

MANAGING THE RISK OF TERRORISM – THE UK APPROACH

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It is a very great pleasure to be able to open this important conference and it is also a privilege to be entrusted with making the 'Key-note' address.

As a former emergency services practitioner, I would like to first of all set the scene that that I perceive from my position of being outside of your industry, and hope that this will provide the context for my later comments.

Setting the scene

It is perhaps a statement of the obvious, but the 'New Dimension of Terrorism' that we now face, which commenced with the World Trade Centre Disaster of 9/11, was chosen to exploit the vulnerability of the Air Industry and indeed its vital world importance. The Industry, for reasons that I will return to, offers all of the elements that match the terrorist's objectives in that it is a vital element of trade; it brings together very large numbers of potential victims; it is internationally available as a target, over twenty-four hours in everyday; it is a high value industry where there is the power to create tremendous damage and loss to property.

It is also especially vulnerable in that it is open to attack by all of the weapons in the terrorist's armoury. It has a very high profile and offers the benefit of playing on the fears of the population in general in respect of the dangers of flying.

In Risk Management terms, all of these contributors to the risk are realities. They are, quite simply, a 'given' and so beyond our control. They are the very nature of the industry and indeed are what makes it what it is.

This means, that unlike many other industries, it is not possible to constrain or vary the parameters of the risk. Instead our attention has to be concentrated on control measures, which either prevent exploitation of this positioning and our exposure, or on those steps that will mitigate the implications that could result from failure of those preventative measures. The New Dimension of Terrorism has obviously required very new thinking and action throughout the civilised world. I will explain the UK position in a moment.

If we consider the locations of the new generation of attacks that have already taken place we can only conclude that it is impossible to identify any hierarchy or ranking of potential targets. Similarly, though it is tempting to try to find logic, or rationalise what the drivers for this risk to society might be, those complex, if not in-soluble matters are simply not an issue when it comes to managing the risk presented. It follows therefore that all we need to do, to provide the incentive needed to make radical and rapid progress is to recognise that the whole of the aviation industry is vulnerable!

Indeed we might reflect on the reality that that the targets that will be chosen by terrorists will be those which offer the opportunity engage the whole of the world in recognition of their cause and where the level of security or controls offer them the greatest possibility of success when they seek to commit their atrocities. The

very actions of reducing the risk or the ability to manage the outcome of any attempted attack may therefore be a form of deterrent to potential perpetrators.

So we simply have to start from the far from comforting assumption that your industry is an attractive target, worldwide!

Terrorism in the UK

Sadly, the United Kingdom has had considerable experience, over many years, of dealing with terrorism within its communities both in Northern Ireland and in the Mainland.

This has provided us with a well-developed basis for taking our preparation and preventative measures forward. But as I have already said the 'new dimension' of risk, where we now need to think of that which would previously have been unthinkable, has required fundamental change.

This challenge has engaged our Government at the highest levels, to the extent that the Cabinet Office now has overall responsibility for 'Civil Preparedness and Resilience'. There have also been very significant changes in legislation to ensure that necessary steps can be taken to enable the protection of our nation. These have already been enacted. A major element of this is the Civil Contingencies Act. This places responsibilities not just on governmental agencies and those dealing with emergencies, but also commerce and industry.

The context of UK Emergency Services Preparation

Across the emergency services, a significant commitment has been made to improving the processes that Police, Fire and Health Service follow in response to major emergency incidents in order to improve joint working. Not only are Emergency Services Commanders being trained together on multi-agency basis at Gold, Silver and Bronze level, but in addition, the joint capability to deal with Chemical, Biological Radiation or nuclear risks has been improved.

The Civil Contingencies Act puts new duties upon all three emergency services. These extend, clarify and rationalise previous arrangements. These new arrangements are targeted on both preparation for and mitigation of all types of major hazard that could require resilience within the Civil Community. For the first time the Act defines clear responsibilities in this respect. It also recognises the obvious need and makes new provision for working across administrative and organisational boundaries and on a multi-agency basis. We think that the focus on 'all hazards' that is core to this work, rather than simply the single topic of terrorist attack, is the best approach.

There is also a very major project underway to provide for a national unified radio communications system for all three emergency services. This will enable inter-communication at Strategic and Tactical levels. It is being entirely funded by government.

Fire and Rescue Service Preparation

From the fire and rescue service perspective, a new Fire and Rescue Services Act has been enacted, which in addition to driving the government's agenda for modernisation of the Service, has redefined its role within the National Civil Resilience mission.

As part of this programme, the current arrangement, where each of more than 60 individual fire and rescue services have their own Mobilisation, Command and Control Centres, is being replaced by creation of no more than 9 regional centres. Each and all of these will be capable of dealing with the loss of one or more of the other centres in order to further ensure resilience in our ability to mobilise resources in the event of major disasters. In addition, major projects have been initiated to improve the Fire and Rescue

Services capabilities and the requirements made upon it in support of civil resilience. These are threefold;

- The first is in strengthening our Urban Search and Rescue capability
The government has provided a national fleet of special emergency rescue vehicles equipped to respond to the Urban Search and Rescue task. It has also built new specialist facilities at the Fire Services College, Moreton-in-Marsh to provide training in all of the tools and specialist skills necessary as well as practice their use and take part in realistic exercise scenarios.

- Secondly, the ability to pump large quantities of water, either to reduce the effects of flooding or to provide and maintain the supply of water for the community has been enhanced.

Again a fleet of specialist heavy-duty emergency water pumping appliances has been provided

- Thirdly a national capability for the provision of mass public decontamination has been delivered.

This has expanded upon the capabilities developed by the fire and rescue services to deal with conventional hazardous materials incidents. It has required the design of mobile mass decontamination facilities as well as practices and processes for their operation, and to deliver support to the community in the event that this sort of emergency has to be faced.

All of the above capabilities have now been put in place, on the basis that they will be crewed by fire and rescue service staff. The vehicles and equipment are deployed both within individual fire and rescue services and also can be made available on a local, regional or national basis. This project alone has cost in the order of £170 Million.

Another initiative, which I believe needs to be carefully considered in the context of the Airport Fire and Rescue Services, has been a major research programme initiated by the 'Building Disaster Advisory Group' which was quickly formed to examine the need to take stock of previous expectations and conventions, which could need to be revised in the light of experiences at the World Trade Centre following 9/11. The research, which has just been published, is focussed on ensuring that Fire and Rescue Service operational procedures and the future design of buildings are compatible in mitigating the effect of terrorist actions and indeed other major emergencies.

This fascinating piece of work is worthy of a major conference paper in its own right. But the point of real significance to the conference today is that the research clearly identified major discrepancies between a number of accepted conventions in respect of the capacity of fire service staff to carry out the functions expected of them, and on the other hand, that which is actually, physiologically, possible.

For example,

- The effects of wearing Personal protective clothing, designed to improve protection against fire, or exposure to hazardous atmospheres, have crucial implications for the maintenance of safe core body temperatures. This has highlighted a much earlier requirement for re-hydration than is current custom and practice;

- Breathing Apparatus (BA) consumption rates under these conditions were found to be up to 70% greater than currently reflected by breathing apparatus duration tables. This has the effect that, were a more realistic BA duration regime to be adopted, it would seriously limit our accepted approach to these operations. This could for example require that greater working duration to levels previously classified as requiring 'Extended Duration' Breathing Apparatus (EBDA) will need to be routinely available. Or it might drive change in long standing and fundamental operational concepts;
- The demands on firefighters, which are experienced when operations require that access must be gained in high buildings or below ground in basements or in other areas where ventilation is not possible, may be significantly beyond real life physiological capacity. Dealing with these added demands may require rethinking of the design of buildings or radically revised operational practice and procedures.

I should say in anticipation of possible questioning of these findings, that the teams selected to take part in these trials were selected for their tenacity and physical fitness. It might therefore be that they under-estimate the limitations that will be faced by more average staff.

There are of course direct implications from these findings, and the many others contained in the report. These have in reality only reflected the less scientific but non the less realistic concerns of practitioners, based on their own experiences over a considerable period. But certainly they provide the much needed wake-up call to drastically review our conventional approaches wherever they make assumptions about the physical capability of our teams to meet the demands now faced.

My advice would be that these findings, although initially intended to inform the U.K. Fire Services, should be quickly translated to require questioning of the very similar applications that obviously exist within the aviation fire and rescue services.

For example, in the light of these findings

- can any realistic dependence be placed on other than very short-term intervention by fire-fighters to provide rescue inside large aircraft when they are on fire?
 - if so, how long might they be expected to operate effectively and safely;
 - if not, should crewing numbers be increased to compensate?
 - or are escape facilities capable of being made adequate without being supplemented by rescue?
 - is breathing apparatus type and capacity adequate?
 - Could personal protective clothing be redesigned to reduce the inhibiting effects that certain types of improved protection has brought about?
- and so on.

(The reports from which these conclusions have been edited can be accessed at www.odpm.gov.uk/fireresearch In addition a précis is also available from that site in the form of 'Fire and Rescue Service Circular 55-2004'). I think the documents are well worthy of your consideration.

Managing the Airport Risk in the UK

Having given that overlay of some of the UK emergency services initiatives in dealing with the overall risk from Terrorism, I now need to move on to deal with the progress

that has been made in uplifting the awareness of that risk in the context of the Aviation industry and in particular, Airports.

There are 147 licensed airports in the UK. The Department for Transport (DfT) regulates these in collaboration with the Civil Airports Authority (CAA). These agencies require compliance with the full range of operating criteria set down as being the standards appropriate to a given classification of airport.

A specific division of the Department for Transport known as 'Transec' is responsible for the security of all types of transportation.

A major new national Risk Management Initiative has been established known as the Multi-Agency-Threat and Risk Assessment (or as it widely known, MATRA)

This scheme, which has been put together as a result of collaborative effort between the Home Office and the Department for Transport, is targeted upon cutting the risk of crime and terrorism in UK Airports. It is a response to one of the recommendations in a 'Review of Airport Security' carried out in 2002 by Sir John Wheeler. The report which is available on the World-wide web at www.dft.gov.uk/stellent/groups/dft_transec contains 22 other recommendations covering policing, serious crime, strategic direction and coordination; simplification of powers and vulnerabilities relating to staff.

The risk management template produced by MATRA is currently being applied in all of the 147 airports following extended development in 5 trial sites, including London, Heathrow.

Crucially, the application methodology actively involves all security stakeholders (such as police, security services, customs and excise, Immigration, and safety Inspectorates). They work closely with the aviation industry (airport operators, air carriers, cargo agents and other on-site commercial concerns). Representatives of these groups then follow a process to identify the full range of potential risks and to establish the magnitude of the potential security and criminal risk at the Airport. The process also puts great emphasis on the roles and responsibilities that each of the contributory agencies has in addressing them.

Each agency contributes to the register of potential risks and all of the agencies agree on the order of magnitude that each one presents, in comparison with others, on a detailed scoring matrix.

The advantage of this approach is, of course, that all contributors are fully informed on all the risks faced across all of the organisations operations and that as a consequence, a security plan is evolved which is owned by all of the contributors. As an indication an airport I know has identified 164 Risks.

Provided that the risk management regime is properly driven the MATRA can be routinely re-visited to take account of all sorts of future development. These could include different volume or a different profile of business on one hand, or differences in criminal trends or the intelligence on threats. Obviously the security constraints prevent me providing a detailed breakdown of the analysis of risks that can be identified by means of the application of Matra but you will be able to see the tiers of consideration provided in this slide.

Could I however be excused at this point with my Risk Management Consultant hat on to remind all concerned that ownership and upkeep of the Risk Management processes is a corporate responsibility of the highest order. Indeed it cannot deliver unless it is

truly seen as core business activity. It cannot work as just an *'add-on'* or *'nice to have'* feature!

It occurs to me that, in addition to being an attractive target for the terrorist, the aviation industry really is unusual, and may be unique, in the exposure profile it has. By this I mean that I have difficulty in thinking of an industrial operation (because that is what I see as managing, maintaining, marshalling, fuelling and of course flying aircraft equates with) where the public, and multiple and substantially independent, commercial and trading operations are totally integrated within the whole industrial process. The scale of this, where there are thousands of people, and hundreds of organisations involved is what I think is so different to other operations. As a result, and importantly, the overall enterprise, say a major international airport, is itself continuously exposed to all potential risks within each and every one of these lower key operations.

I cannot propose an economically viable means of removing these two primary factors; those of the attraction as a target and the vulnerability to attack. But I am sure that this 'given' ought to act as an even greater incentive and place even more stringent requirements on airport operators to prove that they are managing their risks?

Multi-agency approach

Again, as one who comes from outside of the aviation industry, I would suggest that notwithstanding that an airport, particularly a large one is as much a town as anything else, (indeed might be considered as virtually a microcosm of society), even the in broad airport community I have outlined in my explanation of MATRA, is not large enough or wide enough to support all of the needs that will emerge if you are faced with a dreadful event.

For example I would propose that there is also a real need to be integrated with local government, utilities and agencies off-site. At a time when my society at least is trying to remove barriers to integration and encourage 'joined up' working it would, at the very least, be inconsistent were your plans be restricted by thinking about your on-site capability or capacity alone. Given an incident at an airport, the implications for the whole community and the level of their involvement can be huge. But the contribution they can make to ensuring success is even greater

But I must caution you about 'double counting'? By this I mean including facilities or capabilities that might be as crucial to others at the time of an over-arching disaster as they could be to your operation. This is particularly the case if those 'others' have control of the resources on which you are placing dependence?

This thought applies both within an airport complex, where different elements of the enterprise may have the same needs, and also in the case of dependence on facilities and capabilities from outside the airport. Examples that come readily to mind are ensuring that you will have a reliable decontamination facility when the call for this exists outside of the airport. Or placing dependence on thinking that suggests that your problems on the day will be the greatest priority for the local health service agencies. Or indeed, even closer to home, relying upon the capabilities of external police, security or fire and rescue services. My observations of national planning in the U.K. suggest that we are making this mistake. So, quite simply, if a facility is vital to your plan you need control of it, even if that means duplication. After an event this would be a self-evident truth, particularly at a formal inquest or legal enquiry!

Incident Management and Command and Control

I have to confess that the issue of Incident Management and Command and Control is something of a personal pre-occupation! So I hope you will forgive the emphasis I am going to give to this. I have already covered areas that will safeguard the position of an

airport or at the least mitigate the effects of a major hazard. Clearly these preventative activities are vital and have to be given priority. Up to the point of realisation of a disaster they can so easily appear to be the 'only game in town'. But without taking away from any of this, 'prevention certainly being very much better than cure', I would strongly recommend that appropriate attention be given to dealing with an incident once, if ever, it occurs.

At that point the single most important capability will be that of being able to manage, command and control an incident.

So it is my opinion that the most vital aspect of improvements that need our combined and concentrated attention are not so much the high profile pronouncement of systems or the establishment of organisations; not even the provision of staff, or hardware, or operational facilities.

Instead, my focus would be on assuring that now, before the event of a catastrophe, we really have the ability to Manage and Control the manner in which we respond.

I define that ability as being certain that we will

- Operate under unambiguous and consistent command and control of all of agencies from the outset;
- Have designated clear and binding responsibility at all levels for planning and preparation;
- Have the ability to mobilise and control resources from the overall capacity of the community.

In our everyday working lives, we put great dependence upon collaboration and it is true that good intention and common purpose can achieve remarkable results. But in the context of what we now have to prepare for, such a fragile device, which is all about personal relationships and organisational niceties, (such as... the avoidance of Turf Wars) we know, in our heart of hearts, cannot be relied upon.

Instead those responsible for the emergency management of airports need to arrange for Command and Control regimes to be formally underwritten in a way that matches the scale of this enormous risk, rather than hoping that the best intentions of all agencies will magically come together when disaster strikes.

We also need to take steps to focus our emergency planning on reality.

In the same way that Risk Management needs to be integrated into the core of the business, emergency plans cannot be expected to work unless they too are based on and embedded in normal operating practice. If what is already in place for dealing with day to day emergencies cannot 'expand' to meet the demands of catastrophic incidents then, quite simply, those plans need changing now. It is manifestly impossible for a new organisation; different responsibilities; drastically changed structural relationships and related processes, to suddenly emerge after disaster strikes! And yet stand-alone plans and procedures for dealing with major disasters are still being written.

It is nothing short of ridiculous to presume that special arrangements dreamed up to deal with once in a life time catastrophe could be given precedence over tried and tested arrangements when these can be utilised, modified, practiced, refined and tested continuously.

The disruptive effect that this order of change can have on the ground; the heavy demand on scarce resources any midstream change in management and control arrangements create and the confusion in responsibility that will be disclosed after the

event when forensic investigation and review inevitably occurs simply cannot be tolerated.

Instead we should ensure that our standing arrangements are of the highest order and are accepted and operated by all agencies that have a contribution to make, without question. Being certain that we can achieve this, as a certainty, would deliver 'here and now' benefits in all day-to-day emergency operations, as well as ensuring that we maximise our ability to deal with unthinkable disaster.

As practitioners we should be aware of the many difficulties we could be faced with in planning to achieve command and control at an incident. But when inspecting such planning I have frequently found these proposals to be based on an assumption that outside of the close confines of the primary incident, the environment will be close to normal. For example the planning is made very much easier if

- There is an expectation of normal communications and the availability of reliable information (not least call out arrangements!)
- Normal transportation capabilities will be available
- Environmental services such as water supply, drainage, electricity or other fuel supplies are assumed to be constantly in place
- Medical services or mortuaries will be able to cope
- People will respond in a predictable manner and follow procedures
- No account has to be taken of secondary incidents perpetrated by terrorists or random effects (such as storms or floods or very cold conditions) caused by 'mother nature'.

But in reality any or all of those expectations could be found to be unsupportably optimistic!

Similarly, it is all too easy to assume that the practical resources of the military, Security or Emergency service responders will be maintained available for deployment after catastrophe strikes. Reality could remove vital vehicles, plant or equipment. Even more likely is attrition of staff availability, either as a result of failures in infrastructure preventing their mobilisation or because they themselves become victims of the catastrophe.

In these days of cost efficiency and difficult choices, it is all too easy to forget that emergency service capability needs to be provided with robust levels of redundancy and that industrial concepts like 'just in time' supply cannot be applied. If the resources available to these front line services are kept at minimal levels, the very fact can contribute to their non-availability when the chips are down.

After the event the evident truth all of this will be very obvious! So I would certainly counsel against making the plan fit the resources you have. There is always great pressure to do so. But if you create a realistic plan and are professionally confident about it, perhaps having taken soundings or submitting them to peer review, then that is the capability you should seek.

Of course, in the end, it may not be possible for your jurisdiction to fund or support all of it. In that event your duty, as ever, will be to maximise whatever you are provided with. Just do not make the mistake of rationalising where you then find yourself. After the catastrophic event there will always be forensic enquiries and inquests. When this stage is reached it is vitally important to be able to demonstrate that your advice was sound and that you did your best to implement it!

In the context of planning for day-to-day emergencies it is easy to forget that the practitioners in emergency and security services deal with conventional incidents without interference from immediate commercial, political or governmental control. But we have to recognise that as soon as the 'catastrophe' button is pressed, these other levels need, and expect, to be fully engaged. Indeed, these senior leaders will also, very quickly, take over responsibility. This absolute reality needs to be fully recognised in your plans.

But having once recognised that this is the case, it is essential that we also realise that these new leaders must be fully engaged in the planning process, involved in decision making before an event and receive training in the role that they may suddenly find themselves fulfilling.

Of course, the heavy and critical demands upon these people, in their day-to-day primary roles and activities are many and varied. But they are rarely focused on preparing for disaster. Emergency practitioners have a duty to ensure that these top level leaders realise, first of all, how important their role will be and then recognise that they need to be as competent in this role as they would be required to be in any of their normal responsibilities.

Even if we can achieve this realisation, and it must be a real worry that it is clearly not already fully recognised, we then really do have to find a way of identifying and then filling the training needs that they have.

Currently best efforts are made to provide this preparation and training through teaching documentation and tabletop exercising and some larger scale practical exercises within the airport community. But even though these exercises are valuable and allow lessons to be learned, they are necessarily constrained because of cost, lack of realism and the impact that anything substantial and testing must have on day-to-day business. They are also very difficult to reproduce, at best giving a small number of people a 'one-off' experience.

There is however, already a substantial industry and supporting technology providing the Military with real life and virtual training and exercising to a scale that is capable of engaging hundreds of real life players and virtual resources of thousands of staff and equivalent levels of hardware. Not only does this achieve the training and exercising requirement to high standards; it is also continuously repeatable, very economical in use and much less disruptive to business operations than real life exercising.

The technology is already available. Strategic Consequence Management models could be developed utilising all the expertise that exists in your industry. It would be easy, at both international and national levels, to establish high quality aviation industry emergency management centres to provide teaching supported by both real time scenarios and virtual reality exercises. These would enable our leaders across the business, emergency and governmental communities to be jointly prepared, trained and indeed stretched by their experience.

I envisage a major command theatre working in real time with capability to develop incidents not just for hours but also for days or even weeks if necessary. The experiential learning in realistic scenarios and under real-time pressures would not only allow competency to be developed but would also act as a very substantial prompt about the importance of this to our leader. These establishments could also quickly become the world centres of excellence in this vital specialisation. I cannot think of an industry where the need for this would be greater or where there could be such an obvious return on the investment.

In the context of other expenditure on defending against the terrorist risk not to mention those presented by conventional emergency situations, these facilities would be of negligible cost impact. But the improvement they would deliver would be enormous!

But to under-pin this, in the context of the aviation industry, it will be necessary to create a common understanding of the competencies that are necessary to perform this strategic emergency management role and then to require that they are attained. I would take the liberty of suggesting that it is nothing short of irresponsible to allow these leaders to find themselves in a situation where they are so seriously exposed to personal failure. But be the effect of failure upon the aviation community will be much more significant than that. I really must therefore encourage you to do all within your powers to move this forward.

All that is needed to start this new approach is the recognition of these very real needs, by the very high level people we are talking about!

Commercial Considerations

There is always a danger that as an emergency services practitioner, the focus of consideration is about planning to deal the physical effects of a disaster, and then responding to it. This can lead to only passing consideration being given to all of the implications of recovery after the event. But however difficult that first response may be, it will pail into insignificance when compared with the political, financial and commercial implications and the enormous workload that will follow. The Management of these consequences requires due consideration at the time of planning if we are to manage the consequential risks.

The significance of providing plans to ensure Business Continuity is recognised by the new U K Civil Contingencies Act I have already mentioned. There is now a requirement placed upon local government to provide advice to all businesses to plan to maintain continuity of business in the national interest. The government had found that 50% of business undertakings that experienced a major incident event had gone out of business within 18 months and that 90% of those who experienced serious loss of data closed within two years. It is also significant that 58% of all UK businesses had recorded disruption to their activities as a direct result of the 9/11 incident.

This planning which is most frequently best provided by an external service in order to avoid essential questioning being omitted, may well already be well integrated within the aviation industry. But frequently there is blindness to this requirement within the emergency response elements of similar businesses. Obvious considerations such as alternative appliances, equipment or staffing replacements, resilience of communications, transportation or information sources are not given proper consideration. Even such simple human resource considerations as progression planning for the duplication or replacement of key staff are frequently not worked through. I therefore strongly recommend that you review the resilience and continuity capacity of your own response organisations and then act to assure it.

There is a further area of commercial strategic risk that needs to be fully recognised and responded to. This is the management of Insurance within your Industry. This audience may not have an obvious connection, for example, with procurement or assessment of the requirements in this part of the business. But the management of the risks that you can identify can have huge implications for cost to your corporate enterprise if this is not done well or cannot be evidenced.

Since 9/11 the insurance rates for airport operators have increased considerably. In the first year the increase was in the range of 75 to 100% of the previous premium together with an increase of up to 150% for specific war/terror cover. Even now, three years on, there has been a further 20% increase in the current year. The reason that I mention insurance at all is that underwriters are giving much greater attention to the risk profile of aviation sector clients. This has the effect of either providing reductions for those that manage their risks or of drastically increasing premiums where the risk-profile is not good, or risks are poorly managed.

The potential claims run into incredible figures. In the United States for example compensation for death of passengers can reach US\$ 20 million per passenger. But the key risks faced by airports include environmental hazards, the effects of competition; loss of reputation; security; financial; occupational health and safety and loss of information technology. In reality an average of only 30% of an airport company risk profile can be insured. In some cases this might be an even lower figure. This order of exposure cannot simply be accepted! It requires that the remaining 70% of the company's risk has to be managed effectively.

It follows that there are enormous incentives for managing risk properly and that where remedial action is taken after identifying a risk there can be direct and obvious financial benefits. Expenditure on improved capabilities or on assuring robust redundancy can therefore offer excellent value for money. Those who have responsibility for emergency service provision should become well informed on these equations!

I would also wish to make a specific point about communications and the need for a detailed strategy for dealing with this need before, during and after a catastrophic incident. The objective is to be able to project and maintain trust and credibility with what is always going to be a concerned public.

The risks to be dealt with here are not going to be as a result of attempts to deal with the effects of mature rational thought or scientific analysis on the part of our public. Instead the risks are in failing to respond in a manner that addresses perceptions or pre-conceptions. So it is essential that those who will be responding in the three phases, (before during and after) are protected and guided by a strategic level communications infrastructure, which is integrated into the whole of the aviation risk management operation. Management of the risk requires the capability to predict and then answer questions, and most importantly to focus on what is actually known. We need to recognise that the higher the levels of concern, the lower will be the inherent trust of those with whom we will be communicating. It is essential to prepare a communications strategy for your own part of the operation and that this is dovetailed into the responses of the whole of your enterprise.

Could I also suggest that, unsettling though the thought might be, it is well worth creating a plan for dealing with disaster in your own part of the organisation. The sort of event you plan for will vary, depending upon your role and your assessment of the risks that you might face, of course. But preparing to deal with multiple deaths of your own staff, for example, or responding to the implications of loss or damage as a result of actions taken by areas of the organisation that are your responsibility, can be time well spent. The way in which you communicate, and the timeliness of this, in conditions where you have already failed, or where the circumstances you are caught by are simply dreadful, will be the greatest single contributor to recovery of the organisation, and could protect your own position. Clearly this sort of thing cannot be constructed at instant notice, so every bit of prior thought will pay dividends. There is a well known saying....he who fails to prepare must prepare to fail!

Managing the Risk is about 'Solutions.'

I am aware that as a result of the shape of my paper and the terminology I have used that there is a real danger that the audience might gain the impression that identifying risks and the measures necessary to prevent or mitigate them is the solution to this challenge. If so I must apologise. It really is not!

In fact these two vital preparatory phases, although important as part of an overall solution, are pointless unless they lead to real activity which is targeted on treating the risks and so achieving safety.

In other commerce, industry or enterprise it is very common to find almost copybook versions of risk identification; assessment of implications and even action plans! But when their outcomes are inspected or audited, invariably they have not been implemented, or only partly so. Even in the cases where the plan is initially acted upon, it falls into disrepair as a result of not being regularly and accurately updated.

In many respects it is philosophically attractive to do the analysis. This process can all too easily become progressively more complex, detailed and specialised. The 'fear factor' of failure to identify a risk overwhelms the need to take action to treat those that have been identified. So analysis goes on and on!

This 'Analysis Paralysis' is then compounded by the search for complex bespoke solutions in minute detail. The effect of concentration and the attention given to this minutiae is to disconnect the process from reality. At best this will be confusing and at worst alienating to the people who have to respond to the challenge. It is also relevant to mention that even though the identification and analysis of risk can be expensive in terms of time and money committed to these phases, it is only at the point of taking remedial action that a return is made upon that investment! Needless to say the whole process does consume resources and can appear of low priority when all appears to be going well. But if you think you can't afford the resources of time or money just try dealing with the cost of a major incident...

So I must repeat my earlier principle; that is that the whole management of risk process has to be integrated into the corporate management of the whole airport enterprise. Again I must emphasise, it is not viable as an 'add-on'.

It must also be remembered, even though in the environment of this conference it might sound obvious, that actual risk levels remain the same, or even increase, until real improvements are fully implemented. Worse than simply being ineffectual, the failure to treat identified failings can have serious implications in its own right. The 'Guilty Knowledge' effect, that of knowing that there is a failing, but not then responding to it is both organisationally deadly and at best likely to be a career limiting omission!

One final 'Glimpse of the obvious' that cannot be overstated is that we are not talking about the future. We are talking about a threat that may be emerging as we speak. It might be in Singapore. It could be centred on your jurisdiction, who knows? The point is that moving to deal with any of these challenges, wherever in the world they apply, is not an academic exercise. It is not a project, it is not a matter of simply 'keeping on keeping on'.

It requires a step change in appreciation of the scale of the risk and in preparing to respond to the implications of whatever threats or circumstances we could conceivably be faced with.

The new dimension of terrorism is with us forever. It will present new challenges. As one type of threat is controlled new devices will be tried and terrorists will adopt fresh initiatives. They have the advantage of sole focus on their objectives and a limitless series of choices. We will need to deal with whatever are the outcomes, and, we will inevitably be found wanting unless we 'up our game'.

Conclusion

I hope Mr. Chairman that this contribution has helped to set the scene for this conference. I have attempted to bring together a series of themes, that from my viewpoint seem important and that prepare the ground for all the fascinating papers that are to follow. I hope it will be helpful, might prompt some thought, or questions and I thank you again for the honour of being here and addressing this eminent audience.