

Fire Services Department's 2020 Year-end Review

The following is the 2020 Year-end Review issued by the Fire Services Department today (March 10):

Preamble

In 2020, Hong Kong was confronted with waves of the COVID-19 epidemic as the virus raged worldwide. In spite of the sudden COVID-19 outbreak, all members of the Fire Services Department (FSD) remained committed to professionalism and steadfast in providing highly effective emergency services to the public. They also assisted the Government in implementing quarantine measures and managed to make significant progress in a number of projects, living up to the expectations and trust of the community.

Firefighting and rescue services

1) Fire calls

In 2020, the FSD received a total of 33,632 fire calls, representing a decrease of 10.6 per cent as against 2019. The number of No. 3 or above alarm fires was four, a decrease of three cases as against 2019.

During the year under review, there were a total of 28,752 building fire calls, representing a decrease of 8.7 per cent as against 2019. Among these building fire calls, 94.8 per cent were responded to within the graded response time, which was about 2.3 percentage points higher than the FSD's performance pledge of 92.5 per cent. Among the more notable cases was a No. 1 alarm fire on Canton Road, Yau Ma Tei, in November which involved a number of deaths. The department subsequently formed a dedicated team to investigate the causes of the fire and the multiple casualties resulting from the incident.

2) Special service calls

As regards special service calls, a total of 32,358 calls were received in 2020, representing a decrease of 8.3 per cent as against 2019. Among the more notable cases was an accident in June at the Environmental Protection Department's Chemical Waste Treatment Centre in Tsing Yi involving the collapse of a working platform inside a 25-metre-high incinerator. The FSD personnel had to brave the narrow ruins to rescue all the trapped persons.

Fire protection regulatory work

In 2020, the FSD continued to achieve substantial progress in various areas of fire safety regulatory work. With the ongoing efforts put in over the years, the Fire Safety (Industrial Buildings) Ordinance (Cap. 636), intended to lower the fire risks of old industrial buildings, was passed in

mid-2020. Subject to this Ordinance, industrial buildings constructed before 1987 are required to carry out fire safety improvement works.

The Fire Safety Improvement Works Subsidy Scheme launched by the Government along with the Urban Renewal Authority to improve the fire safety of old composite buildings has been well received by the public. In view of this, the Government made an additional allocation of \$3.5 billion to the scheme in 2020, bringing the total provision to \$5.5 billion. With that provision, it is reckoned that the scheme will benefit all target composite buildings in need of financial assistance under the Fire Safety (Buildings) Ordinance.

During the year under review, legislative amendments were successfully made to the subsidiary regulations of the Dangerous Goods Ordinance. The amendments are mainly related to, among others, the classification, packing, labelling and exempt quantities of dangerous goods, as well as the regulations and penalties governing dangerous goods in consumer packs. The amendments to the regulations were passed by the Panel on Security of the Legislative Council in November 2020, and the FSD will proceed with the remaining legislative procedures. In the years to come, it is expected that the local regulatory regime on dangerous goods will be brought in line with international standards, such as the International Maritime Dangerous Goods Code, and the pertinent regulatory measures will be further optimised which will benefit the industry and the public.

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 in 2020, such as:

*~€€The acceptance inspection of fire service installations and equipment (FSIs) in the 5.5 kilometre-long Tuen Mun-Chek Lap Kok Tunnel was completed in October 2020;

*~€€The Airport Expansion Project Division completed the acceptance inspection of FSIs in the new underground Automated People Mover System Depot of Hong Kong International Airport, and is processing the outstanding building plans and performance-based designs under the three-runway system project; and

*~€€To keep pace with the rapid development of the railway network in Hong Kong, the Railway Development Strategy Division is making strenuous efforts to vet the FSI plans of the Shatin to Central Link (Hung Hom to Admiralty Section) and to conduct the pertinent acceptance inspection.

In a bid to ensure fire safety and enhance the efficiency in fire protection regulatory work, the FSD made sustained efforts to optimise and fine-tune the related work arrangements and procedures, including:

*~€€Introducing newly revised application procedures for inspection and testing of FSIs in new buildings, in which the respective areas of professional responsibility for authorised persons, registered professional

engineers and registered fire service installation contractors in acceptance inspections were duly specified, and this will be conducive to improve the efficiency of FSI acceptance inspections and the trade's compliance rate with relevant requirements;

* Fine-tuning the existing acceptance inspection process to enable social distancing with the introduction of, among others, phone-based "pre-inspection meetings" and strict control over the number of people to be present during an on-site acceptance inspection, in light of the Government's anti-epidemic strategy; and

* Keeping in touch with the trade by organising real-time webinars for them amid the epidemic to improve their understanding of relevant technical requirements and procedures so as to ensure the quality of their work.

A summary of the FSD's fire safety inspections and law enforcement actions in 2020 is tabulated as follows:

Fire safety inspections	370,455 (among them, a total of 210,036 inspections of FSIs in buildings were conducted to ensure their proper maintenance)
Fire Hazard Abatement Notices issued	6,141
Prosecutions	808

Regarding the control of dangerous goods, the work of the FSD's Anti-illicit Fuelling Activities Task Force in 2020 is summarised in the table below:

Inspections	879
Surprise operations	102
Complaints handled	214
Illicit fuel seized	235,272 litres
Prosecutions	81

The FSD has further stepped up its combatting of illegal storage and conveyance of dangerous goods. In 2020, the Dangerous Goods Enforcement Team (DGET) carried out a total of 1,042 inspections against sites with higher risks of non-compliance (including car repair workshops, metal ware shops and those selling chemical materials, etc) and 23 joint operations with the Police and tunnel operators to intercept suspicious vehicles (14 cases involving illegal storage or conveyance of dangerous goods, and over 2,580 litres of flammable liquids (Category 5 dangerous goods) and over 50 litres of corrosive substances (Category 3 dangerous goods) were seized in the

operations, and prosecutions were instituted against the concerned persons). The Fire Protection Task Force and DGET will continue to protect public lives and property by adopting a two-pronged approach to strengthen enforcement.

Ambulance service

The raging pandemic has put frontline ambulance personnel at greater risk, but this has not affected their quality service and efficiency. The total number of ambulance calls received last year reached 689,788, representing a decrease of 16.1 per cent as against 2019. Of them, 640,236 were emergency calls, representing a decrease of 16.5 per cent as against 2019. Among the emergency calls, 94.1 per cent were responded to within the target response time of 12 minutes, which was 1.6 percentage points higher than the FSD's performance pledge of 92.5 per cent.

The FSD's ambulance service, advancing with the times, has now developed into a paramedical profession. To promote the continuous professional development of paramedic ambulance service and develop a locally-based certification scheme for relevant training, the department established the Paramedic Development and Accreditation Advisory Committee in 2020, which is responsible for mapping out the direction of this endeavour. Meanwhile, the department has also provided frontline personnel with greater support by way of strengthening the manpower for the Rapid Response Vehicles and the Special Support Unit in view of the continuous growth in public demand for ambulance service over the past few years.

Post-dispatch advice service

To optimise the emergency ambulance service, the FSD introduced a system for the provision of post-dispatch advice (PDA) in October 2018, in which personnel of the Fire Services Communications Centre could provide callers with appropriate first-aid advice applicable for various 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 condition. The enhanced service covers 32 types of injuries and sicknesses. Currently, the Mobilising and Communications Group provides PDA for an average of more than 1,300 calls each day, and the results are more than satisfactory in view of the large number of successful life-saving cases.

Anti-epidemic efforts

During the year under review, the frontline personnel of the FSD stood at the forefront of the fight against the epidemic, doing their utmost to tender pre-hospital care to patients and assist in conveying them. Meanwhile, the Infectious Disease Monitoring Task Force (IDMTF) of the FSD was also on full alert. Over the past year, the IDMTF maintained close communication with the Department of Health (DH)'s Centre for Health Protection (CHP) and the Hospital Authority (HA) and provided updates of the epidemic situation promptly, while monitoring the availability of protective equipment for frontline personnel and their handling of infection cases.

In 2020, the department handled a total of 7,557 calls of confirmed COVID-19 cases, with the involvement of 2,652 ambulance personnel and 37 fire personnel. Of these involved members, 205 had handled infected patients and were subsequently arranged for examination and testing. Among them, three ambulance personnel had been infected and they recovered after hospitalisation. Furthermore, a total of 80 personnel completed the compulsory quarantine at quarantine centres after handling infected patients.

In the face of the once-in-a-century pandemic, members from other units of the FSD, like their frontline colleagues, also remained steadfast in meeting the many challenges posed by the disease. They formulated contingency plans and anti-epidemic measures in a timely manner, assisted the Government in implementing quarantine arrangements, and even took their own time to venture into areas of work falling outside their normal call of duty to help the Government curb the local COVID-19 outbreak. Details are as follows:

*ã€€To provide fire and ambulance personnel with adequate and proper personal protective equipment (PPE), the department spared no effort in procuring appropriate PPE from various sources in the early days of the outbreak when epidemic prevention supplies available on the market were in short supply, and at the same time closely monitored the quality of the PPE and ensured its stable supply;

*ã€€To provide enhanced health protection to department members, disinfection facilities were installed in both Tung Chung and Penny's Bay fire stations-cum-ambulance depots. The same will be done in other FSD premises where necessary;

*ã€€To assist the Government in implementing quarantine arrangements swiftly, the FSD formulated fire safety requirements for the Government's quarantine centres and the North Lantau Hospital Hong Kong Infection Control Centre, and approved and inspected fire safety provisions therein to enable the commissioning of these quarantine and medical facilities within an extremely short span of time;

*ã€€To ensure fire safety of newly-built quarantine facilities, Rapid Response Teams were set up and placed on standby around the clock at the facilities to provide firefighting and rescue services, while conducting regular inspections of public areas in the facilities to ensure their compliance with fire safety regulations;

*ã€€In the early days of the epidemic outbreak, about 70 volunteers from the department assisted in moving and assembling furniture in Chun Yeung Estate in Fo Tan to help in turning the housing compound into a temporary quarantine centre;

*ã€€Since February 15, 2020, about 60 serving members of the department have assisted the DH in paying visits to people subject to compulsory quarantine at home;

*ã€€On July 20, 2020, one Senior Ambulance Officer and four Ambulance Officers were seconded to the DH to assist in the operation of the Home Quarantine Taskforce of the CHP;

*ã€€In September 2020, the department despatched more than 1,500 off-duty/retired fire and ambulance personnel to serve as officers-in-charge or samplers in COVID-19 testing centres. They were on duty at more than 100 community testing centres across the territory to assist the Government in launching the Universal Community Testing Programme; and

*ã€€The department deployed 12 serving members to the Contact Tracing Office at Kai Tak Community Hall to assist in arranging confirmed patients and their close contacts with symptoms to be promptly conveyed to hospital so as to break the chains of transmission.

Emergency preparedness education and promotion

In order to reduce social contact during the outbreak of COVID-19, the FSD has made special arrangements for its public education and publicity activities by making greater use of online platforms and social media such as Facebook. This enables the department to continue its efforts in public education and disseminate information regarding fire safety, emergency preparedness as well as epidemic prevention to different age and community groups, in an attempt to strengthen the public's emergency response capability.

The FSD attaches great importance to the promotion of fire prevention to ethnic minority communities and strives to provide them with support. Relevant measures include:

*ã€€Establishing the Ethnic Minority Youth Development Team in 2019 to intensify promotional efforts aimed at encouraging young members of ethnic minorities to join the FSD. The department has employed a total of seven non-ethnic Chinese. Among them, six were appointed as Station Officer and Fireman, and one as Ambulanceman;

*ã€€Stepping up promotion of fire safety to ethnic minority communities. Hitherto three members from non-ethnic Chinese groups, who are able to communicate in South Asian languages, have been recruited as Contract Community Programme Assistants to promote fire prevention knowledge; and

*ã€€Recruiting Building Fire Safety Envoys, on an on-going basis, in areas with a higher ratio of ethnic minority population in the hope of enlisting their help to disseminate fire safety messages to ethnic minority communities (as at end of 2020, a total of 783 members of ethnic minorities have been recruited as Building Fire Safety Envoys across the territory).

â€œIn view of the No. 1 alarm fire in Yau Ma Tei in November 2020, which resulted in multiple casualties from ethnic minorities, the FSD will further enhance the promotion of fire safety among the ethnic minority groups. The department will make sustained efforts to reach out to local ethnic

minorities and relevant organisations to foster closer communications with them and provide them with fire safety education, while taking into account their religious and cultural customs as well as their activity venues. In addition, the department will employ more ethnic minorities so that fire safety messages can be brought to their communities more effectively. Subsequent to the foregoing fire, the department set up a dedicated team to investigate into the causes of the fire and swiftly embarked on a special operation in conjunction with the Buildings Department to complete the inspection of over 2,000 domestic or composite buildings of comparable age to the subject building in the fire incident (built in or before 1960 or aged 60 or above) by the end of 2020. The department paid special attention to the buildings' common means of escape and FSIs to see if there were any fire hazards and took enforcement actions against irregularities, where necessary.

Other major initiatives

1) Firefighting and rescue facilities

*ã€€The Tuen Mun Fireboat Station, which is being relocated due to the construction of the Tuen Mun – Chek Lap Kok Link, is scheduled to be commissioned in 2021.

*ã€€The construction of fire services facilities for the three-runway system of Hong Kong International Airport, including three fire stations and associated facilities, commenced in the third quarter of 2019. The facilities will be commissioned in phases from 2022 to 2024 to tie in with the works schedule of the three-runway system.

*ã€€The Fire Station cum Ambulance Depot, which is being established to support the future development of Lok Ma Chau Loop, is scheduled to be commissioned in the fourth quarter of 2024.

2) Procurement of fireboat

*ã€€The newly procured Fireboat No. 7 was put into commission on October 15, 2020. The fireboat is capable of handling chemical, biological, radiological and nuclear (CBRN) incidents; it is the world's first civil ship with protection against CBRN risk certified by ship classification society. The fireboat has special detectors and monitors for analysing unknown CBRN agents, as well as sophisticated decontamination facilities for conducting on-site decontamination procedures.

*ã€€The department is also in the process of procuring a fast rescue vessel and a fireboat to enhance rescue efficiency in the eastern waters of Hong Kong. The deliveries of the new fast rescue vessel and fireboat are scheduled for the fourth quarter of 2021 and the third quarter of 2022 respectively.

3) Unmanned Aircraft System Team

*ã€€Established in 2017, the Unmanned Aircraft System Team is equipped with six unmanned aircraft systems. Five members of the team are operators of unmanned aircraft systems with qualifications recognised by the Civil

Aviation Department.

*ã€€The team was turned out on 11 occasions in 2020 to support frontline personnel in operational incidents, such as conducting extensive aerial searches in mountain rescue incidents to enable safer and more efficient running of rescue operations.

*ã€€Unmanned aircraft systems can be used for carrying out aerial inspections on the periphery of major fire or incident scenes to assist incident commander in conducting risk assessments and formulating firefighting or rescue strategies on the spot.

4) Firefighter Locator System

*ã€€The FSD has adopted the Firefighter Locator System for use on a full scale since October 2020. This new Personal Alert Safety System, consisting of two major items, namely, a Personal Transmitter (PT) and Handheld Receiver (HR), can enhance frontline fire personnel's safety at work and their operational efficiency at the fire ground.

*ã€€The new PT is different from the one previously used by the department. Once a frontline fire personnel actuates his PT manually to seek help or the PT remains motionless exceeding a specific time, the device will trigger an audible alarm and flash, and also transmit radio signals receivable by the HR, thus effectively guiding rescuers to locate the person in distress.

5) Expansion of the Pre-hospital 12-lead Electrocardiogram Scheme

*ã€€To enhance the survival rate of patients with suspected myocardial infarction, the FSD has been working with the HA since 2015 to introduce the Pre-hospital 12-lead Electrocardiogram Pilot Scheme. Under the scheme, ambulance personnel bring forward the procedures for assessing a patient's condition with the use of a defibrillator monitor in the ambulance, which could only be done in a hospital previously. The information is then sent to hospital healthcare workers for early preparation, if and when necessary, for an urgent percutaneous coronary intervention as soon as possible.

*ã€€In view of the desirable results of the current pilot scheme on Hong Kong Island, the department and the HA have decided to continue their co-operation. Defibrillator monitors have been installed in all ambulances so that the scheme could be expanded to cover the entire territory on February 1, 2021.

Plans for the year ahead

1) Prevention against the epidemic

* To make a joint effort to safeguard public health, the FSD will keep a vigilant watch over the COVID-19 epidemic, implement appropriate response measures, maintain close liaison with the HA and the CHP, and do its utmost to assist the Government in fighting the disease.

2) Actively exploring the use of new technologies to enhance the provision of emergency services

* On the ambulance service front, the FSD is planning to introduce the Implementation of Logistics Solution of Dangerous Drugs to enable effective monitoring of the stock level and expiry date of its dangerous drugs. Authorised ambulance personnel can access relevant information at any time, with which they can provide appropriate emergency treatment for patients more effectively.

* The department also plans to procure "firefighting robots" to assist fire personnel in prolonged firefighting and detection operations on complex and high-risk fire grounds, with the aim of reducing the risks faced by frontline personnel. In addition, with the aid of the firefighting robots, real-time images of the incident scenes can be transmitted to the command post for assessment and formulation of firefighting strategy.

3) AED anywhere for anyone

* The FSD plans to install more than 100 automated external defibrillators (AEDs) outside the fire stations and ambulance depots across the territory for public access during emergencies.

* One-stop support services will be provided to organisations which are interested in installing/have installed AEDs to facilitate proper installation of AEDs and effective public access to the device during emergencies.

* A centralised AED registry will be rolled out to provide a convenient means for the public to find out which nearby government departments, private organisations or public utility companies are equipped with AEDs during emergencies.

4) Fourth Generation Mobilising System (4GMS)

* As regards the 4GMS, a 48-month-long design and development project of the department launched in August 2019, the design works are scheduled for completion in the first quarter of 2021.

* The 4GMS is scheduled to be commissioned in 2023.

5) Recruitment

* In 2020, the FSD recruited a total of 445 fire and ambulance personnel, including 81 officers and 364 rank-and-file staff.

* Due to persistent 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 its services are not adversely affected.

*ã€€It is estimated that some 927 fire and ambulance personnel, including 131 officers and 796 rank-and-file staff, will be recruited in 2021.

Conclusion

Over the year 2020, FSD personnel have remained steadfast in carrying out their duties as driven by their strong sense of commitment and the belief that it is a privilege to fulfil the mission of "Serving with courage, passion and commitment". It is anticipated that the epidemic situation will remain volatile in 2021. The FSD will have regard to the evolving situation and the response strategies of the Government and continue to make all-out efforts to support anti-epidemic work. In the days to come, the department will also strive to put forward various plans and vigorously explore new development initiatives on different service fronts to ensure that the department is moving forward in pace with the development of Hong Kong.