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**SPECIFIC OPERATIONS RISK ASSESSMENTS  
(SORA) COURSE APPLIED TO UNMANNED AERIAL  
VEHICLES**



**CHAPTER III: INTRODUCTORY CONCEPTS OF  
METHODOLOGY (SORA)**



# CHAPTER III: INTRODUCTORY CONCEPTS OF METHODOLOGY (SORA)

# SORA APPROACH

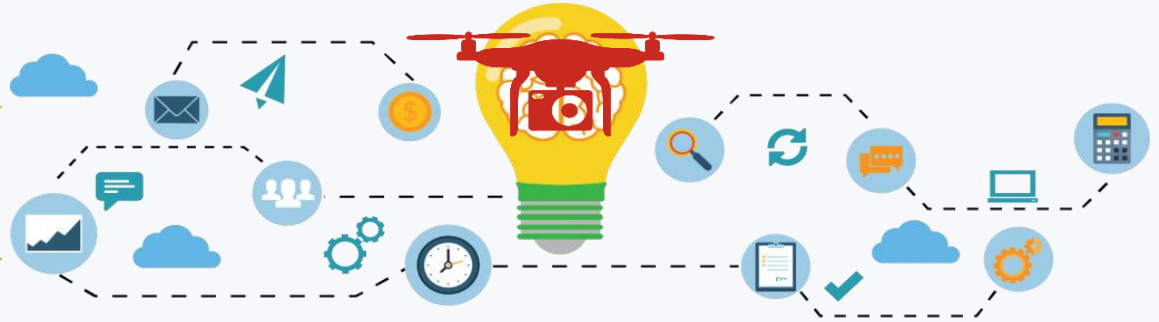
IDENTIFICATION OF THE DAMAGE

IDENTIFICATION OF HAZARDS

THREAT IDENTIFICATION

IDENTIFICATION OF THE MEANS

PROBABILITY ESTIMATION



# IDENTIFICATION OF THE DAMAGE

**01** FATAL INJURIES TO THIRD PARTIES ON LAND

**02** FATAL INJURIES TO THIRD PARTIES IN THE DUE TO A CATASTROPHIC AERIAL COLLISION

**03** DAMAGE TO CRITICAL INFRASTRUCTURE



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# HAZARD IDENTIFICATION



**“UNMANNED AERIAL VEHICLES IN  
OUT-OF-CONTROL OPERATION”**

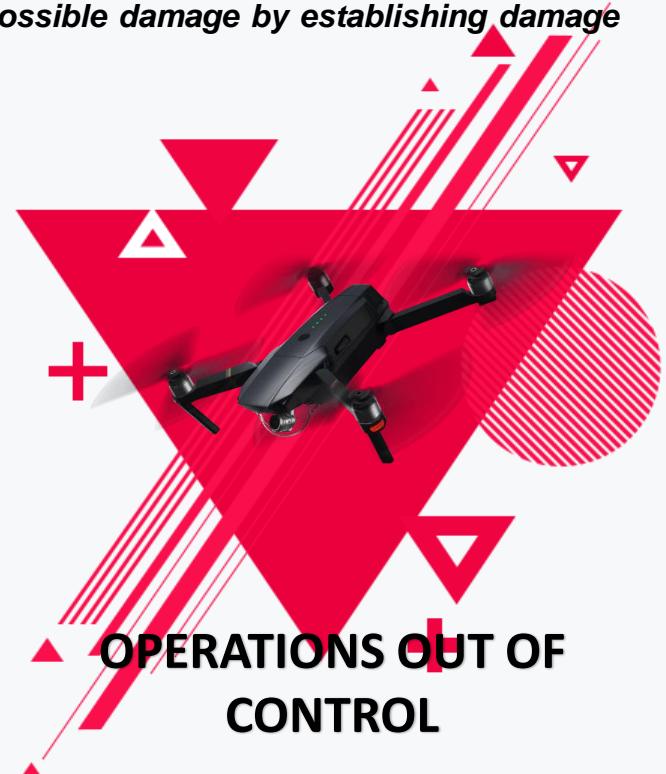
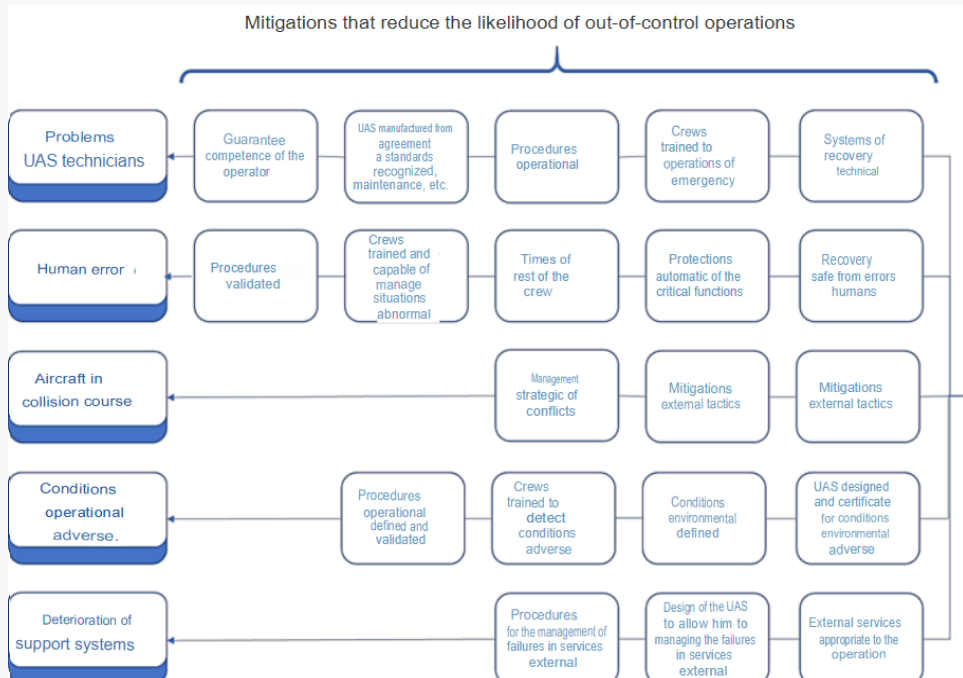
# THREAT IDENTIFICATION



- 01 UNMANNED AERIAL VEHICLE  
TECHNICAL PROBLEMS
- 02 HUMAN ERROR
- 03 AIRCRAFT ON COLLISION COURSE
- 04 ADVERSE OPERATING CONDITIONS
- 05 DETERIORATION OF EXTERNAL  
OPERATING SUPPORT SYSTEMS

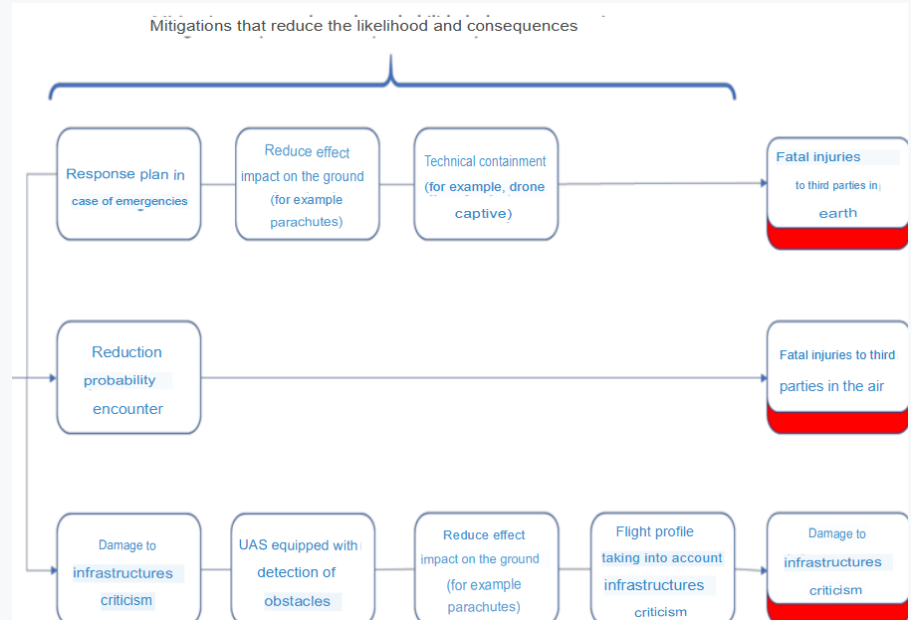
# IDENTIFICATION OF MEANS FOR RISK MITIGATION

**First, reduce the probability and/or mitigate possible damage by establishing damage barriers.**



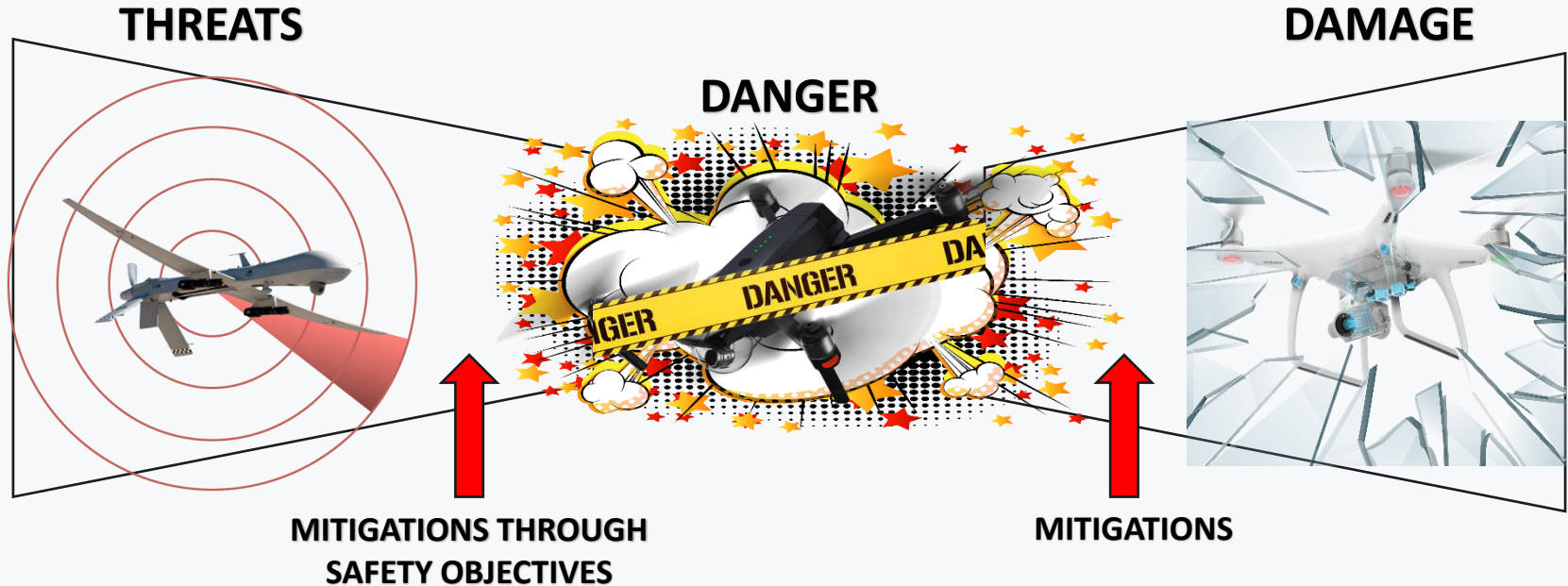
# IDENTIFICATION OF MEANS FOR **RISK MITIGATION**

*Second: Reduce the likelihood that the operation will be out of control through mitigations that control threats by establishing barriers to them*



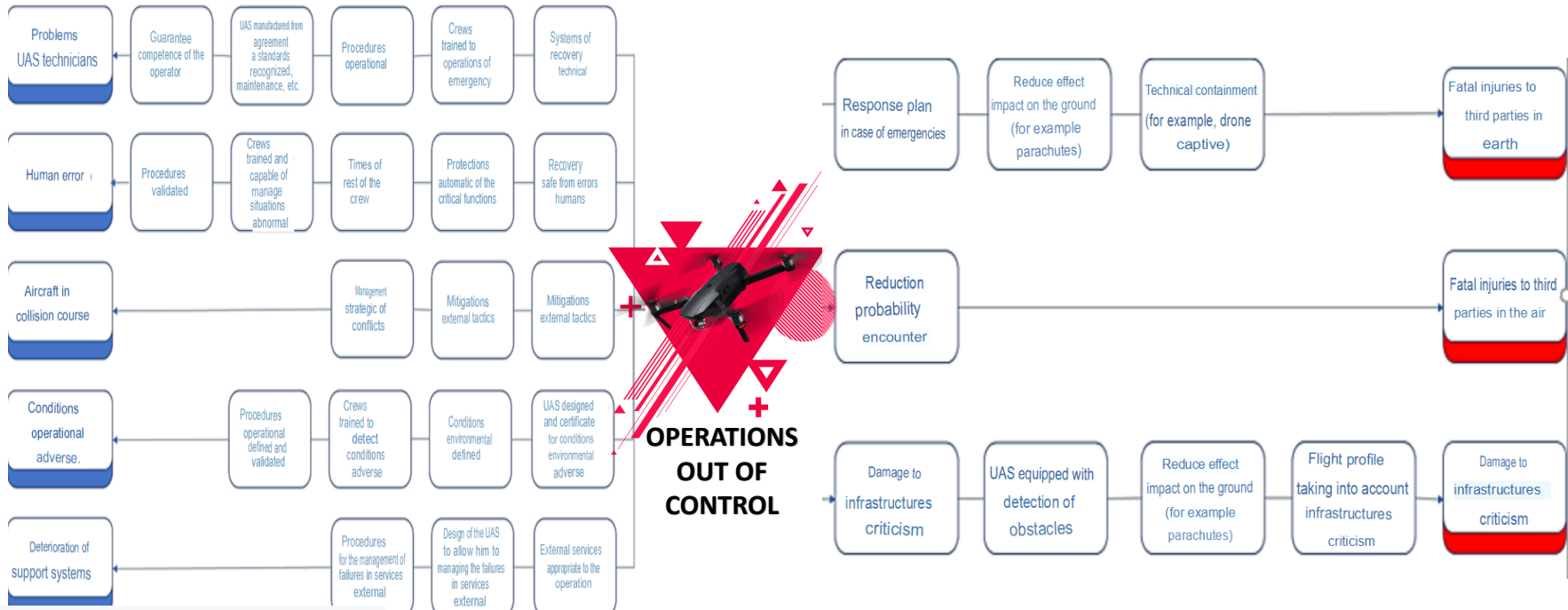
# IDENTIFICATION OF MEANS FOR **RISK MITIGATION**

*Integrated conceptual outline of these approaches*



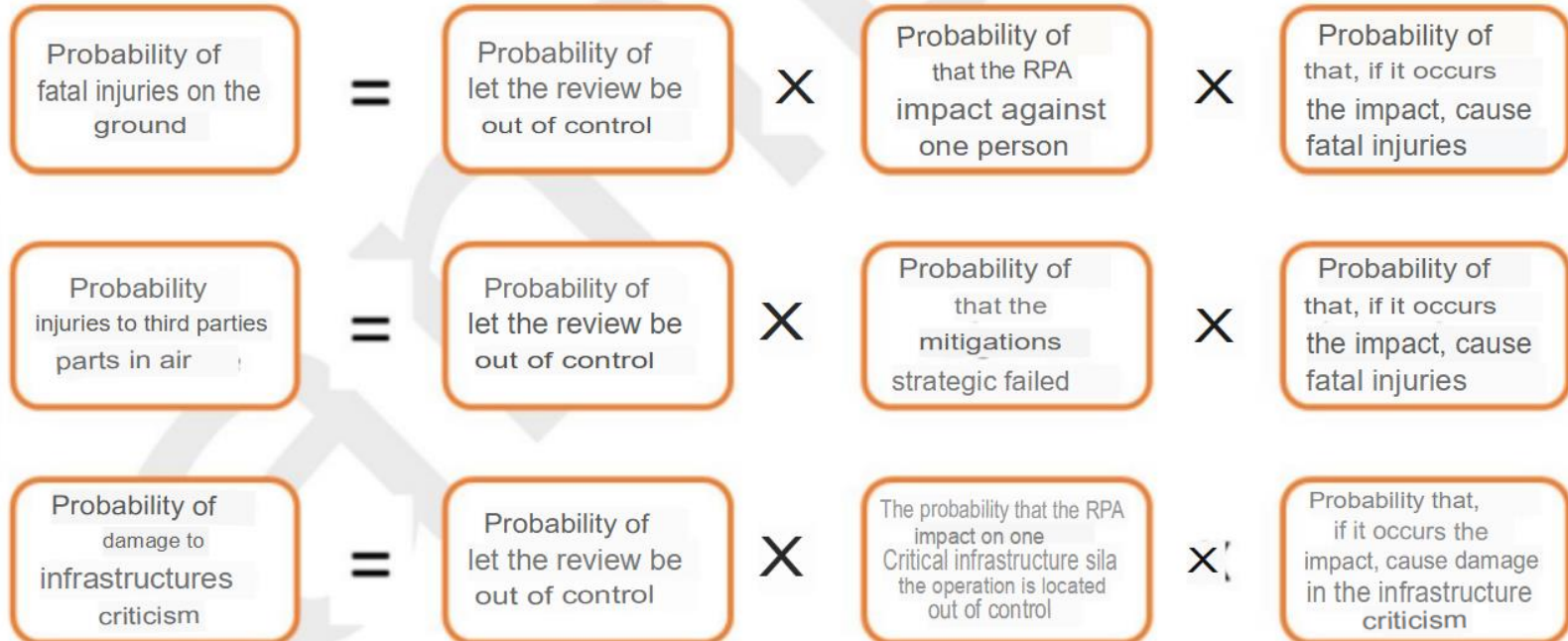
# IDENTIFICATION OF MEANS FOR **RISK MITIGATION**

*Integrated conceptual outline of these approaches*

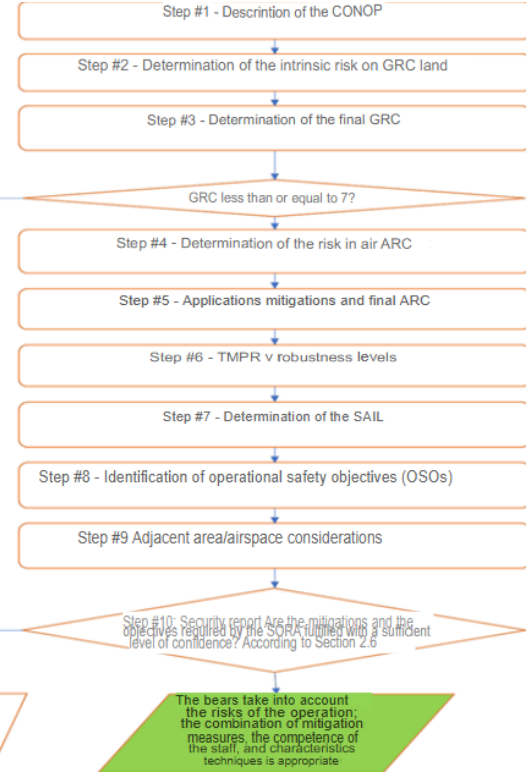
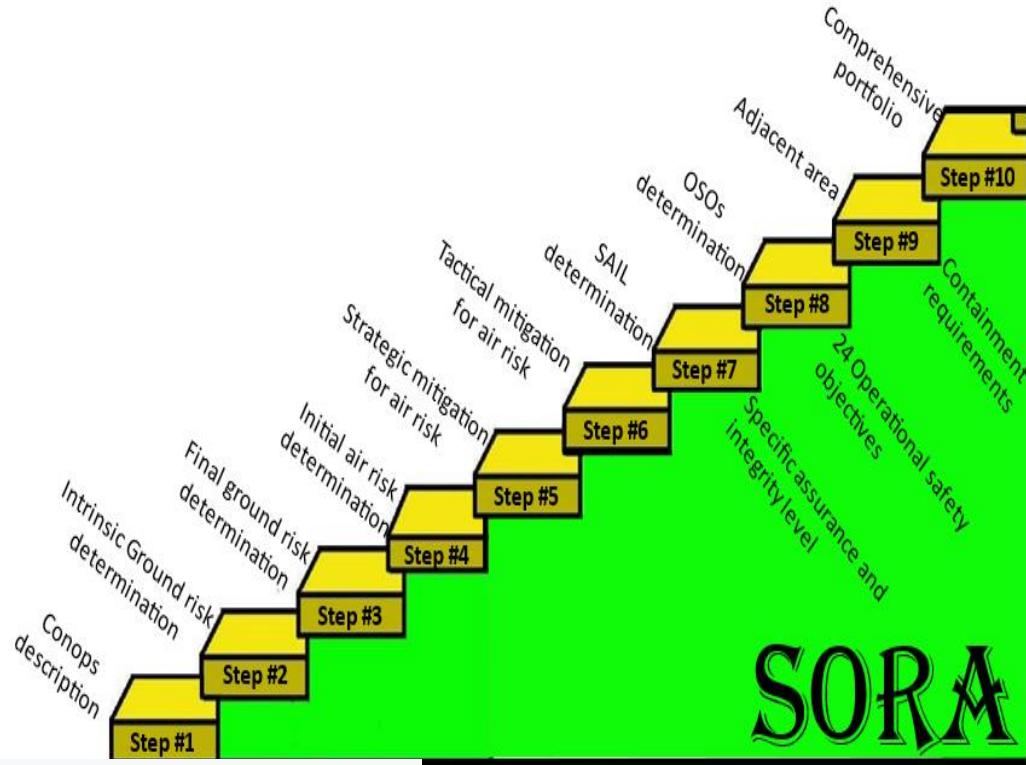


# ESTIMATING THE PROBABILITY OF OCCURRENCE

*The probability that each category of damage that occurs can be divided into its individual component probabilities as follows:*



# THE SORA METHODOLOGY





**BASIC PRACTICAL EXAMPLE**

A grey DJI drone is shown in flight against a bright, cloudy sky. The drone is positioned in the upper left quadrant of the frame. In the background, a large metal power line tower is visible on the right side. A dark grey horizontal bar is overlaid across the middle of the image, containing the text 'BASIC PRACTICAL EXAMPLE' in white, bold, sans-serif capital letters.

**BASIC PRACTICAL EXAMPLE**



**BASIC PRACTICAL EXAMPLE**

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**QUESTION TIME!**