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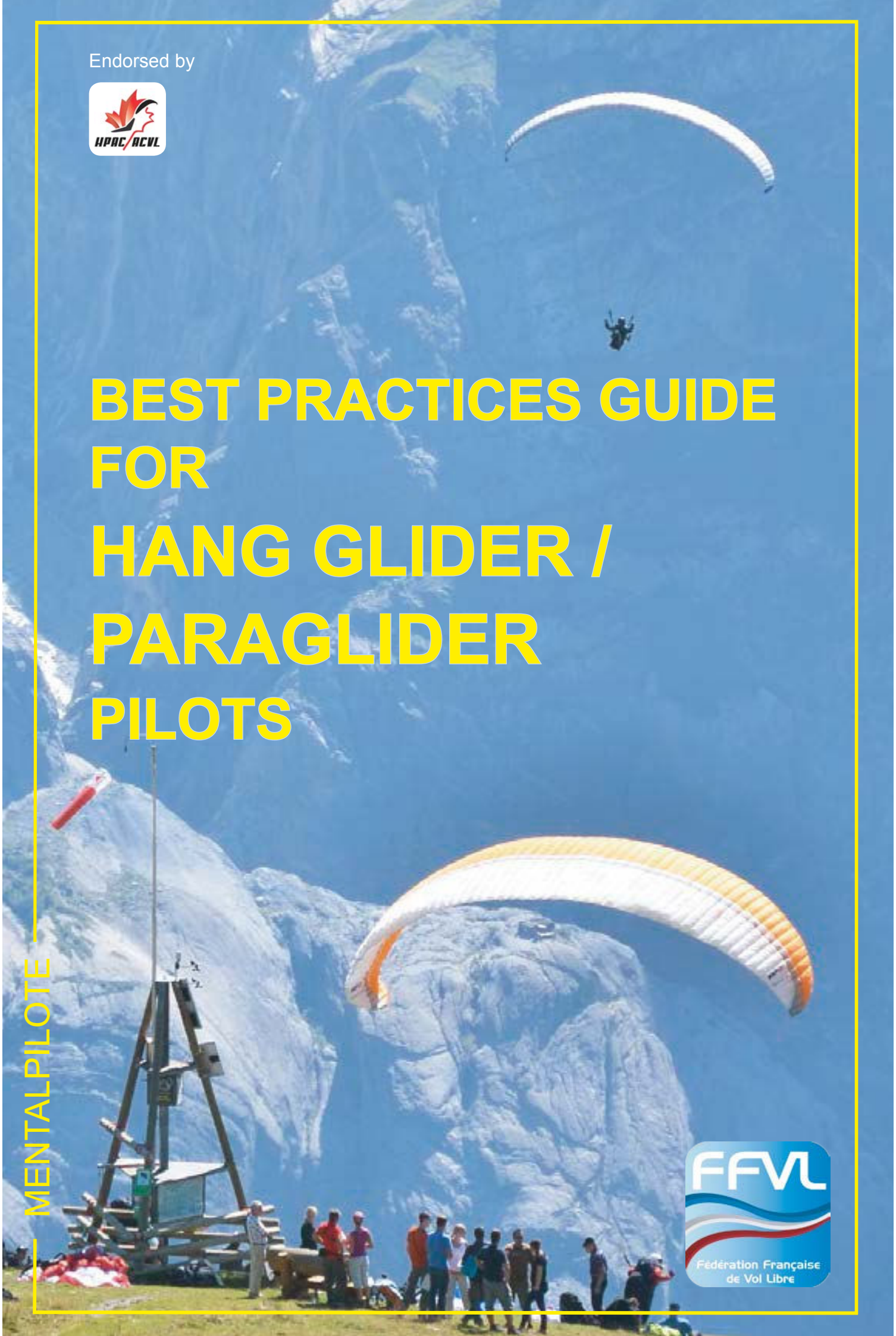
BEST PRACTICES GUIDE FOR HANG GLIDER / PARAGLIDER PILOTS



MENTALPILOTE

FFVL
Fédération Française de Vol Libre

The best pilots know their limits perfectly and do everything they can to stay within them

Translation by HPAC/ACVL.

Hang glider and paraglider pilots like you and me ...

• Jacques has many personal issues, he goes flying to change his mind.

• Once up there, Paul realizes that the wind is blowing pretty strong. But he doesn't feel like leaving without flying.

• Maude is disturbed during flight preparation, and she will forget an important check.

• André wants to impress his girlfriend. She will be impressed all right...

• Jean-Charles is going to test both his new wing and a new take-off site.

• Alain is a pro who frequently pushes his limits, so he cannot afford the slightest mistake...

• Benoît is young and reckless. No turbulence can make him cancel his flight.

• Laurent is stressed out without knowing why. Once in the air, he will get a brutal explanation!

• Alizée notices that the difference between a normal flight and a dangerous flight is sometimes very small.

• Pierre wonders why there are so few people flying... when he decides to take off.

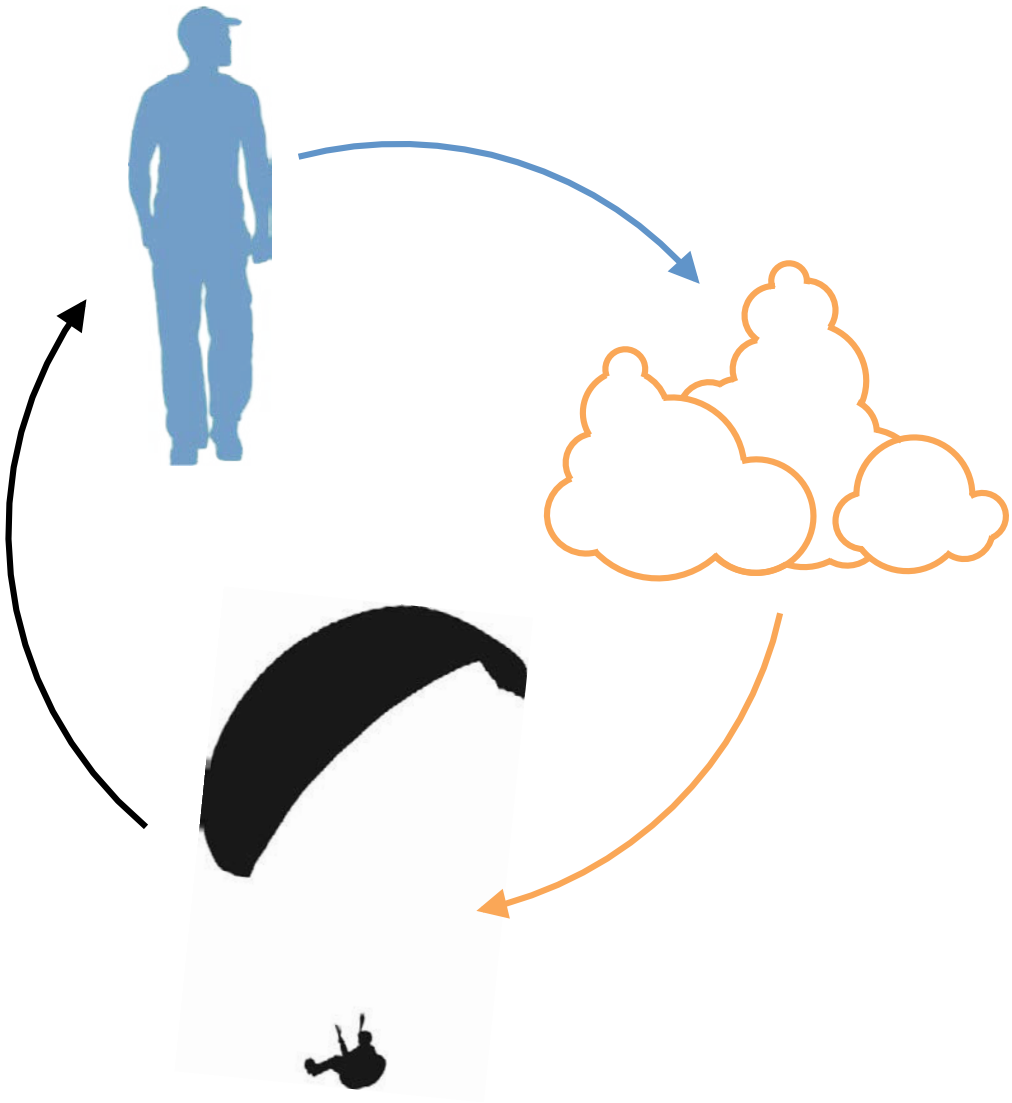
who will end up in the safety section!

SUMMARY

CONTENTS OF THE GUIDE

To facilitate your understanding of the skills in this guide, they are separated into 3 big categories (with a colour code):

- **Pilot**
- **The environment**
- **The equipment**



YOUR CHECKLIST

FEELING GOOD?

- **In my daily life, it is:**
  Great ■ Okay ■ Not Great ■
- **Physically, I'm feeling:**
  Great ■ Okay ■ Not so good ■
- **Today, I'm feeling:**
  Relaxed ■ Tense ■ Anxious ■

EQUIPMENT OK?

- **My wing is the right level for me, I set it up and checked it in a calm environment:**
  Yes ■ No ■
- **I am properly secured, links are tight, emergency parachute checked:**
  Yes ■ No ■

READY TO GO?

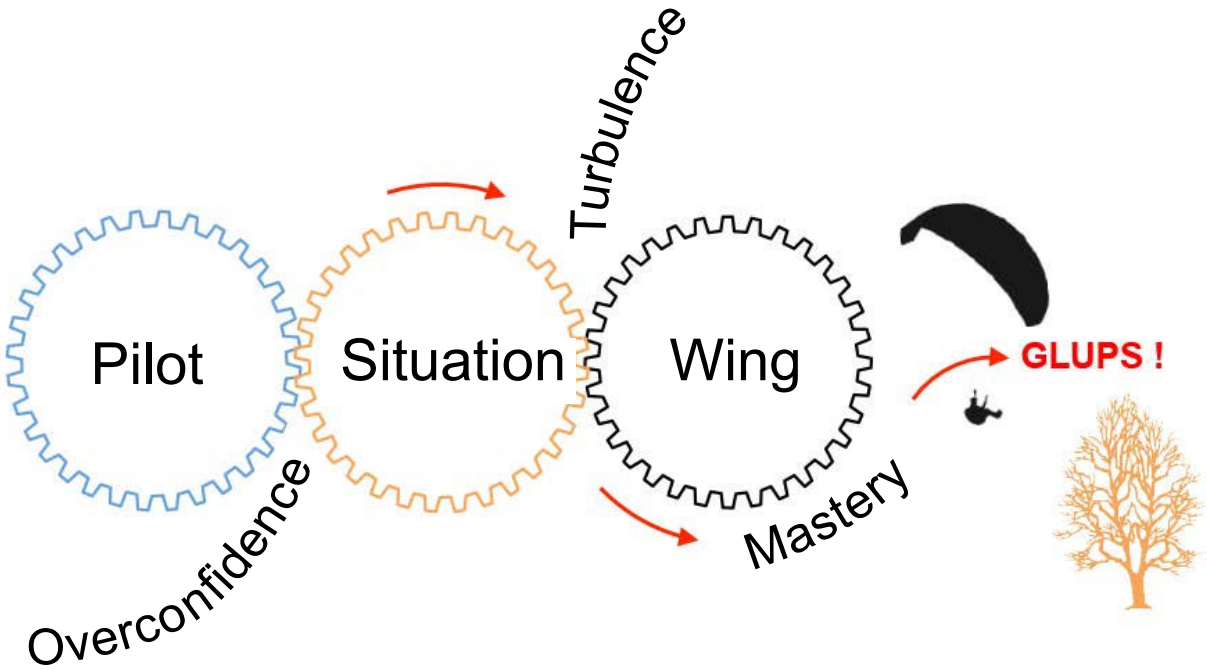
- **The conditions are:**
  Good ■ Average ■ Borderline ■
- **The take-off seems:**
  Easy ■ Tricky ■ Engage ■
- **The airspace is clear:**
  Yes ■ Busy ■ No ■

READY FOR TAKE-OFF?

Checklist
or
awareness?

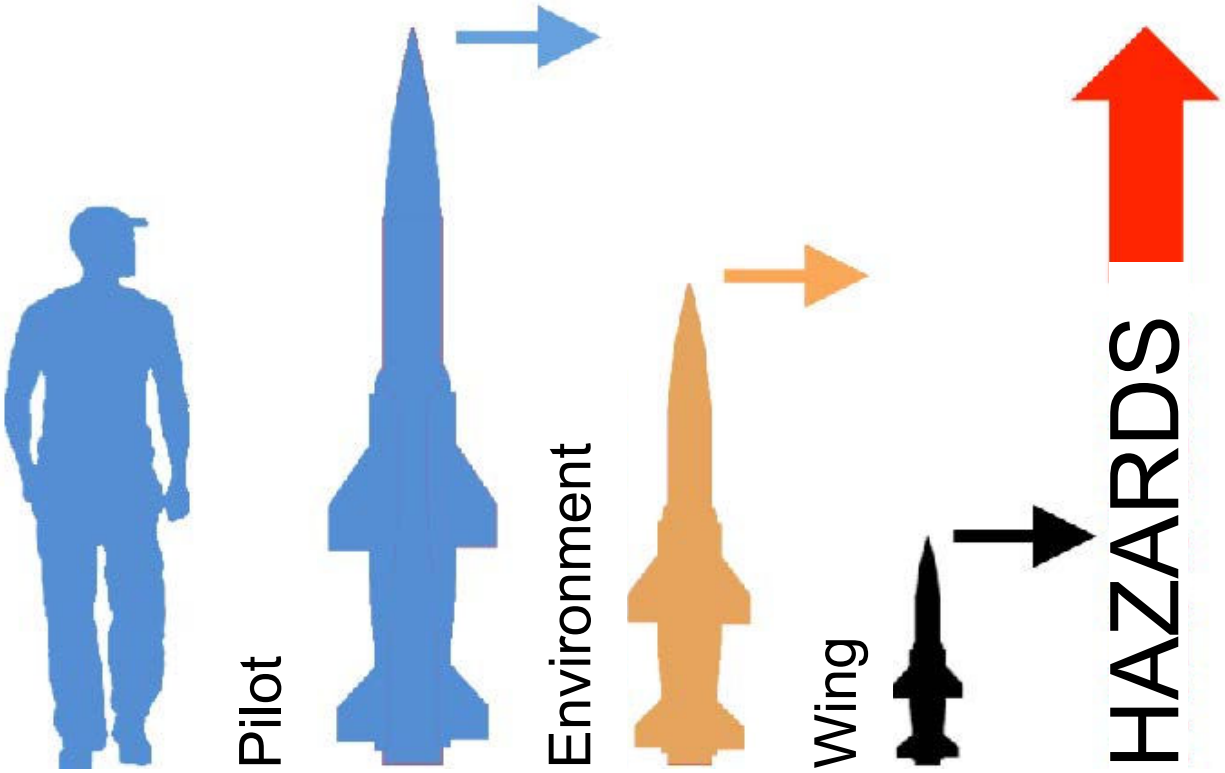
- **Red** (and) **yellow**: you are vulnerable.
- One or many **yellow**: beware.
- All **green**: have a safe flight.

Don't forget that it's always a series of little things that lead to big surprises.



YOU ARE ON THE FRONT LINE

In most safety occurrences, pilots break a limit that they were not supposed to break, and the piloting error is only a consequence. Your skill level is not elastic and you should first and foremost avoid putting yourself in an environment that is too challenging for you.



THE FIRST SAFETY HAZARD IS YOURSELF!

MENTALPILOTE ATTITUDE

It is simple, cheap and can give you big rewards.

The essential in 3 min

- Pilot pressure is a major source of accidents, as it pushes you to take risks (competition, look of others, etc.).
- In flight, pilots behave the same way as in their daily life.
- Airline pilots must be able to handle many situations. Hang glider/paraglider pilots must be able to avoid many.
- Stress is an alarm that warns you of potential hazards. Is it simple anxiety or is it a situation that should be avoided?
- You should first and foremost make sure that you won't be overwhelmed by the situation.
- You must weigh your true skills and the reality of the situation. The balance must always be on your side and any doubts should lead you to being

cautious.

- The difference between a normal and a hazardous situation sometimes comes down to a few seconds in flight.
- Pilots are faced with many firsts. Anticipate them if possible and try to avoid accumulating them during a single flight.
- To move forward, cast a critical eye on your own experiences, it's a common trait with the best pilots.
- A proper level of confidence rhymes with safety. Beware of over self-confidence, which can lead you beyond the limit of your skills.
- Discipline is not a bad word in aeronautics, it's even a quality.
- Human beings tend to naturally underestimate the risks.
- If there was one thing that you should remember when you're flying, it would be: I'm vulnerable.
- We often believe that we are better than the others and better than we really are.
- A common trait to all good pilots: they raise doubts whenever it's possible.
- Stress is a calamity for pilots. Under its influence, pilots will have problems concentrating and will make mistakes.

- Piloting is a demanding activity. Also, anything that can impact your vigilance, such as mental or physical fatigue, should lead you to being cautious.
- The pilots around you may be more experienced than you. Take advantage of their experience whenever it's possible.
- To avoid any surprises, always have a «plan B», using «What if... «, what if the wind picks up.
- Risk awareness and the perception of hazards is proportional to experience. Beginner pilots, beware.
- Don't wait until you are in a hazardous situation before making a decision. In critical mo-ments, force yourself to make a decision.
- The priority given to piloting must be, or become, second nature.
- Look far ahead, both literally and figuratively, and anticipate everything that you can.
- The best pilots know their limits very well and do anything to remain within them.
- What are your personal limits: wind, turbulence...? Define them.

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Most Common Hazards

among

Hang Glider/Paraglider Pilots and

Good Practices

to avoid or mitigate them

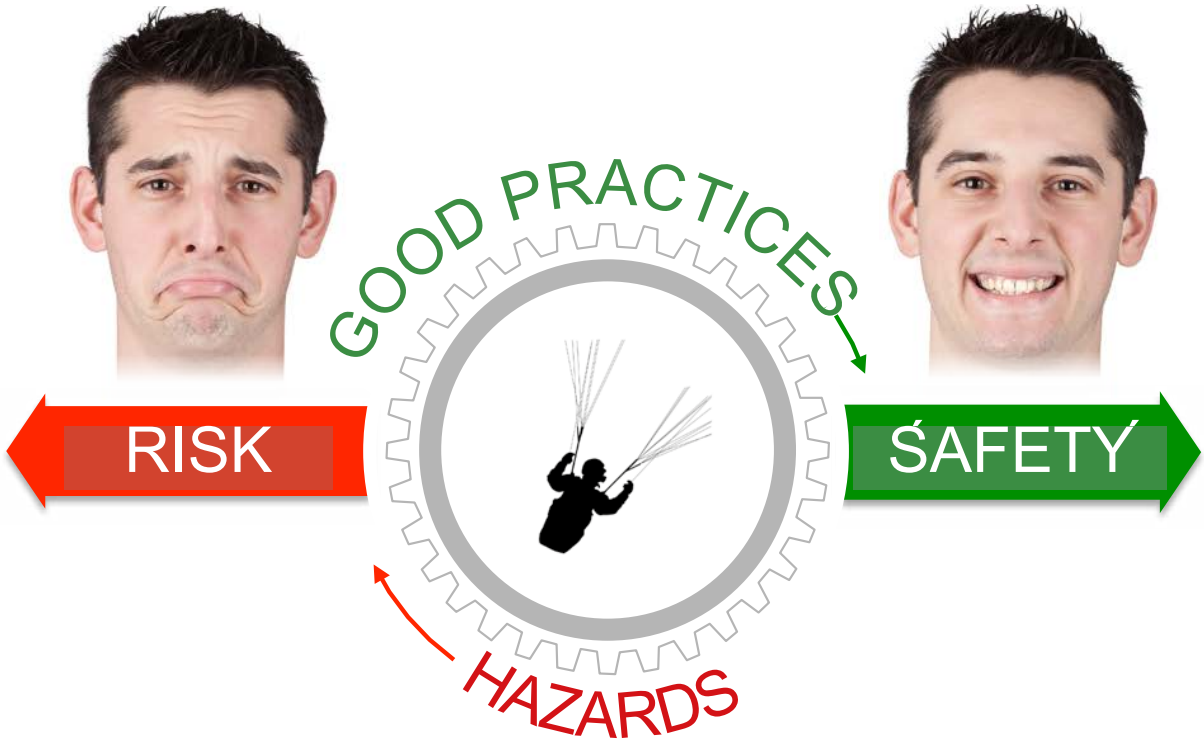
Good practices? If only you knew what I think about them...

What a party last night, I'm going flying, it'll wake me up.

What is this mess!
Yikes!

Good practices?
Why not.

Just like a coin has two faces, for every safety hazard, there is a solution, knowledge, an attitude included here under Good Practices.



Example

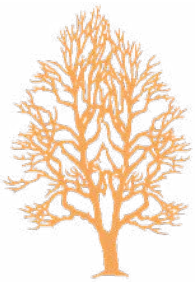
Hazards
Peer pressure

GOOD PRACTICE
Pressure can lead you to ignore certain risks. Know when to say no and be mentally prepared to say no one day or another.

SELF-CONTROL, COURSE OF ACTION

COMMUNICATION

ENVIRONMENT DECISIONS



CONTROL OVER THE WING PILOTING

Note: The same hazard can impact several fields. e.g.: Stress can reduce pilot vigilance and create erratic piloting.

SELF-CONTROL, COURSE OF ACTION

PRESSURE

1 - Time pressure

Anticipation and good flight preparation can reduce time pressure and help make rational decisions. Rush is a bad advisor.

2 - Peer pressure

Pressure can lead you to ignore certain risks. You must consistently apply any directions or regulations and make sure that you remain within your skills. Know when to say no and be mentally prepared to say no one day or another.

3 - Operational pressure

The weather is deteriorating, things are going faster. Try to anticipate those challenging moments. Always have a plan B and be aware that the performance obligation is first and foremost your safety and that of your potential passenger!

4 - Personal pressure

Aviation is a school of humility, and it's not a simple quote! You have nothing to prove, so make sure that you stay within your limits. Personal challenges and risky activities sometimes lead to bad results.

5 - The pilot is acting too routinely

Routines allow you to simplify your tasks, sometimes do two things at the same time, but be careful not to let yourself do «the usual» a little too often.

6 - Unreasonable intentions

As for many activities with inherent risks, prioritization is often reminded: safety first. Don't let yourself be taken away by unreasonable intentions.

7 - Negligence, complacency

If you're a rather cool type of person, be careful: the difference between a normal and a hazardous situation is just a forgotten item, a few seconds of distraction…

8 - Over self-confidence

A proper level of confidence rhymes with safety. Beware of over self-confidence, which can lead you beyond the limit of your skills and to hazardous situations. So don't be overconfident and try to find the right amount of confidence with respect to your skills, it's a real quality for pilots.

9 - Lack of self-confidence

Let's face a few facts. If you are here, it's because you have the skills to be. The lack of self-confidence is insidious and can cause stress with all its negative symptoms. Learn to face (motto for the French Air Force). Great pilots have a great setting for self-confidence.

10 - Optimism

Be careful. While optimism is a good thing, it shouldn't lead you to twist the reality by telling yourself that it will be get better. While optimism on the ground can be acceptable, it should be outlawed in flight, as it can bias your judgment and cloud your decisions. You are just as vulnerable as the others.

11 - Impulsive

Think first! In aviation, there's a saying: "If there's a fire on board, there's no rush". In any situation, even in emergencies, always take the time to think and make the right decision the first time.

12 - Anti-authority

Regulations provide you with a good level of safety. Follow them. Discipline is not a bad word in aeronautics, it's even a quality.

13 - Invulnerable

Humans tend to naturally underestimate the risks, be aware. Think of the comments from all those individuals involved in an accident which begin with: "If I had known...". If there's one thing to remember about Human Factors, it would be: **I AM VULNERABLE.**

14 - Resigned

Many pilots, sometimes with very little experience, have found themselves in hazardous, sometimes hopeless situations, and they still made it. They all have something in common: they fought until the end, they didn't give up. So the day when everything goes bad, fight and don't give up. "Bite that cushion"!

15 - Take shortcuts

With experience, it can be tempting to take a few shortcuts. The same experience shows that, if your tasks are not performed adequately, your safety margins decrease. Avoid the shortcuts that could transform into unexpected undesirable situations.

16 - Doesn't raise doubts

Having certainties during an activity with inherent risks is essential. A common trait to the best pilots: they raise doubts whenever it's possible.

EMOTIONS - STRESS

17 - Decrease in risk awareness

Under the influence of stress, the brain works more slowly and impacts your mental awareness, and therefore risk awareness. This simple fact should alert you.

18 - Loss of time reference

A particular stress symptom is the feeling of time contraction. It is not specific to the stress experienced by pilots, but it becomes critical when you consider that an accurate perception of time is critical. Even if the difference seems in the correct direction, this feeling is a source of pressure, additional stress and mistakes.

19 - Personal events

If you are going through difficult times (death, divorce, upsetting situations, etc.), know that they cause an insidious stress and that it can accumulate on top of the stress that you could experience in flight.

20 - Routine or judgment mistakes

Under the influence of stress, pilots who have difficulties concentrating will make mistakes. Focus on your tasks, especially the critical ones. What is the required lift-over-drag ratio to reach the field?

21 - Tunnel-vision phenomenon

Stress is intense and your divided attention decreases. Think of focusing your monitoring tasks around your priorities.

22 - Loss of clear-sightedness

For pilots, clear-sightedness is the equivalent of situational awareness. Under the influence of stress, the power of your “mental radar” decreases, the size of the mental picture decreases and its quality deteriorates.

23 - Omissions

A simple omission can transform into a mistake. Tasks that are deeply rooted into your routine have a better resistance to stress than others that require a bit more attention.

PHYSIOLOGY

24 - Physical fatigue

Fatigue causes mistakes which can sometimes be critical: “I was a bit tired, I didn’t pay attention, I thought I had checked my wing but...”. Be aware that your fatigue makes you vulnerable to mistakes, and that some are more critical than others: forgetting your map is one thing, forgetting to check your equipment is a different story!

25 - Illness

Piloting is much more demanding than most tasks that you do on the ground. Based on this, anything that affects your physiological or psychological integrity is a potential hazard. And knowing that hazards have the bad habit of combining, don’t add any if you don’t need too.

26 - Medication side effects

You are certainly aware of your medication side effects (be careful, your own metabolism can experience more intense reactions). Don’t forget that piloting requires a high level of vigilance.

27- Air sickness

You’re a pilot so airsickness doesn’t concern you, right? Don’t be so sure. Read a few stories of pilots who decided to go flying after eventful evenings... Those pilots typically tell the same story: “Why on Earth did I decide to go flying?”.

28 - Mental fatigue

You may not pay attention to it, but few activities require as much attention and dedication as piloting. Therefore, anything that can affect your attention, concentration or well-being is a hazard to you. Flying to change your mind is not a good idea. Bad experiences from pilots who decided to go flying to change their minds are common.

29 - Alcohol

Here are a few numbers: 0.1 g: impairment of sight, which is the most critical sense for pilots. 0.2 g: feeling of euphoria with a decrease in the sensation of risk (you make the reasonable decision of not going flying because there's a bit too much wind? Have just one beer and you'll go flying!). 0.5 g: increase in reaction time. 0.6 g: coordination issues. Just one beer can lead to taking thoughtless risks.

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COMMUNICATION

30 - Incomplete or inadequate briefing

A briefing is a way of putting some order in your mind as far as how you plan on doing things. It is a projection in time for the tasks to be performed. That's why the briefing must be adapted to its environment; it's not a recitation, and it must take into considerations all the potential specifics of your flight. It is essential.

31 - Don't communicate their intentions

Communicating your flight plans around you is a good occasion to gather some worthy information or advice.

32 - Don't use collective support (enough)

The pilots around you may be more experienced than you. They can help you. "When you get to the Prachaval slope, you may want to...".

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ENVIRONMENT DECISIONS

SITUATIONAL AWARENESS

33 - Confusion between two pieces of information

Confusion is a classic mistake when there are many pieces of information. You must separate important information from less important information. To avoid confusion, raise doubts, anticipate what can be, use common sense, communicate.

34 - Low mental performance

Situational awareness is based on perceived and reminded information, as well as analysis quality. Perception and analysis can be affected by various factors such as: stress, inadequate involvement, fatigue...

35 - Insufficient vigilance

Vigilance is the attention to the evolution of your flight and, more globally, anything that could be seen as a hazard. Vigilance allows you to steer clear from dangers. Your level of vigilance is conditioned by your knowledge, your risk awareness and your motivation. It can be affected by: fatigue, work load, your attitude, interruptions. So be vigilant

36 - Absence of information

If you don't know the weather forecast, you risk running into problems. That is why information is so readily available. Don't forget that you need to have certainties on many topics, there are enough hazards as it is, be informed.

37 - Bad usage of a system, mistake in a procedure

My wing is ready for take-off. But is it really? Some tasks are more critical than others, identify them to give them the necessary attention.

38 - Discrepancy or deviation to regulations, standards or procedures

Regulations, standards and procedures guarantee a level of safety based on past expe-rience, manufacturers' expertise... Deviating from regulations or directions translates to de-creasing your safety margins, and sometimes venturing into the unknown. There is a reason for those standards, they are not meant to bother you, think about it!

39 - A change in flight plan

You prepare your flight in a concrete way: navigation, weather... And more or less consciously, you also prepare for it mentally. In addition, once in flight, any important change will require significant adaptation skills, with the risk of losing situational awareness. To avoid any surprises, always have a "plan B", using "What if...", what if the wind picks up.

40 - Ambiguity between contradictory information

Ambiguity is a recurring factor in many accidents. An ambiguous situation can dangerously capture your attention (at the expense of your situational awareness). Raise doubts, use your good judgment, I will land that way because the wind is blowing from that direction.

41 - Divergence of opinions

Your perception of the situation is different than that of your colleagues. Do you have the same information at hand? Gather information, raise doubts, use your good judgment, explain your point of view. When it comes to your limits, they are not necessarily the same as the neighbour's...

42 - Focusing on one element of the flight

You are focusing on the squall line on your itinerary but fail to notice the flight paths of other pilots around you. Such focus is common, and you must fight it. Think of it the next time that you are putting too much attention on one element of your flight.

43 - Lack of experience

On the ground, there are solutions to a lack of experience, such as asking advice from more experienced pilots. In flight, the solution to keep a good level of safety in spite of your inexperience is the prudence that will avoid you to find yourself in undesirable situations. Be careful: risk awareness is proportional to experience.

44 - Lack of knowledge

The perception of reality requires punctual knowledge such as weather forecasts, or more fundamental knowledge such as weather map symbols. Being aware of the most common hazards (risks) improves situational awareness.

DECISION MAKING

45 - New situation, unknown context

Pilots obviously encounter various new situations. To face them, whenever possible, you must anticipate them to be better prepare. You must also make sure not to accumulate too many of them during one flight.

46 - Lack of skills

Many accidents are due to a situation that is too demanding for a pilot who was taken by sur-prise. Before facing some situations, you must evaluate your skill level objectively and face the reality of the situation very objectively as well, and the balance must always be in your favour. If you admit that you're not a great swimmer, you'll stay where you can stand on your feet.

47 - Lack of experience

Experience allows you to adapt to a previously encountered situation, or rely on your list of past experiences to structure your thinking and make your

decisions. With little experience, you must try to anticipate every possible situation and face new ones carefully.

48 - Lack or risk awareness

While you are experienced, so with good knowledge of the risks, in some circumstances, you can be faced with new situations and dangers that you are unaware of: rotor effect due to terrain, stratus clouds about a humid area. Don’t wait until you are in a situation that is too hazardous before making an appropriate decision and getting out of your bad situation. Your reaction time can be crucial.

49 - Judgment bias

Your judgment, on which you will base your decisions, can be influenced by judgment bias, or inadvertent deviations from objective judgment. Hazards associated with attitude will open the door to such bias, just like a lack of experience or skills. Your vulnerability to judgment bias is inversely related to your skill level.

50 - Heavy emotional charge

For pilots, stress is the negative emotion which impacts the quality of your decisions (maybe even your piloting). But beware of the other extreme: euphoria, which can guide you into situations that can quickly calm it down...

51 - Problems

Pilots must solve problems. They can be simple with a clear solution, or complex but always with a specific solution. The more challenging are complex problems without a given solution: while the situation could lead toward a storm on the crest in front of you, at what time will you cross the valley? The first two cases rely mainly on knowledge, complex problem solving relies mainly on experience.

52 - Time pressure

You must anticipate everything that can be anticipated. In all cases, focus on the essential and flight priorities. It's in the most delicate moments that flight priorities are the most difficult to follow. Be aware of this. Don't hesitate to postpone your take-off if you are feeling that pressure when doubts appear.

53 - Task complexity

You are faced with a new situation and you don't really know how to manage it. Already think of your priorities, like flying your wing. In the same spirit, think of safety before weighing your options from which you base your decision. The "back to basic" attitude can provide you with a way out: with that wind, that slope is the most logical.

54 - Lack of situational awareness

If you fail to notice that your airspeed is dropping, you won't be able to follow pilot priorities: flying your wing. In all flight phases, your attention must be focused on flying your wing before anything else.

55 - Failure to follow task prioritization

The reasons for not following task prioritization (flying the wing first) are many. Still, focusing on piloting tasks must be a second nature, especially during the phases where you are close to the ground.

56 - Insufficient anticipation

A key difference between beginner and experienced pilots is anticipation. Experienced pilots always try to anticipate how their environment will evolve. They are always one step ahead of events. Look far ahead both literally and figuratively, and anticipate everything that you can.

57 - Failure to make a decision, bad or late decision

In some extreme circumstances, pilots are terrified by stress and fail to make a decision, deffer decisions or make bad decisions. All those factors influence flight operations and potentially flight safety. In critical moments, force yourself to make a decision if it has not already been made.

CONTROL OVER THE WING PILOTING

PROCEDURES/KNOWLEDGE

58 - Failure to apply procedures

A procedure is a fail-safe which guarantees a specific situation when it is followed. A procedure is a fail-safe which guarantees a specific situation when it is followed.

59 - Tasks: multiple. unplanned

Pilots can need to accomplish many tasks simultaneously or in a very short time. Doing many things at the same time is a door to making mistakes. Anticipate the tasks that can be anticipated.

60 - Loss of attention

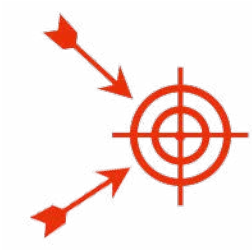
Your attention can be taken by many things at the expense of the tasks that you must perform: monitoring, piloting. If you have interrupted a task, a telephone call, double check where you were in your actions.

61 - Lack of knowledge

The knowledge used by pilots to accomplish their tasks is essential. There is no pilot without

knowledge. Some items, like wing limitations and map symbols will tell you why and when you should take action. Other items will tell you how to do so. They will also help you adapt to specific situations. You have no choice: knowledge is part of a pilot's toolbox.

PILOTING - NAVIGATION



62 - Lack of skills

Your challenge consists in being able to face the situation that arises. Are you able to fly in these conditions? The best pilots know their limits perfectly and do anything to remain within them. This also implies good situational awareness.

63 - Flying at the limit

Be careful, flying at the limit is often what characterizes experienced pilots; based on a thorough skills assessment, they don't hesitate in touching their limits. If you are less experienced, you will have a hard time perceiving your own limits. Already try to define them pre-cisely. Don't forget that the difference between a normal and a hazardous situation sometimes comes down to a few seconds in flight.

64 - Breaching the limits

Breaching the limits or regulations, i.e. violating them knowingly, can be due to two reasons. Either you have no choice, or you violate them for your own personal convenience. It is either laziness or sheer recklessness. Breaching regulations or limits is taking risks.

65 - Not knowing your limits

Flying is a bit like driving an F1 car and choosing the speed to maintain in a curve. What are your personal limits: wind, turbulence...? Define them.

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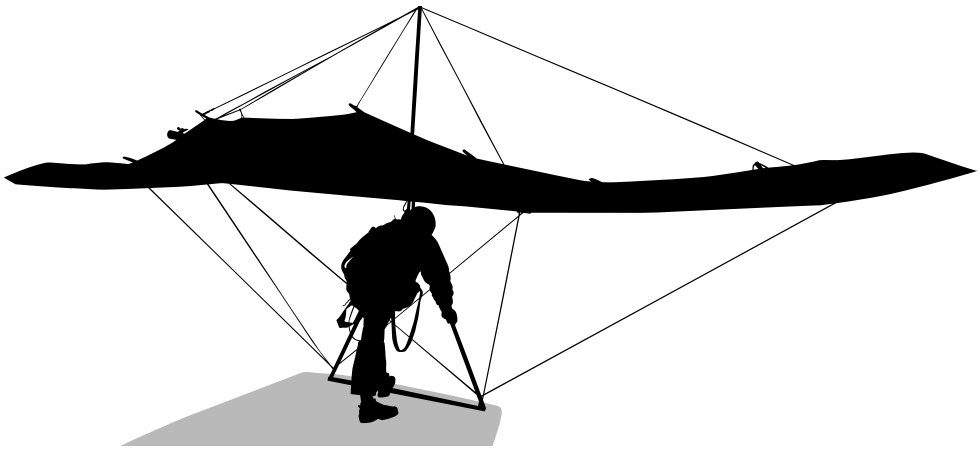

YOUR RESOURCES

YOUR COMMITMENT

Commitment can vary greatly between individuals for the same activity.

- Pressure - *Let's not do whatever we want*

The main challenge for pilots is remaining within the limit of their skills, but pressure is a factor which pushes them to ignore some risks. This is especially true if they have little experience when they are still building their risk awareness. The pressure felt by pilots is a major accident factor.

- Safety culture - *Your attitude toward risks*

Safety culture is a set of beliefs and values on the subject of risks that will condition the pilot's behavior. In an environment with few standards such as free flight, where pilots are on their own, this is an essential culture. Mistakes are the cause of most accidents, but pilots who have a good safety culture make far fewer mistakes than those who have a less-developed safety culture.

- Attitude - *The way you behave*

Attitude results from experience, personal background and punctual circumstances. It can be positive or negative, like safety culture which influences it greatly, and it can vary in intensity. Safety and attitude are closely related with the identified risk profiles. The attitude of pilots is the reflection of their

attitude in their everyday lives. Attitude is the first risk/safety factor for pilots.

- Emotions/Stress - *I couldn't think anymore*

Stress appears when pilots have a doubt about a situation that they are faced with. It is an alarm that should trigger a reaction. Its onset is insidious. Under the influence of stress, mental performance decreases: it can go from a simple hard time reasoning to the inability to make a decision.

- Physiology - *In shape?*

Health condition is a performance factor. If a pilot is in tip top shape or if he has the flu, his performance likely won't be the same. Is the pilot under the influence of medication? We must also discuss any drugs that have an effect on the central nervous system. Fatigue weakens the body and nurtures mistakes. Fatigue can be physical but also mental. Many factors can fall under the «healthy lifestyle» category.

COMMUNICATION

For pilots, communication is an open door with the outside world. Pilots must deal with a lot of information, most of which require communication between them and their colleagues. Experience shows that communication is sometimes challenging.

- Communication – *A lot of information to process*

Communication allows pilots to send or obtain in-

formation to manage the flight, while coordinating with their colleagues. Some relevant pieces of information must not leave any room for doubt, and pilots must be certain that their intentions are well understood. Knowing how to communicate is also knowing how to take advantage of the advice given by your colleagues. Communication takes its full meaning during training, where discussions with your instructors must leave no room for ambiguity.

NON-TECHNICAL SKILLS

In contrast with technical skills about the wing, piloting and the technical aspect of free flight, non-technical skills combine pilot resources that are mainly used to manage the environment. This is the pilot's black box. While technical skills answer the «how» (piloting), Non-technical skills answer the when and why (environment management).

- Situational awareness - *What is happening and what is going to happen?*

Situational awareness is the pilot's mental radar which includes:

- perception of information about the aircraft and the environment;
- understanding, meaning of such information;
- anticipate their evolution over time.

The last point is especially important. The level of situational awareness, especially about your environment, is proportional to your experience. It is

also conditioned by your vigilance. With attitude, situational awareness is one of the main factors for accidents in aviation.

- Problem solving - *Should I pass on the left or on the right?*

All pilots are faced with problems. They can be simple with a precise answer. What is your landing distance without wind? They can be complex, but still with a precise answer. And lastly, there are complex problems that don't come with precise answers, simply because an important part of the activity cannot be taken into account. That is where experience comes in.

- Decision - *I'll pass on the right.*

The pilot's decision-making is a mental process which consists in following the most relevant actions when faced with a specific situation. It is divided into four steps.

1 - Define the problem.
2 - Analyze the various options.
3 - Select an option.
4 - Apply the option by checking its relevance to complete the process if necessar.

Before the decision, judgment is conditioned by situational awareness. Judgment can be clouded by bias (involuntary deviations from an objective judgment), and it is particularly easy when the pilot is not experienced.

- Flight operations *–Flight priorities*

Knowing how to manage priorities to accomplish

your tasks is very important in an activity where everything changes constantly: position, weather, other aircraft... Flying your wing, piloting is the top priority: speed, angle of attack, banking... Piloting is the last resort before a loss of control. There are situations that can distract pilots from this priority, and they must be aware of this in order to resist them Knowing how to manage priorities to accomplish your tasks is very important in an activity where everything changes constantly: position, weather, other aircraft... Flying your wing, piloting is the top priority: speed, angle of attack, banking... Piloting is the last resort before a loss of control. There are situations that can distract pilots from this priority, and they must be aware of this in order to resist them.

TECHNICAL SKILLS

This is what piloting is about. Knowing that, in most cases, pilot error is only a consequence of bad situational awareness, an error in judgment or a decision.

- Knowledge – *No pilot without knowledge*

Pilots have technical knowledge which allows him to read weather reports, understand the principles of flight. All that knowledge answers the what, how, when, why, what if...? Their relevance varies, some are vital such as those used in an emergency: reopening the wing, launching the emergency parachute...

- Procedures - *Well-defined tasks*

A procedure is a series of actions done in a chronological way. Procedures, especially those included in checklists, can be seen as a fail-safe mechanism. They guarantee a situation at a given time: ready for landing. It's a risk management tool; failure to follow them exposes pilots to avoidable risks.

- Navigation – *Control*

Controlling your path with your piloting skills is one thing, but to go where and with what navigation equipment? Pilots must be able to know their position at all times.

- Pilotage – *Controlling the aircraft.*

Pilots must be able to fly their wing instinctively, regardless of external disturbances, by acting on flight controls in a coordinated way and in sync with the environment (around the three axes).

As you climb the steps to the diving board, you have felt the pressure of your friends watching you by the side of the pool, and even some stress about the new figure that you are trying. In the last steps, you begin to realize that you are unfamiliar with this diving board, and your double loop is suddenly far less attractive. You must make a decision. Your technical skills are not elastic, your concentration alone won't turn you into a champion pilot overnight. The decision is yours: give up, change your plans or go for it. If you land in a splash and make your friends soaking wet, we can give you some explanations with this guide.

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SAFE FLIGHTS

The good practices and hazards contained in this guide
can be transferred to most of your daily activities.

Have you ever dropped your cell phone, got the wrong address, arrived late at a meeting? Such events, trivial in our daily life, become very important when we put on our pilot's clothes.

A simple decision can take you leeward of a ridge, pressure can lead you to a missed landing.

Do experienced pilots behave the same way in flight and at home? No, in flight, their behaviour is more systematic, stringent, their level of vigilance is higher and, when in doubt, they become cautious, because they know that the gap between a normal and a hazardous situation is sometimes narrow.

This way of acting to control the risk is not innate, it is learned. This guide summarizes the best practices based on the analysis of the hazards that pilots are most often faced with.

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