

ANNEX A

VERTREP EVOLUTIONS

Publications

1. **Authoritative Publications.** ADF VERTREP evolutions are to be conducted IAW this publication and the following authoritative publications:

- a. *NAP 7279.001-3M* Air Delivery Equipment and Underslung Loads,
- b. Squadron Flying Order Book,
- c. aircraft flight manuals,
- d. Special Flying Instructions (SFI), and
- e. Squadron flying guides.

Personnel

2. **Specific Duties and Responsibilities.** Specific duties and responsibilities are as follows:

a. **VERTREP Party.**

(1) **Composition of VERTREP Party.** The VERTREP party may vary in composition depending on the size and shape of the load however, it normally consists of two FDT and/or V&T trained personnel:

(a) **Earthing Number.** Responsible for:

- i. safety of the hook-up number, and
- ii. earthing out the aircraft cargo hook or sling.

(b) **Hook-up Number.** Responsible for:

- i. safety of the earthing number.
- ii. hooking up the load, and
- iii. ensuring the cargo hook has closed after the hook-up.

NOTE

Both the earthing number and the loading number are to maintain frequent eye contact with the FD supervisor and aircrewman.

(2) **Personnel to Position and Clear Loads (Dump Party).** Additional personnel may be required to position and clear the loads on the flight deck/VERTREP area. These personnel:

- (a) need not be FDT and/or V&T trained provided they are under the supervision of the FD supervisor, and
- (b) are not to be employed underneath the aircraft at any time.

- b. **Loads Release.** When the load is to be released there is no requirement for earthing unless it is:
- (1) **Dangerous Air Cargo (DAC).** DAC Loads are required to be earthed above the load prior to deck/ground contact IAW *NAP 7279.001-3M*.
 - (2) **Electronically Fragile Loads.** Loads that may be electronically fragile such as laptop computers that are being lowered by winch or handline should be earthed above the load prior to deck contact.

VERTREP Load Preparation

5. **Load Preparation.** The primary concern in load preparation is to provide a load that will ride safely in flight and arrive at the destination undamaged. VERTREP loads are subject to extremely high winds from rotor wash during hover and flight.

6. **Rigging Procedures.** Loads are to be prepared IAW the rigging procedures detailed in *NAP 7279.001-3M Air Delivery Equipment and Underslung Loads*.

7. **Personnel Authorised to Rig Loads.** Loads may be rigged IAW the [Rigging Procedures](#) detailed in *NAP 7279.001-3M Air Delivery Equipment and Underslung Loads* only by personnel qualified as follows:

- a. **Non-Aircrew and Aircrew Personnel Not In Current Flying Practice.** Minimum rank of Leading Seaman who:
- (1) have successfully completed the:
 - (a) *VERTREP Load Supervisor's Course* (100175),
 - (b) *Flight Deck Team Course* (103614) or *VERTREP and Transfer Team Course* (103610), and
 - (2) are '[In Current Practice](#)' in rigging underslung loads.
- Note that the Air Capable Course run by TA-AVN qualification includes both course 103610 and 103614.
- b. **Current Aircrew Personnel.** Observers and Aircrewmembers who:
- (1) have successfully completed an OFT including the *VERTREP Load Supervisor's Course* (100175) as a component,
 - (2) are authorised by the Squadron CO; and
 - (3) are '[In Current Practice](#)' in rigging underslung loads.
- c. **In Current Practice.** 'In Current Practice' is defined as having carried out an actual or practice rigging of an underslung load within the previous six months.

WARNING

In every case personnel rigging underslung loads are to be in current practice in the use of ADE for the rigging of underslung loads.

8. No Personnel Authorised to Rig Loads Available. In the event that a ship does not have the necessary [personnel authorised to rig loads](#), then VERTREP loads may be delivered/received under the following conditions:

- a. **Delivering VERTREP Loads.** The ship should request assistance in the preparation of the load from another unit or from the aircrew transporting the load.
- b. **Receiving VERTREP Loads.** Loads may be received however, [returning ADE \(retrograde/backloading\) operations](#) may require the assistance of a [person authorised to rig loads](#).

Cargo Staging

9. Cargo Staging. Where practicable, to facilitate an efficient, speedy VERTREP evolution, cargo may be staged on the Flight Deck/VERTREP area as follows:

- a. **Positioning.** All cargo must be positioned:
 - (1) within the hover area bounded by marked lines and/or hover limit line(s);
 - (2) to be accessible for pick-up by the helicopter;
 - (3) allowing, when possible, sufficient room between loads:
 - (a) for the VERTREP Party personnel to move about freely and have an emergency escape route; and
 - (b) to reduce the possibility of a load snagging or overturning adjacent loads during pick-up; and
 - (4) such that the lightest loads are lifted first.
- b. **Tarpaulins.** Tarpaulins used to cover staged VERTREP loads during flight operations must be secured with cargo nets to ensure that the tarpaulins will not be blown off the load and into the helicopter rotors; and
- c. **Load Height.** When possible, load height should be constructed so that the VERTREP Party can conduct their tasks without climbing on the loads.

WARNING

Should it be necessary for VERTREP Party personnel to climb onto loads during a VERTREP, due consideration should be given to the safety of the VERTREP Party personnel with respect to the stability of the load, deck movement and rotor downwash.

Clearing the VERTREP Area

10. Unloading the Cargo. Once the load has been released and the helicopter has departed, cargo handlers (FDT or [Dump Party](#) personnel) will generally remove the load from the Flight Deck/VERTREP area or where necessary breakdown the load for distribution.

- a. **Breaking Down the Load.** The following guidance is provided with respect to breaking down VERTREP loads:
 - (1) nets, beackets, and cargo wraparound straps shall never be cut;
 - (2) assigned personnel open the net and cut any internal banding on the load;
 - (3) under the direction of the FDM/FDO/HD, [cargo handlers](#) who have been standing by clear of the VERTREP area, move in, pick up a portion of the cargo, and leave the VERTREP area;
 - (4) nets and loose debris shall be removed from the VERTREP area; and
 - (5) ADE is to be folded and prepared for return as required.
- b. **Receiving Loads During the Breakdown Process.** Generally, it is not necessary to wave-off a loaded helicopter with a VERTREP load when the VERTREP area is not completely clear of the previous load. If space is available for additional cargo:
 - (1) the load being worked should be temporarily secured by pulling the net up over the load and threading the hoisting sling leg through the net ends, and
 - (2) all unnecessary personnel must then clear the area while the next load is being deposited.

NOTE

If the requirements of paragraph 9 B (1) and (2) ([Receiving Loads During the Breakdown Process](#)) are not satisfied then the helicopter is to be waved off

11. Returning ADE (Retrograde/Backloading Operations). The return of the ADE used in VERTREP evolutions is to be coordinated in advance of the VERTREP commencing (e.g returning the ADE as an internal or external load, or by boat etc).

WARNING

Do not, under any circumstances, hook an empty net to the helicopter. To do so could cause damage to the helicopter by allowing the net to be blown into the helicopter's rotors.

The normal empty load is at least four wooden or six metal pallets or equivalent weight in the net. This may be varied depending on the helicopter type. If in doubt, consult the pilot.

VERTREP Procedure

12. **VERTREP Procedure.** [Appendix 1](#) details the VERTREP procedure.
13. **Operations with Hangar Door Open.** IAW [High Rate VERTREP](#) in [Chapter 4](#).

Emergencies

14. Helicopters engaged in load lifting operations are often operating close to the limitations of their flight envelope, and a malfunction will necessitate rapid action from the helicopter crew, this may involve jettisoning the load.

WARNING

If the helicopter suffers a critical emergency it may descend rapidly without warning.

Accordingly, time spent underneath the aircraft should be kept to a minimum.

Appendix:

1. [VERTREP Procedure](#)