



**EASA**  
European Aviation Safety Agency

# Flexibility Application

## (DAADs, ELOS, SCs)

Sarah PORALLA  
Aerodromes Section  
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An agency of the European Union 

TE.GEN.00409-001



# What are the concepts?

Certification  
Specifications

Equivalent level  
of Safety

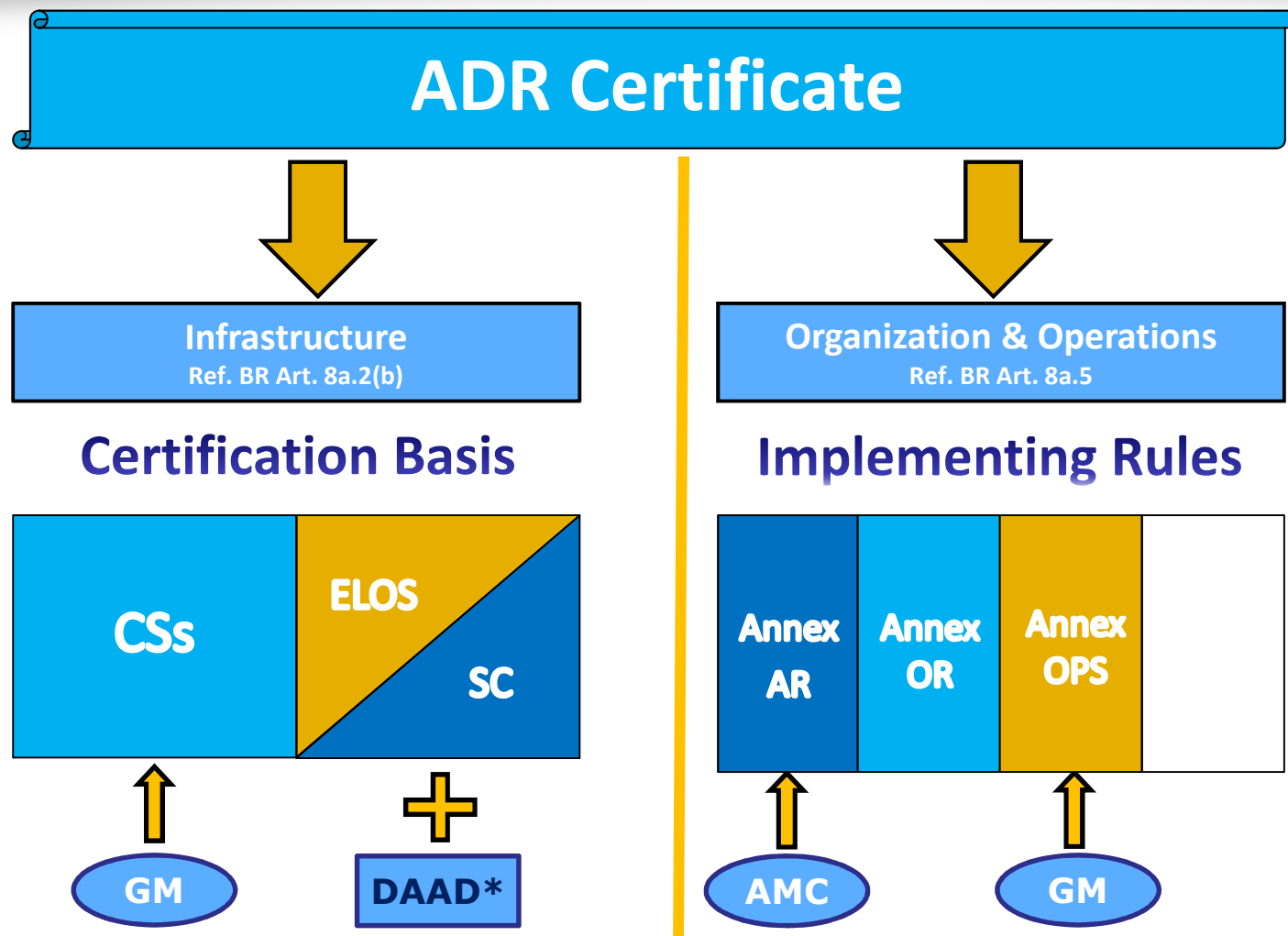
ADR design

Special Condition

Deviation Acceptance  
and Action Document



# The whole story



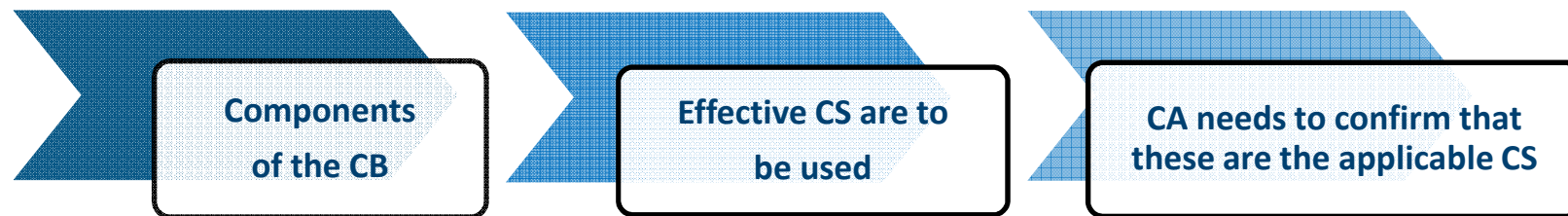
IRs = Implementing Rules  
CSs = Certification Specifications  
ELOS = Equivalent Level of Safety  
SC = Special Condition  
GM = Guidance Material  
AMC = Acceptable Means of Compliance

\*For pre-existing deviations only:  
Additional option of acceptance via "DAAD" mechanism Ref. 139/2014, Art. 7



# Elements of Certification Basis (ADR.AR.C.020)

## Certification Specifications (mentioned in ADR.ARC.020)



- CS are Technical standards adopted by the Agency;
- CS indicate the means to show compliance with Reg. 216/2008 and the Essential Requirements in Annex Va;
- CS are to be used by the applicant in last effective version for purpose of certification.



# Elements of Certification Basis (ADR.AR.C.020)

## Equivalent Level of Safety (ELOS) (see ADR.AR.C.020)

Part of the CB

Can apply to any deviation  
from the relevant CS

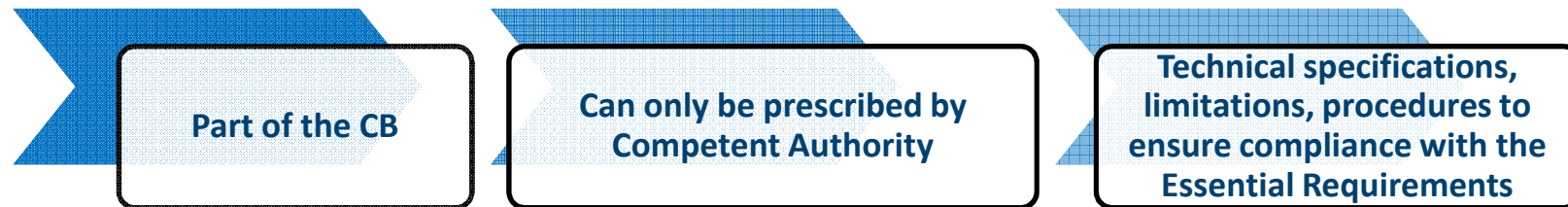
Only used when CA accepts  
the possibility to  
demonstrate ELOS

- Provisions for which the CA must allow the demonstration of ELOS
- Applicant must undertake Safety assessment
- Applicant has to demonstrate ELOS
- ELOS must be documented
- When accepted by the CA would not be linked to conditions



# Elements of Certification Basis (ADR.AR.C.020)

## Special condition (SC) (see ADR.AR.C.025)



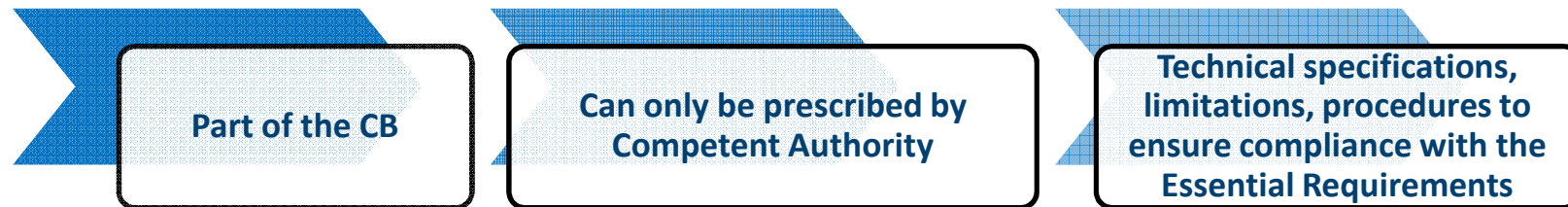
Can be used when the relevant CS is inappropriate or inadequate because:

- CS cannot be met due to physical, topographical or similar limitations related to the location of the aerodrome;
- the aerodrome has novel or unusual design features; or
- experience from the operation of that aerodrome or other aerodromes having similar design features has shown that safety may be endangered.



# Elements of Certification Basis (ADR.AR.C.020)

## Special condition (SC) (see ADR.AR.C.025)



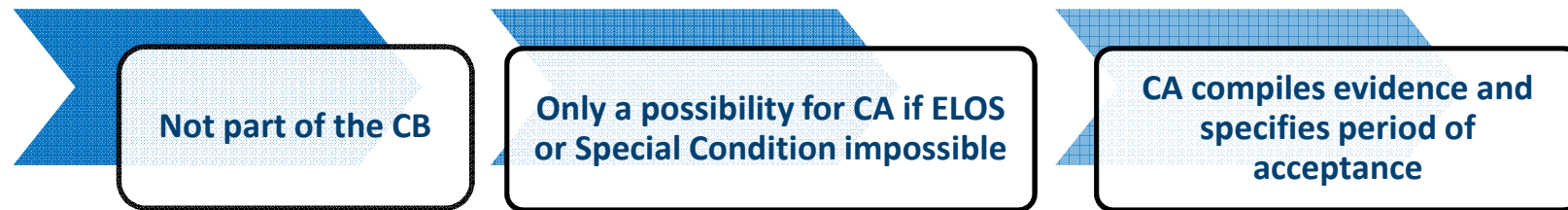
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(maybe) attached to Certificate

## Deviation Acceptance and Action Document (DAAD) [see Art.6]



- Only for Pre-existing deviation/s (pre-2014)
- Only to be used until 2024 but possibly longer “life span”
- Safety assessment to be done and mitigation put in place
- Regular review needed
- Action must be possible or desired in the future



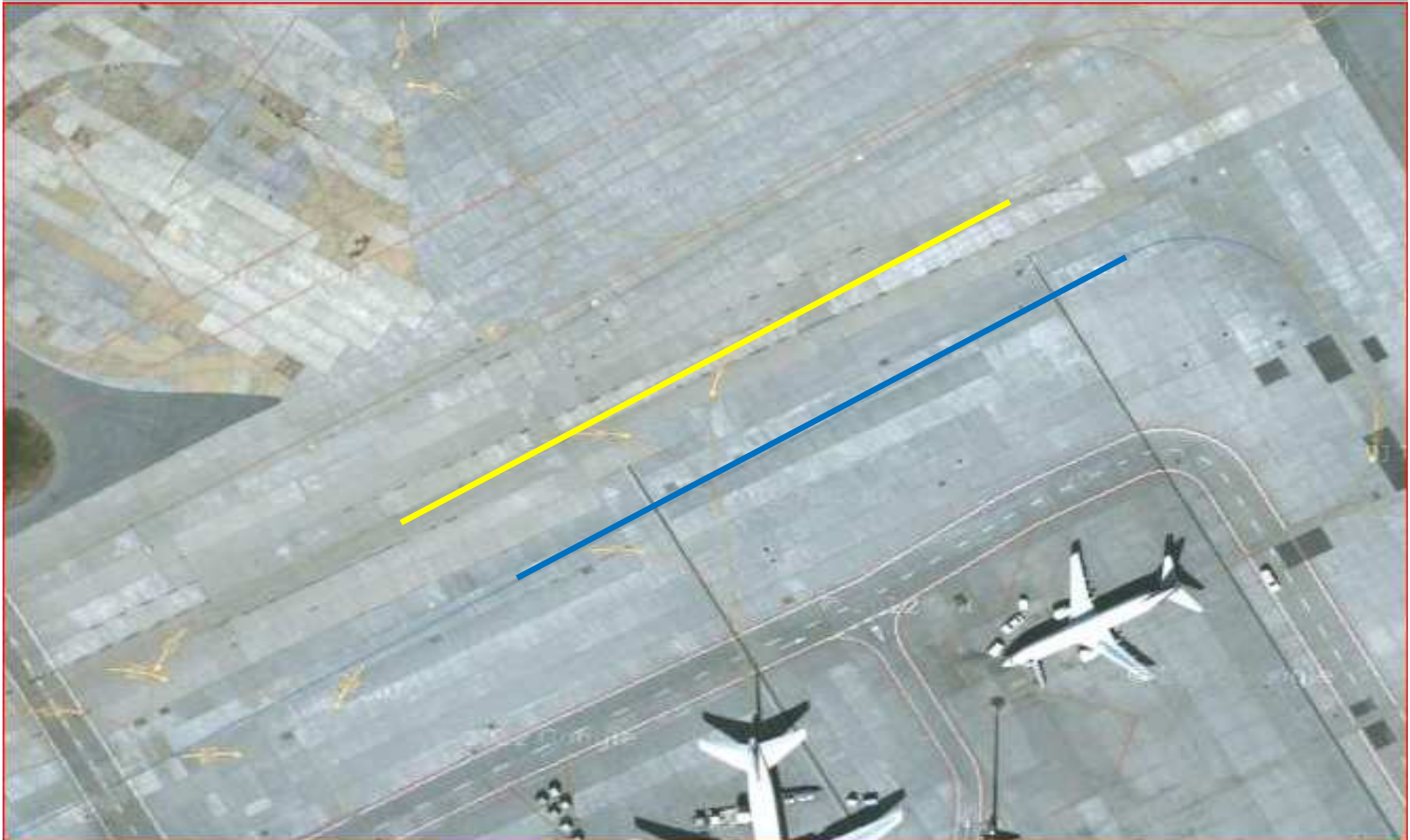


# Example Equivalent Level of Safety (ELOS)





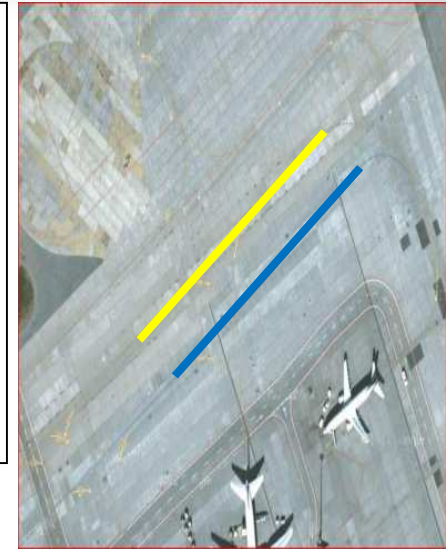
# Example Equivalent Level of Safety (ELOS)





## ELOS: Colour of apron taxilane CL marking

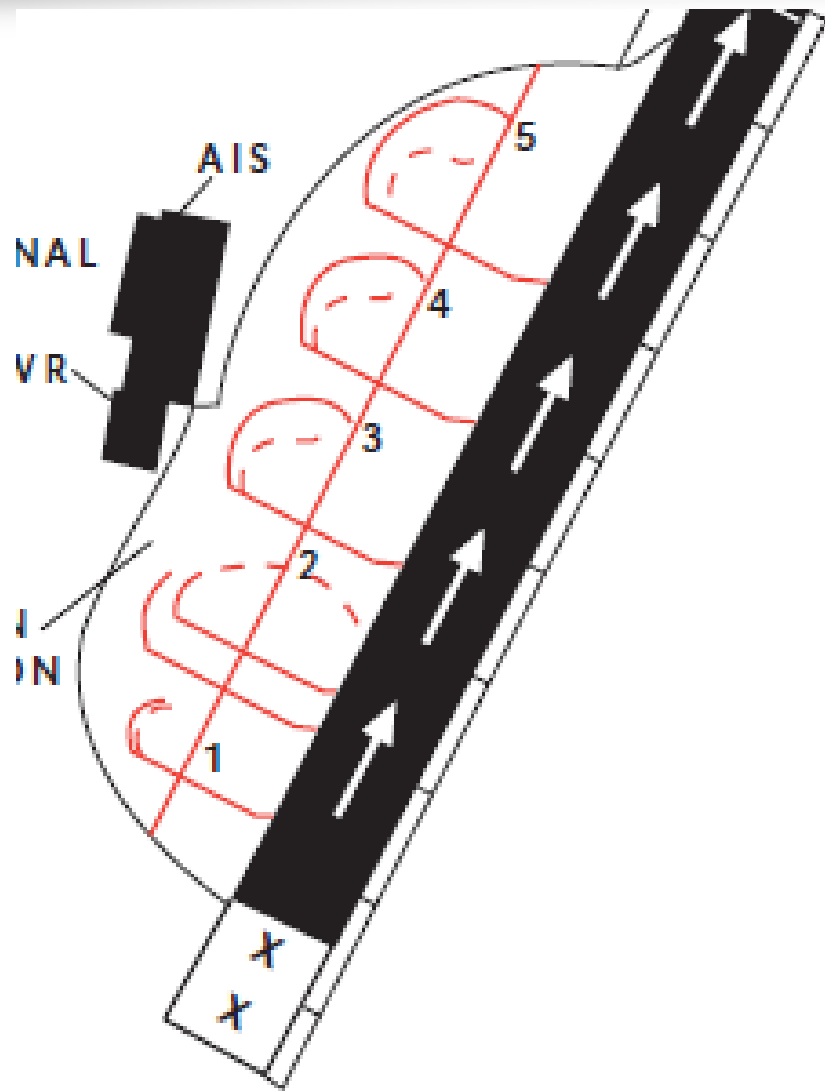
- The colour of the apron taxilane CL markings of the does not comply with the relevant CS (normally yellow only).
- The CL marking on an apron taxilane is blue colour to identify TWY centrelines that could be used by different sized aircraft.



- The ADR does not comply with the relevant CS.
- The CA allowed the ADR operator to demonstrate **ELOS**.
- The aerodrome operator has undertaken the safety assessment and proposed to CA an acceptance of the use of this marking as ELOS.
- The information as to which aircraft is allowed to park on which positions is provided in the AIP.



# ELOS: Colour of apron taxilane CL marking



## NOTES:

ACFT ON THE GENERAL AVIATION APRON SHALL BE PARKED WEST OF THE BROKEN WHITE LINE.

PARKING OF B757/200 PERMITTED ON POSITIONS 2 & 5, B757/300 ON POSITION 2 ONLY.

B757 ACFT ON POSITIONS 2 OR 5 TAKING OFF FROM RWY 03 MUST START THEIR TAKE OFF RUN FROM THE RWY PORTION ABEAM THEIR PARKING POSITION WITHOUT BACK-TRACKING ON THE RWY.





## Example Special Condition (SC)





## Example SC: TWY longitudinal slope





## Example SC: TWY longitudinal slope

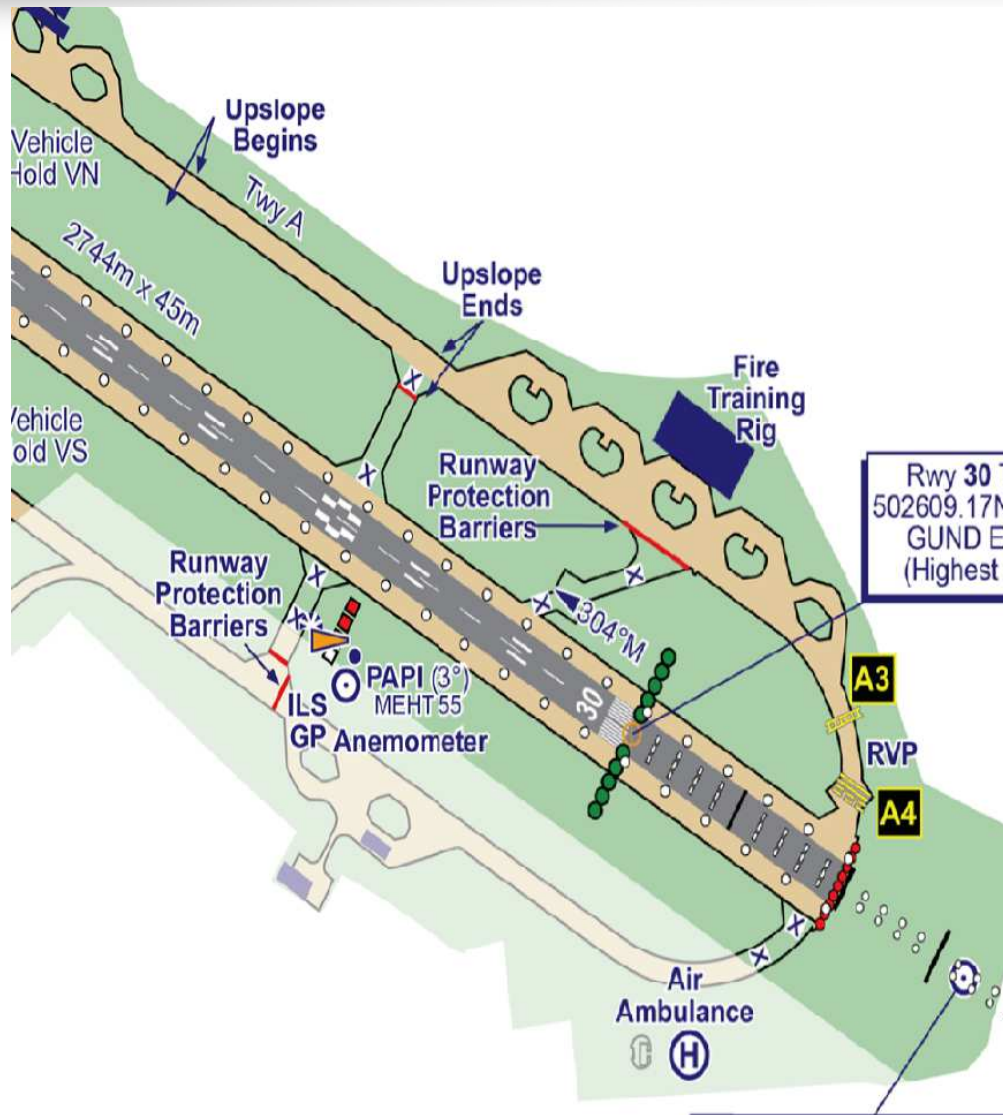
- Aerodrome Reference Code 4E. Single Parallel Taxiway.
  - Taxiway 'A' has a longitudinal slope of 1.7%
  - To meet the required longitudinal slope would incur substantial cost.
- 
- Aerodrome does not comply with the required CS. Longitudinal slope should not exceed 1.5%
  - Aerodrome does a safety assessment and finds mitigation measures;
  - Aerodrome has developed procedures in the ADR manual to
    - Increased de-icing operation during winter conditions
    - Increase inspections in icing conditions, in case of need closure of a portion of taxiway
    - Installation of new warning signs at that portion of the TWY
  - AIP advises pilots to take extra care during icing conditions.
  - CA allows for **Special Condition** but wants annual review of the situation.







## Example SC: TWY longitudinal slope



Newquay airport has 166,000 PAX per annum. Making it 36<sup>th</sup> busiest airport





# Example Deviation Acceptance and Action Document (DAAD)





## Example DAAD: Reduced width of RWY strip

- The width of the RWY strip is reduced to 134 m due to the proximity of the wood/trees;
- The total RWY strip width is insufficient;
- The trees and fence are penetrating the Transitional surface, i.e. represent an obstacle.

- ADR does not comply with relevant CS (150m for code number 3 and 4).
- ADR has no means to purchase the missing land.
- ADR assessed the safety concern and suggests mitigation.
- AIP ADR chart advises pilots about the situation.
- When possible the ADR will purchase the land to extend the strip to fulfill the CS requirement.
- CA grants a **DAAD** as the theoretical option exists.





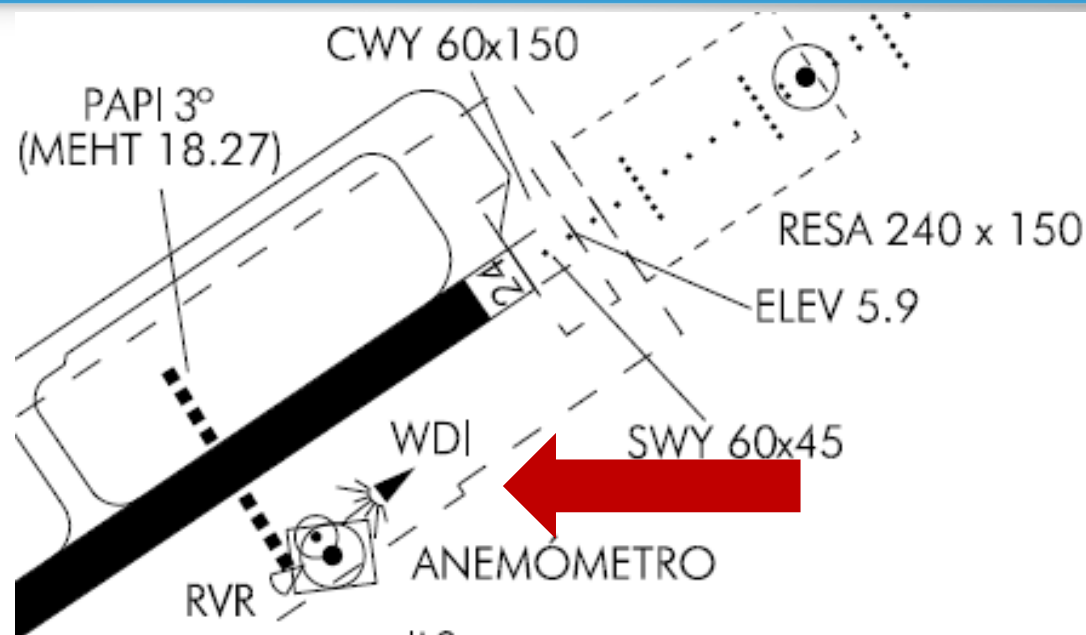
# Example DAAD: Reduced width of RWY strip

## Notes in the AIP aerodrome chart:

Strip: 2980x295 Note (2) (3)

(2): RWY 06 RIGHT SIDE: STRIP 145m.(instead of 150m)

(3): FINAL 253m OF RWY 06 RIGHT SIDE:  
STRIP DECREASES TO 134m.(instead of 150m  
= 16m less)



(1) PRIMEROS 104 m RWY 06 & RWY 24: HORMIGÓN HIDRÁULICO.

(2) RWY 06 MARGEN DERECHO: FRANJA 145 m.

(3) ÚLTIMOS 253 m DE RWY 06 MARGEN DERECHO: FRANJA DECRECE HASTA 134 m.





# Example Deviation Acceptance and Action Document (DAAD)





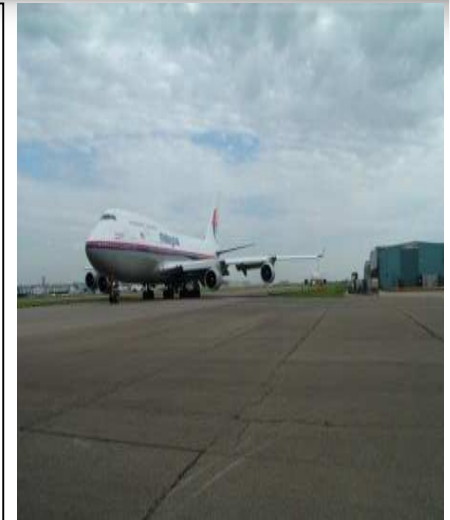
## Example DAAD: TWY to object distance





## Example DAAD: TWY to object distance

- Taxiway “S” at this ADR has an infringement of the Code E strip by 10.5m.
  - There is a building too close to the wingtip of code E a/c.
  - There is intension that future development in the area would provide the opportunity to meet the required strip dimensions.
- 
- ADR non-compliant with the relevant CS for the Taxiway CL to object clearance;
  - Aerodrome has assessed the safety concern;
  - Infringement is on a straight portion of taxiway
  - AIP advises pilots to take extra care while taxiing past the infringement
  - CA grants the ADR a **DAAD** until the development will remove the non-compliance by elimination of this building.





# Deviation selection criteria and flow chart



Microsoft Office  
Word Document

A close-up of a silver, spherical microphone with a black grille, positioned in the center of the frame. The background is a heavily blurred crowd of people, with various colors of clothing visible, suggesting a large gathering or event. The lighting is somewhat dim, with the microphone being the primary focus.

**It's Your Turn!**

**Join the discussion!**





**EASA**  
European Aviation Safety Agency

**Thank you very much**



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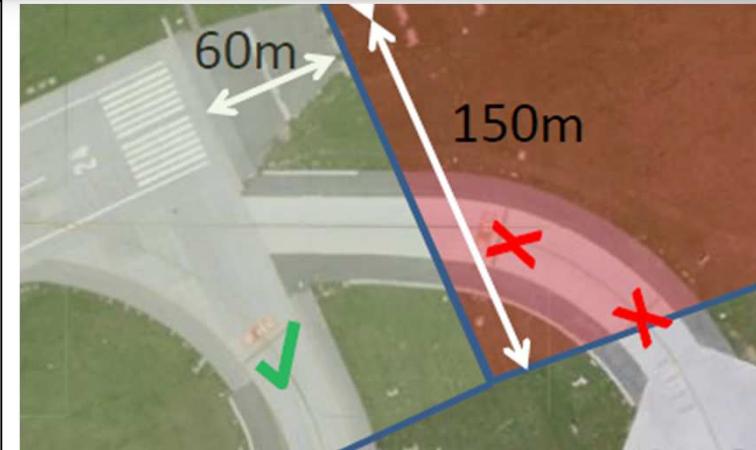
# PROBLEM: RWY Holding position infringes OLS





## Problem :RWY Holding position infringes OLS

- Holding position CAT I on TWY Z penetrates the Approach Surface (inner width 300 m, Annex 14 STD 3.12.9)
- In 2013 a European CA took TWY Z holding CAT I **out of service** by NOTAM immediately.



- **What would you do ?**



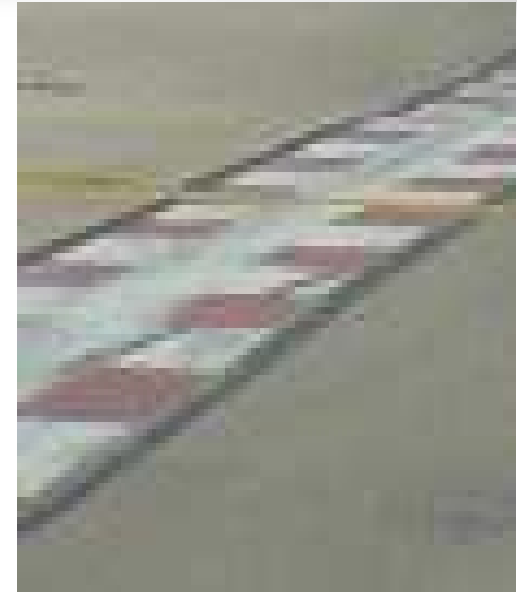
## PROBLEM: Apron service road marking





## PROBLEM: Apron service road marking

- The ADR used apron road marking in red colour (ACI handbook suggests the use of only white lines)
- Airport has put markings that are the same as the local road edge side marking (alternating red and white)



- **What would you do ?**





## PROBLEM: Apron service road marking

