

How to distinguish between 'business as usual' and 'significant business disruptions' and plan accordingly

Peter Halliwell

Received (in revised form): 20th September, 2007

Operations Standards and Safety, Air New Zealand, Private Bag 92007, Auckland 1142, New Zealand
Tel: +64 21 875 154; E-mail: peter.halliwell@airnz.co.nz



Peter Halliwell is the Senior Business Continuity Management Advisor with Air New Zealand, having worked in the commercial aviation industry for the last 26 years. He represents Air New Zealand in the Auckland Engineering Lifelines Group, and is a member of the NZ Society for Risk Management, The Auckland Risk Managers Forum and The Continuity Forum. Outside of the airline, he is the manager/team leader for one of New Zealand's domestic urban search and rescue response teams as well as a qualified Ambulance Officer, Urban Search and Rescue Trainer and Assessor. He is one of the founding trustees of New Zealand's Disaster Assistance Response Team scheduled to be operational in 2008 and the Director, Safety and Risk Management for Scouting New Zealand's next Jamboree.

ABSTRACT

This paper seeks to provide an insight into Air New Zealand and how business continuity is managed in an industry with inherent disruptions. The differences between 'business as usual' and 'significant business disruptions' are outlined along with their associated criteria, response and escalation processes. The paper describes why the company incorporates the four 'R's of the Civil Defence Emergency Management Act within its BCM framework and how this aids resilience. A case study is provided that details a 'significant disruption' that occurred in November 2006. This event resulted

in the total loss of a sales office and cargo shed after unrest in the Kingdom of Tonga escalated to widespread rioting, looting and destruction of their central business district. The lessons from this event have been captured and provide some essential mitigation measures that will assist in future events.

Keywords: Air New Zealand, airline, aviation, business continuity, disruption

AIR NEW ZEALAND

Founded in 1940 as Tasman Empire Airways Limited, Air New Zealand is New Zealand's national flag carrier. The principal activity of the Air New Zealand Group is the operation of domestic and international passenger transport and cargo. Air New Zealand provides over 470 scheduled services each day to 26 destinations within New Zealand as well as serving 24 international destinations including Australia, the south-west Pacific, Asia, North America and the UK. Additional routes and destinations are provided to customers through membership of the Star Alliance network. Air New Zealand also provides engineering, consulting, training and ground handling services. Subsidiaries include regional and international airlines, booking systems, travel wholesaling and retailing services.

The fleet totals 95 aircraft, comprising nine aircraft types that include Airbus, ATR, Beechcraft, Bombardier, Boeing and Saab.¹ The Air New Zealand Group encompasses the following companies: Air New Zealand Limited, Eagle Airways, Mount Cook Airlines, Air Nelson, Safe Air Limited, Zeal 320 and TAE.

THE INDUSTRY

The airline industry is under constant threat from a variety of potential business disruptions both natural and man-made. Airline schedules are highly susceptible to weather disruptions and although new technology can assist aircraft and airports during these events the cascading effects of the disruption continue. Natural disasters also certainly have the potential to affect the safety of staff and customers as well as disrupt the schedule. Man-made events affecting airlines as well as other industries include the failure of infrastructure (facilities or technology) supply chain and industrial or unscheduled maintenance. Terrorist threats or political turmoil at international destinations can also prevent travel and cause passengers to cancel or change their travel plans at short notice.

THE THREATS

New Zealand is located on the boundary of the Australian and Pacific plates. These plates are grinding together, resulting in about 14,000 earthquakes in and around New Zealand each year. Most are small, but between 100 and 150 are big enough to be felt. The North Island contains a number of active and potentially active volcanoes. The probability of an eruption affecting a large area of the North Island is relatively low in any one year; the probability of an eruption occurring in the future is high.²

The last significant volcanic event affecting aircraft schedules and several domestic airports occurred during 1996 when Mount Ruapehu erupted.

In addition to New Zealand's earthquake threat, many of the airports to which Air New Zealand operates are located around the 'Pacific Ring of Fire',³ therefore also having the potential to be affected by known volcanic or earthquake activity.

Extreme or unusual weather events also impact on the airline schedule. In the last six months, some New Zealand airports have been closed at times due to crosswinds, low cloud, fog and snow.

The failure of key suppliers can also have a significant impact on airline operations. As fuel is easily identified as a key element in airline operations, certain contingencies are planned for and lessons are learned from overseas shortages. To understand New Zealand's fuel supply risk and what controls and mitigation measures can be taken in the event of reduced availability, the airline has participated in the creation of the Auckland Regional Fuel Contingency Plan. Other supply chain measures include liaising with key suppliers to understand their risks and the mitigation measures they take to ensure continuance of supply as well as understanding where Air New Zealand sits in their order of restoration.

EVOLUTION OF BUSINESS CONTINUITY MANAGEMENT AT THE AIRLINE

Business continuity management (BCM) was recognised as an essential process during the Y2K era with the IT2000 and the Airline 2000 projects being employed across the airline group. The IT2000 project focused on all networked data activity, while the Airline 2000 project

focused upon all other systems and equipment including aircraft and their components. Continuity plans were developed and tested in the later stages of these projects in readiness for the unexpected.

It is worth noting that the airline industry took a significant hit following September 11th and in particular Ansett Australia, an Air New Zealand subsidiary airline, went into receivership and Air New Zealand came close to collapse until it was financially assisted by the New Zealand Government.

At the end of 2001, the group safety, operational risk and environment department was assigned with overall responsibility for BCM, with the aim of continuing to drive a business continuity programme effectively through the airline group. The Y2K projects provided a recent detailed process map of all of the business functions and locations as well as the group's supply chain. The Y2K projects also assisted with the understanding of dependencies within and across airline divisions. A BCM policy was established with objectives identified and responsibilities assigned. It was recognised that accountability for BCM resided with senior management, as indicated by their statutory obligations, and all managers needed to own BCM within their respective areas of responsibility. In parallel, managed by the chief information officer, an IT disaster recovery project was initiated with subsequent IT business continuity plans developed.

In 2002, the business continuity role was established within the operational risk team of the group safety department, which, after a business restructure, is now known as the operations standards and safety department. The aim of the role was to implement the BCM strategies previously agreed across the airline group. An updated BCM policy was approved, a methodology agreed, awareness across

the business established, and plans were developed to address the key known internal and external threats.

Today, seven years on from the Y2K era, only a small amount of the Y2K material is still relevant and interesting to reflect back on. Technology has significantly changed as well as many of the business processes.

WHY THE AIRLINE HAS A BCM PROGRAMME

The airline is committed to having a BCM programme to ensure that it remains resilient to the impacts of disruptions. This programme is based upon business continuity standards and guidelines, as well as industry best practice. The key reasons are:⁴

- *due diligence*: it makes good business sense;
- *customer expectations*: to ensure the airline is positioned to provide customers with the service it has agreed to deliver;
- *increase in events*: both natural (extreme or prolonged weather events/natural disasters) and man-made (infrastructure and supply chain failure, terrorism);
- *globalisation*: as the airline operates around the globe 24/7, there is limited quiet time when significant system maintenance can be performed on systems or infrastructure;
- *cost benefits*: it is proven that having a validated BCM programme enables a company to respond and recover from an event quicker, thus limiting financial exposure;
- *technology evolution*: with greater reliance on technology, contingencies must be put in place;
- *regulatory influence*: the airline is bound by specific aviation and commercial regulations which ensure that stakeholder value is preserved;

- *community responsibility*: as the New Zealand flag carrier the airline has a responsibility to New Zealanders and the nation.

RECENT EXPERIENCES

Over the last five years, the airline has been affected by several events, from both internal and external sources. These events (although not all significant) have always provided opportunities to learn and increase the company's resilience. Samples of these events are listed below.

- *Auckland Power Crisis (1998)*: Auckland's central business district suffered a five-week power outage due to failed cables.⁵ Air New Zealand's head office was significantly disrupted.
- *Sydney Airport fuel shortage (2003)*: A supply chain issue reduced available fuel to 35 per cent of normal availability.
- *Fire in a subsidiary airline's head office (2003)*: The fire resulted in loss of use of the building for four days. Although there was no damage to the floors occupied by Air New Zealand, there was significant damage to building infrastructure.
- *Pacific island cyclones (2005)*: Cyclones normally have a short-duration impact; in this instance, however, five cyclones following similar tracks within five weeks escalated the disruption.
- *White powder threat (2005)*: The head office was evacuated for four hours due to a white powder threat made against another tenant of the building. One common air-conditioning system for all tenants increased potential risk to all occupants in the building.
- *Southern Pacific telecommunications outage (2005)*: Some Pacific islands that relied on satellite communications lost all connectivity for up to one week.
- *Auckland regional power failure (2006)*:

This was due to a fault at a critical point in Auckland's infrastructure. IT sites were put on generator supply for 15 hours until a stable supply was restored.

- *Electrical fire in a New Zealand airport lounge (2007)*: The damage resulted in it being closed for three weeks.

SIGNIFICANT DISRUPTIONS

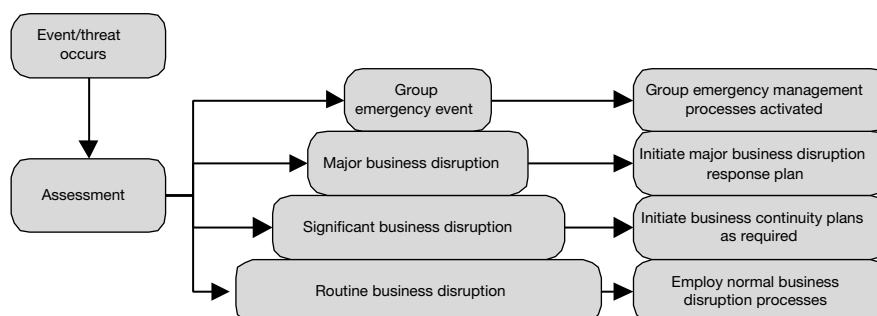
Disruptions are inherent to the airline industry; indeed, many are not considered 'significant' and are classed as 'business as usual disruptions'. These are managed locally through the use of standard operating or disruption procedures. Examples of these include weather disruptions and maintenance delays that require the schedule to be adjusted. Other events such as short-duration localised IT outages also fall into this category. To assist with escalation processes a definition of what a significant disruption means to Air New Zealand was created:

'A significant disruption is identified when an event has occurred or threatens to occur that results in a significant operational or business impact to the wider Air New Zealand community. Such events could be failure of suppliers or contractors, internal or external disruptions, natural disasters, failure of utility services, infrastructure or other similar unexpected events.'

In essence there are four levels of business disruptions and associated responses (Figure 1):

1. *Routine business disruption*: Employ normal business processes using standard operating or disruption management procedures.
2. *Significant business disruption*: Coor-

Figure 1 Levels of business disruptions and their associated responses



minated departmental response, departmental or specific business continuity plans are activated and coordinated by BCM.

3. *Major business disruption*: A major business disruption response plan is activated including the formation of designated senior management into two teams to provide a centralised response. One team focuses on strategic decision making while the second team focuses on operational activities.
4. *Group emergency event*: The group emergency management processes are activated and include the airline senior executives managing the effect of the event on the commercial, media and strategic requirements while the group emergency management team manages the operational response and recovery of the event.

To aid in ensuring that the impact of an event is supported with the correct level of escalation in the initial stages of response, IT systems and locations are assigned severity ratings. In addition, all critical functions, roles and processes are identified as well as their interdependencies.

For significant disruptions, the airline operations duty person is informed, who may then initiate a conference call with members of the initial assessment team, BCM and other key personnel as required. The function of this group is to understand the threat or event and then decide upon the level of response. Once the response is confirmed and initiated, the wider business is informed of the event and/or the actions required by utilising text messaging as the primary broadcast communication channel.

ACTIVATION AND COMMUNICATION

Within Air New Zealand there are three prime 24/7 response streams: Airline Operations, IT Help Desk and the Property Group. No matter which response stream is first notified of a threat or event, they are required during initial assessment to consider the operational and business impact on the wider Air New Zealand community and advise the other response streams of the threat or event as appropriate.

BUSINESS CONTINUITY PLANS

Denial of access business continuity plans are developed through a managed process that covers the usual elements found in many guidelines and standards. Those areas of the business that are critical to airline operational or business processes may have a more detailed plan that includes the creation of a cold, warm or hot site. Roles and staffing requirements are identified by time criticality, with the highest criticality being less than one hour

for restoration of that role. Other contingency plans created for specific events include the pandemic response plan. All plans are required to be validated or exercised.

In addition to liaising with other agencies, a further process that assists with understanding and promoting the BCM process is to utilise the four 'R's of emergency management: risk reduction, readiness, response and recovery. The four 'R's promote resilience and are referenced in New Zealand's Civil Defence Emergency Management Act 2002.⁶ The word 'communities' in the excerpt below also refers to the business sector.

The purpose of the Act is to improve and promote:

- the reduction of risks through partnerships with communities,
- the reduction of community disruption from avoidable hazards and risks,
- the reduction of fiscal risks from the costs of disruption,
- more effective and efficient emergency readiness, response and recovery through the integrated activities of responsible agencies and relevant disciplines,
- a culture, processes and structures that encourage and enable people and communities to: undertake risk management, build operational capabilities for response and recover from emergencies.⁷

CASE STUDY: INSTABILITY IN THE KINGDOM OF TONGA

Background

The Kingdom of Tonga lies in the southern Pacific Ocean about one-third of the distance between New Zealand and Hawaii, south of Samoa and east of Fiji. Air New Zealand provides two scheduled

services each week between Auckland and Tonga and is represented on the island by a third party which employs 18 staff and delivers Air New Zealand's sales, cargo and airport management functions. The sales office was located in the main street of Nuku'alofa, the capital of Tonga.

The event

On 16th November, 2006, the Island of Tongatapu suffered severe communal unrest. This unrest was due to a political protest which escalated into widespread rioting, looting and destruction of the central business district in the town of Nuku'alofa. In addition, six people were reported to have been killed during the rioting. This destruction resulted in fire engulfing the sales office and the third party's cargo shed located nearby.

On Friday the 17th, upon advice of the event in Nuku'alofa, the initial assessment team was established. A briefing was then initiated with key personnel to understand the event and what actions were immediately required to ensure safety. Air New Zealand suspended scheduled services to Tonga as the level of security around the airport was not sufficient to guarantee the safety of passengers, crew and the aircraft.

On Saturday the 18th, the Joint Task Force led by the New Zealand Government arrived in Tonga with the prime objective of securing the airport to enable the resumption of commercial travel.

On Monday the 20th, commercial flights resumed.

LESSONS CAPTURED

Following the event, a meeting was held with all Pacific island managers to discuss the event, the airline's response, its recovery and to capture the lessons. The lessons are captured under the four 'R's of

emergency management (risk reduction, readiness, response and recovery) and are described below.

Risk reduction

- *Alternative and safe egress routes from office buildings:* Both exits from the travel centre fronted the main street so there was no safe alternative exit. It was also identified that if an alternative exit was at the rear of the building, this could potentially introduce other risks such as security of the premises and staff. This raised an important question, namely, how to evacuate the building if the main entrance/exits are blocked.
- *Company branding:* As some of the airline's vehicles are branded with company logos and personalised plates, this may increase the risk of becoming a potential target in events such as this one.
- *Insurance cover:* Not all business in Nuku'alofa had an appropriate level of insurance that covered events such as political unrest and rioting.
- *Building security:* Many premises in the Pacific islands have cyclone shutters available when required, although they are not always held on the premises due to storage requirements. It was asked whether use of such shutters would be of use in preventing damage (if time and safety permitted) during future unrest. However, it was also identified that most cyclone shutters were not lockable and could easily be lifted out.
- *Technology:* A robust data backup, restoration and validation process of critical transactions is essential in case the facility and/or infrastructure are destroyed. Many remote Pacific island sites do not have the infrastructure to automatically backup large amounts of data electronically off site. They rely upon a person to ensure the data are

physically backed up and the tape or media securely stored off site. In terms of restoration of backups, usually an IT-savvy person is required to ensure the correct data are restored and validated prior to being made available for use.

- *Valuables:* Any company should have a process to secure valuable business items quickly should evacuation be necessary.

Readiness

- *Business continuity plan:* Having a current business continuity plan which is inherently known by senior staff and ensuring that plans are tested (eg telephone lines transferred to other locations, key systems accessible by other offices, alternative communication systems batteries charged and tested with staff trained to use them). Although the business continuity document for this sales office covered denial of access, it was not read on the day. The local management had gained so much benefit from understanding their risks, mitigation measures, response and recovery processes during the development and implementation of their plan that they instinctively knew what to do and acted upon it.
- *Critical documentation:* Are the essential documents/information required to restart operations identified in the business continuity plan, backed up and held off site?
- *Staff transport:* Having a plan to transport staff home or to a safe place from the office when the usual mode is unavailable (ie no access to company vehicle or local transport).
- *Staff families:* Ensuring that staff have discussed with their families what they will do in an emergency situation, including communication and assembly locations.

- *Personal effects*: Having a policy or process to mitigate the loss of personal items belonging to staff, such as reading glasses and other personal items destroyed in a fire.
- *First aid*: Ensuring a well-stocked first-aid kit on the premises or in a company vehicle and people who are trained in basic first-aid procedures.
- *Relationships*: Well-established relationships with key agencies/authorities provide valuable information and assistance portals during an emergency or significant disruption event. The relationships previously engaged assisted the airline in gaining credible and timely information that could be used in making decisions surrounding the safety and security of passengers, staff, crew and the aircraft.
- *Cash*: Being able to access company cash to purchase essential items such as fuel etc when banks and electronic transactions have been affected by the event.
- *Media*: Ensuring that all staff have been briefed and understand company media policies. This certainly ensures that the airline's interests are being managed and the public gets consistent and timely accurate information.

Response

- *Safety and security of staff families*: Ensuring that one's own family are safe allows one to be able to focus on responding to the incident.
- *Staff briefing*: Ensuring that staff are briefed on the situation and tasked appropriately as some are likely to react differently during an event such as this one.
- *Coordinated communication*: Staff communicating from the event location back into the airline through one single point of contact provided consistent, accurate communications, saved valu-

able time and aided the airline in providing the coordinated appropriate level of support to the sales office.

- *Representation*: Having the presence of the regional Air New Zealand security representative at the affected port/region to liaise with agencies, interpret/assess information and provide information to the business.
- *Support*: Provision of suitably trained welfare staff to meet the first aircraft when it arrives at its destination from the affected area to support any staff concerns.
- *Having additional communication systems available for rapid deployment in the event of normal systems being unavailable*: By having its own satellite phone pre-positioned in Tonga the airline provided a communications system independent of the ground telecommunications and electrical infrastructure.

Recovery

- *Residual unrest*: Being aware that opportunistic crime is likely to occur (eg burglary, theft and violence) in the days immediately following the event.
- *Staff wellbeing following the event*: Ensuring that the appropriate support (including counselling) is offered to staff who may have witnessed the event. Recognising that staff may be concerned about their safety or that a similar event might occur again.
- *Getting the right support people in from the outset when recovering the business*: By providing additional staff to manage the airport operations the existing staff could focus on rebuilding their business.
- *Business continuity management support*: Getting assistance/support and advice from BCM on the restoration of the business and what opportunities could be leveraged as a result of the event.
- *Pressure from external agencies to resume*

business: There is a need to ensure all aspects have been properly considered (residual threat, safety, security and commercial viability).

- *Being aware of the potential impact on usual suppliers:* Suppliers may also be affected by the incident (eg unavailability of IT support) compounding problems with using an unfamiliar supplier.
- *Having a process to purchase the required restoration equipment quickly, transported and installed at the affected location:* This is particularly important when the affected location is remote.
- *Updating the asset register and recovery documentation following the event.*
- *Ensuring that any business continuity and response plans are also updated with the lessons learned from the event.*
- *Being aware of potential opportunities that the event may also provide.*

TODAY

Six months on from these events, the Kingdom of Tonga is still recovering and has commenced the rebuilding of its central business district. The sales office is still located at the temporary premises to which it relocated during the event although will be moving to new premises in October. This event provided a response opportunity that involved many areas of the airline coming together to support one of its service providers.

CONCLUSION

The airline industry in general is inherent with disruptions resulting from a wide range of diverse threats and events. Most are routine business disruptions while some are significant. Some threats or events will also be unforeseen, but they each provide an opportunity to become more resilient. The BCM framework established at Air New Zealand covers

risk reduction, readiness, response and recovery thereby providing a system that aids resilience.

Events such as the disruptions in the Kingdom of Tonga highlight the need to have a robust BCM system that is aligned with emergency management processes when safety and security of staff, customers and assets are paramount. Following any significant event it is also important to capture, document and publish the lessons and opportunities that the event provided to agreed persons within one's own organisation.

Air New Zealand's BCM framework is regularly reviewed to ensure that the group remains aligned with the airline's needs and industry best practice and provides a platform to embed a BCM culture within the airline. And finally, our two key elements to measure successful disruption management at Air New Zealand are that customer service is not degraded and the commercial impact is minimised.

REFERENCES

- (1) Air New Zealand (2007) 'Air New Zealand operating fleet', available at: <http://www.airnewzealand.co.nz/aboutus/fleet/> (accessed 15th October, 2007).
- (2) GNS Science (2006) 'The active earth', available at: <http://www.gns.cri.nz/what/earthact/index.html> (accessed 15th October, 2007).
- (3) Wikipedia (2007) 'Pacific Ring of Fire', available at: http://en.wikipedia.org/wiki/Pacific_Ring_of_Fire (accessed 15th October, 2007).
- (4) Adapted for Air New Zealand using Business Continuity Awareness Week headings available at: <http://www.cceep.ca/fact.pdf> (2003) and <http://www.bcaw.net/about.html> (2007).
- (5) Wikipedia (2007) '1998 Auckland power crisis', available at: <http://en.wikipedia.org/>

- org/wiki/1998_Auckland_power_crisis (accessed 15th October, 2007).
- (6) Civil Defence Emergency Management Act 2002, available at: <http://gpacts.knowledge-basket.co.nz/gpacts/public/text/2002/an/033.html> (accessed 15th October, 2007).
- (7) Ministry of Civil Defence and Emergency Management (2002) 'CDEM Act 2002', available at: http://www.civildefence.govt.nz/memwebsite.nsf/wpg_URL/For-the-CDEM-Sector-Publications-CDEM-Act-2002 (accessed 15th October, 2007).

Copyright of Journal of Business Continuity & Emergency Planning is the property of Henry Stewart Publications LLP and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.