

# BATTLESIGHTS Mod 1



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**BATTLE**space **S**ensor **I**ntegrated **G**round **H**igh-accuracy **T**argeting System



The BATTLESIGHTS Mod 1 is an enhanced aerial surveillance & targeting system integrating a multi-sensor EO-IR gimbal with artificial intelligence for target detection. It allows the pilot to share video, target data & 3D Common Operational Picture with ground units using the BATTLECOMS over the 4G/LTE SATCOM/MN-MIMO BATTLENET

### MULTI-SENSOR EO-IR CAMERA

- Epsilon 180 , Octopus ISR [US]
- Color Camera: Full HD, 67X optical zoom
- Thermal Imager: MWIR, 640x512 15x optical zoom, 4x digital zoom
- Laser rangefinder: 15 km, 1.5 m accuracy
- Target tracking, scene steering, MTI

### BATTLENET DATALINK SYSTEM

- SC 4400 radio, Silvus Technologies [US]
  - 100+ km range , up to 100+ Mbps
  - Only radio with anti-jamming feature
- Tactical Airborne 4G/LTE NioB, VNL [India]
  - Up to 10 km transmission range
  - Use special SIM card for security
- Iridium Satellite Hotspot for BLOS link [US]

### BATTLEPAD ELECTRONIC KNEEBOARD

- Ruggedized Samsung tablet [S. Korea]
- ATAK Situational Awareness app [US]
- Samsung Knox, US DoD-certified security
- 3D terrain navigation and COP sharing
- Live video over map, Blue Force Tracking
- 9-line Artillery/Mortar Spotting, Close Air Support, CASEVAC reporting template
- Augmented reality (AR ) Vuzix Smart Glass

## FIND & FIX THE ENEMY



TACTICAL PROBLEMS.	SOLVED.
<b>AFP OPERATIONAL CHALLENGES</b>	<b>SAFER TECHNOLOGY SOLUTIONS</b>
Inaccurate targeting and fratricide during Close Air Support and Artillery Forward Observation operations	Precise location of friendly forces, & enemy targets, Kestrel Land Moving Target Indicator detect 2-pixel moving targets
Unfamiliarity of terrain & outdated military topographic maps [1953 s.]	3D mission planning & aerial navigation on detailed satellite imagery & maps, live video over map for rapid orientation
Unsynchronized joint forces combat and combined arms maneuvers	Maneuver dominance with live blue force tracking, sensor & Common Operational Picture sharing using ATAK app
Limited range, loss or lack of joint communication interconnectivity	Communicate anytime, anywhere with tactical SATCOM, 4G/LTE & MN-MIMO BATTLENET radio
Voice only radio, no real-time Common Operational Picture [COP] and live video sharing	Secure live video feed, teleconference & dynamic mission overlay update as the situation changes
Interoperability issues with AFP ground units, US Forces & allies in joint and combined operations	Collaboration using BATTLENET multi-comms and BATTLECOMS mobile and HQ nodes
Expensive cost of equipment and slow defense acquisition processes	Affordable industry-standard components made in the US, EU and allied countries with flexible acquisition scheme



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# BATTLECOMS. AIR



BATTLEspace Collaboration & Operations Management System – Air Node

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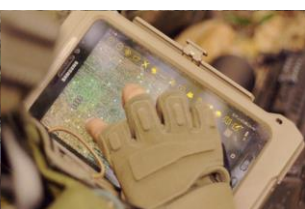
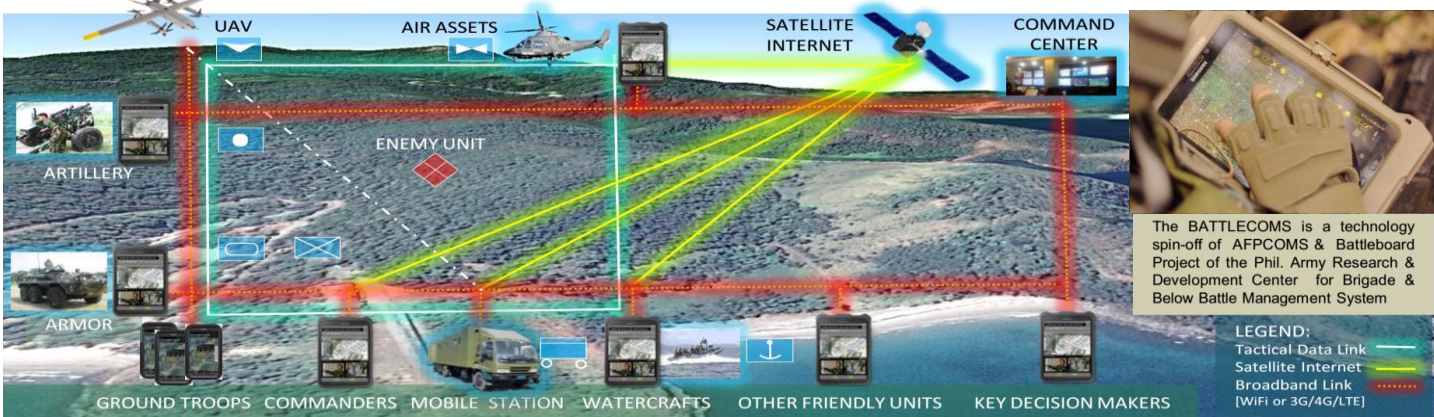


Actual screenshot of BATTLECOMS live video & 3D COP sharing from Crowe Valley to VAB during PAF SIMEX

The **BATTLECOMS Air** is a component module of the BATTLECOMS Joint Battle Management System [BMS] & Joint Tactical C4ISTAR solution customized for use of AFP pilots with connectivity to BATTLECOMS Mobile and HQ nodes for Close Air Support, CASEVAC, Air Recon & other air-ground operation support. The system is designed for Philippine operational setting and will be proposed to be interoperable with the AFPCOMS of the AFP Command Center & other Operation Centers. It features the battle-tested ATAK [Android Tactical Awareness Kit] developed by the US Air Force Research Lab & DARPA for Persistent Close Air Support [PCAS]. ATAK is the standard Situational Awareness app for US Forces & allied countries for Common Operational Picture [COP] sharing. The system was successfully tested in PAF SIMEX in Crowe Valley & 5<sup>th</sup> Fighter Wing

The ruggedized BATTLETAB Electronic Kneeboard comes with an eye or helmet-mounted BATTLESIGHT Smart Glass with Augmented Reality & mirrors the tablet screen using voice control for hands-free operation. Multi-mode link is through Streamcaster radios and unlimited range with voice & data connectivity via Iridium satellite internet on demand. The onboard tactical private 4G/LTE from VNL will allow affordable video and mission data downlink to ground troops equipped with BATTLEPHONES with ATAK app and secure SIM cards.

## THE BATTLECOMS AS AN OPEN ARCHITECTURE JOINT TACTICAL C4ISTAR SYSTEM NODE



The BATTLECOMS is a technology spin-off of AFPCOMS & Battleboard Project of the Phil. Army Research & Development Center for Brigade & Below Battle Management System

LEGEND:  
 Tactical Data Link  
 Satellite Internet  
 Broadband Link  
 [WiFi or 3G/4G/LTE]



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