2011/2012 Maurie Pawsey/Schneider-Electric Scholarship Newsletter article – Mark Dorian

Among the most important aspects of my role as Campus Facilities Manager for the University of South Australia is delivering operational and strategic development in Incident and Emergency Management. As recipient of the 2011/2012 Maurie Pawsey/Schneider-Electric Scholarship I undertook a detailed examination of emergency management systems of a number international HE institutions; particularly looking at what role Facilities Management played within their institutional framework in providing overall preparedness, response, resilience and business continuity. Were they the framework architects? Were they just participants, one of many diverse stakeholders, responding to a process driven by others? What influence did FM bring to the table in driving institutional reform in these areas?

I also had pre-conceived expectations, rightly or wrongly, about what I would discover throughout the study tour. I was confident that recent, globally reported events involving universities had inevitably and quickly escalated Emergency Management within institutional hierarchies, particularly around emphasis on risk identification and mitigation, physical resilience and business continuity. I also assumed that resourcing would differ greatly between institutions, directly relative to how devolved the responsibility for implementation and delivery was. I was certain that US institutions would be way ahead in all aspects of preparedness and response, and I had drawn an unfounded presumption that the universities that were higher in the World QS rankings would reflect better outcomes in Emergency Management, Business Continuity and general Facilities related disciplines.

Like all benchmarking opportunities I was expecting that many of the learnings would assist in identifying and driving future direction within my own institution. In many cases, I was also confident that the information provided resulting from the study would be confirmation that my own university had correctly identified our own areas for development in this area, akin to many universities. Most prominently (and perhaps arrogantly!), I anticipated that in most cases FM, in the absence of a centrally driven model or lack of exposure to all aspects of the emergency management lifecycle, were driving key processes and deliverables outside of their key responsibilities across the entire framework,

In choosing the universities to examine, opportunity, existing contacts, and known exemplars played a large part in the selection process. As part of the Scholarship I was fortunate to attend one of the TEFMA Strategic Partners' annual conferences, and chose the APPA conference in Denver Colorado. The University of Colorado (Boulder) was an attractive option as it is a multi-campus university and had experienced a recent 'potential emergency' with Colorado wild fires on the door step the weeks leading up to my visit. Unfortunately it would also be involuntarily connected to a tragic incident during my stay in Denver.

California State University has had extensive experience in dealing with a major incident (1994 Northridge earthquake). Kit Espinosa and Anne Glavin are well known to many within TEFMA through their involvement as keynote speakers at the 2010 'Survive the Impact' Emergency Management workshop held in Christchurch, and influenced many of the actions taken in responding to the earthquake in that city in 2011.

Massachusetts Institute of Technology (MIT) and Harvard were ranked number one and three in the World QS rankings respectively and I was interested in comparing their approaches to protecting reputational risk compared to other universities I was to visit. Did they have more to lose and did they do anything different to mitigate that risk? I was expecting highly organised, highly centralised structures in risk identification and the links to business continuity aligned to the reputation of both these institutions.

As I was also looking to benefit my own institution outcomes I aligned with benchmark targets that offered similar physical characteristics with our campuses. The University of Edinburgh, New York University and Trinity College are inner city campuses with less defined and permeable physical boundaries. The interconnection between these Universities and the surrounding community (both invited and unwanted) has escalated different risks within their hierarchy.

There was also an adequate mix of multi-campus and single site institutions amongst those that I had planned to visit and I was looking forward to see how what aspects of each would be a strength and weakness. University College Dublin is a predominantly single site, research-intensive university that somewhat mirrors the University of South Australia's Mawson Lakes campus in activity and layout, and was an excellent comparison in physical resilience.

Common Trends

Diversity of responsibility – What was evident, even before I had jumped on a plane, was the diverse responsibility for driving aspects of Emergency Management and Business Continuity across universities. No one model was exactly the same across all elements, and I had arranged to meet representatives from Facilities and Property, Audit and Risk, Public Safety, Environmental and Health Services, as well as individual people responsible at School and Building level. The diversity in structure was often reflected in the devolved and inconsistent level of risk identification, mitigation, and business continuity planning. This was acknowledged by most institutions as their greatest hurdle, and getting everyone within their organization at the same level of assessment and planning was difficult due to the decentralized level of responsibility for driving these elements. While in most cases templates were provided there was no rigour around the need for completion or submission, and in some examples the lack of correlation and fractured approach to review ensured some institutions' risks are not fully realized or captured.

Consistency in Response - One of the expectations quickly confirmed was that all universities had a similar methodology to initial emergency response. Most operate under a model such as NIIMS (National Interagency Incident Management System) or similar, and all adopted best practice principles for framework documentation and operational structures. While there were substantial differences in human and physical resources between institutions, the adoption of similar overarching response models ensured consistency in front-line response.

Communication and Reporting - Another predicted trend was that US institutions had multiple and varied methods of communicating to campus community, both on and off campus. This is driven by the Clery Act, 1990 (originally known as the Crime Awareness and Campus Security Act) which requires all colleges and universities that participate in federal financial aid programs to keep and disclose information about crime on, and near, their respective campuses. These statistics must be published and distributed via their Annual Campus Security Report to current and prospective students and employees. The Act requires institutions to give timely warnings of crimes that represent a threat to the safety of students or employees. An outcome of complying with the Act is that it has required forced expenditure into multiple communication models and has delivered best practice in this area. While not the core purpose of the expenditure, reporting and communication systems are being used broader than the intention of their implementation, and have become an important marketing and general communication tool.

The ability to be able to communicate to those on campus holds equivalent importance to 'off' campus communication and this is reflected in the burgeoning introduction of structured public address systems and subscriber driven personal device 'apps'. Regardless of delivery model, there has been an increased benefit in using multiple communication tools that allow distribution of information that is used to strengthen the prevention and planning message, rather than traditionally only being used during times of incidents or disruption. This is also reflected in the desire for consolidation and easy access of website information centred on emergency planning and response; although there is still a long way to go for some institutions in having one repository for all information due to 'ownership' of information by multiple stakeholders

All of the universities have fostered relationships and escalated the immediate involvement of university media liaison or public information officer within their frameworks. All acknowledge the role that media, particularly social media, plays during an event, and have worked hard to ensure that this is adequately developed. In saying that, many are coming to terms with social media and the impact of no longer being in control of the message, or its delivery. Many universities have deliberately sought involvement from 'junior or younger' staff to assist develop strategies in this area.

Besides requirements for tabling and communicating individual statistical reports (such as incident data) there was little consistency in the development of a consolidated report, or undertaking a holistic internal review at organization level. While some cross-over of analysis between departments, for example Facilities and Environmental and Health Services, was evident there was a lack of coordinated examination of institution risk, mitigation, and business continuity.

Suppliers and Service Providers - Another common trend within the universities I visited was the formation of pre-event, formal agreements with suppliers and service providers to deliver dedicated supply chains for emergencies, both for physical supplies and human resources. Agreements include clauses being written into contracts for personnel involved in capital works on campus to be redirected to emergency response as required, as well as operators of large external space such as show grounds, sporting clubs, cinemas and theatres all being formally sought to supplement teaching space in the case of disruption. University internal spaces were also being identified and supported to ensure they were capable of being used in an emergency. Nursing teaching labs, sporting facilities, residential accommodation and other general teaching facilities were being dedicated for use as triage and holding centres in an emergency. Alternate use of these spaces was being considered and developed during the design period whenever refitting old spaces, or considering new construction.

Student Residential Housing/Accommodation - Remains one of the most prolific sources of risk and incidents on campus and has become an escalated area of focus for many institutions. It is where a lot of the 'human' risk exists, and where most of the on-campus incidents occur. In many cases there is limited control as the growing popularity of partnership arrangements with private operators has shifted the ownership of identifying risk and providing adequate reporting to others.

'Students at Risk' – Despite the variations of who was considered lead respondent, all universities had well developed, dedicated 'network based' systems to assist in the identification and early intervention of students seen to be at risk. The broadened definition associated to most 'student at risk' frameworks resulted in an immediate increased need for resourcing relative to the growth in identified cases. The early intervention and prevention models were heralded as a positive and worth the time and financial investments, with overall positive results recorded across the board.

Human Resources – All of the universities I visited expressed a desire for increased human resources dedicated to Emergency Management. There was acknowledgement that it was no longer something tacked onto the bottom of your PD, but heading into the realm of a specialist field. The elevated profile and institutional importance meant it required extra, dedicated people to properly coordinate and execute. This was also driven in some cases by Facilities Management being asked to manage central processes outside of their traditional role and requiring extra resourcing and skill-sets to do so. It was recognised that due to the involvement and integration at all stages of the overall processes that FM was often best placed to 'up skill' the rest of the institution.

APPA Conference

As mentioned I was fortunate to attend the APPA Conference in Denver, Colorado and thoroughly enjoyed a diverse and insightful program. Predominantly the conference has a facilities only related focus and there was an excellent selection of presentations and discussions across many aspects of FM. There were two exceptional presentations related to my field of study: Plan For Your Next Disaster Not Your Last One and Surviving Mother Nature and the Facilities Built Environment Storm. The presentations delivered a firsthand account and the learnings from major flooding events in Georgia and Iowa, tornado in Joplin, Missouri and hurricanes Katrina and Rita in New Orleans. It is worth noting the main themes, as they are important observations that are of immense value and consideration within the context of my study topic.

Broaden the context of emergency planning - Consider the wider logistical and regional impacts that may affect the campus including access for emergency supplies, diversions, employees. Always plan emergency scenarios wider than the immediate campus boundaries.

Plan for your next disaster not your last one - Plan for your worst event...and then supersize it. In the case of the flooding events referenced it was suggested that statistical data is outdated and based on real events, a 1:500 year flood event is actually 1: 133, or 1/3 off estimations.

Flexibility, resilience, tolerance and empowerment – It is inevitable that changing conditions will require changing responses. It is important to empower those to make decisions prior to an event; seconds count and seeking permission wastes valuable time.

Be prepared for business interruption - While it is desirable to avoid any disruption the reality is that this will be rare in the event of a major emergency. There needs to be an imbedded structure that supports early and expanded thinking around risk assessment and business continuity plans. They should not be based around an 'if' but a 'when'.

Forget the buildings, save the campus- "make the call" - Be prepared to make the call to abandon efforts to save individual buildings and concentrate on critical central infrastructure (Central Plant, IT). Experience of those presenting was that the decision to focus on the central infrastructure limited wider disruptions and aided recovery. Central infrastructure should also be escalated within campus risk assessments to reflect their criticality.

Tell your story – Take the time to share your learnings, your mistakes and your victories. Dedicated internal review processes, and opportunities to share externally are instrumental in future preparation and resilience.

Call in the cavalry sooner rather than later – Realise your limitations and do not hesitate in calling in whatever help is needed to assist. Besides emergency services, the universities affected by these disasters accepted assistance from thousands of student and staff volunteers, community groups, jail inmates and community groups. Insurance assessors, politicians, government agencies were also brought in early so that they had a feel for situation and understood parameters.

Mother Nature always wins - In Iowa's example, a 50 minute storm that changed direction was the difference between $20m and $1 Billion damage bill.

Stay ahead of post disaster events – It is important to devote resources early to post disaster recovery planning. It was deemed a distraction if those combating the disaster are also trying to think about recovery

Lessen your reliance on others - While partnerships with agencies, vendors, community resources are important there is a real push for independency. It was proven in all cases that, depending on the scale of the event, the resources within the community cannot be relied on. It was vital to formalise contracted supply arrangements and formalised relationships pre event to ensure best possible access when required.

Practice, Practice, Practice - Plan with and educate campus communities so it becomes second nature and not a first time discovery.

<u>From envy to bewilderment...and back again</u>

The institution visits offered regular moments of envy, admiration, inspiration and in some cases bewilderment. It is the reason why we look over each other's' fences: to see what others are doing well, to see what we can adapt, and to see what areas we are already leading in.

An exemplar in the field of emergency preparedness is California State University, Northridge, who are almost without peer. Following the 1994 Northridge earthquakes that destroyed the campus, they have used the experience to 'future proof' themselves by properly resourcing themselves both through infrastructure and improved processes. Their central Crisis Centre is not built for today's needs but to meet those in 10 plus years. Much of the facility remains vacant in readiness for future expansion of personnel and storage needs beyond their immediate requirements. Physical expenditure in campus infrastructure and support capabilities such as large capacity generators, extensive emergency cache, communication infrastructure and campus response vehicles are equally matched, and more impressively in my opinion, by the smaller scale support preparedness that is actually

required to effectively deal with an emergency. Response group specific boxes containing vital information and contacts, wall mounted pre-laminated personnel location sheets, workflow and communication checklists and other varied campus specific information, all assist in ensuring human resources are focussed on dealing with the emergency and having valuable response information centrally shared and available to all involved. They have thought of it all.

(pic) Mobile Command Unit, California State University, Northridge

Another institution that demonstrated an outstanding commitment to physical resilience was University College, Dublin. Like many universities the main campus is serviced with central tunnel and ring-route distribution for power, water, data and dedicated Security infrastructure. Each service within the ring has two independent feeds that can be switched over to service the other should the need arise. The 'old' water tower that used to service the coal powered plant is still kept in operation as a backup should the need arise. Likewise the central campus lake can be used to feed some auxiliary water needs. The expansion of campus security and associated systems has resulted in a new control room being built to accommodate and support the expansion. Despite considerable pressure to demolish the old control room it is being kept, and included within resilience plans. The room is situated at the opposite end of the campus and includes full sets of keys, radios, access to entire CCTV network and has full generator and IT infrastructure backup; all of which can be fully operational within 20 minutes. As a side note it is one of the only institutions I have visited that could demonstrate a documented example of CCTV *working successfully as a deterrent,* with a significant reduction in incident data (thefts etc) in all locations. As a result the camera count went from none, to fourteen as a trial; and now they have over four hundred, which is a significant number in relation to the campus size and layout.

(pic) Old water tower still maintained as operational in case of emergency use – University College, Dublin

As mentioned previously I was especially interested in whether emergency management and business continuity within highly ranked institutions, such as Harvard University and Massachusetts Institute of Technology (MIT), were any further advanced than others based on 'they had more to lose'. Harvard in many ways seemed the most devolved of all the institutions I visited. High profile Schools were described as 'self-regulating' in that they developed their own funding models, operated within different business frameworks and displayed independent building management approaches. The decentralized approach extended to risk assessment, management and business continuity planning. Harvard have worked hard to implement a centrally driven business continuity regime and have Gone from three to twenty-seven Schools or Institutes involved in identifying, documenting and mitigating

their risks. There is still work to do in linking the risk assessments to the overall business continuity plans, but those responsible for driving the process have gained support at governance level to increase compliance.

Harvard is also wrestling with the reputational risks associated with being highly ranked. They are struggling to reign in the misuse of the 'Harvard' name by the media when highlighting generalities with other like institutions; even when the relationship between the university and the reported story is tenuous. Incident data will often be reported on, or used as a benchmark, despite being lower in comparison to others, or when it is not the best related fit simply because it 'is' Harvard. Likewise MIT is struggling with a perception linked to media reports around suicide among its community. With an extremely high performing and focussed student and staff population, incident data remained constant and extremely low compared to previous years; except for suicides (which for the reporting year was three). While in some cases this was equivalent to other institutions, the relentless reporting of the increase in the media has ensured that the subject remains a headliner

(pic) The old and the new - Massachusetts Institute of Technology (MIT)

One of the more bewildering observations while undertaking the tour was that the University of Edinburgh has *no formal documented emergency escalation plan*. There is nothing documented on who to ring, in what order, or how to escalate. All individuals involved rely on a personal knowledge of how to escalate and adapt it to suit the incident. Effectively, this is what we all do in most circumstances, and it did challenge the relevance around relying too heavily on a documented and static escalation procedure. While this system has worked without incident it was acknowledged that there was an inherent risk of not being able to demonstrate intent if it failed. Edinburgh was also an excellent example of the risk of inheriting other's risks. The university is the Edinburgh Fringe's largest venue. Most outdoor courtyards (including the large common) and a number of internal theatres and spaces are turned into Fringe venues. It is the heart of the Fringe. While the benefits of the Fringe on campus culture and activity cannot be questioned, the university has little control over venue operation and the associated risks or consequences. While the university did maintain distance with the event sighting it was the owner of the space, not the event, the university features heavily in promotional material by name: "Old School campus of University of Edinburgh".

(pic) Edinburgh Fringe takes over the Old School site - University of Edinburgh, Scotland

(pics) transforming the campus – Edinburgh Fringe

Another moment of astonishment was during my visit to the University of Colorado, Boulder. After a lengthy legal battle it was unsuccessful in preventing students and staff from carrying concealed weapons while on campus. Regardless of the wide range of personal beliefs and opinions around this subject, I still personally struggle with how this was upheld, particularly given the recent and tragic history of gun use on campuses across the US. This was no more unmistakable than the events that unfolded on my last night in Denver when twelve people were shot dead, and seventy more injured in a nearby movie theatre. The gunman, a former student of the University of Colorado, had allegedly told university support staff of his intentions to harm people. While horribly tragic, professionally it was fascinating to watch the noticeable change in how the university responded to media reporting, both immediately after the event and as the relationship between the gunman and the institution unfolded. It also again highlighted the prominence and consequences of the adage ‘what did you know, when did you know about it, and what did you do about it’.

Presidents of AUDE, APPA and TEFMA on top of the world – Rocky Mountain National Park, Colorado

(pic) University of Colorado (Boulder)

Trinity College, Dublin and New York University highlighted the need to align yourself to risk assessments and emergency management plans of the neighbouring community. Like my own campuses, both universities were heavily integrated within the city centres and inherited the risks that this relationship presents. Both were constantly affected by activities and events outside their area of influence and have worked hard to successfully use their position as major community stakeholders to drive improvements in mitigating those risks and being included in overall resilience and response planning. Establishing these links, as well as developing a range of agreements with other inner-city service providers and suppliers, and owners of useable space has helped ensure a diversity in response and continuity options.

(pic) Trinity College, Dublin

The trip was invaluable in being able to benchmark where my institution currently sits on an international scale in relation to emergency preparedness, resilience and business as usual. It demonstrated where we need to be, and how to possibly get there, while at all times demonstrating that we are on the right track. I would like to personally and unreservedly thank TEFMA, Schneider-Electric and the University of South Australia for providing me this wonderful opportunity and I encourage everyone to consider applying for this Scholarship.

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