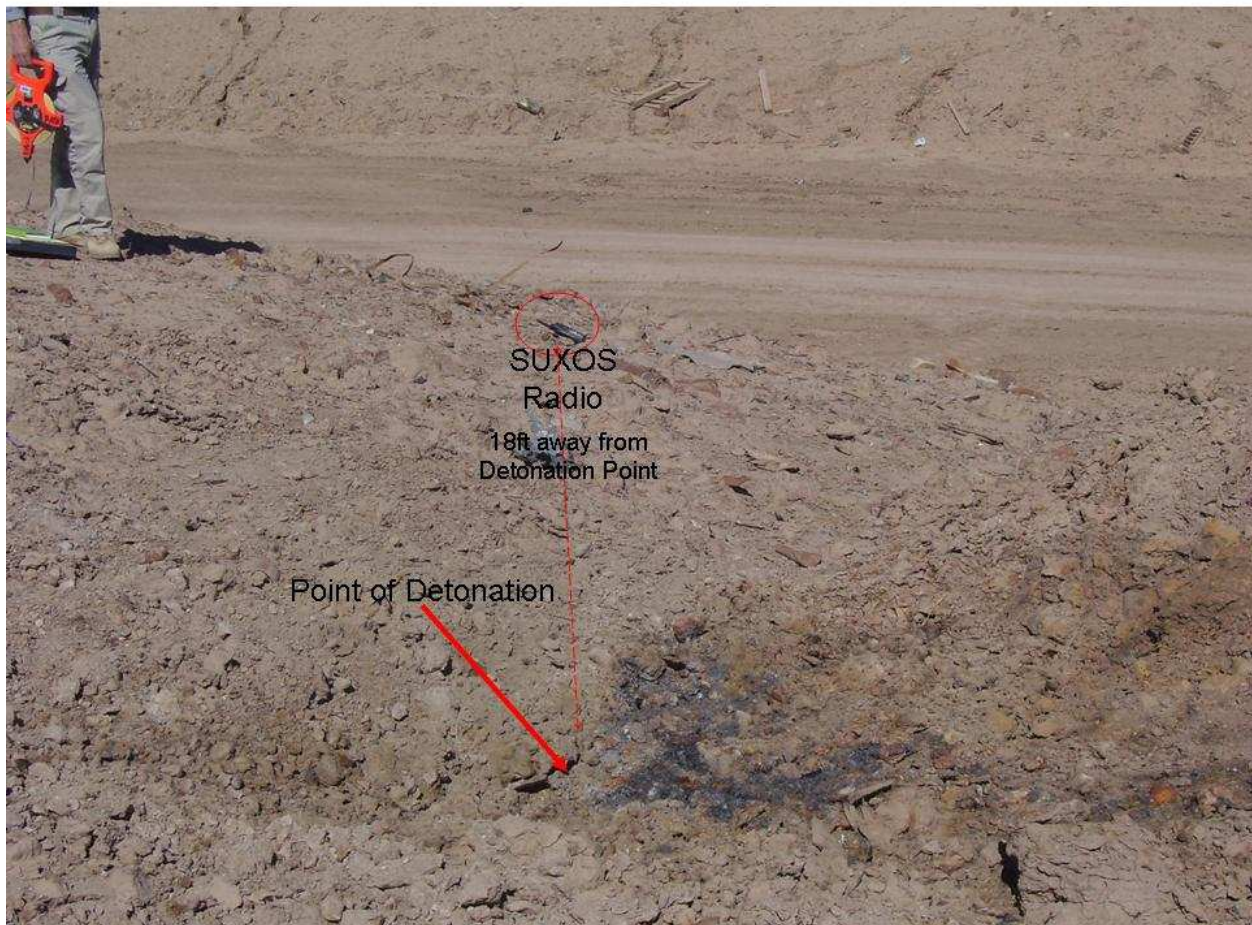




DRAFT BAYJI WHITE PHOSPORUS INCIDENT INVESTIGATION REPORT

COALITION MUNITIONS CLEARANCE (CMC)
NAD BAYJI, IRAQ
Conducted March 07-08, 2008
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SUMMARY OF INCIDENT

At approximately 1530 on 3/4/08 an unintentional detonation of a 105MM White Phosphorus (WP) projectile occurred on the NAD Bayjis demolition range. This unintentional detonation resulted in the injury to the project Senior Unexploded Ordnance Supervisor (SUXOS) John Carter.

OPERATIONS

The demolition team was disposing of 620 Armor Piercing (AP) rounds and a mix of 59 High Explosive (HE) and High Explosive Anti-Tank (HEAT) Rounds for Tetra Techs first demolition operation aboard NAD Bayji. Additionally (1) one 105MM White Phosphorus (WP) Projectile was found previously outside of disposal pit 1 and was added to shot 1 for disposal.

EVENT TIMELINE

The event timeline is an extrapolation of the attached UXOSO and Demolition Supervisors logs and statements from all project personnel involved in the demolition operation on Tuesday March 4, 2008. Verbal interviews were also conducted for clarification of information pertaining to the event.

0630- Morning meeting conducted by SUXOS John Carter, and UXOSO/QC Peter Grubb conducted Safety Brief, See Attachment (1).

0830- Demolitions Operations Safety Brief conducted by Demolition Supervisor, Keith Thompson, See Attachment (2).

1000- Class V (Demo Material) is drawn for the Disposal Operations.

1040- Demo Team start setting up the shots. There are 5 shots consisting of 124 rounds of Armor Piercing (AP) rounds and one shot of 59 High Explosive (HE) and High Explosive Anti-Tank (HEAT) Rounds. Additionally (1) one 105MM White Phosphorus (WP) Projectile that was found outside of Demo Pit 1 and tied into Shot 1 for disposal. (Disposal of WP round briefed at Demolition Safety Brief, but hazards of WP not briefed)



1400- Demolition Supervisor gives (1) one hour notice until high order detonation via radio to project personnel.

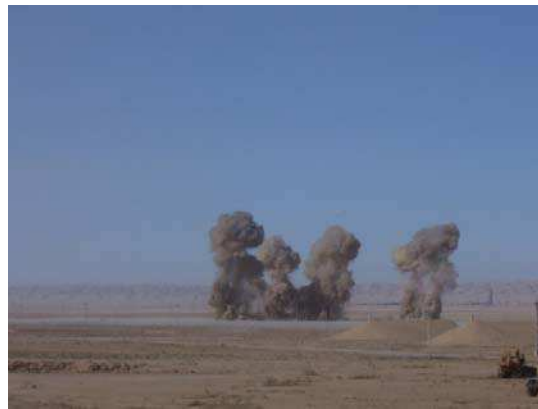


1430- Vehicle Borne Improvised Explosive Device (VBIED) detonates 2 kilometers away from the range on Hershey Highway as the security element was going to block the road to establish the exclusion zone for the disposal operations. No Injuries or Damage to vehicles. (See SIR B001 DTG-041730CMAR08)

1450- Demolition Supervisor request permission to prime in to shot and received authorization from SUXOS.

1500- Demolition Supervisor gives (5) Five minute notice until high order detonation via radio to project personnel.

1511- The disposal shots are initiated via the remote firing devise. Initially the UXOSO has questions if all 6 shots detonated (see attached log book entry). SUXOS John Carter broadcast over the radio that there will be a 1 hour wait time observed due to the possible misfire. Sean Fry a TT UXO Tech II located at an opposite Observation Point 19 calls back over the radio to state all 6 shots detonated and that he has photographic evidence of the fact. So a 5 minute wait time is observed.



1518- SUXOS and Demolition Supervisor return to the demolition pits to verify that all shots had detonated. The Demo Supervisor checks demo pits 6, 5, & 4 located on the north side of the range. The SUXOS checks demo pits 1, 2, & 3 located on the south side of the range. Additionally SUXOS checks the shot hole location for the single 105 MM White Phosphorus Projectile that was tied into shot number 1.



1525- The following radio traffic was documented;

- Demo Supervisor reports all 6 shots clear to all project personnel.
- Demolition Supervisor reports on the radio “SUXOS, SUXOS we have smoke on the range” a couple of times.
 - Demo Supervisor states for SUXOS “stay in the south pits” (SUXOS states he did not hear this message)



- SUXOS asks “Does it have a burster?”
 - SUXOS saw smoke rolling over the hill coming from the north-west. The SUXO continued to check the shot holes from the disposal operations making his way back toward the vehicle. He then stated he did not observe any additional smoke then climbed the hill on the north side toward Demolition Supervisors (DS) location. He then called on the radio to the DS and asked if the munition has a burster? (No response from DS) While making his way in a northward direction he heard a noise to his right and saw smoke from a 105MM projectile. He was within close proximity to the projectile when it detonated. (see John Carters Statement)

1530- Unintentional Detonation is heard and observed. Demo Supervisor sees SUXOS stumbling with his hands on his face and declares an emergency by stating “Emergency, Emergency, Emergency” over the radio then proceeds to the SUXOS to render assistance. The Medic and one UXO Tech proceed to the demolition range to render aid. Demolition Supervisor broadcasts to the medic that he is walking the SUXOS to the vehicle. Medic arrived on scene and proceeded to administer first aid.



1600- SUXOS transported to EODT compound for further assessment/medevac.

1615- UXOSO contacted TT PM at the Baghdad PMO about the explosive mishap.

1630- John Carter medevac'd to Camp Speicher.



Event Points of Interest		
Grid-MGRS	Datum -WGS 84	
Name	Description	Position
Accident Site	Point of detonation for WP Explosion	38SLD5185877781
105MMFuzewell Adapter	Found approx 40 ft from point of detonation	38SLD5187177796
Firing Point	Firing Point/Medic staged during downrange check	38SLD5184475993
Pit 1	Demolition Pit 1	38SLD5184077626
Pit 2	Demolition Pit 2	38SLD5192277663
Pit 3	Demolition Pit 3	38SLD5204477678
Pit 4	Demolition Pit 4	38SLD5205977878
Pit 5	Demolition Pit 5	38SLD5194677821
Pit 6	Demolition Pit 6	38SLD5187577776
WP Round	Single 105 WP tied into to shot 1 in demo pit 1	38SLD5182677618

SUMMARY OF INJURIES

As a result of the detonation of the 105MM white phosphorus projectile John Carter received white phosphorus flash burns to both hands and eyes, a corneal laceration to the left eye and foreign body in the anterior cornea of the right eye. John states that he was wearing protective eye wear but not wearing gloves. The following is a summary of the treatment received;

John was medevac'd from NAD Bayji to FOB Speicher and evaluated for White Phosphorus burns. The medical center at FOB Speicher did not have an ophthalmologist on staff so John was transferred via medevac to Balad Airbase for further evaluation by ophthalmology. It was noted that he sustained a corneal laceration to the left eye and foreign body in his right eye. As a result of the injuries John underwent surgery to repair the laceration in his left eye and remove the foreign body in the right.

The following actions were advised by the ophthalmologist;

- Quarters for 72 hours after returning to base
- After the initial 72 hours, 2 weeks of administrative /desk duty.
- Follow up with ophthalmology in 3 weeks for corneal suture removal from the left eye





FINDING AND OBSERVATION SUMMARY

Job Practices:

- Standard Operating Procedures for investigating Demolition Shot holes was not followed.
 - The SUXOS and Demolition Supervisor failed to follow the Bayji Work Plan Insert which mandates that a “Safety Observer” be utilize when conducting Demolition Range Re-entry Control procedures.
- Activity Hazard Analysis: AHA clearly states “Do not approach a smoking WP munition unless absolutely necessary.”
 - SUXOS approached area of smoking projectile. Did not have minimum required PPE for or equipment per the AHA.

Chemical and Physical Agent Factors:

- White Phosphorous spontaneously ignites with air. Demolition Supervisor did not brief Specific Safety Precautions for dealing with White Phosphorus. SUXOS and UXO Safety Officer did not address this discrepancy.

Protective Equipment:

- Mandatory Level D, PPE was not utilized (gloves) by the SUXOS while down range.
 - Lack of gloves resulted in thermal burns to both hands.
 - Stated that he was wearing Protective Eye Glasses.





Communication:

- Since the demo area contains berms and low lying areas radio communications are not always received by the handheld Motorola radios. This could have contributed to the SUXO not hearing/responding to the Demo Supervisors instructions to stay in the south pits.
 - The USACE Safety Representative stated that 2 repeaters were en-route to the site.

APPLICABLE DOCUMENTS

Project-Specific Requirements

- Work Plan for Mobile Teams in Support of Iraq Coalition Munitions Clearance
 - Activity Hazard Analysis
- Mobile Teams Work Plan Insert to Final Work Plan NAD BAYJI
- TT Demolition SOP
- TT Propellant and White Phosphorus Handling SOP
 - References EP 385-1-95A Basic Safety Concepts and Considerations for Munitions and MEC Response Action Operations
- 60A-1-1-22 General EOD Safety Precautions

PERSONNEL CONTACTED

Name	Organization
John Carter (SUXOS)	TTEC
Pete Grubb (UXOSO/QC)	TTEC
Keith Thompson (Demo Supervisor)	TTEC
Ron Vanderford	TTEC
Mike Dillaplain	TTEC
Sean Fry	TTEC
Adam Hacker	TTEC
Jack Bullock	TTEC
Wayne Brazee	TTEC

DISTRIBUTION

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