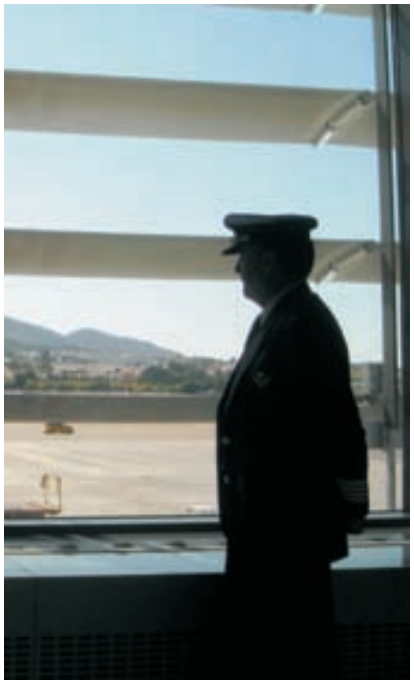
FREE TO COMPLY

By Michael R. Grüninger, Markus Kohler and Capt. Giancarlo Buono of Great Circle Services AG (GCS

When the last flight of the day takes place without passengers, pilots often feel a sense of relief and relaxation. In some type of operations, this last leg is also a "positioning" flight, with no passengers on board and a strange feeling of "freedom" that arises when we are alone in the airplane with another colleague.



All of the professional pilots would be perfectly familiar with the feeling of flying the last leg of a long duty day: fatigue and that pressing desire to get home or to the hotel as soon as possible.

Luckily enough, professional pilots are nowadays well trained in human factors and CRM techniques and are usually able to recognize hazardous attitudes and to put in place the necessary measures to prevent the incident trajectory to materialize.

Accident-Prone Positioning Flights

It is a fact that of all turbine airplane accidents in the USA from 1997 through 2005, 48 accidents – more than one quarter occurred during a flight identified as a "positioning" flight in the accident report. These positioning flights include empty leg flights to pick up passengers, ferry flights for maintenance and "tail-end ferry" flights.

The reports for these accidents identify many causes and factors, but the common theme for many of the repositioning accidents is the crew's failure to adhere to standard operating procedures or to fly the airplane within its performance limitations. Causes and factors include unstable approaches, flight into severe weather, failure to go around, intentional operation with non MEL allowed malfunctions and many other non compliances with established rules, regulations and procedures.

RELIEF
During positioning flights, pilots often feel a sense of relief and relaxation.

Intentional Non-Compliance

The NTSB has analyzed the behavior that can lead to these types of accidents. In most cases, intentional non-compliance with procedures has been identified as a casual factor. Voluntary violations to procedures, rules and regulations have been found to be more common when the following three elements are present:

- Motivation (Reward)
- High Probability of Success
- Absence of Peer Pressure or reaction

Looking at these factors from a safety culture point of view illustrates why these issues are so problematic and very difficult to control.

It's Fun, It Still Works

NTSB analysis pointed out that intentional non-compliance is an important accident contributor. Why do pilots not follow the rules? Because it seems fun - and it still works. Sometimes, it's not fun, but it saves time. Thus, it is perceived to serve the higher purpose of company well-being and customer satisfaction.

Pressure from other crewmembers, the company and the customers could lead to a "can-do" attitude where the intentional violations will be mentally justified as being rewarding.

It seems that a lot of this is the result of a learning process where wrong behavior has been successful, i.e. the reward has been obtained without negative consequences. If this behavior is applied once, and no negative consequences are experienced, then the success rate is 100 percent. Through repeated application, the individual builds up positive experiences that further

validate the theory-in-use to the point where it may become a habit and is executed without conscious reflection and thought.

Organizational Culture Modeling

According to a widely accepted model of organizational culture, there are three levels at which culture can manifest itself: artifacts, norms and values, and finally learned behaviors.

1 A level termed "artifacts" encompasses the observable manifestation of culture in an organization. With regards to the non-compliance with procedures and regulations that we are looking at here, behavior of flight crew that consciously or unintentionally violate the rules.

2 One factor that influences the actual behavior of the crew is the elements of an organization's culture that are on the "norms and values" level. This level includes the written policies and rules of the organization, i.e. the emphasis that the organization places on the value of the rules and on the norms that should be applied by all employees with respect to the rules. It is quite obvious, though, that there may be a discrepancy between the value that organizations (claim to) place on those norms, and the personal conviction of importance that any employee places on them.

3 A main reason may be found in the fact that overt behavior as well as the espoused values, are influenced by the underlying basic assumptions as to "how things work". At this third level of the culture model these theories-in-use are deeply ingrained learned behaviors that have been absorbed and are being applied mostly unconsciously, i.e. the individual may not even be able to explain "why" he has done something.

Break the Vicious Cycle

One cure of the urge of pilots to have fun or be excessively company minded is positive peer pressure and negative consequences for a certain type of undesired behavior.

Changing the theory-in-use is very difficult, in particular once it has been allowed to develop to the point where it has become part of the organizational culture.

A management that understands these mechanisms may recognize that timely (re)action is necessary to break the vicious cycle of negative behavior and apparent positive outcome. Having previously done the action without a negative result may allow the pilot to expect success and simply reinforces this behavior. The negative behavior will also be reinforced by a lack of negative peer pressure from the other colleague or passengers.

Attempts to break the cycle may be effective at several stages. A central issue is to ensure that the undesired behavior is not experienced to be successful and rewarding. This could, for example, be in the form of a Flight Data Monitoring program that is based on the expressed norm that a high value is placed on maintaining a high level of professionalism, and that disregard of the stated norms is not accepted. The element "reaction" would then be a consequence that the behavior results in.

A more desirable situation is when such a high level of professionalism is already a firmly established and shared basic assumption in the organization. In this case there would be peer pressure on the individual who does not share the common values and norms, i.e. the culture.

Just Culture

It is paramount that organizations and individuals alike adopt strategies aimed at avoiding these factors, particularly during positioning flights.

Far from the criminalization of errors, positive behaviors should be rewarded while intentional non-compliances should be dealt with the necessary determination in order to avoid the "Reward" effect.

Hence, true freedom is the freedom to comply with safe operating practices, at all times.

FAILURE Accident reports identify crew disregard for standard operating procedures.

Michael R. Grüninger is the Managing Director of Great Circle Services (GCS) Aviation Safety Advisors. GCS assists in the whole range of planning and management issues, offering customized solutions to strengthen the position of a business in the aviation market. Its services include training and auditing (IS-BAO) consultancy (IS-BAO, IOSA), manual development and process engineering. He can be reached at michael.grueninger@gcs-safety.com or +41-79 442 44 89. His column, Safety Sense appears regularly in BART International.