Training Cadre

Mr. Jackson
Instructional lead
(803) 751-1595/96
DSN: 734
AKO: andre.jackson1@us.army.mil
FJ email: andre.jackson@jackson.army.mil

Mr. Colter
(803) 751-3589
DSN: 734
AKO: samuel.colter@us.army.mil
FJ email: samuel.colter@jackson.army.mil

Mr. Rickards
(803) 751-3590
DSN: 734
AKO: carl.rickards@us.army.mil
FJ email: carl.rickards@jackson.army.mil

Mr. Dallman
(803) 751-0867
DSN: 734
AKO: dwight.dallman@us.army.mil

Mr. McCartney
(803) 751-3594
DSN: 734
AKO: howard.mccartney@us.army.mil

Mr. Milligan
(803) 751-0868
DSN: 734
AKO: jullian.milligan@us.army.mil
Administrative Notes

TRAINING SCHEDULE

- TEACHING PLAN
- TOTAL DAYS
- HOURS PER DAY

- DAILY SCHEDULE
- BEGINNING/ENDING TIMES
- LUNCH TIME
- CLASS BREAKS

PAPERWORK

- ATTENDANCE
- ROSTER
- COURSE EVALUATION

POLICIES

- FIRE / TORNADO / BOMB / EARTHQUAKE WARNINGS
- SMOKING AREA
- FOOD OR DRINKS IN CLASSROOM

FACILITIES LOCATIONS

- RESTROOMS
- BREAK AREAS
- SNACK MACHINES
- OTHER
Safety Precautions in the Classroom

- Before connecting equipment to power source, ensure all power switches are in the off position.

- Keep personnel items away from CPUs, wires, connections, and outlets.

- Report damaged equipment to instructors.
• Identify the strategic value of the Army Battle Command System (ABCS) and the major components of the FBCB2-BFT.

• In a classroom environment, given “White Box” training aides and two AN/UYK-128(V3) (FBCB2) with software version 6.5; TM 11-7010-326-10, TB 11-7010-326-10-3 and FBCB2 Tutorial Website

• Describe how the ABCS supports the commander in the field. Identify FBCB2-BFT and Describe the FBCB2-BFT Theory of Operation
Agenda

- Army Battle Command Systems (ABCS)
- Force XXI Battle Command, Brigade and Below
  - Video
- FBCB2 “Hands-On Applications”
  - “White-Box” PCs training aides
  - Real-World Blue Force Trackers
Why Digitize?

Manual TOC Mapboard

FBCB2-BFT

2LT Brian Ralls
Graduated AGOBC, NOV 04
ABCS Automated Components

• Global Command and Control System-Army (GCCS-A)
• Ground Combat Command and Control Systems (GCC2)
  – Maneuver Control System (MCS)
  – Advanced Field Artillery Tactical Data System (AFATDS)
  – Air and Missile Defense Work Station (AMDWS)
  – Intelligence Fusion Work Station (IFWS)
  – Battle Command Sustainment Support System (BCS3)
  – ABCS Information Server (AIS)

• Force XXI Battle Command Brigade-and-Below (FBCB2)
• Movement Tracking System (MTS)
• Digital Topographical Support System (DTSS)
• Integrated Meteorological System (IMETS)
Video
Force XXI Battle Command

See the Enemy…
See the Terrain…
See Your Own Forces…

Digital Connectivity

Common Picture of the Battlefield

Analysis & Judgment

SITUATIONAL UNDERSTANDING
CPT Mancini: “FBCB2 prevented fratricide. Across the Tigris the Marines fired at our unit. We looked on the (FBCB2) screen, saw who they were, did not fire, and messaged them.”

SSG Scott (MP): “NOV 05 my Armored Security Vehicle (M1117) was struck by a very large IED in southern Baghdad. I was unable to contact my command because I was in a dead zone with my ASIP radios. I was able to use the FBCB2 and send text messages to coordinate for QRF, SITREPS, and even send a message to a nearby APACHE helicopter. The system was invaluable.”

3/116th CAV patrolled south of Kirkuk daily for many months during 2004. On 14 August this HMMWV was part of a three vehicle patrol that was struck by an improvised explosive device (IED) while traveling south from Kirkuk. Using the FBCB2 due to limited FM Range, the Squad Leader called back to the Company Command Post who launched a tank quick reaction force and recovery assets to recover the destroyed HMMWV and injured personnel.
• Current software version 6.5

• Future software versions:
  – Joint Capabilities Release (2011)
  – Joint Battle Command - Platform (2011)

• Seamless battle command capability to leaders at the Brigade level and below.

• Transmit key combat information rapidly with pre-formatted digital messages.

• Increased Situational Awareness on the battlefield
  ▪ Accurate friendly force locations
  ▪ Common Operational Picture (COP) across the Force
  ▪ Observed enemy forces
  ▪ Battlefield obstacles
• Danger Zone Warning and Alert.

• Transmit Red SA and battlefield hazard to other FBCB2-BFT platforms.

• Respond to Potential Overrun or Compromise.
  ▪ Local Destroy.
  ▪ Remote / Challenge / Authentication / Destroy.

• Other System Tools.
  ▪ Outstanding Map / Nav Functions.
  ▪ Not limited to Line Of Sight / FM Commo Range
• Database of role names down to squad / section level.

• Digital distribution of Battle Command information
  ▪ FRAGOs & C2 messages
  ▪ Graphic overlays

• Increased platform-level efficiency
  ▪ Scaleable maps & Scalable imagery
  ▪ “Steer-to” navigation
  ▪ Line of sight planning (2-D)
• Blue SA is near real time.

• Limited C2 Messaging between FBCB2-BFT and FBCB2-EPLRS platforms.

• Create (build) address groups (“Distro List”).
  – The implied task is to build during PCI/PCCs.

• Relies on accurate GPS feed.
FBCB2 – Updated Symbology

- In response to requests from Army leaders and deployed Soldiers, PM FBCB2 is added and implemented Improvised Explosive Device (IED) symbology on Force XXI Battle Command Brigade and Below (FBCB2).
How Does It Work … For Blue SA

**Blue SA Up**

- PLGR sends time and position data to FBCB2.
- FBCB2 creates and sends a Position Report based on time/motion setting.
- **FBCB2**: A Position Report is created and sent to the L-band transceiver (antenna).
  - (5 MIN or 800M GND)
  - (1 MIN or 2300M AVN)
- **L-Band TRANSCEIVER**: L-Band transceiver receives the position report and transmits it to the Satellite where it is delivered to the SATCOM hub.

**Blue SA Down**

- FBCB2 receives position reports from the transceiver and processes them and automatically displays them on the operator’s SA screen (map).
- **FBCB2**: L-Band transceiver receives aggregated position reports and sends them to FBCB2.
  - (5 MIN GND; 1 MIN AVN)

**OPS CENTER**

- EIS/CCS*: CCS sends Position Reports to the EIS and the Aux Bridge.
- EIS compiles aggregate SA messages and sends them thru the CSS to the SATCOM, back to the ground platforms.
- Individual Blue SA is sent thru the Aux Bridge/Aux EIS to the Radiant Mercury And Data Broker to GCCS-A COP

**FOUO**

- GCCS Joint COP
- GCCS-A/ABCS Army COP
- Data Broker
- Radiant Mercury
- Trusted Guard
- ONE WAY SBU TO SECRET

* EIS = Enhanced Information System
CCS= Communication Control Server
BFT (SAT) Vs. Terrestrial (FM)

BFT

Advanced Display System AN/UYK-128 Ruggedized Computer

Mobile Satellite Transceiver MT-2011

Precision Lightweight Global Positioning System Receiver (PLGR)

or

Defense Advance Global Positioning System (DAGR)

Terrestrial

Single Channel Ground Airborne Radio System (SINCGARS)

Advanced System Improvement System (ASIP)

AN/UYK-128

Enhanced Position Location Reporting System (EPLRS)
## FBCB2 PLATFORMS

| AN/TPQ-36 | M1A2 SEP | Army & USMC MRAP |
| ASV | M270 MLRS | RG-31 |
| Avenger | M2A2 ODS | Buffalo |
| BFIST/STRIKER | M2A3/M3A3 | Cougar |
| DEUCE | M35 2-1/2 Ton | TOC Kit |
| FMTV | M548A3 Volcano | USMC Backpack |
| HCMT | M577 Medical | Various NTVs |
| HEMTT | M577 Mortar | Select Coalition Vehicles |
| MRAP Variants | M58 A1 Smoke | |
| M1059 Smoke | M6 Linebacker | |
| M1064AX Mortar | M88A2 | |
| M1068 SICPS | M9 ACE | |
| M1070 HET | M934 Expando | AIRCRAFT |
| M1075 PLS | M939 Series 5-Ton | AH-64 Apache |
| M109 Van | M93A1 Fox | CH-47 Chinook |
| M1097 RWS | M966 TOW | EH-60 Blackhawk |
| M109A6 Paladin | M997 HMMWV AMB | OH-58 Kiowa |
| M1113 HMMWV | M981AX FIST-V | UH-60 Blackhawk |
| M1114 HMMWV | M992A2 FAASV | CH-53E Sea Stallion |
| M1151 HMMWV | M998/M1025 | Hunter (GND STN) |
| M113 A2, A3 | SICPS Tent | Shadow (GND STN) |
| M1A1D | Wolverine | Predator (GND STN) |
| | | E-8 JSTARS |
| | | C-23B Sherpa |
MILTOPE Laptop
- Located in Troop / Cargo Area
- Full FBCB2
- 2-way Blue and Red SA
- 2-way C2 Messaging

Electronic Data Manager (EDM) / Digital Kneeboard
- Located in Cockpit (Pilot’s Leg)
- Heading-Up Map Display
- 2-way Blue and Red SA
- Limited 2-way C2 Messaging

Aircraft Integrated BFT
- Viewed on Cockpit Displays
- Heading-Up Map Display
- 2-way Blue and Red SA
- Tailored 2-way C2 Messaging

ROTARY WING FBCB2
- UH-60A/L “BLACK HAWK”
- CH-47D “Chinook”
- AH-64A “Apache”
- AH-64D “Longbow Apache”
- OH-58D “Kiowa Warrior”
Hand – Held Prototypes

- Key features:
  - FBCB2-based software
  - Blue/Red/Georef SA
  - Embedded L-band satellite transceiver
  - 2-Way C2 Message set
  - Embedded GPS
  - CADRG maps, imagery & DTED
Sadaam’s Parade Field
VIC 38SMB 42584 85413
IRAQI Minister of Information reports: “There are no American troops in Baghdad”
Force XXI Battle Command Brigade-and-Below

Blue Force Tracking

Training and Technical Documentation

Provides the power of the Network to share Situational Awareness (SA) and Command and Control (C2) information toward the efficient use of resources within the enemy's decision cycle.

Mission

Field a digital command and control system that provides battle command and situational awareness information from brigade down to the soldier/platform level.
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• Describe how the ABCS supports the commander in the field. Identify FBCB2-BFT and Describe the FBCB2-BFT Theory of Operation
Questions
Hands on Application