

City Talk

Staying on the right track to resilience



Nuts and bolts

Edmund Leung

Last month's weather in Hong Kong was some of the most unusual in recent memory.

The most memorable was the spate of five typhoons, with the worst one requiring the hoisting of the No 8 signal on November 14.

Not much less so was that days were warm and humid until late last month.

Those set on outdoor activities for the start of this autumn, which usually sees the best weather of the year, had their hopes dashed, with torrential rain even causing some damage to properties.

The past month reminds us of the vital importance of keeping the city running in inclement weather, especially in maintaining essential infrastructural services such as power, water, communication and transport.

The railway is especially essential as the backbone of our public transport system.

People expect it to operate even in inclement weather.

The technical term for this is "resilience" and world-renowned engineering and environmental consultancy Arup has published a paper on this subject.

It defines resilience as "the ability to withstand, adapt and recover positively from shocks and stresses."

"Resilient infrastructure will therefore be able to continue to provide essential services due to its ability to withstand, adapt and recover positively from whatever shocks and stresses it may face now and in the future."

Many of us will remember the deluge brought by Typhoon Haikui last September, when stormwater entered Wong Tai Sin

station and the adjacent mall, flooding everything underground and causing a lot of damage.

However, we also remember that, with hundreds of cleaners working round the clock, MTR Corp was able to pump out the floodwater and clean up rail tracks.

Many essential station facilities such as entry and exit gates, escalators, the concourse and platform floors were back in full operation early the next day, almost as if nothing had happened 24 hours ago.

We all know all this wasn't done as an afterthought on the day but the result of meticulous planning all the way from the system to the component level from the subway operator's early days.

They come complete with ever evolving contingency plans and the setting aside of essential resources to enable partial or full operation with minimum interruptions.

Take, for example, the cleanup of the station that day, which I am sure required a lot of planning before it could be implemented.

Not only was there a need to mobilize hundreds of workers that afternoon to start work immediately, but they also needed thousands of pieces of tools and equipment to remove the mud and flotsam washed down into the lower levels of the station.

It wasn't just some dirt on the floor but rubbish and mud up to half a meter deep in certain spots, all the way down to the track.

Disregarding the costs involved, mobilizing such huge levels of resources certainly requires extensive pre-planning and scheduling.

The operation covers not just manpower but also specialist equipment and tools that needed to be retrieved immediately for application.

From the outset, the railway system is designed with redundancies, multiple sub-



A cleanup crew works into the wee hours on the platform of Wong Tai Sin station in the wake of last September's deluge that also saw, below, its fare gates inundated by floodwater and MTR staff springing into action by putting temporary entry/exit gates into operation.



systems, to ensure operations can continue in case parts of the system fail.

This covers not only the railway rolling stock and associated signalling and communication system but also stations.

They also include alternative entrances, spare entry and exit gates, fare collection equipment and lighting and ventilation systems.

They must remain operational, if at least partially, even in times of emergency.

To cater for operations at such times, a preplanned list and drills for emergency operation must be implemented.

All conceivable scenarios are considered, with alternative plans kept ready for rollout when required.

Such plans are continuously updated by experienced professional staff to cater for ever-changing scenarios.

For example, all station entrances come with steps that require people heading for trains to step up so that floodwater at street level will not affect the station.

However, in the case of Wong Tai Sin, its geography and the suddenness of the deluge resulted in floodwater and mud entering the station that day.

Since then, more sensors have been put in place to protect the station from floods.

Other preventive measures have also been taken to cater for various emergencies, but for security reasons some of them are kept confidential.

They are there to ensure resilience in the system.

Engineers design infrastructural systems for safe and reliable operation, based on known scenarios.

However, as new scenarios come into play as a potential consequence of natural disasters or global warming, new plans need to be drawn up to cater for such eventualities.

The ultimate objective is to ensure the highest level of safety to users and reliable service at all times, under all potential scenarios.

Veteran engineer Edmund Leung Kwong-ho casts an expert eye over features of modern life

Variety the spice of life at Clockenflap



Glass Animals perform at Clockenflap 2024.

Clockenflap is regarded as one of the most high-profile and entertaining events in the Hong Kong cultural calendar.

It is a vibrant celebration of creativity and culture that has become a staple in our dynamic arts scene.

Since its inception in 2011, it has grown from a small gathering of music enthusiasts into one of Asia's largest and most anticipated festivals.

This year was no exception. The festival featured an eclectic mix of renowned international acts alongside some of the best emerging local artists, who performed for a diverse audience eager to experience the best in live music, art and culture.

Festival-goers from all walks of life, backgrounds and ages came together,



CULTURAL EXCHANGE
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united by their love for creativity and self-expression. This diverse mix of cultures fosters community and friendship, making Clockenflap an exceptional and inclusive experience.

In addition to a sensational lineup featuring must-see artists, it delivered an unforgettable experience.

Audiences enjoyed a breathtaking outdoor setting with six stages, over 24 delicious food and beverage vendors and stunning art installations against the stunning backdrops of Central and the harbor.

Clockenflap is not just a music festi-

val but a family-friendly event offering diverse activities for all ages.

From arts and crafts workshops at the Children's Discovery Museum to Kid's Yoga & Mindfulness sessions, interactive puppet shows and rhythm demonstrations at the popular Drum Jam, there's something for everyone to enjoy.

With an impressive 800-meter-long balloon chain and captivating collection of abstract and psychedelic films, it reaffirmed its status as a premier international festival. Its global appeal was evident in its diversity, thrilling festival-goers all weekend.

This year's headline acts were French duo Air on Friday, British hip-hop sensation Central Cee on Saturday and the

remarkable Jack White, who made his Hong Kong debut on Sunday after the recent release of his sixth solo album.

Three-time Grammy winner St Vincent, Suede, Jamie xx, Glass Animals, Creepy Nuts, Porter Robinson, Yama, Deca Joins, Toe, Banks and Sakurazaka46 were among the 90-plus remarkable acts that thrilled festival-goers at Central Harbourfront.

The sun was shining, the temperatures cool, the performances captivating and the atmosphere electric.

Clockenflap has once again proven that it's an unforgettable celebration of life, music and community Hong Kong style!

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