For discussion
on 4 July 2017

Legislative Council Panel on Security
Inshore and mountain search and rescue service of the Government Flying Service

Purpose

This paper aims to brief Members on the inshore and mountain search and rescue ("SAR") service of the Government Flying Service ("GFS") and the way forward for its development.

Background

2. GFS was established under the Government Flying Service Ordinance (Cap. 322) in 1993 to provide a wide range of flying services, including SAR, air ambulance, fire fighting, aerial survey and support for law enforcement, for various departments of the Government and people in need.

3. GFS conducts two types of SAR operations, namely inshore and long range SAR operations. Inshore SAR refers to missions carried out within the waters and mountains in Hong Kong (see **Annex I**), while long range SAR refers to missions carried out within the Hong Kong Maritime Search and Rescue Region (see **Annex II**).

Inshore SAR

Mode of fleet operation

4. GFS [1] currently operates seven helicopters, including three large-sized Super Puma helicopters and four medium-sized EC 155 helicopters. The Super Puma helicopter is the major helicopter type deployed for long range and inshore SAR missions, while the EC 155 helicopters are primarily deployed for air ambulance missions but can also be deployed for SAR missions if necessary.

[1] The four fixed wing aircrafts of GFS, including two Challenger 605 fixed wing aircrafts, are mainly deployed for carrying out missions such as long range SAR operation, aerial survey, collection of data on turbulences and tropical cyclones, and conducting training.

5. Inshore SAR missions can broadly be categorized into mountain and maritime rescue missions. SAR call-outs mainly come from the Fire Services Communications Centre of the Fire Services Department, the Hong Kong Maritime Rescue Coordination Centre of the Marine Department and the Headquarters Command and Control Centre of the Hong Kong Police Force. Upon receipt of a call-out, GFS will normally deploy a Super Puma helicopter to search at the scene of the incident. Depending on the circumstances, search missions may last for dozens of minutes to several hours. During the process, GFS will maintain close contact with the ground rescue staff. Once the location of the rescue target is identified, GFS will inform the ground rescue staff immediately to render assistance to the person in distress, such as providing preliminary medical treatment or, if condition allows, escorting the person in distress to a location where the GFS helicopter can safely land on and effect evacuation. If the ground rescue staff cannot reach the location of the person in distress, or if it is not suitable to move him/her, GFS will try to perform direct aerial rescue to minimize the risk exposed to the person in distress as far as possible.

6. In major incidents involving several rescue units, GFS helicopters may be deployed to the scene of the incident to provide aerial reconnaissance, rescue and other support, and to assist with the command and coordination. Examples include the severe hill fires happened at Penny's Bay in Lantau Island and Shui Chuen O in Sha Tin in December 2013 and January 2017 respectively.

Crew members

7. Every GFS helicopter on a call-out is normally manned by two pilots and at least two air crewman officers ("ACMOs"). The major duties of ACMOs include preparing the necessary equipment and tools and checking their readiness before each flight, assisting the pilots in various aspects of a flying mission, conducting searches visually or with auxiliary equipment and locating the persons in distress, operating rescue hoist and performing winchman duties, being winched down to rescue the persons in distress, etc. ACMOs will also perform first aid on the injured at the scene to stabilise their condition. Currently, 29 helicopter pilots[2] and 30 ACMOs[3] in GFS are qualified to perform inshore SAR missions. All these ACMOs receive regular training on pre-hospital medical care and other related fields.

[2] Including 5 non-civil service contract pilots.
[3] Including 2 non-civil service contract ACMO instructors.

8. In addition, 29 full-time doctors and 27 nurses from public hospitals who are highly experienced in accident and emergency medical care have been appointed as Air Medical Officers and Air Medical Nursing Officers in accordance with the Government Flying Service Ordinance (Cap. 322) under the "Air Medical Officer Programme"[4] jointly organised by GFS, the Hospital Authority and the Hong Kong College of Emergency Medicine after completing a course which covers in-flight medical training, helicopter safety training and emergency procedures. These aero medical and nursing officers are qualified and experienced in providing in-flight medical services and capable of providing on-scene medical treatment to the injured, as well as deliver pre-hospital life support during the transit to hospital. They will normally be on duty from Friday to Monday and on public holidays (i.e. the peak period for inshore SAR call-outs) to provide support for GFS's air ambulance and SAR missions.

Deployment situation

9. Between 2012 and 2016, the number of flying hours, call-outs and injured persons rescued by GFS concerning inshore SAR missions have all shown an increasing trend. The number of call-outs for inshore SAR missions has increased by 26.5% from 465 cases in 2012 to 588 cases in 2016. The number of flying hours for SAR missions has increased by 18% from 592 hours in 2012 to 699 hours in 2016. The number of injured persons rescued has increased by 13.1% from 421 to 476. Please see **Annex III** for details.

Way forward for development

10. When conducting rescue missions, GFS' primary consideration is flight safety, including the safety of crew members, the persons in distress, the SAR staff and members of the public in the vicinity. In carrying out inshore SAR missions, GFS often encounters challenges such as unstable weather conditions and precipitous terrain under which pilots will have to exercise great caution to maneuver the helicopter to a safe position and ACMOs will have to winch down to the mountains or sea surface to rescue those in need. For rescue missions at night, the conditions are even more dangerous. Therefore, GFS allocates substantial amount of

[4] The "Air Medical Officer Programme" was launched on 19 August 2000. The post titles of aero doctors and nurses are Air Medical Officers and Air Medical Nursing Officers respectively.

resources to provide regular professional training for both the pilots and ACMOs and to equip them with suitable mission and personal equipment so that the crew members, while ensuring their own safety in the first place, can respond to and handle any unexpected circumstances.

11. GFS is now procuring seven new medium-sized helicopters[5] to replace the existing helicopter fleet. It is expected that the new helicopters can be delivered by phases from 2018 to 2019. Upon the commissioning of the new fleet, the rescue capacity of GFS can be further enhanced.

Advice sought

12. Members are invited to note the content of this paper.

Security Bureau
Government Flying Service
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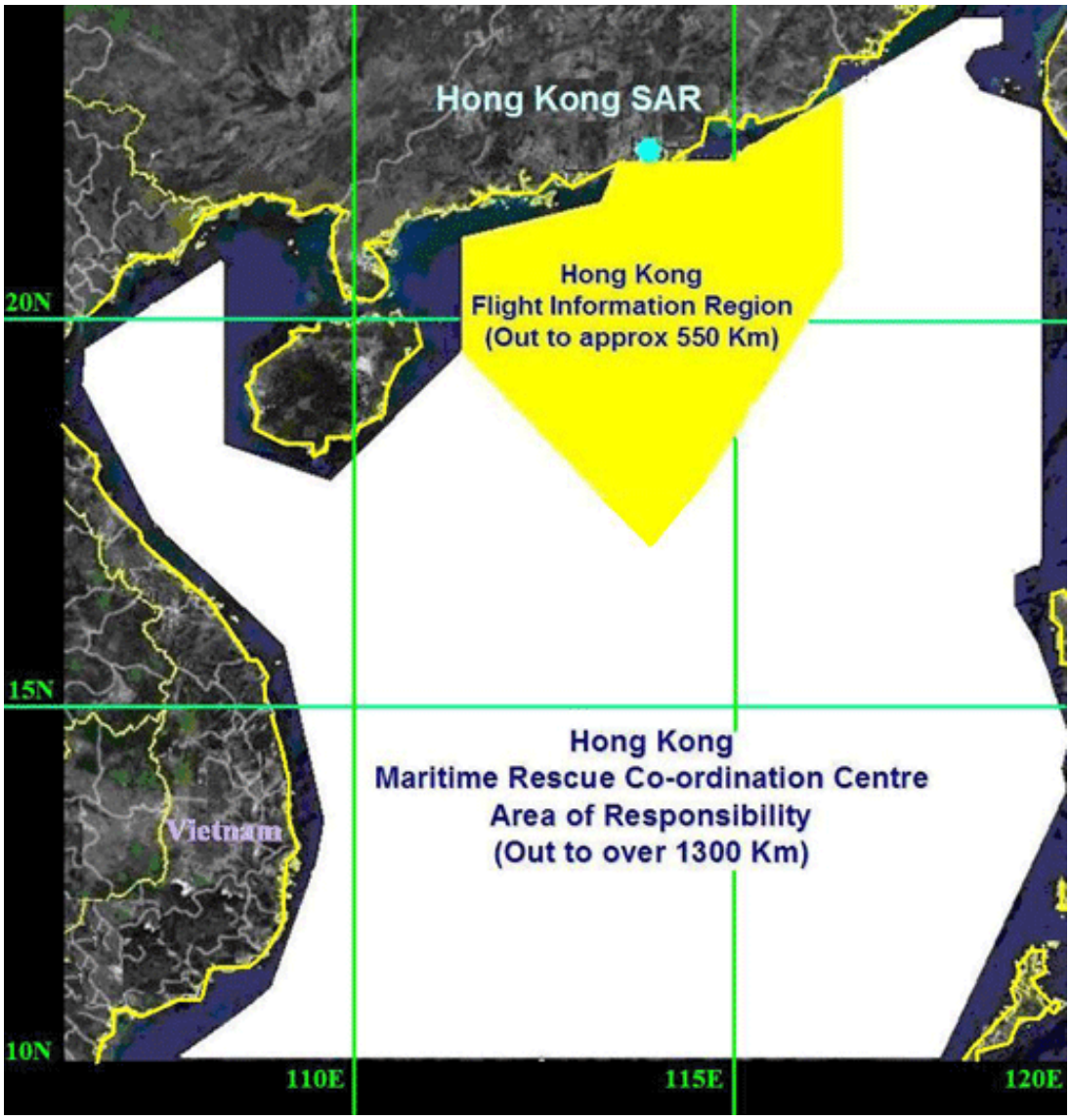
[5] The selected model is Airbus H175 Helicopters.

Annex I

Area covered by GFS inshore search and rescue

Annex II

Area covered by GFS long range search and rescue



Annex III

Statistics on inshore search and rescue carried out by GFS in 2012-2016
(Year-on-year percentage change)

	2012	**2013**	**2014**	**2015**	**2016**	**Percentage change between 2012 and 2016**
Flying hours	592	567 (-4.2%)	687 (+21.2%)	912 (+32.8%)	699 (-23.4%)	+18%
Number of call-outs	465	468 (0.6%)	535 (+14.3%)	677 (+26.5%)	588 (-13.1%)	+26.5%
Number of injured persons rescued	421	398 (-5.5%)	481 (+20.9%)	515 (+7.1%)	476 (-7.6%)	+13.1%