

Rural & Regional Affairs and Transport Legislation Committee
ANSWERS TO QUESTIONS ON NOTICE
Budget Estimates 2017 - 2018
Infrastructure and Regional Development

Committee Question Number: 127

Departmental Question Number: SQ17-000264

Program: n/a

Division/Agency: Australian Transport Safety Bureau

Topic: Aircraft components

Proof Hansard Page: 97 (23 May 2017)

Senator Rice, Janet asked:

Senator RICE: I know that there are lots of components in aircrafts, and this might be a naive question, but in order of magnitude how many components or how many planes are we talking about? What proportion do not need to be inspected and are essentially relying upon the design at the beginning of their life?

Mr Hood: I am also not an engineer, so I will take that one on notice. I did see recent YouTube footage where more than three million parts are put onto a modern aircraft these days. But I will check.

Answer:

Our research indicates the number of components in an aircraft can vary from approximately 250,000 for medium size aircraft to 7 million in large, wide body aircraft.

Business jets/regional turboprop aircraft	250,000—500,000 (gulfstream, bombardier, Embraer)
Single aisle aircraft	500,000—1,200,000 (737, 757, A320 family)
Wide body aircraft	1,200,000—3,000,000 (767, 777, A340)
Jumbo aircraft	3,000,000—7,000,000 (747 A380)

Each aircraft type is subject to maintenance requirements and inspection programs. The aircraft manufacturer specifies maintenance programs, inspection regimes and defines any components that may require time/service life replacement. The regulator of the State of manufacture approves the maintenance regime for aircraft through the issue of a type-certificate.

Details on the regulations requiring maintenance to aircraft is available from the Civil Aviation Safety Authority.

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Committee Question Number: 128

Departmental Question Number: SQ17-000265

Program: n/a

Division/Agency: Australian Transport Safety Bureau

Topic: Drone ownership

Proof Hansard Page: 100 (23 May 2017)

Senator Gallacher, Alex asked:

Senator GALLACHER: I am really curious about how you protect your property. There are people capable of writing programs to take over anything, particularly remote controlled aircraft. How do we know that your drone is your drone, if someone else takes it over?

Mr Hood: Senator, I am not the drone expert for ATSB but certainly I will take your question on notice. I know that with any electronic frequency spectrum you can jam, you can interfere and potentially, if you found the right frequency, my understanding of basic electronics is that you could actually take over the control of that drone.

Answer:

It is possible for unsecured Remote Piloted Aircraft Systems (RPAS) to be exposed to remote attacks including sensor and data spoofing and jamming. They can potentially be operated by an unknown user.

The security of an RPAS model is specific to its design.

In Australia, it is illegal to own any jamming device prohibited by the Australian Communications and Media Authority under the *Radiocommunications Act 1992*.