DEFENCE AVIATION SAFETY AUTHORITY

FACTSHEET – MANAGEMENT OF AIR CARGO DELIVERY EQUIPMENT

AIM

This factsheet provides guidance to support the implementation of Defence Aviation Safety Regulations (DASR) requirements pertaining to *Air Cargo Delivery (ACD) Equipment*. ACD Equipment is categorised as either Aircraft Role Equipment or Ground Support Equipment. The scope of this factsheet is ACD Equipment categorised as Aircraft Role *Equipment*.

Specifically, for ACD Equipment categorised as Aircraft Role Equipment, this factsheet clarifies:

- the responsibilities for the approval of its use
- in-service management requirements.

The intended audience for this factsheet are organisations that operate with, or support the approval and introduction of, new ACD Equipment categorised as Aircraft Role Equipment, including:

- Military Air Operators (MAOs)
- ACD Service Providers (ACDSPs)
- Military Type Certificate Holders (MTCHs)
- the Capability Acquisition and Sustainment Group (CASG).

DASP GLOSSARY DEFINITIONS

ACD Equipment. Equipment employed in ACD via Airdrop, Airland and External Lift on transport or rotary wing Aircraft; including Aerial Delivery Equipment (ADE), pallets, restraint devices, chains, straps, nets and loading devices.²

Aerial Delivery Equipment. Equipment employed on transport or rotary wing Aircraft in the aerial delivery of materiel; including slings, platforms, containers, parachutes, rigging materials, cloths, cords, tapes, threads and webbing (Note: Aerial delivery equipment does not include equipment employed in the aerial delivery of personnel).

Role Equipment. Any equipment, apart from Aeronautical Life Support Equipment (ALSE), fitted to an aircraft on a non-permanent basis, or carried on board, for operation by crew or passengers in flight to support a Defence role or mission.

APPLICABLE POLICY

ACD Equipment categorised as Aircraft Role Equipment. The requirements of *DASR ACD.70* or *DASR ORO.75* (or both) apply to items of equipment—depending on their use during flight. ACD Equipment used in-flight is categorised as Aircraft Role Equipment, and therefore must comply with DASR requirements for *both* ACD Equipment and Aircraft Role Equipment.³ For example, a restraint device employed on an Aircraft for restraining air cargo in-flight meets the definition of both ACD Equipment and Role Equipment. Annex A contains a diagram that illustrates applicability of *DASR ACD.70* and *DASR ORO.75* to various categories of equipment.

DASR ORO.75 requires MAOs to only carry and operate Aircraft Role Equipment in accordance with approved OIP.

DASR ACD.70 requires MAOs conducting ACD, and ACDSPs, to ensure that ACD Equipment meets, and is maintained to, authorised standards; and supports the safe provision of services.

ie DASR ACD.70 and DASR ORO.75. Beyond the scope of the DASR, ACD Equipment may also be subject to the management of other regulation or policy, such as the Land Material Safety Manual (LMSM).



The scope of this Factsheet excludes personnel parachutes and associated equipment.

² Per the DASP definition, ACD Equipment includes both air and ground equipment.

Defence Aviation Safety Design Requirements Manual (DASDRM). The DASDRM chapters that are relevant to ACD Equipment categorised as Aircraft Role Equipment are:

- Section 5 Chapter 5 (S5C5). This chapter contains DASA's prescribed standards for air cargo. It
 describes how air load clearance agencies employ certain ACD Equipment to generate load clearances;
 and how certain ACD Equipment interfaces with cargo items. When seeking approval for new ACD
 Equipment categorised as Aircraft Role Equipment, the regulated community and supporting organisations
 should consider the relevant S5C5 standards. Note, some of the standards refer to, and assume the use
 of, specific items of ACD Equipment.⁴ The regulated community and supporting organisations should
 therefore consider the ramifications of using any ACD Equipment that is different to that identified in S5C5
 standards.
- **Section 5 Chapter 6 (S5C6)**. This chapter contains DASA's prescribed design requirements for Aircraft Role Equipment and Portable Electronic Equipment—in support of approvals under *DASR ORO.75*.

Land Material Safety Manual (LMSM). Some ACD Equipment used on ADF Aircraft is also managed as Land Materiel (eg helicopter underslung lifting equipment, cargo parachutes, airdrop platforms), and is therefore subject to Landworthiness management requirements. Compliance with the LMSM may address some aspects of ACD Equipment Airworthiness management (such as serviceability and maintenance), but not all (such as Aircraft Type impacts, interfaces, and technical aspects). Accordingly, compliance with the LMSM does not exclude the applicability of DASR requirements.

INTRODUCING NEW ACD EQUIPMENT CATEGORISED AS ROLE EQUIPMENT INTO SERVICE⁵

MAOs should consider consulting with subject matter experts for advice regarding new ACD Equipment categorised as Aircraft Role Equipment, before initiating acquisition. Subject matter experts may include the applicable:

- MTCH
- DASR 21 military design organisation
- flight test organisations
- load clearance agencies
- ACD Equipment end users.

The role of the acquisition agency. MAOs are accountable for approving ACD Equipment categorised as Aircraft Role equipment and should seek support of the relevant acquisition agency—typically CASG SPOs or through Service minor projects.⁶

Categorisation and technical evaluation as Aircraft Role Equipment. MAOs should categorise and conduct technical evaluation of Aircraft Role Equipment IAW *GM ORO.75 - Use of Role Equipment* and <u>DASA Factsheet – Technical Evaluation of Role Equipment</u>. MAOs may leverage from approvals of ACD Equipment on other Aircraft (domestic or foreign) to inform the technical evaluation of ACD Equipment categorised as Aircraft Role Equipment.

MAO approval of ACD Equipment categorised as Aircraft Role Equipment. MAOs should approve the use of new ACD Equipment categorised as Aircraft Role Equipment IAW *GM ORO.75 - Use of Role Equipment*. As part of the approval, MAOs should issue the necessary OIP (eg Flight Manual, Standing Instruction or Flying Orders).

Use of approved ACD Equipment. Once a MAO has approved ACD Equipment categorised as Aircraft Role Equipment for use—IAW DASR ACD.60—MAOs and supporting ACDSPs may approve cargo for transport, using the new ACD Equipment; and ACD load clearance agencies may issue load clearances, using the new ACD Equipment.

Requirements for in-service management. MAOs and ACDSPs must manage ACD equipment IAW *DASR ACD.70*. For the introduction of new ACD Equipment, MAOs should consider:

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Most of the DASDRM S5C5 standards reference particular ACD Equipment specifications. Hence, these S5C5 standards generally will not provide a suitable basis for assessing different equipment.

The process as described only addresses the aviation safety aspects of introducing new ACD Equipment to service. Other acquisition / sustainment and financial aspects will need to be addressed, but this is outside of DASA's remit.

⁶ DASR ORO.75 refers.

- design specification and standards for ACD Equipment (as these may contain approved applications, limits, serviceability or inspection criteria that should be implemented within approved OIP and training)
- development of an appropriate maintenance management system that will be used to record repairs, modifications, inspections and maintenance in-service
- appointment of a CASG item manager to ensure the delivery of in-service continuing airworthiness requirements.

FURTHER INFORMATION

DASA Factsheets:

- Application of ALSE, Role Equipment, Portable Electronic Equipment and Air Cargo DASR
- Technical Evaluation of Role Equipment

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ANNEX A: APPLICABILITY OF DASR ACD AND DASR ORO.75 TO VARIOUS CATEGORIES OF EQUIPMENT.

The scope of this Factsheet is ACD Equipment categorised as Role Equipment, as shown in the centre of the diagram. Other categories and examples drawn in grey are for reference only, and to identify aspects that are beyond the scope of this Factsheet.

Air Cargo Delivery (ACD) Equipment

Requirements: DASR ACD

Equipment employed in ACD via Airdrop, Airland and External Lift on transport or rotary wing Aircraft; including ADE, pallets, restraint devices, chains, straps, nets and loading devices

Role Equipment

Requirements: DASR ORO.75 and DASDRM S5C6

Any equipment, apart from ALSE, fitted to an aircraft on a non-permanent basis, or carried on board, for operation by crew or passengers in flight to support a Defence role or mission

Role Equipment that is not ACD Equipment

Examples:

- Aeromedical Equipment
- Store pylons and suspension equipment

ACD Equipment categorised as Role Equipment

ACD Equipment that is used in flight

Examples:

- Emergency Parachute Jettison System, 28ft extraction parachute
- CGU-1B, 463L pallet, top and side nets
- HULC-M, HUSLE, A22 bag, cargo net
- A22 CDS, Type V platform, A7A straps
- G11 Descent Parachute, FXC, M1, M2, WAPR Note: includes ACD Equipment that only operates after aircraft exit

ACD Equipment that is not categorised as Role Equipment

ACD Equipment that is not used in flight

Examples:

 Mechanical Handling Equipment (PFA-50, TALU, forklift)

Note: such equipment may be carried on-board as cargo.

Aircraft

Requirements: DASR 21

Note: Includes certified aircraft provisions for cargo, such as BP rails and tiedown rings

Cargo

Requirements: DASR ACD and DASDRM S5C5

Materiel transported by air with no intent to be used / operated in flight

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