

Remembering the Employees and the Passengers

This session reflects on the impact on passengers of more stringent security measures, and on the role of airport and airline employees in becoming part of the security “team”, even though their jobs may not have direct security responsibilities.

With an initial presentation on the stress involved in air travel, the panel will examine practical ways of coping with enhanced security, and the role of the passenger and ramp personnel in promoting good AVSEC.



The Panel



Paul Behnke, Director Security & Economics at ACI, Geneva
Keith MacDonald, Airside Duty Manager, Vancouver International Airport
Jessica Stockwell, Travel author & Personal Safety & Security Editor, Travel girl.
Dai Williams, Work Psychologist, Eos, UK

A session to discuss issues and opportunities - from the grief of the 9-11 tragedies to the inspiring setting of Vancouver's harbour and skyline for AVSEC World 2004:



Managing stress, trauma and change in the airline industry: some human and psychological factors

Dai Williams, Chartered Occupational Psychologist, Eos, UK

Introduction

1. Starting points – current realities
2. Operational threat levels
3. Human factors & groups at risk
4. Psychological processes
5. Target outcomes for attenders

Introduction

Fear of flying is not restricted to terrorist threats. But high profile terror attacks - from Lockerby, through the 9-11 disasters in the USA to the double crash in Russia and recent bomb threats – increase anxiety and may traumatise passengers, staff and aviation management. These events have accelerated many aviation security developments.

Combined with other fears - like the SARS epidemic in 2003 - terrorist incidents affect passenger confidence, global traffic levels and airline economics. Since 2001 these have led to staff cuts and radical organizational changes that have created further challenges for staff and management. These longer term issues, together with personal factors, may affect responses to day to day incidents.

Much of the IATA AVSEC (Aviation Security) conference 2004 covers the new technology that has become vital to maintaining safe, secure and high volume airline traffic. Awareness of the human needs and reactions of passengers and staff is important too. These are important for good employer and customer relations and for the highest quality responses to threats, incidents and disasters.

These notes are a post-conference resource for the session on "**Remembering the Employees and the Passengers**". Moderator for the session - **Paul Behnke**, Director Security & Economics at ACI, Geneva - will set the industry scene. Aviation travel writer **Jessica Stockwell** will illustrate the changing experiences and concerns of passengers. **Keith MacDonald**, Airside Duty Manager at Vancouver International Airport will describe the operational issues facing airport staff and management. Dai Williams, Occupational Psychologist, will suggest how aspects of work and community psychology may be relevant to managing stress, trauma and change in the airline industry.

AVSEC brings together professionals from around the world who provide the infrastructure for safe and secure air travel. The audience will have a lot of existing wisdom to share. What can work psychology bring to this debate? The presentation and these notes will include:

- A framework for exploring human issues for passengers and employees.
- Practical techniques from the psychology of managing stress and change.
- Practical suggestions for passengers, tactical issues for incident response and strategic issues for management.

AVSEC 2004 – Remembering the Employees and the Passengers

Starting points – current realities

Flying risk variables –
terrorism & other real
& perceived threats

Latent fear agencies
(media) & effects

National & international
agencies & resources –
industry, security, govts

Existing wisdom
& resources

Operational threat levels

Ambient fear
& vigilance

Alert & incident responses

Disaster response
& aftermath

Human issues & groups at risk

Passenger views
& responses

Stress & trauma in
management

Wider effects:
Social - partners, health,
families, community
tensions
& *Commercial* - sales,
routes, carriers etc

Personal experiences

Staff & crew views
& responses

Ancillary services
(ATC etc)

Psychological processes

Individual stress responses

Differing vulnerability

Trauma & change effects
(transitions)

Stressed groups
& populations

Target outcomes for AVSEC members

Awareness, curiosity,
confidence, resilience

Personal health &
survival toolkit

Incident & risk
evaluation priorities

Strategic management,
training & HR issues

1. Starting points – current realities

1.1 Flying risk variables –terrorism & other real & perceived threats

There are likely to be big differences between the hazards of flying perceived by the public and the objective or statistical hazards of civil aviation. It is important that airline and airport personnel have accurate information about this range of threats for their own peace of mind, and to re-assure passengers when questions arise.

Statistically flying may be one of the safest, as well as quickest means of travel. The risk of being killed in a terrorist attack - in an aircraft or most other situations - is likely to be far less than being killed crossing the road near one's home *unless* one is in an active conflict zone like parts of the Middle East.

Other AVSEC presentations may have current statistics but most serious flying hazards are likely to depend on the age and maintenance of aircraft, the quality of air traffic services in the region and local political tensions affecting specific airlines, routes and airports. These higher risk hazards are known to experienced crews and frequent flyers but are not appreciated by the public.

Perceived threats for passengers may also vary for a wide range of more personal factors e.g. ethnic differences, flying experience etc described below.

1.2 Latent fear agencies (e.g. media and politics) & their effects

The passengers' view of perceived flying hazards has been strongly influenced by media reports especially with real time global TV news coverage. Every major flying disaster and terrorist incident is reported with powerful visual images. By contrast the annual slaughter in road traffic accidents is rarely covered. People discount road safety hazards for the convenience of travel and "it cannot happen to me" thinking.

National and international media coverage of attacks and disasters is a key feature of terrorist operations. Irresponsible media reporting spreads the fear of terror far beyond its actual occurrence - it serves terrorism. At times it appears that politicians have promoted fear of terrorist attacks through national media to justify other political agendas. This has been a frequent issue since 9-11 with severe effects on parts of the airline industry and wider economic confidence. In 2004 there are signs that strategic agencies are realising the consequences of exaggerating terror threats - both economically, and in terms of vigilance fatigue ("wolf, wolf").

These comments may be unpopular in some areas. But for the aviation industry if you can give a problem a name you are half way to solving it. There need to be ways of countering fear caused by misinformation for staff and passengers.

1.3 National & international AVSEC agencies & resources

IATA's AVSEC conferences indicate the growing range of resources available to counter malicious (as well as natural) hazards to safe and secure travel. Many technical, operational and legal or procedural changes should prevent, deter or otherwise reduce potentially hazardous incidents. However these also cause new complexities for communications and co-ordination between airlines, airports and national security agencies.

1.4 Existing wisdom & resources

Many AVSEC members attending the session will have in-depth experience of risk assessments and incident management. New technology is valuable to enhance AVSEC resources but it is important to value existing wisdom in the industry.

The civil aviation industry and a number of governments have been aware of safety and security hazards for decades. Experience from military and policing activities in countries subject to past or ongoing terrorist or criminal threats e.g. Israel, the UK and several other parts of Europe, and drug control by the USA has built up extensive experience of detecting and responding to potential threats.

National agencies have extensive information and procedures summarised on the Internet e.g. the US National Transportation Safety Board - Aviation (ref 1), the TSA Transportation Security Administration (ref 2), the UK Department for Transport - Aviation, Safety, security etc (ref 3), the UK CAA - Passenger Safety etc (ref 4), the ICAO report on Sky Marshals (ref 5) and many linked websites.

The SARS epidemic also highlighted another kind of threat - biohazards - for passengers and staff. Airport responses in 2003 illustrated skill in re-deploying low- and high-risk batches of passengers. Airline logistics technology for routing and tracking passengers, baggage and cargo has additional value when tracking potentially hazardous people or goods, or passengers and staff who may have been exposed to hazardous agents.

Industries with high disaster potential tend to have higher levels of safety and security awareness and emergency response procedures, though these vary widely between countries. Civil aviation probably has the highest standards and the greatest international regulation. But one role of events like AVSEC is to enable **best practice** to be exchanged with other industries like petrochemicals and the military, and made available to countries and organisations with less experience. **Scenario planning** and **simulation training** have been used since the 1970's to improve logistical responses e.g. in Vancouver for major incidents from crashes to oil spills.

Other aspects of emergency response e.g. public communications and media briefing vary widely between organisations and countries. These have been rigorously re-assessed in view of post- 9-11 security considerations and public levels of anxiety or confidence in air travel.

The Internet provides an excellent resource for locating and sharing existing wisdom, information, analysis and advice. The US Homeland Security Presidential Directive of March 2002 sets out the context for post 9-11 strategies (see 6). For links to air travel security websites see MaineSecurity.com, ref 7) and for AirSafe.com's Critical information for the travelling public see ref 8).



2. Operational hazards and threat levels

The combination of practical experiences, different threat levels and useful theories from the Panel should highlight some priorities for individual survival, tactical incident management and wider strategic issues.

Most countries have some kind of security alert levels for government, defence, police and other emergency agencies. Since 9-11 the USA Homeland Security Advisory Scheme standardised 5 Threat Conditions in March 2002, each identified by a description and corresponding color. Green for Low, Blue for Guarded, Yellow for elevated, Orange for High, Red for Severe.



The higher the Threat Condition, the greater the risk of a terrorist attack. Risk includes both the probability of an attack occurring and its potential gravity. (Homeland Security Presidential Directive-3 March 2002, ref 6 (<http://www.whitehouse.gov/news/releases/2002/03/20020312-5.html>))

The USA has maintained condition Yellow since 2002 with 6 short periods of condition Orange to August 2004. During the latest orange alert period, U.S. officials said they were focused on possible threats to the aviation system, particularly the threat of overseas flights being hijacked. No actual attacks occurred in the USA in this period.

For Civil Aviation purposes - the welfare of airline and airport personnel and passengers - Operational threats are not restricted to potential terrorist attacks or threats (e.g. bomb warnings). Other hazards include weather conditions, equipment failure, fatigue and human error plus sick, distressed or malicious passengers.

To explore human behaviour and vulnerabilities for staff and passengers it may be easier to compare **3 levels of psychological climate**. Different psychological demands and responses occur at each level.

2.1. Ambient fear & vigilance (US conditions Green, Blue and Yellow)

- general background level of alertness with no specific threats. Levels may be most identifiable at regional level resulting from political and cultural factors plus media priorities. But ambient fear or "climate" will also vary for locations, organisations, work groups and cultural groups. Ultimately each individual employee and passenger will have personal stress and anxiety factors. Causes of anxiety include tangible flying hazards and many personal factors e.g. recent traumas. Without specific threats normal behaviour will range from subdued to anxious. Within this level passengers and crew will have brief periods of higher anxiety or vigilance e.g. fasten seatbelts conditions.

2.2. Alert & incident responses (US conditions Yellow to Orange)

- specific situations, hazards or threats develop to aircraft or ground installations. Crew shift to high vigilance and take direct precautions or respond to specific problems or threats e.g. medical emergencies for passengers or staff, severe weather conditions, equipment failure, fire, security alerts (bomb or other threats) or passenger violence. Alerts may include industrial action that compromises safety or security resources and hazardous cargoes as well as passengers.

2.3. Disaster response (US condition Red)

- a life threatening emergency develops e.g. a forced landing, decompression or other structural failure, major fire, hostage taking, hi-jacking or extreme violence. In ground installations this may include other accidents or emergencies (fires, explosions or natural emergencies such as storms, earthquakes etc.)

3. Human issues and groups at risk

The Panel will look at Aviation Security issues for passengers and employees in general. There are very different groups within both areas and these differences are important. Passenger experiences and behaviour may be very different between first time and frequent flyers. Staff experiences will be different between ground staff, flying crews and managers. The Panel will offer **personal experiences** to illustrate current issues - from general frustrations - e.g. with new technology - to major problems from malicious threats and the logistic effects of increased security procedures.

Members attending the AVSEC Conference will have personal experiences as passengers, and in your work roles. These will be in your minds as you take part in the session, or if you are reading this in your own time. Unlike most passengers many airport and airline staff will have personal experience of all three operational threat levels - including disasters. What kind of issues concern you most? What kind of positive factors have impressed you about the behaviour of staff and passengers in high alert or actual emergency situations? What briefings or training have you had about psychological issues in "fear of flying", air rage, terrorist action etc? What basic rules do you use in emergencies? What sources (books, websites etc.) do you recommend to colleagues and new staff?

3.1. Passenger views & responses

Jessica Stockwell is Personal Safety & Security Editor of TravelGirl magazine. Author of "Dare to Travel the World," Sept 2001 (ref 9) - billed as a "must-read" for post 9/11 travelers who plan to travel outside their comfort zone and across cultures and continents for business or pleasure. Her second book is "Live and Travel Well", Nov 2003 (ref 10). Jessica is a popular travel commentator with many topical and practical travel tips (e.g. ref 11). Her website is at www.jessicastockwell.com



Jessica will explain the increasing complexity of travel for passengers since 9-11. For example new technology like electronic ticketing reduces airline costs and helps security but can confuse even regular travellers. She can describe passenger experiences of condition Orange and is aware of the widely different travel experiences for different ethnic groups and genders in different regions. She recommends practical details that that can help passengers feel in control - even in highly unstable travel situations.

3.2. Staff & crew views & responses

Keith MacDonald, Airside Duty Manager at Vancouver International Airport www.yvr.ca will describe some of the operational issues facing airport staff and management. Safety alerts and skilful incident response are an ongoing feature of work for airport and airline personnel. Aviation security has also been a key concern for many years. But the use of civil aircraft as weapons as in the 9-11 disasters has dramatically increased international security precautions. Keith will describe some recent incidents illustrating aircraft or airport alerts, and the personal as well as operational challenges they present.

Aviation has always been a potentially hazardous industry with potentially highly traumatic incidents. Objectively flying is probably far safer in 2004 per passenger mile than at any time. But political and media interest puts high expectations on airlines and airports for maximum safety and security.

Some AVSEC tasks - like vigilance for potentially dangerous passengers, baggage or cargo - are important for all staff. Check-in staff, ground security personnel and cabin crews have increased stresses in their direct face to face contact with passengers. They have to balance good customer relations with high vigilance. Increased vigilance in highly repetitive situations e.g. screening passengers and baggage is very hard to maintain over long periods.

Governments and media are setting very high expectations on passenger transport industries during the war on terrorism. Military personnel sustain high vigilance over relatively short periods, can use lethal force and are not primarily accountable for customer satisfaction.

By contrast air and ground personnel in civil aviation are expected to offer fast but calm and highly professional responses - even in extreme crises, as well as in normal day to day operations. This requires staff selection and training of the same calibre as in the best police and military organisations. Civilian personnel are expected to do their normal job 95% of the time, AND to have the capability to transform into expert crisis managers 5% of the time. These are major challenges to staff and management.

3.3. Stress & trauma in management

Some factors increase stress on staff across many airports and airlines. Passenger numbers fell after 9-11 and SARS. Operating costs have been rising to cover increased security and rising aviation fuel costs. These have increased commercial pressures, competition and led to major organisation changes.

Paul Behnke and Keith MacDonald can explain increased pressures on managers to optimise cost and performance. Some countries and airlines have more favourable conditions than others. But the current climate in international air travel means that managers are often working with organisations and personnel under moderate to severe stress, and sometimes suffering recent traumas.

Civil aviation is a highly structured industry, usually disciplined, logical and well coordinated. This culture needs and recognises managers who are practical, logical and well organized. But the challenges of rapid commercial change, increased complexity and random threats of major disasters may require different personalities as well.

Questions: How can managers switch roles in crisis situations?

Do new leaders emerge in different situations?

The skilful operational manager may be different from the strategic corporate planner and inspired trouble-shooter. All have key roles to play in different situations. Different styles also occur within police and security agencies, and within other emergency services e.g. medical, fire and utilities. Understanding these differences may be important where multi-agency co-operation is required.

3.4. Wider effects of increased fear in aviation

The global impact of increased fear post 9-11 may affect passengers and staff in other ways that are not immediately obvious. Anxiety levels for families of passengers and staff may affect decisions on choice of routes, airlines etc. Over extended periods this may also increase pressure on family relationships and health, affecting staff turnover, sickness absence, accident rates and recruitment.

4. Psychological processes

The session looks at different threat levels and how they affect staff and passengers. How can psychology help?

Human behaviour includes special abilities to cope with trauma, stress and change. These have evolved through generations of survivors, over thousands of years and many cultures. Groups develop their own organisation and survival skills. Leaders develop organisational skills through training and experience in sport, education, military or business. Applied psychology is beginning to offer some **useful toolkits** for understanding human behaviour - how individuals and groups are likely to behave in different situations, and why.

There are many different fields in psychology (see APA, ref 12) and several specialising in aviation. There has been extensive human factors (ergonomics) research into aircrew behaviour for military and civilian purposes (see AAP, ref 13 and AavPA, ref 14). There has been research into crowd behaviour, hostage situations etc for tactical police and security training. There is much recent research into psychological aspects of terrorism (refs 15, 16, 17, 18). These areas offer specialised insights but often for restricted use in the current environment. Some are available to civil aviation employers through specialist training with police, government or other security industry and university sources (e.g. Embry Riddle's CASE, ref 19). Some of these organisations may be exhibiting at AVSEC World.



These suggestions are taken from my work as an occupational psychologist and interests in community psychology - the behaviour of normal people and communities and how they balance work and personal life, survive changes and resolve conflicts.

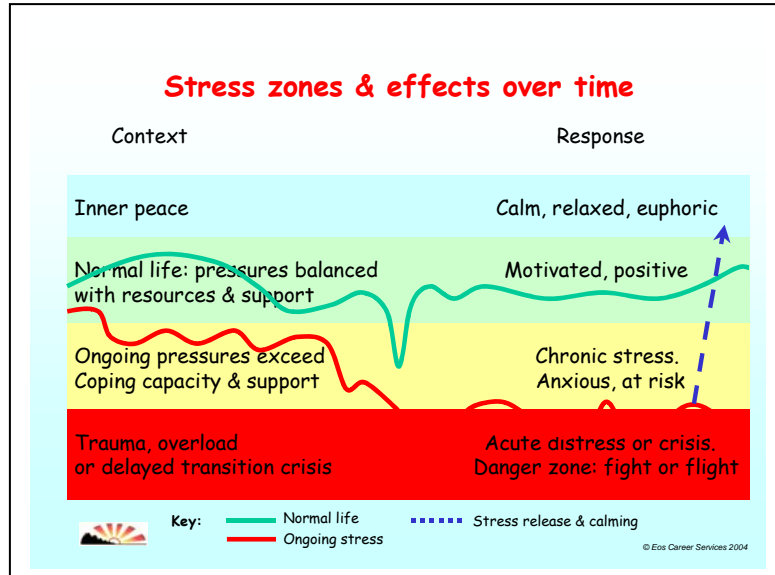
Five basic psychological factors are particularly useful to surviving and thriving in aviation and other potentially hazardous environments. These may help to understand and reduce chronic or acute anxieties about air travel, especially since the 9-11 disasters. They are:

- 4.1. Individual responses to stress
- 4.2. Delayed effects of trauma and change
- 4.3. Personality differences
- 4.4. Hazards and opportunities in group and organisations
- 4.5. Fear and violence in stressed populations

These factors are likely to apply to most people and organisations, though there may be significant differences in different cultural settings.

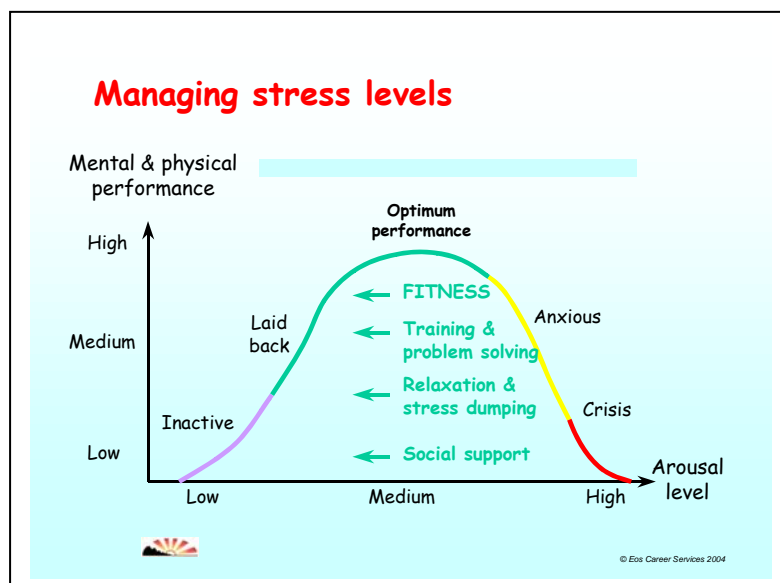
4.1 Individual responses to stress

In normal life we have sufficient resources and support to respond to the pressures we face. We may have brief ups and downs but we are generally positive and motivated. This optimum situation is shown by the green line below.



Sometimes the pressures on us may exceed our personal resources. Unless we have external support this will create chronic stress and anxiety. External threats that we cannot control e.g. of accidents or terror attacks may also increase personal anxiety and stress levels. Over an extended period this may increase anxiety levels up to a dangerous point where the individual goes into a state of panic. At this point full "fight or flight" reactions may occur ranging from a panic attack or collapse, to escape or to violence. This flash point is important to understanding disruptive passengers or "air rage".

One psychological model for seeing the causes and effects of stress is the arousal curve below. Humans need a medium level of arousal for optimum performance. But then performance deteriorates under further pressure:



An acutely stressful situation e.g. an accident, fire or explosion may move an individual from normal to extreme alarm in seconds. How individuals respond to chronic and acute stress will depend on several factors mainly:

- General physical fitness and short term fatigue
- Training for specific stressful situations (e.g. first aid skills for assisting casualties)
- Social support e.g. in a crew or team

Emergency services and military organisations often have a strong culture for physical fitness and sport, and frequently rehearse emergency situations to develop incident management strategies. Their biggest problem may be boredom. They are more resilient under sudden acute stress and can maintain high performance under high stress situations. But like athletes they risk more sudden collapse if they overload. Rest breaks are vital to sustain high performance.

Fitness, training and support are important for resilience under stress. But some extreme situations will overload even well trained staff. In these situations special relaxation or "stress dumping" exercises can reduce panic or extreme fight or flight responses very quickly. A combination of controlled breathing with tensing and loosening muscles can create bio-feedback to calm the cardio-vascular system. This is an essential stress management skill that can be taught to staff and passengers.

Staff that understand these stress responses should be able to choose optimum strategies for calming anxious, distressed or violent passengers. Their own calmness is vital to help them stay in control of situations. Passenger rage may be more complex when drugs or alcohol are involved. But calming down a disruptive passenger is likely to be safer than attacking them. Increasing stress on an already highly anxious person is likely to provoke sudden and extreme behaviour (the fight response) especially if they are armed. UK police and military have found this stress management psychology to be vital to peaceful resolution of hostage and urban terror situations.

Relaxation, meditation and similar stress management techniques should be useful for helping anxious passengers to feel more in control during stressful flight situations e.g. take off, turbulence and landing. Passengers of various faiths and cultures will use prayer to manage anxiety or distress. Moments of silence in large groups can be calming.

There can be a very positive side to the *Fight or Flight* response. In life threatening situations the effects of adrenaline and related chemicals enables individuals to respond with increased physical power and accelerated mental functions. But the effective operation of these functions - from emergency response by pilots to supporting responses by staff and managers on the ground - depends on good fitness levels. Chronic stress, tiredness and other factors can result in seriously impaired decision making when acutely stressful situations arise.

These individual fight or flight stress responses may also be important to understanding behaviour in large groups and in highly stressed or traumatised organisations or communities, see *Fear and violence in stressed populations* in section 5 below and ref 22.

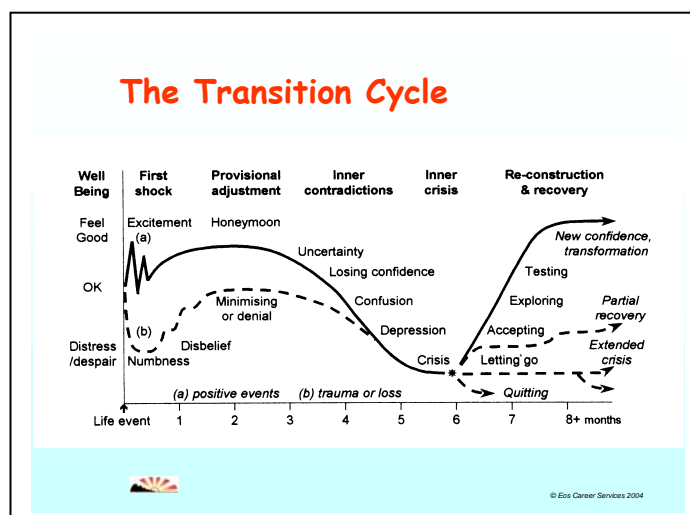
4.2 Individual responses to trauma and change - transition psychology

The biggest factor influencing civil aviation in North America and many other countries was the 9-11 disasters in the USA in 2001. It was a major trauma to the staff of the airlines and airports involved and to the bereaved families of passengers and ground casualties. Events then created a series of secondary traumas resulting from cut backs in the aviation industry, job losses and major organisation changes.

These traumas and changes were likely to increase ambient (background) stress levels for employees and passengers. But they were also likely to create delayed effects that may not have been recognised or monitored in most organisations - another human survival response known as **the transition cycle**. (See diagram below and refs 20 and 21).

Transitions happen to individuals when a major life event, good or bad, changes their life and their view of the world. Births, deaths, marriages, separation, new jobs, redundancy, relocation, mergers, take-overs, accidents and disasters can all start a transition period for people who are deeply affected. Individuals may experience 10 to 20 or more transitions in an average lifetime.

The transition cycle appears to be a natural healing process that enables humans to survive and thrive - even after personal disasters. This has been a prime evolutionary task for the human race. We are bred from generations of survivors. Traditional societies recognised and supported transition periods with rites of passage, some lasting many months.



The main **stages of transition** are shown in the diagram above. Immediate effects depend whether the key event is good or bad. But soon individuals go into an effective coping period for 2-3 months. This provisional adjustment period buys time for immediate practical responses to the change. Support systems often assume that an individual is back to normal after 3 months because they appear to be functioning adequately.

But the second 3 months are potentially more dangerous. The deeper psychological impacts of the trauma or change are often postponed by denial in the early months. But the new reality often breaks a deeply held belief. This may de-stabilise the individual causing increasing anxiety and stress or depression. This often leads to a crisis phase about 6 months after the event when the individual may quit jobs or relationships, or may make serious errors of judgement in work or management decisions.

Under ideal conditions - good economic security and emotional support - most people work through the transition crisis in a few weeks. They let go of obsolete beliefs or broken dreams and enter a very positive recovery period ('the darkest hour is just before dawn'). This can be a major personal and career development phase.

But if there are hostile conditions individuals may get stuck in a extended crisis (which may become depression), may go sick with stress or be disciplined or dismissed for performance problems.

The 9-11 disasters were likely to start multiple transitions for many industries and communities in North America (ref 22) and subsequent military and terrorist operations have started trauma cycles in several other regions - the Middle East, South Asia, Indonesia, Australia and recently Russia. The SARS epidemic also caused widespread panic in the Far East in 2003. These events may be important for airports and airlines operating in these regions.

Personal life transitions - particularly family events - will also cause periods of distress for employees and passengers. On average 1 in every 3 people has experienced a significant life event in the last 1-2 years. If they are still in the crisis or extended crisis phase they will be less resilient to additional work or travel stresses. But if they have successfully worked through their most recent change they may be far more positive and respond creatively to new crises (ref 23). It is important to retain and support staff in crisis because they may become some of the most energetic human resources within a few weeks or months.

4.3 Personality differences in response to threats

Another important psychological factor that affects everyone's behaviour is their personality. This affects the types of job that staff are best suited to, the mix of different personalities that is useful in a team and the different ways that people may cope with trauma and stress.

Personality assessment is becoming more widely used in western corporations and many AVSEC members may already be aware of their profiles. There are several different models of personality and different ways of testing them. Carl Jung's theory of personality types is quite widely used in western countries through the Myers Briggs personality questionnaire. It serves to illustrate some personality factors that explain very different types of human behaviour in organisations.

The **Myers Briggs Type Indicator®** offers 4 dimensions summarised below (refs 24, 25):

<p>Extravert (E) People-people - like working & socialising in large groups or with the public. Good communicators but less reliable alone.</p>	<p>Introvert (I) More private people. Quality rather than quantity with people. Work well alone, 1 to 1 or in small groups. Good concentration.</p>
<p>Sensing (S) Practical realists. Hands on, reliable, good with facts and procedures. Efficient, enjoy operational service roles. Dislike change.</p>	<p>Intuitive (N) Ideas people, innovative, strategic. Good with projects, plans. Unusual insights. Thrive on change. Bored in routine roles.</p>
<p>Thinking (T) Logical, rational, analytical. Good in technical and commercial roles.</p>	<p>Feeling (F) Can be logical but value social, ethical factors - motivation, morale, confidence.</p>
<p>Judging (J) Well planned and organised. Organise self, others and fit well into larger systems. Need contingency plans & scenarios.</p>	<p>Perceiving (P) Flexible, adaptable, spontaneous, tolerant. Less organised but may excel in a crisis. Potential negotiators, trouble-shooters.</p>

Combinations of the 4 different dimensions on Myers Briggs give 16 different personality types. None of these are good or bad. But they are very different. Although the model was developed in the USA it has been used in many different cultural settings. Employers will need professional advice from local psychologists to check the validity of this model in local cultural contexts.

Different profiles or types are likely to be found in different roles e.g. staff working with passengers may be more extravert than technical personnel. Operational personnel are more likely to have the Sensing preference. The complex and tightly structured nature of civil aviation is likely to attract more Thinking and Judging types to commercial and managerial roles.

But in more stressful situations dealing with staff and passengers under moderate to severe stress some of the other personality preferences may offer unique contributions. Introverts can deal with the public but may prefer one to one roles where priority is on quality rather than volume of transactions e.g. establishing a high trust dialogue with distressed passengers.

High Intuition personnel may have contributions to make in planning major organisation changes and anticipating strategic priorities for employee and passenger relations. Feeling personnel will also have insights into employee and passenger relations.

Perhaps least likely to pass aviation selection and promotion procedures Perceiving personnel may have valuable roles to play in emergency planning and crisis management situations. They may also be skilled at handling the tolerance and complexities involved in multi-cultural communications. Perhaps every crisis response team should have one?

It may be helpful if every employee knows their own personality type, and understands the differences of other types. This can be very useful in team building exercises. In high performance teams that may be required to deal with emergency responses e.g. aircraft crews, it could be desirable that whole teams know each other's types and so understand the different kinds of contribution they may offer in emergencies.

It would be helpful if at least one crew member has advanced training in understanding personality differences and other psychological emergency skills for dealing with disruptive or distressed passengers. Such advisers may already be available via ground control links in emergency situations.



4.4 Hazards in stressed groups and organisations

The psychological effects of stress in groups or organisations can be worsened when the whole group is also in a transition crisis phase - typically about 6 months after a major event - perhaps a major accident, a management change or a complete merger or take-over. If senior managers are unaware of the transition process they may misunderstand signs of distress within the workforce e.g. increased sickness absence, accidents, errors or industrial disputes. A short period of crisis may be normal, even necessary for the organisation to move forward. Severe disciplinary action may create far worse disruption. This happened in the new UK Parliament 6-8 months after the 1997 election landslide.

Stressed teams may also behave in bizarre ways e.g. scapegoating (attacking) weaker members of the group to take attention away from other members who are failing. One of the worst hazards in stressed management teams is the development of "group think" - building a collective delusion about a major issue or project. This may be used to justify a plan that will obviously fail, or to divert attention from failures inside the organisation onto some external agency.

Group think was a concept developed by Yale Psychologist Irving Janis (ref 26) after the Bay of Pigs fiasco. It includes several classic symptoms:

1. **Illusion of Invulnerability:** Members ignore obvious danger, take extreme risk, and are overly optimistic.
2. **Collective Rationalization:** Members discredit and explain away warning contrary to group thinking.
3. **Illusion of Morality:** Members believe their decisions are morally correct, ignoring the ethical consequences of their decisions.
4. **Excessive Stereotyping:** The group constructs negative stereotypes of rivals outside the group.
5. **Pressure for Conformity:** Members pressure any in the group who express arguments against the group's stereotypes, illusions, or commitments, viewing such opposition as disloyalty.
6. **Self-Censorship:** Members withhold their dissenting views and counter-arguments.
7. **Illusion of Unanimity:** Members perceive falsely that everyone agrees with the group's decision; silence is seen as consent.
8. **Mindguards:** Some members appoint themselves to the role of protecting the group from adverse information that might threaten group complacency.

On a small scale air crews might develop a form of group think when faced with unusual hazard warnings - assuming a computer error rather than a major fuel leak. Group think may develop in longer periods of stress e.g. during industrial disputes or hostage situations. It might even apply to under-estimating risks of major oil price increases.

There are various antidotes to Group think (ref 26). General awareness among managers and staff of the risks of Group Think and its symptoms is important. This can also be built into emergency planning procedures e.g. the use of "red teams" who play devil's advocate to challenge complacency etc (e.g. ref 27).

There are many other psychological aspects to managing teams and organisations successfully under high stress. Sport psychology as well as military research into organisation behaviour is producing valuable information. But the unexpected effects of transitions and group think are two particularly important areas. Both can build up almost unnoticed over weeks or months - particularly in organisations that usually work in rapid, real time decision making.

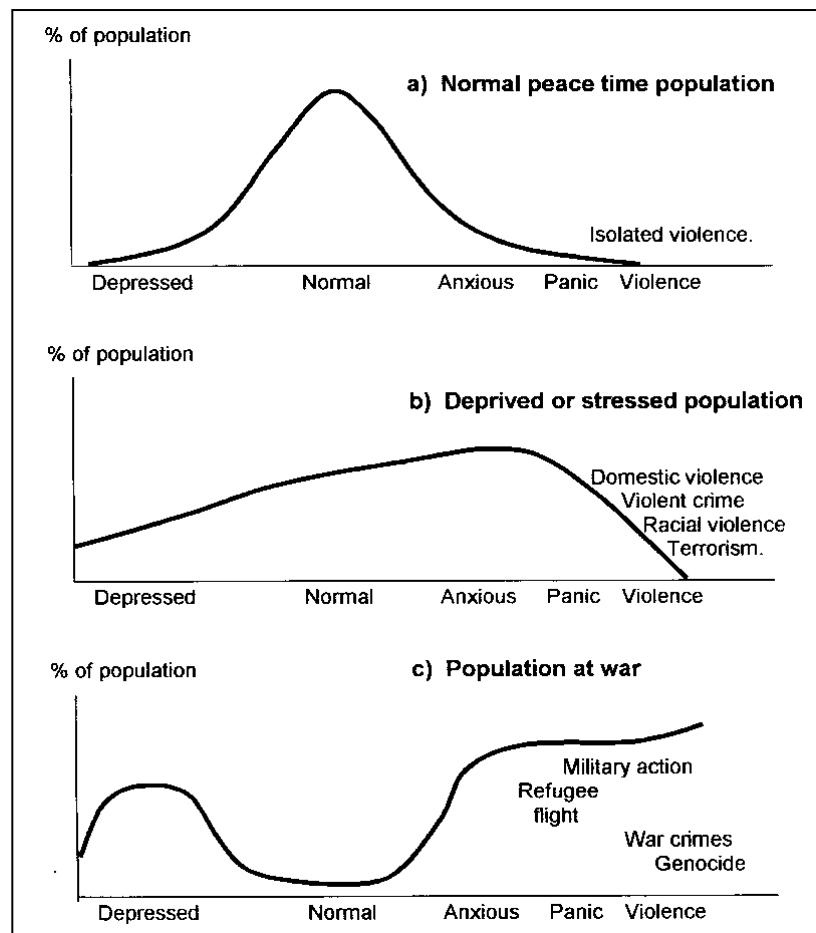
4.5 Fear and violence in stressed populations

One of the most serious psychological issues that may develop during extended crisis periods -such as the global security environment post 9-11 - is the effect of the fight or flight reaction in large groups, communities or countries.

This appears to be a public mental health issue. It may partly explain the atrocities seen in many countries from time to time e.g. the genocide in Rwanda, the refugee exodus and atrocities in the Balkans in 1999, suicide bombings and the school massacre at Beslan in Russia in September 2004.

This proposition was developed as a possible explanation for events in Kosovo in 1999. (ref 28). In a peace time population most people are normal (psychologically stable). Some are depressed. Some are anxious. A small percentage may be psychopathic and violent, see **chart a)** below.

When a population is under pressure e.g. from poverty, political or religious tensions, then more people will be stressed and anxious due to fear or shortages of food, water or work. More people will move into the highly stressed state and become violent, see **chart b)**.



When open violence develops very few people can stay normal. More will become hopelessly depressed. Many will move into severe fight or flight reactions, see **chart c)** above. If they have weapons they will fight. If they have no defence they will usually escape as refugees. In this extreme state very primitive tribal behaviour emerges. The enemy becomes alien, sub-human, to be destroyed in the most brutal ways possible. Even normal people will participate in acts of extreme violence and brutality that they may be ashamed of in the future. This tendency may also be a factor in some football violence.

The enemy's atrocities are condemned in the media. Own side actions are legitimised. But such situations are predictable at extreme levels of anger, fear and loss. One antidote must be to seek every avenue to reduce stress for all concerned. This may be important for air crews and ground personnel involved in disruptive incidents. Some may not be intended as terrorist attacks but may involve deeply traumatised passengers who have very low tolerance for provocation.

Airline and airport personnel will have very little impact on government policies that may be needed to remedy underlying grievances. But they have a vital role to play to stabilise incidents - particularly in the first few hours.

Air incident and accident reports have provided provide valuable vicarious learning and vital safety training for pilots for many years. Incident reports for handling disruptive passenger incidents including recognition of the methods used by front line staff and support teams are increasingly important.

Psychological theories may give staff a few more survival skills. But the practical wisdom, insights, quick thinking and calm action of experienced staff is the best resource to share with other personnel. This includes recognising new types of passenger problems or threats when they first start to develop, and sharing this rapidly.

5. Target outcomes for AVSEC members

The combination of personal experiences, analysis of different threat levels and relevant psychological techniques should enable the Panel and AVSEC members to highlight some priorities for individual survival, tactical incident management and wider strategic issues.

The session is quite short. So this paper gives more details and references for members to refer to after the Conference. We hope that AVSEC Members will gather some of the following points:

1. A personal health & survival toolkit for passengers and staff.

(the psychological equivalent of a parachute and a compass) including:

- Jessica Stockwell's books cover many comfort & survival tips for passengers.
- Personal welfare issues for air and ground staff are important.
- Awareness of stress reactions and stress management techniques.
- Awareness of the transition cycle as a normal process that all adults experience after major life or career events, including hazards and recovery potential.
- Awareness of personality differences - "It is OK to be you"

See also *Career First Aid* advice (ref 29)

2. Incident & risk evaluation priorities

(psychological aspects of do's and don'ts in traumatic incidents) may include:

- effects of threat conditions and stress levels on staff and passengers
- effects of personality differences on behaviour in normal and crisis situations.
- effects of recent traumas or changes (transitions)
- profiling disruptive passengers or attackers during incidents - psychological factors to include in critical incident training etc.
- post-incident follow-up for staff may include transition support as well as PTSD (Post Traumatic Stress Disorder), especially 5-6 months later.

3. Strategic management, training & HR issues

(psychological hazards for individual managers, management teams etc)

- Potential **effects of stress** on passenger and staff behaviour. Hazards of fatigue and other overloads. Importance of health, fitness, training etc for resilience under stress.
- Awareness of the potential 'shift to madness' in large groups or populations under extreme **fight or flight** conditions (primary concern in potential terrorist situations and a potential factor in disruptive groups or crowds).
- Stages of **transitions** after traumatic incidents (work & personal life). Potential effects on individual and group performance. Transition management including potential crisis points, quitting / increased staff turnover, and potential recovery or growth periods (see ref 23).
- Effects of different **personality types** in routine and emergency situations with implications for staff and management selection, team development and emergency planning. Value of intuition, empathy and adaptability for emergency response in multicultural organisations and markets.
- Hazards of chronic stress for **management decision making** e.g. "group think" and antidotes (see ref 26).
- International **trauma support resources** for HR and Occupational Health teams in many countries (ref 30).
- Value of **scenarios for contingency planning** to develop adaptive emergency responses in structured organisations. (ref 31)

In many situations the advice of experienced professional workers (aircraft and ground staff) and their managers will be the most reliable resource for emergency planning and response. They can recognise essential and unusual details in specific situations - e.g. with passengers from traditional cultures. They may also be alert to complex interactions that may be overlooked by outside advisers e.g. co-operation with security and local emergency services.

It is important to offer new approaches (e.g. new technology or new psychological explanations) to experienced personnel for them to evaluate against their own experiences. Where useful they can then incorporate new approaches to enhance, not disrupt existing procedures.

We hope that the Panel's testimonies on behalf of passengers and staff may be useful to airport, airline and security managers. Increased vigilance for potential security hazards has to be balanced with a calm, alert and optimistic approach to passenger services. A special challenge is how to maintain passenger confidence and co-operation during normal and increased security alert levels.



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