The importance of survey in implementing CCM Art 4

Cluster Munition Remnants Survey (CMR) – theory and practice

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Introduction

- There's no immediate solutions for increasing "productivity" (speed of clearance) and short of a magic machine being introduced or proving empirically that dogs can find specific submuntions (which may soon be the case) manual clearance is still the tool.
- So, in some of the most affected countries of the world survey will still need to be focus for the foreseeable future, until an estimation is established.

Characteristics

- Unexploded cluster submunitions have several characteristics that lend themselves to structured survey work
- Records of where bombs were dropped, the intended targets and the content of the CBUs may be of assistance
- What is mostly true, whatever the failure rate, is that if you find one unexploded submunition you should find more

Characteristics continued

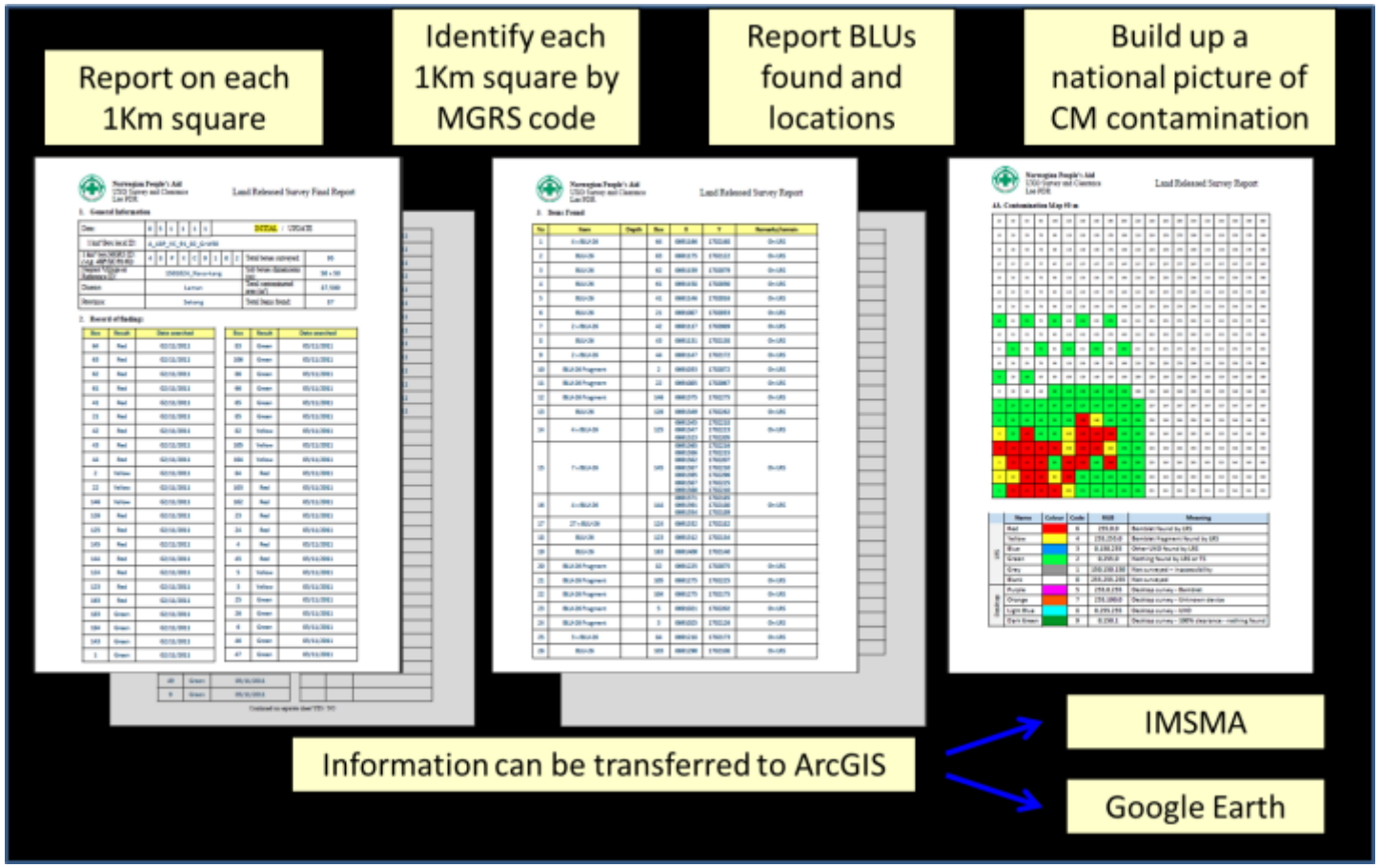
- Cluster bombs make a known and predictable “footprint” one the ground – the unexploded submunitions will almost always be within the boundary of this footprint
- The “risk” when surveying for cluster munition remnants may vary from country to country, depending on the types of submunitions dropped – but cluster submunitions are not landmines and so survey from inside out is possible in most cases

Starting points

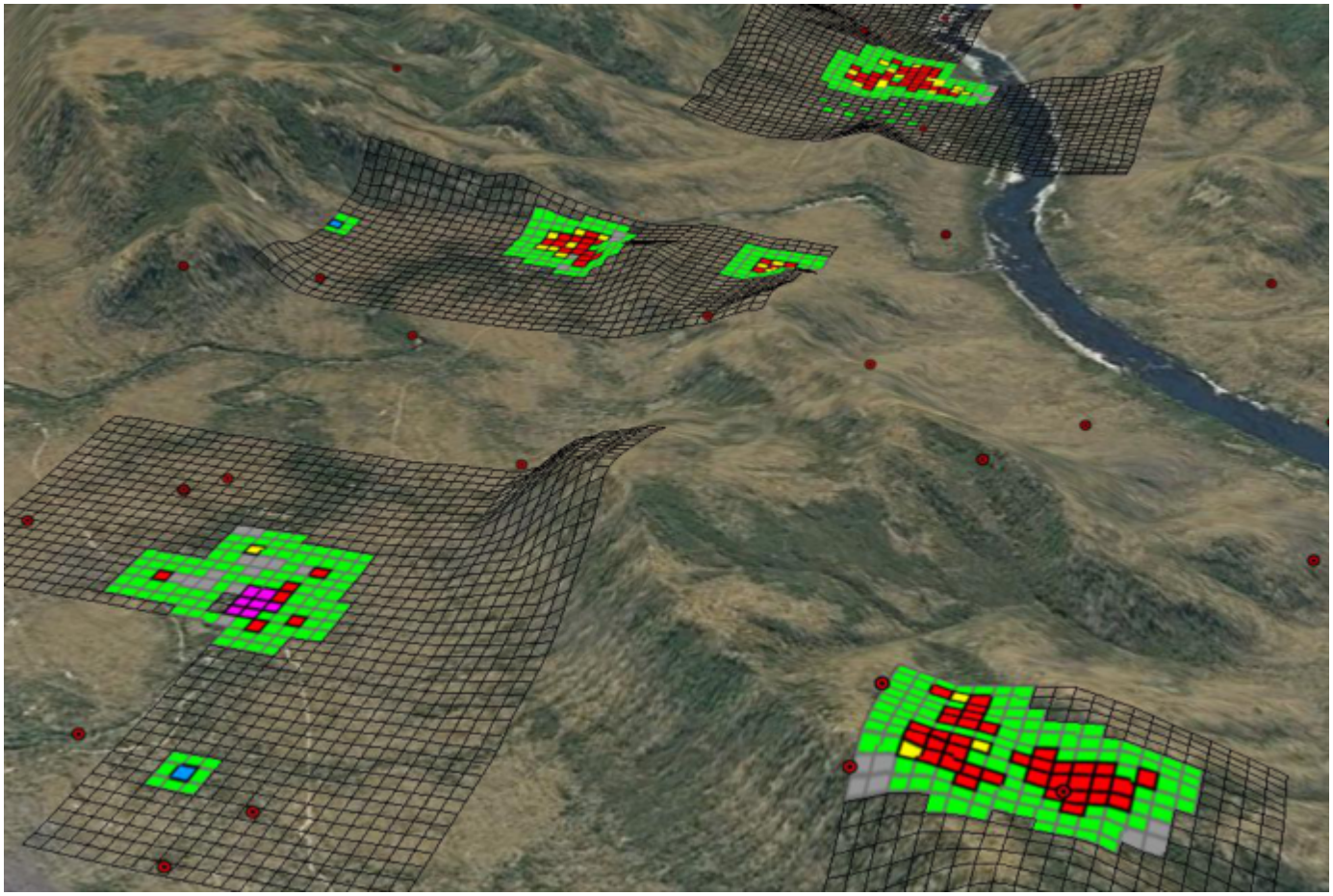
- The starting point for a technical survey (CMRS) can either be found through the use of bombing data alone, through non-technical survey or a combination of the two
- The determination of a starting point through non-technical survey is normally better when personnel with some technical competence is conducting it
- Once a starting point has been located a survey team can divide up the area around in a structured manner and start the technical survey

CMRS in the field I

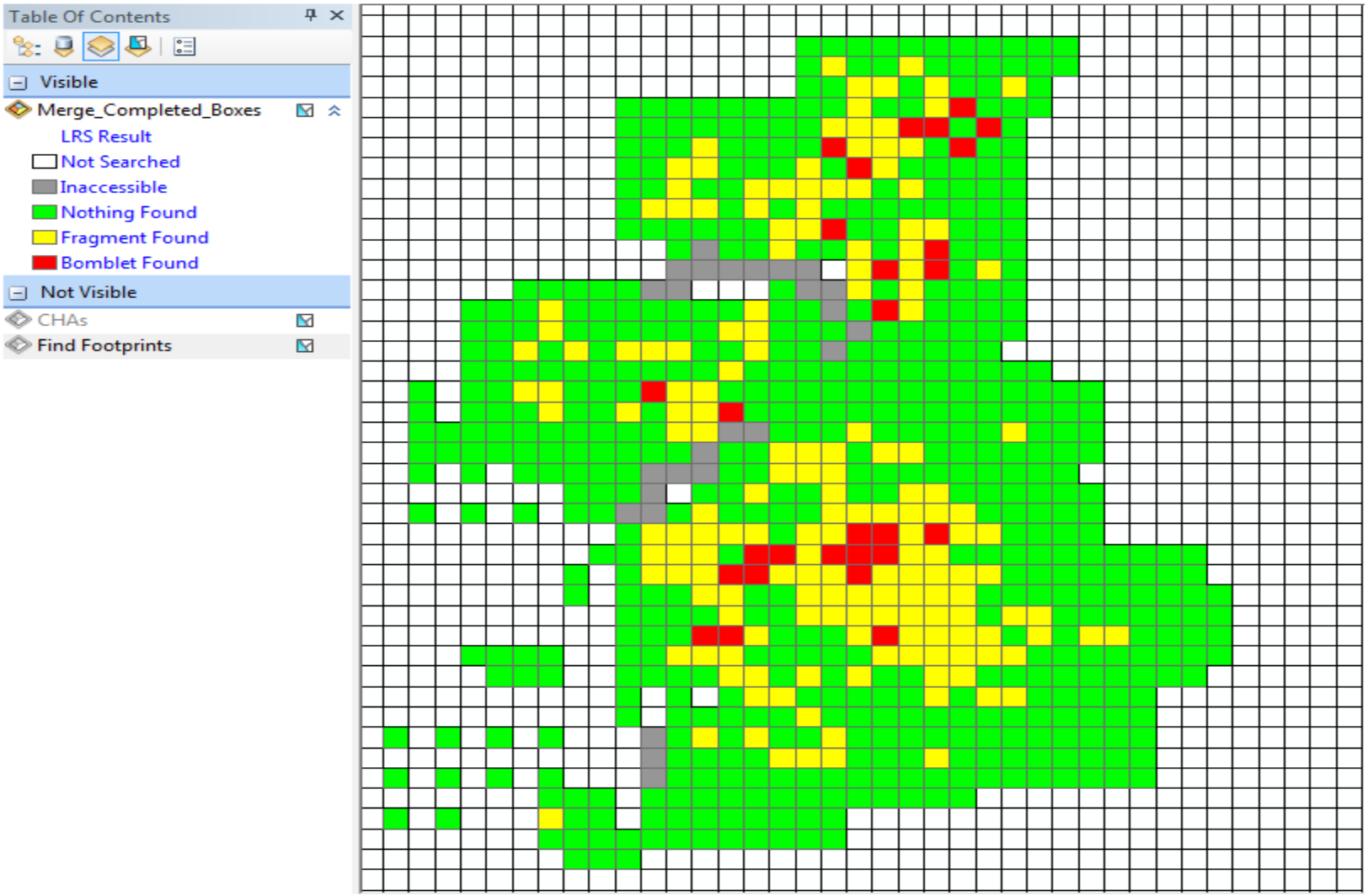
CMRS in the field II



Results



Results II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Inaccessible
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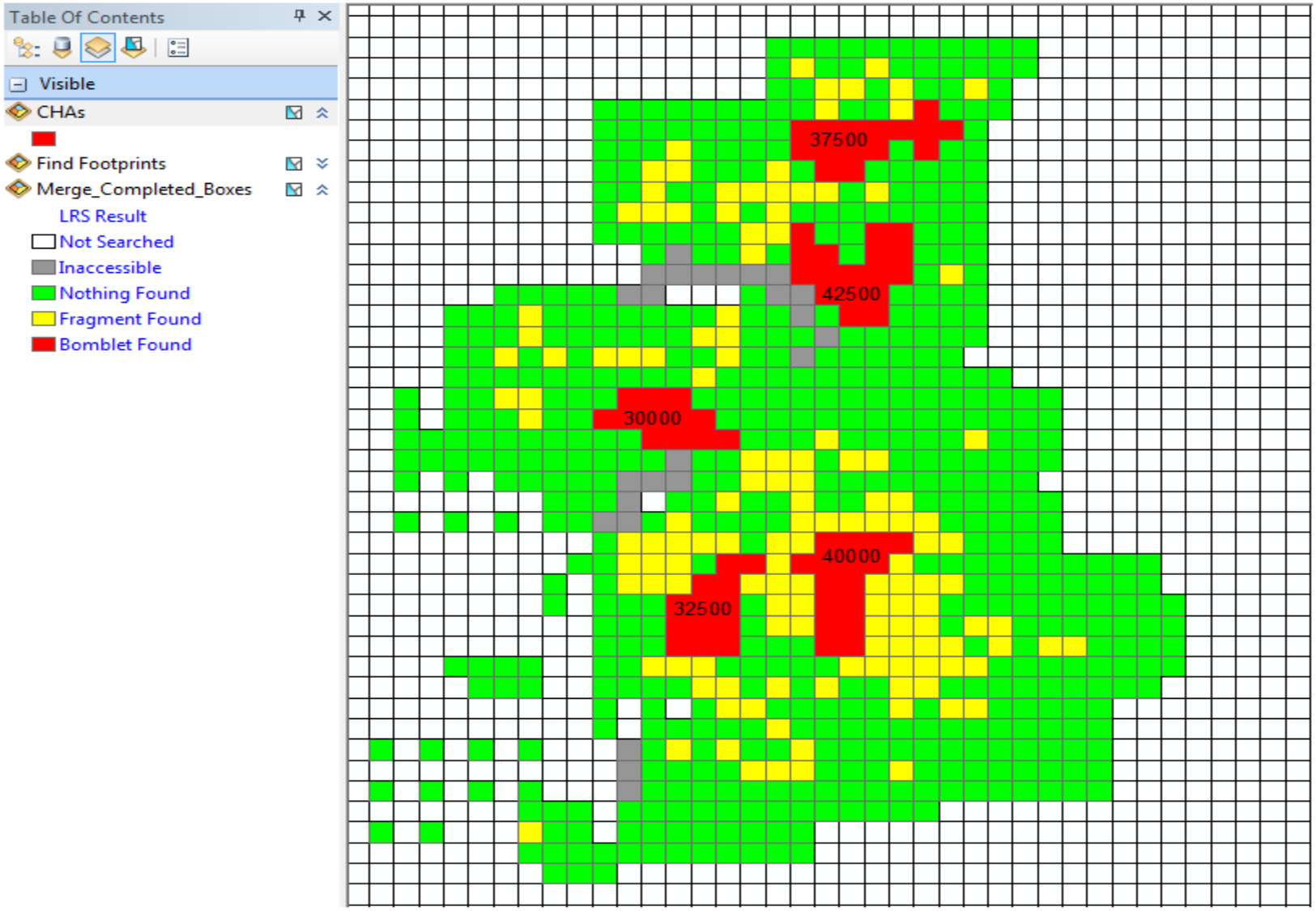
Fragment Found
Bomblet Found
Not Visible
CHAs
Find Footprints

Results III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Find Footprints
Merge_Completed_Boxes
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Bomblet Found
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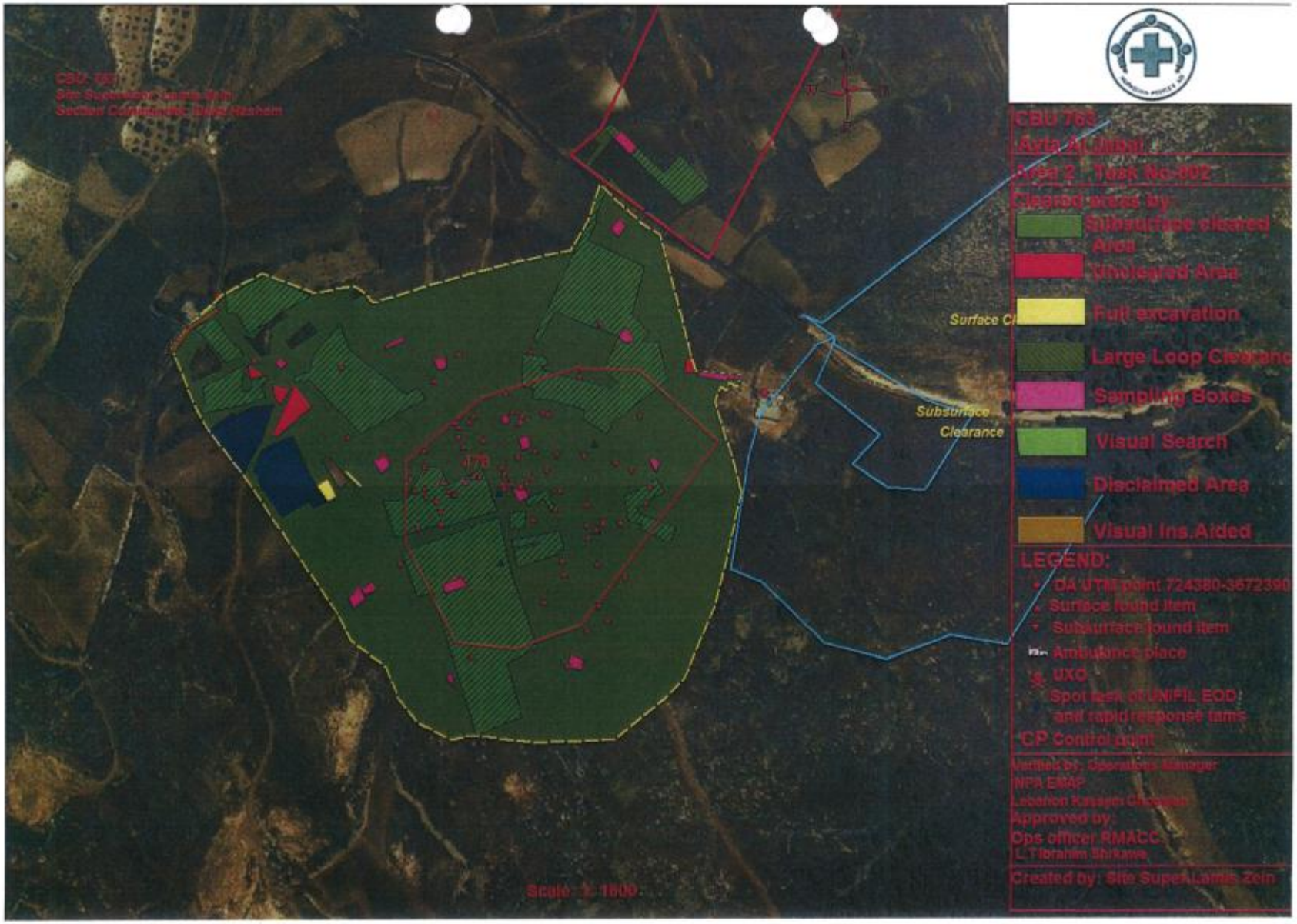
30000
40000
32500

Application in Lebanon

- Situation differs from that in Lao PDR
- After attacks in summer of 2006, a rapid survey was conducted by UNMACC
- Lebanon thus has a populated database, with currently app. 450 DA reports; most conducted in 2006, 2007.
- The DAs usually contain a UTM, from which a square of app. 200 x 200 m is calculated
- While some DA UTMs are actually inside of the strike, some can be outside by 300 or 400 meters, thus there is a need for good operational planning/survey before the clearance team is deployed, as otherwise one can easily clear without finding anything – if UTM treated as a default starting point.

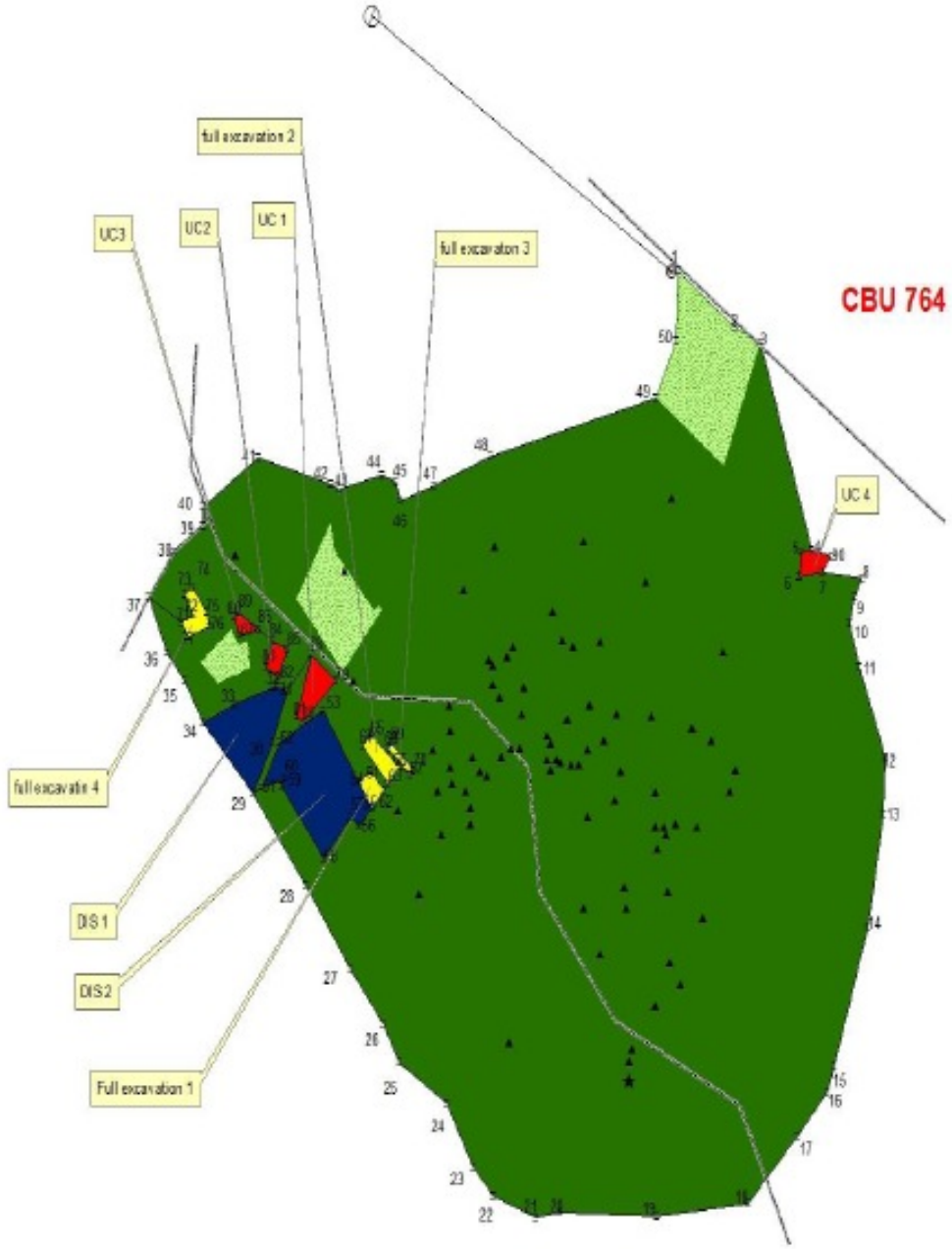
Application in Lebanon

- After DA is received, an initial visit to the site is conducted by the OPS Manager, together with the RMAC CLO
- Afterwards the Task dossier is issued by RMAC to NPA, also containing additional data not included in initial DA. Most useful data usually being data on spot task clearance conducted in the area (usually after the population found an item), info on the accidents as well as previous clearance in the area. Afterwards additional OPS meeting to the area is conducted, where the threat is confirmed.
- Operational plan is then conducted, using Google Earth. Starting point thus decided based on above investigation/ recce.


CBU 765
Arta Al Umbat 2
Area 2 Task No:802
Cleared areas by
Subsurface cleared Area
Uncleared Area
Full excavation
Large Loop Clearance
Sampling Boxes
Visual Search
Disclaimed Area
Visual Ins.Aided
LEGEND:
Surface found item
Subsurface found item
Ambulance place
UXO
Spot task of UNIFIL EOD and rapid response tams
CP Control point
Verified by: Operations Manager
NPA EMAP
Approved by:
Ops officer RMACC
Created by: Site Supervisor Zein
Surface Clearance
Subsurface Clearance
Scale 1: 1800

CBU 763

Task Sketch



N

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EMAP Lebanon

Scale 1:2,000

Legend

- BLU63
- Items
- TP
- BN
- RP
- Road
- Access line
- Disdaimed
- plughed area
- Un-cleared
- Full Excavation
- Sub-surface

Disclaimer

This map was produced at the NPA Office in Al Hosh Tyre Lebanon.

The map is not to be used for navigation.

If you have any questions please contact NPA Office in Al Hosh Tyre.

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Application in Lebanon

- Clearance is focused; aiming that the only area without cluster muntitions when clearing should be prescribed fadout area from the last cluster munition found.

Year	Square meters cleared	Cluster submunitions cleared and destroyed
2010	860,668	559
2011	716,815	1,259

Considerations

- CMRS to establish Confirmed Hazardous Area (CHA), in most cases. Same thinking also to apply throughout the planning of the clearance operations and throughout actual clearance.
- Bombing data may be inaccurate and statistics may not be helpful for some countries (Laos) – need to be considered for CCM obligations
- Survey for evidence of contamination, including fragments – but each country context different
- This survey approach builds on Land Release principles, making deciscions in the field based on information gathered - important for efficiency

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