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# INFORMATION CIRCULAR

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## PRE-FLIGHT AIRCRAFT EXTERNAL INSPECTION

### Purpose

- 1 This information circular reminds all:
  - a. Singapore Air Operators Certificate (AOC) holders and Singapore Approved Maintenance Organisations (AMO) performing line maintenance to conduct thorough pre-flight aircraft external inspections; and
  - b. AOC holders to remind their contracted Ground Handling Agents (GHA) to report incidents where there is damage to aircraft.

### Importance of Pre-flight Aircraft External Inspections

- 2 Pre-flight aircraft external inspections are conducted by pilots and maintenance crew in accordance with the Aircraft Maintenance Manual or the relevant procedures and checklists. These visual inspections are an important operational process and can detect damages or errors that could affect flight safety. Pilots and maintenance crew conducting inspections must therefore be vigilant and ensure a thorough inspection.
- 3 Pilots and maintenance crew should take the following into consideration when conducting the inspection:
  - a. Inspect at an appropriate distance to detect damage, failure or irregularity. In areas of poor lighting, lighting aids (flashlights) must be used to ensure sufficient visibility of the area.
  - b. Pay attention to areas where operations such as cargo loading, flight catering, lavatory servicing and aircraft refueling, can result in damage to the aircraft.
  - c. Pay attention to areas where maintenance has taken place during aircraft transit, to ensure that the aircraft is properly returned to its normal configuration. Examples include the proper locking of aircraft panel and engine cowl latches and removal of landing gear pins before flight. Overlooking such areas have led to aircraft parts being detached from the aircraft in flight or the aircraft having to perform an air-turn-back when the landing gear cannot be retracted.
  - d. Pay attention to actual and declared loads in case there are any errors in the load calculations. An example was when a pilot observed that the gear oleos

was well compressed and the cargo hold of the plane was fully loaded, while the load-sheet indicated a much lighter load. After a re-check, the difference in actual load and computed load was about 100 tons. This error could have led to serious consequences if it was not detected.

- e. Be aware of the human factors that can affect their work performance, such as fatigue during night shifts, distraction from pre-departure activities, time pressure, etc.
- f. Be conscious of night and wet weather conditions which can affect the effectiveness of aircraft inspections. There could also be a tendency to shorten or quicken inspections under such conditions.

### **Reporting of Incidents**

- 4 There have been previous incidents of damage to aircraft by ground service vehicles. AOC holders should remind their contracted GHA of the possible catastrophic consequences when an aircraft is operated with unreported damage. GHA should report any incident involving the aircraft so that the aircraft can be assessed for airworthiness.

### **Conclusion**

- 5 An AOC holder and an AMO performing line maintenance are reminded to conduct thorough pre-flight aircraft external inspections to ensure that the aircraft is safe for flight. The consequences of a poorly performed inspection can result in injuries or fatalities. Such inspections must, therefore, always be performed professionally and to the highest standards.
- 6 An AOC holder should remind his contracted GHA to report incidents that involved the AOC holder's aircraft.