



**Minutes of the Technical Working Group UXO/Mine Clearance
Held at the NRA Conference room
On 26th July 2007**

Attendance:

Dr. Maligna Saignavongs, Director NRA
Mr. Sommai Xaixongdeth, Chief of Standards and QA
Mr. Tim Horner, STA NRA.
Mr. Phil Bean, OPS/QA TA.
Mr. Mike Boddington, TA, VA, NRA.
Mr. Ian Thomas, TA, NRA.
Ms. Ruth Bottomley, MRE Advisor, NRA
Ms. Clara Gladstone, Information Management NRA
Mr. Chris Bath, UXO Project Coordinator HIB
Mr. Paul Stanford, Tech OPS Manager PCL.
Mr. Lee Moroney, TA, NPA/UXO LAO
Ms. Jo Duham, Country Programme Manager, MAG
Mr. Bountao Chanthavongsa, Operation Assistant MAG
Mr. Phonexay, Demining, MAG
Mr. Wanthong Khamdara, DNPD UXO LAO
Mr. Phommachanh Khammanichanh, Chief of OPS UXO LAO
Mr. John Dingley, STA UXO Lao
Mr. Ron Hawkins, Manager, Milsearch-BPKP
Mr. Nigel Orr, PM, FSD
Mr. Joeseoph Huber, OPS Manager, FSD
Mr. Alan Arnold, Programme Manager IMSMA, GICHD
Mr. Michael Inthavong, PTA NRA
Mr. Vilaysack Vongsayachanh, Demining Officer NRA
Mr. Viengprasith Thiphasouda, VA Officer NRA
Mr. Bouaphet Phommavong, TWG Technician NRA
Mr. Khamphet Fonglamay, MRE Technician NRA
Ms. Daovieng Darasavath, OPS Assistant NRA

Apologies:

Mr. Thongphone Keosayadet, Chief of OPS NRA.

Agenda Item 1, Opening and Introduction:

The meeting opened at 14:00 hrs. Dr. Maligna Saignavongs, welcomed everyone to the meeting since Mr. Thongphone could not participate for today and then asked Mr. Phil to review the minutes of the previous meeting and as the agenda was mostly informative asked Mr Phil to speak on the relevant items.

The action points that had arisen from the previous two Clearance TWG Meetings were discussed and the working group was briefed on actions that had been closed and on progress of those actions still outstanding or ongoing. A list of action points is attached at Annex A for reference.

Agenda Item 2, IMSMA

Mr Phil and Mr Alan Arnold from GICHD briefed the meeting about the progress of the installation and training for IMSMA version 5. IMSMA had been installed at both the NRA and UXO LAO, and operational staff had been given initial training in its use. The plan was to progress training and use between NRA and UXO LAO, to make sure the system worked well and to enable 'procedures' for data management and data exchange to be designed. The idea then was to progressively train all UXO organizations (and some others) in the use of the system so that they could use IMSMA for day to day data collection. Periodically organizational datasets would then be passed to the NRA collated on to the national database and then re-issued to all parties as an updated country dataset. It was anticipated that a realistic date of 1 January 2008 for national use of IMSMA was possible.

Priority activities for IMSMA were recognized as being the national Victim Survey and for MAG who had a need to revise their current database.

After note: After the GICHD IMSMA team left some complications within the system were identified and are awaiting responses from GICHD before wider training and the distribution of the system to other organisations can progress.

Action: NRA Operations.

Agenda Item 3, GICHD Risk Management Study

Mr Phil briefed the meeting on the next steps in the GICHD / Lao PDR risk management study following the recent GICHD visit. The GICHD, Tim Lardner, had taken back additional clearance data from UXO LAO, FSD and HI(B), he was going to make some changes to the model and refine the data collection questionnaire process, this would enable clear instruction of how best to collate information to test the model. Once GICHD have completed their revisions the information would be passed back to the NRA to enable a period of comprehensive field trials in parallel with existing technical survey and clearance operations. Optimistically, from the data collected and presented through the GICHD model by MAG, the potential to improve clearance site selection by up to 35% seemed possible, put the other way... that is enabling a prediction of 35% of the areas that when cleared produced had no evidence of contamination, which if they had been identified prior to clearance would have resulted in saving of resources.

Action: GICHD, then NRA.

Agenda Item 4, UNIDISC – MAG

Mr. Bountao Chanthavongsa of MAG briefed the meeting on the recent trials of the UNIDISC mechanical vegetation cutting system in Khammoune Province. In summary the trial had shown that within Lao PDR, with a predominant UXO threat, the machine was not cost effective. It was calculated that land could be cleared of vegetation using the machine at a cost of USD \$1443 per hectare compared to USD \$200 per hectare using manual labour with similar clearance speeds.

MAG would produce a full report for the US Department of Defence and whilst trials to improve productivity were encouraged it was generally agreed by the TWG that, in this case, the outcomes could have been predicted before hand and the expense of a field trial avoided.

NRA and where appropriate this TWG would assist more actively in the preparation of future trials.

MAG were requested to share the trial report with the NRA. In turn the NRA would brief the NRA Board.

Action: MAG

Agenda Item 5, National Standards

Mr Sommai informed the TWG that the translation of standards in to Lao language was nearing completion. Hard and soft copies would soon be issued to aid the review of the draft standards, leading to a formal review meeting before the final endorsement of the National Standards by the NRA Board. In addition the NRA had summarized the standards for briefing to NRA Board members. It was anticipated that a review of national standards could take place at the beginning of October.

Organisations were encouraged to continue to submit comments of national standards in writing to the NRA. Since the last meeting comprehensive comments on the MRE Chapter 13 had been received, the NRA would continue to collate comments and circulate them with proposed amendments in due course.

Agenda Item 6, Vulcan

Mr Paul Stanford of PCL reminded the TWG that one of the conditions related to use of Vulcan (Low order demolition technique), was that firing records were maintained and copies sent back to the manufacturer, Sidney Alford. Historically this had been a user responsibility and users were asked to maintain this activity.

A copy of the firing record forms is attached at Annex B, electronic copies of the form can be obtained from Phil Bean, on email beanphil1@yahoo.co.uk

Next Meeting:

The next meeting is scheduled for 14.00 hrs on the 30th August at the NRA.

Closure:

The meeting closed at 15.30 hrs

Mr Vilaisack Vongsayachan
Clearance TWG Officer
NRA

Enclosures

Annex A. Actions arising from the TWG meetings
Annex B. Vulcan firing record report.

Annex A

Actions Outstanding			
26 July Mtg	Progress GICHD Risk Management Study	GICHD to modify risk model and information collect instructions for parallel trial with technical survey work.	Operations / STA
	UNIDISC Trial Report	MAG to produce trial report. NRA to provide summary report to NRA Board.	Operations
28 June Mtg	Supply of explosives	NRA to work with MOD to prepare procedures for the supply of demolition items.	Operations / MOD
	Scrap Metal Trade reality study	NRA to prepare Terms of Reference	Operations / MRE
	Clarification of liability issues post site hand over, ex clearance or land released through survey.	NRA to research and present to TWG	Operations / Policy
	Specify within National Standards direction in land use and clearance depths	NRA to research and draft amendment to NS	Operations
1 June Mtg	All organizations to submit applications for Accreditation	NRA to coordinate and hasten where necessary	Standards
	NRA to confirm the roles of PNRA Offices	NRA	Policy
	NRA to meet with WFP and explain work planning processes to avoid late submission of future work plans	NRA	Operations
Closed Actions			
28 June 2007	Request for UXO LAO to deal with SAM 2 in Attapeu	Action complete	
	FSD to provide NS working group discussion records for 'waiting times'	Action complete	
1 June 2007	Organisations to submit monthly progress reports by 22 nd of the following month	Action complete	

LOW ORDER TECHNIQUES (L.O.T.) PROFORMA

Please take time to complete a report on every occasion a low order technique is used to add to the shared database of Vulcan Results.

Reports may be e-mailed (info@explosives.net), with photos, faxed to +44 1249 656 444, or compiled on a CD and sent to Alford Technologies (Unit 18, Glenmore Business Park, Bumpers Farm Industrial Estate, Chippenham, Wiltshire, SN13 0HX, UK)

Report No.

(ABC-YY-001)*

GENERAL DETAILS

Date:

Location:

Operator Name:

Unit:

WEAPON UXO DETAILS

UXO Name/Type:

100lbs HE	250lbs HE	500lbs HE	750lbs HE	1000lbs HE	2000lbs HE	3000lbs HE	Other
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Noze

Tail Fuze:

Noze

Tail

Fuze:

Armed?

Y/N

Unsure

Armed?

Y/N

Unsure

Booster:

Unsure

Booster:

Unsure

Noze Fuze Name/Model:

Tail Fuze Name/Model:

Main Fill Explosive?

Unsure?

Y/N

Explosive Type:

VULCAN PROCEDURE

Mg Cone	Other Projectile	Explosive Load	Stand-Off
Y/N		g	mm

UW Capsule	Trepanning Attachment	Nozzle
Y/N	Y/N	Y/N

OPERATORS OVERALL ASSESSMENT/REMARKS

Remarks: Include placement, point of aim and attack angle, and rationale behind experimental RSP if this is the case.

Reaction Code:

Results:

REACTION CODES

If unable to determine results A1 – E then use the Alternative Reaction Codes Below

No Chemical Reaction

- A1 Case Not Penetrated
- A2 Case Penetrated
- A3 Mechanical Break-up

Burn

- B1 Burn Not Sustained
- B2 Burn sustained to Burnout
- B3 Burn to Deflagration
- B4 Burn to Detonation

Deflagration

C1 Deflagration not sustained <of fill consumed
C2 Deflagration 15-50% of fill consumed
C3 Deflagration > 50% of fill consumed

Violent Deflagration

D1 Violent Deflagration
D2 Transition to Detonation

Detonation

E Detonation

ALTERNATIVE REACTION CODES

Cat A No reaction
Cat B From the EOD operators perspective, reaction less than expected, the weapon partially open but a major portion of fill remains
Cat C From EOD operator's perspective, reaction ideal, weapon open, remnants in the vicinity of original weapon location, no fill remaining.
Cat D Reaction more violent than desired, fragments up to several hundred meters. Majority of fill consumed during deflagration

REPORT NAME CODES

* **Standardised names** allow us to differentiate between reports generated by different units and people. Report names are in the form: ABC-YY-001 where ABC is a 3 letter code for the region in which the action was taken, YY is the year and 001 is the report number.

3 Letter Codes already in use:

ATT	Attaphu	Lao PDR
KHM	Khammuang	Lao PDR
SAR	Saravan	Lao PDR
SEK	Sekong	Lao PDR