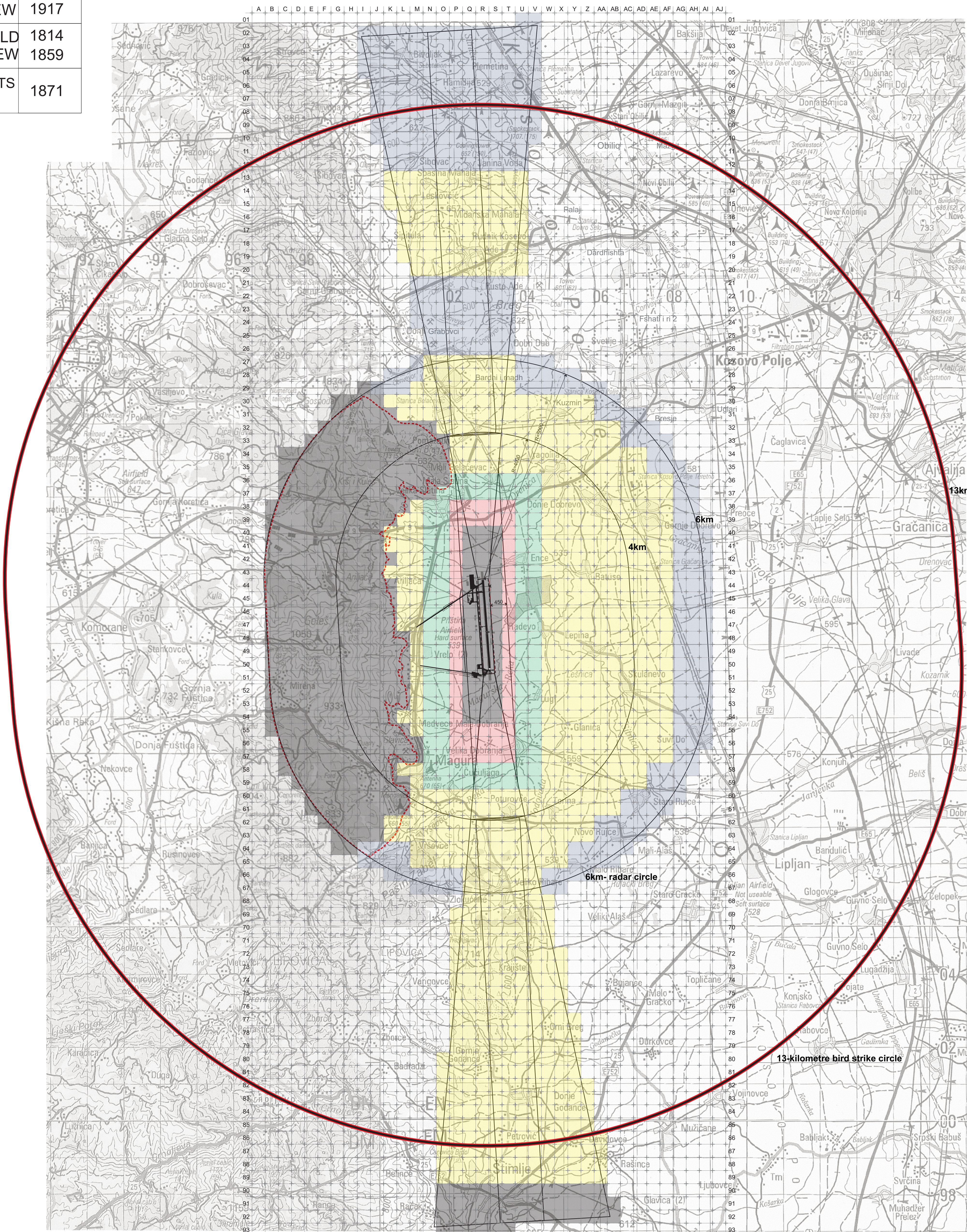
9. Technical Sites

Add parameters for Aerodrome Protective Zones of technical sites, such as telecommunications facilities. To deduce the criteria which apply it will be necessary to consult the service provider.

Appendix B

PIA Aerodrome Protective Zones Map

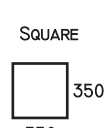
TWR ELEV.	OLD NEW	1842 1917
TREMINAL ELEV.	OLD NEW	1814 1859
FLOOD LIGHTS ELEV.		1871



VAR 3° E
(2002)
WGS-84

RUNWAYS					
NR	ELEVATION	THR	Pavement strength Day marking	Declared distance	
17	1789	42°35' 07.004797"N 21° 02' 04.583807"E	PCN 100/F/B/W/T	THR RWY NR TDZ Aiming Center line Side stripe	2501 2501 2501 2501
35	1786	42°33' 46.580667"N 21° 02' 12.776217"E			2501 2501 2501 2501

Datum : WGS-84



Scale 1 : 50 000

- Legend
- All developments should be notified
 - Developments exceeding 10 m Aerodrome should be notified
 - Developments exceeding 15 m Aerodrome should be notified
 - Developments exceeding 45 m Aerodrome should be notified
 - Developments exceeding 90 m Aerodrome should be notified

Prepared by:
Pristina International Airport-LKIA
Planning and Development Department

Appendix C

Example Aerodrome Protective Zones Case Slip

Appendix C

Example Aerodrome Protective Zones Case Slip

FORMA E VLERËSIMIT TË ZONAVE MBROJTËSE TË AEROPORTIT

AIRPORT PROTECTIVE ZONES CASE SLIP

Për CAA: <i>To CAA:</i>			
Nga: <i>From:</i>			
Përmes: <i>Through:</i>			
Cc: <i>Cc:</i>			
Datë: <i>Date:</i>			
Referenca e dosjes: <i>File referece:</i>		Dokumentet shtesë: <i>Enclosure Number:</i> <i>(Documents enclosed)</i>	
Aerodromi: <i>Aerodrome</i>			
Lokacioni i punishtes: <i>Location of the Tech Site:</i>			
Përshkrimi i ndërtimit: <i>Description of development:</i>			
Data e pranimit të aplikacionit: <i>Date Application received:</i>			
Lloji i aplikacionit: <i>Type of Application:</i>	KOMPLET <i>FULL</i> <input type="checkbox"/>	IDEOR <i>OUTLINE</i> <input type="checkbox"/>	
1.	Koordinatat gjeodezike: <i>Ordnance Survey Co-ordinates:</i>	E	
		N	
2.	Ngjyra në hartë e Zonës Mbrojtëse: <i>Airport Protective Zones Color Zone:</i>		
3.	Lartësia e objektit të propozuar mbi kuoten e terrenit: <i>Height of proposed structure above ground level:</i>		
4.	Kuota e terrenit: <i>Height of ground level at development location:</i>		
5.	Lartësia maksimale e objektit të propozuar: <i>Overall maximum height of proposed structure:</i>		
6.	Lartësia maksimale e aprovuar: <i>Approved overall maximum height of proposed structure:</i>		
Referenca tërthore: <i>Cross Reference:</i>			

Komente:

Comments:

Vlerësimi nga operatori i aerodromit <i>Aerodrome operator's assessment</i>			
Kundërshtim <i>Objection</i>	<input type="checkbox"/>		
Pa kundërshtim por me kushtëzime <i>No objection but with conditions</i>	<input type="checkbox"/>		
Pa kundërshtim <i>No objection</i>	<input type="checkbox"/>		
Përgatitur nga: <i>Prepared by:</i>		Nënshkrimi: <i>Signature:</i>	
		Datë: <i>Date:</i>	

VENDIMI I AAC-së <i>CAA DECISION</i>	
Për: <i>To:</i>	
<u>Komente:</u> <i>Comments:</i>	
Kundërshtim <i>Objection</i>	<input type="checkbox"/>
Pa kundërshtim por me kushtëzime <i>No objection but with conditions</i>	<input type="checkbox"/>
Pa kundërshtim <i>No objection</i>	<input type="checkbox"/>
Inspektori i Aerodromeve <i>Aerodrome Inspector</i>	Drejtori i Departamentit <i>Director of department</i>
	Datë: <i>Date:</i>

Appendix D

Example Aerodrome Protective Zones Case Slip for Temporary Obstacles

Appendix D

Example Aerodrome Protective Zones Case Slip for Temporary Obstacles

AERODROME PROTECTIVE ZONES CASE SLIP FOR TEMPORARY OBSTACLES			
To CAA:			
From:			
Through:			
Cc:			
Date:			
File referece:		Enclosure Number: <i>(Documents enlosed)</i>	
Aerodrome:			
Location of the Tech Site:			
Description of development:			
Date Application received:			
Type of Application:	<div style="display: flex; justify-content: space-around; align-items: center;"> FULL <input type="checkbox"/> OUTLINE <input type="checkbox"/> </div>		
1.	The precise location of the equipment is to be provided on an Ordnance Survey Grid. Either a reference to at least six figures for Easting's and Nothings or marked out on a map that shows the Ordnance Survey Grid.	Easting's	
		Northing's	
2.	The maximum operating height in meters Above Ordnance Datum (AOD) or the height of crane Above Ground Level (AGL) plus ground level in AOD.		
3.	Information must be provided on the type of Crane or tall construction equipment that is to be used, Tower Crane, Mobile Crane, etc.		
4.	The radius of the jib or boom of a fixed crane:		
5.	The area of operation of a mobile crane:		
6.	The intended dates and times of operation:		
7.	Applicant's name and contact details:		
8.	Contact details for the crane when operating:		
Cross Reference:			
<u>Comments:</u>			

Aerodrome operator's assessment

Objection	<input type="checkbox"/>		
No objection but with conditions	<input type="checkbox"/>		
No objection	<input type="checkbox"/>		
Prepared by:		Signature:	
		Date:	

CAA DECISION**To:**

<u>Comments:</u> 			
Objection	<input type="checkbox"/>		
No objection but with conditions	<input type="checkbox"/>		
No objection	<input type="checkbox"/>		
Aerodrome Inspector		Director of department	
		Date:	