

HELICOPTER INADVERTENT IMC TABLE 1

Created by Paolo Dal Pozzo January 2022



1 TIP ★
DON'T PANIC stay calm and remember that you've trained for this. If you are not an instrument rated pilot panic can set in and panic is not your friend in the cockpit.

2 TIP ★
Keep you wings level. Losing control of the helicopter is going to kill you faster than anything else.

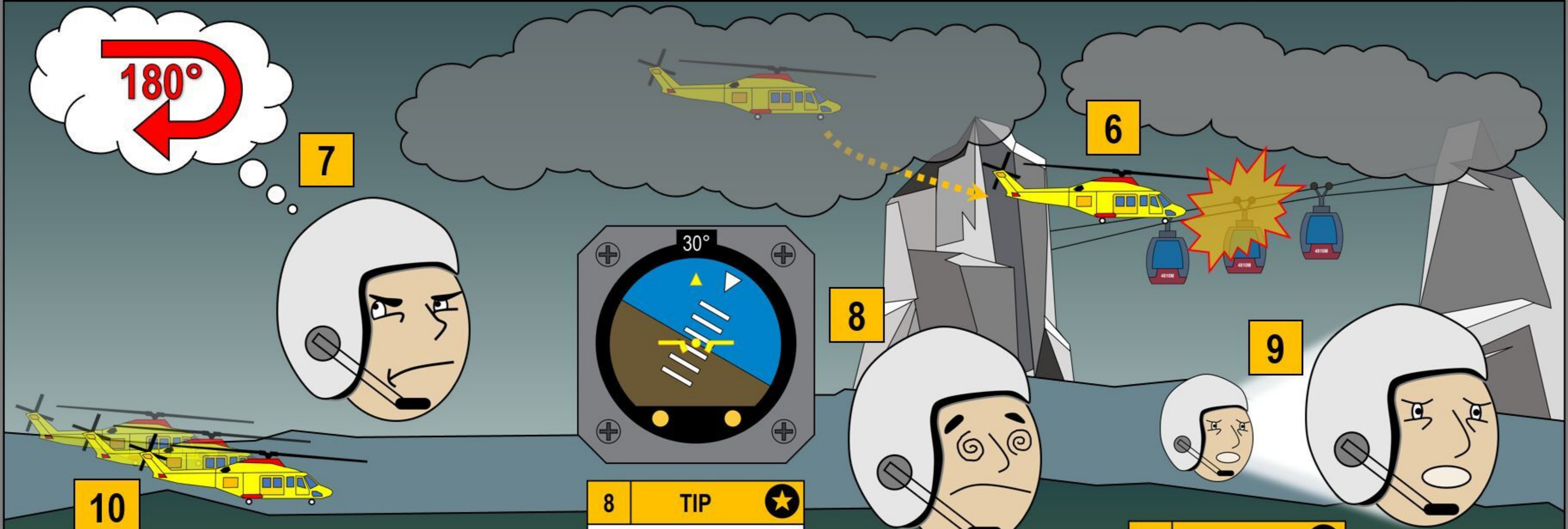
3 TIP ★
Scan your instruments. The attitude indicator is the primary flight instrument to reference when flying in IMC.

4 TIP ★
Use an autopilot, if so equipped, and understand the different modes of operation and how to engage and disengage them.

5 TIP ★
Scan all relevant instruments before making control inputs.

HELICOPTER INADVERTENT IMC TABLE 2

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6 TIP ★
Seek VMC as soon as possible but do not be foolish in your pursuit.

7 TIP ★
Assess if you are capable of making a level 180 degrees turn back to VMC.

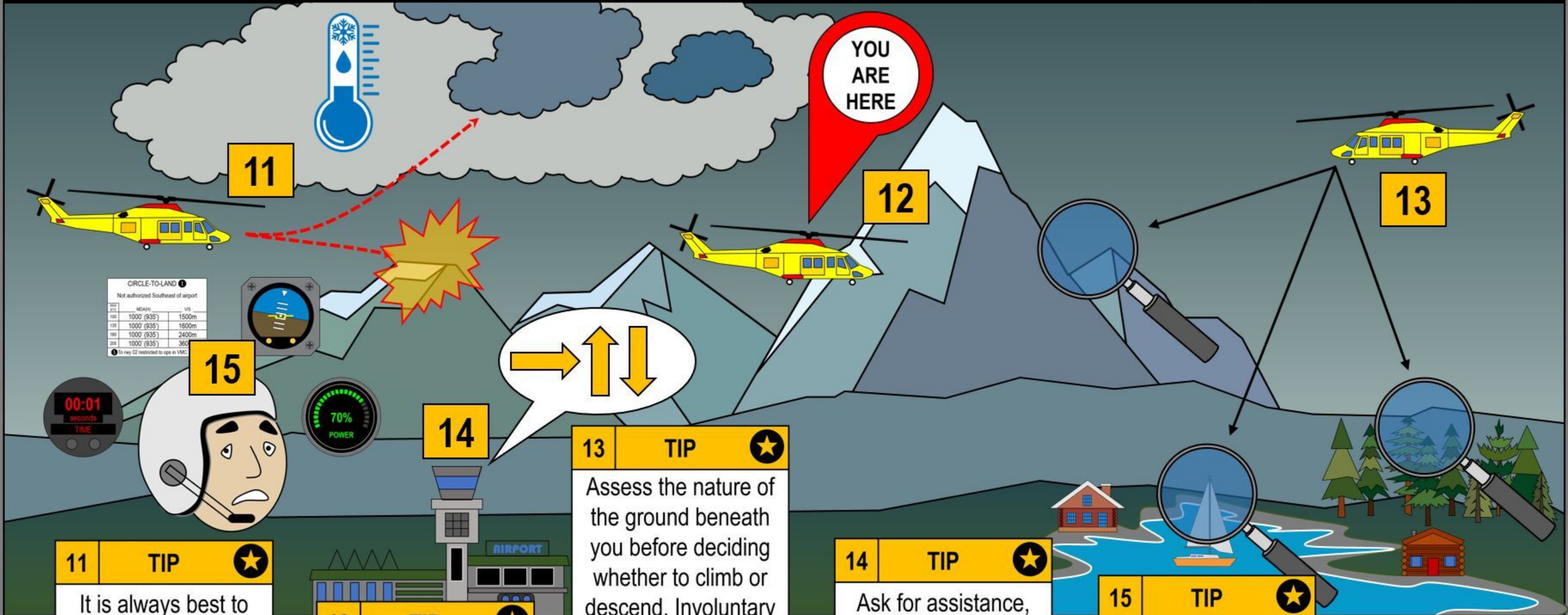
8 TIP ★
If you are able to reverse course do not exceed 30 degree of bank. Anything greater than that is likely to induce spatial disorientation and vestibular illusions.

9 TIP ★
Keep calm and avoid quick head movements while turning (and especially descending).

10 TIP ★
Beware of spatial disorientation. You might make an improper control input to adjust for a condition that does not exist.

HELICOPTER INADVERTENT TABLE 3

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11 TIP ★
It is always best to climb away from the ground. Hitting the side of a mountain is going to kill you faster than ice build up on the helicopter.

12 TIP ★
Once you are in control of the helicopter use your equipment to figure out where you are.

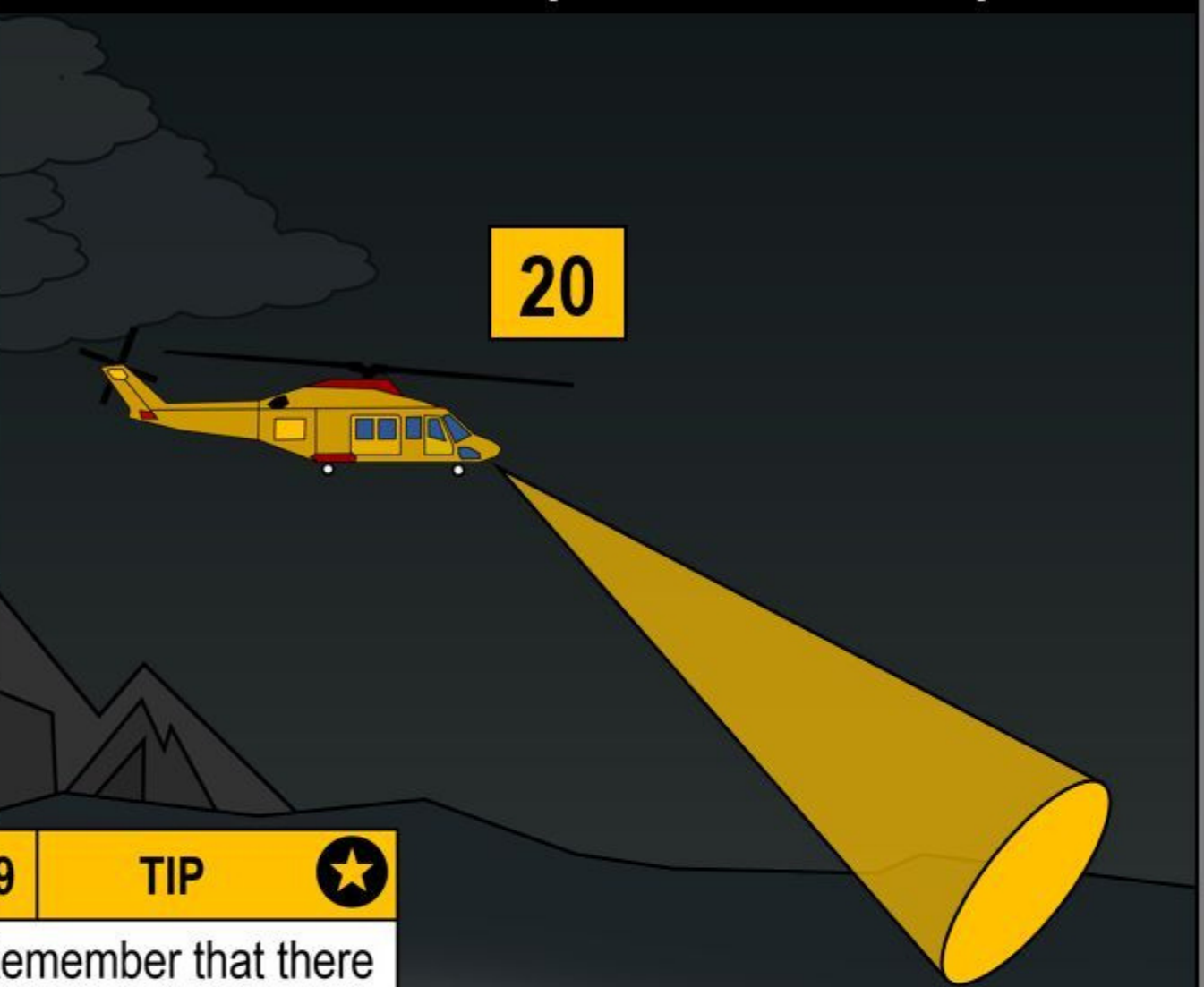
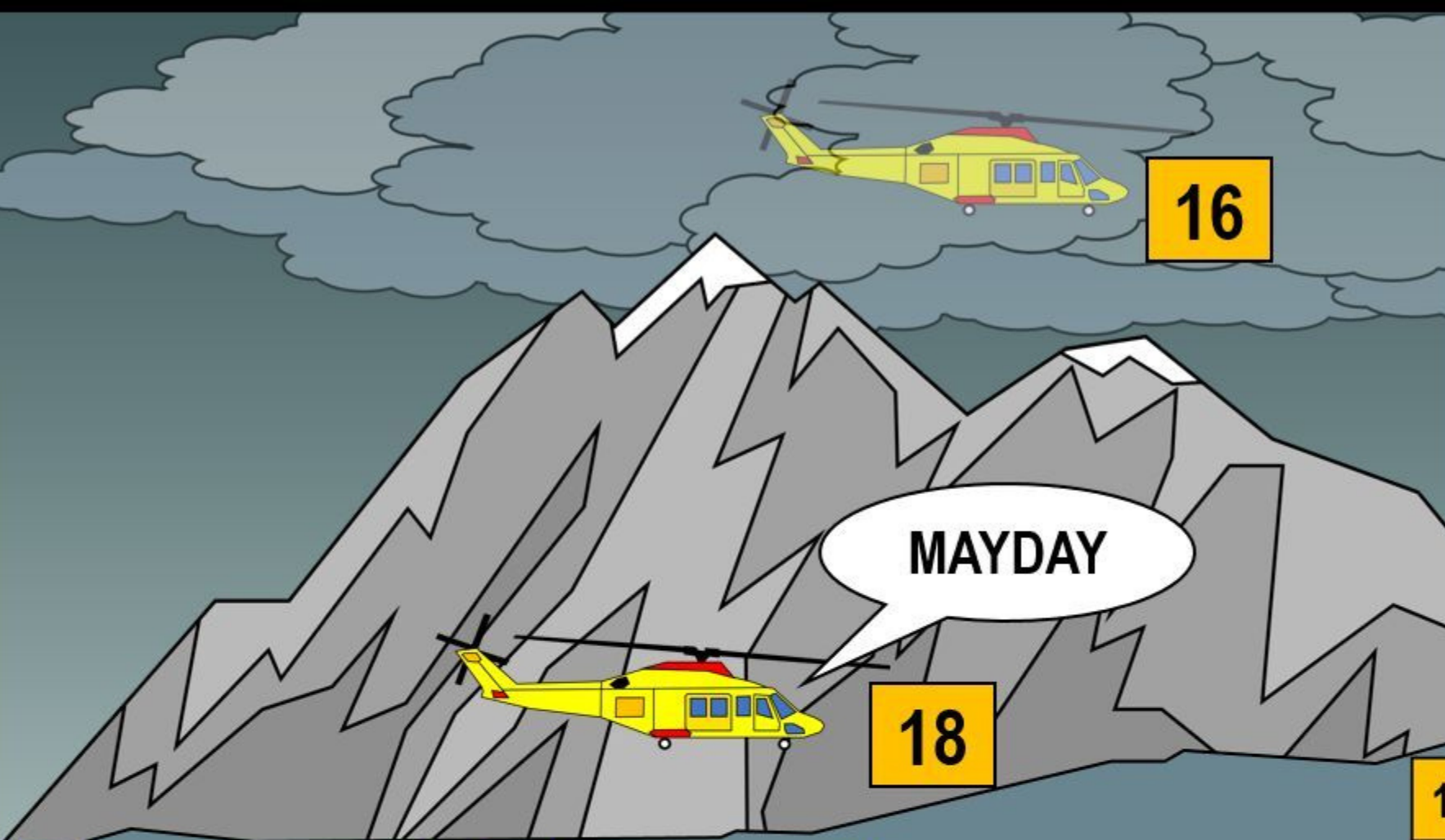
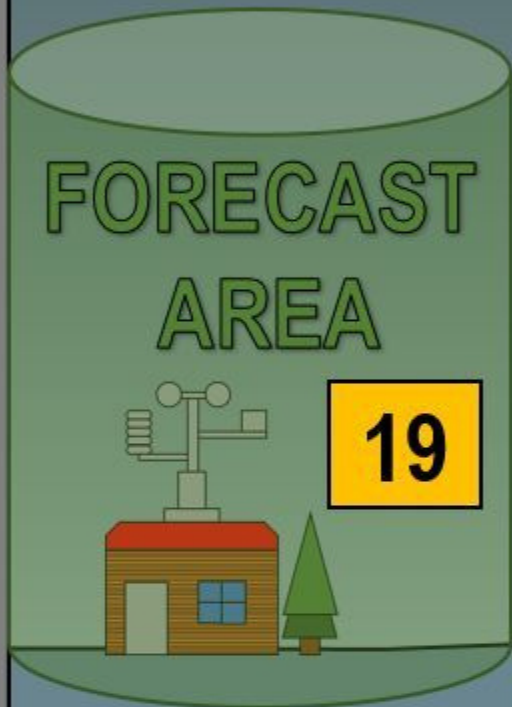
13 TIP ★
Assess the nature of the ground beneath you before deciding whether to climb or descend. Involuntary entries in IMC often occurs at low altitudes where there is a risk that the ground may begin to rise.

14 TIP ★
Ask for assistance, call ATC and inform them of your situation they may be able to provide you with vectors to return VMC.

15 TIP ★
Don't try to do multiple things at once, focus on keeping the helicopter in stable controlled flight.

HELICOPTER INADVERTENT IMC TABLE 4

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16 TIP ★

Restore your situation awareness by answering these questions:

- What has happened?
- What is happening?
- What might happen?

17 TIP ★

Fog is very insidious because it does not form uniformly everywhere but is affected by very localized conditions. It may be tempting to reduce the altitude to look for a hole in the fog.



18 TIP ★

Don't be afraid to tell ATC that you are in an emergency.

19 TIP ★

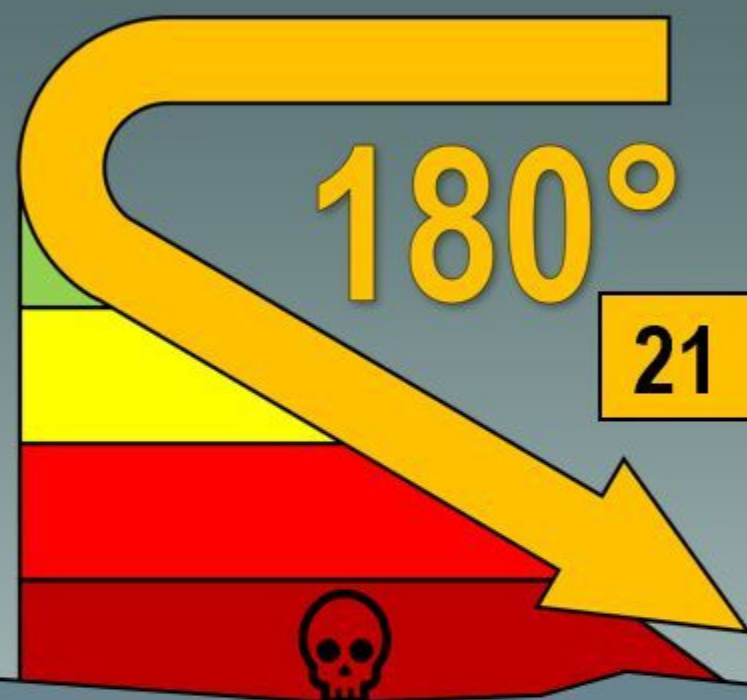
Remember that there is a greater risk of encountering inadvertent IMC when operations are conducted in locations and altitudes without complete weather reporting or forecasting coverage.

20 TIP ★

Darkness can swap VMC to IMC just as quickly as weather conditions, sometimes faster.

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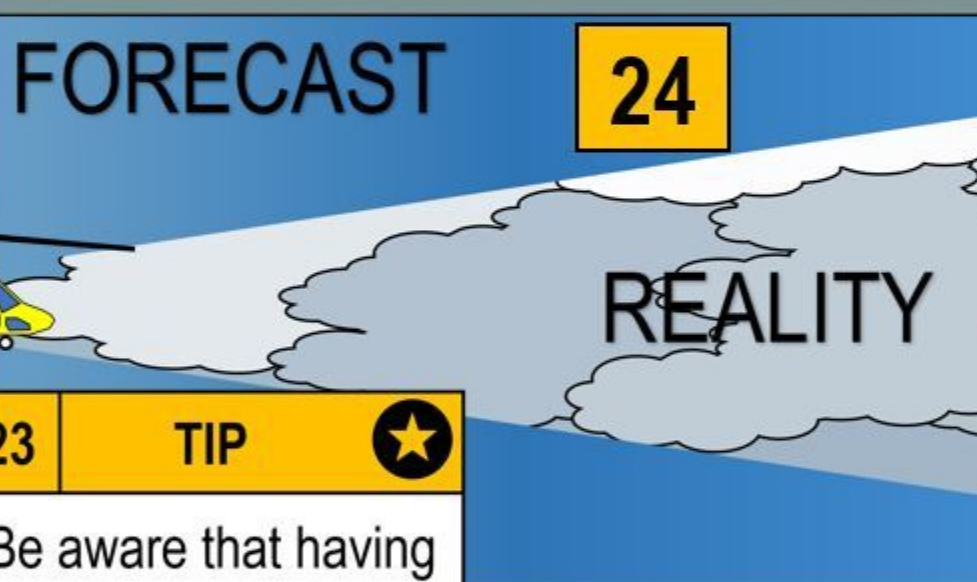


21 TIP ★
Failure to maintain altitude and clearance from the ground during a turn to reverse direction after encountering instrument meteorological conditions is a very common mistake.



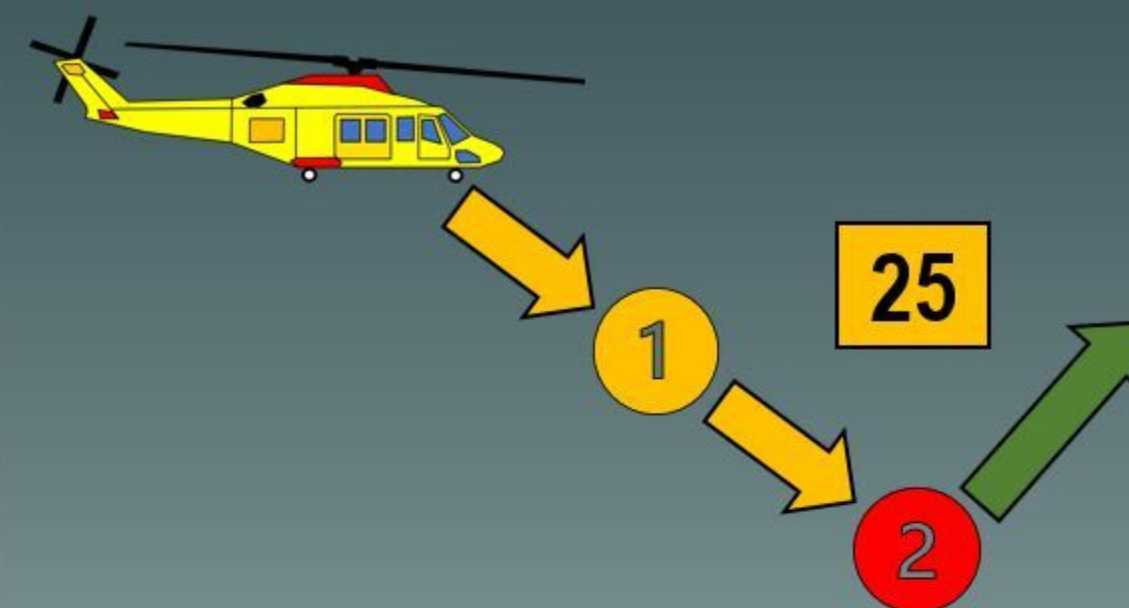
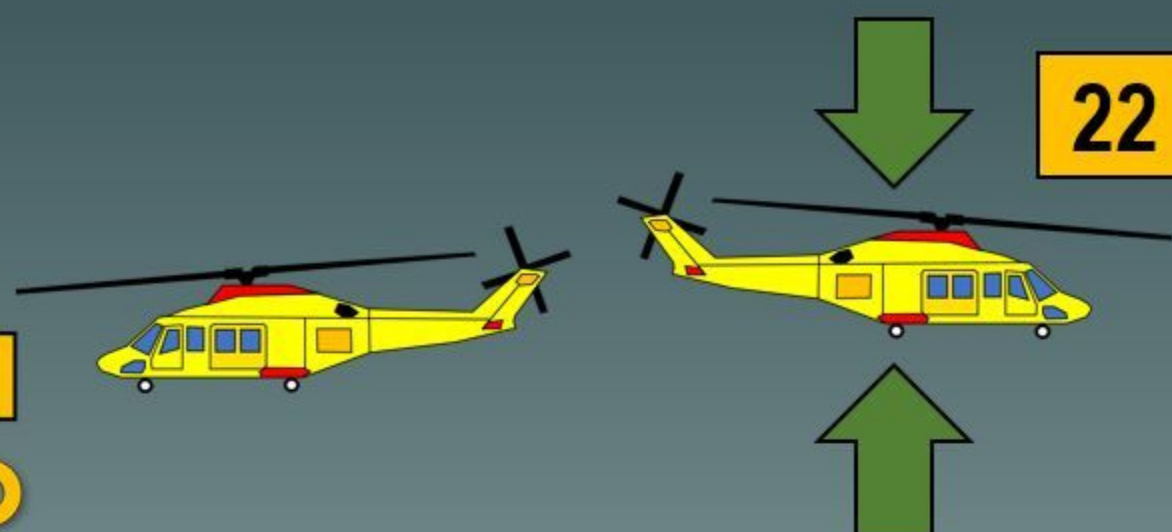
22 TIP ★
If you have an FMS on board, upload an instrument approach into the system only after the helicopter is under control and at an altitude where obstacles or terrain are not a problem.

23 TIP ★
Be aware that having passengers on board can affect your common sense and lead you to take unnecessary risks when it comes to flying in marginal weather.



24 TIP ★
Evaluate the forecast for what it is and remember that what matters is the weather you see outside the cockpit.

25 TIP ★
Some pilots use a two-strike rule: If you descend or slow down twice, it's time for Plan B. Other pilots use a hard deck: If you are forced below a predetermined minimum safe altitude, you must land immediately or turn around.



HELICOPTER INADVERTENT IMC TABLE 6

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5					
4					
3	Yellow				
2	Green	Yellow			
1	Dark Green	Light Green	Yellow		
0	1	2	3	4	5

27



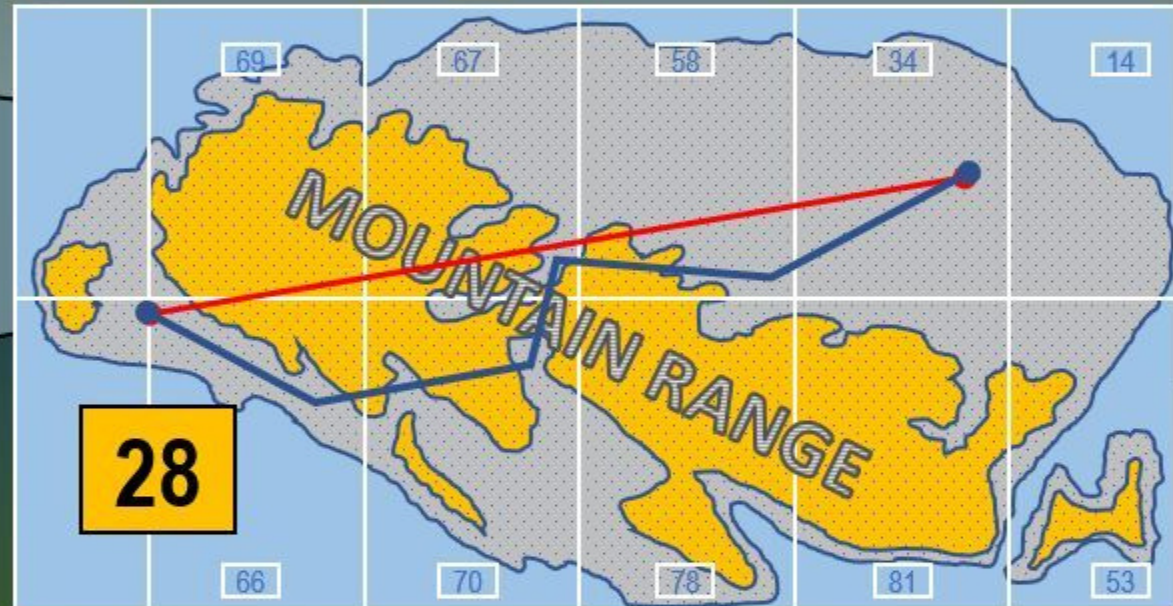
29



26



Better grab some coffee while I wait



28

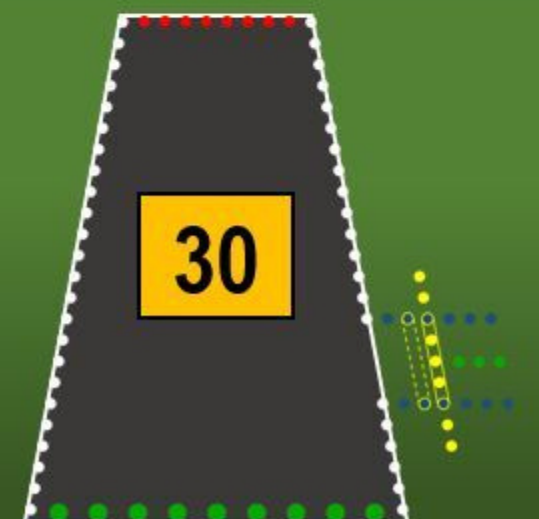
26 TIP ★
Take advantage of the helicopter's unique ability to land almost anywhere. Waiting two hours on the ground usually has a big impact on weather conditions.

27 TIP ★
Make sure that any corrections to the flight attitude are made thoughtfully. Make minor adjustments and ensure you are not departing controlled flight.

28 TIP ★
If you have a GPS on board avoid following a direct route from the origin to your destination but consider other airports along the route in case, you must deviate to avoid bad weather.

29 TIP ★
You may not be able to contact ATC in this case remember that you have the emergency frequency 121.5 MHz available. Even an airlines flying 20000 ft above you can be a useful ally in an emergency.

30 TIP ★
Remember that you can ask ATC to position the runway lights at maximum intensity to improve visibility in fog or haze.



30