

## ULDCARE-CHECK

### ULD Storage

This checklist is created by ULD CARE as an aid to organizations working with ULD to conduct audits on various aspects of their ULD operations and so support a process of continuous improvement. It is an operational level document, while not intended to replace any formal quality/airworthiness requirements that any organization may have in place, its use should assist ULD managers achieve a better operating environment for their ULD

ULD CARE does not expect the users of this check list to feedback the results of any audits, they are intended for internal use, however users are most certainly welcome to share their experiences of using this process to assist ULD CARE developing this tool.

To carry out the check will require both a physical “on the spot” inspection to assess the “hard criteria” and also a discussion with the manager responsible for this aspect of ULD operations to assess the “soft criteria” .

Introduction to the ULDCARE-CHECK on ULD Storage:

The proper storage of ULD is a vital foundation for safe and efficient ULD operations. Sub standard ULD storage will almost certainly lead to ULD damage and probably loss of airworthiness. The purpose of this check is to assess the total ULD storage capability for any particular organization/location to assess if it is suited to the purpose of providing sufficient secure and hazard free storage.

To achieve an accurate assessment this check should be applied to 100% of ULD storage at any particular facility/airport including any “unofficial storage areas” and should avoid “cherry picking” the best sites while missing out the problem areas!

This check list is applicable to any situation where ULD are being stored regardless of scale or whether temporary or permanent storage and will assist ULD owners and those involved in ULD storage to carry out an objective assessment of their operations and determine where improvements are required.

**Section 1. Check Form**

Aspect of Storage	Check Item	Evaluation Criteria	Comply /Fail	Auditor Comments
1.General principles/management level	All ULD storage is carried out in a planned and organized manner	Provision of written procedures and guidelines ULD storage activities.		
	Written procedures for storage of ULD exist and are communicated to operations staff	Evidence of a properly established and operated storage facility with an absence of situations that could be harmful to ULD		
	Training of staff whose function includes storage of ULD	Suitable levels of training/qualification for <ul style="list-style-type: none"> <li>• Staff working at storage location</li> <li>• Supervisors responsible for ULD handling activity</li> <li>• Overall facility management</li> </ul>		
	Supervisor competence and capability	All personnel working with/around ULD storage to be aware that they are working with lightweight aircraft parts that are easily damaged and that even small damage can result in a loss or airworthiness		
2.Location and access	Distance from ULD operating areas	Sufficiently close to daily operational areas so that ULD can be conveniently be placed/retrieved from storage		
	Ease of access/transfer between dollies and storage	Layout to be such that dollies may access storage areas without difficulty		
3.Infrastructure	Capable of storing ULD without damage	Design of storage to be such that any ULD of the correct size can be stored and transferred without		

		risk of damage		
	Protection against adverse weather	Adequate provision against extreme weather such as wind and snow		
	Sufficient stops and restraints	Equipped with sufficient stops/restraints to prevent ULD movement when stored and shall not cause damage to ULD being stored		
	Adequate size for the operation	Facility of a suitable size to handle planned ULD operations taking into account peak requirements, providing sufficient segregation for different types of ULD and with separate storage for 16/20 ft and other special ULD as required.		
	Ease of access to ULD	Sufficient access provisions to allow for manual movement of ULD's when required		
	Proper storage for nets and straps	Under cover storage ( may be at a separate location) for cargo straps and those nets removed from pallets. Items to be protected against UV and water, also segregated by owner.		
	Capability to segregate damaged ULD	Area of sufficient capacity allocated for holding damaged ULD.		
4.Operation of storage	Overall condition of facility	Shall be in good mechanical condition with all fixed and moving parts in proper condition.		
	Positioning of different types and owners of ULD	Established procedure to store ULD in the correct locations		
	Established plans for temporary storage of ULD	Where, on a temporary basis, any kind of temporary storage is required then: <ul style="list-style-type: none"> <li>• It shall be set up shall be sufficient to prevent damage to ULD through improper handling and /or damage from other equipment</li> <li>• It shall operate in a planned and supervised manner</li> <li>• It's use shall be notified to the ULD owner</li> </ul>		

**Section 2.Assessment guidance/Acceptable means of compliance/IATA ULDR Reference**

<b>Aspect of Storage</b>	<b>Check Item</b>	<b>Guidance</b>	<b>ULD Regulations Reference:</b>
1.General principles/management level	All ULD storage is carried out in a planned and organized manner	Organization providing any kind of ULD storage on airport shall be fully knowledgeable of the requirements for carry out this activity as laid out in ULDR 9.5 and have established internal operations processes covering this activity	9.3.1
	Written procedures for storage of ULD exist and are communicated to operations staff	Organization will have available and provided to all operations staff a complete set of procedures for the storage of ULD	9.3.1
	Training of staff whose function includes storage of ULD	All operations staff to have undertaken ULD training at Basic level	9.3.2
	Supervisor competence and capability	Supervision of all ULD storage operations shall be by persons having both the training and experience necessary to adequately control these activities	9.3.2
2.Location and access	Distance from ULD operating areas	While there are no hard requirements for the distance between ULD operating area and storage areas the need to travel for more than a few minutes will introduce inefficiency and may encourage "short cut" ULD storage "solutions"	9.3.3
	Ease of access/transfer	Facility shall be such that ULD can be transferred in and out of storage facility without risk of damage to	9.3.3

	between dollies and storage	the ULD. There shall be no significant height difference between storage and dollies when carrying out transfers. Where forklifts are used in this process there shall be adequate prevention against damage to ULD.	
3.Infrastructure	Capable of storing ULD without damage	Any ULD storage facility shall at a minimum meet the basic requirements that the ULD can be stored on its base, and be transferred in and out of the facility without risk of damage. Pallet storage may be of a different nature to container storage, using different methods, but the same basic requirements that the pallet shall not be damaged during storage shall be observed and the use of forklifts as a primary method for transfer of pallets in/out of storage should be avoided.	9.3.3
	Protection against adverse weather	In geographical locations which experience high winds/ snow & ice, or any other potential weather hazards the storage facility shall be designed/equipped to take account of these conditions	9.3.3
	Sufficient stops and restraints	Facility shall be have stops and restraints that prevent uncontrolled movement of stored ULD without causing damage to any ULD.	9.3.3
	Adequate size for the operation	Facility layout and capacity shall be capable of handling routine and peak demands for ULD storage. There shall be sufficient capacity to enable the segregation of different types/owners and for the safe storage of special purpose ULD such as 16/20 ft pallets, horse stalls etc. as necessary.	9.3.3
	Ease of access to ULD	Where human intervention is required to move ULD in/out of storage walkways shall be provided.	9.3.3
	Proper storage for nets and straps	While storage of nets and straps may be at a separate location they shall always be stored in conditions that prevent exposure to UV and to	9.3.4

		wetness. Nets should be stored in bags, straps rolled up, and all items segregated by owner.	
	Capability to segregate damaged ULD	Sufficiently large storage area for holding damaged ULD pending repair. Area clearly marked as holding damaged ULD	9.2.4/9.3.3
4.Operation of storage	Overall condition of facility	Facility shall be maintained to its design condition. All moving parts shall be fully functioning and not exhibiting wear, and the facility shall not contain broken or damaged components.	9.3.3
	Positioning of different types and owners of ULD	Facility shall operate according to an established procedure, with systems in place to control the positioning of each ULD inside the facility	9.3.3
	Established plans for temporary storage of ULD	<p>As even the largest ULD storage facility may be subject to overflow at peak times there shall always be some kind of plan to handle such situations. Plans to include the provision of</p> <ul style="list-style-type: none"> <li>• Area safe from other equipment/jet blast/wind</li> <li>• Handling equipment</li> <li>• Trained staff</li> <li>• Trained supervision</li> <li>• Management oversight</li> <li>• Advise to ULD owners of the use of temporary storage</li> </ul> <p>All ULD stored in such a facility to be handled without damage, including being supported when stored on the ground, never stacked over 2 high ,and always with the base towards the ground.</p>	9.3.5