



# FLIGHT SAFETY

AN IN-HOUSE NEWSLETTER OF OPERATIONS DEPT.

Vol.5, No.1 Flight Safety & Quality Assurance Division January 2010

## IN THIS ISSUE

Aviation discipline and flight safety	1
Photo of the month	1
Influence of beards on oxygen mask efficiency	4
Yellow Fever	5
DECIDE	6
Flight deck crew quiz	6

## NEWSLETTER TEAM

Capt. Shawki Al-Ablani  
Dr.M.S.Rajamurthy

### Contact:

Flight Safety & Quality Assurance  
Division, Operations Dept.  
P.O.Box.394,  
Safat 13004 Kuwait  
Phone: +965-24725475  
+965-24348888/ext.2550  
Fax: +965-24749823  
E mail:  
kwioeku@kuwaitairways.com

## FLIGHT SAFETY/AIRCRAFT ACCIDENT LINKS

[www.flightsafety.org](http://www.flightsafety.org)  
[www.ntsb.gov](http://www.ntsb.gov)  
[www.bea-fr.org](http://www.bea-fr.org)  
[www.bst.gc.ca](http://www.bst.gc.ca)  
[www.bfu-web.de](http://www.bfu-web.de)  
[www.aaib.gov.uk](http://www.aaib.gov.uk)  
[www.atstb.gov.au](http://www.atstb.gov.au)

## EDITORIAL

We wish our flight deck crew and all our readers a very happy and a safe new year.

Aviation accident statistics indicate that human error is one of the major causes. Of these, failure of the crew to follow the Standard Operating Procedures (SOPs) figure as a contributing factor in many accident reports. Non-adherence to SOPs arises due to lack of discipline. In this issue, we look at discipline with reference to flight safety.

Facial hair and beards in men is a matter of personal choice be it for fashion or other reasons. In case of emergencies in the cabin demanding the crew to wear oxygen masks or

smoke hoods, facial hair and beards affect their efficacy. We have a short note on this.

In December 2009, IFALPA issued a medical leaflet on yellow fever which is endemic in African and Latin American countries. We bring details of this fever and the need for its vaccination for those crew who operate these regions.

As always, we look forward to your feedback, suggestions and contributions which can be sent to our office address given in this page. Happy reading and many more safe landings.

## AVIATION DISCIPLINE & FLIGHT SAFETY

*Adopted from the Skybrary Briefing note (OGHFA BN)-Personal Qualities-Discipline*

Human factors play an important role in aviation and could be a major contributing factor in aviation accident or serious incidents. Some accident investigation reports clearly attribute human errors as a contributing factor for the accident. Many of these are due to lack of discipline resulting in crew deviating from SOPs, ignoring the warnings from the fellow pilot, or taking inappropriate actions. In the July 2008 issue of Flight Safety, we discussed in detail the importance of adhering to the SOPs for the safety of flight.

**Aviation Discipline** is the individual's

- Behavior in accord with rules of conduct
- Behavior and order maintained by training and control
- Commitment to comply with rules and

procedures

- Will power and ability to operate safely.

A crew member 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

## PHOTO OF THE MONTH

### Dreamliner takes off

On Dec. 15, 2009, at 10:28 a.m. local time the much awaited first flight of Boeing 787 Dreamliner took place at Snohomish County Airport in Everett, Washington before a crowd of over ten thousand. After three hours of basic tests and systems checks, the plane made a smooth landing at Boeing Field, in Seattle. The test pilots reported that the airplane flew beautifully, with "no surprises."

Five more 787s will join the flight test program. First deliveries are scheduled for the year end.



to do things that appear to be faster or better with the belief that they are helping passengers, air traffic control (ATC), fellow crew members 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.

#### Accident 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 in the table below are pilot 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%

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 person-

ality trait. Discipline can be improved with training and additional learning from personal experiences or the experiences of others.

#### Attitudes and Discipline

In the present context, *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 crew members when operating an aircraft.

#### A. 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.

#### B. 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 crew members.*

#### 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 crew members 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 over confidence 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 crew member, 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 crew members must also remember that their purpose in flying is not to impress others by showing off their

skills. Rather, fellow crew members should be impressed by the accumulation of a safe flying record and by an attitude that is accepting of inputs from others. Crew members 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.*

### **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 crew members. 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 crew members).

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 crew members 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.

This is illustrated by an example shown in the table on the right. Whether intentional or unintentional, these and similar violations can be dangerous to flight safety. For this reason, flight crew must understand that all violations are risky and that they must exercise the discipline needed to

avoid them.

**Conclusion**

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.

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.

## INFLUENCE OF BEARDS ON OXYGEN MASK EFFICIENCY

*Dr.M.S.Rajamurthy*

When there is Smoke, Fumes or Fire, or when there is decompression in the cabin, the crew have to wear an oxygen or smoke mask to protect themselves from hypoxia.

Some years back, following several reports, the Civil Aeromedical Institute (CAMI) at the U.S. FAA investigated the effects of heavy facial hair, beards or long hair on oxygen mask performance.

In this research, CAMI tested three popular TSO approved crew member oxygen masks equipped with mask mounted regulators and widely used in civil aviation operations. The test data indicated that a decrease in performance does occur when facial hair is present along the sealing surface of the crew oxygen masks. The decrease in efficiency is proportional to the amount of facial hair present, the type of mask worn, the suspension system associated with the mask, and the exercise level to which the individual is subjected.

It found that Demand masks, often cannot be donned rapidly, nor seal effectively when used by bearded persons or persons with heavy facial hair. This adversely affects the performance of the mask and reduces crew member awareness, capability and performance.

The efficiency of smoke hood style protective breathing equipment is considerably decreased if a firm neck seal is not established and maintained. A beard that extends down the neck or the presence of long hair in the neck seal area, can render the neck seal susceptible to leakage thus affecting the efficiency of the smoke hood.

A flight attendant's job-related physical activity reduces the time of useful consciousness and increases respiratory exchange rates. These factors, combined with the reduced efficiency of continuous flow oxygen masks that is associated with beards,

could produce physiological symptoms that might reduce the flight attendant's ability to perform their safety related duties following a decompression.

Following this study, FAA issued an Advisory Circular AC-120-43, which advises air operators to ensure that their crew are made aware that the presence of beards, heavy facial hair or long hair can have an adverse effect on the efficiency of Demand masks, Continuous flow oxygen masks or smoke hoods provided on board aircraft for use by crew members. It urges Air operators to take this into consideration for inclusion in their operations manuals.

A recent KAC Operations department circular takes note of this aspect and the crew is informed about the effect of beards on the efficiency of oxygen masks.

## YELLOW FEVER

*Adopted from IFALPA Medical Briefing Leaflet No. 10MEDBL05, Dec. 2009*

Yellow fever has been known for over 400 years, and the name originates from the jaundice that some patients may acquire. The disease is caused by a mosquito spread virus. The virus is able to infect both humans and monkeys. The virus is endemic in African and American countries close to the equator. Most of those infected remain asymptomatic, but about 15% develop a haemorrhagic infection and about half of these patients die. The symptoms are fever, muscular pain, headache, chills, loss of appetite, nausea and/or vomiting, and often a low pulse rate despite of the fever. There is no specific treatment for the virus.

Yellow fever vaccination is effective and one of the rare vaccinations that may be required to enter some countries. It is suggested that all pilots who fly to, or over the endemic yellow fever countries take this vaccination. The vaccination is effective for 10 years, which after a booster is required.

Yellow fever virus belongs to the flavivirus group. The virus infects both humans and monkeys and is carried from one animal to another by a biting mosquito. Mosquitoes are also able to pass the virus via infected eggs to their offspring and thus the mosquitoes are the true reservoir of the virus. The mosquitoes bite during daylight hours and at altitudes up to 2500 metres.

### *Epidemics*

The virus is constantly present with low levels of infection (i.e. endemic) in some tropical areas of Africa and the Americas, but this viral presence can amplify into epidemics. There are 200,000 estimated cases of yellow fever (with 30,000 deaths) per year.

However, due to underreporting, only a small percentage of these cases are identified. Small numbers of imported cases also occur in countries free of yellow fever. Although yellow fever has never been reported from Asia, this region is at risk because the appropriate primates and mosquitoes are present.

### *Transmission*

There are three types of transmission cycle for yellow fever: sylvatic, intermediate and urban. All three cycles exist in Africa, but in South America, only sylvatic and urban yellow fever occur.

### **Sylvatic (or jungle) yellow fever:**

In tropical rainforests, yellow fever occurs in monkeys that are infected by wild mosquitoes.

The infected monkeys can then pass the virus onto other mosquitoes that feed on them. These infected wild mosquitoes bite humans entering the forest resulting in sporadic cases of yellow fever. The majority of cases are young men working in the forest (logging, etc). On occasion, the virus spreads beyond the affected individual.

### **Intermediate yellow fever:**

In humid or semi-humid savannahs of Africa, small-scale epidemics occur. These behave differently from urban epidemics; many separate villages in an area suffer cases simultaneously, but fewer people die from infection. Semi-

domestic mosquitoes infect both monkey and human hosts. This area is often called the "zone of emergence", where increased contact between man and infected mosquito leads to disease. This is the most common type of outbreak seen in recent decades in Africa. It can shift to a more severe urban-type epidemic if the infection is carried into a suitable environment (with the presence of domestic mosquitoes and unvaccinated humans).

### **Urban yellow fever:**

Large epidemics can occur when migrants introduce the virus into areas with high human population density. Domestic mosquitoes (of one species, *Aedes aegypti*) carry the virus from person to person; no monkeys are involved in transmission. These outbreaks tend to spread outwards from one source to cover a wide area.

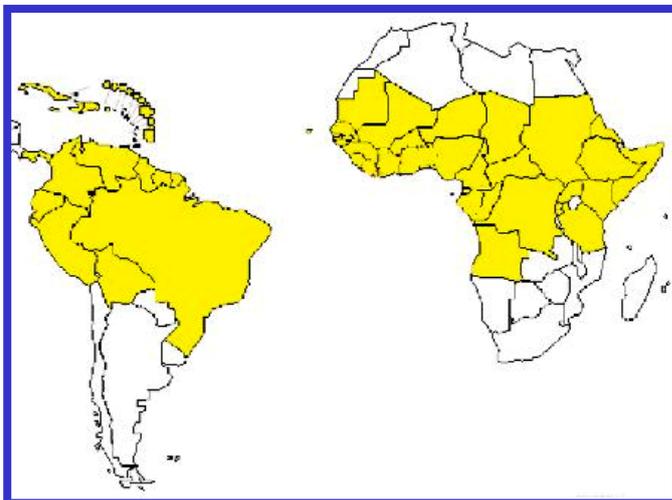
### *Geography*

In Africa, yellow fever exists in countries within a band from 15°N to 10°S of the equator. In the Americas, yellow fever is endemic in nine South American countries and in several Caribbean islands. Bolivia, Brazil, Colombia, Ecuador and Peru are considered at greatest risk. *Countries shaded in yellow in the map below are considered to offer the greatest risk of infection (according to WHO).*

### *Symptoms*

The incubation period (i.e. the time in which the symptoms develop) is three to six days and most of the infections seem to be asymptomatic. However, if the symptoms develop, there are two different phases: "acute" and "toxic". "Acute" phase is characterized by fever, muscle pain, headache, shivers, loss of appetite, nausea and/or vomiting and the paradoxically slow pulse despite the fever. 15% of the patients enter a "toxic phase" within 24 hours. Fever reappears and several body systems are affected.

Patients develop jaundice and abdominal pain with vomiting. They also suffer from different haemorrhagic manifestations, including bleeding from the mouth, nose, eyes and/or stomach. Kidney function deteriorates; this can range from mild dysfunction to a complete renal failure. Half of the patients in the "toxic phase" die within 10-14 days. The remainder recover without significant organ damage.



### Diagnosis

Yellow fever is difficult to recognize, especially during the early stages. Antibodies, or the virus itself, can be detected from the blood, but these tests require highly trained laboratory staff using specialized equipment and materials.

### Treatment

There is no specific antiviral treatment available and thus the treatment is symptomatic. Dehydration and fever can be corrected with oral rehydration solution and pain killers. Any superimposed bacterial infection should be treated with an appropriate antibiotic. Intensive care may improve the outcome of seriously ill patients.

### Vaccination

Yellow fever vaccine is safe and highly effective. The protective effect (immunity) occurs within one week in 95% of people vaccinated. A single dose of vaccine provides protection for 10 years and probably for life. There have been recent reports of a small number of serious adverse reactions, including deaths, following yellow fever vaccination; most of these reactions occurred in elderly persons. However, the risk to unvaccinated individuals who visit endemic countries is far greater than the risk of a vaccine-related adverse event. It remains important for all travelers at risk to be vaccinated; nonetheless, yellow fever vaccination should not be prescribed for individuals who are not at risk of exposure to infection.

Side effects of the vaccination are usually slight. They

include local reactions at the site of inoculation (up to 10 % of those vaccinated), after four to six days there may be more general reactions, such as an elevated body temperature, malaise, headache and muscle pain which usually subside within 24 hours.

Contraindications for vaccination are acute febrile diseases within the last two weeks, immuno suppression and immune defects, corticoid medication, allergy against chicken protein and age (<6 months).

Only Authorized Vaccination Centers may give the yellow fever vaccine and one needs to have an official vaccination certificate as a proof of the vaccination. This is mandatory when entering certain countries of the endemic zones and, after having visited endemic zones within the last six days, when entering certain other countries of the endemic zones and outside. The list of countries that require vaccination can be found for example from the International Travel and Health booklet that is accessible from WHO web pages [www.WHO.int](http://www.WHO.int). The validity of the certificate begins 10 days from the vaccination day as by then the person has developed immunity against yellow fever.

*JAA Manual of Aviation Medicine recommends that flight crews should be vaccinated even if they only fly over endemic areas, because an immunization might be required after a diversion to an airport, which is in the endemic zone. Therefore all flight crew operating in Africa or South America should be vaccinated against yellow fever.*

## DECIDE

### A checklist for circumstances not covered by procedures

#### Remain calm and do not rush:

- **Fly** the aircraft. Maintain controlled flight — attitude, speed, altitude.
- **Navigate**. Avoid terrain, vacate bad weather, check fuel.
- **Communicate**. Talk with your crew and with ATC.
- **Manage** the immediate threat.

#### D – Detect

Gather all facts and information about the event — what still works and what does not.

#### E – Estimate

Assess and form an understanding of the situation. Have you seen something similar. Consider possible solutions.

#### C – Choose

Choose the safest practical solution.

#### I – Identify

Identify the actions necessary to carry out the safest option. Have you done this before; what are the expected outcomes?

#### D – Do

Choose the safest practical solution

#### E – Evaluate

Evaluate the changes due to the action; reassess the situation, revise the plan if necessary.

Review the situation; return to the emergency checklist.

*Source: Operator's guide to Human factors in Aviation, Personal qualities—checklist Skybrary.*

## FLIGHT DECK CREW QUIZ

In the August 2009 issue of Flight Safety, we discussed wake turbulence and its effect on takeoff and landing performance.

Here is a question for the deck crew.

**Which wind condition requires maximum caution with regard to wake turbulence on takeoff?**

- No wind
- Light crosswind
- Strong crosswind

Answer and explanation:

**February 2010 FLIGHT SAFETY**

**The Confidential Aviation Hazard Reporting System (CAHRS)** provides a means of reporting hazards and risks in the aviation system before there is loss of life, injury or damage. It is open to anyone who wishes to submit a hazard report or safety deficiencies confidentially and non-punitively. Reports help to identify deficiencies and provide safety enhancement in areas of aviation. CAHRS forms can be collected at different location of KAC (i.e. Flight Dispatch) Premises. CAHRS form can be downloaded from the Operations dept. section of our site [www.ourkac.com](http://www.ourkac.com). Completed forms can be dropped in FS&QA allocated box at Flight Dispatch or e-mailed to [kwioeku@kuwaitairways.com](mailto:kwioeku@kuwaitairways.com) or faxed to +965-24749823 or mail to Flight Safety and Quality Assurance office, Operations Department, P.O. Box 394, Safat 13004, Kuwait Airways, Kuwait.