

Driving Lethality Through Signal Gunnery Validations

Enabling the fight

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In modern large-scale combat operations and multi-domain environments, command and control remains a decisive factor. The 101st Combat Aviation Brigade, a core component of the 101st Airborne Division (Air Assault), mission success in air assault operations rely on our robust, redundant, and resilient communication networks.

Charlie “Cipher” Company, 96th Aviation Support Battalion, is the primary signal company charged with providing expeditionary network support by sustaining the digital lifelines across the dispersed and dynamic aviation operations. The company enables secure and reliable voice, data, and satellite communications in support of air assault planning, execution, and sustainment operations. Cipher Company is uniquely structured with specialized signal assets capable of establishing both upper and lower Tactical Internet (TI), ensuring a seamless digital battlespace from division main to the most forward aviation task force element. The mission spans from establishing tactical network infrastructure to validation of communication nodes that enable brigade combat teams, aviation task forces, and higher echelons to synchronize fires, movement, and logistics in support of deep and close fights.

Training & Validation: Signal Gunnery

To maintain a high state of readiness, Cipher Company routinely conducts signal gunnery exercises to validate and certify teams under realistic operational conditions. These gunnery lanes are not just technical verification, they are mission-rehearsed events designed to simulate degraded, contested, and dynamic communications environments. Modeled after the doctrinal framework from TC 6-02.1, it is a performance-based training strategy aligned with Army Training and Evaluation Outlines, providing structured grading criteria to validate teams and their ability to establish and maintain communications under increasing levels of complexity, troubleshooting, and stress.

Table I begins with individual-level tasks to include: preventive maintenance checks, communications security loading, system configuration, and standard operating procedure development. Soldiers validate their ability to perform duties such as loading encryption keys into KG-175D Tactical Local Area Network Encryptions, configuring Single Channel Ground and Airborne Radio Systems and Army/Navy Portable Radio Communication Model 117G (AN/PRC 117G) radios, and preparing maintenance documentation. Grading criteria for these lanes are evaluated by the OIC or NCOIC and focus on establishing a technical baseline across both upper and lower TI teams.

Table II introduces controlled team-based operations. Upper and lower IT crews do walkthroughs of equipment setup in a low-threat environment. Tasks include assembling the Large Communications Node-Tactical, Satellite Terminal Setup, and Command Post Node, and demonstrate technical accuracy with each lane.

Table III implements time standards and movement. The upper TI teams establish nodes within one hour during the day and two hours at night; whereas lower TI teams conduct retransmission (RETRANS) lanes under 45 minutes during the day and 90 minutes at night. The lanes are conducted in austere environments and focus on “jumps” in order to rehearse mobility, tactical setup, and reestablishment of communication in dynamic conditions.

Table IV is the culminating event of signal gunnery where teams are tested on having upper TI systems for a battalion or brigade level operation solidified in 30 minutes during the day or one hour at night. RETRANS teams must set up their site in 25 minutes during the day, and 45 minutes at night.

All training is planned and executed in accordance with the Army’s 8-Step Training Model, integrating operation orders, risk assessments, training aids, and formal after-action reviews. The rigorous training for Charlie Company Soldiers allows Cipher to deploy agile signal teams to forge vital communication links that empower the 101st to dominate in the battlefield, truly earning their place as the “Voice of Destiny.”

About the author

1st Lt. Courtney Huhta enlisted in 2018 as a signal operations support specialist (25U) in the Illinois Army National Guard before commissioning into the Signal Corps in 2022 with a Bachelor of Arts in journalism. She currently serves as the range extension platoon leader and executive officer in Charlie “Cipher” Company, 96th Aviation Support Battalion, 101st Combat Aviation Brigade. Her previous active-duty assignment includes the 2nd Infantry Division Artillery as the Joint Network Node platoon leader.