



14 December 2016

CONFIDENTIAL

Committee Secretary
Senate Standing Committee
- Rural and Regional Affairs and Transport
PO Box 6100
Parliament House
Canberra, ACT 2600

Email: rrat.sen@aph.gov.au

Sent by Post and Email

Dear Members of the Committee,

INQUIRY INTO REMOTELY PILOTED AIRCRAFT SYSTEMS, UNMANNED AERIAL SYSTEMS AND ASSOCIATED SYSTEMS

Attached is a submission by Thiess Pty Ltd ('**Thiess**') that responds to the inquiry into current and future regulatory requirements that impact on the safe commercial and recreational use of Remotely Piloted Aircraft Systems (RPAs), Unmanned Aerial Systems (UAS) and associated systems.

Thiess Pty Ltd consents to the publication of the attached submission.

If any further discussion is required, I can be contacted on the details below. Alternatively please contact the Thiess Company Secretary, Sophie Ward, on (07) 3002 9678.

Yours sincerely,

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SUBMISSION RESPONDING TO THE INQUIRY INTO REMOTELY PILOTED AIRCRAFT SYSTEMS, UNMANNED AERIAL SYSTEMS AND ASSOCIATED SYSTEMS

OVERVIEW OF THIESS PTY LTD

Thiess is the world's largest mining services provider. We operate in eight (8) countries and employ more than 12,000 people globally, at over 25 mining projects. With a 70-year mining history, we deliver a full suite of mine services including the provision of truck and excavator fleet and operators, mine planning and asset management solutions, and maintenance and rehabilitation expertise. We challenge ideas, create solutions and manage performance to help our clients achieve best-practice resource recovery, increased productivity and optimised cash flow. One way we achieve this is through the adoption of technological advances, such as Remotely Piloted Aircrafts ('RPAs'), formerly called Unmanned Aerial Systems ('UAS' or 'UAVs').

Background on the Thiess RPA program and systems

- Thiess holds a CASA Unmanned Operator Certificate (ARN 822320).
- Our Chief Pilot manages the RPA program. He has completed the 7 day UAV CASA approved training program and holds a CASA UAV Controller certificate.
- Five additional Thiess employees have completed and passed 7 day UAV CASA approved training programs.
- Thiess operates our RPA program under strict procedural controls.
- The Australian projects at which RPAs are used by Thiess are in G Class airspace in remote locations.
- We communicate with local land owners and pastoral lessees before commencing RPA flights, as a courtesy and to avoid any risks associated with their helicopter and stock work.
- The *Civil Aviation Legislation Amendment (Part 101) Regulation 2016* (Cth) which commenced on 29 September 2016 reduced regulatory requirements for commercial operators of the 2kg or smaller class. Thiess has managed this change by introducing an in-house RPA sub-2kg training program.

ADRESSING THE TERMS OF REFERENCE

Reference Criteria A: Current and future regulation of RPA technology

Thiess agrees with the Government's current regulation of RPAs under the *Civil Aviation Act 1988* (Cth), as set out in *Civil Aviation Legislation Amendment (Part 101) Regulation 2016* (Cth), which commenced on 29 September 2016 (the **new regulations**).

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Thiess also supported the regulatory regime which existed prior to the introduction of the new regulations.

We support a requirement that all RPA controllers complete a CASA approved training program. This ensures that all RPA operators understand the necessary safety and privacy requirements.

If concerns exist that the new regulations are too flexible, Thiess supports a return to the prior, less flexible, regime.

Thiess also submits that any change to the current legislative regime should be considered in two (2) separate frameworks:

- one set of regulations for metropolitan areas; and
- a different set of regulations for rural and remote areas.

Thiess submits that the risks associated with the use of RPAs in metropolitan areas are vastly different to the risks encountered in remote areas.

Reference Criteria B: Economic and social impact of RPA technology

Thiess makes a significant contribution to Australia's economy and shares a common objective with the Australian Government – to create safe and sustainable jobs for Australians. Safety is fundamental to all Thiess operations. RPAs have become an important tool for Thiess because they allow us to perform crucial tasks in a manner that is safer, and more efficient, than the prior methods used.

Thiess currently operates one (1) fixed wing and four (4) multi-rotor RPAs. The use of these RPAs for data capture in locations that would be unsafe using traditional survey methods has made a significant improvement to Thiess' survey capability, and the accuracy of the data has enhanced productivity. RPAs allow Thiess to capture data in locations that would, using traditional survey methods, be unsafe. The use of RPAs has improved data capture in a number of areas including:

- waste dump rehabilitation;
- survey of the effectiveness of dozer push;
- survey of the results of blast heave (following use of explosives to blast overburden); and
- survey of ROM and product stockpiles.

The use of RPAs on Thiess mine sites enables Thiess to safely capture imagery and detailed surfaces of pit high-walls with accuracy and clarity never seen before by our Geotechnical team. This use of RPAs has provided world-class surveying results with increased safety outcomes for all employees. Imagery updates and capture of water management issues has also greatly assisted our environmental management teams.

Reference Criteria F: The potential recreational and commercial uses of RPAs

Thiess is contracted to provide a service to mine owners, often with lean profit margins, particularly in the current market. To date, Thiess has completed hundreds of successful mapping and wall monitoring flights on our clients' mine leases using RPAs. RPAs are integral to Thiess providing positive commercial outcomes for our clients whilst upholding high safety standards.