

UK TACTICAL UAV OPERATIONS IRAQ 2003/4

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(SO2 WATCHKEEPER Implementation Team)

What do we do?

- Provide the UK's UAV capability.
- Employ it aggressively and imaginatively in order to achieve lethal effects at Divisional, Brigade and Battlegroup levels.
- Utilised as an ISTAR asset not just ISR.
- Manned by Artillerymen not G2.
- For example...



Themes

- Concepts and Doctrine
- Integration
- Warfighting Examples
- Current Operations
- Lessons Learned



Iraq Highlights

- Phoenix was one of the GOC's four key battle winning equipments, the others were Challenger 2, Warrior and AS90.
- It gave Commanders at all levels (when allocated) a greatly increased level of situational awareness.
- Responsible for c40% of the 22,000 rds fired by UK artillery.

Iraq Highlights

- Phoenix flew 133 sorties, conducted Level II and Level III CAS with both fixed wing and AH. A further 250 have since been flown.
- Operated at a maximum range of 120kms from the GDT.
- Did not have a single launch failure during warfighting.

Highlights

- Phoenix has now flown over 1000 flights on operations in Kosovo and Iraq.
- Since entering service in 1999 Phoenix has been deployed on operations every year except for 2002 when it deployed to Oman on exercise.

Concepts and Doctrine

- Phoenix is a Tactical UAV owned and tasked by the LCC.
- Integration and Tasking Authority is achieved through embedded Tac Parties at Div/Bde/BG level.
- ISTAR system manned by Artillerymen.
- Strike with artillery and CAS are routine activities.

Command and Control

- UAV Tasks are generated and co-ordinated through the ISTAR Co-ordination cell at Division and Brigade
- Targeting Meetings produce focussed UAV taskings. In order to deliver desired effect (lethal or non-lethal).
- AVs and GCSs are allocated in order to meet the commander's intent.

Integration

- Tac Parties provide a dedicated UAV Staff focus at Div Bde and BG working to Chief ISTAR.
- Supports Joint Effects Integration.
- Battlespace management:
 - Ground Element with G3 manoeuvre.
 - Air Element with air manoeuvre.
 - Spectrum management.

Integration

- Ensures efficient Sensor to Sensor cross cueing, and,
- Effective Sensor to Shooter links, in order to deliver:

Timely, Accurate and Lethal Effects

**National
Intelligence**

**US NSW TOC FWD
PREDATOR UAV**

15 MEU LNO

ARMD RECCE

MTI

EO

HUMINT

P3 TCDL

FIELD HUMINT TEAMS

Brigade RECCE FORCE (BRF)

IR

G2

HUMINT

Brigade OPS (Strike with CAS)

Integration

Airspace Deconfliction

- Not a 'black art'.
- During Warfighting airspace management has proven to be a simple procedural issue conducted through the Air Support Element at formation HQs.
- Phoenix has flown in Class C airspace in Kosovo and Iraq.
- On each of the Regiment's operational deployments the Airspace Management architecture has been different.
- Inherent flexibility afforded by the integration of Tac Parties facilitates timely airspace deconfliction on behalf of the MC.
- There has never been an airmiss reported in over 1000 flights despite operating in crowded airspace.

Airspace Deconfliction



Airspace Deconfliction

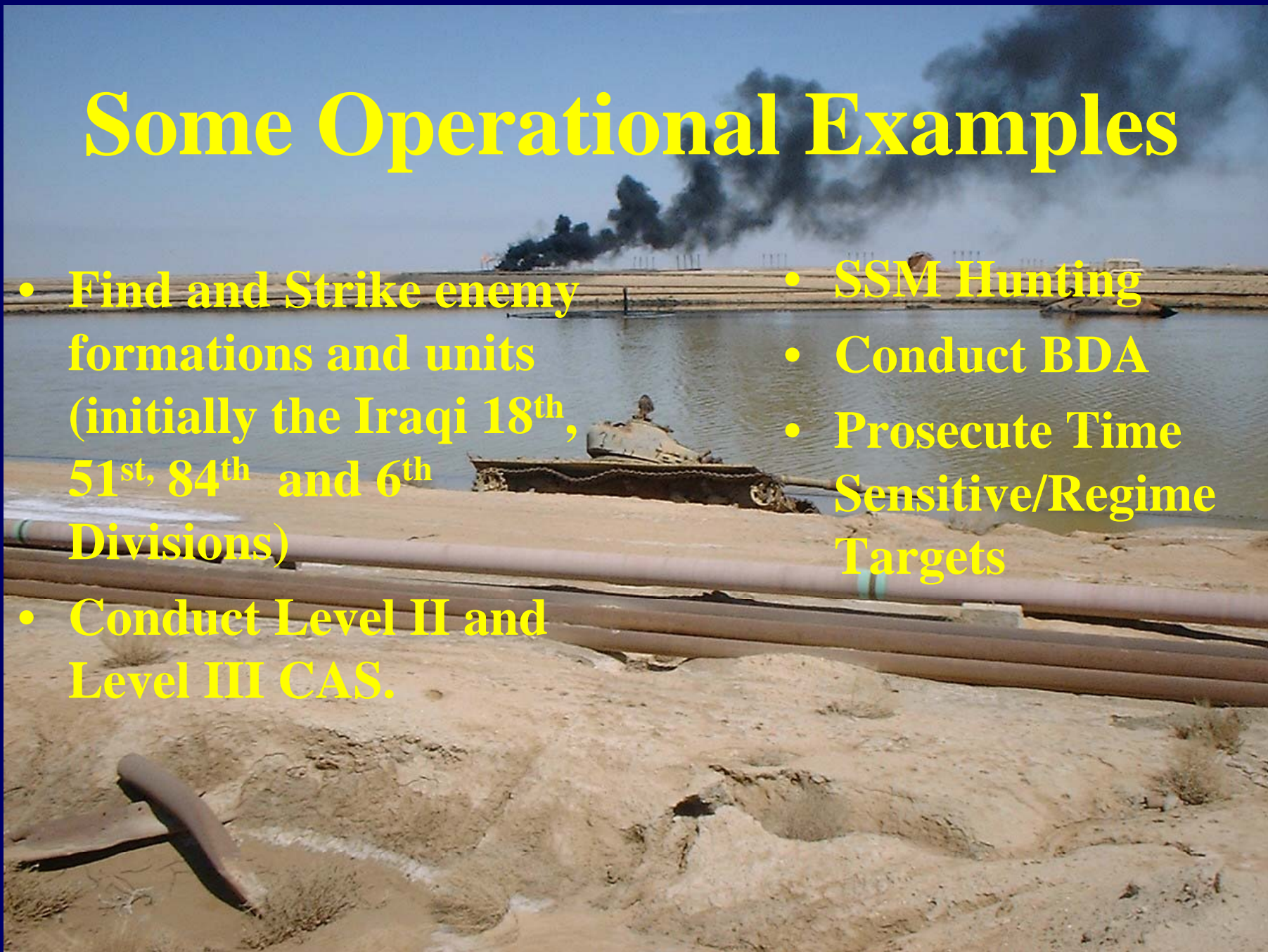


Key Missions and Tasks

- Find (*Decide, Detect, Track*)
- Strike (Arty, CAS, AH) (*Deliver*)
- Conduct BDA (*Assess*)
- Provide Situational Awareness to ground forces
- Support Transition to Peace Enforcement

Some Operational Examples

- Find and Strike enemy formations and units (initially the Iraqi 18th, 51st, 84th and 6th Divisions)
- Conduct Level II and Level III CAS.
- SSM Hunting
- Conduct BDA
- Prosecute Time Sensitive/Regime Targets



ZSU 23/4s & MTLBS - Bomblet



Armoured Counter Attack (Bn+)

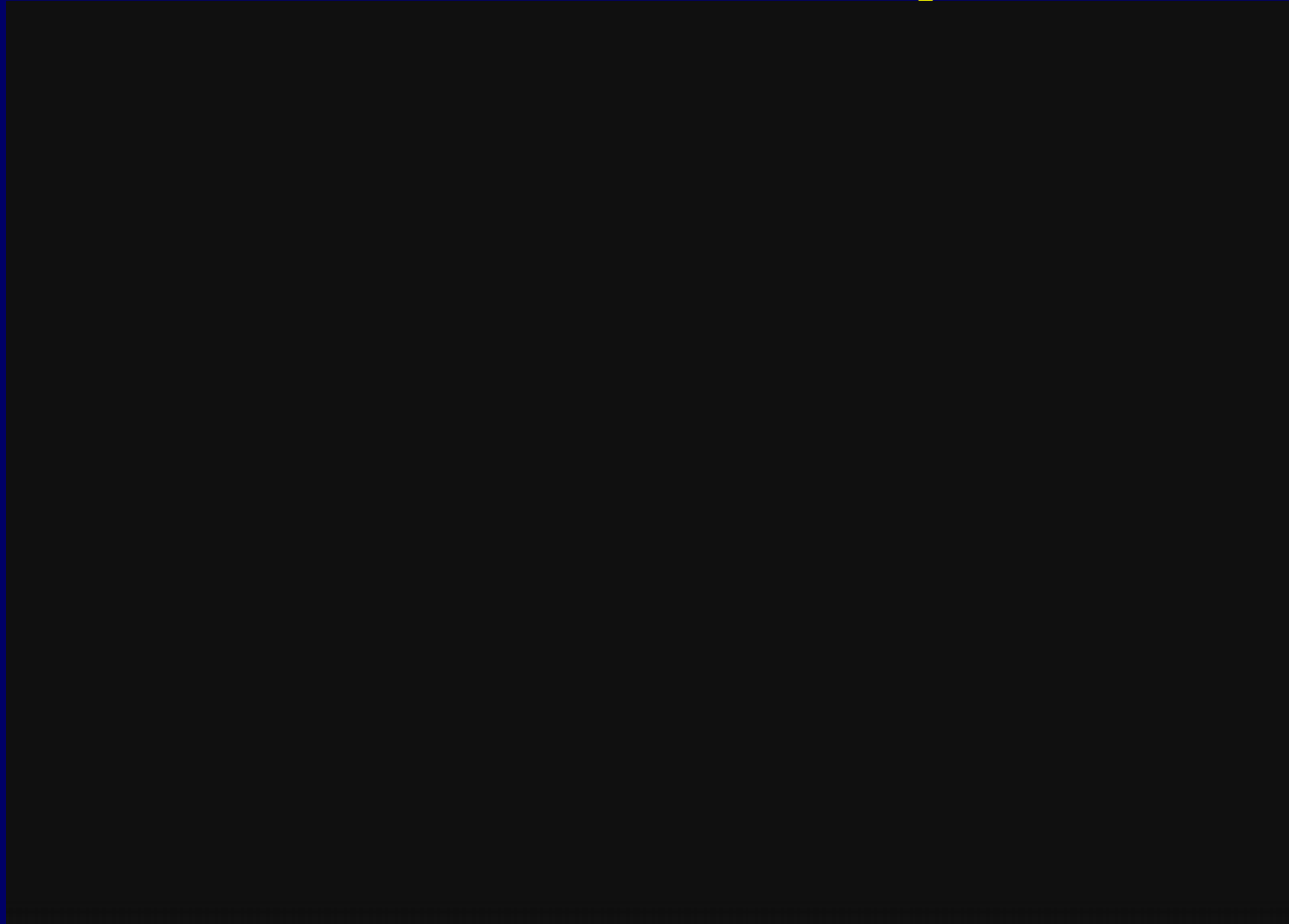
- Sensor Cross Cueing.
- FAC/CAS (36 x a/c)
- Hand over to Cobra ABFAC
- BDA – 60 vehs destroyed over 3 hrs



Engagement of Mortars

- Detected and located by Weapon Locating Radar.
- Cross cued to Phoenix.
- Phoenix dynamically re-tasked to identify and confirm location.
- Engaged by Artillery.
- All within 7 minutes of initial detection

Mortars Cross Cued by WLR



BDA – AL FAW



Engagement of SSMs

- Target Areas of Interest (TAIs) identified as part of the targeting (inc IPB) process at Divisional level.
- Phoenix tasked to Find SSMs.
- CAS a/c made available.
- SSMs located by Phoenix and destroyed by CAS (2 x US A10s).

A10s Striking 3 x FROG 7 SSMs



Basra Baath Party HQ

- Phoenix tasked to maintain observation of Baath Party HQ prior to JDAM attack in order to confirm that Fedayeen (approx 200 strong) remained in the target.
- Target successfully attacked and effects confirmed by BDA
- Conditions set for regime collapse
- 7 Armd Bde enter Basra

Attacking Regime Targets



200 x Fedayeen - Basra Baath Party HQ

BDA on Baath Party HQ





Transition To Subsequent Ops

- Began patrolling Iraqi borders in support of ground operations.
- Assisted with domination of geographically dispersed AO.
- Assisted with route surveillance to deter illegal Vehicle Check Point (VCPs) on main routes.

UAV OPERATIONS IN SUPPORT OF MND (SE)



Subsequent Operations

Typical Surveillance Tasks

- Direct surveillance in sp of Bde, BG or sub unit ops (VCPs/Cordon & Search/Arrest ops).
- Observation of activity at border crossing points and choke points.
- Anti Smuggling Operations (land and water).
- Target Recces.
- Tracking mobile targets.
- Force Protection.
- Infrastructure (pylon lines/GOSPs/oil tapping points).
- Monitoring Public Disorder.

Infrastructure Protection - GOSP



Infrastructure Protection



UMM QASR PORT

Monitor Captured Enemy Ammunition (CEA) sites



Anti Smuggling Operations

- Identify ships
- Monitor suspicious movement
- Unusual unloading/loading of ships/vessels
- Track activity on fringes of port



Lessons Learned

Lessons Learned

- UAVs are able to generate lethal effect and at the tactical level will be predominately employed as a Target Acquisition asset when warfighting.
- Integration via Tac Parties is the key to success.
- Flexibility of allocation and dynamic retasking allow for efficient employment.

Lessons Learned

- The importance of the Tac Party for capability integration.
- Broader skill sets for GCS crews in order to fully exploit UAV products and to generate timely effects (Calls for Fires, FAC/CAS).
- Suppressive effect of overt UAV ops.

Lessons Learned

- Technology is no substitute for well trained and motivated operators.
- UAV operators do not need the full skill sets and aptitude of conventional pilots.
- Conversion training:



Frictions



The Future

- We expect to be involved across the spectrum of conflict at every level of command and in support of each component carrying out the functions of....
- **I**ntelligence gathering – high quality imagery and IMINT, timely, advanced image exploitation
- **S**urveillance – domination of extended battlespace.
- **T**arget **A**cquisition – for Air Interdiction, Close Air Support (fixed wing and Rotary), ground and maritime based fires
- **R**econnaissance – dominating the information battle enabling timely decision making

The Lucky Ones!

