



# Omni Case Study

## ENGINEERING A SAFE AIRLIFT: SUPPORTING FIRE AND RESCUE CAPABILITY IN THE SOLOMON ISLANDS

Operationally, Omni delivered mission-focused engineering solutions that enabled safe and reliable air mobility for complex loads and specialised platforms. Drawing on deep experience across Australian Defence Force (ADF) fleets and collaboration with key Defence stakeholders, our engineers designed and certified practical solutions that met stringent airworthiness standards while supporting partners to achieve critical operational outcomes.

Strategically, Omni's support to Defence underpinned the transformational Australia-Solomon Islands partnership by helping to strengthen the capability and resilience of the Royal Solomon Islands Police Force (RSIPF).

### Challenge

In 2023, the RSIPF in Honiara sought to significantly improve its fire and rescue capability through the delivery of four specialised firetrucks. These vehicles, provided under the RSIPF and Australian Federal Police (AFP) Policing Partnership Program (RAPPP), and supported by the New South Wales Rural Fire Service (NSWRFS), needed to be transported safely and efficiently by air.

Moving large, modified firetrucks on a C-17A military transport aircraft presented complex engineering and airworthiness challenges. The solution required:

- A tailored engineering approach to account for unique vehicle dimensions, weight and configuration
- Assurance that all loading and securing methods met stringent Defence Aviation Safety Authority (DASA) requirements
- Confidence for all stakeholders—RSIPF, AFP, NSWRFS and Defence that the mission would be executed safely and on time

### Solutions

Omni's engineering team partnered closely with the Air Mobility Training and Development Unit (AMTDU) and DASA to deliver an engineering solution tailored to the specific operational requirements of this mission. Key elements of the solution included:

#### Specialised airlift clearance

- Developed a detailed engineering clearance for transporting the four firetrucks onboard a C-17A military transport aircraft.
- Assessed load distribution, restraint methods and interface with the aircraft cargo system to ensure safe carriage.





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### Compliance with defence airworthiness standards

- Applied Omni's experience delivering engineering design and modification solutions for ADF aircraft, including the C-17A, C-130J and C-27J
- Ensured all analyses and recommendations aligned with relevant DASA and Defence airworthiness requirements.

### Collaborative, mission-focused delivery

- Worked in close coordination with the AMTDU, DASA, NSWRFSS and AFP to align technical, operational and timing needs
- Provided timely and accurate assessments to support planning, scheduling and execution of the airlift.

### Outcome

The engineering clearance enabled the safe and efficient airlift of four firetrucks to Honiara, directly enhancing RSIPF's fire and rescue capability.

Through this project, Omni:

- Demonstrated its ability to deliver bespoke engineering solutions for complex air mobility tasks
- Enabled safe, compliant transportation of critical emergency response vehicles on a C-17A aircraft
- Reinforced its track record in supporting ADF and partner agencies with rigorous, airworthiness-focused engineering services.
- Contributed to the strategic partnership approach to security cooperation between Australia and Solomon Islands.

The result was a successful delivery that strengthened the Solomon Islands' emergency response capacity while upholding the highest standards of safety and technical assurance.

