

Fire Services Department's 2019 Year-end Review

The following is the 2019 Year-end Review issued by the Fire Services Department today (April 22):

Preamble

Looking back at 2019, the Fire Services Department (FSD) went through multiple challenges, most notably the ongoing social disturbances that took place in Hong Kong in the second half of the year. Continued demonstrations, processions and public meetings in various districts, coupled with, among other things, violent clashes, road blockages and instances of arson, severely hampered the performance of FSD duties. These challenges also affected seriously the department's other day-to-day firefighting and emergency ambulance services. The frontline personnel also encountered unprecedented difficulties when carrying out duties at the scene of these public order events (POEs). Despite the acute situation and the substantially increased workload and pressure, colleagues of all ranks in the FSD maintained their composure and remained steadfast in working hand in hand with one another on all fronts, including firefighting and rescue, fire protection, ambulance services and mobilising and communications, doing their utmost to safeguard the public.

Firefighting and rescue services

1) Fire calls

In 2019, the department received a total of 37 606 fire calls, representing an increase of 12.4 per cent as against 2018. Among the calls, there were seven No. 3 or above alarm fires, the same as in 2018.

During the year, there were a total of 31 499 building fire calls, representing an increase of 9.5 per cent as against 2018. Among these building fire calls, 93.3 per cent were responded to within the graded response time, which was about 0.8 percentage point higher than its performance pledge of 92.5 per cent. It is worthwhile to note that as many as 1 929 fire calls were related to POEs. Among the more notable cases were five No. 3 alarm fires and one No. 4 alarm fire, which mainly involved a warehouse, construction sites, a composite building and residential units in various parts of Hong Kong Island and the New Territories. Another case involved a fire that broke out on an oil tanker in the waters south of Lamma Island, which took fire personnel more than seven days to complete the search and rescue operation. In this particular case, the FSD members had to fight the fire under extremely dangerous conditions since the tilted oil tanker was surrounded by dense smoke after explosions. They had to resort to the professional rescue skills of the High Angle Rescue Team and Diving Unit to conduct the search and rescue operation. The operation was arduous and full

of danger.

2) Special service calls

As regards special service calls, a total of 35 284 calls were received in 2019, representing a decrease of 6.7 per cent as against 2018. Among the more notable cases were the collision and derailment incidents of MTR trains in March and September respectively, as well as a serious bus crash in December which resulted in six deaths and 39 injuries. During the collision incident of MTR trains at Central Station in March, the Urban Search and Rescue Team had to overcome various difficulties, such as a narrow operating environment, poor lighting and the risk that the trains could flip at any moment. That was, in order to allow MTR Corporation Limited staff to restore all train services to normal as soon as possible.

Fire protection regulatory work

Amid the continuous development of the society, it is important for any advanced society to give top priority to fire safety. In fact, regulatory work on fire safety has become increasingly complicated and strenuous, given the rapid and ever-evolving developments and rising problems of ageing buildings. As a means to ensure fire safety and enhance the efficiency of such work, the department has made vigorous efforts to optimise various arrangements and procedures, including, among others:

- * vetting of building plans, acceptance inspections of fire service installations and equipment (FSIs);
- * fire safety requirements, inspections and law enforcement on different licensed premises;
- * regulation of dangerous goods and FSIs; and
- * promotion on fire prevention and public education on disaster prevention.

The department is determined to step up its efforts in enhancing the fire safety and emergency preparedness in Hong Kong from a holistic perspective in a bid to nip hazards in the bud.

The summary of fire safety inspections and law enforcement actions in 2019 is as follows:

Fire safety inspections	423 184 (among these, a total of 239 780 inspections of FSIs in buildings were conducted to ensure their proper maintenance)
Fire hazard abatement notices issued	2 764
Prosecutions	343

Regarding the control of dangerous goods, the work of the Anti-illicit

Fuelling Activities Task Force in 2019 is summarised in the table below:

Inspections	1 105
Surprise operations	109
Complaints handled	116
Illicit fuel seized	over 210 000 litres
Prosecutions	111

To enhance the fire safety of old commercial, composite and domestic buildings, the Government joined hands with the Urban Renewal Authority and devoted \$2 billion to launch the Fire Safety Improvement Works Subsidy Scheme in 2018. In view of the positive response, the Government proposed allocating another \$3.5 billion to sustain the momentum of the scheme in 2019. Subject to funding approval by the Legislative Council, it is envisaged that the scheme will be open for the next round of applications in mid-2020.

To reduce the fire risks of old industrial buildings, the Government is drawing up the Fire Safety (Industrial Buildings) Bill to make it mandatory for pre-1987 industrial buildings to install specific FSIs. The relevant Bills Committee of the Legislative Council has completed deliberations on the Bill and will proceed with the remaining legislative procedures.

As a gatekeeper for the fire safety of Hong Kong, the department has continued to carry out its work proactively to ensure fire safety compliance in infrastructure developments, such as:

- * the acceptance inspection of FSIs in the Heung Yuen Wai Boundary Control Point project was completed in December 2019;
- * the Airport Expansion Project Division completed the acceptance inspection of FSIs at the expanded Terminal 1 of Hong Kong International Airport, which was then put into service in late November 2019;
- * the department is processing the outstanding building plans and performance-based design under the three-runway system project; and
- * the Railway Development Strategy Division, which is responsible for formulating fire safety requirements, vetting FSI plans and conducting relevant acceptance inspections for railway construction projects, is actively engaged in the inspection and acceptance work following the completion of the Shatin to Central Link stations.

The FSD has spared no efforts in assisting the construction industry in securing approval for building plans and fulfilling the requirements for acceptance inspections of FSIs. In this regard, the department has continued to optimise the work arrangements and administrative procedures in a flexible and pragmatic manner in a bid to expedite the approval procedures for compliance with fire safety requirements in various types of buildings and

infrastructure projects. Apart from the aforementioned large-scale infrastructures, there were also other mega projects that completed construction in 2019 such as the Central-Wan Chai Bypass and the Xiqu Centre of the West Kowloon Cultural District. These projects are massive in scale with complex designs and construction. In this connection, the department managed to streamline relevant acceptance inspections and administrative procedures, while organising large-scale seminars for the trade every six months to deepen their understanding of the relevant technical requirements through case studies. The department also urged the trade to ensure that their construction works were in compliance with stipulated requirements, thereby forging a win-win situation.

Ambulance service

Despite the continued increase in the number of ambulance calls in 2019, the overall level of service was satisfactory. The total number of ambulance calls received in 2019 reached 822 150, representing an increase of 2.2 per cent as against 2018. Of them, 766 679 were emergency calls, representing an increase of 2.4 per cent as against 2018. Among the emergency calls, 93.4 per cent were responded to within the target response time of 12 minutes, which was 0.9 percentage point higher than the performance pledge of 92.5 per cent.

The year 2019 marked the 100th anniversary of the FSD's ambulance service. In the past century, the ambulance service has advanced with the times and strived to scale greater heights in terms of service quality and professional training, as well as manpower and equipment, as evidenced by the following examples:

* the ambulance service has grown beyond the provision of basic first aid treatment and has developed into a sophisticated pre-hospital paramedical service provider. Nowadays, the FSD ambulance personnel are qualified to administer 16 medical protocols and 19 medications to patients. These protocols that used to be confined to the hospital's accident and emergency department can now be administered earlier in the ambulance, hence significantly enhancing the quality of pre-hospital emergency ambulance service; and

* since October 2019, all of the department's ambulances have been equipped with automatic chest compression machines (ACCMs). ACCMs can improve the efficiency of chest compression. With the use of the machine, the ambulance personnel can also be released to administer other important emergency medical protocols, which in turn will increase the survival rate of patients with cardiac arrests.

Post-dispatch advice service

To further enhance the quality of emergency ambulance services provided to patients, the department introduced a new system for provision of post-dispatch advice (PDA) in October 2018. It enables personnel of the Fire Services Communications Centre (FSCC) to provide callers with appropriate first-aid advice applicable for 32 types of injuries and sicknesses with the

aid of a computer system prior to the arrival of an ambulance crew so that the callers can handle patients and help stabilise their conditions. In other words, the role of the FSCC personnel has evolved from primarily that of a dispatcher to the first rescuer in the chain of survival.

As at the end of 2019, the department provided PDA for 744 196 emergency ambulance service callers (91 per cent of the total), with many of the calls being critical in nature. For example, FSCC personnel provided advice to a caller to help a woman who was about to give birth. After calming them, personnel gave the caller instructions on how to help the woman deliver the baby. Eventually, the baby was born safely at home prior to the arrival of ambulance personnel. In another case, the FSCC personnel gave cardiopulmonary resuscitation (CPR) instructions to another caller and guided her to apply CPR to a person who was suffering from cardiac and respiratory arrest. Following the instructions, the caller saved the person's life before the ambulance personnel arrived. These cases aptly illustrate how useful PDA can be.

In October 2019, the department continued to disseminate the message of "stay on the phone for PDA, follow advice and save a life" in an innovative and light-hearted approach, in the hope that members of the public would hold the line after calling for an ambulance, and try to save a life by following the advice. The short video has received an overwhelming public response, with more than 1.39 million people reached as at March 20, 2020, which has helped to quickly spread the message to every corner of the community.

Social disturbances and public order events

The ongoing social disturbances seen since the middle of 2019 have presented great challenges to the department. When the disturbances first emerged, the protesters mainly blocked roads and obstructed traffic flow; later, some of them went so far as to use dangerous goods, particularly the hurling of petrol bombs. The fire and smoke caused by arson often affected buildings and public facilities in the vicinity, posing grave threats to life and property.

As at end of 2019, the department received a total of 1 929 fire calls and 1 940 emergency ambulance calls in relation to POEs. As many as 252 fire calls were received on a single day, while emergency ambulance calls tallied 148. Despite the deployment plans the department put in place to address the POEs, the provision of the FSD's emergency services was significantly hampered by the road blockages, with some of them staged in a flash-mob style, across the territory during the POEs. In November 2019, a total of 440 fire calls and 7 539 emergency ambulance calls failed to be handled within the graded/target response time. There were even instances where only 52.7 per cent of fire calls and 77.2 per cent of emergency ambulance calls met the performance target, which was far from satisfactory.

In view of the POEs staged in various districts, the department conducted multi-faceted risk assessments and formulated contingency plans:

- * early deployments were made, so that fire appliances, ambulances and additional manpower would be deployed to stand by at strategic locations;
- * a Headquarters Command Co-ordination and Support Centre was set up to co-ordinate relevant arrangements;
- * a number of Forward Command Posts and Ambulance Operation Support Bases were established in frontline districts to maintain close liaison with the FSCC for real-time monitoring; and
- * the department took the initiative to deploy frontline members to scenes of incidents where fire and ambulance services would be needed, so as to provide members of the public with the most suitable emergency services in the shortest possible time.

As hazardous materials were found to be used by protesters in large-scale POEs, such as setting fires with petrol bombs and throwing corrosive fluid, the department began to collaborate with the Police in their operational deployment by dispatching fire appliances to render support to frontline police officers. The main duty was to offer assistance to people who had been exposed to hazardous materials, including members of the public, police officers, reporters and protesters, by administering quick on-site decontamination measures to minimise the harm caused by hazardous materials. In such cases, fire personnel would also be well positioned to exercise on-site professional judgement and command and conduct firefighting and rescue operations in the event of a fire or other emergency.

In response to the abusive use of dangerous goods by people in POEs, the department stepped up inspections of premises selling petrol and dangerous goods, such as petrol filling stations, shops selling metal wares and those selling chemical materials, to check whether there were any breaches of the Dangerous Goods Ordinance such as over-storage of dangerous goods. In 2019, about 61 litres of suspected Category 3 dangerous goods (corrosive substances), about 83 litres of suspected Category 4 dangerous goods (poisonous substances) and about 940 litres of suspected Category 5 dangerous goods (including petrol) were seized.

Emergency preparedness education

In 2019, the FSD continued to strengthen emergency preparedness education and promotional work, such as:

- * continuing with the Fire Safety Ambassador Scheme and the Building Fire Safety Envoy Scheme;
- * making vigorous efforts to promote the Cardiopulmonary Resuscitation Training Programme in Campus in 2019, and extending it further to primary schools in September to educate students on the subject of cardiac arrest and its first aid treatment at an early age;
- * stepping up publicity of the "Press to shock – Save a life" Automated

External Defibrillator Course by way of online video to promote the relevant message (over 15 280 members of the public participated in the course in 2019);

* setting up the Community Emergency Preparedness Education Centre at the Fire and Ambulance Services Education Centre cum Museum to engage members of the public using advanced equipment for interactive activities such as virtual reality games and CPR performance experiences as a means to heighten their awareness of emergency preparedness;

* putting together a booklet entitled "Safety Tips for Travellers" in October to ramp up Hong Kong people's response capabilities in different circumstances by highlighting contingency measures for natural disasters and emergencies such as extreme weather conditions and terrorist attacks as well as situations which are less likely to occur in Hong Kong;

* establishing the Ethnic Minority Youth Development Team to intensify promotional efforts aimed at encouraging members of ethnic minorities to join the FSD;

* continuing to recruit Building Fire Safety Envoys in areas with a higher ratio of ethnic minority people in the hope that they could help disseminate fire safety messages in their communities (as at end of 2019, a total of 778 members of ethnic minorities were recruited as Building Fire Safety Envoys across the territory); and

* working with ethnic minority organisations to hold career talks at schools with a relatively high enrolment of ethnic minority students to help students who are interested in joining the department to prepare for recruitment.

Other major initiatives

Regarding firefighting and rescue facilities, the Heung Yuen Wai Fire Station commenced operation on September 30, 2019. This put the department in a position where it can provide efficient emergency services at the Heung Yuen Wai Boundary Control Point.

As in the past, the department continued to implement the Risk-based Building Fire Safety Visit Programme in 2019. Under the programme, buildings are inspected on a frequency contingent on their level of risk, with those of a high risk being subject to inspection once or twice a year. The aim is to identify fire hazards in the public areas inside buildings and enable frontline personnel to grasp more precisely the conditions of the buildings in their respective districts, so as to better prepare for firefighting and rescue operations. Since September 2019 the programme had been rolled out to all fire stations, meaning that all buildings in Hong Kong are subject to inspections.

Plans for the year ahead

1) Recruitment

* In 2019, the department recruited a total of 551 fire and ambulance personnel, including 73 officers and 478 rank-and-file staff;

* due to recruitment difficulties for the Station Officer grade, the department will continue the year-round recruitment exercises for filling vacancies with suitable candidates in a timely manner with a view to ensuring that the services are not adversely affected; and

* the FSD will continue to recruit different grades of staff in 2020. It is estimated that some 860 fire and ambulance personnel, including 165 officers and 695 rank-and-file staff, will be recruited to fill vacancies in 2020.

2) Fourth Generation Mobilising System (4GMS)

* The tender for the development of the department's 4GMS was awarded in August 2019 and the 48-month-long design and development project is well underway;

* upon the completion of the system, the FSD will have two active communications centres to ensure uninterrupted mobilisation of resources; and

* the new system, which is scheduled to be commissioned in 2023, can enhance mobilisation efficiency and make it possible for the department to have a better grasp of the actual situation at the incident scene.

3) Actively exploring ways to use new technologies to enhance the provision of emergency services and strengthen the regulatory control of fire service installations

* As regards emergency services, the department has collaborated with the Hospital Authority to introduce the 12-Lead Electrocardiogram Monitor, an advanced life-supporting piece of equipment which is deployed to optimise first aid and treatment procedures for patients with suspected myocardial infarction;

* the FSD will procure modern firefighting robots to enhance the safety and efficiency of the frontline staff in firefighting and rescue operations;

* the department will continue the collaboration with research institutions to actively explore ways to enhance the efficiency and safety level of the emergency services with the aid of technologies;

* in order to strengthen the regulatory control of fire service installations, the FSD has been communicating particularly with the FSI trade and encourages the adoption of intelligent technologies on fire service installations; and

* to ensure the sustainable development of emergency ambulance services and paramedical service, the FSD is conducting an overall review of the paramedic training mechanism. In collaboration with the Hospital Authority,

professional medical bodies and academic institutions, the department aims to develop a sustainable paramedic training mechanism which can cope better with the needs of Hong Kong.

Conclusion

Over the year 2019, FSD members dedicated themselves wholeheartedly to fulfilling the mission of "Serving with courage, passion and commitment". Thanks to their sustained efforts to uphold professionalism and pursue excellence in firefighting and rescue, fire protection and regulatory work, ambulance service, emergency preparedness education and promotion, as well as mobilising and communications, the department succeeded in overcoming all forms of difficulties, while maintaining the delivery of quality and efficient services.

Looking ahead, the work of the department will remain heavy and arduous in 2020, especially as the social disturbances have yet to be fully settled and the highly contagious COVID-19 virus continues to threaten Hong Kong, putting fire and ambulance streams personnel under immense pressure as they have been standing at the forefront in fighting the virus. As a professional fire and ambulance brigade which has served and safeguarded Hong Kong in a selfless and undaunted manner for more than a century and a half, all members in the department will stand united, remain committed to their duties and keep up the efforts to fulfil the prime mission of "Serving with courage, passion and commitment".