Non-Technical Survey

Standard Operating Procedures (SOPs)

AMMENDMENTS

This amendment record is to be completed for each formal amendment to these SOPs. Formal amendments can only be authorised and implemented by the Operations Manager (with advice from the Capability Group as required)

Section	Amendment	Date	Amended By
v.3	Version produced following external review by Artois ltd. Various changes, for detail see report (available from Capability Group)	3 Aug 18	NT
2.2	Added 'there must be a minimum of 2 x HALO trained paramedics when NTS teams deploy to the field.'	6 March 19	AG
2.2	Added a section on communications.	6 March 19	AG
3.1	Section added on information required from the field.	6 March 19	AG
3.2	Added 'Actions on: encountering an isolated UXO/IED during NTS'	6 March 19	AG
3.2	Added 'Actions on: encountering an IED removed by the community'	6 March 19	AG
4.1	Added 'The LM should be clearly visible from some distance, and should be marked with the letters 'LM' in red paint.'	6 March 19	AG
4.1	Added 'The Bench Mark does not have a fixed distance established from the hazardous area, but the NTS team should look for a solid element that is easily identifiable along the access route to the area. It should normally be located a short distance outside the hazardous area (generally between 50 - 200 metres from the start point (SP)'.	6 March 19	AG
4.1	Added 'As a general rule, the NTS team should take the GPS coordinate of the SP and then use bearings and distances between the turning points, and ensure the perimeter of the hazardous area is accurately demarcated.'	6 March 19	AG
4.1	Added criteria for projecting turning points.	6 March 19	AG
4.1	Added information required in the NTS map.	6 March 19	AG
4.2	Added criteria for putting two polygons in one NTS report, a section on marking and risk education.	6 March 19	AG

4.3	Added criteria for re-survey of minefields.	6 March 19	AG
4.3	Added section on beneficiaries.	6 March 19	AG
5	Added section on non-conformities.	6 March 19	AG
v.31	Update following Iraq review as above	Apr 19	NT

Contents

SECTION ONE - Introduction 5

Introduction 5

SECTION TWO - Non-Technical Survey Procedures 5

NTS Team Roles and Composition 5

NTS Safety Considerations 6

SECTION THREE - Generating the Hazardous Area 8

Information Gathering and Processing 8

Threat Assessment 9

Threat Summary and Example Template 10

SECTION FOUR - Mapping the Hazardous Area 11

Mapping 12

Recording and Reporting 14

Re-Survey and Cancellation 15

SECTION FIVE - Quality Control 16

SECTION ONE - Introduction

1.1 Introduction

The aim of Non-Technical Survey (NTS) is to provide clear, unambiguous information to HALO, the national authorities and other stakeholders about the presence, type, distribution and surrounding environment of hazardous areas. It is the initial process of data gathering to identify areas contaminated with explosive hazards, using a wide variety of information including interviews, satellite photographs, accident records or military minefield maps. The term non-technical refers to the fact that no physical activity takes place inside the hazardous area. As well as identifying, marking and recording hazardous areas, the non-technical survey process is used to cancel and update previously recorded areas that turn out not to be contaminated, as well as supporting the priority setting and planning of clearance by HALO teams.

Established processes for NTS in conventional demining environments can be applied to an improvised explosive device (IED) environments. However, the changing and non-standard make up of IEDs presents some unique challenges; it is highly unlikely formal records were kept or that hazardous areas were marked, and it is possible that every IED in the same explosive obstacle belt is constructed and laid in a unique manner. Non-state group have also made extensive used of IEDs in urban environments, where the humanitarian impact on the local community is large. These congested urban environments, with a combination of conventional munitions and IEDs intermixed, can present more challenges to effect survey than the actual type of contamination that is present. There may also be a higher prevalence of command devices, or anti-lift/handling components.

The aim of this document is to outline basic NTS procedures and additional analysis tools that may help survey personnel define hazardous areas accurately. This includes the application of the threat assessment process to generate a threat summary which can be incorporated into an NTS report.

SECTION TWO - Non-Technical Survey Procedures

2.1 NTS Team Roles and Composition

The main role of NTS teams is to provide HALO management, local communities and the DMA with the necessary information about hazardous areas contaminated by mine, explosive remnants of war and IEDs. This information will be used to make annual work plans and prepare resources for subsequent HALO clearance operations.

Non-Technical Survey teams will conduct the following activities

- Identify, mark, map and report Suspected Hazardous Areas (SHA) and Confirmed Hazardous Areas (CHA) for entry into the national database.
- Cancel previously reported hazardous areas that meet the necessary criteria, or collect information that may in the future assist with reducing or cancelling the suspected hazard area.
- Assist in the prioritization process.

- Assist in the effective planning of clearance operations.
- Where necessary, the survey team may also conduct risk education (RE) in relation to hazardous areas.

Each HALO survey team includes the following personnel:

- Team Leader – qualified through completion of a HALO NTS course, HALO paramedic course, and HALO's IED awareness and assessment training.
- 2 x Assistants – qualified through completion of a HALO NTS course, 1 x HALO paramedic course, and HALO's IED awareness and assessment training.
- 1 x Driver – qualified through driving assessment, if possible HALO paramedic trained, and IED awareness training.

Each team should be equipped with[1]:

- CASEVAC capable vehicle
- Mapping equipment (GPS, compass, rangefinder, tablet, measuring tape)
- Major Trauma Kit and stretcher
- Marking materials
- Water
- Communications equipment (Mobile phone, VHF radios, satellite phone if required)
- Digital or hard copies of: Relevant SOPs, UXO recognition guide, CASEVAC cards etc.
- Suitable UAV, if available and team has been appropriately trained

2.2 NTS Safety Considerations

The first priority for the team leader is ensuring that the survey team are operating in a safe manner and in accordance with HALO security procedures.

The team leader shall not take any unnecessary risks entering potentially hazardous areas:

- When the team is on foot, they must remain within areas, which are known to be safe and shall follow local guides on paths in frequent use or cultivated ground. If the team leader has any doubts as to where the hazardous area begins, he shall not proceed further, even if they guide insists that the ground is safe.
- When travelling by road, the vehicle shall keep to proven surfaces and avoid driving on verges in known conflict areas. Proven roads will be subject to a high pattern of life (vehicle, people and livestock) that makes it possible for the survey team to discount the presence of a victim operated explosive hazards (IED, mine or bobby trap). This should be determined through physical evidence and community engagement. Particular care must be taken when turning or parking vehicles to avoid driving onto potentially unsafe areas. Armoured vehicles are not a justification for driving onto potentially un-safe areas.

[1] It is possible that there will sensitivities about certain items of equipment, and as such programmes may wish to take a pragmatic approach to equipment carriage and make changes where required (e.g. use of smartphones for GPS, compass etc.)

- Under no circumstances shall the team enter an area of active combat. Measures should be taken before and during deployment to ascertain the security situation on the way to and in the area planned to visit, this can be via local network such as local interpreters, government officials and local contacts with security forces.
- There must be a minimum of 2 x HALO trained paramedics when NTS teams deploy to the field.

The Operations Manager and the NTS Team Leader must coordinate with the appropriate local authorities, both civil and military, to ensure full compliance with the restrictions on access to certain areas. It is mandatory to hold a meeting with either the local police or army commander before beginning the intervention with NTS in an area.

Prior to each trip, the team leader must designate the two paramedics and establish an evacuation plan, including the phone number, route, location and approximate journey time of the nearest hospital. This information will be shared with the radio base prior to departure.

Every month each NTS team will undergo medical refresher training, including a CASEVAC.

Communications

At the HALO base, the team leader of each NTS team will review the communications equipment before deploying to the field and teams will only deploy if the equipment is in good working order. The NTS teams must inform the Operations Officer or the communications base officer of their status and position at 0700 hours, 1400 hours and every time they arrive at or leave a location. The radio operator/communications base officer shall record this information in the daily log. The team must always maintain a line of communication with the office using radio, mobile phone or satellite phone.

A communications plan will be established for all vehicle movements so that vehicles will check in with the radio base at established points along the route. In case of emergency, the NTS team must follow the protocols established in the HALO Gloabl IED SOP 09 Travel & Movement and SOP 10 Security.

Stretchers, major trauma kits and water must also be with the team during survey.

Survey teams should consider non-explosive hazards such as:

- The potential presence of depleted uranium in armoured fighting vehicles
- Toxic Industrial Chemicals
- Confined Spaces
- Working at height
- Damaged / un-stable buildings
- Excavations Trenches & Underground structures

SECTION THREE - Generating the Hazardous Area

3.1 Information Gathering and Processing

Before and during survey, the team leader should research all accessible sources of information about ERW, IEDs and mines. They should visit local communities and speak to the population, including both men and women, and not just the local head of administration. Enough time should be allowed for this in the daily planning.

Potential sources of information include:

- District and local government officials including mayors and department heads for water, power, education and health.
- Head of villages (mukhtars), their deputies and other officials.
- Former or current military personnel, who may have information about hazardous areas.
- Local inhabitants who have been wounded in uncleared areas.
- Local inhabitants who have members of family or livestock injured in uncleared areas.
- Site and facility managers especially those with authority over planned reconstruction work.
- Databases of previously found devices in the area.

During the NTS process, teams will collect, record and report the following information:

1. Number of direct and indirect beneficiaries affected by the assessed IED & UXO contamination
2. Details of direct and indirect evidence, including dates where relevant
4. Coordinates of the physical boundaries of the hazardous area
5. In conjunction with the database administrator (or GIS officer), the total size of the hazardous area
6. Relevant information about each area regarding ownership, current use and possible future land use as an indicator of impact
7. All information related to medical facilities that will allow the possible evacuation of a casualty in the event of an accident
8. Relevant characteristics of the land, its topography and type of vegetation, access roads and other factors that may influence the definition of priorities and the implementation of clearance activities in the area
9. Collect all useful information that allows the planning of other activities such as RE, development projects, etc.

Survey team leaders should consider how different factors will affect the information that an individual supply. These factors might include: the season, the time that has passed since the end of the conflict and the age and activities of individuals.

If necessary, team leaders should make appointments and conduct return visits to gather full information from informants. Teams should collect and record the personal information of informants so that they can be contacted again when planning future clearance work, and take photos of the hazardous area.

Team leaders should clearly distinguish between direct and indirect evidence, types of areas, and the classification of dangerous areas as SHAs (suspected hazardous areas) or CHAs (confirmed hazardous areas)[2]. Please see the NTS form for examples of direct and indirect evidence.

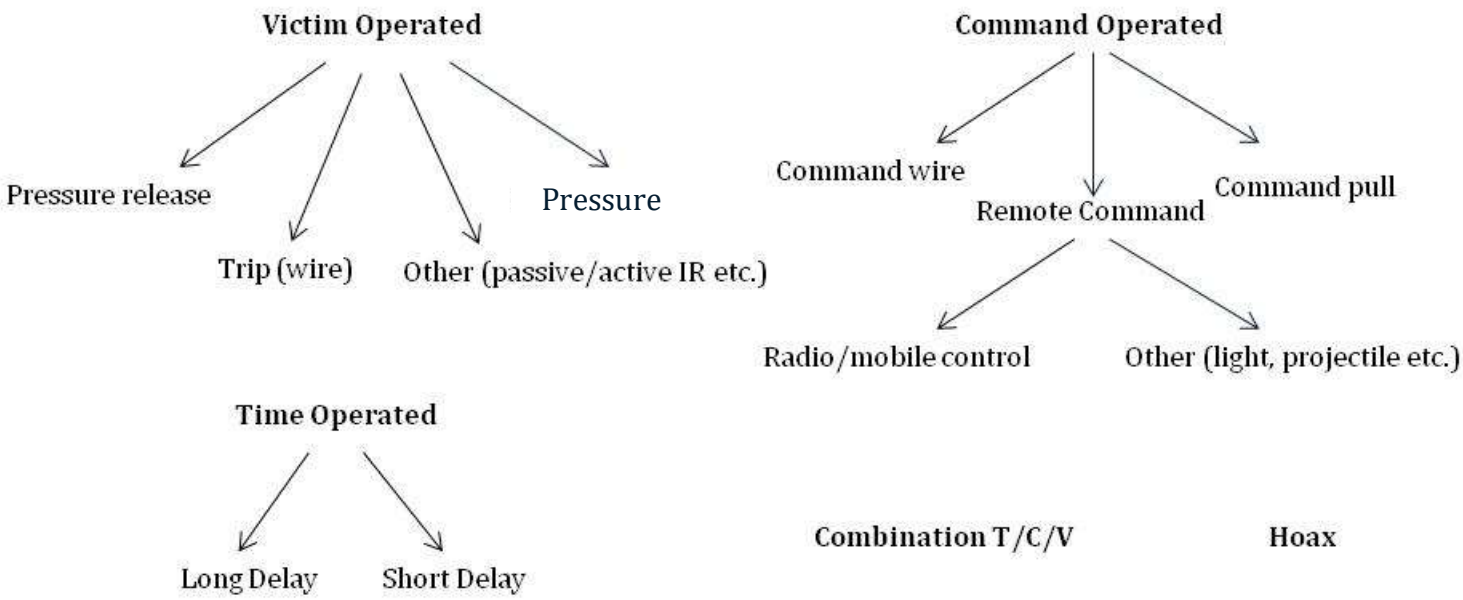
3.2 Threat Assessment

Assessing the makeup of a hazardous area containing large numbers of IEDs and successfully predicting the exact nature and/or type of threat may be extremely difficult. In the early stages of operations, it may be near impossible as there will be limited information on historical device types in the areas to make determinations solely based on direct evidence. A helpful tool is the threat triad. This considers what armed groups were intending to do (i.e. their target and intended effect), what they were capable of (i.e. technical sophistication and resources), plus the opportunity i.e. what type of military effect was intended to be achieved, considering a combination of the ground, pattern setting and previous operational environment)[3].

[2] For further explanation on the distinction between CHA and SHA see IMAS 08.10 Section 6

[3] The information is often gathered from reports of previous attacks or attempted attacks attributed to the armed groups or individuals within those armed groups, finds of bomb-making equipment and factories, personal accounts and knowledge of resources available

This should guide operational management towards certain device types and their likely locations. Survey Teams should classify the threat according to definitions established by the DMA (for example the UNMAS IED lexicon). However, a simple set of types based on the type of firing switch is below:



In general, if any of these methods of initiation (or any method of initiation other than those listed) are used by an armed group in the area and cannot be conclusively excluded, then the threat should remain included in the threat assessment. None of this should be unduly unfamiliar to experienced survey or operational management personnel (it is similar to NTS considerations for more conventional environments), but it may help guide decision making in the early stages of HALO, or assist inexperienced personnel. For example, it is worth noting that if it is believed that command wires have been used then the survey team should assess where the main charge, firing point and path of the command wire are most likely to be. All of these areas should then be considered to be within the hazardous area and the polygon plotted accordingly, further guidance on command wires can be found at Annex C of Part 5 of these HALO Gloabl IED SOPs.

3.3 Threat Summary and Example Template

A detailed, precise and up to date Threat Summary informed by the Threat Assessment should be included in the NTS report. It should encompass all threats being accounted for and answer the following questions in relation to the task or area to be cleared:

- Who was being targeted?
- Who placed the devices?
- Where were they being targeted?
- Why were they being targeted?
- What were they being targeted with?

A Threat Summary should be included in NTS reports and referenced in all clearance plans. A suggested template for the threat summary is shown below:

The HALO Trust operating in the (insert area of Place Name), is seeking to (insert task). Currently operating in this area are (insert details of active groups). Their current targeting methods are comprised of (insert what targets they are attacking i.e. patrol/vehicle/foot mounted/exactly where/slow down points/halts, etc). The primary threat is likely to be (insert types of devices know to be used i.e. CW/TD/VO/RC initiated blast fragmentation/incendiary/etc). Devices range from (insert size of main charges and types of explosives) and are contained in (insert Packaging/composition) concealed in (insert likely locations) in relation to (insert target/in relation to geographical feature/camouflage). The methods of initiation known to be used are (insert details direction/firing points/concealment/length of CW/depth of CW/description of components). (Insert direction of firing point from target to method and direction of extraction if relevant).

Actions on: encountering an isolated UXO/IED during NTS

The NTS team leader should first establish that it is an isolated UXO/IED, and not part of a larger confirmed hazardous area. All NTS teams have a basic knowledge in the identification of different types of explosive hazards common in country, and any decision will be coordinated in close communication with the Operations Manager.

The team leader will mark the UXO/IED with the appropriate danger hazard sign, and where possible an EOD team will be consulted to conduct the demolition. The NTS team will be responsible for recording the coordinates of the explosive hazard so that the relevant IMSMA/HALO form can be completed.

The NTS team will conduct emergency RE with the local community where appropriate, and also update the local community when the explosive hazard has been removed.

Actions on: encountering an IED removed by the community

The NTS team will first need to confirm the details from a safe area (confirming that it is in fact an isolated IED removed from another location), mark the explosive hazard and report its coordinates in the appropriate IMSMA/HALO form.

The NTS team will conduct emergency RE with the local community where appropriate, and also update the local community when the explosive hazard has been removed.

The NTS team will need to conduct an NTS to determine the original source of the IED

SECTION FOUR - Mapping the Hazardous Area

4.1 Mapping

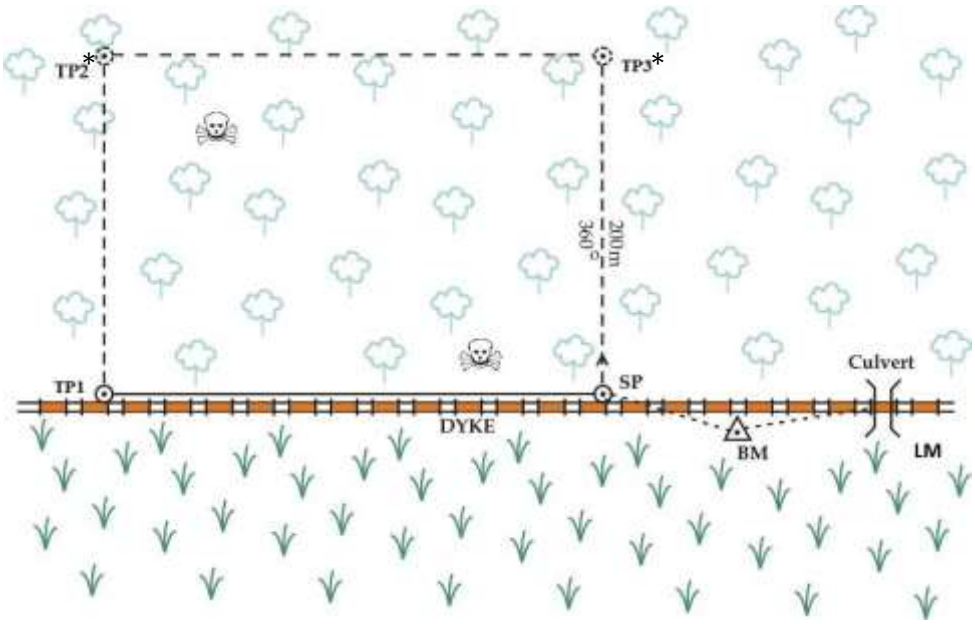
The aim of non-technical survey is to map the approximate and safe boundary of a hazardous area to allow marking and future clearance planning. Survey teams should not waste undue time, or put themselves at any risk, in an attempt to establish the precise boundary; this will be established at a later stage by the clearance team conducting technical survey.

When mapping a hazardous area, the first step is to select a landmark (LM) and bench mark (BM).

The LM is a fixed point of reference some distance outside the dangerous area. It should be an easily recognizable permanent feature (such as cross-roads, bridge, building etc) which can be used to assist in navigation to one or more BMs. LMs should usually be accessible by road. The LM should be permanently marked, and both BM and LM approved by the Operations Manager (either on the ground at the time of selection or during the quality checking of reports). The LM should be clearly visible from some distance, and should be marked with the letters 'LM' in red paint.

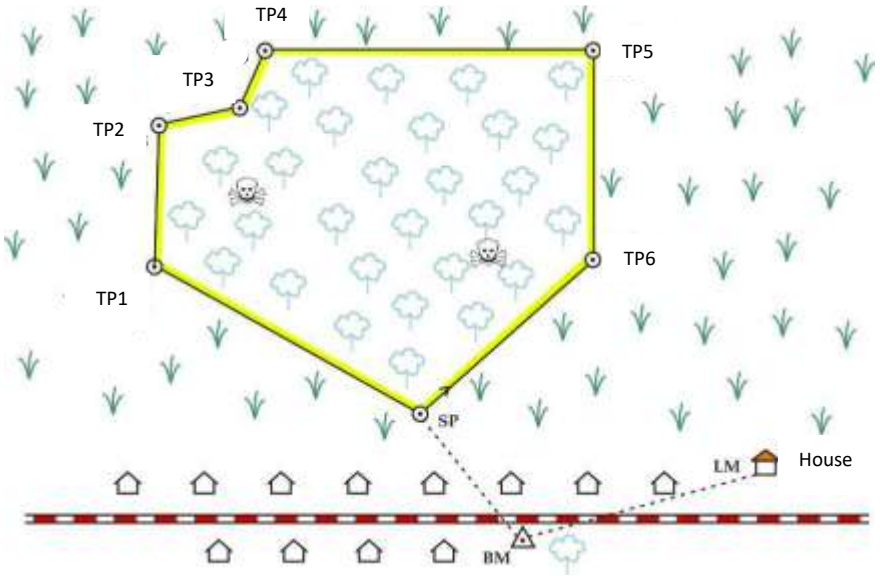
The BM is a fixed point of reference used to locate a marked and recorded hazard or hazardous area. It can be in the form of a post, or markings painted onto a building, tree etc. The Bench Mark does not have a fixed distance established from the hazardous area, but the NTS team should look for a solid element that is easily identifiable along the access route to the area. It should normally be located a short distance outside the hazardous area (generally between 50 - 200 metres from the start point (SP). The BM should be clearly visible from some distance, and should be marked with the letters 'BM' in red paint.

The next step is to map the boundary of the entire suspected hazardous area using a start point (SP) and a series of turning points (TPs). TPs are to be numbered in clockwise order and marked with red paint. As a general rule, the NTS team should take the GPS coordinate of the SP and then use bearings and distances between the turning points, and ensure the perimeter of the hazardous area is accurately demarcated.



HALO personnel must not go past the limit of the suspect or confirmed hazardous area. TPs which are visible from a safe area, but which cannot safely be reached on foot, are to be mapped using GPS, compass and rangefinder. In the example above, TP3 is surrounded by suspect ground but is visible from the SP; so its position can be fixed by projecting the TP with a compass and rangefinder from the SP. This can also be done using a GPS function. Where possible projected TPs should be marked with an asterisk (*). There are no fixed criteria for when an NTS team will use projected turning points, but rather their selection by the team leader should relate to the safety of the team and the reliability of the information presented by the community.

The positions of TPs which are not visible from safe ground (TP2 in the example below) are to be estimated from the information given by local guides.



All coordinates shall be given in UTM using WGS84 datum (coordinates presented to the Directorate of Mine Action are in MGRS). Using GPS, wait until the accuracy deviation is no more than 3m, then record the coordinates. The coordinate should be saved both in the GPS memory and also written in a note book for later entry into the survey report.

Bearings should be taken using a compass (not a GPS). To measure distances, use a laser range finder or a measuring tape where safe to do so.

A sketch map shall be drawn to scale on millimetre paper, showing the following information:

- Title (Name and HALO code)
- Polygon perimeter clearly identified
- Coordinates (UTM) of LM, BM & SP
- Location of start point, turning points, bench mark and land mark (BM & LM are optional if they are a considerable distance from the minefield. The position of the BM should be indicated with bearing and distance from the SP.
- Location of evidence points within the polygon: identified with coordinates (if there are less than/equal to three) or for reference (with accompanying note in the margins) with the year marked under the symbol for accidents

- Indirect evidence will not be drawn on the map
- Access routes, prominent geographic features (hills, rivers, etc), infrastructure and buildings
- Scale bar, north pointer and legend
- Access routes
- Type and use of ground
- Estimated area of the hazardous area in metres squared.
- Table of polygon turning points (this should start from the LM); bearings and distances

4.2 Recording and Reporting

Information collected by the survey team shall first undergo Quality Assurance both by the HALO Trust management and also the DMA. Once quality control is completed, forms shall be entered into the HALO database and a unique code allocated to the hazardous area

Geographic information associated with the report (points and polygons) shall also be entered into the database and GIS software once QC has been completed. Following internal QC, the reports shall also be entered into national database directly. Paper copies of all reports, sketches and photographs shall be permanently archived in a folder with the unique hazardous area code. As a minimum, there should be photographs of Land Mark, Bench Mark and Start Point. Each NTS report must be signed by the NTS Team Leader.

For each defined polygon, the team leader must complete the relevant Non-Technical Survey form (or cancellation form). As much detailed information as possible should be included, without putting the team at risk or wasting time unnecessarily. The Non-Technical Survey form should be completed with all necessary information including the justification for creating the polygon in terms of direct and indirect evidence.

In cases where a number of hazardous areas are created by one single community during the NTS process, these can sometimes be related to one single report. This criterion can only be applied in those cases where it is identified that the polygons respond to the same strategy of minelaying and are related due to the circumstantial evidence provided by the community, in addition the polygons must share at least two of the following criteria:

• IEDs were laid by the same armed group.

• IEDs were laid during the same time period.

• IEDs were laid in the same pattern, whether defensive or offensive. The strategic manner in which the IEDs were laid is shared by all polygons.

In order to relate more than one polygon to the same report, the NTS Team Leader should first consult with the Operations Manager regarding safety and other logistical considerations for clearance operations.

<u>Marking</u>

All confirmed hazardous areas identified as a result of NTS should be marked in order to delineate the the boundary of hazardous area, and also control and prevent the population's access to the hazardous area.

The SP and TPs should be marked with red spray paint and 'danger mine' signs should be left on each of the transverses of the polygon where appropriate. The type of signage must be confirmed at least with the owner of the land / the direct beneficiaries. In instances where communities reject the use of HALO 'danger mine' signs alternative options shall be used, such as stakes, notices of another type, etc.

Risk Education

The NTS Team Leader is responsible for assessing the needs of the community based on the level of contamination. RE will be carried out in all homes near the identified hazardous areas (emergency RE so no need to apply for a task order), explaining the location and description of the area that has been identified as dangerous, the signs and marking that have been used to indicate the presence of danger.

4.3 Re-Survey and Cancellation

NTS is a dynamic process where information available may vary over time. Before teams, personnel and clearance resources are deployed to a hazardous area, a new visit must be made by the Operations Manager or NTS teams. This is necessary to confirm or cancel the presence of hazardous areas and update the NTS with more up to date information which will improve the quality of future planning.

Re-survey should therefore be carried out when:

- Additional information is received, for example if an accident occurs.
- In an IED threat environment some level of re-survey or pre-clearance assessment is essential prior to clearance. Further detail is in part 1 of these SOPs.
- If the NTS was conducted more than 12 months ago.
- An official request from local authorities.

Previously recorded hazardous areas may be cancelled if they meet the following criteria:

- Areas which were mistakenly registered either due to incorrect data entry or mistaken located on the map.
- Areas where the original evidence has subsequently been disproven.
- Previously identified suspect hazard areas, which are subsequently found to be in regular use without any evidence of explosive hazards being present. The regularity of use must demonstrate sufficient certainty that a given area can be deemed safe. For example, to cancel buildings from the threat of victim operated IEDs their re-occupation by staff or residents needs to be sufficient in terms of duration and habitation. This includes entering all rooms and moving/opening the majority of objects. However, even these actions would not necessarily be sufficient to discount other explosive hazards such as mortars and rockets from being embedded in roofs, floors and walls. In high intensity battle areas in an urban environment a degree of clearance may still be appropriate depending on the subsequent land use.

- Areas which were cleared of explosive hazards in accordance with the required standards, but for which the data has not been transferred to the national authority for entry into the national database
- Cancellations should be transferred to the DMA for entry into the national database.

Beneficiaries

The direct beneficiaries of a hazardous area are those people who are linked to the area by:

• Use: They derive economic, cultural, social, religious, etc benefits from use of the land on a daily basis.
• Transit: To be able to carry out a routine activity (displacement to work place, transporting produce, family visits, access to health, education, etc.) they have to make use of the area.
• Ownership: Owners of the property/land.

Direct beneficiaries are defined as those who use/will use cleared land post-clearance for a productive and/or frequent and/or sustainable activity. All beneficiary numbers shall be disaggregated by women, men, girls and boys. Children should be defined as those below the age of 18 years.

Indirect beneficiaries are defined as those who *may* use the land post-clearance. For consistency they shall be counted using population data for the village (or smallest administrative unit) nearest to the cleared land, minus the total number of direct beneficiaries.

Where a cleared or reduced area lies within or between two or more villages, indirect beneficiaries may be counted using the populations of both/all villages affected (minus direct beneficiaries), provided both/all villages realistically access the area (i.e. are not prevented access due to distance or natural barriers).

SECTION FIVE - Quality Control

All reports shall be submitted to the GIS Department, who will conduct the initial quality control check within one week of receiving the report to verify that:

- All form fields have been completed or marked not applicable
- All GPS coordinates and bearings fall in the correct position in accordance with the sketch map and satellite imagery
- The gathered information provided is correct.

If any errors are identified, the report shall be returned to the survey team leader for correction as soon as possible.

The NTS minefield codes will be generated by the NTS Database Administrator. This code will serve as an identification number and should not be modified. This is essential to avoid duplication of data.

Once verified, all reports should be checked and approved by the relevant Operations Manager. The Operations Manager shall review the direct and indirect evidence to ensure that the designation of the area as an SHA/CHA, and the associated perimeter, is justified based on the available evidence. If evidence is insufficient the operations manager may instruct the team to return to the site and collect additional information.

A sample of SHA/CHA that have been identified by the survey team will be selected at random by the data management team. These will be visited by the operations management to conduct a QA check, including the perimeter of the recorded polygons.

Errors identified during QA will be rectified for the specific site and also provided to all survey teams on a monthly basis as part of a Non-Technical Survey Report to ensure that continual improvement is occurring across the programme.

<u>Non Conformities</u>

Please see HALO job descriptions for a full list of the roles and responsibilities of each position within NTS teams.

Non-Critical Non-conformities: Generally non-critical nonconformities correspond to:

• Infringements, violations or noncompliance with HALO SOPs, which are NOT considered a threat to life.

• Infringements, violations or noncompliance with HALO SOPs, which can be rectified immediately without the need for additional training or deployment of additional resources.

Negligence of a HALO employee as long as it does not create a potential safety risk or lead to an accident.

Critical non Conformities: Are those violations, infractions or breaches of HALO SOPs, which are considered a threat to life or that put at risk the aims of humanitarian mine action.

<u>Directorate of Mine Action (DMA) Quality Assurance</u>

The external Quality Assurance of HALO NTS is the responsibility of the national authority. Procedures related to this topic will be defined by the national authority.

General Information

Report ID:		IMSMA ID:	
Hazard Name:		Date of Report:	
Reporting Organisation:		Team ID:	
Reported By:		Reported By Position:	
Land Classification:	☐ SHA ☐ CHA	Type of Hazard(s):	☐ IED/Minefield ☐ Battlefield ☐ CM Strike

Location

Region:		District:	
Community:		Settlement Code:	
Locality name:			

Contamination Type

	Confirmed	Suspected	Types confirmed/suspected
Anti-personnel IEDs / mines	☐	☐	
Anti-vehicle IEDs / mines	☐	☐	
ERW - Cluster munitions	☐	☐	
ERW - UXO/AXO	☐	☐	
Description of improvised devices (if any):			

Overview of the Area

History of the surrounding area
Attitude of actors (local community, parties to the conflict, security forces etc.) towards devices in area

Direct Evidence

Direct Evidence:	☐ Detonations seen/heard ☐ Mine/ERW records (high reliability) ☐ Fragmentation/debris	☐ Direct report of IED or mine laying ☐ IED/Mines/ERW visible ☐ IED/Mine/ERW accidents ☐ Direct report of CM strike

Description of evidence:

Number of accidents:		Date of most recent accident:			
	Men	Women	Boys	Girls	Unknown
Total injured:					
Total killed:					
Animal Accidents:					

Accident Remarks:

Threat Summary *(summary and explanation of direct evidence noted above justifying the creation of confirmed hazardous area):*

Example Layout: The HALO Trust operating in the (insert area of Place Name), is seeking to (insert task). Operating in this area were (insert details of active groups). Current targeting methods are comprised of (insert what targets they are attacking i.e. patrol/vehicle/foot mounted/exactly where/slow down points/halts, etc). The primary threat is likely to be (insert types of devices know to be used i.e. Time/Command/VO initiated blast / fragmentation / incendiary/etc).

Devices range from (insert size of main charges and types of explosives) and are contained in (insert Packaging/composition) concealed in (insert likely locations) in relation to (insert target/in relation to geographical feature/camouflage).

The methods of initiation known to be used are (insert details direction/firing points/concealment/length of CW/depth of CW/description of components). (Insert direction of firing point from target to method and direction of extraction if relevant).

Indirect Evidence

Indirect Evidence:	☐ Former military position ☐ Indirect report of IED/minelaying/CM strike ☐ Previous reports of clearance	☐ Former checkpoint ☐ Mine signs/fencing ☐ Other

Threat Summary *(summary and explanation of indirect evidence noted above justifying the creation of a suspected hazardous area):*

Evidence Points

Evidence Type	UTM X	UTM Y	Description

All coordinates are UTM with datum WGS84.

Informants

Informant A					
Name:				Position/occupation:	
Age:		Sex:		Phone:	
Address					
Notes:					
Informant B					
Name:				Position/occupation:	
Age:		Sex:		Phone:	
Address					
Notes:					
Informant C					
Name:				Position/occupation:	
Age:		Sex:		Phone:	
Address					
Notes:					
Informant D					
Name:				Position/occupation:	
Age:		Sex:		Phone:	
Address					
Notes:					

Polygon Information

Number of Polygons:	

Reference Points	UTM X	UTM Y	Description
Landmark			
Benchmark			

Magnetic Declination (°):	

From	To	Bearing (Magnetic)	Bearing (Corrected)	Distance (m)	UTM X	UTM Y
BM	SP					
SP	TP1					
TP1	TP2					

All coordinates are in UTM with datum WGS84.

Total calculated area (all polygons) (sq.m):	

Clearance Considerations

Terrain Description:	
Secondary Hazards (damaged buildings, working at height, biological hazards such as waste and toxic industrial chamicals) :	
Clearance Depth (cm):	
Reasons for Clearance Depth:	
Other Clearance Considerations:	

Land Use

			People directly affected				People indirectly affected			
			M	W	B	G	M	W	B	G
Industry/ Commercial	Industry (heavy) Industry (light) Commercial	☐ ☐ ☐								
Infrastructure	Road Roadside Track Bridge Power line Water system Canal Other	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐								
Agriculture	Arable Grazing Forestry	☐ ☐ ☐								
Public services	Administration School Medical Facility Recreation Area	☐ ☐ ☐ ☐								
Residential	Residential Garden	☐ ☐								
Land Use Description:										

Attachments

☐ Photographs (with captions)

☐ Sketch map / electronic map, showing:

- Access route
- Location of benchmark, start point and turning points
- Perimeter of the hazardous area
- Locations of accidents and other evidence points within the perimeter

Quality Assurance and Data Management

Report Completed By:			
Date:		Signature:	
Report Verified By:			
Date:		Signature:	
Data Entry By:			
Date:		Signature:	

Non-Technical Survey Report – Sketch Map			
Task ID:		IMSMA ID:	
Task Name:			