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## DATA at the Tactical Edge. HERE'S HOW

BY **ERIC TEGLER** - JANUARY 17, 2019



Maj. Graham Perry, the officer in charge of 4th Air Naval Gunfire Liaison Company (ANGLICO), Force Headquarters Group, checks his Android Tactical Assault Kit to see possible target areas in Cape Wrath, Scotland, on April 23, 2018. 4th ANGLICO was in Scotland to take part in Joint Warrior 18-1, an exercise that furthers their readiness and effectiveness in combined arms integration, small-unit tactics, and land navigation. Photo by Cpl. Dallas Johnson

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One such application was the Android Tactical Assault Kit (ATAK) based on NASA/Air Force Research Laboratory-developed WorldWind software. DARPA provided early funding for ATAK through Trans Apps.

ATAK allows Android phone/tablet users to maintain collective situational

awareness, coordinate with other users, quickly issue commands, text messages, enemy/friendly locations, and make full “9-line” calls for fire/close-air support. The software and operational logic, which grew out of Trans Apps, influenced the ATAK concept, Evans said.

“These activities at the tactical edge have been offshoots of the systems that led to Trans Apps and RAA. Newer initiatives with tactical handhelds stem from the same tree as well.”





Paratroopers from the 3rd Brigade Combat Team, 82nd Airborne Division, use Joint Tactical Radio System radios and prototype Joint Battle Command-Platform handhelds to communicate during a recent field exercise at Fort Bragg, North Carolina. The handhelds ran a Tactical Ground Reporting (TIGR) application for soldiers who dismount from their vehicles but need to remain in communication with higher headquarters. Ashley Blumenfeld, JPEO JTRS

Another branch of that tree is represented by DARPA's own **PCAS (Persistent Close Air Support)** system, a fire-support application with both air and ground components, which the Agency began developing in 2012. Like ATAK, PCAS resided on mobile devices, improving situational awareness and automating the process for coordinating close air support. The PCAS ground element was tested on 500 tablets in Afghanistan in 2013, and the combined system was demonstrated with the Marine Corps in 2015.

“The idea was to have something like ATAK on a phone,” Evans said, “and use that for sharing coordinates for strikes and getting that information to the air-support layer.”

Back in Iraq, ISOF forces were already using Android applications (Offline Maps, Google Earth) on mobile phones and tablets to help communicate, conduct reconnaissance and targeting, track their movements, and navigate.

Maj. Eric Roles, a company commander with the 1st Battalion, 3rd Special Forces Group, is a DARPA fellow who led the RAA effort. In an essay he co-authored for the **National Defense University**, he explained that U.S. Special Forces soldiers in Baghdad quickly realized that a program like ATAK combined with the ISOF's existing hand-held coordination could

yield battlefield results while keeping American SOF operators at the required arm's length from their ISOF partners.



BY ERIC TEGLER

Eric Tegler is a writer/broadcaster from Severna Park, Md. His work appears in a variety...

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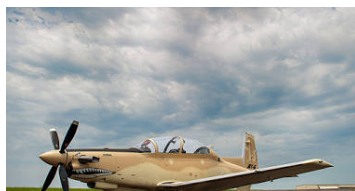
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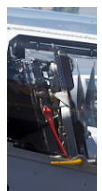
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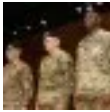
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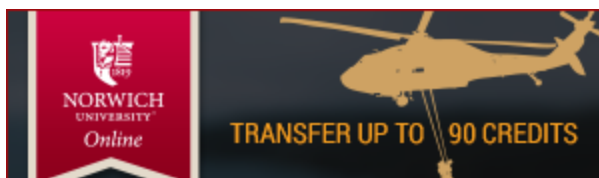
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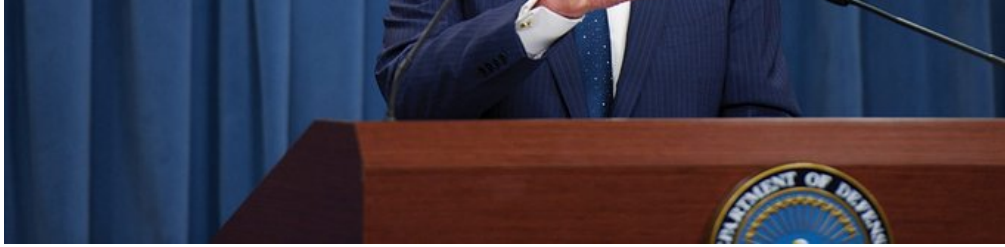


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