

AIDE MEMOIRE

ERW SAFETY IN DARFUR



ORDNANCE DISPOSAL OFFICE



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African Union - United Nations Mission in Darfur (UNAMID)

4

Facts about ERW

Explosive Remnants of War (ERW) have been posing a serious threat to UNAMID personnel, local people and the delivery of humanitarian aid in Darfur.

7

Recognizing Dangerous Areas

You should be aware of the most common types of warning signs used in areas where you live and work, and always keep an eye out for these signs.

9

Safety advice for individuals

Being informed, exercising common sense, and maintaining a proper attitude about ERW can go a long way to help address the safety issues and keep people safe.

10

Ordnance Disposal Office (ODO)

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Facts about ERW

Explosive Remnants of War (ERW) have been posing a serious threat to UNAMID personnel, local people and the delivery of humanitarian aid in Darfur.

The purpose of this Aide Memoire is to raise awareness and provide basic recognition /safety information concerning the threat of ERW to individuals working in Darfur. To protect yourself, you need to be aware of the threat and take appropriate preventive action.

Proximity to ERW is always dangerous and should be avoided.

Only trained specialists should seek out or handle ERW.



ERW is categorised into two groups UXO & AXO.

i. Unexploded ordnance (UXO) are explosive munitions that have been fired, thrown, dropped or launched but have failed to function. UXOs include Projectiles, Mortars, Fuses, Grenades, and Aircraft bombs, Cluster-munitions, Rockets and Missiles that have been put into function and failed.

ii. AXO are the Explosive ammunition that has not been used during an armed conflict, and which has been left behind or dumped by a warring party.

b. ERW accidents are often more lethal than landmines due to their higher explosive and fragmentation content. An ERW can kill people out to 100 metres radius and more due to fragmentation effect.

c. Having been fired

means no safety systems are remaining (extremely hazardous).

d. UXO's can function (i.e., explode) when stepped on, moved or touched.

e. What makes them UXO is that they have failed to explode as designed – so all of the explosives materials remain in the item and they can function when disturbed.

f. ERW look attractive-means more people gathered around to look.

g. ERW come in various colours, khaki, green, brown, tan, grey – or can be unpainted. They are usually made of metal. If they have been in the open for a long time, ERW may be rusted and discoloured, partially hidden, obscured by dirt and mud and difficult to recognize. Despite looking like harmless scrap, they remain extremely dangerous.

ERW Found in Darfur

a. Rockets -

A rocket is an explosive device containing its own means of propulsion (the rocket motor) as well as explosives (the warhead).

Rockets can be fired from vehicle or ground based launchers, from the shoulder and from aircraft.

Rockets and missiles come in many shapes and sizes, from the relatively small rocket propelled grenades (RPGs), around 46 cm long, to very large missiles of more than 15 m in length. Rockets are normally distinguishable by their long thin cylindrical shape.



57 mm Russian Aircraft Rocket S5m



RPG 7 HEAT



107mm HE Rocket



122mm Russian HE-Frag Rocket Model 9M22U

b. Mortar bombs -

These are launched from tubes of metal about 90 cm to 170 cm in length, known as mortars. Mortars are set on the ground and aimed into the air in the direction of the target. Mortar bombs are dropped into the tube and launched by their own propulsive charge. Mortar bombs often have a tapered nose at the front and fins at the rear. The metal bod-



60 mm Motor bomb HE



82 mm Motor bomb HE

ies can range from 60 millimetres to 240 mm diameter in width and from around 30 cm to over one metre in length.

Due to their ease of use, relatively low cost and portability, mortars are an extremely widespread weapon of war.

c. **Projectiles (Arty shells)** - An artillery shell is an explosive device, designed to be fired a great distance from the target and to explode either in the air above the target or on impact. Like mortars, artillery is an indirect fire weapon – users of the weapons may not be able to directly see their target. The destructive capability of conventional artillery shells largely depends on their size. Artillery shells, like very large bullets, are aerodynamically shaped with a tapered nose, cylindrical body and flat base.



106 mm Artillery Projectile



106 recoilless

d. **Cluster - munitions** -

Cluster bombs or cluster munitions are canisters containing many smaller explosive devices (sub-munitions), which separate from the larger canister. Cluster bombs may be delivered by aircraft, rocket or by artillery and, after being launched, the canister bursts open in mid-air, scattering sub-munitions over a wide area. The sub-munitions come in a variety of shapes and colours, some the shape



Russian Frag Bomb AO-2.5RT

ERW Found in Darfur

and size of tennis balls or soda cans; they are also often brightly coloured. Among UXO, cluster bombs represent a particularly dangerous threat due to their high volatility and dispersal over wide areas. Sub-munitions can fail and may remain hazardous for many years. Unexploded sub-munitions are highly sensitive and can detonate with very little contact.



Russian Frag Bomb AO-2.5RT



Chilean AV/AT Shaped Charge Bomb Model PM1

e. Grenades -

Grenades are explosive devices usually thrown by hand or launched by small arms such as rifles. Hand grenades have a pineapple shape or round bodies the size of an adult fist, normally about 10 cm long.



F1 Grenade



40mm Rifle Grenade



Chinese Hand thrown stick Grenade

f. Aircraft Bombs -

A bomb is an explosive device, usually dropped from airplanes. They come in many different shapes and sizes. Bombs are usually made



100Kg Russian Fragmentation Bomb of AB 100-120

ERW Found in Darfur

of metal and have a smooth curved, normally aerodynamic shape.

Air-delivered bombs can range in size from 50 kg to 1,000 kg and can be as long as 3.5m (around 12 ft).



250KG
Chinese
HEI Bomb
Type1

g. Fuses-

A fuse is a device that starts the detonation process, often made of highly explosive material contained in a small part of a larger munitions. Fuses are fitted to bombs, rockets, mortars and artillery shells. A fuse may become detached from its main explosive device or munition and may simply be left lying around. A fuse can be very small, but is nonetheless potentially dangerous and can even be lethal.



4- Recognizing Dangerous Areas -

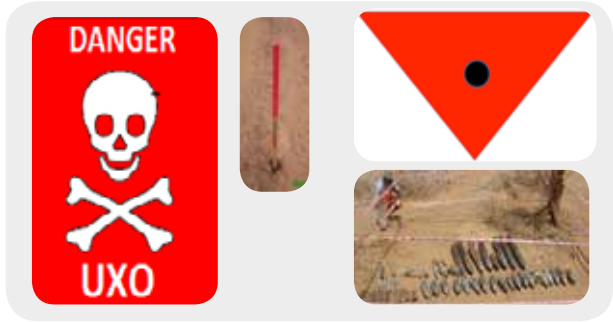
You should be aware of the most common types of warning signs used in areas where you live and work, and always keep an eye out for these signs.

But note, the lack of clear warning signs does not mean an area is safe. People sometimes remove warning signs; signs may be temporary, may have not been maintained or may never have been erected.

ERW Found in Darfur

a. Official Warning Signs -

The most common ways of marking ERW-affected area with official signs are: Skull and crossbones, Rope or tape, a red triangle, A concrete or wooden post etc.



b. Unofficial Warning Signs

Include: A piece of cloth or plastic bag tied to a fence or tree; A can on a post; Small piles or circles of rocks; Rocks laid across a path; Sticks which have been tied to form a cross, Signs which have been cut into the bark of a tree etc.



Because of their improvised nature, local signs often do not give a clue as to the precise location or particular nature of the threat. Look for other indicators and consult with local people.

c. Other warning Clues

The following are some tell-tale signs to identify a dangerous area:

- i. Visible ERW;
- ii. Signs of fighting or military activity;
- iii. Signs in the environment, dead animals and unusual objects;
- iv. Local behaviour.

ERW Found in Darfur

d. **Places where ERW is likely to find are –**

- i. In areas where fighting has taken place.
- ii. At military firing ranges.

5. **Safety advice for individuals-**

Being informed, exercising common sense, and maintaining a proper attitude about ERW can go a long way to help address the safety issues and keep people safe. General Safety Messages are as follows-

- a. Prior to travel, obtain information on dangerous areas;
- b. Keep others informed about your travel plans.
- c. Do not touch or approach ERW;
- d. Never venture into known dangerous areas, explore military installations or equipment;
- e. Never approach or touch ERW for any reason;

6. **Reporting-**

In the event that you have seen ERW, please contact ODO or UNDSS with following information:

- a. GPS location (If available)

- iii. All areas which have been used by the army such as school or residential buildings ... etc.
- iv. ERW can be discovered inside and outside

of destroyed houses

v. Orchards and fields.

vi. ERW can even be found lodged in trees or hanging from branches, hedges and fences.

IF YOU SEE AN ERW or suspicious object:



STOP



Don't touch and report to ODO or UNDSS

- f. Never collect ERW or other military hardware;
- g. Do not touch anything that appears strange or out of place lying on the ground or hanging from a tree;

- h. Be aware of local warning signs and always respect them;
- i. Always be alert for other clues of possible danger;
- j. Provide important safety information to others;

- b. Village/Town name
- c. Nearby prominent landmark & distance from ERW
- d. At least name of one contact person with phone number preferably

the person reporting the ERW.

- e. Nature of impact caused (If any)
- f. Sketch of area
- g. Photo of item – if possible

Ordnance Disposal Office (ODO)

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For more details and reporting, please contact at the following addresses-

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GOOD LUCK
&
STAY SAFE



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