

**For discussion  
on 27 March 2017**

**Legislative Council Panel on Economic Development**

**Establishing an Independent Air Accident Investigation Authority and  
Amendments to the Hong Kong Civil Aviation  
(Investigation of Accidents) Regulations (Cap. 448B)**

**PURPOSE**

This paper recommends that an air accident investigation authority which is independent from the Civil Aviation Department (CAD) be established under the Transport and Housing Bureau (THB) (independent investigation authority), in order to comply with the new requirement of the International Civil Aviation Organisation (ICAO). This independent investigation authority will be dedicated to the investigation of civil aviation accidents and serious incidents. In this connection, the Government also proposes to create a supernumerary Chief Inspector of Accidents (CIA) non-civil service post (equivalent to the rank of D2) for three years with immediate effect upon approval of the Finance Committee up to 31 March 2020. The CIA will lead the work of the independent investigation authority. Meanwhile, in order to confer on the independent investigation authority and the CIA statutory powers to execute their duties, the Government plans to make corresponding amendments to the Hong Kong Civil Aviation (Investigation of Accidents) Regulations (Cap. 448B) (Regulations). This paper seeks Members' views on the above proposal.

**BACKGROUND**

2. According to the Standards and Recommended Practices of the ICAO and international practices, the objective of civil aviation accident investigations is to identify the causes of the accidents or serious incidents concerned, so as to facilitate lesson learning and improvement of mechanism to prevent similar events from happening again. The purpose of investigations is not to apportion blame or liability. Such principle encourages the parties involved to be frank about providing information to the accident investigation

authorities such that the authorities may identify the underlying causes of the accidents or serious incidents concerned.

3. Hong Kong, being part of China which is one of the 191 Contracting States of the ICAO, has an obligation to comply with the Standards set by the ICAO on the investigation of civil aviation accidents. As stipulated by the ICAO in “Annex 13 to the Convention on International Civil Aviation - Aircraft Accident and Incident Investigation” (Annex 13), an ICAO Contracting State is obliged to conduct investigations into air accidents or serious incidents which occur in its territory. It is also entitled to participate in the investigations of accidents or serious incidents which occur outside its territory but involve aircraft under its registry. A State may also participate in the investigation of an aircraft accident or serious incident in the case that a large number of its nationals are involved.

4. The Chief Executive appoints the CIA and the Deputy Chief Inspector of Accidents by virtue of the Regulations for conducting investigations into the circumstances and causes of aircraft accidents. Over the years, these two posts are held by the Director-General of Civil Aviation (DGCA) and the Chief (Airworthiness Standards) of the CAD. For each investigation of accident or serious incident, the CIA will assign a dedicated team for the investigation work. Generally speaking, each investigation team comprises a number of qualified Inspectors of Accidents (Inspectors) deployed from other divisions of the CAD, among which one will be the Investigator-in-Charge<sup>1</sup>. They participate in investigations on a part-time basis as a general practice. Investigation team will also invite the State of Registry, the State of Design, the State of Manufacture, the State of the Operator, the airline and the aircraft manufacturer, etc. to participate in the investigation. Moreover, the CAD has also established a specialised Accident Investigation Office, comprising one permanent Senior Operations Officer post and one permanent Operations Officer post, to coordinate all the administrative and logistics support work of investigations.

5. An investigation team conducts investigation in accordance with the Regulations. For instance, the Inspector-in-Charge/Inspector may summon any person to examine and take statements as he thinks fit, and require any aircraft involved to be preserved unaltered pending investigation, and is accountable to and report directly to the CIA. According to the Regulations, the CIA will submit report to the Chief Executive upon completion of an

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<sup>1</sup> Depending on the seriousness and the level of complexity of the incident, the Investigator-in-Charge will usually be a CAD staff whose rank is Senior Operations Officer or above, possessing the qualification required for accident investigation.

investigation. Generally speaking, the Chief Executive will arrange for the inspector concerned to publish the investigation report on the CAD website (Web link: <http://www.cad.gov.hk/english/reports.html>).

## JUSTIFICATIONS

### Need for an Independent Air Accident Investigation Authority

6. The amendment to Annex 13 was endorsed by the Council of ICAO in February 2016, requiring the States to establish an independent air accident investigation authority, in other words, the investigation authority should be independent from the state aviation authorities and other entities that could interfere with the conduct or objectivity of an investigation. The new Standard took effect since November 2016. The ICAO recommended Contracting States to implement this new Standard within two years (i.e. by the end of October 2018).

7. The CAD has all along closely complied with the Standards and Recommended Practices of Annex 13 in the past in its accident investigation work, which meets international standards. Civil aviation accident investigations may cover, or look into, the regulatory functions (such as CAD's safety oversight on airlines and airworthiness of aircraft) of and services provided (such as air traffic control) by CAD. Under the existing arrangement whereby the DGCA is also the CIA, the impartiality of investigations may be perceived to be compromised and this practice does not meet the latest requirement of the ICAO (see paragraph 6 above). Although the CAD has in place an internal mechanism to deal with real or perceived conflict of interests<sup>2</sup>, the existing arrangement still cannot fully comply with the objective of the amended Annex 13. On the other hand, without dedicated manpower resource for accident investigations, most Inspectors participate in investigations on a part-time basis and are required to perform their original duties during the investigations. Such an arrangement not only puts a strain on resources, but also inevitably lengthens the investigation period, which is not conducive to the timely publication of investigation results and reports for the industry to make reference to. Therefore, the Government believes that an independent air accident investigation authority must be established as soon as possible with a view to complying with the new Standard of the ICAO.

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<sup>2</sup> The CIA (who currently is also the DGCA) is liable to transfer out those inspectors who may have conflicting roles or conflict of interests from the investigation posts to ensure the impartiality of the investigation.

## **Organisational Structure and Functions of the Independent Investigation Authority**

8. Under the Government's proposal, the new independent investigation authority will be fully segregated from the CAD organisational structure and fall under the purview of THB<sup>3</sup>. Investigations of accidents or serious incidents will be spearheaded by a dedicated CIA in lieu of the DGCA. The CIA will be appointed by the Chief Executive by virtue of the Regulations and directly accountable to the Secretary for Transport and Housing. This is to ensure the neutrality of the investigation authority given its independence from the CAD and the impartiality and credibility of investigation findings. On the other hand, we propose the independent investigation authority to appoint full-time staff to assist the CIA in order to expedite the investigation process. The industry will then be able to learn about the findings early, so as to draw safety lessons and adopt and implement safety recommendations. Increased manpower and resources could also be applied to safety management and accident prevention initiatives to further enhance aviation safety.

### **Scope of Work of the Independent Investigation Authority**

9. The independent investigation authority will be responsible for conducting investigations into all accidents and serious incidents related to civil aircraft that happen within the Hong Kong territory and also those involving Hong Kong-registered civil aircraft which happen outside Hong Kong. The primary functions of the independent investigation authority include determining the cause(s) of accidents, publishing investigation reports, protecting evidence, reporting investigation progress to victim families or survivors and so forth. Furthermore, the authority will be responsible for safety management and accident prevention initiatives, such as managing accident and incident database, analysing data to identify safety hazards, proposing safety recommendations and collaborating with the aviation industry to disseminate safety information, etc. The authority will also provide recurrent training for personnel and maintain facilities and equipment to ensure readiness for accident investigations and fulfilment of requirements of the Regulations at all times.

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<sup>3</sup> The new independent investigation authority will be housed at the Accident Investigation Centre at CAD Headquarters. It is separated from the office building of CAD and is under 24-hour security surveillance. The Centre is equipped with storage designated for accident evidence and investigation equipment and facilities.

## **Experience of Overseas Independent Investigation Authorities**

10. At present, many countries (including the United States of America (US), United Kingdom, France, etc.) have established their own air accident investigation authorities which are independent from the civil aviation authorities. Generally speaking, most of the investigation authorities fall under the purview of ministry/department in charge of transport management, or form part of the government. Some examples are as follows:

- US: the National Transport Safety Board is an independent government agency and accountable to the President and Congress on accident investigations;
- United Kingdom: the Air Accident Investigation Branch is a unit under the Department of Transport. Except for staff establishment and finance which are supervised by the Department of Transport, it enjoys independent investigative powers; and
- France: Le Bureau d'Enquetes et d'Analyses pour la Securite de l'Aviation civile (BEA – France) is an independent unit under the Ministry of Transport. It is directly financed by the Parliament.

11. We must point out that the aviation system of Hong Kong is vastly different from that of the above countries. For instance, there is no domestic flight in Hong Kong while domestic flight is the dominating market segment in the US; the US and France are two major aircraft manufacturers and have more frequent involvement in accident investigations, etc. The proposed organisation structure and scope of work of the independent investigation authority set out in this paper draw reference to overseas experiences, while at the same time taking local circumstances and operational needs into account. The ultimate goal is to establish an effective independent investigation authority as per international standards, with a view to reinforcing the status and reputation of Hong Kong as an international aviation hub.

## **Major Legislative Amendments**

12. In order to fulfill the new Standard of Annex 13 on establishing an independent investigation authority, we will propose explicit provision in the Regulations that the authority falls under the purview of the THB and is independent from the CAD. The powers conferred on the Chief Executive by the existing Regulations, including the appointment of the CIA and Deputy Chief Inspector of Accidents, will remain unchanged. Other corresponding

legislative amendments necessary for the setting up of an independent investigation authority are detailed in paragraphs 13 and 14 below.

13. Currently, the Regulations stipulate the scope and procedures of civil aviation accident investigation, as well as the respective duties/powers of the DGCA and CIA. The Regulations have not stipulated nor assumed that the CIA role would necessarily be performed by the DGCA. For example, the DGCA is empowered by the Regulations to allow an authorised person to access/remove the aircraft concerned or its contents, while the CIA is enabled by the Regulations to require the owner, operator, commander or hirer of the aircraft to send to him such information as is in his possession or control with respect to the accident. As the DGCA is currently taking up the position of CIA, the implementation of the Regulations has not encountered any difficulty in practice despite the fact that the Regulations stipulate respective duties/powers in regard to accident investigation for the CIA and DGCA. To ensure independence in investigations upon the establishment of the independent investigation authority, it is necessary for the Government to amend the Regulations to transfer the existing duties/powers related to accident investigation conferred on the DGCA to the CIA.

14. Furthermore, concerning the scope of application of the Regulations, the current practice is for the CIA to conduct investigations into accidents and serious incidents. The Government will suitably amend/introduce the definitions of “accident” and “serious incident” with reference to Annex 13. Besides, we recommend that the CIA may investigate into incidents with significant safety lessons to draw from, which aligns with the spirit of Annex 13 and basically reflects the actual practice over the years.

15. As regards other new Standards promulgated in Annex 13, such as the entitlements and obligations of representatives from foreign countries participating in local air accident investigations, enhancing protection of investigation record and evidence etc., the Government will conduct a comprehensive review of the practicability with reference to the local circumstances. As time is needed to complete the review and for Government to come to a policy view on the review findings, in order to establish the independent investigation authority as soon as possible, we propose to conduct the legislation amendment exercise on the Regulations in two phases. In the first phase, legislative amendments detailed in paragraphs 13-14 above will be introduced into the Legislative Council (LegCo) within the current legislative session. The second phase will cover other proposed amendments to the Regulations upon completion of the study on other new Standards of Annex 13 in the 2018-19 legislative session. In the meantime, the new Standards of

Annex 13 will be implemented through administrative guidelines. Some of the more important provisions of Annex 13 have been uploaded onto the CAD website via the Accident Investigation Bulletins for public access<sup>4</sup>.

### **Justifications for a CIA at Directorate Level**

16. As civil aviation accident investigation is highly specialised and complex and the cause of accidents or serious incidents may involve various fronts of operations of the aviation industry, the CIA, who leads the independent investigation authority, has to possess professional aviation knowledge, such as civil aviation legislation, aircraft operation, aircraft engineering, air traffic control, airport operation, airline management and safety management, etc. The CIA must also have practical experience in civil aviation accident and serious incident investigations in order to oversee the investigation work effectively. Moreover, subject to the passage of the relevant legislative amendments, the CIA will have statutory powers to direct and oversee accident investigation work, including appointing persons to assist in investigations as well as allowing authorised persons to have access to and remove the aircraft concerned, etc.

17. Throughout an investigation, the CIA has to maintain close liaison with the aviation industry (for instance, the CAD, airlines and aircraft maintenance companies, etc.) to collect statements and evidence from inquiries during the course of investigation and to release safety information to the industry. This implies frequent contacts with the leaders of the industry. In this connection, the CIA must have certain qualifications, reputation and status in the industry, enabling him/her to exert influence and discharge his/her duties in an effective manner. In addition, as the CIA is also responsible for communicating with the LegCo and the media to explain the progress and result of investigations to the public, he/she must possess good communication skills.

18. Furthermore, as the head of the independent investigation authority, the CIA's daily work includes ensuring the readiness and capability of the authority in civil aviation accident investigations and handling, analysing accident and incident data to identify potential safety hazards, coordinating the release of safety information and guidelines on prevention of accidents, and managing the internal affairs of the authority (including staff deployment, staff training, procurement and maintenance of investigation facilities and equipment, etc.). The above tasks demand very strong administrative management and strategic competencies and have to be carried out by a professional with reasonable level of experience in administrative management.

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<sup>4</sup> <http://www.cad.gov.hk/english/notifyairacc.html>

Taking into account the above factors and the importance of aviation safety, we consider the creation of a non-civil service CIA post equivalent to D2 level necessary to handle the tasks. The post will last for three years with immediate effect upon approval of the Finance Committee up to 31 March 2020. Such an arrangement would allow flexibility for the Government to review whether the manpower establishment of the newly set up independent investigation authority would suit the actual operational needs and determine the long-term staff establishment in due course. The job description of the proposed CIA post is at **Annex 1**.

19. In light of the expertise required for civil aviation accident investigation, the local pool of talents possessing the relevant experience and competence could be rather limited. To widen the pool of candidates and allow the Government to recruit aviation expert from overseas if necessary, we propose to adopt a more flexible approach that the CIA post to be appointed on Non-Civil Service terms.

### **Support from Non-directorate Staff**

20. We propose to create six civil service investigator posts (i.e. three Senior Operations Officers and three Operations Officers) under the CIA to assist in the investigation work. A Senior Operations Officer and an Operations Officer currently serving in the Accident Investigation Office of the CAD will be deployed to fill two of the investigator posts to ensure smooth transition of the on-going investigations from the CAD to the new authority and prepare for the prompt establishment of the new authority<sup>5</sup>. In addition, we propose to create an Assistant Clerical Officer post to assist in the clerical/secretarial duties. These posts will be created in accordance with the Government's existing internal policies and procedures for the same term of appointment of three years until 31 March 2020. The proposed organisation chart of the independent investigation authority is at **Annex 2**.

### **ALTERNATIVES CONSIDERED**

21. We have critically examined the possibility of re-deploying existing staff resources within the THB or CAD to take up the CIA post. However, as it is the requirement of the ICAO that the air accident investigation authority has to be independent from the civil aviation authorities to ensure its

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<sup>5</sup> The guideline of the ICAO does not preclude that states may need to deploy experts from civil aviation authorities to take up some posts of the air accident investigation authority (except the Chief Inspector of Accidents) and, most significantly, these inspectors have to report to the Chief Inspector of Accidents who shall be directly under an official at ministerial level.



impartiality, the arrangement of deploying existing CAD staff to fill up the posts of the independent investigation authority will not meet the requirement of Annex 13. On the other hand, given that air accident investigation is a highly specialised subject and the CIA post demands strong aviation background and competence, it is not possible to deploy a staff member of general grade from the THB to take up the post. Taking a holistic view of the above factors, we consider that the most appropriate approach is to establish an independent investigation authority under the THB and appoint a professional to the CIA post.

## **FINANCIAL IMPLICATIONS**

22. The total remuneration package for the proposed non-civil service CIA post will not exceed the full annual average staff cost of \$2,808,048, including salaries and staff on-cost, for a civil service post ranked at D2 level. As regards the five additional non-directorate posts mentioned in paragraph 20 above, the additional notional annual salary cost at mid-point will not exceed \$4,757,220. The full annual average staff cost, including salaries and staff on-cost, is about \$6,820,000.

23. We have included the necessary provision and resources in the draft Estimates of 2017-18 to meet the staff cost and other operating expenses, and will reflect the resources required in the Estimates of subsequent years.

## **PUBLIC CONSULTATION**

24. As the proposed legislative amendments mainly involve the operations of the aviation industry and they are not directly related to the livelihood of the general public, the Government is consulting the aviation industry on the proposed legislative amendments. It is expected that the industry will support the current proposal as we are aware that the industry, particularly airlines and pilot associations, has been requesting the Government to establish an independent air accident investigation authority over the years.

## **WAY FORWARD**

25. We will submit the proposal of creating a non-civil service CIA post equivalent to D2 level to the LegCo Establishment Subcommittee for consideration and the Finance Committee for approval as soon as practicable. If approval from the Finance Committee is granted, we will commence the recruitment exercise immediately. Meanwhile, the Government will proceed

with the relevant legislative amendment exercise with a view to introducing the amendment order into the LegCo for negative vetting within the 2016-17 legislative session.

26. Subject to the progress of vetting on the relevant legislation and the time needed for the recruitment work upon the Finance Committee's approval of funding for creation of the CIA post, the Government plans to officially establish the independent investigation authority and appoint the CIA in 2017 at the earliest. The plan is to complete the relevant legislative amendment exercise by the same time to ensure that the independent investigation authority/CIA will have sufficient statutory powers to discharge their duties. The Government will review the staffing requirement and establishment prior to the expiry of the three-year appointment period of the posts under the authority.

### **ADVICE SOUGHT**

27. Members are invited to support the current staffing proposal and proposed legislative amendments.

**Transport and Housing Bureau  
Civil Aviation Department  
March 2017**

**Proposed Job Description of the Chief Inspector of Accidents Post**

Post title : Chief Inspector of Accidents  
Rank : Non-civil service position equivalent to the rank of D2  
Responsible to : Secretary for Transport and Housing

**Aim of the Post:**

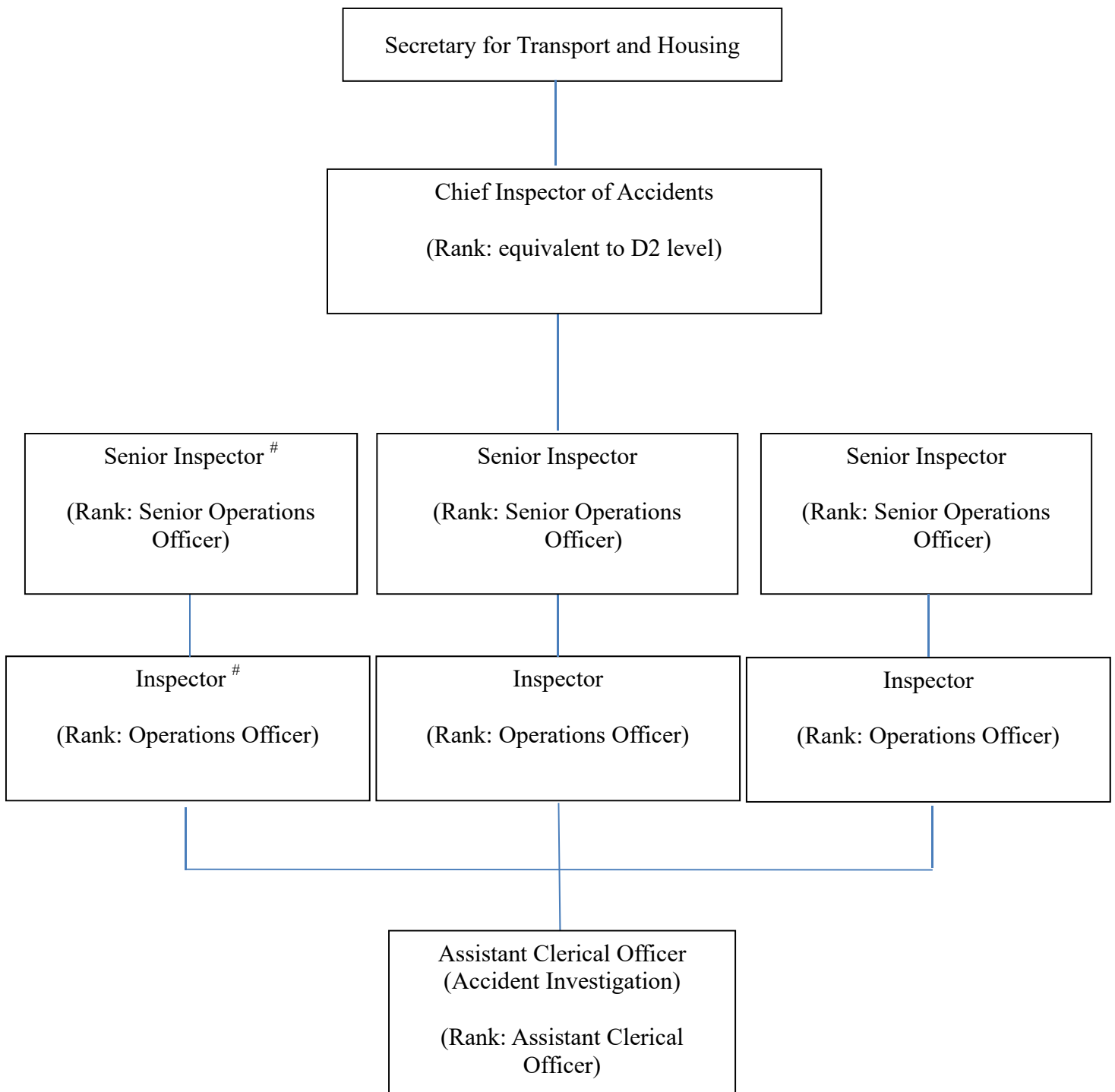
The proposed Chief Inspector of Accidents will be tasked to lead and supervise the independent air accident investigation authority established under the Transport and Housing Bureau and direct the civil aviation accident investigation work and safety management work.

**Main Duties and Responsibilities —**

1. To investigate all civil aviation accidents and serious incidents which occur in Hong Kong or those which occur outside its territory but involve aircraft under its registry. The main responsibilities include investigating the causes of accidents, preservation of evidence of accidents and disposing of aircraft concerned, etc.;
2. To prepare and submit investigation reports to the Chief Executive, stating the circumstances and causes of accidents/serious incidents and making safety recommendations to prevent recurrence of accidents;
3. To lead and manage the air accident investigation authority, including staff deployment, staff training, procurement and maintenance of investigation equipment, facility maintenance and record management, etc., as well as to formulate strategies and measures to enhance accident investigation and safety management procedures;
4. To collect, protect and analyse relevant aviation safety information and data with a view to identifying potential safety hazards, to disseminate aviation safety messages to the industry and to coordinate the relevant education work;
5. To supervise the reporting (e.g. progress of investigation, information relating to the accident investigation) to be made to the bereaved/victims' families or survivors;

6. To provide support and professional advice to overseas air accident investigation authorities when necessary (e.g. when aircraft registered in Hong Kong are involved in accidents or serious incidents occurred overseas); and
7. On behalf of the HKSAR Government, to participate in international organisations or activities in relation to air accident investigation and aviation safety and maintain close liaison with international organisations on relevant issues.

## Annex 2



# One Senior Operations Officer and one Operations Officer currently under the Accident Investigation Office of the Civil Aviation Department will be deployed to take up these posts.