



Union County Target Range Project

Draft Summary Report Live Fire Test December 11, 2018

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Background

Following the November 8th live fire test, which did not include any witnesses on the Appalachian Trail, a second live fire test was conducted to gather additional sound data in the surrounding project area.

1. Tuesday December 11, 2018 was selected as the date for the second live fire sound test at approximately 10:00 a.m.
2. Union County Sheriff's Office was requested to provide guns, ammunition, security and traffic control at site to conduct the sound test. Jim Marchman confirmed that the county agreed to the request and the Sheriff's office would perform this task.
3. Representatives from the Gun Club, Union County, and USDA-Forest Service, Sheriff's office, Forest stakeholders, the Appalachian Trail Conservancy and local landowners were invited to take part in the sound test.
4. For consistency, the test included the three original designated listening stations:
 - Location 1: 178 Jonas Mountain Rd. off Hwy 180 near Loc#6: **34° 48' 35.06"N 83° 51' 12.81"W**
 - Location 2: 2900 Fain Branch Rd. near Loc#10: **34° 48' 48.43"N 83° 51' 14.72"W**
 - Location 3: Appalachian Trail at closest location to proposed target range: **34° 48' 58.35"N 83° 51' 19.47"W**
 - Prior to the scheduled date, Union County Sheriff's office was requested to provide specific preferred calibers of firearms to be used during the live fire test. Calibers used for testing included:300 Win/Ultra Mag
 - 30-06/270 Rifle
 - 7mm Mag Rifle
 - AR 15
 - 357 Magnum pistol
 - 44 or 45 Magnum pistol
 - 40 or 9mm Caliber pistol

An email notice sent out on December 07, 2018, informing stakeholders and public commenters of the sound test date to provide an opportunity to participate as the test was being conducted. People and groups contacted for this event were the Union County Commission liaison Jim Marchman, the Georgia Appalachian Trail Club, the Appalachian Trail Conservancy and everyone who had provided project comments up to this point in time. However, due to weather constraints the test had to be delayed and a subsequent email was sent out observing the two hour delay.

Methodology

- Listeners represented during testing included local residents, USDA-Forest Service employees, Union County Gun Club's members, and the Union County Sheriff's office.
- Participants were requested to be in position at listening locations by 12:00 p.m. as testing would start promptly.
- Two testing periods were conducted at 12:00 and 12:15 p.m. A two-minute delay was observed as an additional precaution to reduce the likelihood of random shooting that might be mistaken as part of testing.

- Observers were asked to record background noise observed prior to and during testing and to rate those sounds relative to the evaluation form provided.
- A person representing Nutter & Associates (3rd Party Contractor), Forest Service employees and Union County Sheriff's officer's served as safety officers to coordinate the shooting activity.
- Cell phone coverage was adequate in the project area and coordinated shooting start and stop times.
- Calibers and discharge rates included:

Start Time 12:02 PM
Duration 2 min, 4 sec

Pistol	Shots Discharged
.44 Magnum	5
.357 Magnum	5
.9mm	13
.40 caliber	10

Start Time 12:17 PM
Duration 1 min, 54 sec

Pistol	Shots Discharged
300 Win Mag	2
.223 AR15	10
.30-06	5

- Periods A and B included discharge of all firearms to simulate actual shooting at a target range.

Findings

- Gun fire was heard at all three listening stations during periods A and B.
- In location #1 (178 Jonas Mtn. Road) during both periods (A and B) average gunfire sounds were recorded as louder than a whisper on most listener forms (Table 1).
- In location #2 ambient sounds were consistently recorded as louder than low conversational speech during both periods (A and B). Gunfire consistently recorded as not louder than a whisper or no sound recorded at all.
- In location #3 (The Appalachian Trail) the ambient sounds were consistently recorded as louder than low conversational speech or lower during both periods (A and B). None of the observers recorded sound louder than normal conversational speech.
- Like the previous test, this test was performed without sound barriers or additional sound mitigating features such as earthen berms, sound proof shooting structures, etc.

Table 1: Participants summary notes from the live fire sound test (December 11, 2018)			
Listening Location	Comparison Ambient Sounds	Period A: (All discharged)	Period B: (All discharged)
Location #1: 178 Jonas Mtn. Rd.	Birds, light traffic - Louder than normal conversational speech	Gunfire heard -No comparable sound selected.	Gunfire heard - No comparable sound selected.
	Traffic, dogs barking - Not Louder than normal conversational speech.	Gunfire heard- No comparable sound selected.	Gunfire heard. No comparable sound selected.
	Traffic - Louder than normal conversational speech.	Gunfire heard -No comparable sound selected.	Gunfire heard -No comparable sound selected.
	Birds, light traffic - Louder than normal conversational speech.	Gunfire heard -No comparable sound selected.	Gunfire heard- No comparable sound selected.
	Neighbors radio -louder than low conversational speech.	Gunfire heard- louder than a whisper.	Gunfire heard. Louder than a whisper.
	Traffic, crows, people talking , neighbors radio- louder than low conversational speech	Gunfire heard. Louder than a whisper.	Gunfire heard. Louder than a whisper.
Listening Station	Comparison Ambient Sounds	Period A: (All Discharged)	Period B: (All Discharged)
Location #2: 2009 Fain Branch Rd.	Running water wind, dog barking – Not louder than a whisper.	Gunfire heard. Not louder than a whisper.	Gunfire heard. Not louder than a whisper
	Running water, barking, birds - Not louder than a whisper.	Gunfire heard – None recorded.	Gunfire heard – None recorded.
	Birds - Not louder than a whisper.	Gunfire heard. Louder than someone shouting.	Gunfire heard. Louder than projected conversational speech.
Location #3 Appalachian Trail	Light wind – Louder than low conversational speech.	Gunfire heard. Louder than low conversational speech.	Gunfire heard. Louder than normal conversational speech.
	Distance traffic, wind, snow fall- Louder than a whisper.	Gunfire heard - Louder than a whisper.	Gunfire heard - Louder than a whisper.
	None recorded.	Gunfire heard - Louder than a whisper.	Gunfire heard - Louder than a whisper.

