

## RA 4510 - Ground Running of Aero-Engines and Auxiliary Power Units

### Rationale

Military registered Air Systems may require the operation of aero-engines or Auxiliary Power Units (APUs)<sup>1</sup> to undertake post Maintenance / installation checks or to provide Air System services<sup>2</sup> for other system Maintenance activity. Without effective controls for the conduct of ground running of aero-engines and APUs for Maintenance purposes, the threat to Air System Airworthiness and Risk to Life may be increased. **► This RA ◀** requires that control measures are put in place to ensure that aero-engine and APU Maintenance ground runs are carried out safely.

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### Regulation 4510(1)

#### Ground Running Aero-Engines and Auxiliary Power Units

4510(1) **► The Chief Air Engineer (CAE)<sup>3</sup> and / or ◀** the Military Continuing Airworthiness Manager (Mil CAM)<sup>4</sup> **shall** have **► aviation engineering ◀** orders and / or **► local ◀** procedures<sup>5</sup>◀ to control the Maintenance ground running of aero-engines and APUs<sup>6, 7</sup>◀.

### Acceptable Means of Compliance 4510(1)

#### Ground Running Aero-Engines and Auxiliary Power Units

1. Maintenance ground running **► CAE<sup>3</sup> and / or Mil CAM<sup>4</sup> aviation engineering ◀** orders and / or **► local ◀** procedures<sup>5</sup>◀ **should** be promulgated by Approved Maintenance Organizations in the Maintenance Organization Exposition or by Military Maintenance Organizations in Aviation Engineering Standing Orders **► or equivalent, ◀** and **should** contain as a minimum:
  - a. The composition of the Maintenance ground running team, their specific Competence and Authorization requirements<sup>8</sup> and their responsibilities.
  - b. Any local considerations or actions that **should** be taken prior to and during a Maintenance ground run that is required following an unscheduled landing away from the Main Operating Base<sup>9</sup>. **► ◀**
  - c. Actions to be taken in an emergency.
  - d. **► ◀**
  - e. The required communications that **should** be established prior to and during the Maintenance ground run.
2. Maintenance personnel authorized to carry out Maintenance ground runs **should** be assessed as Competent and subject to adequate recurrent training to ensure continued Competency.

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3. The Maintenance ground running of the main propulsion engine(s) when installed on an Air System may Cause unintended taxi or flight. In such circumstances, it may be necessary or appropriate to use Aircrew. The **► aviation engineering ◀** orders **► and / ◀** or **► local ◀** procedures<sup>5</sup>◀ will need to include Delivery Duty Holder

<sup>1</sup> Either installed or uninstalled on an Air System.

<sup>2</sup> Air System services include, but are not limited to: hydraulic power, pneumatics or electrical power supply.

<sup>3</sup> **► Refer to RA 1023 – Chief Air Engineers – Air Safety Responsibilities. ◀**

<sup>4</sup> Refer to RA 1011 – Military Continuing Airworthiness Manager Responsibilities.

<sup>5</sup> **► Refer to RA 4009 – Aviation Engineering Orders and Local Procedures. ◀**

<sup>6</sup> Not applicable to Air Systems operating under RA 1165 – UK Civil Aviation Authority Oversight of UK Military Registered Air Systems Arrangements.

<sup>7</sup> Sponsorship of each aviation engineering order and / or local procedure is to be clearly documented in accordance with RA 4009(1): Aviation Engineering Orders and Local Procedures. **◀**

<sup>8</sup> Refer to RA 4806(5): Personnel Competences and Authorization (MRP 145.A.30(e)).

<sup>9</sup> **► Refer to RA 2309(17): Landing away from Active Airfields. ◀**

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or Accountable Manager (Military Flying) direction, for when the use of suitably qualified and Competent Aircrew is to be considered, and when it is mandatory.

4.     ▶ The authorized sites for Maintenance ground running are found within the Defence Aerodrome Manual (DAM)<sup>10</sup>. ◀

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<sup>10</sup> ▶ Refer to RA 1026(4): Management of a Defence Aerodrome Manual and Defence Aerodrome Assurance Framework. ◀