

Identifying and dealing with deviations

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Aerodrome Certification

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Identifying and dealing with deviations



ICAO

VS



EXEMPTION

SPECIAL
CONDITION

DAAD

Identifying and dealing with deviations



ICAO

EXEMPTION

SECTION E EXEMPTIONS

MODEL REGULATIONS

3E.1.1 The CAA may exempt, in writing, an aerodrome operator from complying with specific provisions of these regulations.

3E.1.2 Before the CAA decides to exempt the aerodrome operator, the CAA must take into account all safety-related aspects.

3E.1.3 An exemption is subject to the aerodrome operator complying with the conditions and procedures specified by the CAA in the aerodrome certificate as being necessary in the interest of safety.

3E.1.4 When an aerodrome does not meet the requirement of a standard or practice specified in regulation 3A.3, the CAA may determine, after carrying out aeronautical studies, only if and where permitted by the standards and practices, the conditions and procedures that are necessary to ensure a level of safety equivalent to that established by the relevant standard or practice.

3E.1.5 Deviation from a standard or practice and the conditions and procedures referred to in regulation 3B.4 shall be set out in an endorsement on the aerodrome certificate.

3A.3 Standards and practices

Any reference in these regulations to aerodrome standards and practices is a reference to the Standards and Recommended Practices (SARPs) in the latest version of Volume I to Annex 14 to the Convention on International Civil Aviation, and the national regulations and practices as amended from time to time.

Identifying and dealing with deviations

SPECIAL CONDITION

Competent Authority

WHICH INFRASTRUCTURE NON COMPLIANCES CAN RECEIVE A SPECIAL CONDITION?

- (1) The Requirement can not be met due **to the location** of the aerodrome
- (2) The aerodrome has new or **unusual devices/equipment**
- (3) Experience shows that **complying may endanger safety** more than the non compliance



Identifying and dealing with deviations



DAAD

(Deviation Acceptance and Action Document)

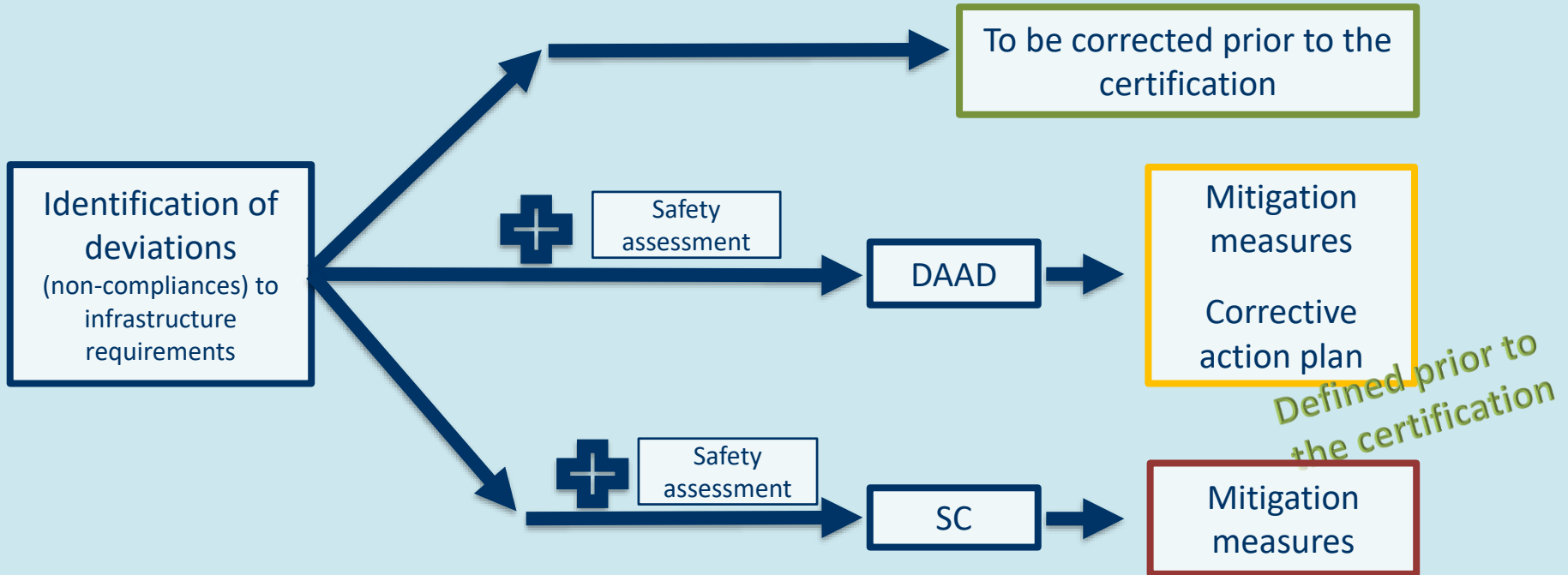
Article 7 Deviations from certification specifications

Regulation (EU) No 139/2014

1. The Competent Authority may, until 31 December 2024, accept applications for a certificate including deviations from the certification specifications issued by the Agency, if the following conditions are met:
 - (a) the deviations do not qualify as an equivalent level of safety case under [ADR.AR.C.020](#), nor qualify as a case of special condition under [ADR.AR.C.025](#) of [Annex II](#) to this Regulation;
 - (b) the deviations existed prior to the entry into force of this Regulation;
 - (c) the essential requirements of Annex Va to Regulation (EC) No 216/2008 are respected by the deviations, supplemented by mitigating measures and corrective actions as appropriate;
 - (d) a supporting safety assessment for each deviation has been completed.

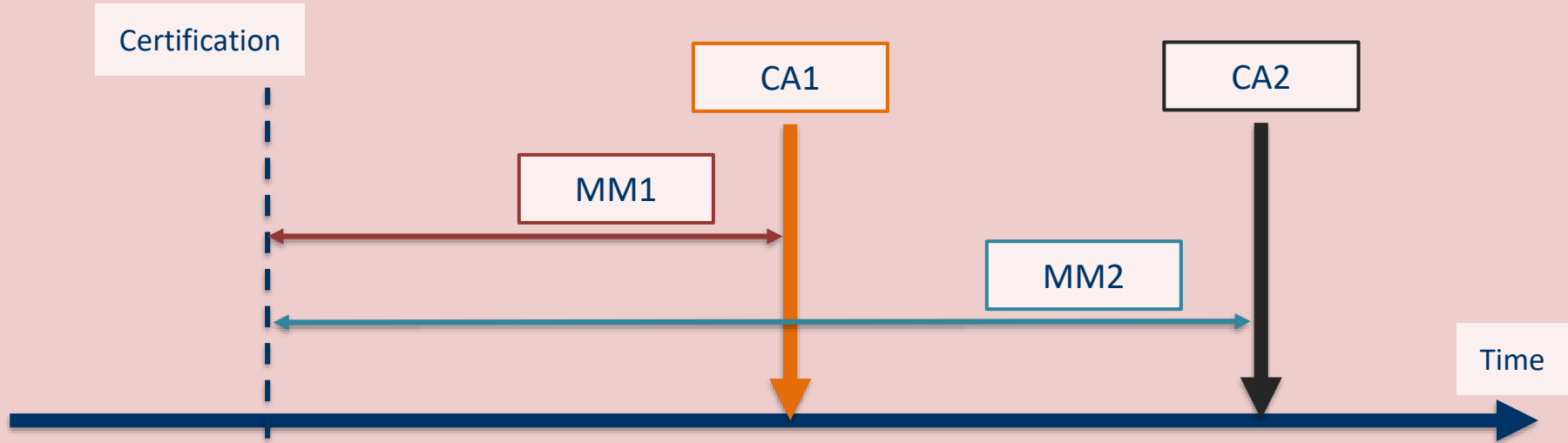
Identifying and dealing with deviations

Certification



Identifying and dealing with deviations

Post-certification



In some cases, the Corrective Action may not have a established date to be fixed...

Identifying and dealing with deviations

Example 1

Deviations from CS that could not be solved before the certification but can be fully removed within an specific period of time



CS ADR-DSN.T.915 Siting of equipment and installations on operational areas

Any equipment or installation required for air navigation or for aircraft safety purposes which should be located on the non-graded portion of a runway strip should be regarded as an obstacle and should be frangible and mounted as low as possible

Identifying and dealing with deviations

Example 1

Deviations from CS that could not be solved before certification but can be fully removed within an specific period of time

DAAD: Deviation with an action plan (with a defined date)
(Deviation Acceptance and Action Document)

- Essential Requirements compliance is granted.
- A risk assessment, with the participation of main actors involved in operation, concludes that is the risks are acceptable.
- Mitigation measures are adopted.
- Airport Manager is required to establish an action plan, with specific milestones audited by CAA.

Identifying and dealing with deviations

Example 2

Deviations from CS that could not be solved before certification and which will be removed in the future, but not in an specific date



CS ADR-DSN.C.280 Transverse slopes on taxiways

(b) The transverse slopes of a taxiway should be sufficient to prevent the accumulation of water on the surface of the taxiway but should not exceed:

(1) 1.5 % where the code letter is C, D, E, or F;

Deviations from CS that could not be solved before certification and which will be removed in the future, but not in an specific date

DAAD: Deviation with an action plan (without a not defined date)
(Deviation Acceptance and Action Document)

- Essential Requirements compliance is granted.
- An Aeronautical Safety Study, with the participation of main actors involved in operation, concludes that the risks are acceptable.
- Mitigation measures are adopted.
- Airport Manager is required to establish an action plan, but in this case open to the future planning of actuations enough entity.
- Action plan is under continuous overview by CAA, requiring changes if necessary.

Identifying and dealing with deviations

Example 3

The runway strip can not reach a width of 150 m along the south side of the runway due to the presence of the Natural Park of Las Salinas and its adjacent land. The existing strip width ranges between 138 m and 145 m.



Identifying and dealing with deviations

Example 3

Special Condition

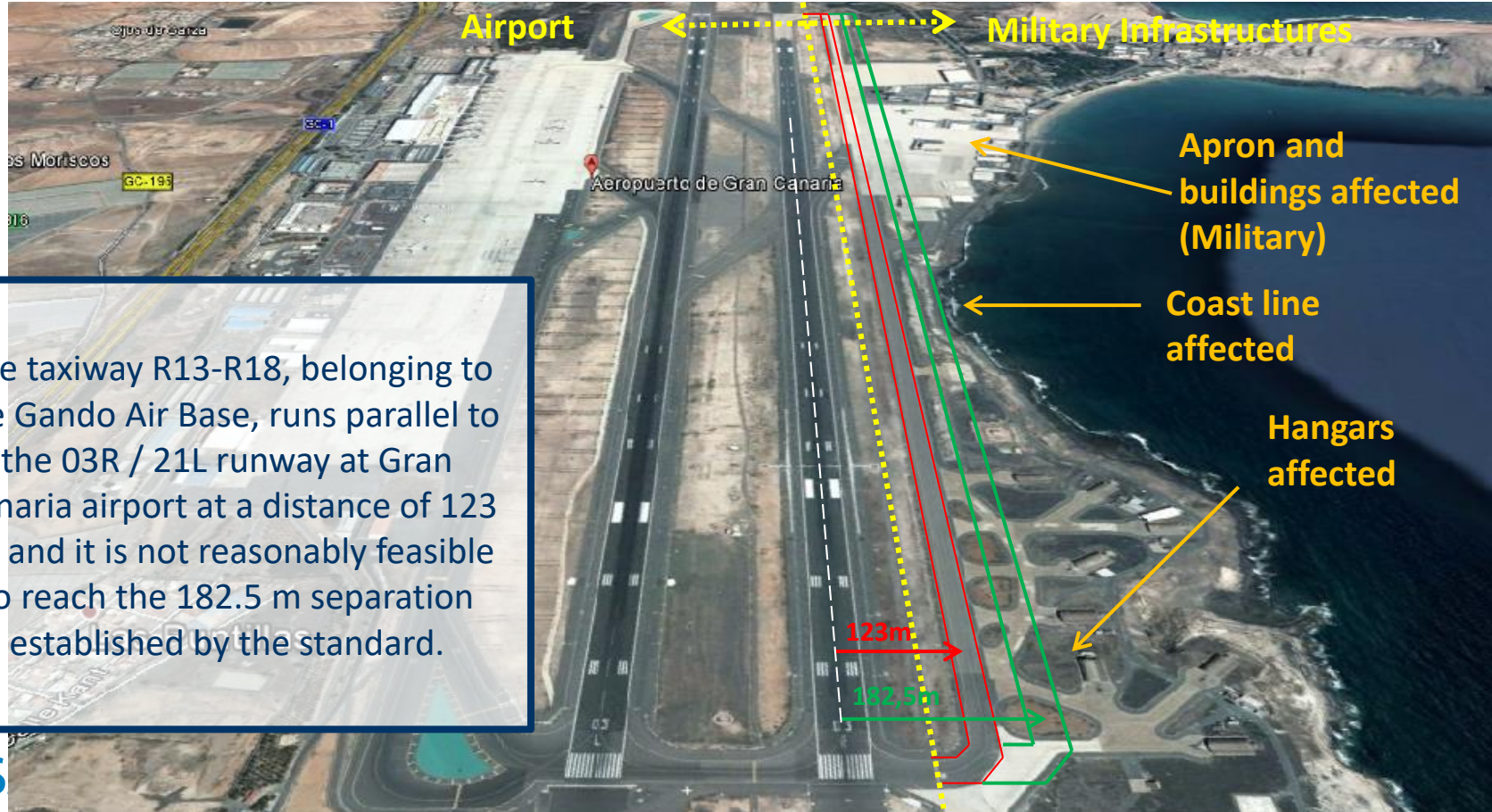
(With no deviation Corrective Action Plan)

A risk assessment has been carried out, concluding that, even though the Natural Park lands can not be added to the runway strip, the required safety levels will be maintained taking into account the defenses and mitigating measures implemented.

The airport manager has been required to remove or frangibilize all obstacles located on the existing runway strip, including the VOR / DME that is within the airport property boundary in the area adjacent to the natural park.

Identifying and dealing with deviations

Example 3



Identifying and dealing with deviations

Special Condition

(With no deviation Corrective Action Plan)

Example 4

A risk assessment has been carried out, it concludes that, even if the distance between runway 03R / 21L and taxiway R13-R18 can not be extended, the required safety levels will be maintained taking into account the defenses and mitigation measures implemented .

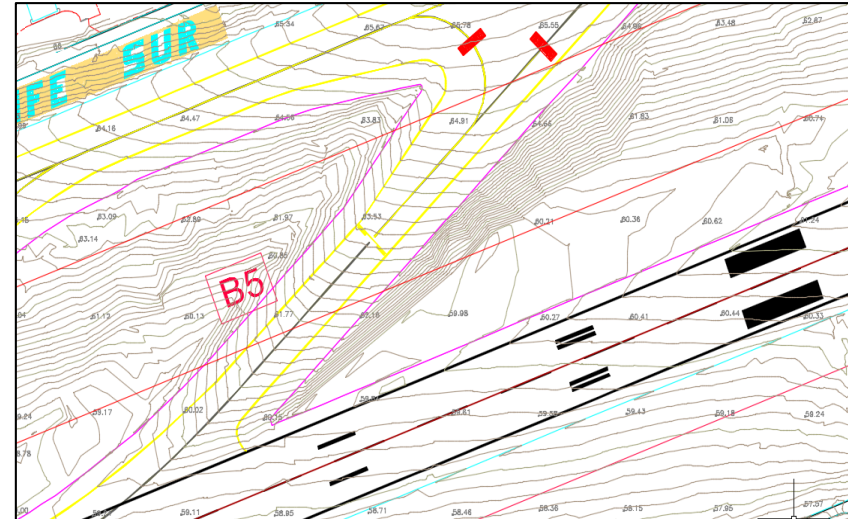
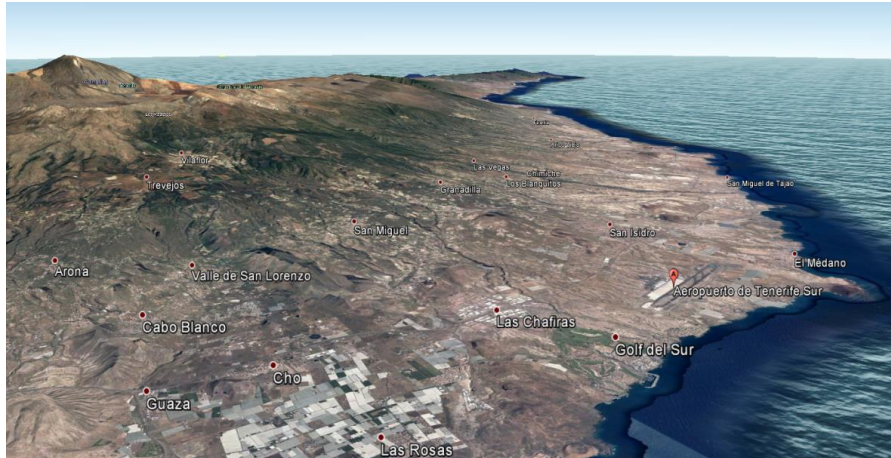
Runway 03R / 21L is mainly used for take-off, while the distance of 182.5 m established by the standard refers to separation with instrumental approach runways since this maneuver is considered more demanding than take-off.

Among other mitigating measures, the airport manager has been required to establish an operational restriction coordinated with the Air Force, consisting in the limitation of simultaneous use of the runway and the taxiway for aircraft with a wingspan above 52m.

Identifying and dealing with deviations

Example 5

The location and orientation of the airport in combination with the characteristic orography of the island of Tenerife, with steep descending slopes from the interior to the coast, makes it impossible to comply with the grading requirements of the runway strip and the geometry of the Taxiways B3, B4 and B5 (in particular, the intersection angles of these taxiways with the runway are 17.4° , 19.8° and 24.7° respectively, when they should be not lower than 25°).



Special Condition

(With no deviation Corrective Action Plan)

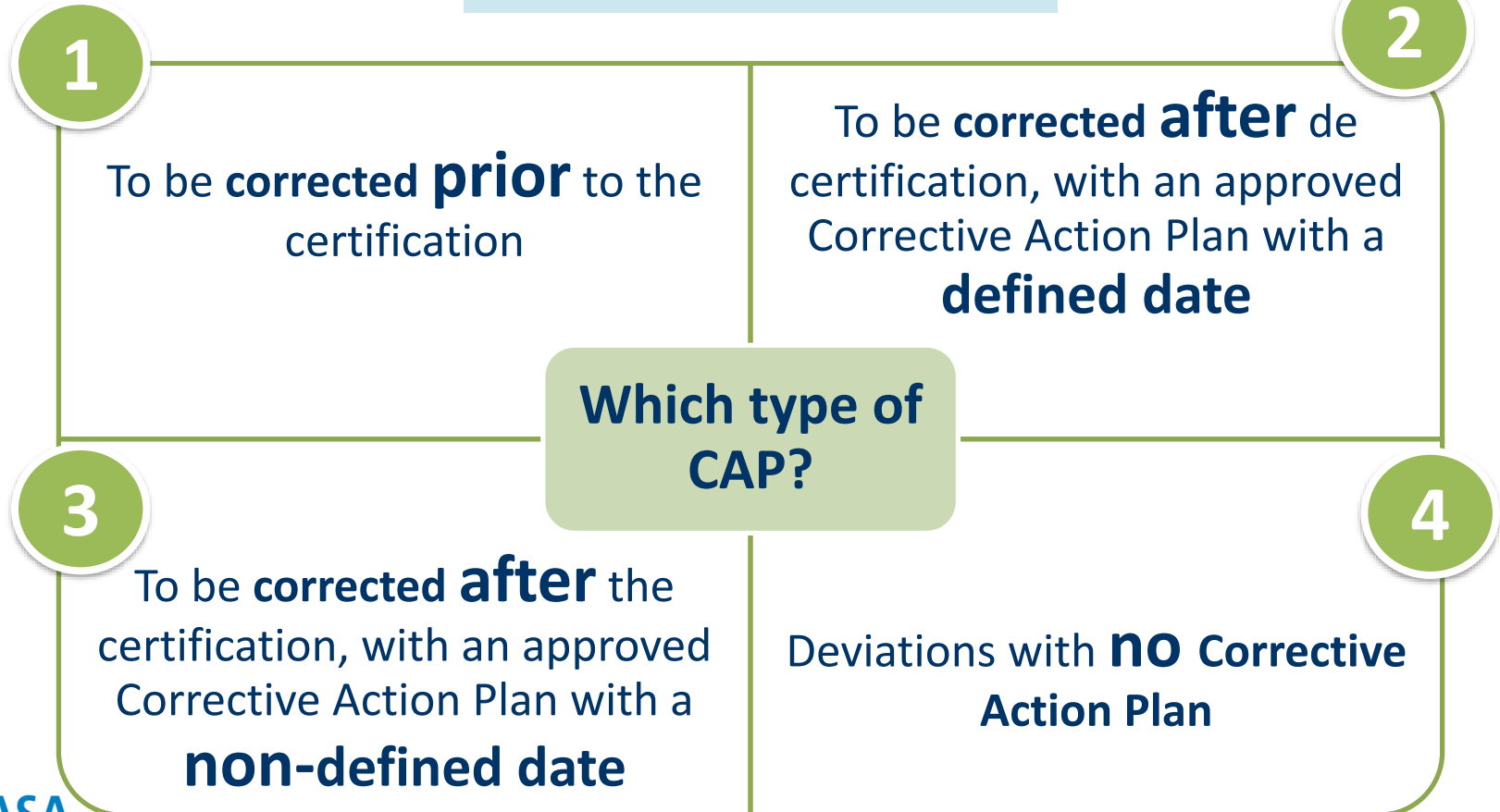
A risk assessment has been carried out which concludes that, even if the level of runway strip and the intersecting angles of taxiways B3, B4 and B5 can not be adjusted, the required safety levels will be maintained taking into account the defenses and mitigating measures implemented.

Identifying and dealing with deviations

Case study

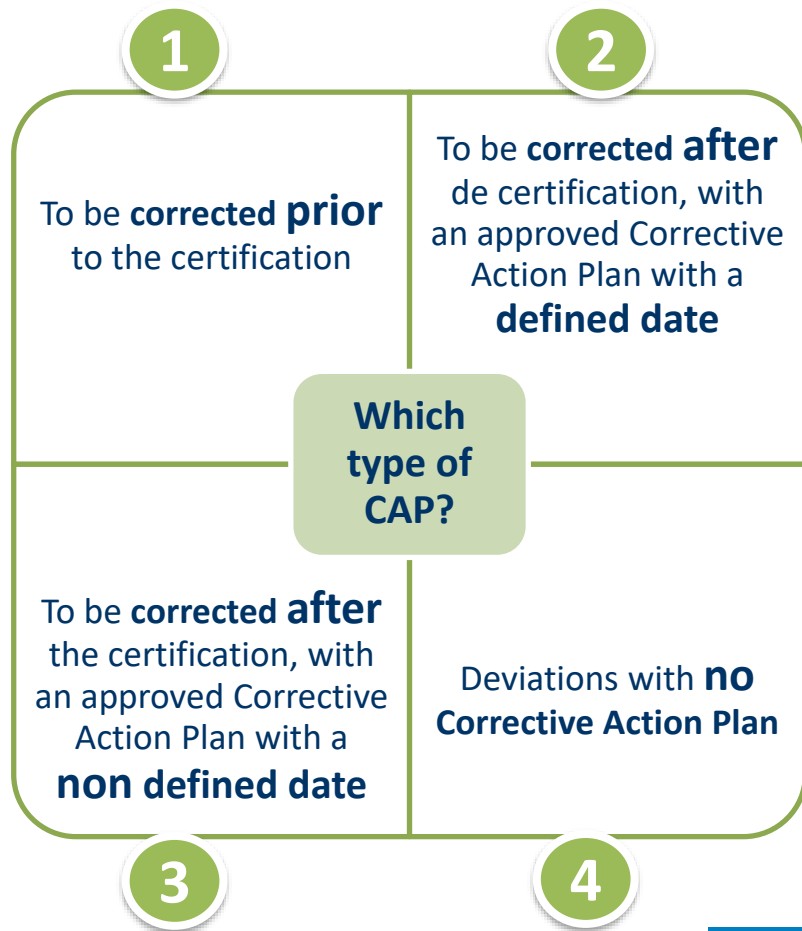
Case study

4 types of deviations



Most common deviations:

1. Objects in RWY protection areas:
RESA, Strip
2. Transverse slope on TWYs
3. Strip not wide enough due to
geographical conditions
4. Markings on apron safety lines
5. Apron floodlighting
6. TWY centre line lights



Identifying and dealing with deviations

CS ADR-DSN.T.915 Siting of equipment and installations on operational areas 19 airports

(d) Unless its function requires it to be there for air navigation or for aircraft safety purposes or after safety assessment [...], **no equipment or installation should be located within 240 m from the end of the strip and within:**
(1) 60 m of the extended centre line where the code number is 3 or 4;[...]

(b) Unless its function requires it to be there for air navigation or for aircraft safety purposes, **no equipment or installation endangering an aircraft should be located:**
(1) on a runway strip, a runway end safety area, a taxiway strip,[...]

(e) **Any equipment or installation required for air navigation or for aircraft safety purposes** which should be located on or near a strip of a precision approach runway category I, II, or III and which:
(2) is situated within 240 m from the end of the strip and within: (i) 60 m of the extended runway centre line where the code number is 3 or 4;[...]
should be frangible and mounted as low as possible.

Identifying and dealing with deviations

CS ADR-DSN.T.915 Siting of equipment and installations on operational areas
19 airports



*GXCD runway strip extends 75 m of the centre line instead of 150 m (Special Condition).

Google Earth

Identifying and dealing with deviations

CS ADR-DSN.T.915 Siting of equipment and installations on operational areas 19 airports

Non compliance	Action type	Action	Notification date	Deadline
(b) Fixed objects endangering aircrafts sited within declared runway strip or declared runway safety area.	Works	Manholes and basements adaptation (structure and cover strength, levelling and 1:10 slope to eliminate buried vertical surface)	10/2023	12/2023
(d) Equipment and installations sited within 240 m from the end of the strip and within 60 m of the extended runway centre line.	Works	Elimination: guardrails Adaptation: manholes and basements Frangibilisation : fencing, sign posts, post	10/2023	12/2023
	Monitoring	Radomes out of Airport precinct	yearly	-
(e) Air Navigation or safety equipment located within 240 m from the end of the strip and within 60 m of the extended runway centre line and not frangible.	Works	Frangibilisation : Multilateration system and LOC ILS12	10/2023	12/2023

Identifying and dealing with deviations

CS ADR-DSN.B.165 Objects on runway strips (18 airports)



Identifying and dealing with deviations

CS ADR-DSN.B.165 Objects on runway strips (18 airports)

Non compliance	Action type	Action	Notification date	Deadline
(a) An object situated on a runway strip which may endanger aeroplanes should be regarded as an obstacle and should, as far as practicable, be removed.	Works	Relocation: energy enclosures, strip fence Frangibilisation: road sign, bird repellents	02/2022	04/2022
	Report	Alternatives and safety defences for the military arresting gear systems (cables) . If hazard can't be eliminated, the airport shall apply for a special condition.	04/2018	06/2018
	Works	Derived from the report	02/2022	04/2022

Identifying and dealing with deviations

CS ADR-DSN.C.220 Objects on runway end safety areas
15 airports

(a) No fixed object, other than equipment and installations required for air navigation or for aeroplane safety purposes and satisfying the relevant frangibility requirement should be permitted on a runway end safety area.



Google Earth

Identifying and dealing with deviations

CS ADR-DSN.C.220 Objects on runway end safety areas 15 airports

Non compliance	Action type	Action	Notification date	Deadline
(a) No fixed object, other than equipment and installations required for air navigation or for aeroplane safety purposes and satisfying the relevant frangibility requirement should be permitted on a runway end safety area.	Works	Frangibilisation: approach lights masts Manholes and basements adaptation (structure and cover strength, levelling and 1:10 slope to eliminate buried vertical surface)	06/2019	08/2019

Identifying and dealing with deviations

CS ADR-DSN.D.280 Transverse slopes on taxiways 13 airports

(b) The transverse slopes of a taxiway should be sufficient to prevent the accumulation of water on the surface of the taxiway but should not exceed:

- (1) 1.5 % where the code letter is C, D, E, or F; and
- (2) 2 % where the code letter is A or B.



Areas >3%

Areas >1,5%, <2%

+ some areas with 0% slope

Identifying and dealing with deviations

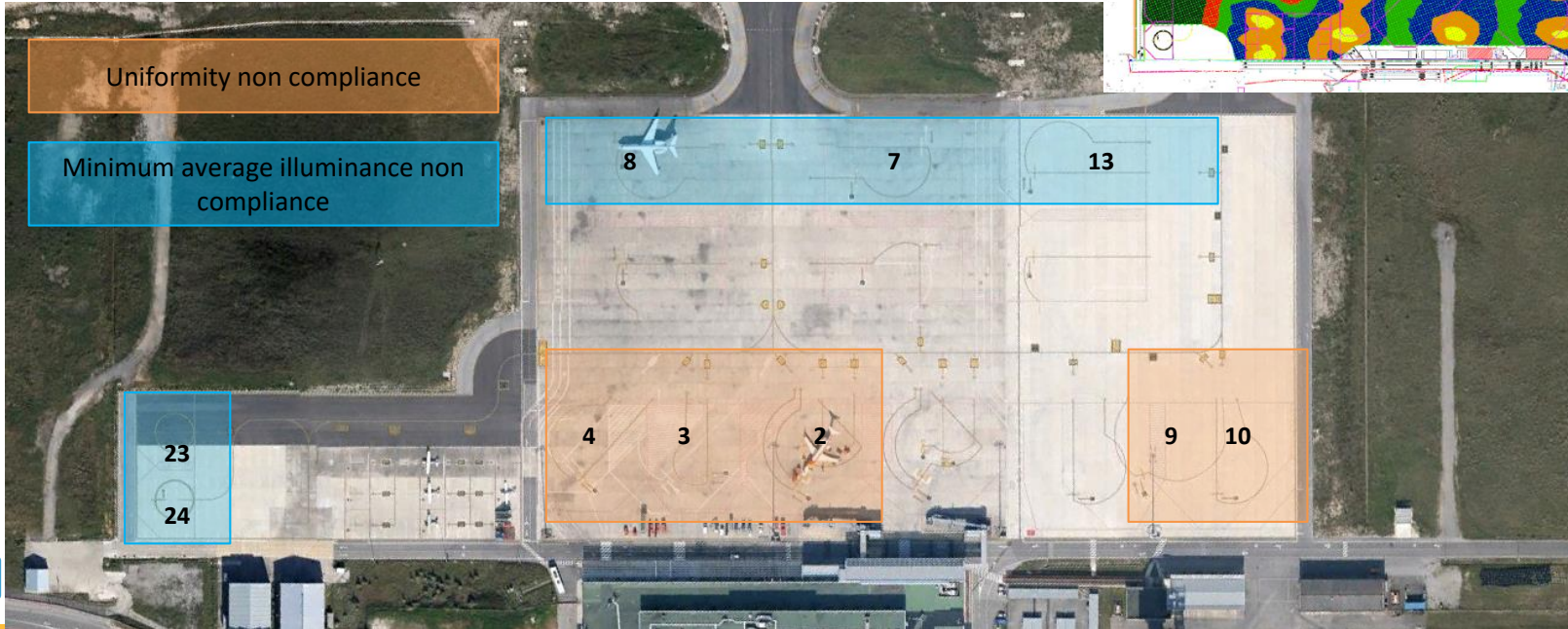
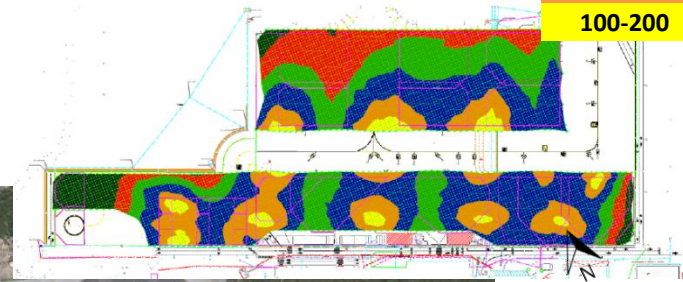
CS ADR-DSN.D.280 Transverse slopes on taxiways 13 airports

Non compliance	Action type	Action		Deadline
Transverse slopes	Monitoring	No short term action (sufficient level of safety and negative cost benefit analysis). Next relevant construction and/or maintenance works affecting taxiways shall include improvements in drainage and slopes.	yearly	-
	Works		Subject to major works	
	Defences	D1 Airfield inspection plan, including specific pavement inspection plan D2 Visual aids for navigation D3 Airfield configuration and taxiing rules published in AIP D4 Adverse condition weather and severe weather procedures D5 Monitoring and communication of incidences D6 Communication in safety committees		

Identifying and dealing with deviations

(d) (2) The average illuminance should be at least the following:
(i) Aircraft stand:
(A) horizontal illuminance - 20 lux with a uniformity ratio (average to minimum) of not more than 4 to 1; and
(B) vertical illuminance - 20 lux at a height of 2 m above the apron in relevant directions.

CS ADR-DSN.M.750 Apron floodlighting 12 airports



Identifying and dealing with deviations

CS ADR-DSN.M.750 Apron floodlighting
12 airports

Non compliance	Action type	Action	Notification date	Deadline
Average illuminance	Report	Definition of corrective actions to reach CS compliance and/or improve floodlighting	02/2017	09/2017
	Works	Corrective actions derived from report	05/2020	07/2020

Identifying and dealing with deviations

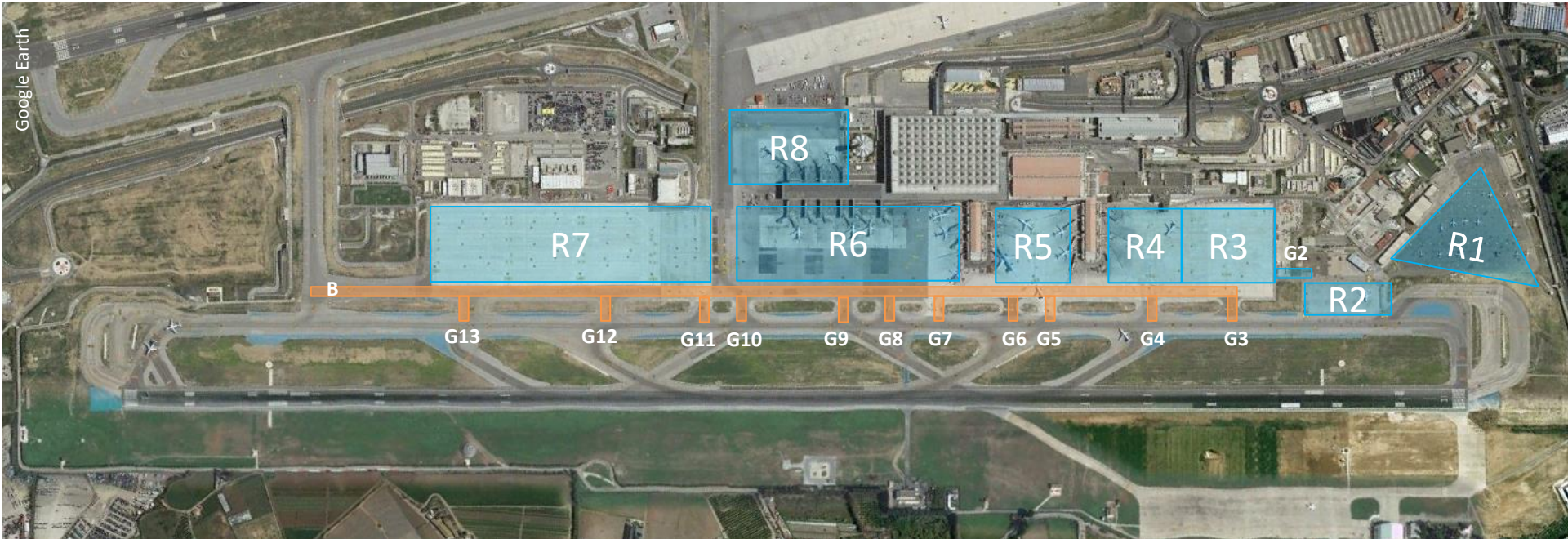
CS ADR-DSN.M.710 Taxiway centre line lights
11 airports

(2) **Taxiway centre line lights should be provided on a taxiway intended for use at night in runway visual range conditions of 350 m or greater**, and particularly on complex taxiway intersections and exit taxiways, except that these lights need not be provided where the traffic density is light and taxiway edge lights, and centre line marking provide adequate guidance.

(3) **Taxiway centre line lights should be provided on an exit taxiway, taxiway, de-icing/anti icing facility, and apron** in all visibility conditions where specified as components of an advanced surface movement guidance and control system in such a manner as to provide continuous guidance between the runway centre line and aircraft stands.

Identifying and dealing with deviations

CS ADR-DSN.M.710 Taxiway centre line lights
11 airports



Apron taxilane without taxiway centre line lights

Taxiway without taxiway centre line lights or partially equipped

Identifying and dealing with deviations

CS ADR-DSN.M.710 Taxiway centre line lights 11 airports

Non compliance	Action type	Action	Notification date	Deadline
Taxiways without taxiway centre line lights	Works	Installation of centre line lights	04/2020	06/2020
Apron taxilanes without taxiway centre line lights	Monitoring	No short term action / Sufficient level of safety and negative cost benefit analysis. Yearly monitoring reports: AESA could ask for new requirements and actions according to the reports or after any AESA/EASA inspections.	yearly	-
	Defences	D1 Coordination procedure with TWR and ANSP to ensure guidance D2 Apron management D3 Visual aids (floodlight, lights, markings) D4 Inspection and maintenance plans (airfield, AGL, equipment) D5 Airfield configuration and procedures published in AIP D6 Adverse condition weather contingency plan D7 Monitoring and communication of incidences D8 Apron safety rules D9 Low visibility procedures D11 Communication in safety committees		

Identifying and dealing with deviations

CS ADR-DSN.B.080 Transverse slopes on runways 10 airports

(b) To promote the most rapid drainage of water, the runway surface should be cambered [...]when possible]. **The transverse slope should be:**

(1) not less than 1 % and not more than 1.5 % where the code letter is C, D, E or F; and;

(2) not less than 1 % and not more than 2 % where the code letter is A or B; except at runway or taxiway intersections where flatter slopes may be necessary.

(c) **For a cambered surface, the transverse slope on each side of the centre line should be symmetrical.**

Less than 1%, 0% in some areas

Some areas exceed 1,5%



Identifying and dealing with deviations

CS ADR-DSN.B.080 Transverse slopes on runways 10 airports

Non compliance	Action type	Action	Notification date	Deadline
Slopes on runway shoulders	Monitoring	No short term action (sufficient level of safety and negative cost benefit analysis) Next relevant construction and/or maintenance works affecting runway shall include improvements in drainage and slopes.	yearly	-
	Works		Subject to major works	
	Defences	D1 Airfield inspection plan, including specific pavement inspection plan D2 Visual aids for navigation D3 Airfield configuration and taxiing rules published in AIP D4 Adverse condition weather and severe weather procedures D5 Monitoring and communication of incidences D6 Communication in safety committees		

MORE

Identifying and dealing with deviations

CS ADR-DSN.B.185 Transverse slopes on runway strips
10 airports

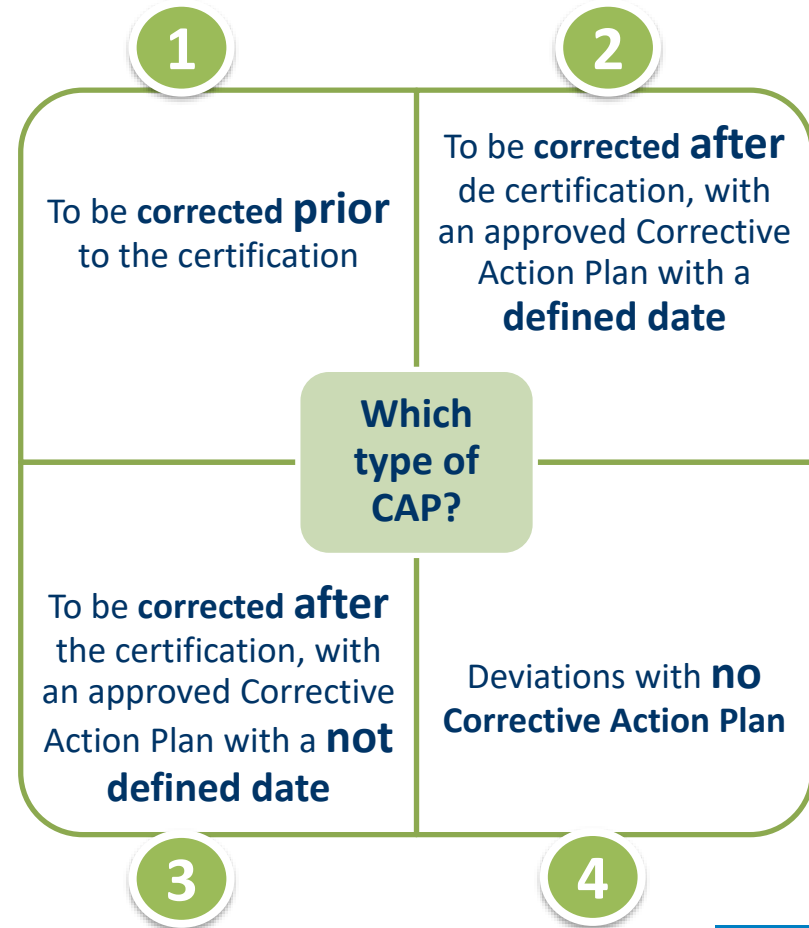
(a) **Transverse slopes on that portion of a strip to be graded** should be adequate to prevent the accumulation of water on the surface but **should not exceed:**

- (1) **2.5 % where the code number is 3 or 4;** and
- (2) **3 % where the code number is 1 or 2; [...]**

(b) **The transverse slopes of any portion of a strip beyond that to be graded should not exceed an upward slope of 5 %** as measured in the direction away from the runway.

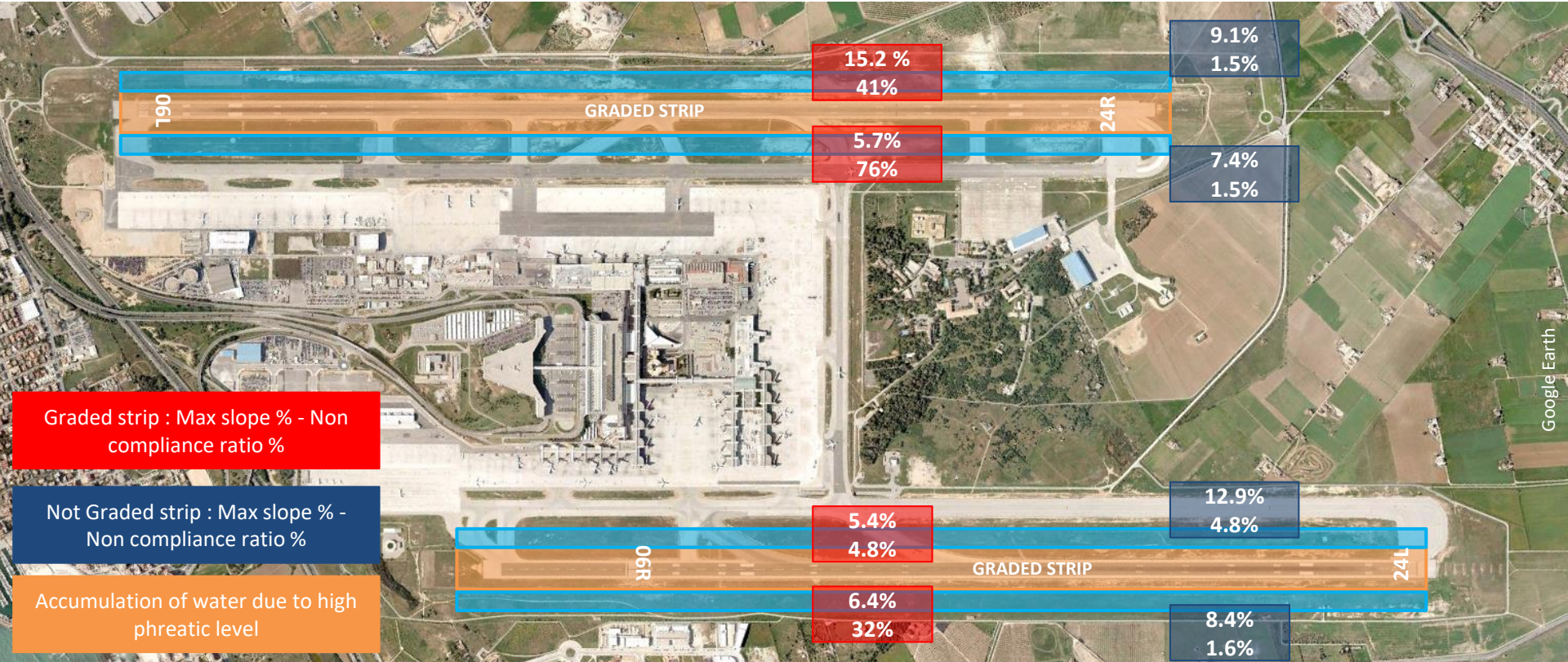
Most common deviations:

1. Transverse slopes on RWYs
2. Curves in TWYs
3. Information signs
4. Strength of taxiways
5. Clearance distances on aircraft stands
6. Markings of a RWY holding position



Identifying and dealing with deviations

CS ADR-DSN.B.185 Transverse slopes on runway strips 10 airports



Graded strip : Max slope % - Non compliance ratio %

Not Graded strip : Max slope % - Non compliance ratio %

Accumulation of water due to high phreatic level

Identifying and dealing with deviations

CS ADR-DSN.B.185 Transverse slopes on runway strips 10 airports

Non compliance	Action type	Action	Notification date	Deadline
Slopes on runway strips	Works	Levelling of 06L-24R strip	02/2022	04/2022
	Works	Levelling of 06R-24L strip	08/2023	10/2023
	Report	Detailed analysis of water accumulation issue, including definition of corrective actions.	10/2018	12/2018
	Works	Corrective actions derived from report	Subject to report	

Identifying and dealing with deviations

CS ADR-DSN.D.255 Junction and intersection of taxiways 9 airports

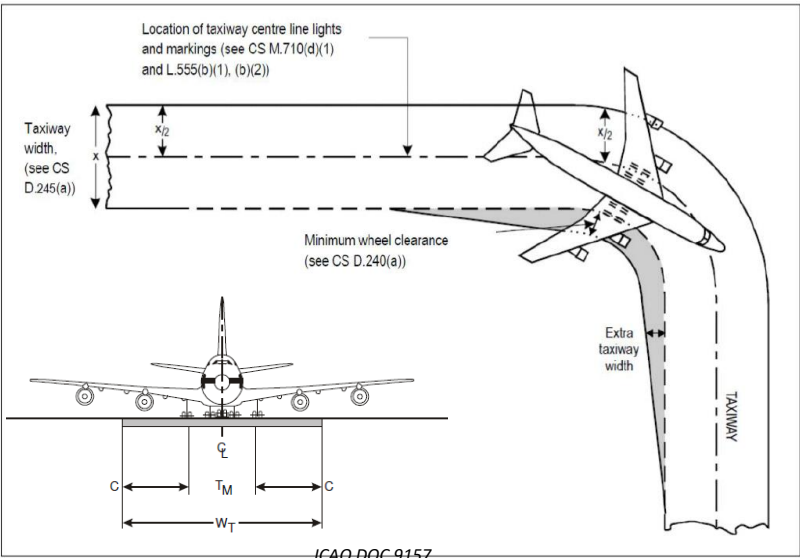
b) The design of the fillets should ensure that the minimum wheel clearances specified in CS ADR-DSN.D.240 are maintained when aeroplanes are manoeuvring through the junctions or intersections.

[CS ADR-DSN.D.240]
Code letter D, E, F

Clearance 4.5 m



25 Junctions/intersections with clearance < 4.5 m.

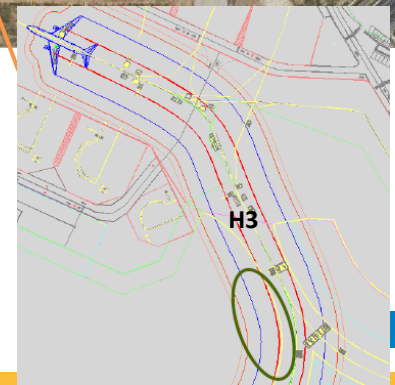
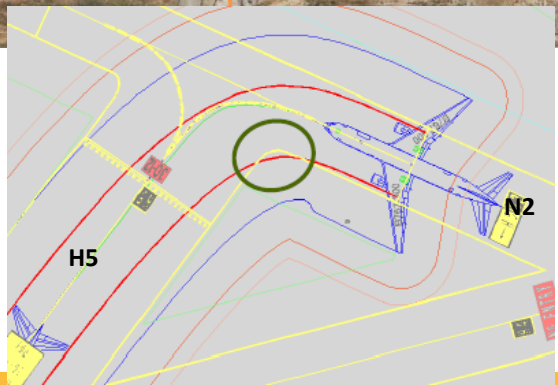
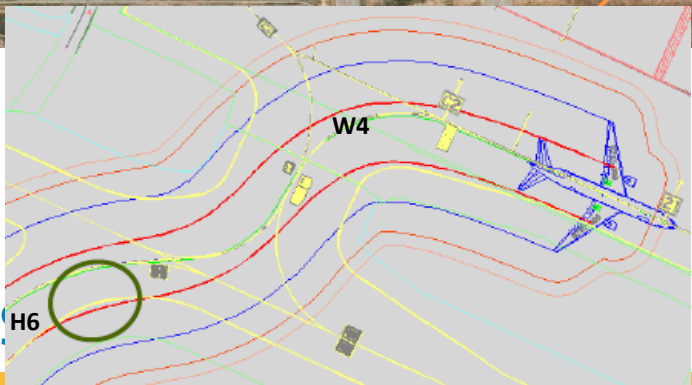
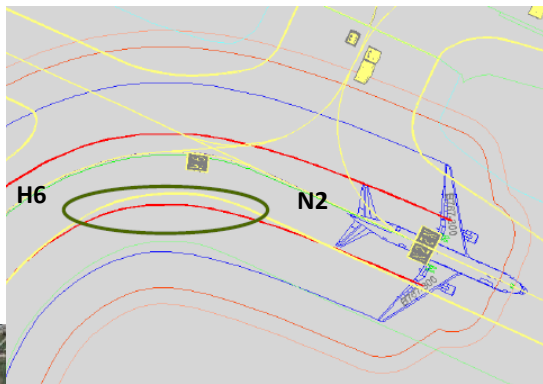
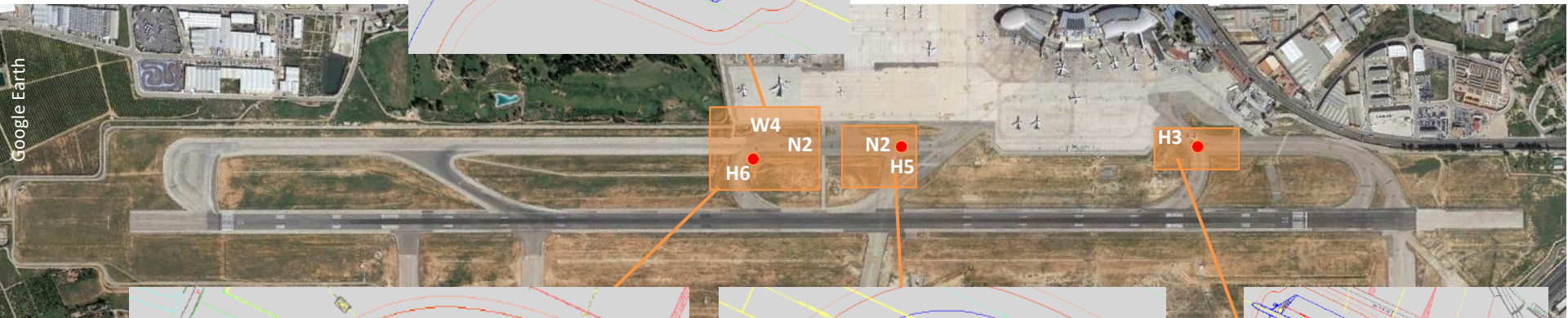


Identifying and dealing with deviations

CS ADR-DSN.D.255 Junction and intersection of taxiways 9 airports

Red: outer main wheels
Yellow: taxiway edge

4 Junctions/intersections with clearance < 4.5 m.



Identifying and dealing with deviations

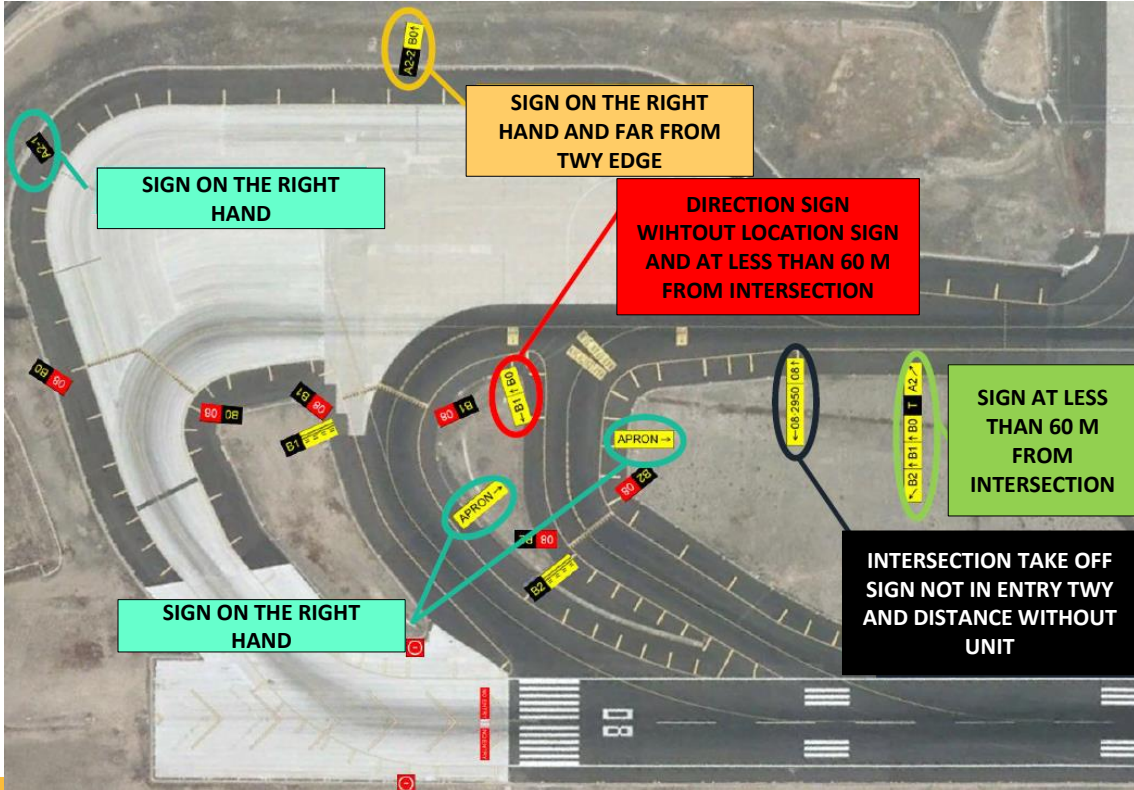
CS ADR-DSN.D.255 Junction and intersection of taxiways

Non compliance	Action type	Action	Notification date	Deadline
Clearance < 4.5 m	Report	Definition of corrective actions including: <ul style="list-style-type: none"> - analysis of operational limitations, so that non compliance could not apply in some areas. - detailed definition of corrective works - action plan and priority works 	02/2019	04/2019
	Works	Corrective actions derived from report	12/2024	02/2025

Identifying and dealing with deviations

CS ADR-DSN.N.785 Information signs 9 airports

(a) Application:
 (1) An information sign should be provided where there is an operational need to identify by a sign, a specific location, or routing (direction or destination) information.



(a) (11) A location sign should be provided in conjunction with a direction sign, except that it may be omitted where a safety assessment indicates that it is not needed.

(b) Location:
 (1) [...] Information signs should wherever practicable, be located on the left-hand side of the taxiway in accordance with Table N-1.

[N-1] Code number	distance from TWY edge
3, 4	11-21 m

(b) Location:
 (2) At a taxiway intersection [...] the signs should be installed at least 60 m from the centre line of the intersecting taxiway.

(b) Location:
 (7) An intersection take-off sign should be located at the left-hand side of the entry taxiway. The distance between the sign and the centre line of the runway should be not less than 60 m.
 [...]
 (c) Characteristics:
 (5) The inscription on an intersection take-off sign should consist of a numerical message indicating the remaining take-off run available in metres [...].

Identifying and dealing with deviations

CS ADR-DSN.N.785 Information signs 9 airports

Non compliance	Action type	Action	Notification date	Deadline
(b) Location: (1) left-hand side of the taxiway.	Works	Sign relocation	12/2017	02/2018
[N-1] Code number distance from TWY edge 3, 4 11-21 m				10/2023
(2) Taxiway intersection information signs location,				12/2018
(4) Runway exit sign location.				
(7) intersection take-off sign location				
(9) A destination sign should not normally be collocated with a location or direction sign.				
(a) (11) A location sign should be provided in conjunction with a direction.	Works	New signs	12/2017	02/2018
(c) Characteristics: (5) Intersection take-off sign [...].				
(c) (9) Intermediate holding positions.				

Identifying and dealing with deviations

CS ADR-DSN.D.285 Strength of taxiways
8 airports

The strength of a taxiway should be suitable for the aircraft that the taxiway is intended to serve.



Non compliant apron taxilane

Non compliant taxiway

Identifying and dealing with deviations

CS ADR-DSN.D.285 Strength of taxiways 8 airports

Non compliance	Action type	Action	Notification date	Deadline
Strength of taxiways	Works	Repair of most damaged pavement in A, B1, B2, C1, C2, T3, T4, T5, T6, T7, R1, E (between C2 and D), D, T2, T1	12/2018	02/2019
	Monitoring	Pavement assessment to schedule the upgrade works to reach CS compliance.	yearly	-
Defences				
D1 Airfield and maintenance inspection plan D2 Visual aids for navigation (lights, signs and markings) D3 Airfield configuration published in AIP D4 Adverse condition weather contingency plan D5 Coordination procedure with TWR and ANSP including guidance service upon request D6 Monitoring and communication of incidences D7 Communication in safety committees	Works	Repair of most damaged pavement in R2, E (between C2 and R1)	12/2019	02/2020
	Monitoring	Pavement assessment to schedule the upgrade works and reach CS compliance.	yearly	-
	Works	Pavement upgrade to comply with CS in R2, E (between C2 and R1)	12/2019	02/2020

Identifying and dealing with deviations

CS ADR-DSN.E.365 Clearance distances on aircraft stands 7 airports

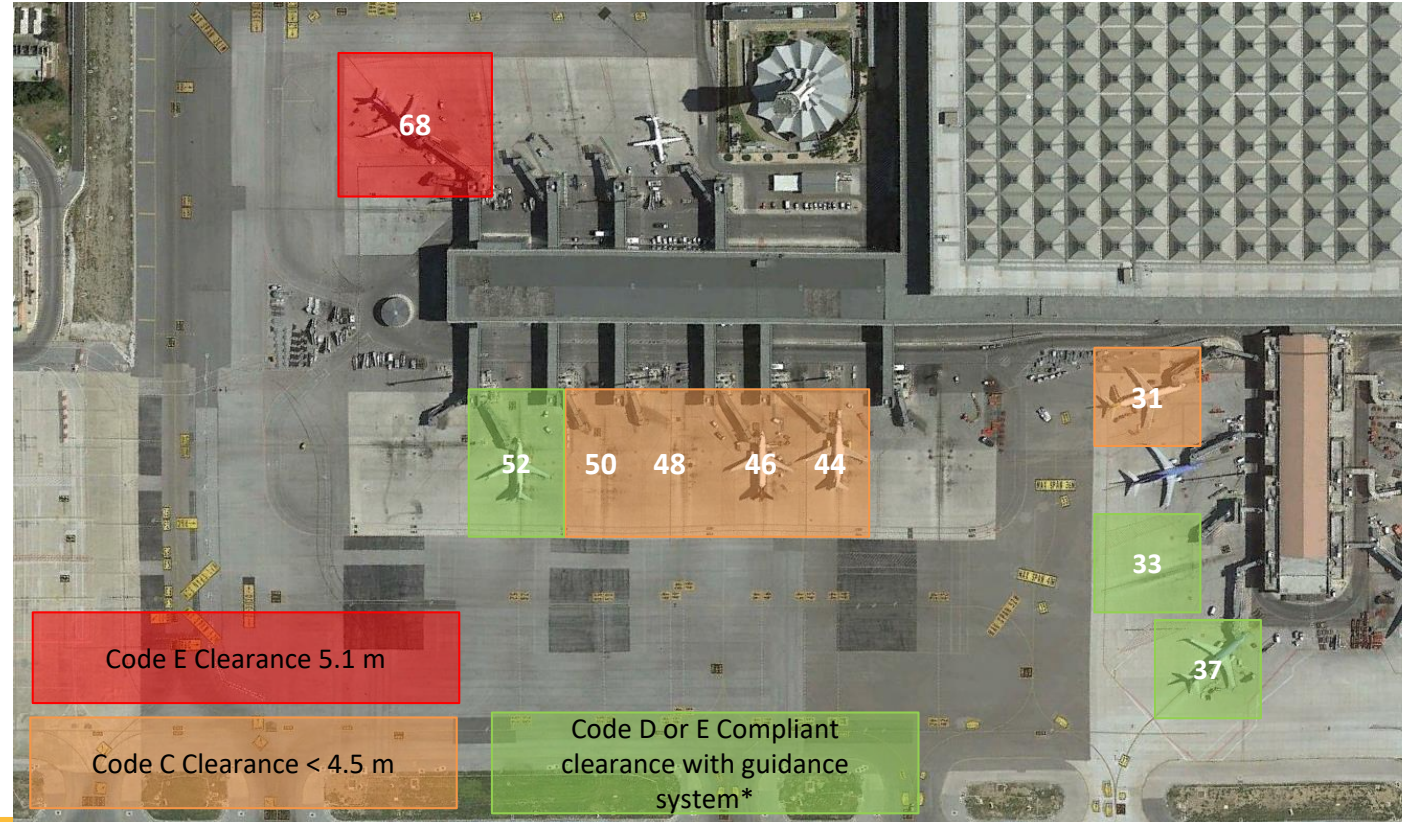
(b) An aircraft stand should provide the following **minimum clearances** between an aircraft using the stand and any adjacent building, aircraft on another stand and other objects:

Code letter	Clearance
A, B	3 m
C	4.5 m
D, E, F	7.5 m

(c) The minimum clearance distance for code letters D, E and F can be reduced:

(1) for height limited objects,
(2) if the stand is restricted for aircraft with specific characteristics,
(3) **in the following locations (for aircraft using a taxi-in, push-back procedure only):**

(i) **between the terminal (including passenger loading bridges) and the nose of an aircraft;** and
(ii) **over a portion of the stand provided with azimuth guidance by a visual docking guidance system.**



Identifying and dealing with deviations

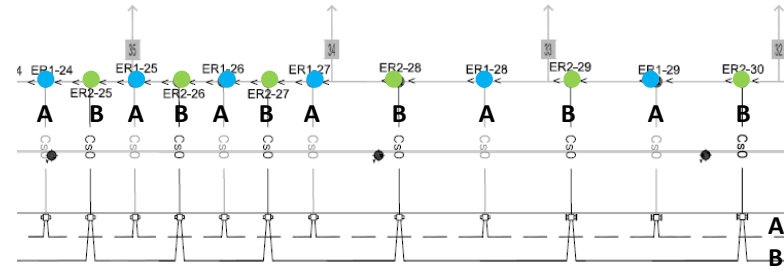
CS ADR-DSN.E.365 Clearance distances on aircraft stands 7 airports

Non compliance	Action type	Action	Deadline	
Clearance distance on aircraft stands	Report	Definition of new apron configuration, including: - analysis of operational limitations, so that non compliance could not apply in some areas. - detailed proposed geometry	04/2020	06/2020
	Works	Corrective actions derived from report	04/2020	06/2020

Identifying and dealing with deviations

CS ADR-DSN.S.885 Electrical System design 7 airports

(a) For a runway meant for use in runway visual range conditions less than a value of 550 m, the electrical systems for the power supply, lighting, and control of the lighting systems included in Table S-1 should be so designed that **an equipment failure should not leave the pilot with inadequate visual guidance or misleading information.**



Stop bar or No entry without double circuit

Essential taxiway without double circuit

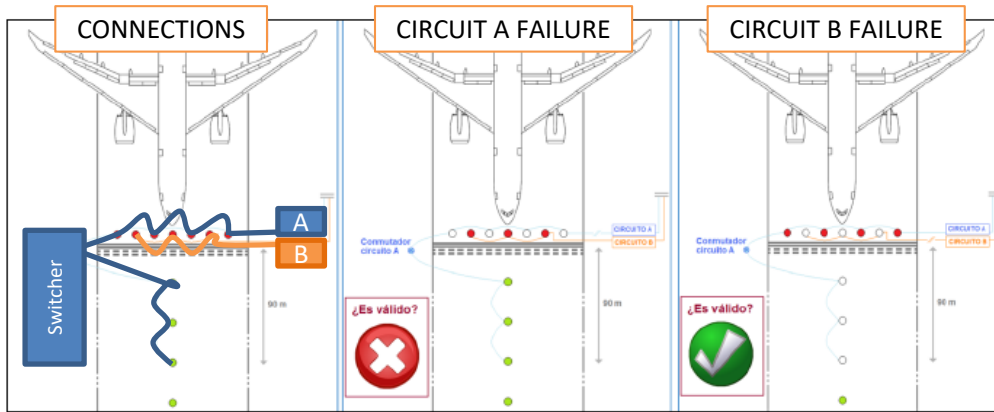
Stop bar with switching issue



Identifying and dealing with deviations

CS ADR-DSN.S.885 Electrical System design 7 airports

H3 N1 Stop bar with 2 circuits A and B.
Switching system don't consider circuit B so that if circuit A fails, taxiway lights switch on but stop bar can still be on (circuit B).



(a) For a runway meant for use in runway visual range conditions less than a value of 550 m, the electrical systems for the power supply, lighting, and control of the lighting systems included in Table S-1 should be so designed that **an equipment failure should not leave the pilot with inadequate visual guidance or misleading information.**

[CS ADR-DSN.M.730 Stop bar lights]

(c8) (iii) when a stop bar is illuminated, any taxiway centre line lights installed beyond the stop bar should be extinguished for a distance of at least 90 m; and

(iv) stop bars should be interlocked with the taxiway centre line lights so that when the centre line lights beyond the stop bar are illuminated, the stop bar is extinguished and vice versa.

Identifying and dealing with deviations

CS ADR-DSN.S.885 Electrical System design 7 airports

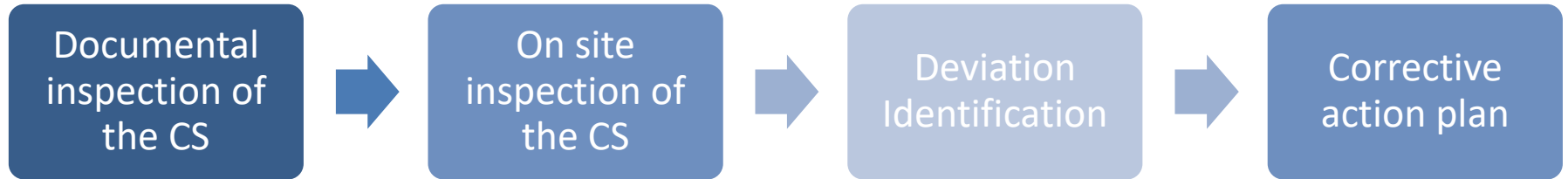
Non compliance	Action type	Action	Notification date	Deadline
No double circuit	Works	New circuits configuration to comply with CS.	10/2022	12/2022
Switching failure	Works	New circuits configuration to comply with CS.	10/2022	12/2022

Identifying and dealing with deviations



Identifying and dealing with deviations

Certification infrastructure correction action plan



Identifying and dealing with deviations

On site inspection of the CS

Deficiencia Mayor		Requisito: CS ADR-DSN.K.490 Indicadores de la dirección del viento
Descripción		
<p>Durante la inspección in-situ se comprobó que en los dos indicadores de viento no se disponía del cono truncado de tela que debe indicar la dirección del viento en la superficie y dar idea general de su velocidad.</p>		
		

Deficiencia Mayor		Requisito: CS ADR-DSN. M.745 Luces de protección de pista
Descripción		
<p>Durante la inspección in-situ se observó que la luz de protección de pista ubicada a la izquierda de la barra de parada de la calle de rodaje C1 estaba caída y, por tanto, no era operativa.</p>		
		

Identifying and dealing with deviations

Deviation Identification

After the on-site inspection, all the deviations will be identified



Some of them (critical equipment, some marking and signs, for example), will have to be **corrected before the certification date**

The rest, will be assess as **DAAD's / SC**

Identifying and dealing with deviations

Deviation Identification

Requirement

Deviation: How much? Where?

Especificación de Certificación	Requisito	Descripción desviación										
<p>CS ADR-DSN.C.220 Objetos en las áreas de seguridad de extremo de pista</p>	<p>No deberá permitirse en el área de seguridad de extremo de pista ningún objeto fijo, excepto los equipos e instalaciones necesarios para la navegación aérea o con fines de seguridad operacional del aeroplano y que satisfagan el requisito de frangibilidad pertinente detallado en CS ADR- DSN.T.910. Los requisitos detallados para la ubicación de objetos en una RESA se incluyen en CS ADR- DSN.T.915.</p>	<p>Dentro de la RESA 05, se localizan 37 elementos que, por elevarse del terreno, por no estar estructuralmente preparados o por presentar superficies verticales soterradas, podrían constituir un peligro para un avión que eventualmente se saliera de pista.</p> <p>Dentro de la RESA 23, se localizan 40 elementos que, por elevarse del terreno, por no estar estructuralmente preparados o por presentar superficies verticales soterradas, podrían constituir un peligro para un avión que eventualmente se saliera de pista.</p> <p>La información de estos elementos se desglosa en:</p> <ul style="list-style-type: none"> - 00.08_ Obstáculos en zonas de operaciones - RMU_elementos_cs_ADR_DSN. 										
<p>CS ADR-DSN.D.240 Calles de rodaje, generalidades</p>	<p>A menos que se indique otra cosa, los requisitos del Capítulo D - Calles de rodaje se aplican a todos los tipos de calle de rodaje.</p> <p>(a) El trazado de una calle de rodaje deberá ser tal que, cuando el puesto de pilotaje de los aviones para los que está prevista permanezca sobre las señales de eje de dicha calle de rodaje, la distancia libre entre la rueda exterior del tren principal del avión y el borde de la calle de rodaje no deberá ser inferior a la indicada en la siguiente tabla:</p> <table border="1" data-bbox="562 851 1251 939"> <thead> <tr> <th data-bbox="562 851 985 873">Distancia exterior entre ruedas del tren principal (OMGWS)</th> <th data-bbox="985 851 1251 873">Distancia libre</th> </tr> </thead> <tbody> <tr> <td data-bbox="562 873 985 889">- Menos de 4,5 m (excluido)</td> <td data-bbox="985 873 1251 889">1,5 m</td> </tr> <tr> <td data-bbox="562 889 985 906">- Entre 4,5 y 6 m (excluido)</td> <td data-bbox="985 889 1251 906">2,25 m</td> </tr> <tr> <td data-bbox="562 906 985 922">- Entre 6 y 9 m (excluido)</td> <td data-bbox="985 906 1251 922">3a,b o 4c m</td> </tr> <tr> <td data-bbox="562 922 985 939">- Entre 9 y 15 m (excluido)</td> <td data-bbox="985 922 1251 939">4 m</td> </tr> </tbody> </table> <p>a En tramos rectos.</p> <p>b En tramos curvos si la calle de rodaje está diseñada para el uso de aeronaves con una base de ruedas inferior a 18 m</p> <p>c En tramos curvos si la calle de rodaje está diseñada para el uso de aeronaves con una base de ruedas igual o mayor de 18 m</p> <p>Nota: «Base de ruedas» significa la distancia desde el tren de proa al centro geométrico del tren principal.</p>	Distancia exterior entre ruedas del tren principal (OMGWS)	Distancia libre	- Menos de 4,5 m (excluido)	1,5 m	- Entre 4,5 y 6 m (excluido)	2,25 m	- Entre 6 y 9 m (excluido)	3a,b o 4c m	- Entre 9 y 15 m (excluido)	4 m	<p>Existen desviaciones respecto a la distancia libre entre la rueda exterior del tren principal del avión y el borde de la calle de rodaje, cuando el puesto de pilotaje de los aviones para los que está prevista la calle de rodaje permanece sobre las señales de eje de dicha calle de rodaje. Las desviaciones máximas identificadas son las siguientes:</p> <p>Para la aeronave A340-600</p> <ul style="list-style-type: none"> - Curva RWY - A2: 2,01 m. - Curva A2 - E1: 2,23 m. - Curva E1 - A2: 1,83 m. - Curva A2 - RWY: 2,1 m. - Curva RWY - C1: 1,91 m. - Curva C1 - E4: 2,06 m. - Curva E4 - C1: 1,95 m. - Curva C1 - RWY: 1,93 m. - Curva B - E1: 1,1 m. - Curva B - E2: 2,84 m. - Curva E2- F: 1,77 m. - Curva E3- F: 1,85 m.
Distancia exterior entre ruedas del tren principal (OMGWS)	Distancia libre											
- Menos de 4,5 m (excluido)	1,5 m											
- Entre 4,5 y 6 m (excluido)	2,25 m											
- Entre 6 y 9 m (excluido)	3a,b o 4c m											
- Entre 9 y 15 m (excluido)	4 m											

Identifying and dealing with deviations

Corrective action plan

Code for the action

Safety assessment

Regulation Requirement

Deviation: How much? Where?

Corrective action plan What? When?

Código	nº Actua	EAS	Viabili	Especificación de Certificación	Requisito	Descripción desviación	Acción subsanadora	Tipo actuación	Fecha límite notificación	Fecha vencim
DAAD 02	AC-02	RES 02/18	RMU-IV2	CS ADR-DSN.C.220 Objetos en las áreas de seguridad de extremo de pista	No deberá permitirse en el área de seguridad de extremo de pista ningún objeto fijo, excepto los equipos e instalaciones necesarios para la navegación aérea o con fines de seguridad operacional del aeródromo y que satisfagan el requisito de frangibilidad pertinente detallado en CS ADR-DSN.T.310. Los requisitos detallados para la ubicación de objetos en una RESA incluyen en CS ADR-DSN.T.315.	Dentro de la RESA 05, se localizan 37 elementos que, por elevarse del terreno, por no estar estructuralmente preparados o por presentar superficies verticales soterradas, podrían constituir un peligro para un avión que eventualmente se saliera de pista. Dentro de la RESA 23, se localizan 40 elementos que, por elevarse del terreno, por no estar estructuralmente preparados o por presentar superficies verticales soterradas, podrían constituir un peligro para un avión que eventualmente se saliera de pista. La información de estos elementos se desglosa en: - 00.08_Obstáculos en zonas de operaciones - RMU_elementos_cs_ADR_DSN.	Adecuación o eliminación de los objetos situados en la RESA 05 y en la RESA 23, de modo que una vez se alcance la fecha de notificación de esta actuación, no quede ningún objeto superficial que, al no estar estructuralmente preparado o al presentar superficies verticales soterradas, pudiera constituir un peligro para un avión que eventualmente se saliera de pista.	Ejecución de Obra	30/04/2023	30/06/2023
DAAD 03	AC-01	RES 03/18	RMU-IV3	CS ADR-DSN.D.240 Calles de rodaje, generalidades	A menos que se indique otra cosa, los requisitos del Capítulo D, Calles de rodaje, se aplican a todos los tipos de calles de rodaje. (a) El trazado de una calle de rodaje deberá ser tal que, cuando el puesto de pilotaje de los aviones para los que está prevista permanezca sobre las señales de eje de dicha calle de rodaje, la distancia libre entre la rueda exterior del tren principal del avión y el borde de la calle de rodaje no deberá ser inferior a la indicada en la siguiente tabla: Distancia exterior entre ruedas del tren principal (OMGWY) Distancia libre - Menos de 4,5 m (excluido) 1,5 m - Entre 4,5 y 6 m (excluido) 2,25 m - Entre 6 y 9 m (excluido) 3,0 m o 4 m - Entre 9 y 15 m (excluido) 4 m a En tramos rectos. b En tramos curvos si la calle de rodaje está diseñada para el uso de aeronaves con una base de ruedas inferior a 18 m c En tramos curvos si la calle de rodaje está diseñada para el uso de aeronaves con una base de ruedas igual o mayor de 18 m Nota: «Base de ruedas» significa la distancia desde el tren de proa al centro geométrico del tren principal.	Existen desviaciones respecto a la distancia libre entre la rueda exterior del tren principal del avión y el borde de la calle de rodaje, cuando el puesto de pilotaje de los aviones para los que está prevista la calle de rodaje permanece sobre las señales de eje de dicha calle de rodaje. Las desviaciones máximas identificadas son las siguientes: para la aeronave A340-600 - Curva RWY - A2: 2,03 m - Curva A2 - E1: 2,23 m - Curva E1 - A2: 1,83 m - Curva A2 - RWY: 2,1 m - Curva RWY - C1: 1,93 m - Curva C1 - E4: 2,06 m - Curva E4 - C1: 1,95 m - Curva C1 - RWY: 1,93 m - Curva B - E1: 1,1 m - Curva B - E2: 2,94 m - Curva E2 - F: 1,77 m - Curva E3 - F: 1,85 m. El detalle de las desviaciones detectadas se encuentra en el plano 1101_SIMULACIONES_CALLE DE RODAJE	Adecuación de la geometría de las calles de rodaje identificadas para cumplir con las distancias libres definidas en el requisito. Dicha adecuación, se realizará mediante la aplicación de modificaciones que pueden incluir el cambio de los trazados mediante la adecuación de las ayudas visuales y la ampliación de las zonas resistentes del pavimento, junto con el resto de actuaciones que sean necesarias como la adecuación de los márgenes y la reposición de los servicios afectados.	Ejecución de Obra	30/04/2023	30/06/2023
DAAD 03	AC-01	RES 03/18	RMU-IV3	CS ADR-DSN.D.250 Curvas de las calles de rodaje	(a) Los cambios de dirección de las calles de rodaje no deberán ser muy numerosos ni pronunciados, en la medida de lo posible. Los radios de las curvas deberán ser compatibles con la capacidad de maniobra y las velocidades de rodaje normales de los aviones para los que dicha calle de rodaje está prevista. (b) El diseño de la curva deberá ser tal que cuando el puesto de pilotaje del avión para el cual está prevista la calle de rodaje permanezca sobre las señales de eje de calle de rodaje, la distancia libre entre las ruedas principales exteriores y el borde de la calle de rodaje no deberá ser inferior a las especificadas en CS ADR-DSN.D.240.	Ver la descripción de la desviación correspondiente a la CS ADR-DSN.D.240.	Adecuación de la geometría de las calles de rodaje identificadas para cumplir con las distancias libres definidas en el requisito. Dicha adecuación, se realizará mediante la aplicación de modificaciones que pueden incluir el cambio de los trazados mediante la adecuación de las ayudas visuales y la ampliación de las zonas resistentes del pavimento, junto con el resto de actuaciones que sean necesarias como la adecuación de los márgenes y la reposición de los servicios afectados.	Ejecución de Obra	30/04/2023	30/06/2023



Identifying and dealing with deviations



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