

ITEM FOR ESTABLISHMENT SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 166 – GOVERNMENT FLYING SERVICE Subhead 000 Operational expenses

Members are invited to recommend to Finance Committee the creation of the following permanent post in the Government Flying Service with immediate effect upon approval of the Finance Committee –

1 Chief Pilot
(GDS(C)1) (\$134,300 - \$147,100)

PROBLEM

The Government Flying Service (GFS) needs dedicated staffing support at the directorate level to head a new Safety Section for replacing the existing Quality and Flight Safety (Q&FS) Section, in order to steer and manage all safety-related initiatives in a comprehensive manner, and to enhance cross-section safety management matters within the department.

PROPOSAL

2. We propose to create a permanent Chief Pilot (CP) (GDS(C)1 or D1 equivalent) post with immediate effect upon approval of the Finance Committee for enhancing flight safety management and strengthening the overall management of the department.

/JUSTIFICATION

JUSTIFICATION

The self-regulatory role of the GFS

3. Upon the disbandment of the Royal Hong Kong Auxiliary Air Force on 1 April 1993, the status of the GFS changed from a military organisation to a civilian one. The GFS needs to conform to the operational standards and practices required of a commercial flying organisation and is subject to commercial licensing and regulatory requirements. Meanwhile, the GFS also has to perform paramilitary missions, including search and rescues, fire-fighting and support for law enforcement, which are often beyond the bounds of the civil aviation rules and regulations¹.

4. Given the specific operational requirements mentioned above, the GFS needs to obtain exemptions from certain civil aviation rules and regulations, and special permissions from the Hong Kong Civil Aviation Department (HKCAD) under the Air Navigation (Hong Kong) Order 1995 (AN(HK)O 1995)². To manage the risks involved in paramilitary missions³, it is vital for the GFS to develop specific rules and take up a self-regulatory role for accident prevention by instilling a broad-based safety culture, implementing appropriate risk management strategies as well as operating standards and procedures, and continuously reviewing the effectiveness of its safety management measures in an objective manner. At the same time, it is also necessary for the senior management of the GFS to proactively give instructions to frontline staff on safety issues of paramilitary missions in order to ensure that the GFS conducts such operations with the highest safety standards.

Changes in operating environment

5. The Director of Audit's Report No. 64 published in April 2015 pointed out that the overall flying services provided by the GFS in terms of flying hours had increased by 18% between 2010 and 2014 with all types of emergency services recording significant increases ranging from 9% to 65% –

/Type

¹ For example, the aircrew of the GFS are often required to conduct in-shore/mountain search and rescue as well as other paramilitary missions in confined areas which are, from time to time, surrounded by dense vegetation, tall trees, deep slopes or hills. The risks involved are much higher than those of a commercial flight.

² For example, special permissions are sought by the GFS for carriage of weapons and live firing from helicopters for law enforcement flights, and for carriage of water buckets for fire-fighting.

³ Including the regular and frequent training flights with law enforcement agencies for these purposes.

Type of Services	Number of flying hours					Percentage increased over the past 5 years
	2010	2011	2012	2013	2014	
Air ambulance	1 010	1 100	1 236	1 317	1 270	26%
Search and rescue	574	488	592	567	687	20%
Law enforcement	178	232	185	210	211	19%
Fire fighting	77	212	94	130	127	65%
Other services for bureaux and departments	1 414	1 586	1 537	1 580	1 538	9%
Overall	3 253	3 618	3 644	3 804	3 833	18%

6. Noting the increase in service demand, the Legislative Council Public Accounts Committee pointed out in its report published in July 2015 that the GFS was overstretching its resources to cope with the ever-increasing demand for flying services.

7. Arising from the substantial increase in overall flying hours, the existing Q&FS Section has not been able to fully implement new safety initiatives (see paragraph 10 below) and make continuous improvements to the existing measures given its limited resources.

8. Meanwhile, technological advancement has been changing the way the GFS operates. Arrangements are being made to replace the existing GFS aircraft in phases from late 2015 to 2018⁴ with new ones fitted with state-of-the-art systems and equipment to improve the standards of GFS' services. Since the new aircraft are more advanced and sophisticated than the existing aircraft, their airworthiness and safety management issues (such as reviews of the operating and maintenance manuals, analysis of flight data, as well as conducting more regular and complicated liaison with the HKCAD, the aircraft manufacturers and other aviation operators) will be more complicated. To ensure the smooth implementation of these new tasks, it is necessary to strengthen the leadership of the Q&FS Section at the senior level.

/Need

⁴ Funds were approved by the Legislative Council for the replacements of the two fixed-wing aircraft and the seven helicopters in the GFS, which had been in service since 1999 and 2002 respectively.

Need to align with international flight safety standards

9. Flight safety is always the first priority in the missions carried out by the GFS. All operations of the GFS are currently conducted in strict accordance with the relevant statutory requirements and international standards. In recent years, the trend of the international aviation industry is to regard flight safety as a key subject for research and development. Many leading flight organisations and institutions in the industry are taking a more pro-active approach in strengthening their data analyzing work, with a view to enhancing their safety management system for preventing accidents from happening, as well as ensuring that staff involved in maintenance, training, flight operations, and other different aspects of work, will have more standardised and comprehensive safety standards to follow.

10. To ensure that the GFS can align with the international requirements and standards for flight safety management, it is necessary for the department to put in more manpower resources to strengthen the relevant work. Upon the creation of the new CP post, it is expected that that the GFS can implement the following new safety management initiatives –

(a) *Implementing an integrated Safety Management System (SMS)*

To bring the local practice in line with the requirements imposed by the International Civil Aviation Organization (ICAO), the HKCAD amended the AN(HK)O 1995 in 2008 by adding a new article stipulating that all Hong Kong Air Operator Certificate Holders and Aircraft Maintenance Organizations (including the GFS) are required to implement a SMS⁵ with effect from 1 January 2009. To comply with this new statutory requirement, the GFS has deployed four officers (including one Senior Pilot, one Senior Aircraft Engineer and two Aircraft Engineers) for such work since 2008 and the Q&FS Section was formally set up in 2009 to oversee the implementation of the SMS.

However, due to the lack of a dedicated directorate leader, the existing Q&FS Section was only able to collate the SMS for the department's work in flying safety and quality assurance of engineering activities separately on the basis of the established safety regulations. The basic statutory requirements were met but the

/Q&FS

⁵ The SMS requires the development of a documented system that could: (a) identify safety hazards and manage associated risks; (b) ensure that remedial action necessary to maintain an acceptable level of safety is carried out; (c) provide for continuous monitoring and regular assessment of the safety level achieved; (d) aim to make continuous improvement to the overall level of safety; and (e) be appropriate to the size, nature and complexity of the activities concerned and the safety hazards and risks related to such activities.

Q&FS Section has not been able to integrate the safety regulations of these two areas and other aspects (including information technology security, occupational health, etc.) into a consolidated SMS applicable to the whole department, which is capable of providing the staff with consistent and comprehensive reference in terms of data and work objectives. To consolidate and implement the SMS more effectively, there is a strong need for the GFS to strengthen the Q&FS Section by establishing a new dedicated Safety Section under the leadership of a directorate staff who is well conversant with GFS' operation and the regulatory requirements of the industry, and answerable directly to the Controller, GFS.

(b) *Implementing a Flight Data Monitoring System (FDM)*

As technology advances, it is now possible to install additional devices on the aircraft to capture the data of every flying mission for onward transmission to the dedicated unit responsible for flight safety management for compilation and analysis after the operation. The data can help determine if the crew, aircraft systems or the aircraft have deviated from their normal operating conditions. The relevant initiative is also in line with the ICAO's working objective of encouraging all air operators to establish and maintain an operational FDM.

As the GFS offers a wide variety of services, and each flying mission bears different levels of complexities and risks, if a FDM is developed, it can use the data for investigating into different incidents, and analyzing the trend of various ad hoc situations. The information can provide a useful basis for the crew to make necessary modifications to their procedures and adjusting their behavior proactively, in order to prevent incidents from happening. Given that the establishment and future maintenance of a FDM for the GFS calls for very high standards of professional knowledge and flying experience, the dedicated Safety Section of the GFS should be led by a directorate officer.

(c) *Implementing a Fatigue Risk Management System*

The Legislative Council Public Accounts Committee's report published in July 2015 expressed concern about the number of the Commander Discretion Reports (CDRs)⁶ and recommended the GFS

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⁶ The GFS operates in accordance with civil aviation rules and regulations which require the setting of the maximum flying hours, maximum duty hours and minimum rest hours for pilots and air crewman officers in different shifts to ensure their safety and health in flight operations. Due to the complexity and dynamic nature of the operational responses, any need to extend the flying hours or duty hours, or to reduce rest time has to be recorded in a CDR.

to implement effective measures to provide the aircrew with a safer and healthier working environment. To follow up, the GFS has planned to develop a new evidence-based and data-driven system for monitoring the fatigue risk of the crew, and to review the measures, procedures and training in all safety aspects in order to strike a balance between meeting the increasing service commitments and keeping the fatigue risks of the crew under control. As the establishment and maintenance of this system is directly related to flight safety, it requires support by a Safety Section with high level leadership.

Strengthening the overall management of the GFS

11. Taking into account the rapid increase in service demand in recent years, the GFS has planned to increase its manpower in the coming two years. In view of the expected manpower expansion, the Controller, GFS will need to handle more human resource management work, including recruitment, training, and staff retention issues. Coupled with the on-going aircraft replacement programmes and other operational management issues, it would be difficult for the Controller, GFS to devote dedicated efforts to leading the Q&FS Section, as well as taking part in the direct supervision and coordination of the department's flight safety management work, in particular the new initiatives mentioned in paragraph 10 above.

12. Given the fast development of technology and flying skills in the aviation industry, the new flight safety requirements as well as rapidly changing operating environment in recent years, the existing supervision of the Q&FS Section by two non-directorate officers is unable to provide the required support to the department continuously and effectively. Considering the significance of safety management to the operation of the GFS, a directorate officer is needed to lead and direct the new Safety Section to assist the GFS in planning, devising, implementing, monitoring and reviewing all aviation safety matters comprehensively.

13. Furthermore, due to the increase in service demand for operations, training, maintenance, and other aspects of work, the workload of the three existing directorate officers in the department is extremely heavy. It is practically difficult for them to attend to new requirements relating to flight safety management or to review the operating procedures proactively.

14. In view of the above, we consider it essential to create the new CP post. The job description of the proposed CP post and the proposed

Encls. 1 & 2 organisation chart are at Enclosures 1 and 2 respectively.

/ALTERNATIVES

ALTERNATIVES CONSIDERED

15. We have critically examined other alternatives, but were unable to identify one which is operationally feasible having regard to the following –

- (a) the Controller, GFS and the other three existing directorate officers, namely the CP (Operations), CP (Training and Standards) and Chief Aircraft Engineer, have already been fully stretched with their own schedule of responsibilities (the job descriptions of the three existing directorate officers are at Enclosures 3(a) - 3(c) respectively); and
- (b) safety matters should be co-ordinated by a designated directorate officer independent from other operational areas, in order to effectively perform his/her internal safety auditor role and avoid possible conflict of interest.

Encls. 3(a) -
3(c)

16. The GFS has also considered the feasibility of creating a new Chief Aircraft Engineer post to lead the new Safety Section. However, since the new post holder needs to possess practical flying experience for reviewing the flight safety procedures of the Operations Section, and the Training and Standards Section, and that the staff in the Pilot grade also possess general basic knowledge on aircraft structure and maintenance, a new CP post is considered more appropriate.

FINANCIAL IMPLICATIONS

17. The proposed creation of a permanent CP post will bring about an additional notional annual salary cost at mid-point of \$1,663,200. The additional full annual average staff cost of the proposal including salaries and staff on-cost is \$2,313,000. We have included the necessary provision in the 2016-17 Estimates and will reflect the resources required in the Estimates of subsequent years.

PUBLIC CONSULTATION

18. We consulted the Legislative Council Panel on Security on the staffing proposal at its meeting on 5 January 2016. Members indicated in-principle support for the proposal and its submission to the Establishment Subcommittee.

/ESTABLISHMENT

ESTABLISHMENT CHANGES

19. The establishment change in the GFS for the past two years are as follows –

Establishment (Note)	Number of posts			
	Existing (as at 1 April 2016)	As at 1 April 2015	As at 1 April 2014	As at 1 April 2013
A	4 [#]	4	4	4
B	82	80	80	81
C	146	145	142	142
Total	232	229	226	227

Note:

A – ranks in the directorate pay scale or equivalent

B – non-directorate ranks, the maximum pay point of which is above MPS Point 33 or equivalent

C – non-directorate ranks, the maximum pay point of which is at or below MPS Point 33 or equivalent

– as at 1 April 2016, there was no unfilled directorate post in the GFS

CIVIL SERVICE BUREAU COMMENTS

20. The Civil Service Bureau supports the creation of the proposed permanent CP post. The grading and ranking of the proposed post are considered appropriate having regard to the level and scope of responsibilities and professional input required.

ADVICE OF THE STANDING COMMITTEE ON DISCIPLINED SERVICES SALARIES AND CONDITIONS OF SERVICE

21. The Standing Committee on Disciplined Services Salaries and Conditions of Service has advised that the grading proposed for the permanent directorate post is appropriate.

Security Bureau
May 2016

Proposed Job Description for the new Chief Pilot post

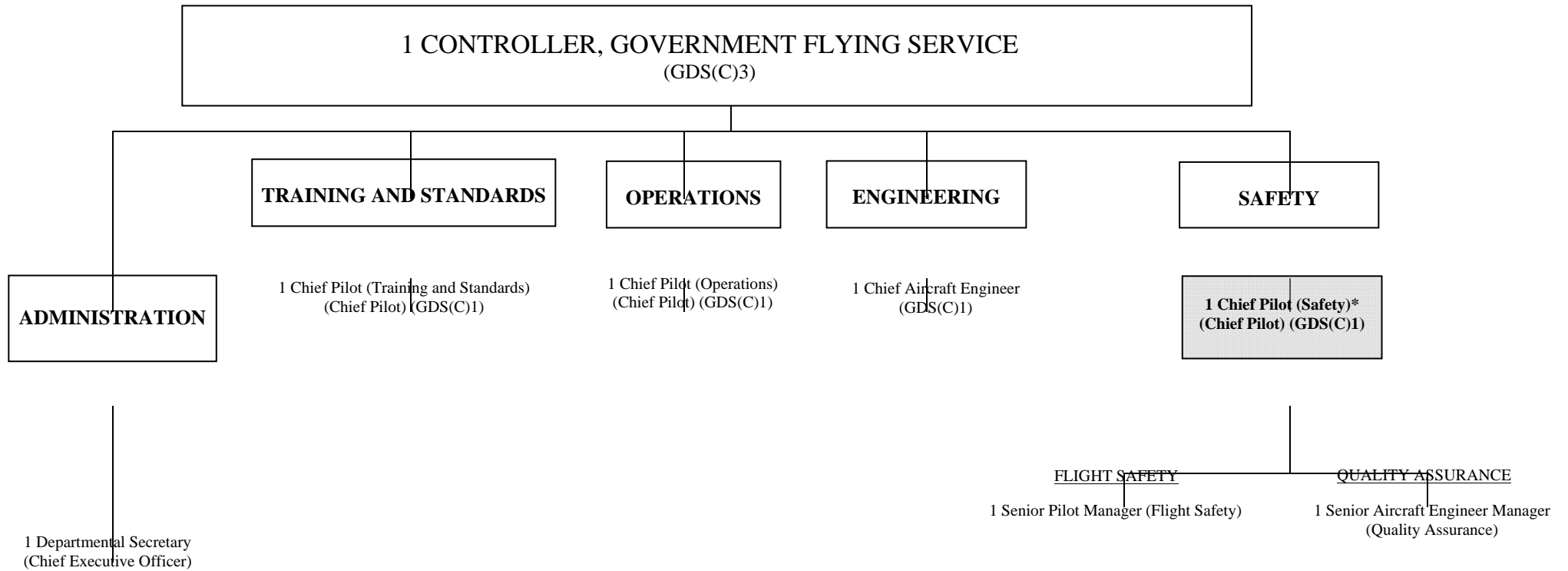
Rank : Chief Pilot (GDS(C)1)

Responsible to : Controller, Government Flying Service (GDS(C)3)

Main Duties and Responsibilities –

- (a) To be responsible for the planning, design, assessment and support of all safety matters in the Government Flying Service (GFS), as well as reviewing and mitigating all risks involved.
 - (b) To plan and supervise the safety-related aspects of in-house audit programmes/studies or those conducted by external organisations.
 - (c) To oversee and ensure the effective implementation and monitoring of appropriate safety initiatives and strategies; and to enhance the safety awareness and competence of the GFS staff.
 - (d) To devise, implement and monitor new safety-related initiatives in the GFS (e.g. a new flight data monitoring system for GFS aircraft, a holistic safety management system, a new fatigue risk management system for the GFS aircrew, etc.).
 - (e) To liaise with the relevant regulatory authorities (e.g. the Civil Aviation Department, the Labour Department, and other aviation organizations) in relation to regulatory, aviation and occupational safety matters as appropriate.
 - (f) To be the Chief Incident/Accident Inspector in the GFS and to report the subsequent findings and recommendations to the Controller, GFS and other government departments concerned as appropriate.
 - (g) To act as GFS Information Technology Security Officer and advise on related matters.
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Proposed Organization Chart of the Government Flying Service



* New directorate post proposed to be created

Job Description for Chief Pilot (Operations)

Rank : Chief Pilot (GDS(C)1)

Responsible to : Controller, Government Flying Service (GDS(C)3)

Main Duties and Responsibilities –

- (a) To be responsible for the overall management of all aspects of operational policy and regulations, and to ensure that all operations are conducted in a safe and effective manner and in compliance with the approved Flight Time Limitation scheme.
- (b) To oversee the operational performance and service delivery of the Government Flying Service (GFS), and to ensure the effective deployment of operational resources to meet all emergency services commitments and government task demands for the GFS.
- (c) To monitor all Search and Rescue and Law Enforcement operating standards and procedures, and to conduct regular review on the part of the GFS Operations Manual relating to flight operations.
- (d) To oversee the manpower planning, staff management and routine deployment arrangements of the Operations Section which includes all operational aircrew, i.e. both Helicopter and Fixed-wing Pilots, Air Crewman Officers as well as the Flight Operations Section; and the grade management of the Air Crewman Officer grade in the GFS.
- (e) To oversee all major projects relating to the flight operations of the GFS, and to liaise with and provide technical/expert advice to government bureaux/departments and various organization and third parties in relation to various government infrastructure projects, which involves/affects the integrity the GFS flight operations.
- (f) To act as a helicopter examiner and training captain, and to perform instructional flights, licence/role proficiency checks and maintenance test flights as required.
- (g) To perform operational line flying as required.

Job Description for Chief Pilot (Training and Standards)

Rank : Chief Pilot (GDS(C)1)

Responsible to : Controller, Government Flying Service (GDS(C)3)

Main Duties and Responsibilities –

- (a) To be responsible for the overall management and planning of all aspects of flying and simulator training for the Government Flying Service (GFS) Pilots and Air Crewman Officers, and to ensure the high standards of competence, operational efficiency and standardisation of the GFS aircrew.
- (b) To organise, control and monitor all mandatory and GFS-required flight checks as well as all related documentation.
- (c) To oversee all the conversion training and Mandatory Continuous Training requirements, and to coordinate and supervise all GFS training captains.
- (d) To oversee the staff management of the Training and Standards Division, and the grade management of GFS pilots.
- (e) To conduct constant review on the part of the GFS Operations Manual relating to flight training and standards.
- (f) To act as a helicopter examiner and training captain, and to perform instructional flights, licence/role proficiency checks and maintenance test flights as required.
- (g) To perform operational line flying as required.

Job Description for Chief Aircraft Engineer

Rank : Chief Aircraft Engineer (GDS(C)1)

Responsible to : Controller, Government Flying Service (GDS(C)3)

Main Duties and Responsibilities –

- (a) To be responsible for the management, coordination and administration of the Engineering Section, and to provide airworthy aircraft and equipment to meet operational commitments.
- (b) To oversee various maintenance plans and tasks of the Government Flying Service (GFS) aircraft, and to monitor and ensure the effective and efficient implementation of the set plans/tasks/schedules.
- (c) To direct the Engineering Section to achieve highest quality standards in aircraft maintenance to meet Hong Kong Aviation Requirements (HKAR) 145 as well as internal guidelines and operational needs of the GFS.
- (d) To oversee the grade management, and training of the GFS Aircraft Engineers and Aircraft Technicians.
- (e) To act as Head of the GFS Design Organisation, and to be responsible for the management of the HKAR 21 Design Organisation and approving modification and repair schemes/document.
- (f) To oversee major projects on the maintenance, replacement, procurement of the GFS aircraft and related spare parts.
