

DISCIPLINE IN AVIATION

1 Background

This article defines discipline and illustrates its importance to safe flight operations. Its objective is to reinforce the importance of discipline as the foundation of airmanship and the need to follow procedures to ensure safe operations.

The article also demonstrates that poor discipline is the direct result of attitudes that may lead a pilot to deviate from Standard Operating Procedures (SOPs). It also describes defenses and controls for these attitudes that will enable flight crews to enhance flight safety through improved personal discipline.

2 Introduction

Discipline is

- Behaviour in accord with rules of conduct
- Behaviour and order maintained by training and control
- Often defined as an individual's commitment to comply with rules and procedures
- The willpower and ability to operate safely

Aviation discipline can be developed and enhanced through training that promotes self-control, character and the positive attitudes necessary for safe operations. Although discipline may be used as a descriptor of an individual's characteristics, it is not a fixed personality trait. Discipline can be improved with training and additional learning from personal experiences or the experiences of others.

A crewmember who adheres to rules and procedures is said to have behaved correctly, shown the correct attitude toward his or her job and demonstrated good discipline.

Good discipline is

- Not accepting that rules must sometimes be bent to get the job done
- Controlling the feeling that you have the ability and experience to do the job without following SOPs
- Rejecting opportunities for shortcuts or to do things that appear to be "better"
- Planning and preparing for problems before they arise by thinking ahead

Highly motivated pilots may see opportunities to do things that appear to be faster or better with the belief that they are helping passengers, air traffic control (ATC), fellow crewmembers or the company. However, by attempting to do things faster and better, pilots may deviate from SOPs and actually put the people they are trying to help in harm's way.

At the other end of the spectrum, unmotivated pilots are likely to be influenced by seeing opportunities to do things more quickly in order to make a task easier. These pilots also may deviate from SOPs as they attempt to make tasks easier and, in doing so, endanger those around them as well as themselves.

Intentionally failing to follow procedures is always an indicator of inadequate discipline. The challenge for the disciplined pilot is to identify and follow the correct procedure for every situation. Discipline also involves using appropriate and approved methods for challenging and updating procedures. It is often

possible to improve SOPs. However, change must be appropriately assessed in the context of the operation of the entire system before it is implemented.

3 Data

Human error accounts for over 80 percent of the causes of aviation accidents. Many reports cite flight crew failure to follow SOPs as contributing to an aircraft accident or incident. Lack of discipline is at the root of these deviations and therefore is a major component of flight safety. Listed below are flight-crew-related factors found to be significant contributors in 93 hull loss accidents.

| Factor | Percentage of Events |
|---|-------------------------|
| Pilot deviation from basic operational procedures | 33% |
| Inadequate cross-check by second crewmember | 26% |
| Crews not conditioned for proper response to abnormal condition | 9% |

4 Attitudes and Discipline

For this briefing note, an *attitude* is defined as a set of beliefs or state of mind that has the potential to affect a pilot's performance on one or more flying tasks. An attitude's effect on the performance of a given task can be positive, negative or neutral (neither positive nor negative). A pilot's attitude can have a direct effect on his or her discipline and the discipline of his or her crewmembers when operating an aircraft.

Positive Attitudes and Trust

Positive attitudes foster self-discipline and discipline in other members of a flight crew. Specific positive attitudes are the antithesis of the specific negative attitudes described below.

Positive attitudes in aviation (e.g., openness and honesty), both in thought and action, also foster trust among members of the flight crew. This trust, in turn, can increase personal confidence and the ability to accomplish a task efficiently and safely. While trust can be earned, it must also be given. Lack of trust within a team or flight crew can increase risk during operations. Even though trust can aid in team building, team members should never accept a decision, action or proposed action without checking to see if it is correct for the situation. A good rule is to *trust but verify*. Insist that other team members do the same for your actions and decisions. This is good discipline.

Negative/hazardous attitudes

There are many positive attitudes in human behavior, but in aviation there are some negative (i.e., hazardous) attitudes that must be avoided. The negative attitudes listed and discussed below are ones that have been shown to increase accident likelihood.

- Anti-authority
- Impulsiveness
- Invulnerability
- Machismo
- Resignation
- Complacency

There are several defenses against these attitudes, but successful use of these defenses requires continuous self-assessment. Pilots must be able to recognize and correct their negative attitudes before considering the attitudes of other crewmembers.

1. Anti-Authority — “Don’t tell me what to do!”

Some people simply do not like being told what to do and will often do the opposite of what they are told. In some instances, however, the anti-authority, or “don’t tell me,” attitude is the result of lack of knowledge or poor preparation. In either case, people with an anti-authority attitude tend to break the rules.

The primary defenses against this attitude are to follow SOPs, to obey the rules and to communicate concerns and suggestions through appropriate channels.

SOPs provide pre-planned guidance and advice. They have been well thought-out without the pressures of in-flight workload or abnormal situations. It is important to agree with yourself and other flight crewmembers on the rules and procedures before entering the conditions where they apply — well before any hazardous attitude can develop.

2. Impulsiveness — “I don’t need to think about that!”

Impulsiveness refers to acting without thinking, considering or analyzing a situation. An impulsive decision or action may be due to inadequate knowledge of important facts, or due to a failure to adequately consider important facts. Impulsiveness should not be confused with speed. There are occasions when decisions must be made quickly. A rapid decision is not impulsive provided the situation is understood and the solution well planned. Remember the guideline: “Not so fast. Think first.”

Where one encounters situations beyond the established rules and procedures, it is important to remember not to rush. Rather, take whatever time is available to consider the situation. Good discipline means never acting on impulse. Avoiding impulsive behavior requires good thinking skills, flight preparation and practice.

3. Invulnerability — “It could never happen to me!”

Invulnerability is the belief that nothing can go wrong. It is often associated with overconfidence in one’s skills or a lack of understanding of the prevailing hazards. Many people in aviation have learned and relearned the lesson that anything can happen to anyone, anywhere, anytime. The capability to resist the attitude of invulnerability is strengthened by increased knowledge and by the willingness to conduct a risk assessment before taking action. Beware of carelessness and overconfidence because they are virtually always more dangerous than the calculated acceptance of risk. Never undertake any activity with the thought that “it could never happen to me.”

Remember that everyone can and will make errors and that errors lead to accidents or incidents. Thus, it is necessary to identify the opportunities for error and to implement appropriate defenses. Consider the consequences of decisions and choose the safest course of action. If errors occur, report them, no matter who committed them. A high-quality organization should have a no-blame culture to ensure that everyone learns from errors that occur during flight operations. Error reporting need not lead to a confrontation. Instead of “telling” on a fellow crewmember, suggest that you jointly report the event as a crew problem.

4. Machismo — “I’m in charge!”

Machismo includes being overly — and unreasonably — assertive or domineering and the belief that a person needs to prove himself or to impress others by exhibiting risky behaviors. A machismo attitude has no place in aviation. Although this attitude is normally associated with an individual, it can also apply to a team or organization. A machismo attitude can lead to overlooking important information because inputs from outside sources are not considered or ignored. One important way to avoid the pitfalls of a machismo attitude is to request and to consider inputs from other team members.

Every team requires strong leadership, but leadership does not imply domination. Everyone must provide their own style of leadership while avoiding a machismo attitude. Flight crewmembers must also remember that their purpose in flying is not to impress others by showing off their skills. Rather, fellow crewmembers should be impressed by the accumulation of a safe flying record and by an attitude that is accepting of inputs from others. Crewmembers also are impressed by individuals who are always looking to better themselves by learning from others, rather than by individuals who are always competing.

5. Resignation — “Nothing else can be done!”

Resignation is an attitude that nothing more can be done to improve a situation. No one should resign his or her fate to chance — this is helplessness. Everyone can contribute and make a difference, even when the outlook is bleak. Help and assistance can always be sought elsewhere. Defenses against resignation, such as a timely question (e.g., “Have you considered ... ?”) or helpful advice from a crewmember can provide a different perspective on the situation or help identify alternative actions.

Thus, good teamwork can change an attitude of resignation. Remember that you are never helpless and that one more question can always be asked.

6. Complacency — “We don’t need to worry about anything right now!”

Complacency is a feeling of satisfaction or contentment with what is happening. Unfortunately, this feeling is generally due to a lack of understanding of the hazards that surround a situation or that could occur during flight. At times, a feeling of complacency is associated with attitudes of invulnerability and machismo, or with boredom during flight.

Complacency is sometimes associated with a novice pilot who does not understand the risks involved in a maneuver. Complacency can also be the result of an expert pilot’s overconfidence in his or her abilities to perform a task that has been performed many times in the past without a problem. In either case, the crewmember may miss important information and may not respond appropriately if a problem arises during flight. The best defenses against complacency are vigilance and alertness along with an understanding that even the most routine tasks must be conducted with care and concentration.

5 Violations and Discipline

A major element of discipline when operating an aircraft is compliance with established rules and procedures that guide a pilot’s performance of tasks. Therefore, good discipline in following rules and procedures will improve an individual’s safety record. On the other hand, the failure to follow procedures or rules reflects inadequate discipline, which is certain to increase accident likelihood.

There are many reasons why SOPs are not followed by flight crewmembers. Examining the most frequent types of violations offers insight into the reasons that flight crews give for a violation they have committed during flight. Violations of rules and procedures can be categorized into two types: unintentional and intentional.

Unintentional violations occur when a person violates a rule or procedure but does so unknowingly and without premeditation. Unintentional violations are generally thought of as errors (slips, lapses and mistakes). These violations often occur because of lack of knowledge of the rules or procedures, or because of a workload so high that insufficient time is available to attend to all necessary rules and procedures. It is important to recognize situations in which you have insufficient knowledge or time to complete a task properly. In these situations, it is important that you consult other team members or find a way to increase the amount of time you have to take action (e.g., initiate a go-around or delegate tasks to other crewmembers).

Intentional violations occur when an individual knowingly fails to comply with a rule or procedure for any reason. However, some violations can be viewed as a form of poor judgment or caused by outside pressures. Time pressure and high workload increase the likelihood of all types of violations, particularly intentional ones. When pilots start to fall behind in their tasks, the perceived benefits of

violating a rule or procedure may appear to outweigh the risks of violating it. Unfortunately, the actual risks associated with a violation are often very different from the crew's assessment.

Some individuals habitually commit violations without any outside pressures. These willful violators are risk takers who compromise the safety of all those around them. Defenses against intentional violations, particularly those committed by habitual violators, are difficult because the violations involve conscious disregard of SOPs. It is important for organizations to create an environment in which intentional violations, no matter how insignificant, are not tolerated. Flight crewmembers must develop the character and discipline to adhere to procedures and to hold others accountable when they commit violations that could put the safety of the passengers, crew and aircraft in jeopardy. An important concept to understand about violations is that their motivation can depend on the prevailing situation. The same type of violation can be unintentional or intentional depending on the context of the violation. For example:

| Violation | Unintentional | Intentional |
|---------------------------------------|--|---|
| Not using checklist | A flight into a familiar airport is going extremely smoothly and the crew simply forgets to run the landing checklist even though all items are completed. | The PNF is angry at the PF and does not want to help, so the landing checklist is deliberately omitted. |
| Exceeding limitations of the aircraft | The aircraft enters unseen and unannounced weather that causes the flaps to become asymmetric and lock. | The crew is running late and extends flaps at too high an airspeed, thereby causing them to lock. |

Whether intentional or unintentional, these and similar violations can be dangerous to flight safety. For this reason, flight crews must understand that all violations are risky and that they must exercise the discipline needed to avoid them.

6 Key Points

Discipline is the foundation of airmanship.

Discipline must be maintained at all times in aviation. You must have discipline in preparation, in practice, during the activity and also in debriefings.

A critical part of discipline is the management of hazardous attitudes that can lead to increased workload and stress.

A professional must exhibit good discipline and the character to rise above human weaknesses. Avoid or control hazardous attitudes — anti-authority, impulsiveness, invulnerability, machismo, resignation and complacency.

Apply the following defenses:

- Anti-authority: Follow SOPs; do not break rules; zero tolerance for violations.
- Impulsiveness: Be well prepared for every flight; do not rush decisions in unusual circumstances.
- Invulnerability: Remember that everyone makes mistakes; it could happen to you.
- Machismo: Work as a member of the team; your conscience is your personal leader; do not try to impress anyone.

- Resignation: You can always contribute to some aspect of a situation; comment or ask a question.
- Complacency: Be alert and ready to act; understand the risk of even the most routine tasks. Do not take anything for granted.