

Adapt-Adopt-Evolve

The Electronic Disruption Cycle in WAR

By

Lieutenant Colonel Dan Carlson

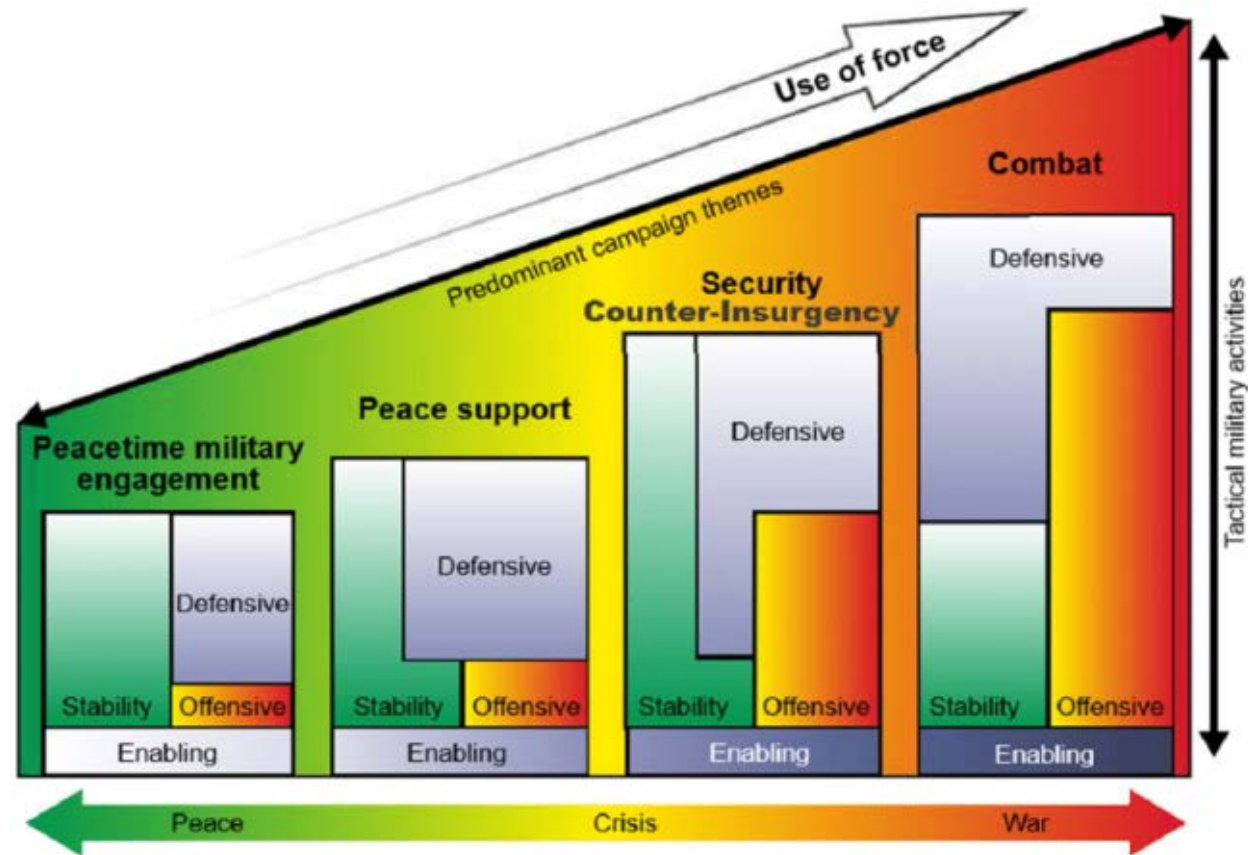
What skills we need to Lead in volatile, complex, and ambiguous problems.?

- Order
- Calm
- Rational
- Communication
- Focus
- Direction
- Confidence
- Personal Courage

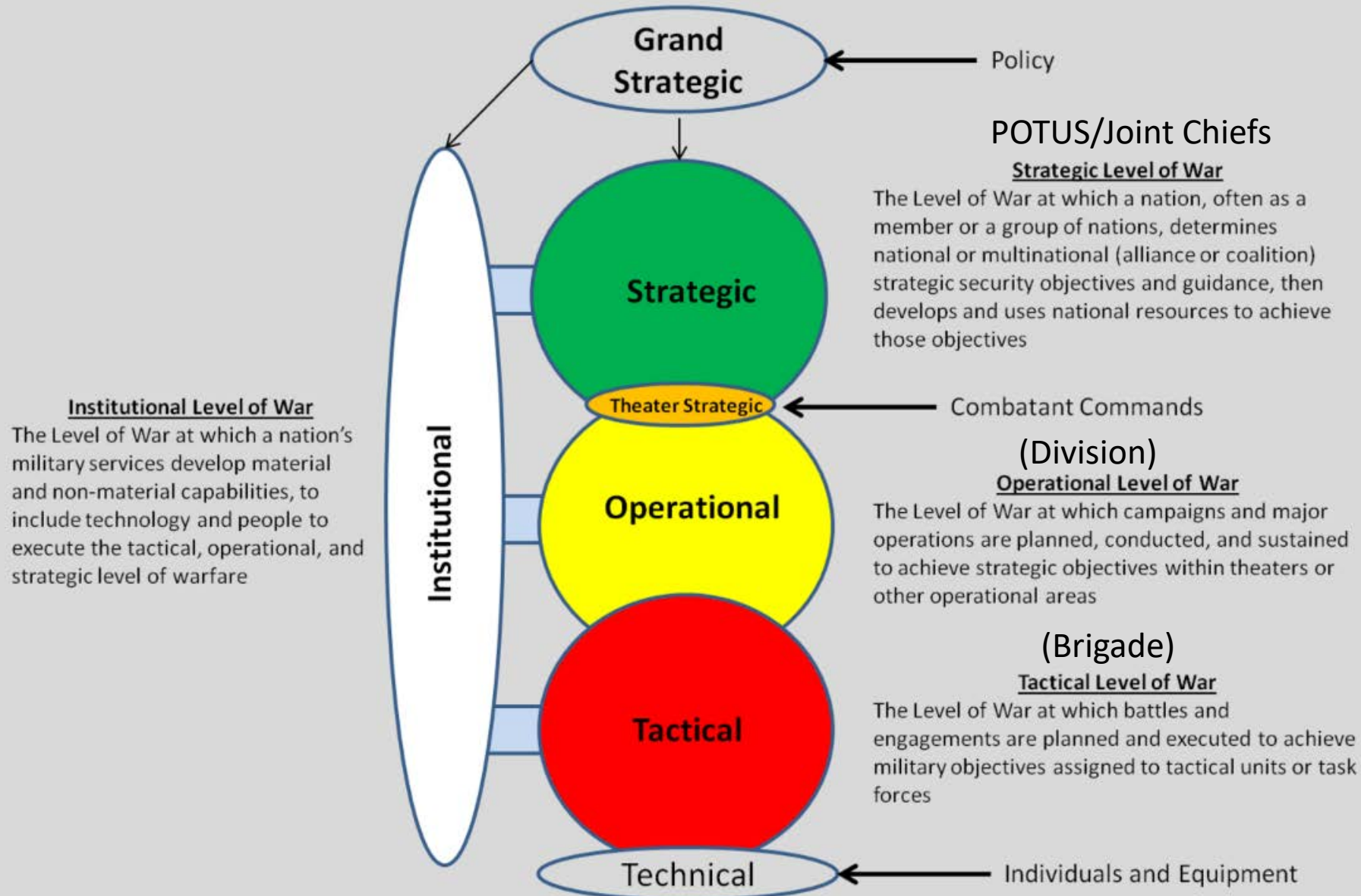
Military 101

From Order to Chaos

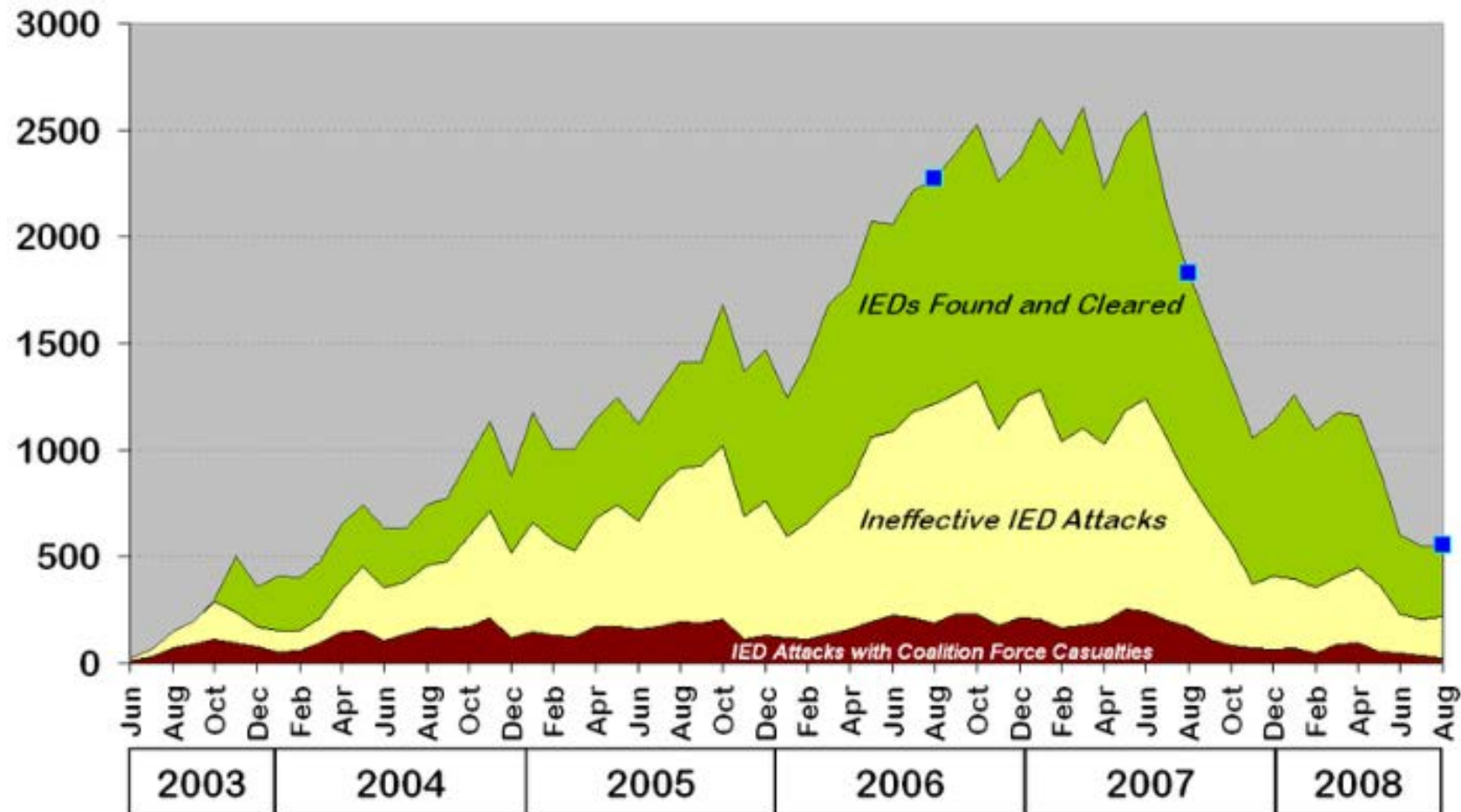
https://www.researchgate.net/figure/The-Spectrum-of-Conflict-1_fig1_326653575



Levels of Warfare



Insurgent success with Bombs



Getting Left of Boom!

1. Regular HUMMWW



3. "Hillbilly Armor"



5. Up Armor HUMMWW



2. Total destruction



4. Add-on Armor Plating



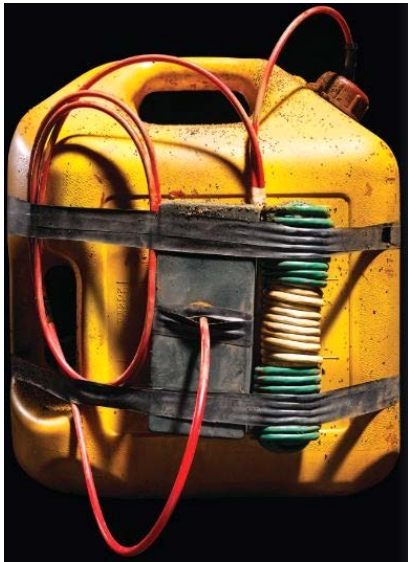
6. Advanced counter IED vehicles: 'Buffalo'



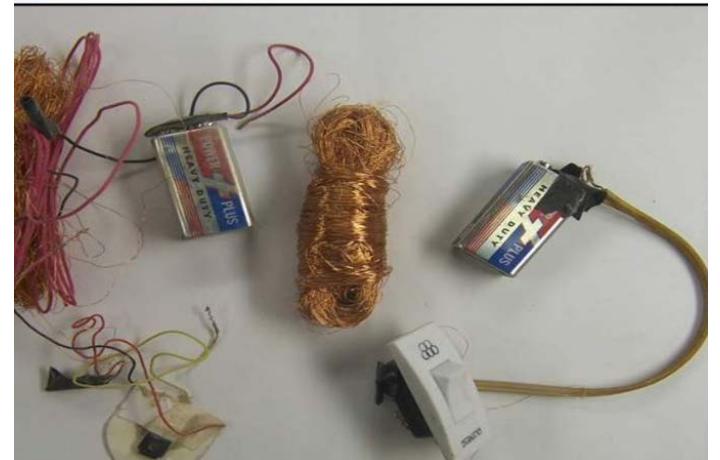
Joint Improvised Explosive Device Defeat Organization (JIEDDO)

JIEDDO's counter-IED capability areas include countering threat-networks, detection, neutralizing IEDs, limiting homemade explosives, information integration and fusion to increase situational awareness, weapons technical intelligence, and counter-IED training.

JIEDDO currently has a roster of about 400 military and civilian staff and about 700 contract personnel.



COMMAND WIRE (CW)



Invisible counter measures

Command Initiated

Bomber to choose optimum moment to detonate IED



- | | |
|-------------------------|--|
| 1. Cell phones | 6. Any combination of transmitter/receiver |
| 2. Radios | 7. Mechanical (Pull/Release) |
| 3. Doorbells | 8. Car Alarms |
| 4. Keyless entry system | 9. Command wire |
| 5. Pagers | |



Warlock



Convoy Protection



Thor System



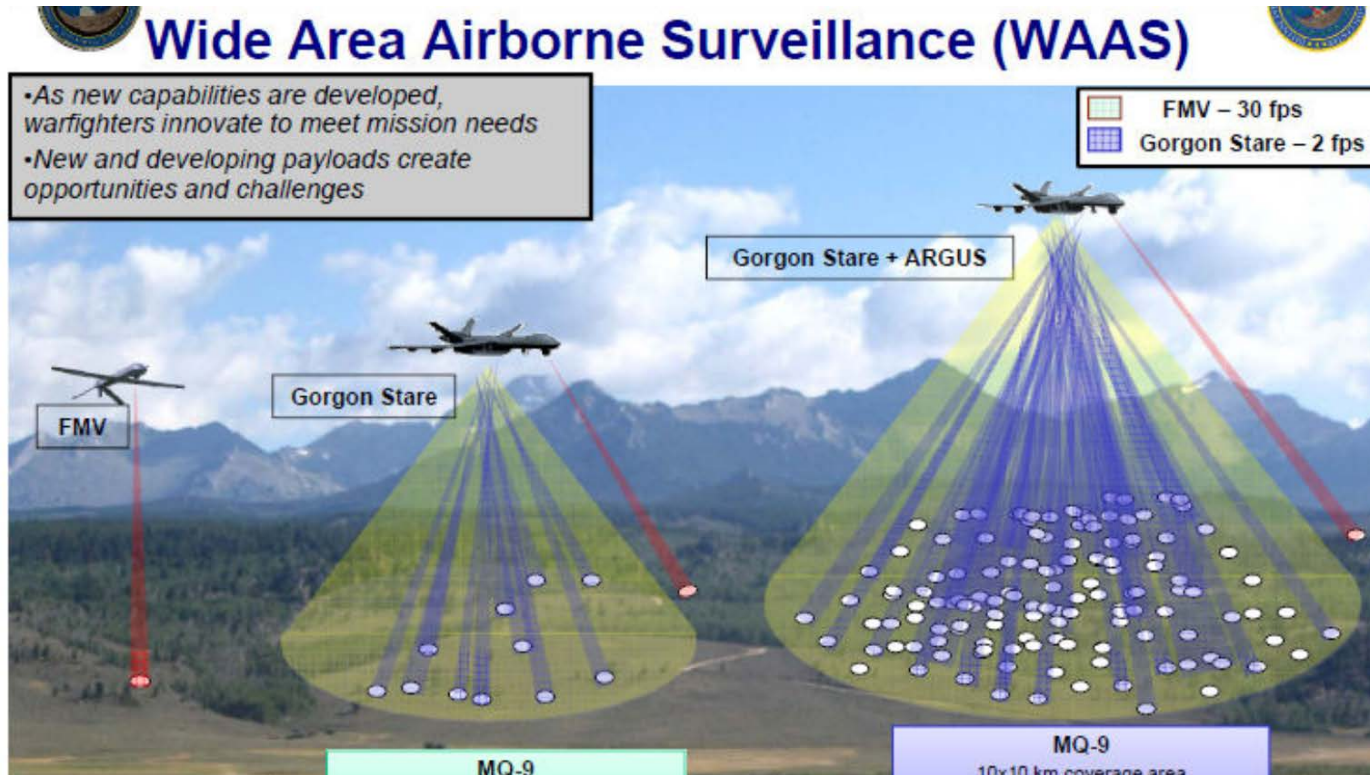
Duke





Persistent Stare Doctrine

Establish a pattern of life or detect changes forensically



Task Force ODIN Using innovative technology to support ground forces [Image 1 of 3]




TIKRIT, IRAQ

08.07.2007

Courtesy Photo

25th Combat Aviation Brigade Q

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An aerial reconnaissance multi-sensor (ARMS) sits outside Task Force ODIN (Observe, Detect, Identify, and Neutralize) at Contingency Operating Base Speicher.

The only thing that
is constant is change.
~ Heraclitus



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DTRA Role



AIR WARFARE, LAND WARFARE, NETWORKS / CYBER

Invisible, Essential: Open Architecture For Army Aircraft

The Army will hold five demonstrations this year for the electronic backbone of its future manned aircraft and drones. A forerunner is entering service.

By [SYDNEY J. FREEDBERG JR.](#) on April 19, 2019 at 1:55 PM



The digital, open-architecture cockpit of the upgraded UH-60V "Victor" Black Hawk

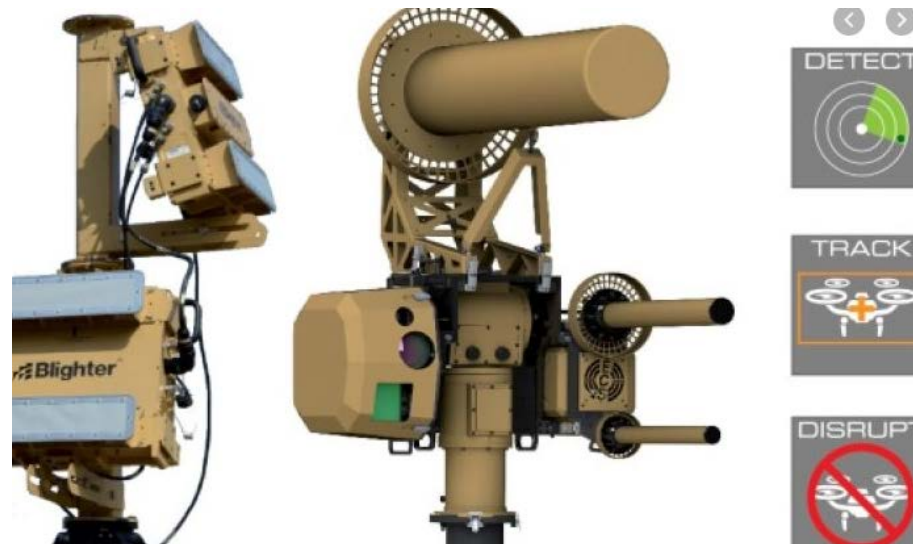


https://www.msn.com/en-us/news/world/us-sees-war-zone-drones-as-new-improvised-explosive-devices/ar-BB110uQb?utm_source=Sailthru&utm_medium=email&utm_campaign=EBB%2003.11.20&utm_term=Editorial%20-%20Military%20-%20Early%20Bird%20Brief

U.S. Sees War-Zone Drones as New Improvised Explosive Devices

Tony Capaccio 5 days ago

(Bloomberg) -- Drones deployed by Iran or its surrogates for reconnaissance and potential attacks against U.S. forces in the Middle East are the most daunting new regional threat since improvised explosive devices were deployed during the Iraq war, according to the top U.S. commander in the region.



US Has Lost 'Dominance In Electromagnetic Spectrum': Shaffer

By [SYDNEY J. FREEDBERG JR.](#) on September 03, 2014 at 3:49 PM




The Navy's new EA-18G Growler electronic warfare aircraft during sea trials.



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Axioms

- We lead people-not technology
- During change increase the rate of communication
- The market (and enemy) gets a vote
- 'Everything' is not a priority
- Anticipate stressful reactions during change, let it surface
- Abandon tribal knowledge if necessary
- Change is incremental and iterative: small wins
- Organizational enthusiasm will deplete right before success
- Uplifting others is always a better way to be
- It takes personal courage to lead during disruption. Work on it.

Thank you for listening

Questions?

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