Go-around Decision Making

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European Commercial Aviation Safety Team
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INTRODUCTION
Runway excursion risk

From

HIGH SPEED REJECTED TAKE OFF

DECISION MAKING

To

GO AROUND

DECISION MAKING

Preventing Landing Accident …

Airlines Flight Ops | ATC | Airports | Manufacturers | Authorities



Better decision making regarding

…

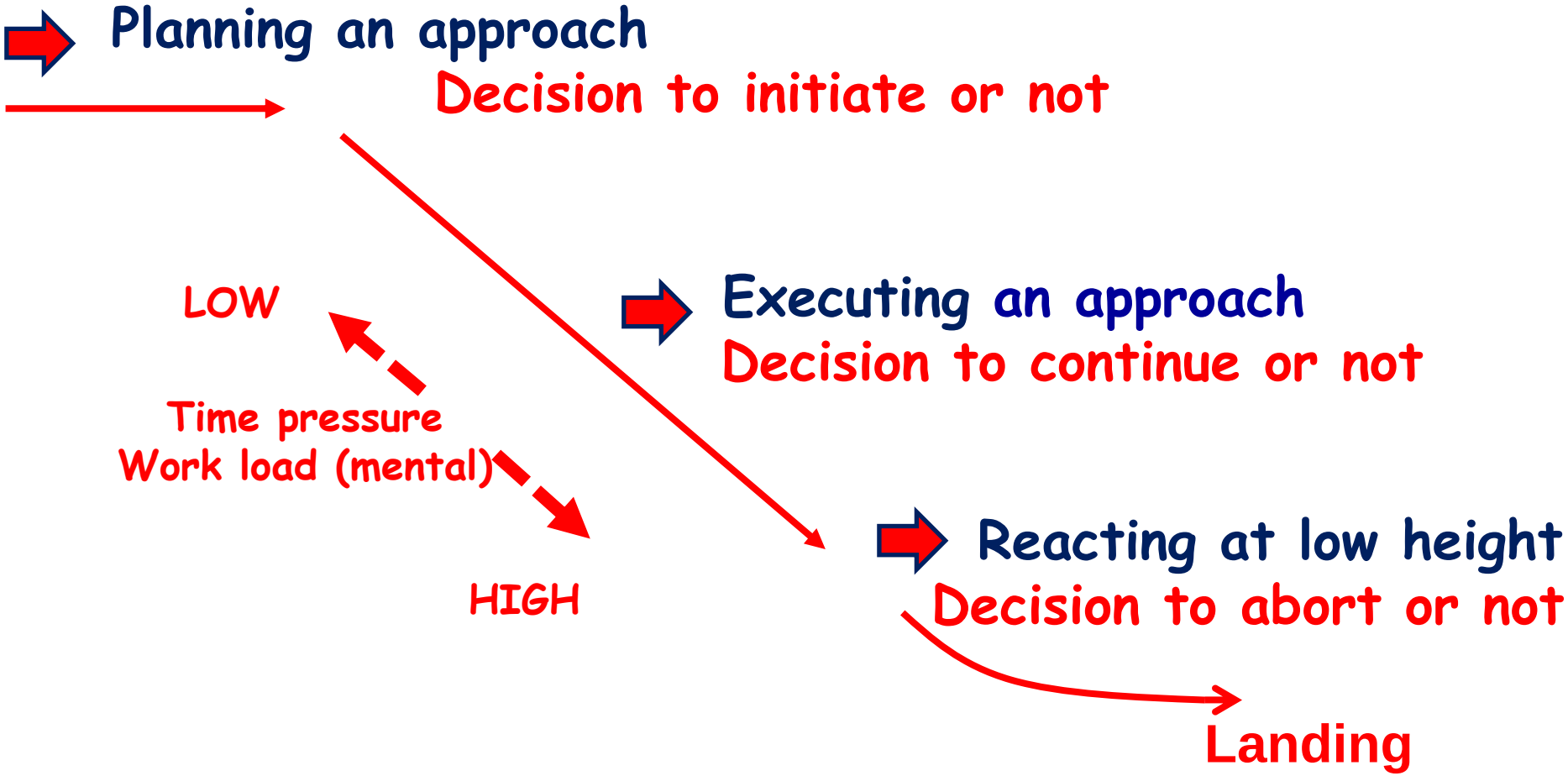
Planning, Executing & Reacting

2013 ?
2014 ?
2015 ?

…

Preventing Landing Accident

What decision ?



Making better decision

End of cruise

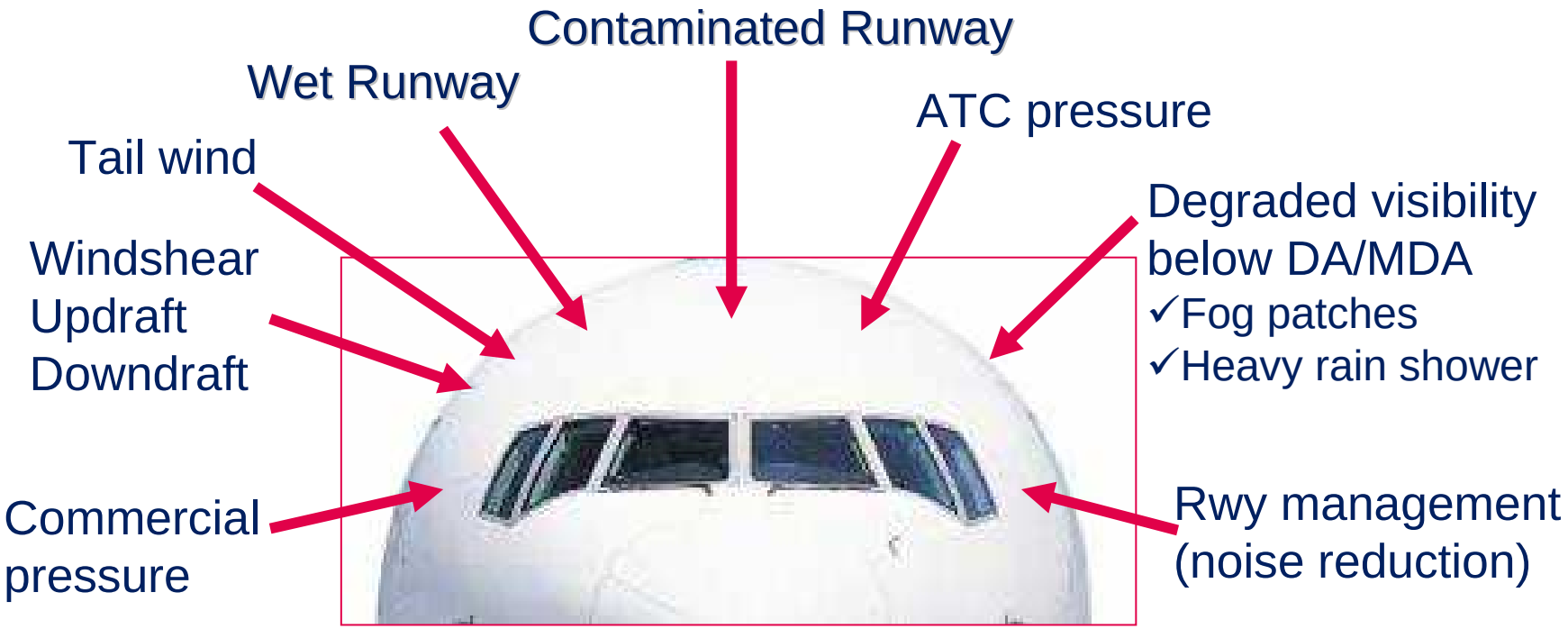
Decision to initiate or not an approach

- ✓ Anticipation, communication, team work
- ✓ Landing performance, margin awareness and strategy
- ✓ Keeping alternate solution and decision ready (what if ?)
- ✓ Be ready to say ‘NO’ (ATC, commercial, other pressure, …)
- ✓ Approach briefing (‘’TEM’’ oriented)
  - Runway length, runway status (dry, wet, …)
  - Tail wind
  - Aircraft weight
  - MEL dispatch (reverse, spoilers)
  - …

Landing

Knowing and Managing the threats

Be ready



Making better decision

Decision to continue or not an approach

Decision based on

> briefed options and decisions

> updated information from ATC/Pirep

> radar display in convective weather

> use of wind on nav display

> …

Good decisions will depend on good communications:

> between pilots (including Pireps),

> between pilots and ATCs

> between pilots and aircraft

Making better decision at **low height**

Decision to abort or not at low height or at touch down

At or below DA/MDA, when close to the runway

-Teamwork becomes different (time pressure at its highest)

-Decision making must be quicker

-Formal task sharing is key (PM tasks, standard call out)

Landing

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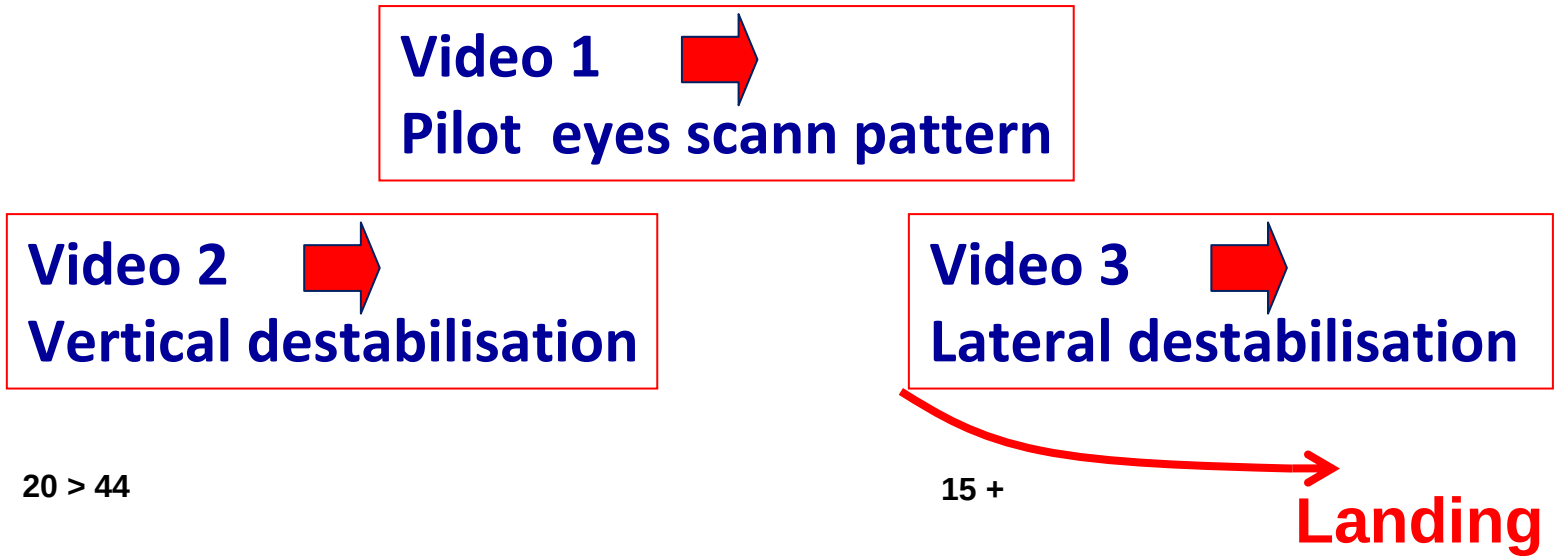
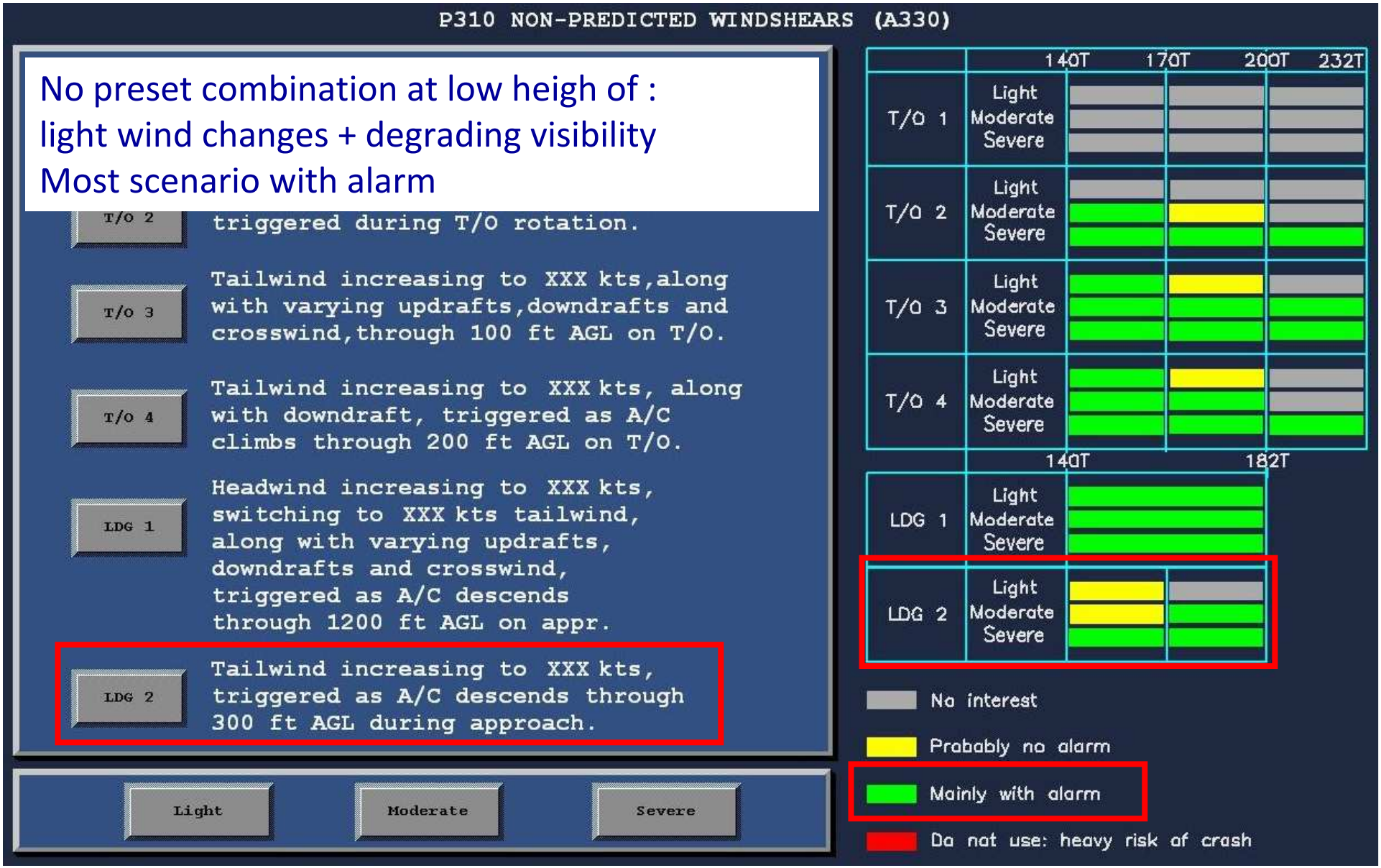


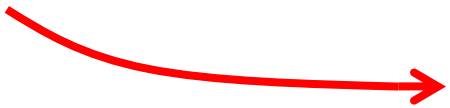
Training the decision making (sim)



Making better decision at low height

Decision to abort or not at low height or at touch down

- **Communication and task sharing**
  - ✓Call out at minimum stabilized height
  - ✓Call out any time when beyond preset threshold exceedances
  - ✓Go around call out (including call out by copilot)
- **Decision aid (use of technology)**
  - ✓ Real time cockpit information whenever aircraft energy, braking action, available runway does not match each other: **"ROPS" type**
  - ✓ Unstabilized/destab./deep ldg detection aid: "**Smartlanding" type**



Landing

Prevention Runway Excursion
Decision making per flight phase (Summary)

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1 - End of cruise, descent, initial approach

Decision to initiate or not an approach

Time for team work, options and strategy

Awareness of acft/runway limitations and margin (use of OLD)

Next phase decisions ready (what if)

2 - Approach

Decision to continue or not the approach

Higher time pressure

Still time to update information and to validate options

Keep ready for using prepared decisions

3 – Short final and landing

Decision to abort or the final approach and landing

Little or no time for communication

Use of standard call out

Decision to abort or not, if needed should be immediate

Capacity to recognize the hazards and to react the right way

Review the way you train this type of decision

Landing

Decision making
Ways of improvement

- **Airport, ATC (Information and support provided to pilots)**
  - ✓ **More relevant & quicker update of** visibility, wind, runway status change
  - ✓ Information for **any tail wind situation**
  - ✓ **"Conservative" radar vectoring ("Compliant approach" ref. EAPPRE)**
- **Standard operating procedures (SOPs)**
  - ✓ Explicit and formal call out procedures (minimum stab height, deviation …)
  - ✓ Go around call out (or decision when PF) by copilot
- **Aircraft equipment (use of available technology)**
  - ✓ Decision aid such as ROPs, Smart ...
- **Airlines safety management tool**
  - ✓ Flight data monitoring: software, method and processes to assess fleet/airline performance regarding go around decision
  - ✓ Decision making training including scenarios of horizontal visibility decreasing on short final and during flare with/without slight wind variation for pedagogic purposes. This suppose simulator software improvements.

Go around decision making
How to make it better ?

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Airlines Flight Ops | ATC | Airports | Manufacturers | Authorities





Together
We can make it better


NO MORE

THANK YOU


FLIGHT
SAFETY
FOUNDATION

era
european regions airline association

EUROCONTROL

AIRBUS

ECAST


IFATCA

Civil Aviation
Authority

IATA

BEA

NATS

dgac
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