The Afghan Sigs (Part 1)

By **Dr. Thomas Withington** - October 7, 2021

The US supplied thousands of tactical radios to the ANA during her 20-year intervention in the troubled country. Many of these may now be in the hands of the Taliban and its enemies.

In the first of two articles, we examine the potential fallout from Afghan armed forces' radio and COMINT equipment ending up in the hands of Afghanistan's belligerents.

The detritus of war can yield treasure. As Afghanistan succumbed to the Taliban's fascistic rule after the defeat of the US-led coalition in late August, discussion flowed on the bounty of *materiel* inherited by the fanatics. The Afghan armed forces received large quantities of equipment from the US over the last 20 years. The Taliban did not miss a propaganda opportunity to show off the kit now in their possession.

One could see Western-supplied handheld tactical radios on insurgents' webbing along with US-supplied rifles and armoured vehicles. These radios were part of the trove of communications and Signals Intelligence (SIGINT) equipment now in the hands of the militia and its rivals. Although the Taliban are Afghanistan's de facto government, the movement is fighting the National Resistance Front (NRF). The NRF is largely concentrated in the Panjshir Valley, northeast Afghanistan.

Materiel

The US supplied thousands of tactical radios to the Afghan National Army (ANA) to enhance Command and Control (C2). Mindful of the need to track insurgents via their radio emissions, Washington also furnished Communications Intelligence (COMINT) systems to the ANA. These, and other aspects of SIGINT in Afghanistan, will be examined in our second article.

The thought of the Taliban getting their mitts on advanced tactical radios is sobering at best. In 1999 the US Air Force was left red-faced after a Lockheed Martin F-117A Nighthawk ground attack aircraft was shot down by Serbian missiles. Alongside the embarrassment was the fear that the Nighthawk's wreckage would end up in the hands US rivals. There was a palpable concern that the Nighthawk would yield the secrets of its low Radar Cross Section (RCS) to Chinese and Russian engineers. It would be unsurprising if the aircraft's remains have not contributed to Chinese and Russian RCS reduction efforts.

Radio Afghanistan

US government documents state that radio supplies began in 2003. Over 170,000 were eventually delivered. Both tactical and non-tactical radios were supplied. The latter tended to be commercial-standard handheld radios issued to the Afghan National Police. A standard array of tactical radios were supplied to the ANA. These included High Frequency (HF: three megahertz/MHz to 30MHz) transceivers and Very/Ultra High Frequency sets (V/UHF: 30MHz to three gigahertz/GHz). The documents continued that HF radios tended to be used by the ANA for battlefield Line-of-Sight (LOS) and skywave (beyond LOS) links. Afghanistan's rugged topography makes skywave HF highly suitable for tactical communications. V/UHF radios were primarily used to support ANA urban operations.

Interoperability

Radios supplied by the US included Datron's VHF PRC-1077 backpack and HH-7700 handheld sets. Harris (now L3Harris) supplied RF-7800S personal role radios, RF-5800V/UHF backpack radios and RF-5800H HF transceivers, reports state. It is impossible to say how many of these radios are in Taliban and NRF hands. Is the US now facing a nightmare scenario of advanced radios in the possession of insurgent organisations? Will the Taliban or NRF sell these radios to Western rivals who will exploit them in a bid to gain a technological

advantage? Both scenarios are possible. However, they may be less serious than one imagines.

Armada spoke to several key individuals inside and outside Afghanistan with detailed knowledge of the tactical radios supplied there. They have all asked to remain anonymous.

COMSEC/TRANSEC

The experts told us that the radios delivered to the ANA either lacked Type-1 encryption, or used encryption not covered by US International Traffic in Arms Regulations (ITAR). Type-1 is a level of encryption vouchsafed by the US National Security Agency primarily used by US forces, and made available to a handful of close allies. Reverse-engineering radios *sans*Type-1 or ITAR-controlled encryption would yield precious little insight into US and allied communications/transmission security protocols.

Doctrine and Training

Despite the abundance of US-supplied radios in Afghanistan, the Taliban appear to have had little interest in using them during their recent rapid advance across the country. *Armada's* sources disclosed that the insurgents primarily relied on cellphones and civilian radios for C2. This has always been their preferred method of communication. Even if the Taliban had captured tactical radios from ANA units during their advance they may have demurred from using them *en masse*.

Radios would have been captured in a piecemeal fashion as the ANA disintegrated. This would have prevented the Taliban rolling out the transceivers across their forces in an organised fashion. It is not enough to simply own the radios, any fighting force needs doctrine underpinning how they are used. It would be little use to the Taliban during manoeuvre if some of their units had these radios and others did not. A lack of interoperability would encourage the Taliban to rely on common forms of communication shared by all units. This would most likely be civilian radios or cellphones.

Training is another aspect. The only people who would know how to use the radios would be defecting ANA cadres. They would need to train insurgents how to use them. The US government documents stated that basic tactical radio training for ANA troops took nine weeks. Delivering such training in the midst of the Taliban's *blitzkrieg* would have been impractical at best. Allied to this is the

fact that many insurgents would be semi-literate making training yet more challenging.

Support

Spare parts are another consideration. The documents anticipated that the harsh Afghan environment will reduce the radios' lifespan from their usual circa 30 years. Moreover, the ANA outsourced its radio maintenance to the companies providing the transceivers. Local provision did not extend much beyond basic maintenance like battery replacement. The Taliban's ascendance means that outsourced radio maintenance will no longer be available, further decreasing radio lifespan.

Should Afghanistan's belligerents decide to retain and use these radios this could be paradoxically beneficial to the US and her allies. The radios are a 'known quantity'. The US and allied powers have vast SIGINT collection and analytical resources. Knowing what radios were supplied to Afghanistan means that analysts know what to look for. It would be surprising if radio manufacturers who supplied products to the ANA had not also advised SIGINT experts on their wares.

In an ideal world, Taliban victory would not have followed Coalition withdrawal. It is deeply regrettable that the Taliban could claim so much equipment provided to the ANA and left behind by Coalition forces. The good news is that the fallout for the communications domain should be minimal.

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