



High Integrity Telecommunications System (HITS)

Project Update for Telecommunications Sub-Groups

Tuesday 8th September 2009

Novotel, Birmingham



Aim of this presentation

- To provide an update on the status of the HITS project since the last TSGs meeting in 2008
- To explain the HITS capability and roll-out plan in more detail
- To introduce the proposed HITS Standard Operating Procedures and invite feedback on the proposed role-based accounts (Charles Raynor)
- To develop the concept of Transportable Deployment Sites and invite attendees to provide information about possible sites in their localities
- To address any other questions, concerns or suggestions related to the project



Why HITS?



Floods, fires, power cuts, cable damage...there are many ways that communications can be interrupted



PREPARING FOR EMERGENCIES
WHAT YOU NEED TO KNOW

The Need for HITS

- Resilient communications required to enable response to severe disruptive challenges (as identified in the National Risk Assessment)
- Part of layered resilient telecommunications strategy
- Need for independent, secure and resilient communications system when all other usual means are not available (i.e. landlines, mobiles, internet)
- Replaces and improves upon the capability provided by the ECN (Emergency Communications Network)



What is HITS?

- Satellite based secure communications network
- Classified up to RESTRICTED
- Uses military satellites (Skynet 5), not commercial
- Additional terrestrial connectivity at most sites to add resilience
- Guaranteed, permanent connectivity: “always available”
- Will allow crisis coordination centres at all levels to communicate with each other
- One element of the CCS Resilient Telecommunications strategy



Progress since the last meeting

- Contract awarded February 2009 – for Phases 0 and 1. This initiated the delivery.
- Service Order for Phase 2 placed in July 2009
- Service Order for Phase 3 placed in August 2009

- Delivery of Phases 0 and 1 by end **November 2009**
- Delivery of Phase 2 by end **March 2010**
- Delivery of Phase 3 during **FY 2010/11**

- Full “back office” delivery teams established to deal specifically with security, safety, testing....



Who is delivering HITS?



CabinetOffice



MINISTRY OF DEFENCE



PREPARING FOR EMERGENCIES
WHAT YOU NEED TO KNOW

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CAPABILITIES

What does HITS look like to the end user?



PREPARING FOR EMERGENCIES
WHAT YOU NEED TO KNOW

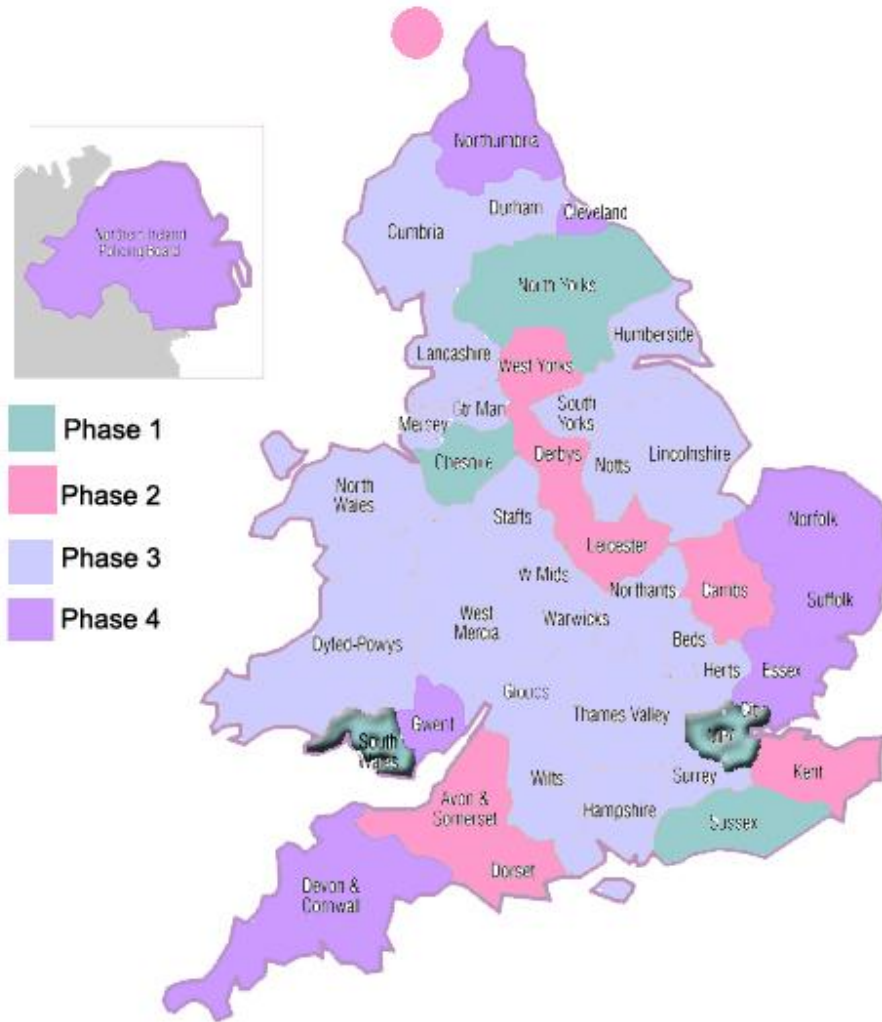
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CAPABILITIES

Transportable Capability

- Three Swe-Dish Transportable Units will be available for deployment across England and Wales, to pre-identified Transportable Deployment Sites.
- Deployment and set-up of the Transportable Units is a managed service supplied by Paradigm.



Indicative roll-out



PREPARING FOR EMERGENCIES
WHAT YOU NEED TO KNOW

High-level installation process

- Sites identified through questionnaire returns
- Site representatives invited to Q&A session hosted by Cabinet Office, Paradigm and MoD
- Site survey date agreed with site
- Site survey conducted and formal outputs produced
- Survey outputs fed back to site to commence local works services
- Installation window agreed with site
- Site assurance board held to confirm successful completion of prior works services
- Installation takes place including user familiarisation
- Site tested and formally accepted. Service commences



How much will HITS cost?

- HITS is a fully managed service supplied by Paradigm Secure Communications
- For a strategic core network of sites, the Cabinet Office will cover the cost of the ongoing service provision which includes support, repairs and routine maintenance
- For that core network, the cost of the site surveys and main installation is also covered by the Cabinet Office
- Sites will be asked to share the cost of local works services needed to make the sites ready to receive the main HITS installation. Requirements will vary from site to site and will be identified during the site survey process.
- Level of Cabinet Office contribution to works services a maximum of £5K.



What HITS will not do (currently!)

- Communications below Gold level – other local provisions should be put in place for Gold ↔ Silver ↔ Bronze
- Capacity restrictions place limitations on maximum number of concurrent calls
- Limited data exchange functionality if users are not subscribed to the National Resilience Extranet (NRE). NRE is the only means to share files at RESTRICTED level. (Without NRE exchange at UNCLASSIFIED level will be possible using e.g. web-based e-mail services.)





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CAPABILITIES

HITS – Using the System

**Telecommunications Sub Groups
– 8th September 2009**

- USER STANDARD OPERATING PROCEDURES
- Transportables
- Roles and accounts
- Fault Reporting
- Numbering system

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HITS USOPS - 1

- USOPS = User Standard Operating Procedures
- The Document will define how responders can use HITS, both routinely as part of normal operations and also – more importantly – during emergency response situations
- Several draft versions have been circulated, and reviewed with responder input
- There are many aspects of the System to cover but the USOPS aims to keep it simple and straightforward



HITS USOPS – 2 : Main Topics

- The SOPs covers the topics below:
 - Quick step-by-step Guides: Setting Up, Making Calls & Sending Files
 - System rationale and overall purpose, and how it will fit with the national response picture
 - Further, more detailed sections on making calls and sending files
 - How to use the Transportables, and locations for deployment
 - Training and exercising



HITS USOPS – 3 : Key User Highlights

- System is all digital
- Equipment will need some time to update once connected, so best to connect regularly
- Phones will have a screen, so online directory can be accessed (and other functions)
- Each role-based login will have 2 numbers – one 4 digit number for RESTRICTED calls and one full UK number for UNCLASSIFIED calls
- Users can both dial out of HITS onto other networks and dial into HITS from other networks – UNCLASSIFIED only



HITS USOPS – 4 : Key User Highlights

- Users must decide before making the call what classification they require, and press the relevant button. RESTRICTED will not allow calls to leave the HITS network



HITS USOPS – 5 : Key User Highlights

- HITS can also be used on a routine basis to hold secure conversations up to RESTRICTED
- HITS is not exclusively for emergency response scenarios – although the main purpose of HITS is to provide secure communications between SCCs and Central Government when all routine communications are unavailable
- Users can maintain familiarity with HITS through routine usage and exercising
- The system will also function better if all sites are routinely and regularly connected



HITS USOPS – 6 : Training & PCCC

- Training & familiarisation is provided by the Cabinet Office
- Induction familiarisation at installation and on-site
- Extra training provided for Boxed Kit users, as more details to consider. PCCC will not provide assistance to untrained users
- Supplier helpdesk is the PCCC – Paradigm Customer Contact Centre. Users should seek advice from colleagues at first
- PCCC will not help with MS Office or Windows XP



HITS USOPS – 7 : Sending files

- Files can be sent and data transferred using the HITS laptops
- HITS will interoperate with the NRE, users are encouraged to subscribe but **HITS roles do not come with automatic subscription to NRE**
- HITS can access the internet via GSi, including web-based email services (i.e. Yahoo) for sending UNCLASSIFIED files
- A USB port on the laptop will be unlocked so that USB keys can be used to transfer data. **All data is erased when the laptop is logged off or powered down.**



HITS USOPS – 8 : Transportables

- There are three Transportables available as national assets to provide emergency HITS communications to fallback locations or TDS – Transportable Deployment Sites
- Transportables are satellite only
- Fully managed and operated by the Supplier, will come with phones and laptops
- Set up time will be ~30 mins, but they may take several hours to arrive on scene
- Decision to deploy is made centrally following discussions with Gold Command Group– either COBR or CODO



HITS USOPS – 9 : Transportables

- Deployment sites can be any suitable building with space to set up the antenna and an indoor office area
- Responders should consider suitable Transportable Deployment Sites – could be schools, gyms, town halls etc as well as Police Stations

Key points to consider are:

- Clear line of sight south to the satellites
- Firm ground such as a car park to site the antenna
- Indoor office area near to the car park (within 100 ms)
- Resilient power, water and sewerage as well as provisions for personnel on site (food, beds etc)



HITS USOPS – 10 : Equipment

- HITS standard installation will include:
 - 3 phones (see previous picture!)
 - 3 Laptops
 - 1 + printer (networked)
 - ...& some on site spares
- Some sites may have more, or less equipment.
- The system infrastructure can accommodate up to 10 phones per site, but there are overriding capacity issues



HITS USOPS – 11 : Faults and Service

- HITS standard service level is 9hr response
- This is not always needed or required, so some faults may be remedied within 48 hrs or the next working day – i.e. replacing 1 broken phone at a site
- Key factor is the operational or response status of the HITS Organisation – resources and operational requirements should be considered if emergency response or exercise underway
- Also at user discretion – the default options will always be 9hrs. So, if a user wants a new phone in 9hrs then user will get phone in 9hrs



HITS USOPS – 16 : Other Key User Highlights

- HITS has a guaranteed minimum bandwidth
- If the PSTN is not available then demand for HITS will be higher (as with all other contingency comms such as other commercial satellite phones)
- Voice will have priority over data
- Calls and data transfer will by default use the terrestrial connection
- HITS is scaled so that 12 sites can be making calls simultaneously (if only the satellite is available), to a total of 36 calls
- If capacity is reached then system will take on any available extra bandwidth – if there is none then calls may not get through



Further information

- **Web: www.cabinet-office.gov.uk/HITS**
- **E-mail: HITS@cabinet-office.x.gsi.gov.uk**
- **Phone: 020 7276 3996 (HITS Project Manager)**

