

- The Human Factors - by JG Charrier - (Green level)

«The human factors are a magnifying mirror of our behaviors and activity»

JG Charrier

A THE HUMAN FACTORS



The pilot encounters severe turbulences as he expects to cross the valley. He does not really want to turn back and he thinks in going on. Then he remembers the characteristic scheme of accident in which he is with all those different factors : stress, pressure, meteorological conditions worsening... He decides to turn back.



The HF in few words

Did you ever drop your mobile phone on the pavement, or splash coffee drops on your white shirt or get the wrong address and arrived late to an important appointment?

Such harmless events in our current life are no more this when we dress in our pilot suit.

A simple decision can fly us lee side of a ridge, a wrong estimation with bad weather, a strong pressure will conduct a new pilot to a missed landing.

The most important plane crash at this day results of a misunderstanding between a pilot and air traffic controller.

Does an experienced pilot acts the same at home and when flying? No, when flying he becomes more methodic, more rigorous, his vigilance level increases and when in a doubt he becomes precautious, because he knows the difference between a normal and a dangerous situation is really thin. Risk control compartment is not a birth present, we acquire it by experiment, and, good news, it educates itself.



Driving a car we wait for an alarm before slowing or stopping. As a pilot we have not such alarms, we have to learn what are our weaknesses. When identified, our limits make sense only considering our activity. And again, we have no red or yellow lines not to pass in flight, we have to place them in our mind. To do so, we have to balance between the evaluation of our skills and the evaluation of the requirements of our activity, of the situation and of the context.

The human factors it's a magnifying mirror of our behaviors and activity

To be a pilot is a lot more than to pilot, with a subtil mix which is not always riskless, of what you know to do, what you can do and what you have to do. The Human Factors is your recipe book in which you can choose the good recipes. The way you act in day life should be left far behind when you go flying. You enter then the world of pilots with a specific know how taught with the Human Factors, successfully since many decades.

A good understanding of Human Factors it's two to four time less risk of accident from a person to another one, from a club to another one, from a school to another one.

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B MAPPING OF RESOURCES

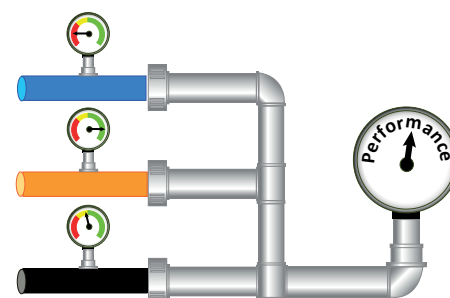


Patrick decides to turn back to land when he notices a side wind is on. He feels he will have to fly above his personal skills. Unexperienced, he links anyway the wind change to a passing cloud bigger than others. So he decides to wait, along the slope, till the cloud has gone.

A good pilot is like a good swimmer who knows how far he can swim considering the sea statement, and who learnt, if less experimented, to stay where his feet touch the bottom. This safety behavior is not natural, it should be learnt.

To acquire this education you can fly to accumulate experiences but you can also get knowledges which allow you to increase feeling and understanding of your activity. These knowledges can be classified as follow :

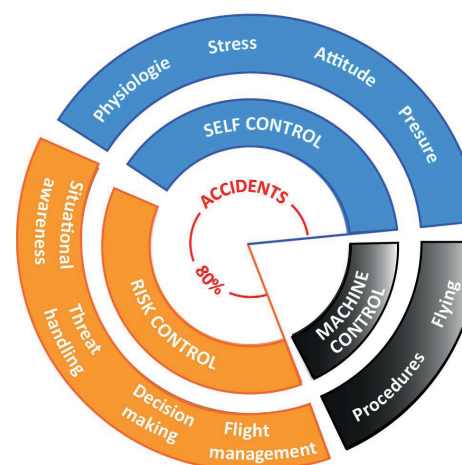
- your way of acting;
- your risk management;
- your pilot level



You should understand all these knowledges are interlinked such as much as energies that will add if they are positive or will act against each other in certain circumstances : if you are not in good shape your flying will suffer, if you get an external pressure you can take a wrong decision, etc.

The resultant of these three resources will establish your skill level. And we find as much levels than pilots.

Your main safety consideration is the consciousness of risk. When you acquire speed : bike, car...physical risks appear.



Third dimension will bring peculiar risks with well known traps : bad weather, poor training... and some others more isolated : pressure, stress... You have to identify them.

A statistic among others :

«Judgment mistakes conducting a pilot to take wrong decisions are responsible of mostly accidents origins (around 80 %）」 Civil Aviation Organisation.

The best pilot is not the best technical performer, it's the one who knows how to fly at his knowledge level.

ATTITUDE



In not that good weather conditions, why a pilot will go flying although another one with similar experience won't ? Why will your safety level vary in such important way considering your nationality or the club you fly in?

Your attitude is your mental state or you ability to react in such a way. It's the result of your experience, of your personal experimentation of life and of the present circumstances as well. Your attitude can be positive or negative, as well as your culture of safety which is going to strongly influence it.

NO : It's not that nice, but I already saw worst.

YES : Oops, I forget to check something. Sorry, I have to go back at the club house.

A positive and a negative culture

Culture is a basic factor of flight safety which can act positively or negatively. The negative side is an unrealistic perception of ourself about our invulnerability; i.e. consideration of our own skills, our stress resistance, our tiredness... Pilots who tell not to be affected by aspects linked to personal resources fell generally poorly concerned by safety and lessly feel the need to develop specific skills or to act with caution.

Negative culture of safety

Invulnerability feeling. Negative attitude.

Increasing accident probability.

Positive culture of safety

Positive attitude. Motivation. Involvement.

Decreasing accident probability.

A study of air crashes pointed five dangerous attitudes :

Impulsivity : «Quick, quick». The impulsive needs to do fast and now.

Against authority : «Don't tell me what to do». The rebel pilot assumes rules are useless or not made for him.

Invulnerability : «That cannot occur to me» Some people think accidents are only to others.

Machism : «I know how to do». The machist pilot tries to show his superiority.

Resignation : «What for...» The resign pilot feels unable to cope with.

The five antidotes to dangerous attitudes are :

Impulsivity : Slow down, think a little

Against authority : Follow the rules

Invulnerability : It can occur

Machism : Risk my life is foolish

Resignation : I'm not ressourceless

If a novice pilot can be impressed by the image given by invulnerable, rebel or over confident pilots, with experience he will understand that the real qualities of a pilot are a synthesis of these antidotes : calm, respect of rules, conscience of risk, humility and combativity.



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