

RA 3279 – Aircraft Last Look Checks

Rationale

At some Aerodromes, Aircraft Last Look Checks (ALLC) are required to assist in the safe operation of Aircraft in the vicinity of the Aerodrome. As an important Air Safety barrier, if ALLC are unavailable, there may be an increased Risk to Life (RtL) in an Aviation Duty Holder (ADH) / Accountable Manager (Military Flying) (AM(MF)) operation. At those Aerodromes that require them, the equipment provision, installation, and associated operating procedures of ALLC will enhance the safe operation of Aircraft using, or about to use, the Manoeuvring Area.

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Definitions

Definitions Relevant to this RA

1. **Aircraft Last Look Checks.** A dedicated role / task to supplement the provision of an Aerodrome Service¹ by providing additional Safety checks for Aircraft using, or about to use, the Manoeuvring Area.

Regulation 3279(1)

Requirement for Aircraft Last Look Checks

3279(1) ADHs / AM(MF)s **shall** determine the requirement for ALLC, for their platforms.

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Requirement for Aircraft Last Look Checks

2. ADHs / AM(MF)s **should** utilize extant Safety Management processes to determine the requirement for ALLC in accordance with (iaw) RA 1200².

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Requirement for Aircraft Last Look Checks

3. Nil.

Regulation 3279(2)

Establishment of Aircraft Last Look Checks

3279(2) ADH-Facing Organizations and AM(MF)-Facing Organizations (AA-Facing Organizations)³, in consultation with ADHs / AM(MF)s, **shall** determine the Aerodromes at which ALLC **▶ need ◀** to be provided.

¹ Refer to RA 3261 – Aerodrome Service.

² Refer to RA 1200 – Air Safety Management.

³ Refer to RA 1032 – Aviation Duty Holder-Facing Organizations and Accountable Manager (Military Flying)-Facing Organizations - Roles and Responsibilities. Throughout this RA, the term AA-Facing Organizations refers to Internal AA-Facing Organizations iaw RA 1032(1).

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Establishment of Aircraft Last Look Checks

4. AA-Facing Organizations **should** consult with the relevant ADHs / AM(MF)s and utilize extant Safety Management processes, iaw RA 1200², to determine:
 - a. Aerodromes that require the provision of ALLC.
 - b. The most suitable capability solution to enable ALLC, ► which is an Air Safety barrier intended to reduce Risk during Aircraft operations on or near the Manoeuvring Area. The method of provision **should** focus on delivering the intent rather than relying on any single equipment solution. ◀
5. AA-Facing Organizations **should** consult with ► ADHs / AM(MF)s ◀ to implement and maintain the provision of ALLC.

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3279(2)**

Establishment of Aircraft Last Look Checks

6. ► AA-Facing Organizations are expected to ensure that ALLC achieves the intended Safety effect. This may be delivered through a range of approaches, including established or emerging technologies, provided they meet operational and Safety requirements. The selected approach could be informed by a Risk Assessment and aligned with the ADHs / AM(MF)s Risk acceptance. ◀

**Regulation
3279(3)**

Provision of Aircraft Last Look Checks

- 3279(3) AA-Facing Organizations **shall** ensure that ALLC are effective.

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Provision of Aircraft Last Look Checks

7. AA-Facing Organizations **should** ensure that a Suitably Qualified and Experienced Person conducts ALLC checks.
8. **Availability.** An ALLC Operator **should** be available at their designated work position whenever known Aircraft movements are taking place, except:
 - a. At the discretion of the Aerodrome Controller (ADC)
 - (1) When instrument approaches are taking place in visibility conditions that preclude a reliable ALLC.
 - (2) The ALLC work position need not be staffed when the time interval between known Aircraft movements permits, provided that an ALLC Operator is immediately available to return to their work position when required.
 - b. At Military Emergency Diversion Aerodromes (MEDA), where Air Traffic Control (ATC) is staffed solely to meet MEDA commitments.
 - c. When detailed by the Aerodrome Operator (AO) and promulgated in Local / Unit Orders iaw RA 1026⁴.
9. **Immediate Actions.** If the ALLC Operator determines that there is a Hazard present, in the air or on the ground, they **should** refuse the Aircraft permission to:
 - a. Make an approach to the Runway.
 - b. Move from the Runway Holding Point.
 - c. Take-off.
10. The type of intervention the ALLC Operator chooses to make will depend upon the urgency of the situation and time available, therefore the ALLC Operator **should** be proficient in the following:
 - a. Direct use of Radio Telephony (RT) Phraseology, to Aircraft and / or vehicles, iaw Civil Aviation Publication (CAP) 413⁵.

⁴ Refer to RA 1026 – Aerodrome Operator and Aerodrome Supervisor (Recreational Flying) Roles and Responsibilities.

⁵ Refer to CAP 413 – Radio Telephony Manual.

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- b. Use of light and / or pyrotechnic signals by day and night as detailed in RA 3261¹.
- c. Verbal communication by any means to the ADC and / or Ground Controller.
11. **Reporting.** The ALLC Operator **should** report to the ADC, with the least possible delay, incidents of the following nature:
- Non-standard or unusual signals from Aircraft.
 - Unusual appearance or movement of Aircraft.
 - Visual defects on an Aircraft⁶.
 - Any other situation or occurrence that they feel could affect the Safety of an Aircraft, vehicle, or person.
12. **Checking of Equipment.** The ALLC Operator **should** check all their equipment prior to the start of flying and report any defects or unserviceability to the watch supervisor and, once flying has commenced, report any equipment issues without delay.
13. **Night Flying – Additional Responsibilities.** During night flying, subject to their field of vision, the ALLC Operator **should** report, to the ADC, any failures of:
- Aircraft navigation lights or identification lights.
 - Aerodrome Ground Lighting.
14. **Log Keeping.** The ALLC Operator **should** maintain a log to record unusual occurrences, action taken and any other pertinent information iaw RA 3204⁷ and Single Service policy. Completing log entries **should not** distract from the efficient execution of their duties.
15. Where ALLC are provided, this **should** be annotated in the Unit Defence Aerodrome Manual (DAM) and Military Aeronautical Information Publication (Mil AIP) and include, as a minimum:
- The signalling capabilities available.
 - Where signals will be presented from.
 - Minimum visibility conditions for provision of ALLC.

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Provision of Aircraft Last Look Checks

16. The following list, although not exhaustive, highlights situations in which the ALLC Operator may take action:
- The ALLC Operator may, where appropriate, refuse Aircraft permission to make an approach to the Runway in the following circumstances:
 - Aircraft appears in an incorrect configuration, or the landing gear does not appear fully down.
 - If there is a danger of collision.
 - If the path of the approaching Aircraft is obstructed.
 - If clearance to do so has not been given.
 - On instruction from the ADC.
 - The ALLC Operator may, where appropriate, refuse permission for Aircraft to move from the holding position in the following circumstances:
 - If to do so would obstruct an Aircraft approaching to land or about to take-off.
 - If clearance to do so has not been given.

⁶ Refer to AP 3457 – Air Traffic Control Last Look Checks.

⁷ Refer to RA 3204 – Air Traffic Management Records.

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- (3) On instruction from the ADC.
- c. The ALLC Operator may, where appropriate, refuse Aircraft permission to take-off in the following circumstances:
- (1) If to do so might obstruct an Aircraft making an approach or about to take-off (for example, where more than one Runway is in use).
 - (2) When an Aircraft defect is noticed.
 - (3) If clearance to do so has not been given.
 - (4) On instruction from the ADC.
17. The monitoring of other Airfield activity⁸ that is not associated with the primary task of providing ALLC will be annotated in local orders and based on Single Service policy where applicable.
18. ► ALLC is an Air Safety barrier intended to reduce Risk during Aircraft operations on or near the Manoeuvring Area. The method of provision will focus on delivering the intent rather than relying on any single legacy solution. Options may include:
- (1) Digital or remote systems providing visual surveillance and signalling capability.
 - (2) Alternative arrangements that achieve equivalent Safety Assurance, subject to local Safety Assessment.
 - (3) Integration with existing Aerodrome services where feasible.
19. AA-Facing Organizations will consider resilience, maintainability, and Human Factors when selecting and implementing solutions. Where equipment or procedures become unavailable, contingency measures will be defined in local orders to maintain Safety.
20. Visibility of less than 800 m may be considered as a default threshold for withdrawing the ALLC operator from their work position. This value can be adjusted based on the performance of the chosen solution and a local Safety Assessment. Where digital capabilities or other technologies are employed, the same principle applies, ensuring that withdrawal decisions maintain the intended Safety effect. ◀
21. An Aircraft Movements Log, as required under RA 3204⁷, may be maintained by the ALLC Operator where it is judged that this will not be a distraction to their primary role. If it is deemed to be a distraction, units will make other arrangements for the Aircraft Movements Log to be maintained.
22. ► ◀

**Regulation
3279(4)**

Equipment and Operating Requirements – Truck Runway Control

3279(4) Heads of Establishment (HoE) and AA-Facing Organizations **shall** ensure that the Truck Runway Control (TRC), when employed for ALLC duties, meets minimum equipment specifications and operating requirements.

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Compliance
3279(4)**

Equipment and Operating Requirements – Truck Runway Control

23. **Vehicle type and markings.** The TRC **should**:
- a. Be of a suitable size and ergonomic design to enable the ALLC Operator to discharge their duties.
 - b. Include suitable lookout ports or cupola to enable a sufficient view of the Runway in use, its approaches, holding positions and adjacent taxiways.
 - c. Be marked and lit in accordance with RA 3267⁹ and include a red obstruction light at the highest point of the TRC.

⁸ This may include but is not limited to wildlife activity, driving routes, foreign object debris and work in progress.

⁹ Refer to RA 3267 – Aerodrome Vehicle Marking and Lighting Requirements.

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3279(4)**

24. **Position.** The TRC **should** be positioned as follows:
- a. **On Runway Aerodromes.** To the left or right of the Runway, a minimum of 45 m (150 ft) from the Runway edge and 70 m (225 ft) from the threshold.
 - b. **On Non-Runway Aerodromes.** At the down-wind side of the Aerodrome, and so positioned that 2 or more Aircraft may land simultaneously to the right of the truck with sufficient space available to the left of the truck to enable Aircraft to take-off.
 - c. When not in use for the provision, or planned provision, of ALLC, the TRC **should** be removed from its operating position if to leave it in place would present a Hazard to Aircraft.
25. **Equipment.** The TRC **should**, as a minimum, be equipped with:
- a. Mains electric power.
 - b. Normal internal electric lighting.
 - c. **Signalling:**
 - (1) Red, green and white light signals.
 - (2) Two pyrotechnic pistols with sufficient ammunition, with integrated firing ports where required.
 - (3) At least two serviceable means of signalling available, to provide resilience if one fails.
 - d. **Communications:**
 - (1) RT monitoring and transmission capability.
 - (2) Telephone.
 - (3) Direct line communications with ATC.
 - e. **Miscellaneous Equipment:**
 - (1) TRC wind direction indicator.
 - (2) Binoculars.
 - (3) Clock (synchronized with clock in ATC).
 - (4) Plan of Aerodrome, with crash map.
 - (5) Logbooks (maintained iaw RA 3204⁷).
 - (6) Secure pyrotechnic box.
 - (7) Fire extinguisher.
 - (8) Torch.

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Equipment and Operating Requirements – Truck Runway Control

26. Whilst the TRC is considered an operationally essential obstruction iaw with RA 3590(12)¹⁰, this will only apply when it is in position for the purpose of providing ALLC, including temporary periods when it is not in use due to the ALLC operator being withdrawn iaw with para 6.

27. However, when the ALLC operator is withdrawn due to poor visibility conditions, which are unlikely to improve during the period of planned flying or MEDA commitment, the Watch Supervisor will consider removing the TRC from its operating position.

¹⁰ Refer to RA 3590(12): Safeguarding – Operationally Essential Operations.

Regulation 3279(5)

Equipment and Operating Requirements – Digital Aircraft Last Look Checks

3279(5) HoE and AA-Facing Organizations **shall** ensure that when employing Digital ALLC equipment, it meets minimum specifications and operating requirements.

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Equipment and Operating Requirements – Digital Aircraft Last Look Checks

28. **Equipment.** The following minimum equipment parameters **should** be met:
- Remote Pan-Tilt-Zoom (PTZ) cameras positioned to ensure that a sufficient view of the Runway in use, its approaches, holding positions and adjacent taxiways can be transmitted to the Operator Work Position (OWP).
 - Remote light signals capable of red, green and white signals, positioned so that the signals they provide can be seen by the intended recipient from the Runway in use, its approaches, holding positions and adjacent taxiways.
 - Remote PTZ cameras and light signals positioned so as to present the lowest practicable obstruction iaw RA 3512¹¹ and RA 3590¹², whilst being able to perform their function.
 - The position of remote light signals added to the Mil AIP, DAM and local orders.
 - The OWP located to enable optimal communication and liaison with the ADC.
29. **Operation.** Digital ALLC procedures **should** be iaw the ALLC User Manual and defined in local orders including, as a minimum:
- Daily routine for set-up procedures and equipment checks.
 - Action in the event of loss of visual surveillance or signalling capability.
 - Remote camera operating procedures.
 - Remote light signal operating procedures.

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Equipment and Operating Requirements – Digital Aircraft Last Look Checks

30. Location of Remote PTZ and light signals.
- Remote PTZ cameras and light signal installations will be considered as operationally essential obstructions iaw RA 3590¹².
 - If remote light signals are only located adjacent to main / instrument Runways, local procedures will be required to cater for the provision of signals to other Runways (including simultaneous Runway ops).
31. Operation of Remote light signals.
- If the remote light signal equipment becomes unserviceable, handheld light signals may provide a fallback signalling capability.
 - The routine use of handheld light signals from the Visual Control Room (VCR), iaw RA 3261¹, is unaffected. However, where both handheld and remote light signals are available, care will be required to avoid the simultaneous provision of confusing signals.
32. There is currently no provision for remotely controlled pyrotechnic signals. If pyrotechnic signals are required, it is likely that they will only be available from ATC.
33. It is expected that the OWP will be located in the VCR or Digital VCR, unless an operational reason determines a different location is needed.

¹¹ Refer to RA 3512 – Permanent Fixed Wing Aerodrome – Obstacle Environment.

¹² Refer to RA 3590 – Maintenance and Safeguarding.