

Sunny Swift

"Impossible turn"

SUNNY AND MOHAMMED, A STUDENT, ARE WAITING AT THE HOLDING POINT, READY TO LINE UP FOR TAKE-OFF

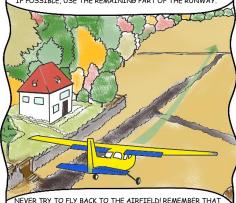
IT IS ESSENTIAL TO ALWAYS CARRY OUT A SHORT BRIEFING BEFORE TAKE-OFF, TO RECALL THE NORMAL DEPARTURE PROCEDURES AND TO REVIEW THE DECISION MAKING PROCESS IN CASE OF AN ENGINE FAILURE.



IF THERE'S A LOSS OF POWER DURING THE TAKE-OFF



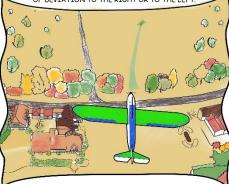
DURING THE INITIAL CLIMB, YOU HAVE VERY LITTLE TIME! IMMEDIATELY REDUCE THE ANGLE OF ATTACK BY PUSHING THE STICK FORWARD, GO STRAIGHT AHEAD MAINTAINING SPEED AND TRYING TO AVOID OBSTACLES IF POSSIBLE, USE THE REMAINING PART OF THE RUNWAY



YOUR REACTION TIME AFTER AN ENGINE OUT IS CRITICAL YOU COULD EASILY LOSE SPEED AND STALL! THE CONDITION OF THE ENGINE AND SPEED AWARENESS ARE THE MAIN THINGS!

IF THE ENGINE CUTS OUT BETWEEN 2 000 AND 3 000 FT, YOU HAVE A BIT MORE TIME, BUT NOT ENOUGH HEIGHT AND ENERGY TO RETURN TO THE AIRFIELD

AS BEFORE, FIRST REDUCE THE ANGLE OF ATTACK: GENTLY BUT FTRMLY PUSH THE STTCK FORWARD LOOK TN FRONT OF YOU FOR THE MOST APPROPRIATE SURFACE, AVOID MORE THAN 15 OF DEVIATION TO THE RIGHT OR TO THE LEFT.

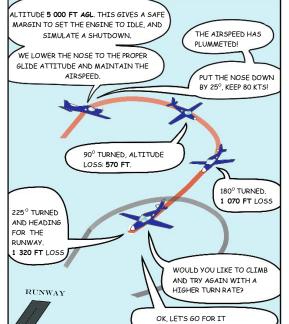


YOU HAVE TO BE PREPARED AND KNOW IN ADVANCE THE EMERGENCY FIELD OPTIONS RIGHT IN FRONT OF THE RUNWAY.

ABOVE A MINIMUM OF 2/3 000 FT AGL, YOU COULD CONSIDER RETURNING TO THE AIRFIELD. BUT IS THAT A GOOD IDEA? SEVERAL FACTORS MIGHT RECOME CRITICAL AND LEAD TO THE "IMPOSSIBLE TURN" CASE!

MATNITATINING SPEED WHILE TURNING RACK WOULD BE VERY DEMANDING, AND THE TIME SHOULD BE SPENT CHECKING THE FUEL VALVE IS OPEN, THE BOOSTER PUMP IS ON, SWITCHING FUEL TANKS AND ... TRYING A RESTART IF POSSIBLE!





THIS SHOWS THAT YOU SHOULDN'T ATTEMPT A TURN UNLESS THERE'S AN AMPLE HEIGHT MARGIN

WITH A STANDARD TURN RATE (3°/S, RATE 1*) WE LOST 1 320 FT WITH A BANK ANGLE OF 45° (RATE 3*) AND IMMEDIATE REACTION, WE LOST 350 FT. THIS 1.4 G MANOEUVRE WAS REALLY STEEP AND DYNAMIC

A REAL STOPPED ENGINE WOULD CREATE MORE DRAG THAN OUR SIMULATION IN IDLE. ALSO. TODAY, THERE WAS NO WIND OR ONCOMING TRAFFIC. TYPICALLY, WE'D HAVE TO ADD 4 SEC FOR A PILOT TO REALISE HE'S LOST THE ENGINE. SO THE REAL HEIGHT LOSSES COULD BE A LOT HIGHER

-WARNING: INCREASING THE BANK ANGLE AT LOW SPEED ALSO INCREASES THE RISK OF STALLING!

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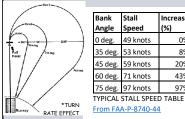
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PLEASE FIND MORE INFORMATION AT:

PILOT THOUGHTS:

http://www.maxtrescott.com/max trescott on ge neral a/2009/05/engine-failure-after-takeoff-turnback-to-the-runway-or-land-straight-ahead.html

PLEASE SEND US YOUR COMMENTS AND IDEAS:

EMAIL generalaviation@easa.europa.eu

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ALL SUNNY SWIFT ISSUES AND SUBSCRIPTION

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