The CMRS Process

The NPA Approach to Dealing with Cluster Munitions Remnants in SEA

Jonathon Guthrie

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Why do we do CMRS?

- SEA has the highest concentration of CMR in the world
- No accurate estimate
- Treaty Obligations

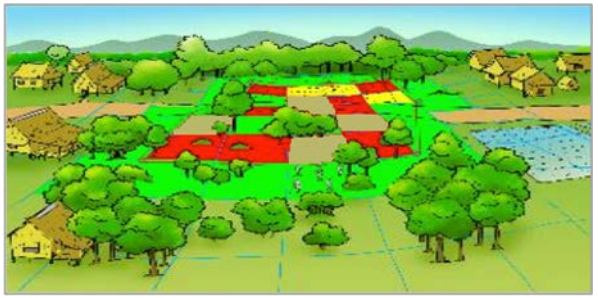
- There is a need to estimate the extent of the problem:
  - to allow for better planning
  - estimate an end date/state.

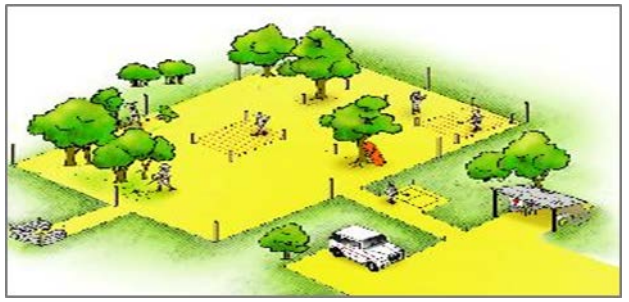
History and Application

- Initial focus was on speed – a rapid survey.
- ID the CHA to better utilize clearance resources
- Move from request based and/or reaction to single item based operations
- Partnership between NPA and MAG, CMAC, CMAA and UXO Lao.

The Process

- A combination of NTS and TS
- Followed by Clearance





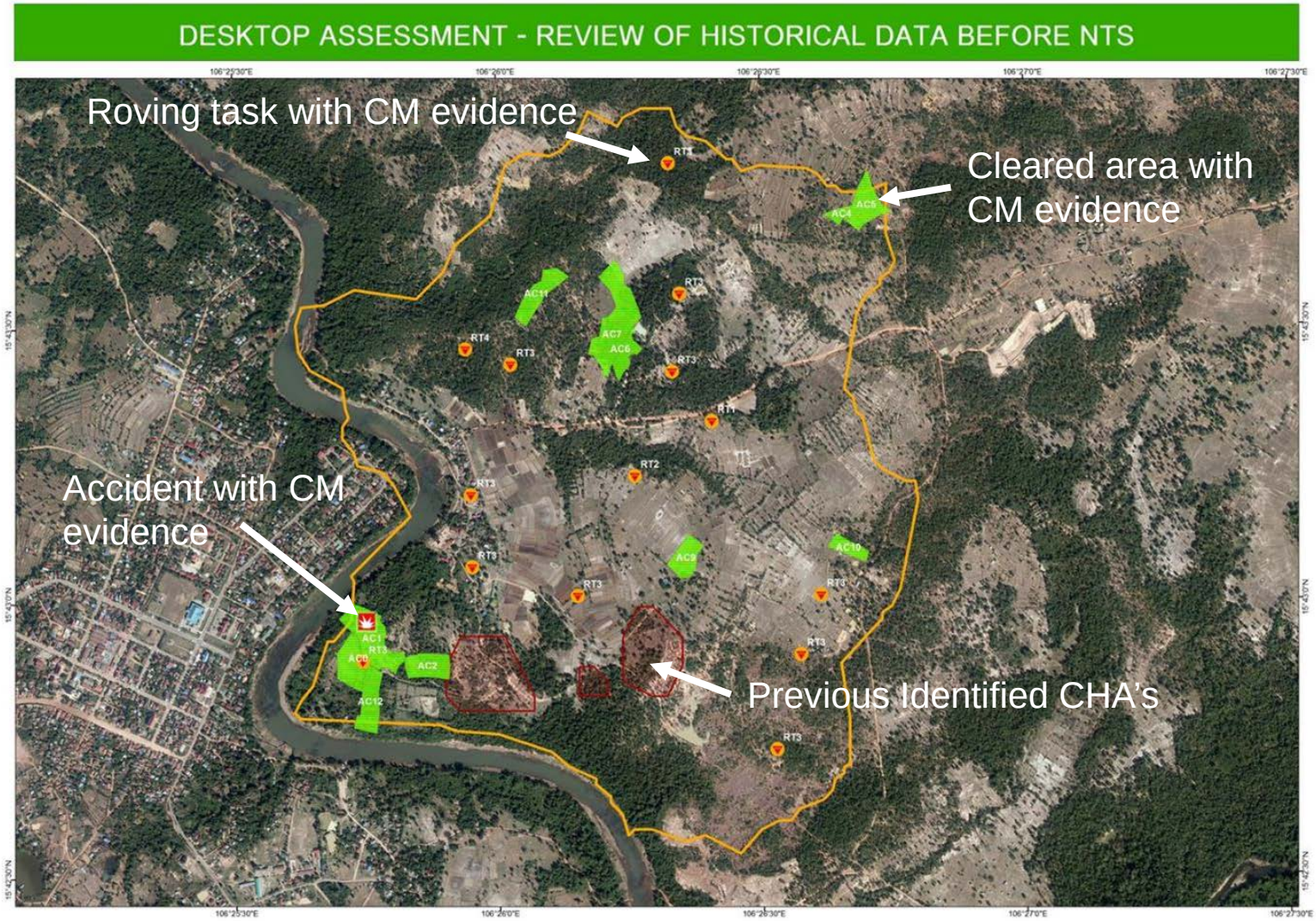
CMRS = NTS + TS

Clearance

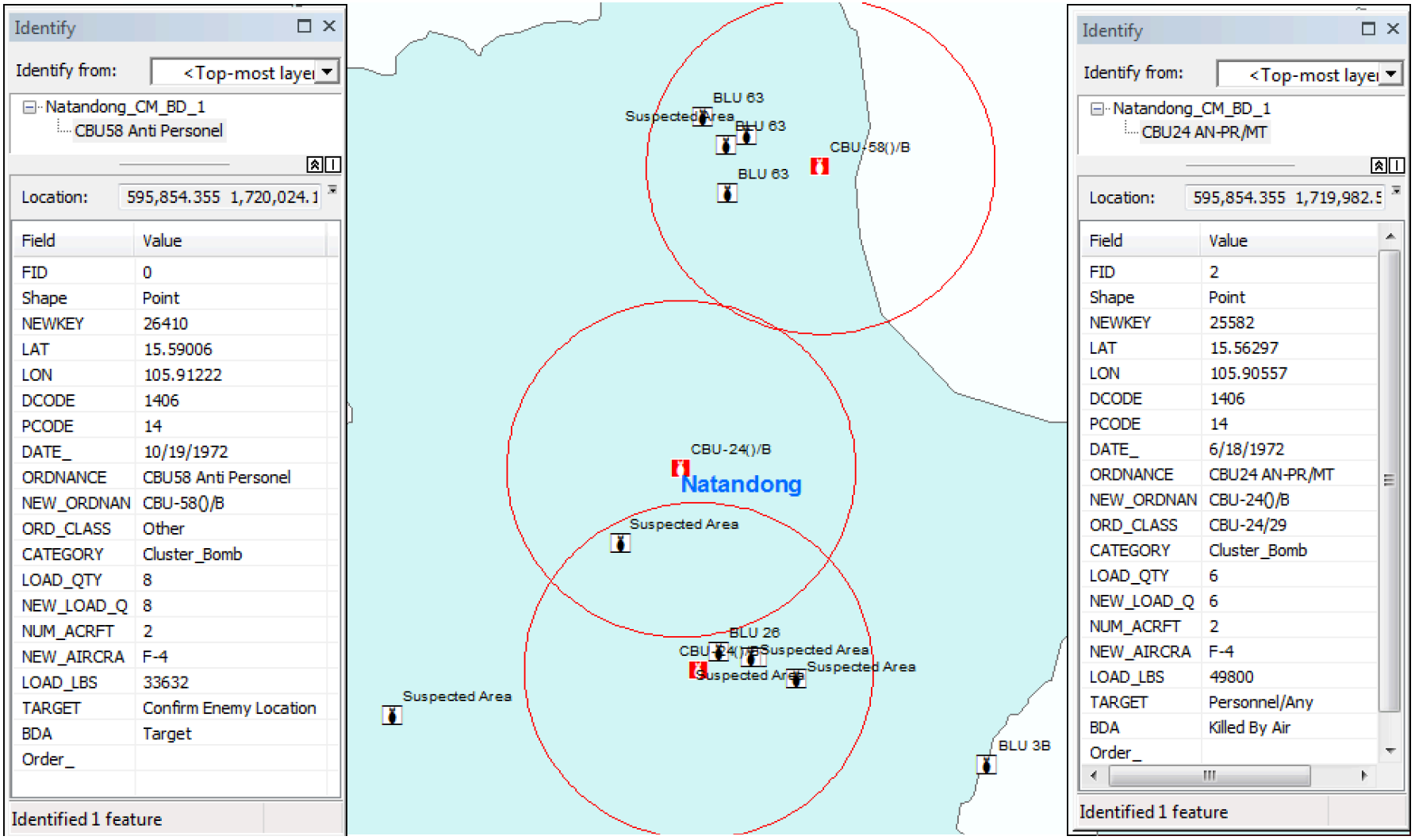
The Process

Phase 1 Non-Technical Survey	
Analysis throughout all Phases of Process	
Gather all available data Government Development Plans	**Field Deployment** Province/District/Commune/ Village Meetings Household/Landowner Interviews
Assess Data Historical Data (Clearance, Roving) Accidents CHA's USAF BD	**Confirm Evidence** Questioning People Visual Verification Detector Assisted Report to NMAA
Threat Assessment throughout	
Demolition throughout the process builds confidence	
QA by OM/OO throughout	
Information Management is Key Throughout	

The Process


DESKTOP ASSESSMENT - REVIEW OF HISTORICAL DATA BEFORE NTS
Roving task with CM evidence
Cleared area with CM evidence
Accident with CM evidence
Previous Identified CHA's

The Process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CBU58 Anti Personel
Location:
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Field
Value
FID
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Shape
Point
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26410
LAT
15.59006
LON
105.91222
DCODE
1406
PCODE
14
DATE_
10/19/1972
ORDNANCE
CBU58 Anti Personel
NEW_ORDNAN
CBU-58()/B
ORD_CLASS
Other
CATEGORY
Cluster_Bomb
LOAD_QTY
8
NEW_LOAD_Q
8
NUM_ACRFT
2
NEW_AIRCRA
F-4
LOAD_LBS
33632
TARGET
Confirm Enemy Location
BDA
Target
Order_
Identified 1 feature
BLU 63
Suspected Area
BLU 63
CBU-58()/B
BLU 63
CBU-24()/B
Natandong
Suspected Area
BLU 26
Suspected Area
Suspected Area
Suspected Area
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BLU 3B
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Identify from:
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CBU24 AN-PR/MT
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Value
FID
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Shape
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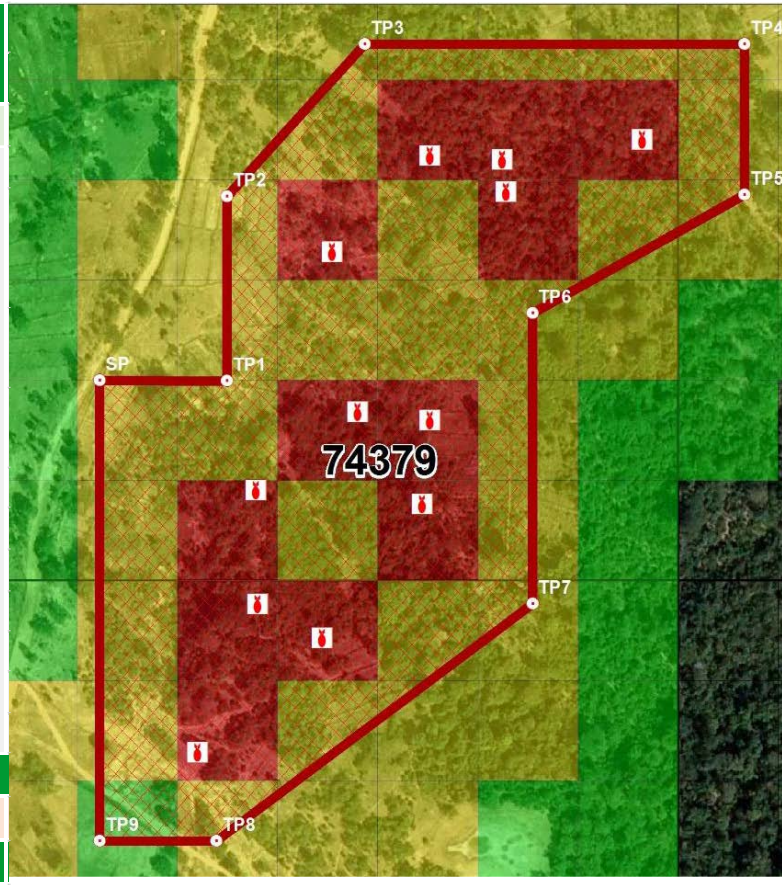
1406
PCODE
14
DATE_
6/18/1972
ORDNANCE
CBU24 AN-PR/MT
NEW_ORDNAN
CBU-24()/B
ORD_CLASS
CBU-24/29
CATEGORY
Cluster_Bomb
LOAD_QTY
6
NEW_LOAD_Q
6
NUM_ACRFT
2
NEW_AIRCRA
F-4
LOAD_LBS
49800
TARGET
Personnel/Any
BDA
Killed By Air
Order_
Identified 1 feature

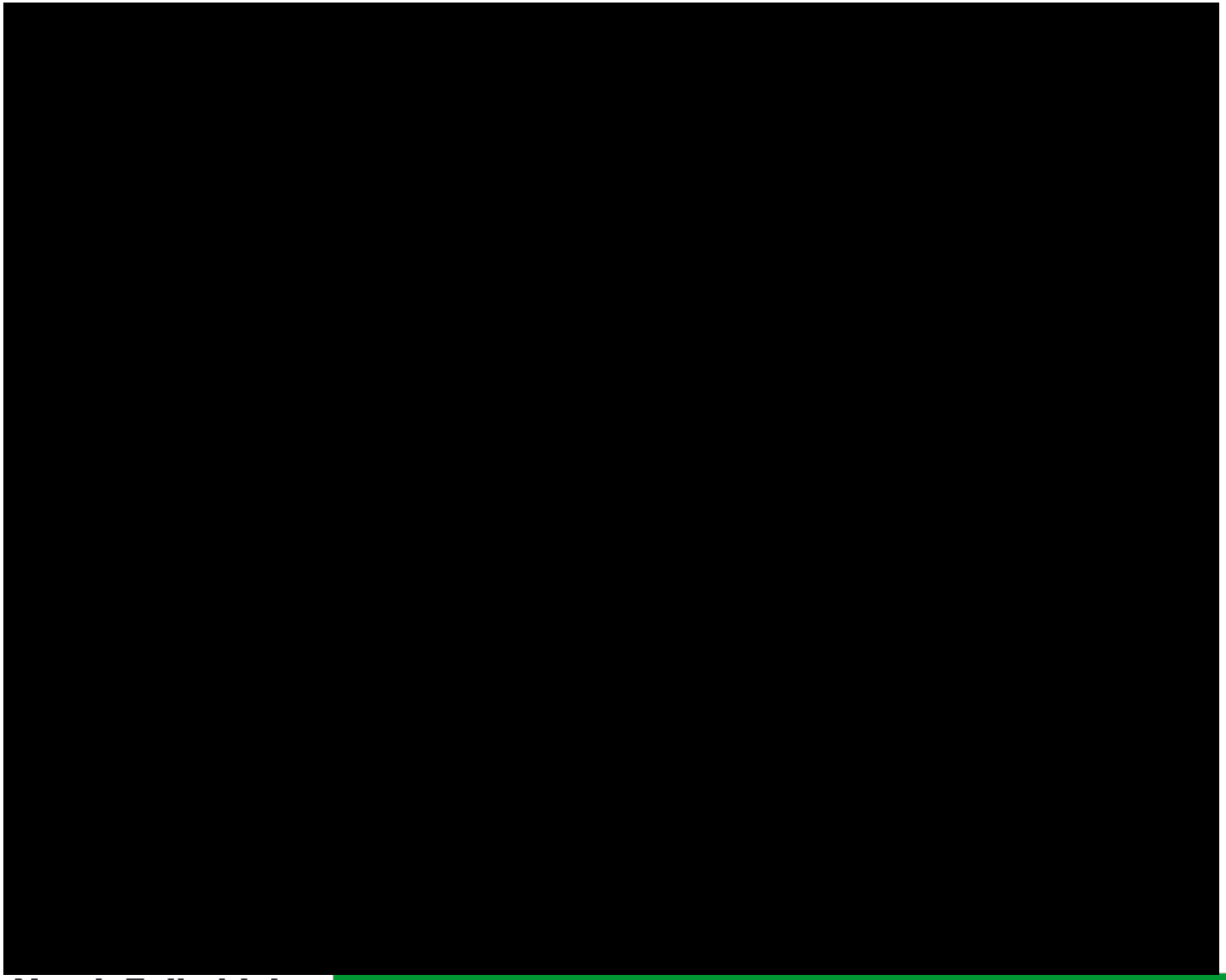
The Process

Phase 1 Non-Technical Survey	
Analysis throughout all Phases of Process	
Gather all available data Government Development Plans	**Field Deployment** Province/District/Commune/ Village Meetings Household/Landowner Interviews
Assess Data Historical Data (Clearance, Roving) Accidents CHA's USAF BD	**Confirm Evidence** Questioning People Visual Verification Detector Assisted Report to NMAA
Threat Assessment throughout	
Demolition throughout the process builds confidence	
QA by OM/OO throughout	
Information Management is Key Throughout	

The Process

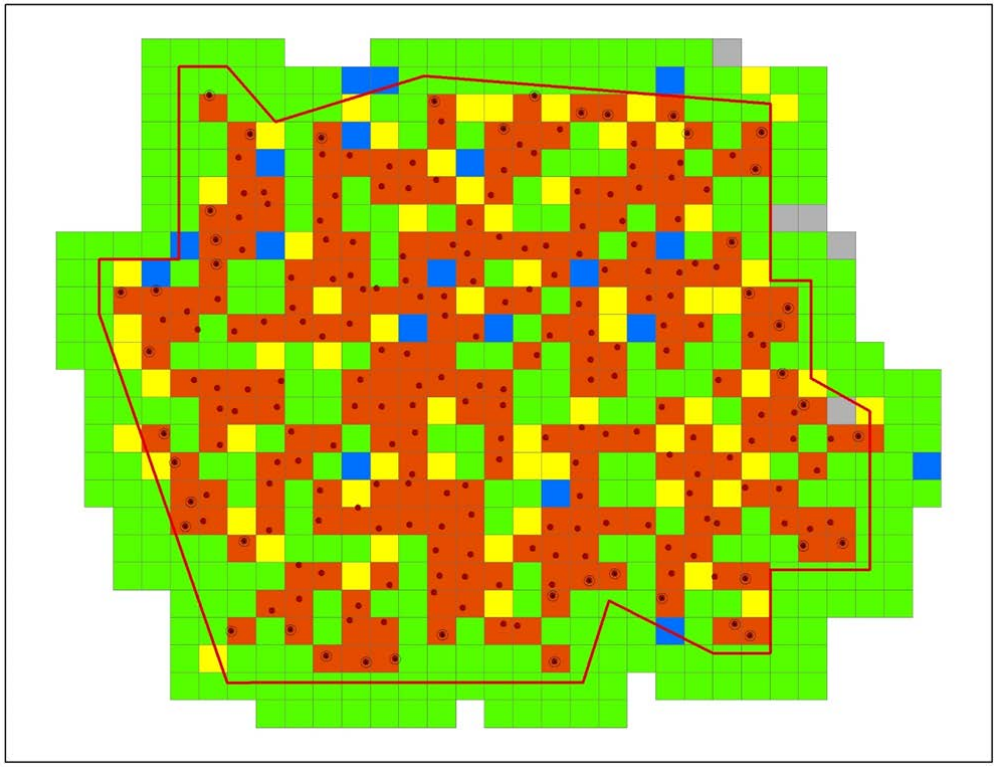
Phase 1 Non-Technical Survey		Phase 2 Technical Survey
Analysis throughout all Phases of Process		
Gather all available data Government Development Plans	**Field Deployment** Province/District/Commune/ Village Meetings	**Develop TS Plan** Detector Settings (Low sensitivity inside, high on the outside of CHA)
	Household/Landowner Interviews	Skipping boxes on larger CHA's
Assess Data Historical Data (Clearance, Roving) Accidents CHA's USAF BD	**Confirm Evidence** Questioning People Visual Verification Detector Assisted Report to NMAA	The Tool Box - Large Loops, Dogs, etc Overlay grid **Deploy Team** Time in Box - Flexible **Purpose** Identifying CHA Boundary
Threat Assessment throughout		
Demolition throughout the process builds confidence		
QA by OM/OO throughout		
Information Management is Key Throughout		





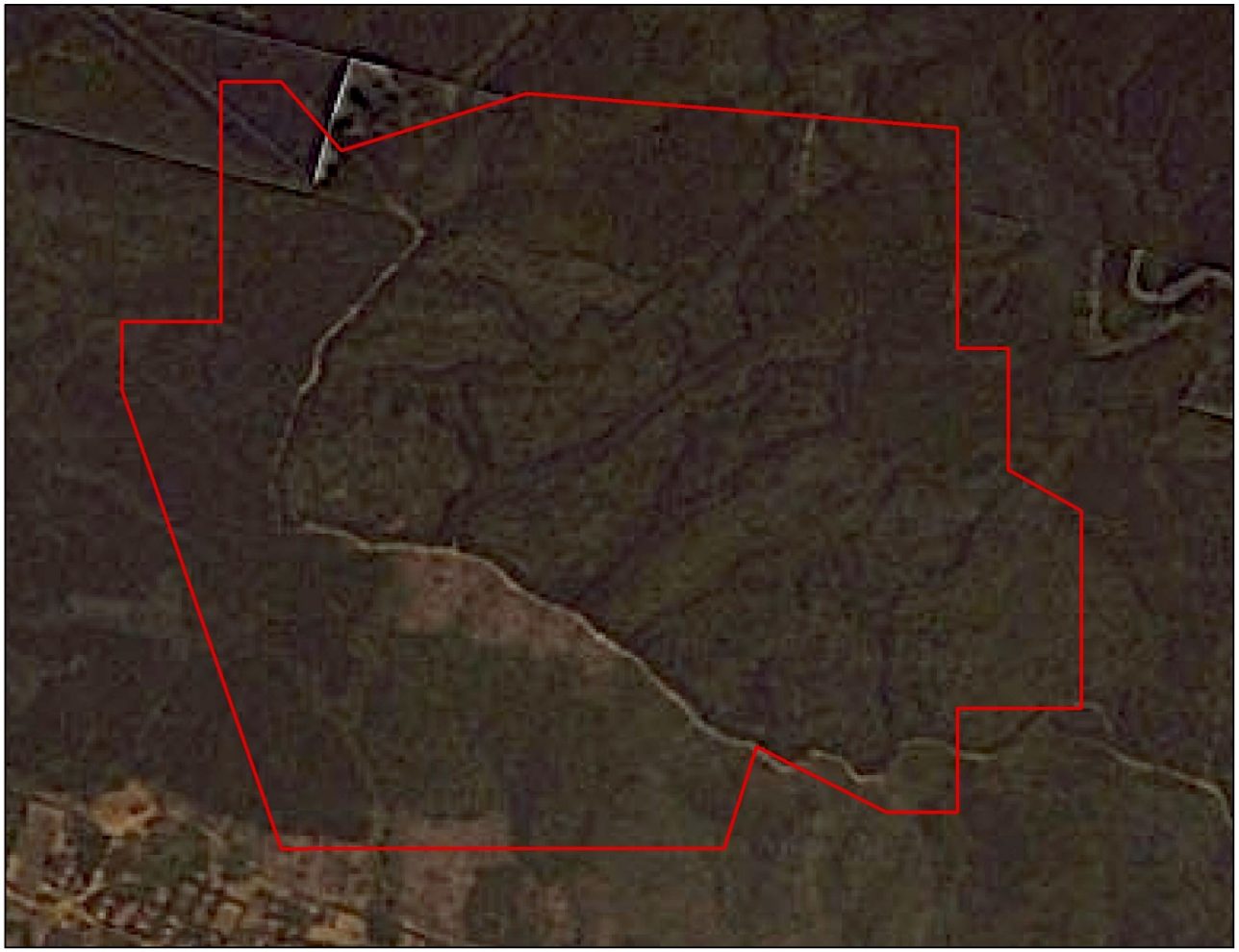
The Process – CMRS Procedure

- ONLY CHAs, and NO SHAs
- Medically trained staff are compulsory for TS
- Conduct of TS
  - Time in box – TL Confidence
  - Focus on identify CHA boundary
  - CMR located, stop searching and move to next boxes
  - Located items – dispose on daily basis
- Drawing CHA – 50m from last known item, line of best fit.



The Process

CHA Creation:



The Process

Phase 1 Non-Technical Survey		Phase 2 Technical Survey	Phase 3 Clearance
Analysis throughout all Phases of Process			
Gather all available data Government Development Plans **Assess Data** Historical Data (Clearance, Roving) Accidents CHA's USAF BD	**Field Deployment** Province/District/Commune/ Village Meetings Household/Landowner Interviews **Confirm Evidence** Questioning People Visual Verification Detector Assisted Report to NMAA	**Develop TS Plan** Detector Settings (Low sensitivity inside, high on the outside of CHA) Skipping boxes on larger CHA's The Tool Box - Large Loops, Dogs, etc Overlay grid **Deploy Team** Time in Box - Flexible **Purpose** Identifying CHA Boundary	**Consider** CHA's should be the basis of tasking Clearance to fade out of last known item The Tool Box - Large Loops, Dogs, etc
Threat Assessment throughout			
Demolition throughout the process builds confidence			
QA by OM/OO throughout			
Information Management is Key Throughout			

The Process

Phase 1 Non-Technical Survey		Phase 2 Technical Survey	Phase 3 Clearance	Phase 4 Completion
Analysis throughout all Phases of Process				
Gather all available data Government Development Plans **Assess Data** Historical Data (Clearance, Roving) Accidents CHA's USAF BD	**Field Deployment** Province/District/Commune/ Village Meetings Household/Landowner Interviews **Confirm Evidence** Questioning People Visual Verification Detector Assisted Report to NMAA	**Develop TS Plan** Detector Settings (Low sensitivity inside, high on the outside of CHA) Skipping boxes on larger CHA's The Tool Box - Large Loops, Dogs, etc Overlay grid **Deploy Team** Time in Box - Flexible **Purpose** Identifying CHA Boundary	**Consider** CHA's should be the basis of tasking Clearance to fade out of last known item The Tool Box - Large Loops, Dogs, etc	Village/Commune Meeting Approved by Village or local Governement Rep, NMAA, NPA Handover CHA and report to NMAA Process review and feedback
Threat Assessment throughout				
Demolition throughout the process builds confidence				
QA by OM/OO throughout				
Information Management is Key Throughout				

Lesson learnt - General

- Speed over Accuracy
  - Too focused on speed when first developed
  - No feedback through clearance.
- Too long time between CMRS and Clearance.
- Stakeholder feedback and coordination is essential to quality.
  - Link to village
  - Clearance is the greatest form of Quality management
- Ownership of the process

Lesson learnt - General

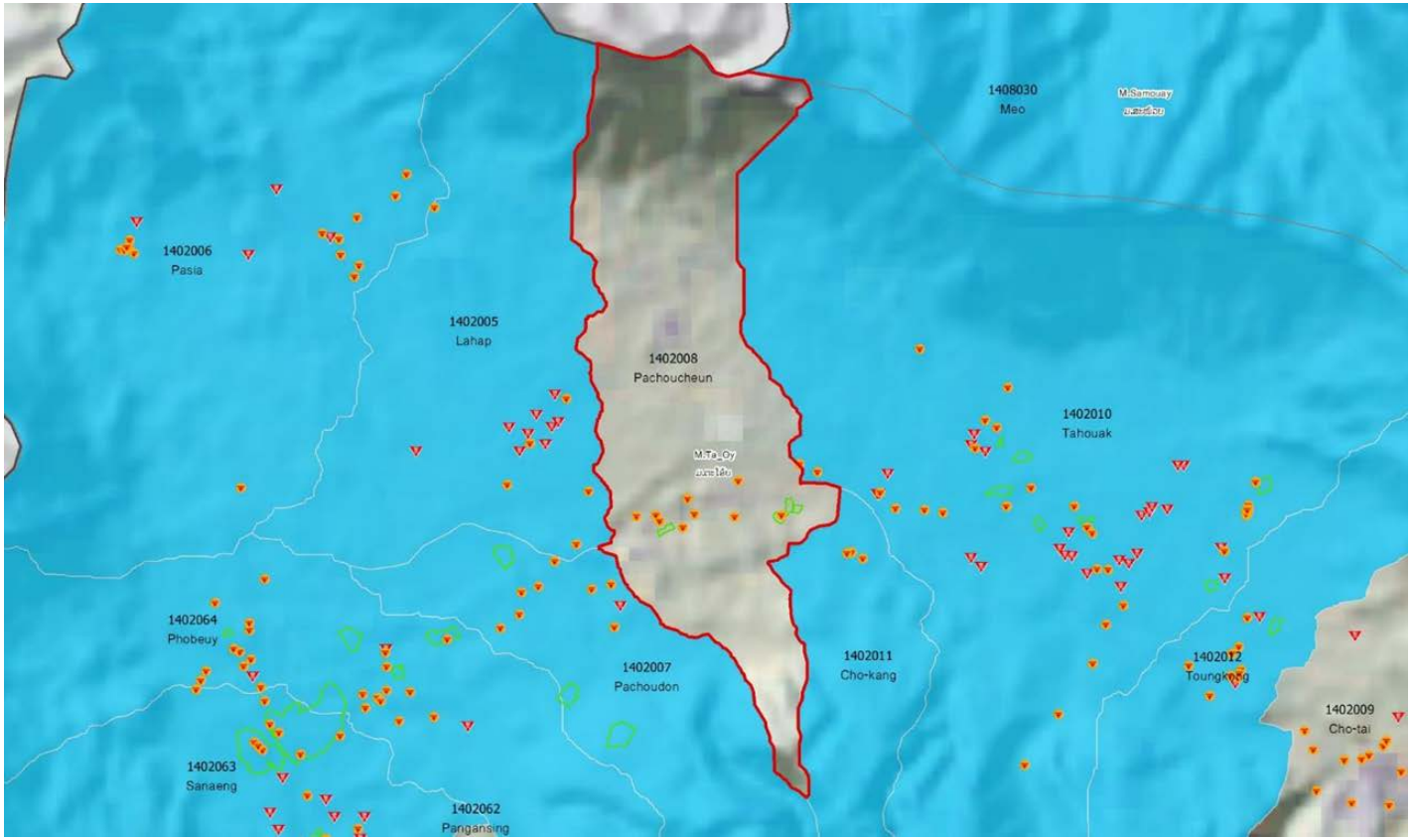
- Information management is key to success.
- Linking location of USAF BD to CHA locations is not possible, But……..
- Can be used to analyze expected type of contamination
- NS shall be appropriate.

Lesson learnt - NTS

- Incomplete information
  - No quality documentation on, or a lack of accurate & reliable historical data
  - No reporting system of new evidences
- Increase in quality of NTS
- Impact Assessment is not NTS

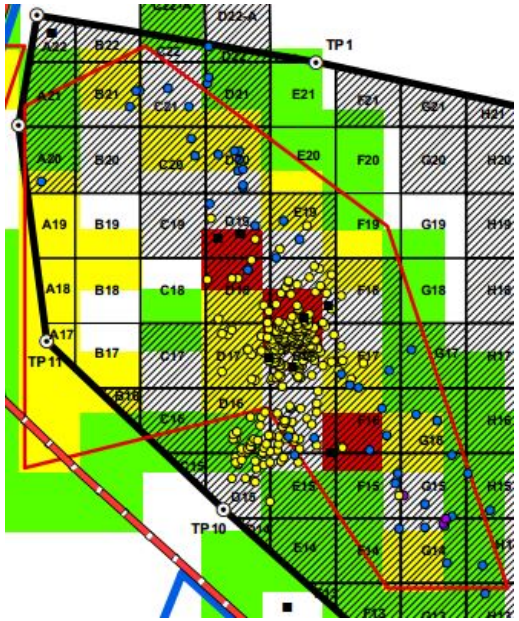
Lesson learnt - NTS

- New or moved villages missed during NTS



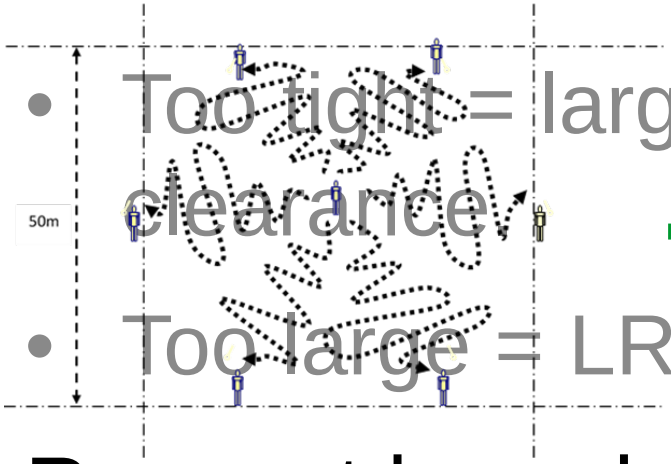
Lesson learnt – TS

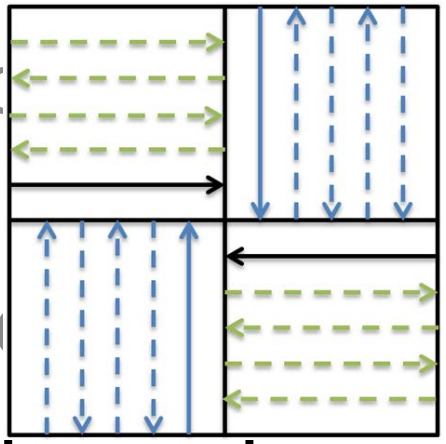
- Skipping boxes shall only be conducted when larger CHA's are being identified – not from the start of a task.
- Fragmentation is not enough evidence to base CHA creation
- The focus is on boundaries
- Team sizes



Lesson learnt – TS.

- More structured physical approach.
- CHA created 50m from last known item.
  - Too tight = large expansion c
    clearance.
  - Too large = LR issues can o





- Request based results v Evidence based results.

The Path Forward

- National ownership and rollout. Standards and procedures should reflect CMRS
- Establish a suitable national IM system
- Shift from request based to evidence based operations
  - ALL tasking should be of CHA's, with NMAA facilitating a feedback loop for continuous improvement.