

1.0 Aim

- 1.1 The aim of this work instruction is to provide a step-by-step action on finding a suspected item of conventional UXO, in a safe environment.
- 1.2 The Work Instruction Immediate Action on Finding Unconventional UXO or EO (WI-51) is to be used for Unconventional UXO or EO.

2.0 Definitions

- 2.1 **Conventional Ordnance:** Explosive Ordnance which has neither nuclear, biological, nor chemical filling.
- 2.2 **Danger area** – This is an area surrounding an item of UXO or potential UXO. This is an exclusion area for all personnel until the area is deemed safe to re-enter.
- 2.3 **Explosive Ordnance Disposal (EOD):** The safe disposal of any munitions containing explosives. EOD operations involve the detection, identification, field evaluation, render safe, recovery and disposal of UXO.
- 2.4 **EOD Technician** – A person who has received recognised military EOD training to a level appropriate to the task.
- 2.5 **Small Arms Ammunition (SAA):** Ammunition of calibres up to 20mm, including ammunition for shot guns.
- 2.6 **Unconventional Ordnance** – Type of ordnance that does not conform to the standard type of munitions used historically by military organisations. These usually include those munitions radioactive, biological or chemical substances, or of an improvised nature (i.e. improvised explosive device).
- 2.7 **Unexploded Ordnance (UXO):** Explosive ordnance that has been primed, fused, armed or otherwise prepared for use or used. It may have been fired, dropped, launched or projected yet remains unexploded either through malfunction or design or for any other reason.

3.0 Responsibilities and Delegations

- 3.1 It is the responsibility of the site EOD manager/ technician to conduct a safety brief and UXO identification brief, paying particular attention to items likely to be found, to all employees and sub-contractors.
- 3.2 The EOD manager/ technician is responsible for ensuring that items of UXO are not touched, that the item is reported immediately on discovery, and appropriate action is carried out.
- 3.3 It is the responsibility of the site EOD manager/ technician to report any suspected UXO finds, whether conventional or otherwise, to the appropriate authorities as quickly as is possible.
- 3.4 The site EOD manager is to determine the contact details and callout procedures for the relevant local authorities prior to commencing UXO search or investigations. Where this detail is known prior to project mobilization, it should be included in the Project Management Plan.

4.0 Investigation of Suspected UXO

- 4.1 If, during search operations, an item is discovered that is potentially a UXO then the person who has discovered it is to stop search operations IMMEDIATELY.

Immediate Action on Finding Conventional EO or UXO Work Instruction – WI-38

- 4.2 The person who has discovered the item is to ensure that all personnel within 50 metres (greater distance if necessary) are informed and everyone within that area are to evacuate from that area IMMEDIATELY. Personnel are to take all equipment and personal items with them. This area is now considered a **Danger Area**.
- 4.3 Before the person making the discovery leaves the item they are to mark the item clearly, and the EOD Manager/ technician informed.
- 4.4 Once all personnel are outside the 50 metre danger area, the EOD Manager/ technician is to attend and positively identify the item as either UXO or non-UXO, if possible.
- 4.5 The investigating technician shall turn off or remove from his person all transmitting devices, such as cellular telephones, while conducting investigations on a suspected item of EO/UXO.
- 4.6 If the item is deemed to be non-UXO/EOW/safe-to-move, then normal search operations are to recommence.
- 4.7 If the item is identified as UXO, or if the EOD Manager/ technician is uncertain or unable to positively identify it as non-UXO, then the item is deemed as UXO. AT NO TIME SHOULD THE ITEM BE TOUCHED OR MOVED.
- 4.8 The EOD Manager / Technician is to record the detail as follows:
- 4.8.1 Item Description, if unknown record:
- a) Generic Nature/Shape
 - b) Dimensions – length, diameter, etc.
 - c) Colour.
 - d) Markings
 - e) Distinguishing features such as fins or lugs.
- 4.8.2 Photograph item, preferably with scale reference.
- 4.8.3 When found.
- 4.8.4 Grid Reference.
- 4.9 As the EOD Manager/ technician is leaving the area he is to ensure all personnel are accounted for and remain outside the danger area.
- 4.10 It is the EOD Manager/ technician responsibility to reduce or extend the safety area around the item if he deems necessary. A reduction is only likely where the item is considered to be extremely insensitive or filled with a pyrotechnic filling for which the effects are localised and of very low hazard – e.g. Smoke grenade.
- 4.11 Vehicles are not to be driven within 50 metres of any item.
- 4.12 **Small Arms Ammunition.** Items of SAA, other than those containing or suspected of containing a High Explosive or Incendiary filling and/or fusing, may be packaged in an appropriate package and arrangements made for those items to be handed over to the responsible authorities. Items of SAA containing a High Explosive or Incendiary filling and/or fusing are to be treated and reported as for Live UXO/EO.

5.0 Marking of UXO

- 5.1 All items of UXO that are not immediately destroyed are to be marked so that they are not inadvertently driven or trod on and so that they can be located by EOD personnel.
- 5.2 **Markers.** The marking should be the standard UXO sign as shown at Figure 1 below.

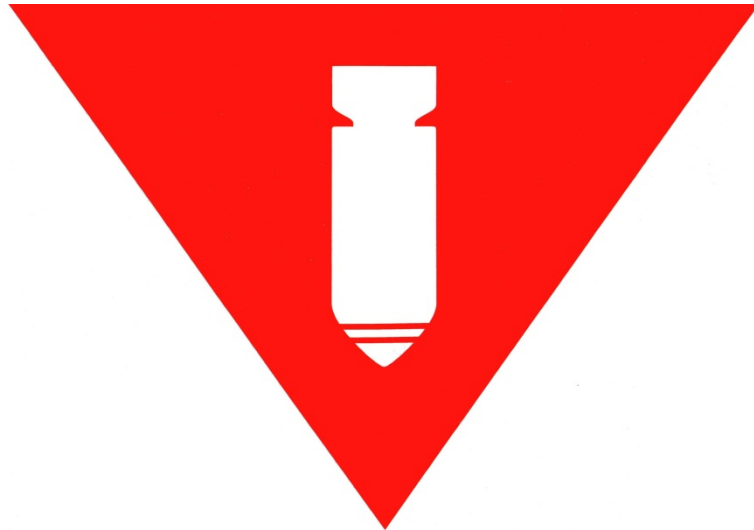


Figure 1: UXO Marker

- 5.3 Where it is not practicable to use a UXO marker sign, improvised markers may be utilised as follows:
- 5.3.1 Flagging or safety barrier tape.
 - 5.3.2 Rocks or rock cairns, preferably painted red.
 - 5.3.3 Dazzle Paint.
 - 5.3.4 Sticks or branches.
- 5.4 **Positioning of Markers:** The positioning of signs or markers will be determined by factors such as vegetation and terrain.
- 5.5 Signs are to be positioned a **minimum** of one metre away from the UXO and so positioned that if the sign falls over it will not strike the UXO. Consideration should be given to ground vibration if hammering in stakes in hard ground and it may therefore be necessary increase the distance away from the UXO.
- 5.6 Where possible, multiple signs should be used and positioned at each approach route with the pictures on the signs facing towards the approach route.
- 6.0 Reporting of UXO**
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- 6.1 The discovery of UXO should be reported to the responsible authorities on discovery unless prior arrangements have been made.
- 6.2 In most instances (within Australia) ADF Explosives Ordnance Disposal personnel will complete final disposal or removal of items of EO and UXO. They are generally tasked through the following means:
- 6.2.1 Civil Sites, including former military sites: through the local Police Force.
 - 6.2.2 Active Military Ranges; through Range Control.
 - 6.2.3 Active Military Camps; through Camp Security.
- 6.3 On sites where the local authorities are unaware of UXO investigations being conducted it is often desirable to contact them on the commencement of operations as to the nature of the project. This may aid in ensuring a quicker response to the site.
- 6.4 The information to be passed to the EOD personnel will include:
- 6.4.1 Item detail as described in para 4.8,
 - 6.4.2 Contact name.

6.4.3 Contact telephone number.

6.4.4 Meeting location.

6.5 Where other contractors are present on the site, the persons in charge of those contracting organisations will need to be contacted to prevent intrusion into the initial exclusion area and be evacuated should the item need to be destroyed on site by EOD personnel.

7.0 Site Specific Instructions

7.1 Where additional details are required for operating internationally or specific to the client, supplementary instructions are to be written and either attached as a supplement to this instruction or included in the Project Management Plan.

8.0 Instructions – Unconventional Ordnance

8.1 Work Instruction Immediate Action on Finding Unconventional UXO (WI-51) is to be used if search operations are carried out on a site that is known or suspected to contain unconventional munitions (e.g. chemical weapons) or, once an item has been discovered that shows signs of being an unconventional munition.

9.0 Transfer of Custody

9.1 The Project Manager is to ensure the custody of any item confirmed as a UXO or an EO item contain energetic material is transferred to the appropriate Defence authorities utilising the EO and UXO Transfer of Custody Certificate (F-208) and UXO Search and Disposal Register (F-160).

10.0 Forms and Records

10.1 F-160 UXO Search Log and Disposal Register

10.2 F-205 Explosive Ordnance PMSSM Assessment

10.3 F-208 EO and UXO Transfer of Custody Certificate

11.0 Related Documents

11.1 WI-51 Immediate Action on Finding Unconventional UXO or EO

12.0 Attachments

12.1 None

13.0 References

13.1 Joint Ammunition Logistic Organisation (JALO) Ammunition Data Sheets

13.2 Technical References, e.g. Janes