

Session

Declared Distances Overview & Applications

“Runways with 8 Parts”

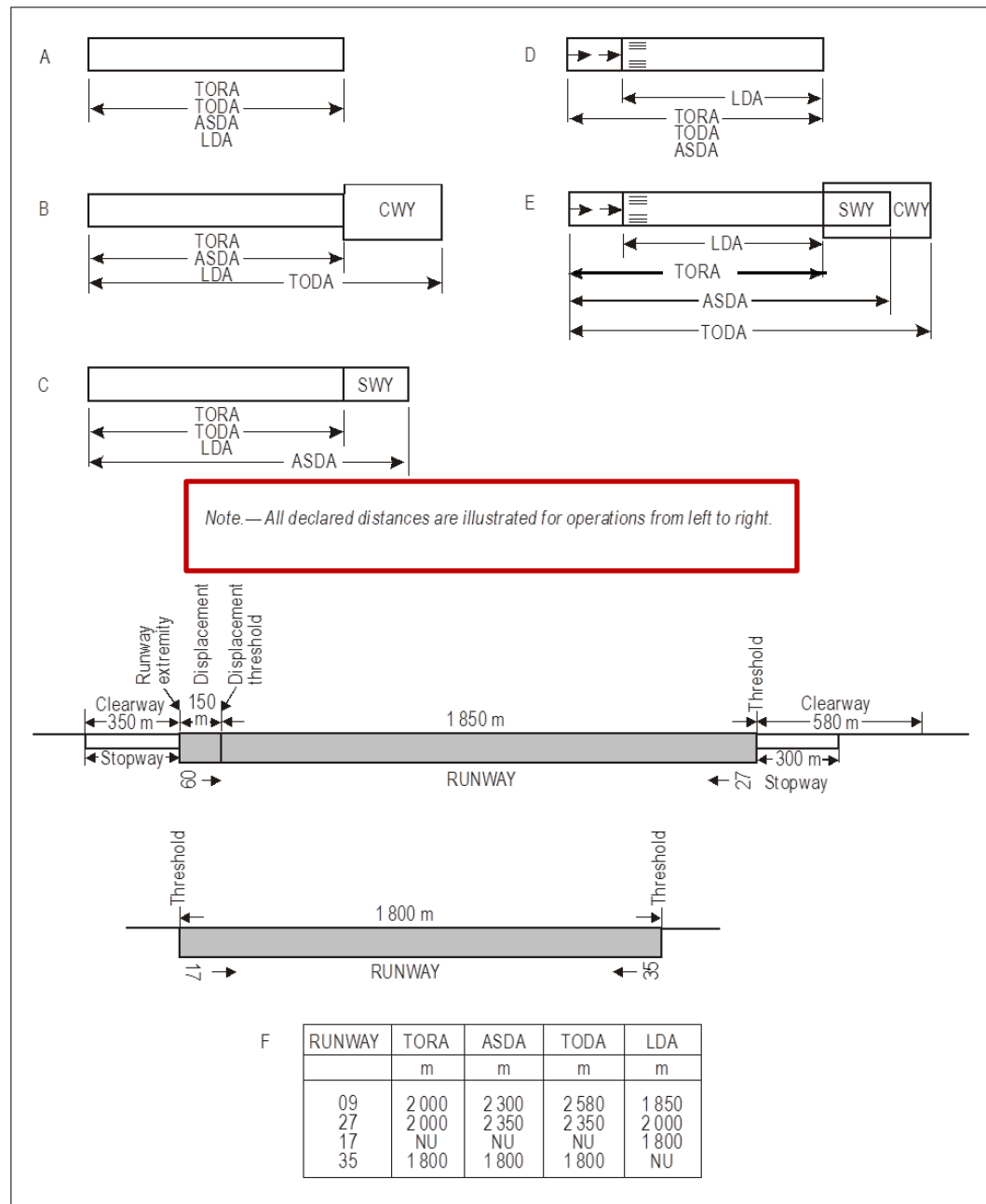
ICAO'S PURPOSE

*To Standardize the Calculation and Reporting of Available Runway Lengths by **Aerodrome Operators** for use by **International Air Transport Carriers**:*

- Takeoff Run Available (**TORA**)*
- Takeoff Distance Available (**TODA**)*
- Accelerate-Stop Distance Available (**ASDA**)*
- Landing Distance Available (**LDA**)*

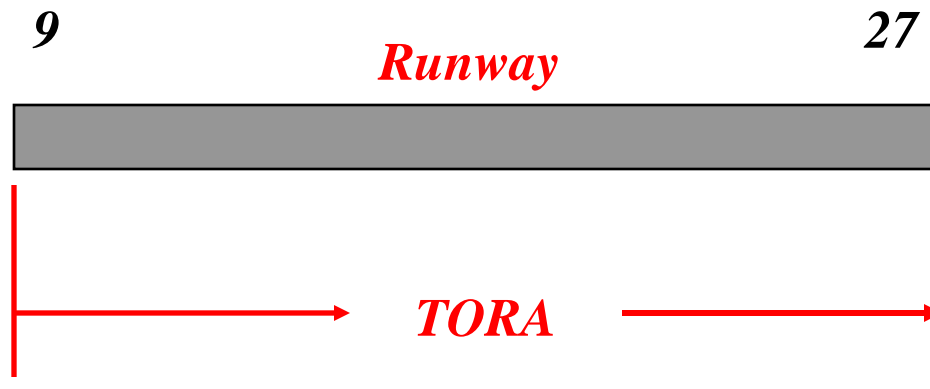
Figure A-1 Illustration of Declared Distances

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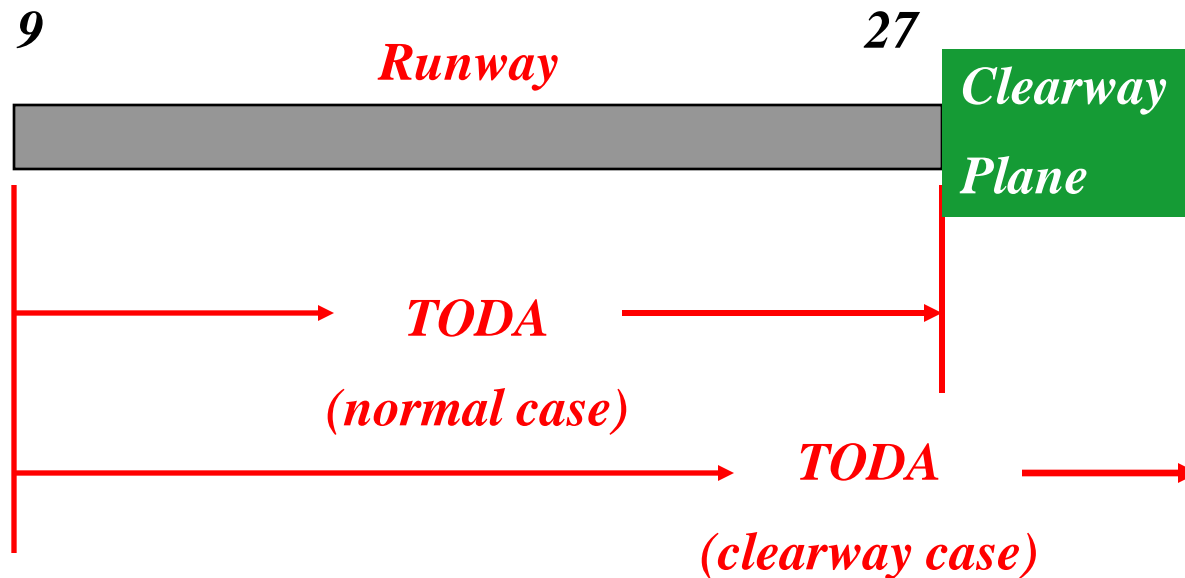
DEFINITIONS

- *Takeoff Run Available (TORA)* – the runway length declared available and suitable for the ground run of an airplane taking off (1 case)



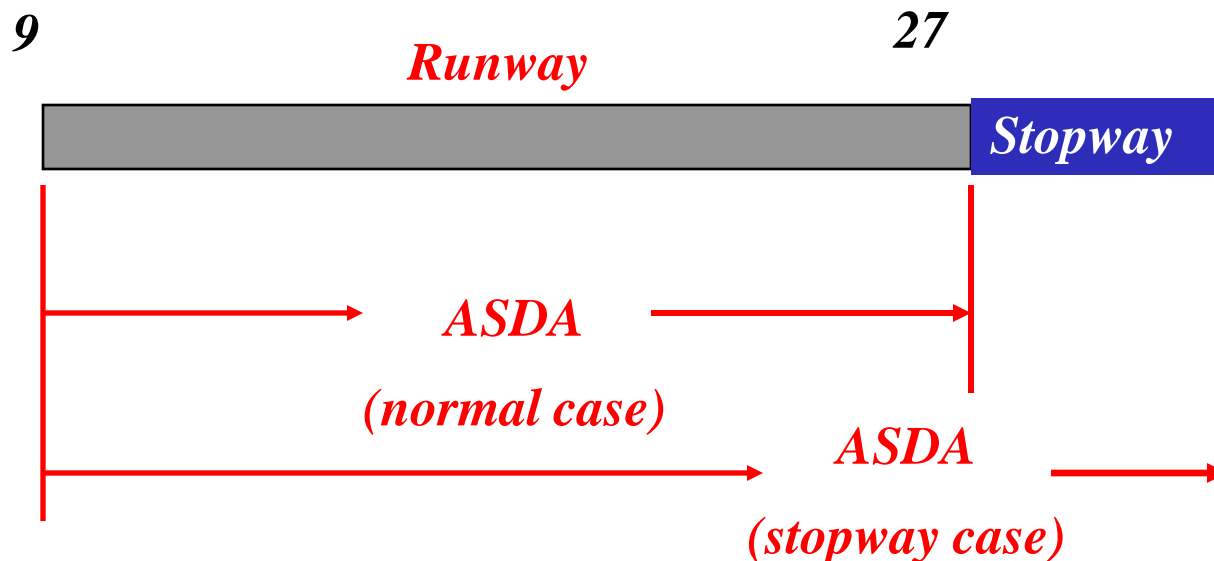
DEFINITIONS (*continued*)

- *Takeoff Distance Available (TODA)* – the length of the TORA plus the length of the clearway, if provided (*2 cases*)



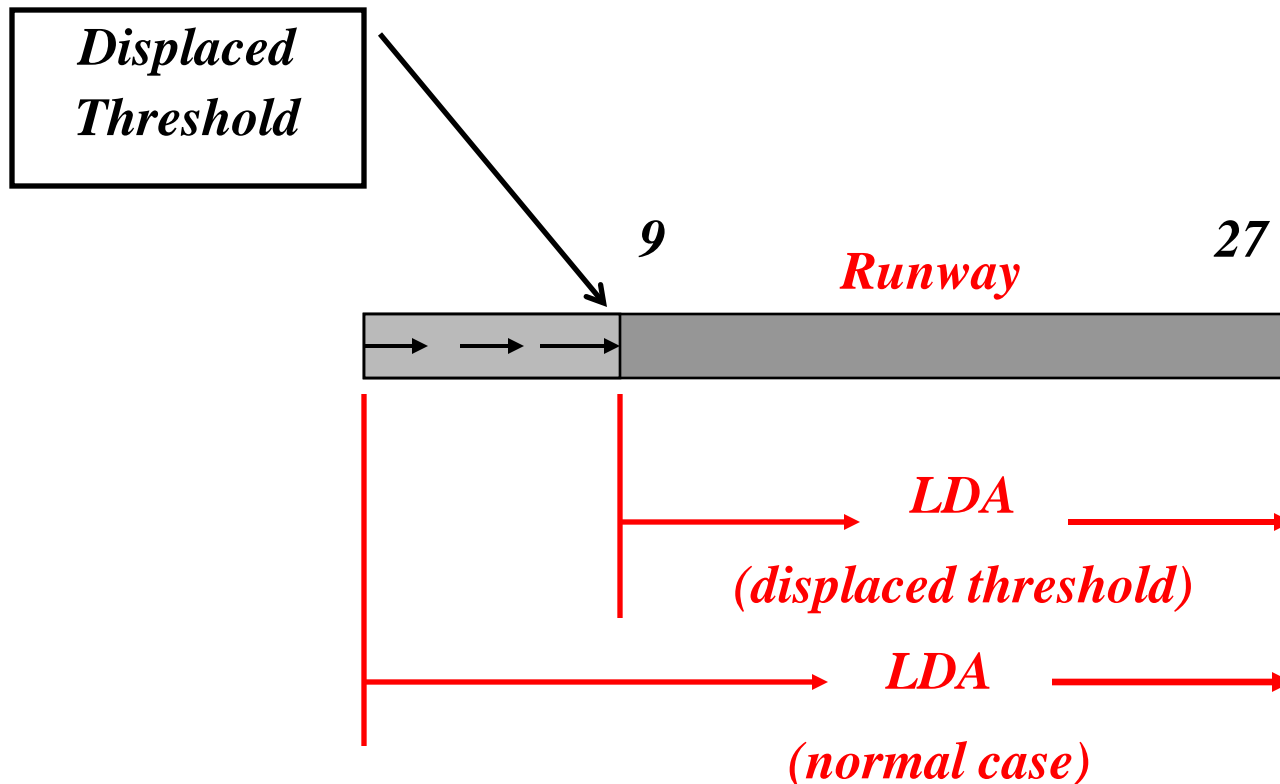
DEFINITIONS (continued)

- Accelerate-Stop Distance Available (ASDA) – the TORA plus the length of the stopway, if provided for the acceleration and deceleration of an airplane aborting a takeoff (2 cases)*

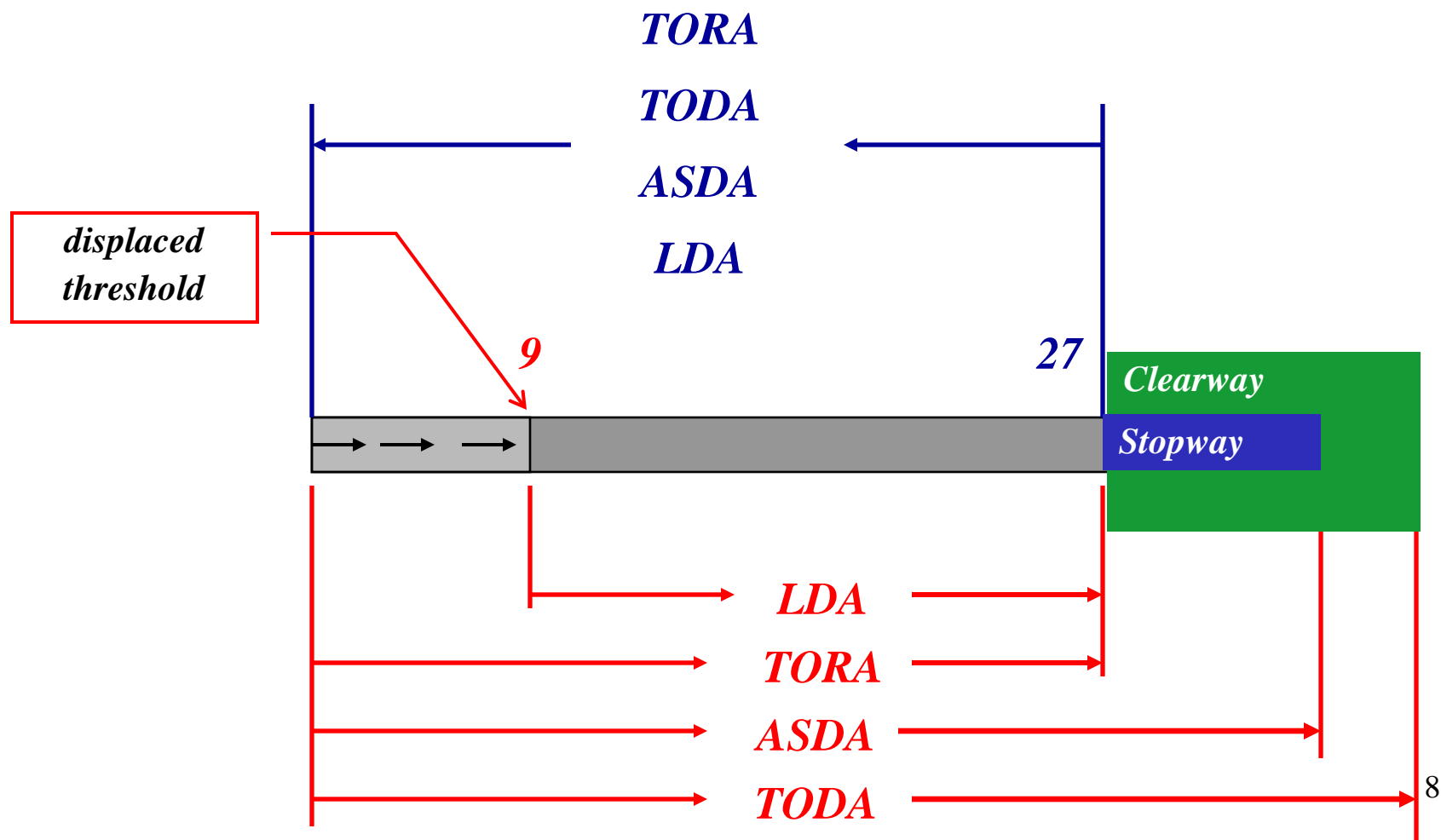


DEFINITIONS (continued)



- *Landing Distance Available (LDA)* – the runway length declared available and suitable for landing an airplane (2 cases)

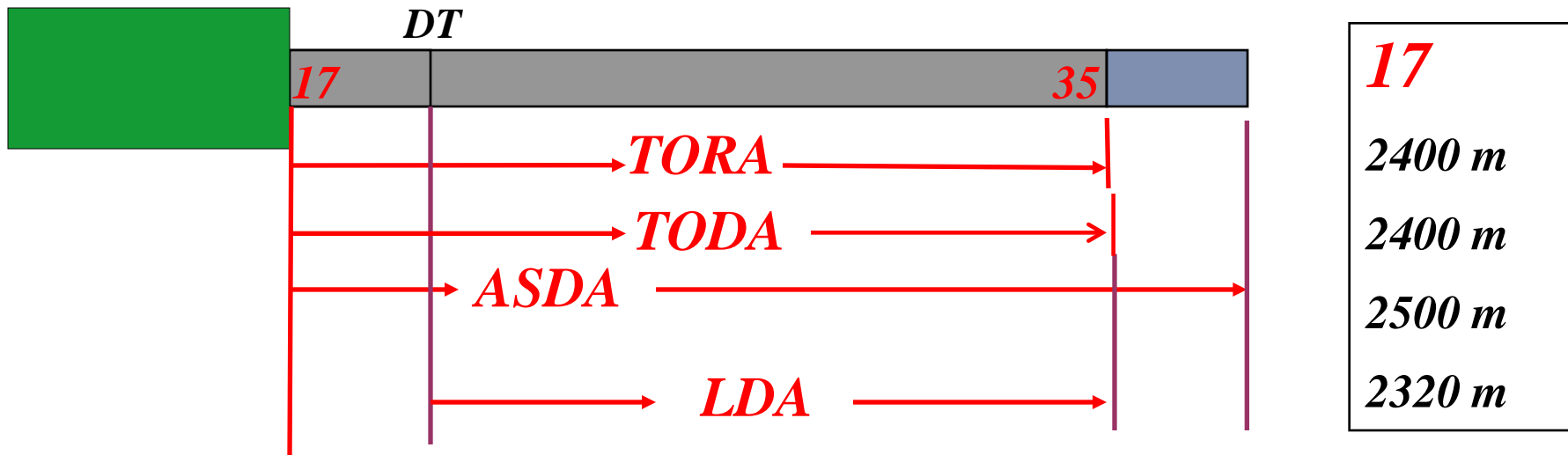


Declared Distances: *Rwy 9* and *Rwy 27* Ends



EXAMPLE:

- *RWY 17/35 = 2,400 meters*
 - *Stopway off Rwy 35 = 100 m* 
 - *Clearway off Rwy 17 = 250 m* 
 - *Displaced Threshold at Rwy 17 = 80 m*

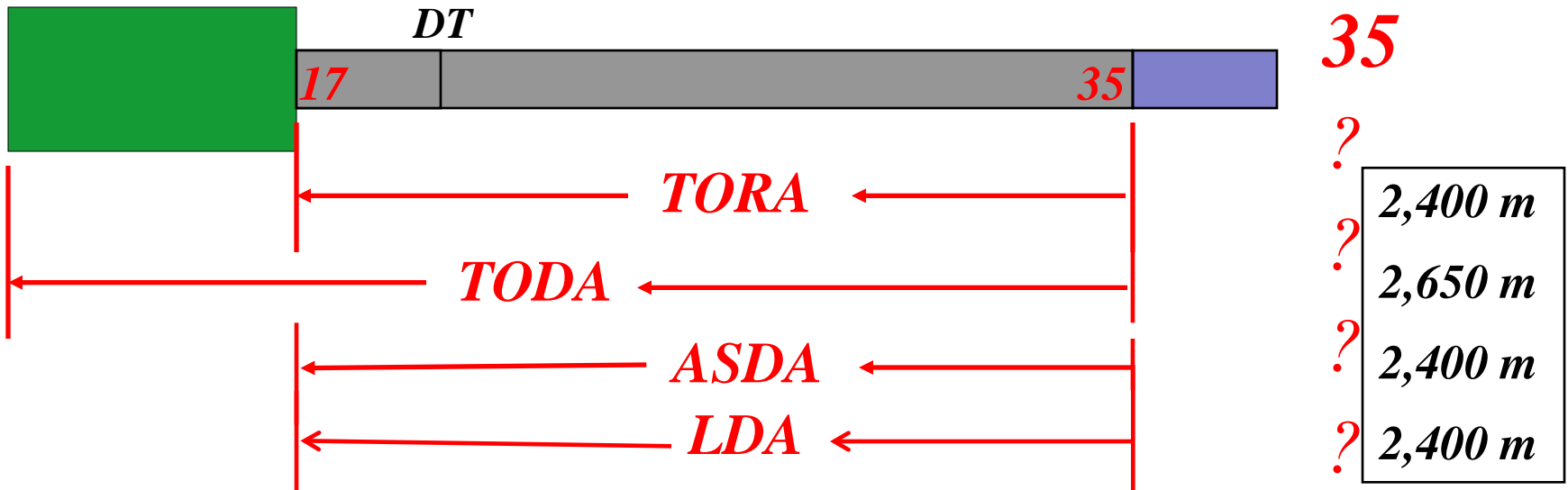


RWY 17/35 = 2,400 m

Stopway off Rwy 35 = 100 m 

Clearway off Rwy 17 = 250 m 

Displaced Threshold at Rwy 17 = 80 m





Exercise 1

Find the declared distances for Rwy 17 and Rwy 35

RWY 17/35 = 3,000 m

Stopway off Rwy 35 = 170 m 

Clearway off Rwy 35 = 500 m 

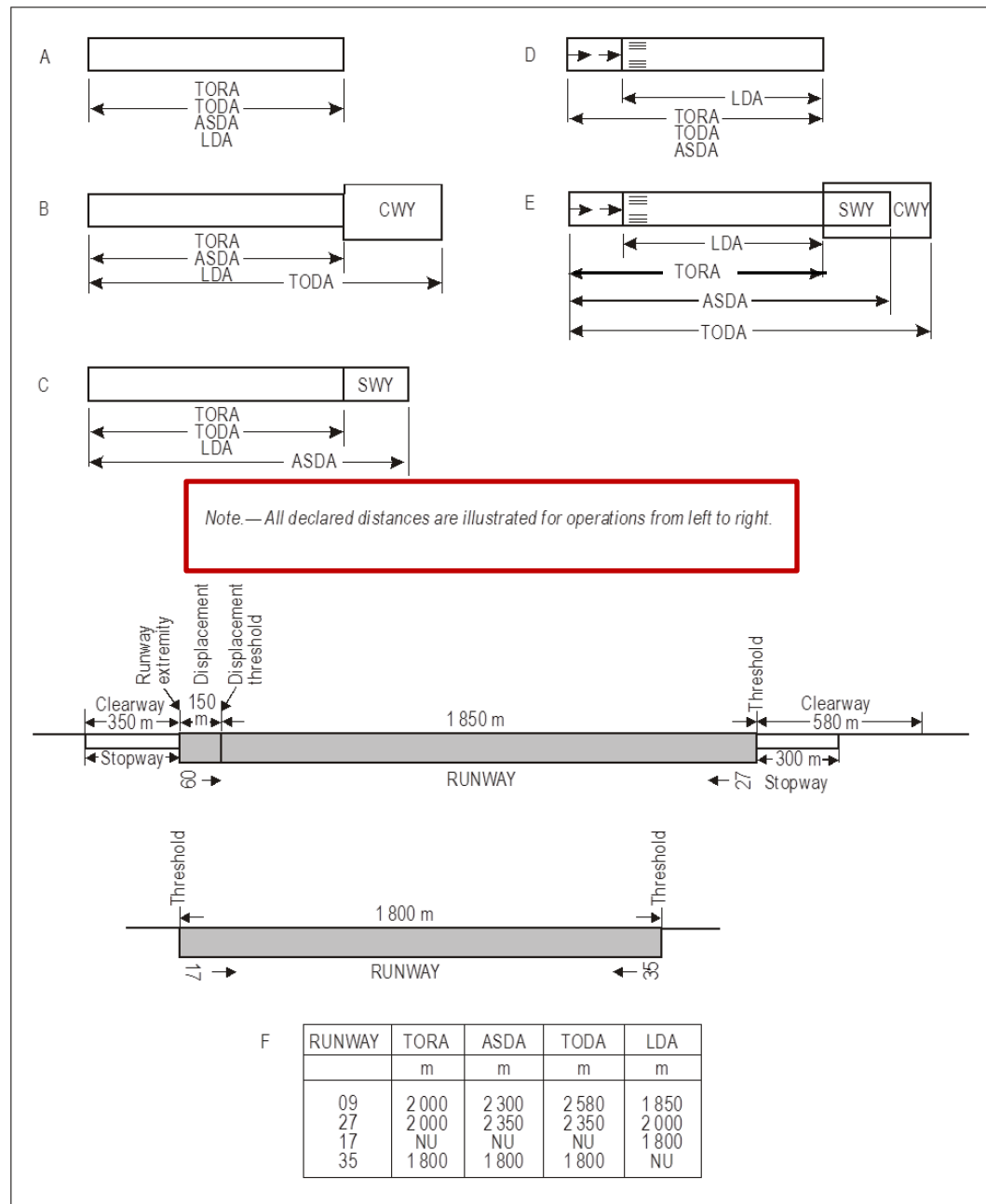
Clearway off 17 = 250 m 

Displaced Threshold at Rwy 17 = 200 m



Figure A-1 Illustration of Declared Distances

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Amendment to ANNEX 14, Volume I

- *ICAO recognized the use of declared distance as one acceptable method to obtain Runway End Safety Areas (RESA)*
- *Benefits – Compliance with:*
 - *Standard RESA lengths*
 - *Recommended RESA lengths*
- *How ? Session - EMAS Runway Excursion*

End of Session