

For discussion
on 19 July 1999

Legislative Council Panel on Economic Services

**YEAR 2000 COMPLIANCE IN GOVERNMENT,
GOVERNMENT-FUNDED AND GOVERNMENT-REGULATED
ORGANIZATIONS UNDER THE PURVIEW OF THE
ECONOMIC SERVICES BUREAU**

PURPOSE

The purpose of this paper is to update Members on the progress of Y2K compliance in Government, Government-funded and Government-regulated organisations under the purview of the Economic Services Bureau (ESB).

2. This paper covers the progress of the following Government departments and the Hong Kong Tourist Association:

- (a) Civil Aviation Department (civil aviation management)
- (b) Marine Department (port management)
- (c) Electrical and Mechanical Services Department (electrical and gas safety)
- (d) Hong Kong Observatory (meteorological service)
- (e) Agriculture and Fisheries Department (supply of fresh food produce)
- (f) Hongkong Post (postal service)
- (g) Hong Kong Tourist Association (promotion of inbound tourism)

3. For those organisations and private companies including the Airport Authority, container terminals, power, oil and gas companies, separate papers are produced by the organisations and companies

concerned to report on progress of their Y2K compliance and preparation of contingency plans.

PROGRESS OF Y2K COMPLIANCE

4. Overall, substantial progress has been made in the last several months. For Government departments under the purview of ESB, all mission-critical systems (except one in Marine Department) have been confirmed to be Y2K compliant. As regards the Hong Kong Tourist Association, it has achieved full Y2K compliance for all its mission-critical systems. Contingency plans are being finalised by the respective departments and the Hong Kong Tourist Association, and are expected to be available for testing shortly.

DETAILED PROGRESS REPORTS

5. The following is a summary of the progress of Y2K compliance and the preparation of contingency plans by individual Government departments and the Hong Kong Tourist Association.

Civil Aviation Department (civil aviation management)

6. All the 104 mission-critical systems in the Civil Aviation Department (CAD) had been tested and verified to be Y2K compliant by end June 1999. Nevertheless, as an additional safeguard to ensure a safe and smooth air traffic control (ATC) operation during the Y2K rollover, contingency plans and backup measures are being developed.

7. A first draft of the contingency plans and backup measures has been prepared. The draft is based on the framework recommended by the International Civil Aviation Organisation (ICAO) for the Asia/Pacific region. Liaison is also in progress to finalise the contingency air routes, ATC coordination procedures and communications arrangements with the neighbouring ATC authorities. In addition, additional facilities like alternative communications

equipment such as satellite phones, personal computer based message switching system, standalone backup radar display etc. will be put in place. CAD's current schedule is that all contingency plans and backup measures will be finalised in July 1999, with backup communications equipment tested and in place by 1 September 1999. This schedule also complies with the recommendation of the ICAO.

8. Although each organisation is responsible for the Y2K compliance of its own systems, the CAD Y2K Compliance Task Force continues to keep track of the Y2K compliance status of the safety and security related systems of Hong Kong's key aviation related organisations, including the Airport Authority (AA), Hong Kong-based airlines, helicopter operators and aircraft maintenance service agents. The compliance work of AA is reported in detail in a separate paper. As for other Task Force members, it is noted from their reports that all their mission-critical systems had been tested and proved to be Y2K compliant by end June 1999. These systems include the aircraft of the three major Hong Kong-based airlines, i.e. Cathay Pacific Airways, Hong Kong Dragon Airlines and Air Hong Kong.

9. The CAD Y2K Compliance Task Force is now focusing on the contingency plans being developed or refined by the various Task Force members. These plans aim to mitigate any potential Y2K problems. Drills will be conducted by individual organisations, and witnessed by CAD where appropriate, before they are finalised by the target completion date of September 1999.

Marine Department (port management)

10. Marine Department has completed the rectification work for most of their mission-critical systems. The only remaining work is to replace the Sailing Schedule Display System of the China Ferry Terminal with a new system in September 1999. In the unlikely event that the system cannot be replaced in time, a well-tested work around procedure by back dating the system is in place.

11. The Y2K Port Operation Contingency Plan to deal with any

unforeseeable disruption to port operations induced by the Y2K problem has been completed. The Department has evaluated Y2K risks on its internal systems and the likely impact on the shipping community. Emergency strategies have been developed to deal with interruptions occurring at operational water areas of the port. This includes reserving emergency anchorages and setting up a backup traffic monitoring system together with an emergency port communication channel. The first trial of the contingency plan was successfully conducted on 2 July 1999. Further trials with the industry will be conducted in August and December 1999.

12. Marine Department has adopted the International Maritime Organization's recommendation on standard Y2K information exchange between ships, ship operating companies, port operators and port authorities. The Department also provides Y2K information for the shipping industry on the Internet website.

Electrical and Mechanical Services Department (electrical and gas safety)

13. The Electrical and Mechanical Services Department has completed rectification work on all mission-critical systems, including those related to electrical and gas safety which hold the registers for electrical workers and contractors and gas installation contractors, and is now fully Y2K compliant.

Hong Kong Observatory (meteorological service)

14. The Hong Kong Observatory has completed all rectification work on mission-critical systems and is now fully Y2K compliant. Contingency plans are in place to cater for any unforeseen problems with any of the department's operational systems, including meteorological services to the public and the aviation community, before, on or after 1 January 2000. The contingency plans will be tested in July and August 1999. The contingency measures are manual weather observation with conventional sensors; weather assessment and prediction based on HKO

observational data and other meteorological information obtained via other means such as satellite broadcast and the internet; and dissemination of weather forecast warnings by fax to GIS, radio and TV stations, the Civil Aviation Department and airlines.

Agriculture and Fisheries Department (supply of fresh food produce)

15. Rectification work for all the mission-critical computer systems and embedded systems in Agriculture and Fisheries Department (AFD) has been completed.

16. Simulation tests have been conducted on the computer systems, embedded systems and line communication systems and confirmed smooth transition to Year 2000.

17. As explained in the previous paper considered by Members in April 1999, the potential effect of Y2K-induced system failures on the supply of fresh food produce is expected to be minimal. The majority of the fresh food consumed in Hong Kong (vegetable, freshwater fish, miscellaneous fish products, poultry, pigs, cattle and marine fish in particular) are imported from the Mainland by road, railway and river boats or supplied by fishing vessels in the case of marine fish. Since the operation of such channels and local wholesale marketing channels do not rely heavily on computerised processing, ESB and AFD do not envisage disruption to the supply of these fresh food produce as a result of Y2K non-compliance. However, a significant amount of fresh fruit, eggs and vegetable mainly of exotic varieties are imported from overseas countries via container vessels and a relatively small amount of fruit and vegetable are imported by air. The normal supply of such imported fresh food produce would hinge largely on the Y2K compliance of the systems at the airport and the container terminal.

18. AFD has proposed a contingency plan to co-ordinate the various actions of Government departments (including AFD, Trade Department, Urban Services Department, Regional Services Department and Department of Health) and major fresh food produce importers and wholesalers to avoid possible disruption of fresh food supply in the event

that import of such fresh food produce via ports and container terminals is disrupted by Y2K non-compliance. Under the contingency plan, AFD will compile a daily wholesale market throughput report and closely monitor supply situation of fresh food produce starting from the 12th day prior to each critical date (i.e. 9 September 1999, 1 January 2000 and 29 February 2000). Should there be signs of problems in the supply, AFD will contact the major importers and wholesalers to increase other sources of supply as necessary. The contingency plan will also include a contact list covering the container terminals, airport cargo terminals, Customs and Excise Department's (C&ED) control points, major fresh food produce importers and wholesalers. If there are indications that shortages of certain types of fresh food produce may develop, the Food Control Committee chaired by the Director of Agriculture and Fisheries and involving concerned departments will be activated to implement appropriate measures to increase supply. The contingency plan is being considered by the concerned bureaux and departments and is expected to be finalised in the next few weeks.

19. The contingency plan will be invoked about one month prior to each critical date (i.e. 9 September 1999, 1 January 2000 and 29 February 2000) such that preparatory and monitoring actions would be taken to facilitate prompt contingency measures should the situation warrant. In the coming weeks, AFD will meet major fresh food importers and brief them about the possible effects of the Y2K problem on the supply of fresh food produce and the possible need to increase supply on or prior to the critical date. Simulation tests of the computer systems used in wholesale markets and by the Import Control Unit of AFD will be conducted to re-affirm smooth transition to the critical dates.

20. Internal simulation tests will be carried out to test the contingency plan by 15 August 1999. During the simulation tests, responsible officers will closely monitor the food supply situation at the wholesale markets. Responsible officers at the airport and border control points will report the situation at the two air-cargo terminals and at the Man Kam To, Lok Ma Chau and Sha Tau Kok vehicles control points. AFD's market staff will also liaise with the container terminals, C&ED control points, major fresh food produce importers as necessary, for ascertaining whether there are irregularities on the date of test.

AFD

would approach the respective food importers for increasing the import of food from alternative sources depending on the circumstances simulated.

Hongkong Post (postal service)

21. The Hongkong Post (HKP) has taken stock of all its systems and has worked out a programme for rectifying non-compliant systems that are considered mission-critical. As at 30 June 1999, all the mission-critical critical computer systems, embedded systems and line communication systems of HKP are Y2K compliant.

22. HKP has prepared a contingency plan. It will cover database backup strategy, communication channels in the event of Y2K-induced system breakdown, procedures for authorising the switch to alternative systems, including manual operation etc. Internal simulation tests will be arranged to test the contingency plan by 15 August 1999.

Hong Kong Tourist Association (promotion of inbound tourism)

23. The Hong Kong Tourist Association (HKTA) has already achieved full Y2K compliance for its critical business components as targeted by end June 1999. These business components include mainly -

- information technology infrastructure systems such as the personal computer systems, server systems and e-mail system;
- information technology application systems such as the human resources information system, centralized contact database and tour booking system;
- office equipment such as the telephone system and security system etc.

24. Contingency plans are being developed in order to minimize the residual risk and prepare in advance a response so as to shorten the

decision-making process if and when Y2K problem arises. For each critical business component, HKTA plans to put in place a contingency plan by September 1999. Each contingency plan would have its own invoking criteria and person-in-charge defined. These contingency plans would include, for instance, pre-arranging alternative means of communications such as standalone personal computer with modem and internet e-mail functions; printing back-up hard copies for important information database, as well as switching to manual process to carry out sales and exercise security control, in the event of system or equipment failure.

25. Moreover, a Y2K Contingency Internal Command Centre with members of senior management in command will be set up. An overall Y2K contingency plan would also be developed to centrally coordinate the resources requirements and implementation of various contingency plans.

26. An incident management information centre will also be set up to handle visitors' Y2K enquiries during Y2K critical dates.