

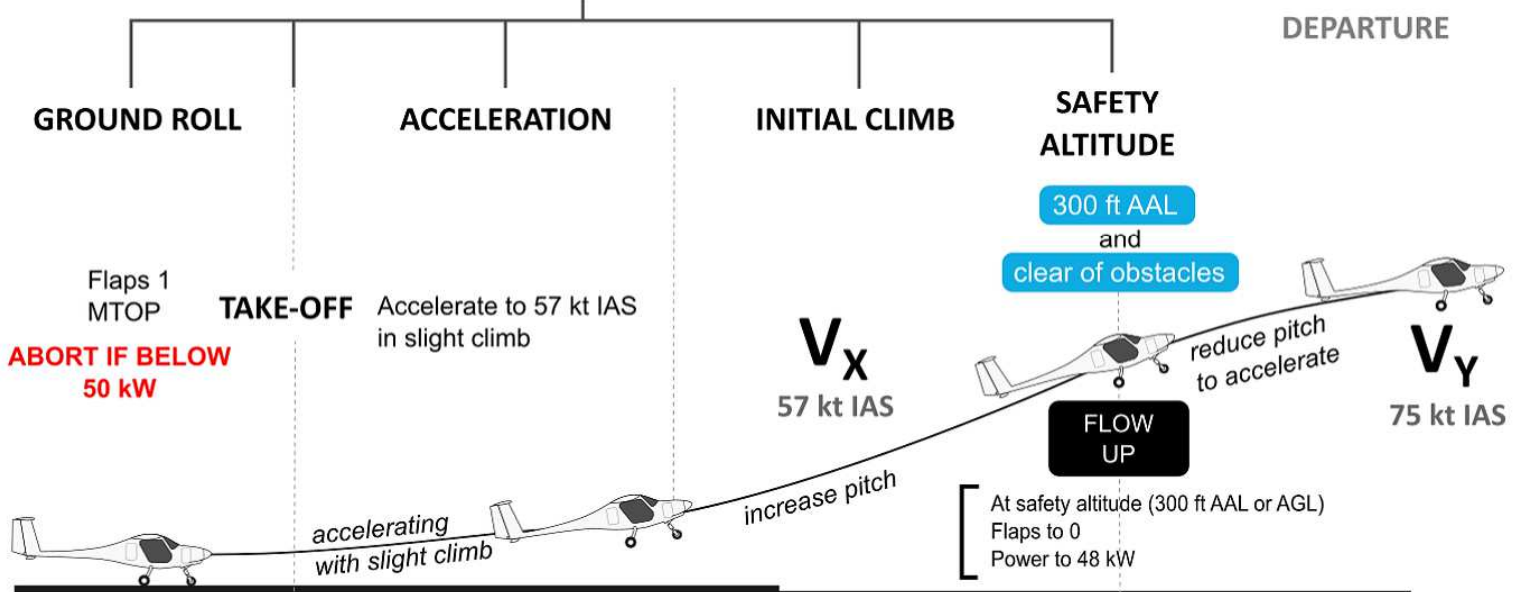


VELIS Electro

SETTINGS AND MANOUVERS



PHASES OF TAKE-OFF



INITIAL CLIMB

Take-off power (MTOB = max 64 kW) / $V_x=57$ kt IAS / Flaps 1



+



=



CLIMB

Maximum continuous power (MCP = 48 kW) / $V_y=75$ kt IAS / Flaps 0



+



=



LEVEL FLIGHT

Power: 25 kW, ~80 kt, Flaps 0



+



=





ENTRY PROCEDURES FOR MANOUVERING: STEEP TURNS / STALLS / SLOW

STEEP TURNS

power to **30-35 kW**
load to **2 G (use Horis)**

STALLS

CLEAN AND IDLE
power to **zero**
flaps **0**

SLOW FLIGHT

flaps **0**
airspeed **55 kt**

V_A

100 kt IAS

LANDING CONFIGURATION

"like you would be in final approach"

power to **zero**
airspeed **60 kt IAS**
flaps **2**

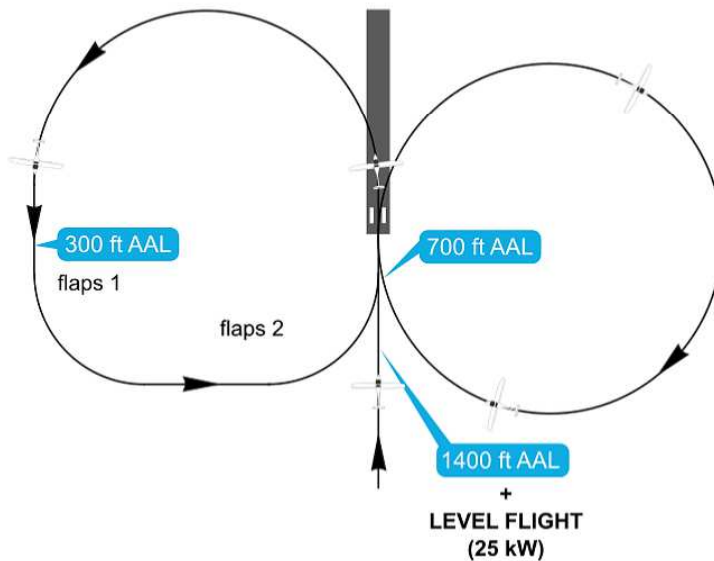
TAKE-OFF CONFIGURATION

"like you would be just after take-off"

power to **MTOPI (max 64 kW)**
airspeed **60 kt IAS**
flaps **1**

STANDARD ENGINE FAILURE IMITATION

1400 ft over the selected touch down point



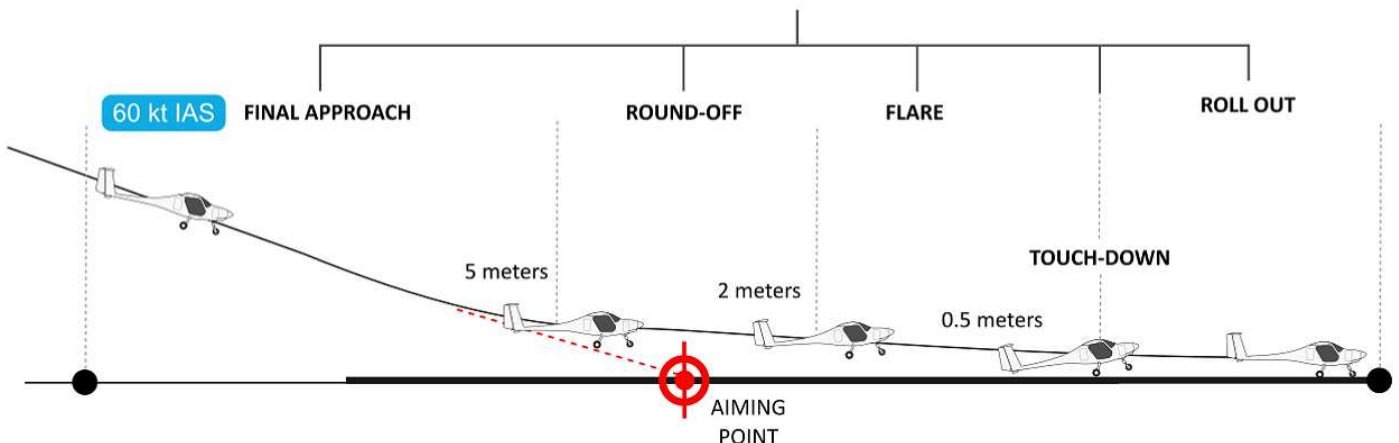
BEST GLIDE SPEED

V_G

70 kt IAS
flaps 0

LANDING

PHASES OF LANDING





VELIS Electro

STANDARD TRAFFIC PATTERN



0.)

GROUND OPS

Maximum ~15 kt GS
Look out for obstacles and surface condition!

DOWNWIND APPROACH

Aim your approach to enter downwind at 1000 ft AAL.

AAL

Above aerodrome level

2.)

CROSS WIND

Max continuous power - 48 kW
Best climb speed - $V_y=75$ kt IAS.

climb to 1000 ft AAL

in the case of direction change

300 ft AAL

"Safety altitude."

"Level."

1000 ft AAL

1.)

TAKE-OFF AND UPWIND

Flaps one.
Full power max 64 kW
Airspeed $V_x=60$ kt IAS
At safety altitude (300 ft AAL), flaps to zero
Power to 48 kW
accelerate to $V_y=75$ kt IAS

"Rotate."

"Speed alive"

"Power"

"Ready!"

DOWNWIND
50 ft before 1000 ft AAL start leveling into level flight with 25 kW ~80 kt IAS.
Maintain level flight.
Maintain runway separation.
Do not diverge or converge.
RETRIM TO 80 KIAS!

OVER TRESHOLD

Maintain 60-58 kt IAS

1000 ft AAL

FINAL

After turning final deploy flaps to flaps 2 (below 65 kt IAS), maintain your aiming point with the airspeed at 60 kt IAS.
IF HIGH - USE SIDELSLIP!

BEFORE TURNING BASE

When you are 45° make a turn and start with flow back

45°

6.)

5.)

A.)

1500 ft AAL

FLOW DOWN

POWER - IDLE
Flaps set to flaps one (below 81 kt IAS)
DO NOT DESCENT TILL 65 KT IAS

BASE

while descending maintain 65 kt IAS
RETRIM!
DO NOT ACCELERATE ABOVE 65 kt IAS

OVERHEAD APPROACH

Aim your approach to be over the airfield at 1500 ft AAL and max 100 kt, so that you have the airfield on your left. Check traffic, runway state and wind.

Overhead approach is used in absence of other instructions or traffic.



FLOW IN THE TRAFFIC PATTERN



FLOW UP:

FROM INITIAL CLIMB TO CLIMB CONFIGURATION

Memory aide: when the aircraft is going up - the flow goes up



- 1 FLAPS REDUCE TO ZERO
- 2 POWER REDUCE TO 49 KW
- C AIRSPEED ACCELERATE TO 75 kt IAS

FLOW DOWN:

DECELERATION AFTER TURNING BASE

Memory aide: When the aircraft is going down the flow goes down.

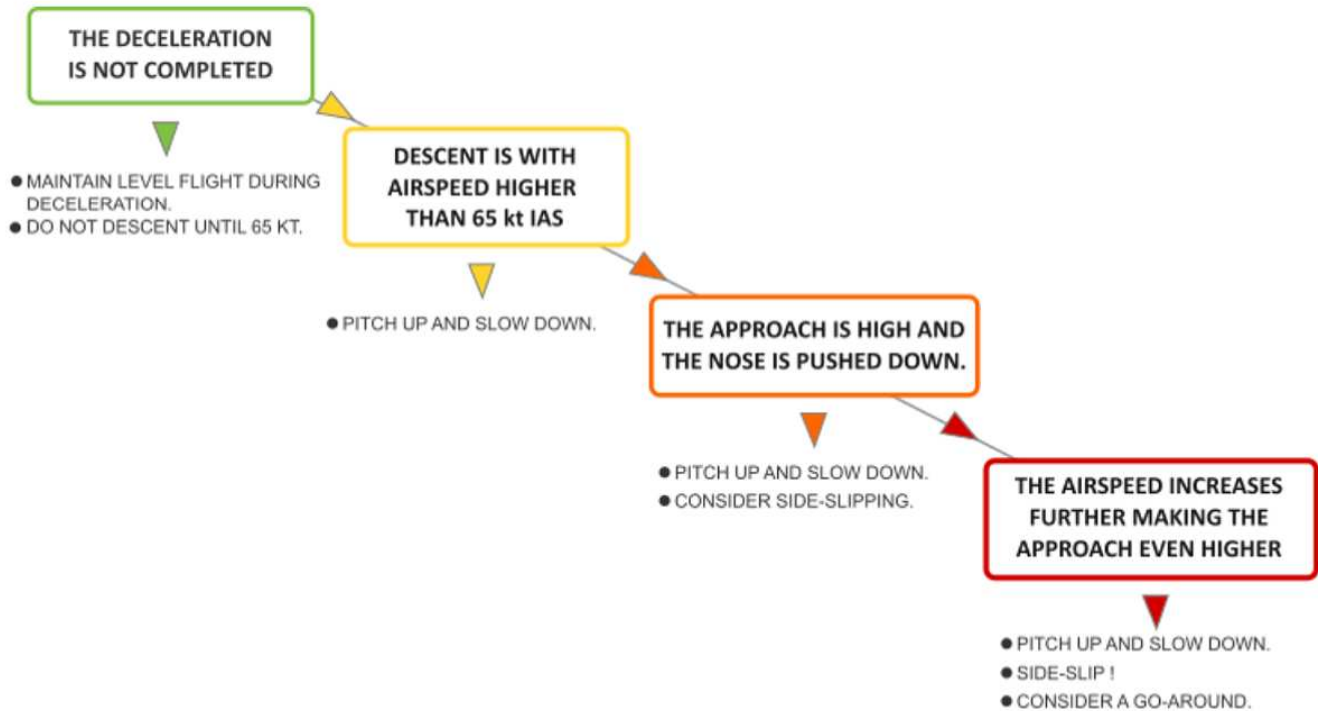


- 1 POWER REDUCE TO IDLE
- C AIRSPEED CHECK BELOW 81 kt IAS
- 3 FLAPS INCREASE TO FLAP 1

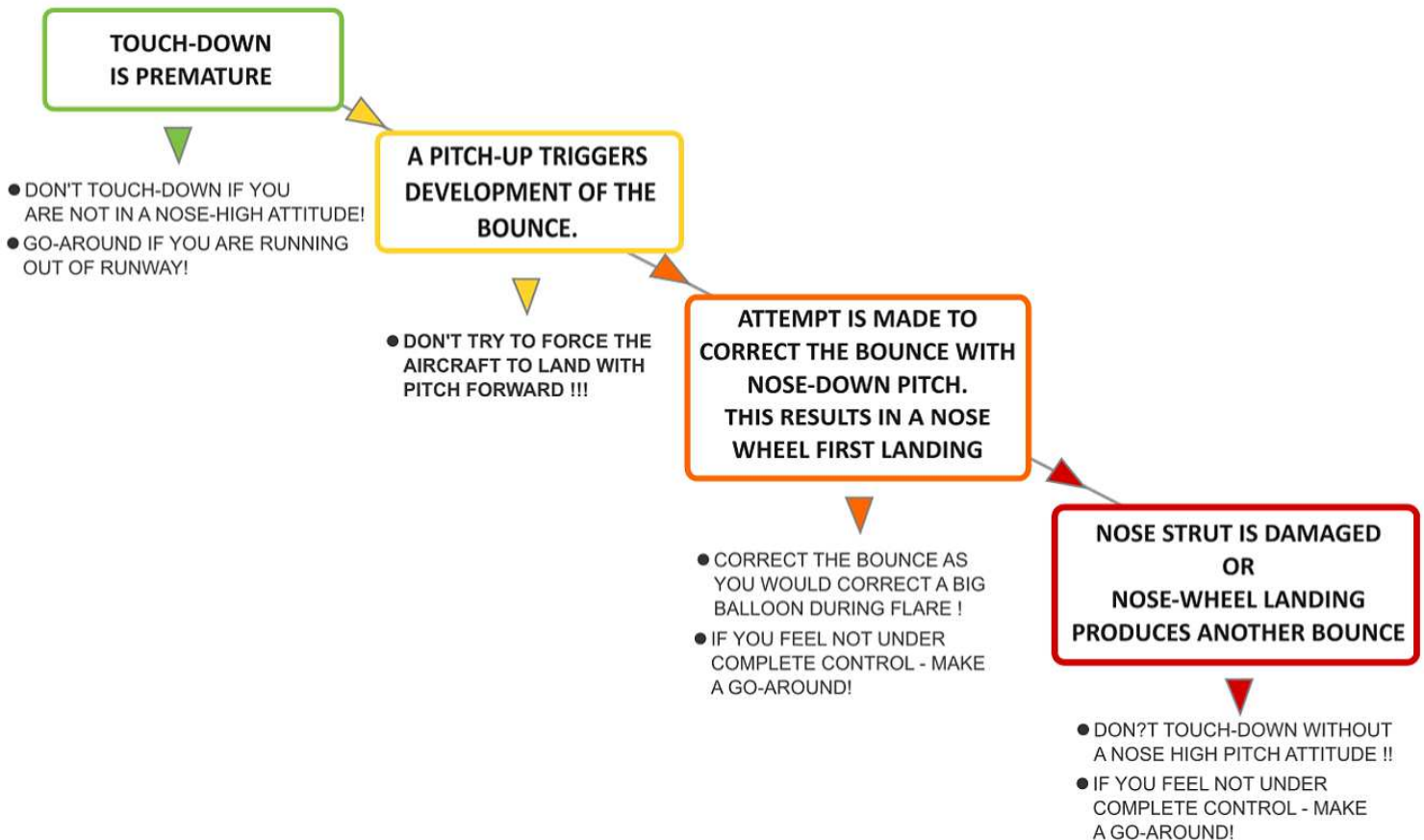


ERROR CHAINS AND HOW TO BREAK THEM

HIGH IN APPROACH ERROR CHAIN:



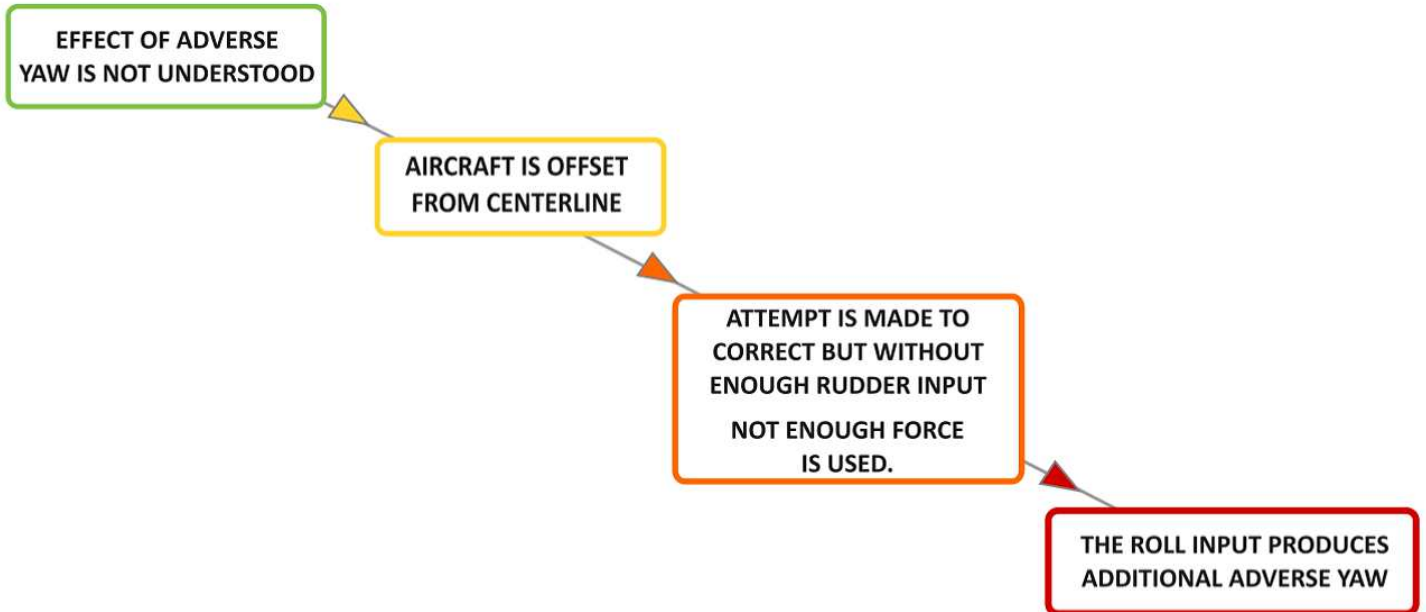
BOUNCE FROM A PREMATURE TOUCH-DOWN ERROR CHAIN:



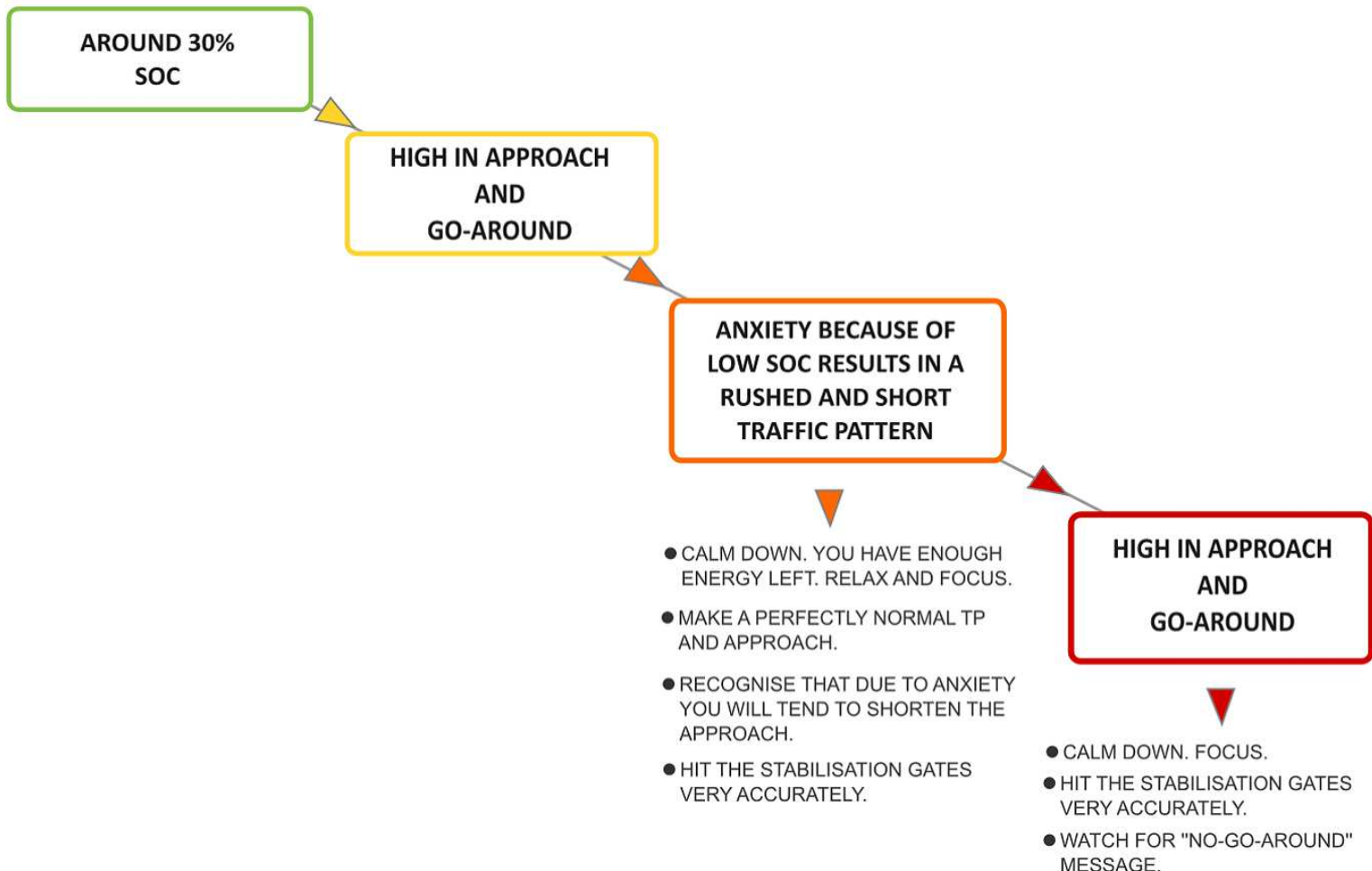


ERROR CHAINS AND HOW TO BREAK THEM

UNDERUSE OF RUDDER PEDALS IN FINAL ERROR CHAIN:



ANXIETY BELOW 30% SOC ERROR CHAIN:





VELIS Electro AIRSPEED LIMITATIONS



✗ NEVER, NEVER, EVER EXCEED THIS AIRSPEED

V_{NE}

V_{SO}

V_S

V_{NO}

V_{FE}

MAX EXTENSION SPEED FLAPS		
V _{FE+2}	+2	65 KIAS
V _{FE+1}	+1	81 KIAS

ADD 30%

THIS IS YOUR FINAL APPROACH SPEED WITHOUT FLAPS

✗ SLOW DOWN BELOW YELLOW ARC IN TURBULENT AIR

✗ DO NOT EXTEND FLAPS OUTSIDE WHITE ARC

✗ DO NOT EXTEND FLAPS 2 ABOVE 65 KT IAS

OPERATING SPEEDS			
V _{SO}	46 KIAS	V _{NE}	108 KIAS
V _S	53 KIAS		
V _A	100 KIAS		
V _{NO}	98 KIAS		

V_A

✗ NO FULL CONTROL DEFLECTIONS ABOVE V_A