

TO: Defense Counsel – State of Utah v. Tyler James Robinson

FROM: Independent Analytical Review (ZionPattern Solver Framework)

DATE: July 24, 2026

RE: Shooting-Performance Feasibility Assessment – Single-Shot Hit Probability under Documented Constraints

ANALYTICAL MEMORANDUM

Shooting Performance Feasibility – Tyler Robinson as Potential Assailant

1. Purpose and Scope

This memorandum isolates the pure performance feasibility of the single fatal shot under the conditions described in the public record and official account. It deliberately excludes DNA evidence, surveillance-based identity conclusions, the planning note, post-event communications, and all other identity-linked evidence. The sole question addressed is: given the documented distance, environmental conditions, equipment, and the limited practice evidence attributed to the defendant, how realistic is a first-round lethal hit.

2. Documented Parameters Applied

Parameter	Documented / Reported Condition
Distance	~130–150 yards (official account: ~430 ft from Losee Center roof to stage area)
Rounds expended	One only – no follow-up round available for correction
Weapon	Scoped bolt-action rifle (.30-06 class per charging materials)
Defendant age	22 years
Practice evidence	Static practice targets and “TEST SHOT” casing recovered from residence – limited practice only; no formal marksmanship training on record
Confirmed field zero at ~150 yd	No public evidence
Prior field experience (wind, elevated position, dynamic target)	No public evidence
Wind conditions – 10 Sep 2025	Wasatch Front regional forecast: south winds gusting 25–40 mph. Exact rooftop vector at 12:23 p.m. not publicly pinned; day was not calm
Target state	Live Q&A; – speaking, gesturing, interacting (dynamic, not static)
Physiological state	High-stress / anxiety / time-pressured decision window assumed as performance penalty
Optical / lighting	Midday sun; elevated-to-ground angle; potential mirage / heat shimmer off surfaces

3. Cumulative Performance Penalties Identified

The following factors each independently reduce first-round hit probability. In combination they compound:

- Distance of 130–150 yards exceeds typical novice comfort zone for first-round precision.
- Single-shot constraint eliminates any ability to observe impact and correct.
- Scope zero (even if present) does not compensate for real-time wind gusts or directional shifts. Gusty 25–40 mph regional winds that day create meaningful bullet drift at this range.
- No public evidence of prior practice under wind, from an elevated position, or on a dynamic/speaking human-sized target.
- Live Q&A; created a time-pressured decision window against a moving/gesturing target.
- Midday lighting and elevated-to-ground optical path introduce potential mirage and contrast issues.
- Acute stress / anxiety degrades fine motor control, trigger press, and decision quality – documented across military and law-enforcement marksmanship literature.
- Limited static-target practice (if accepted) raises the shooter above pure novice but does not equate to field-qualified performance under the above conditions.

4. Resulting Feasibility Estimate

After sequential application of all listed constraints, the transparent order-of-magnitude range for a first-round lethal hit is:

APPROXIMATELY 0.5% – 4%

Lower end (~0.5%): full cumulative weight of gusty-wind drift, absence of confirmed zero and field experience, dynamic target, time pressure, optical variables, stress, and single-shot requirement.

Upper end (~4%): maximum reasonable credit given to the existence of static practice targets and a roughly functional scope.

5. Significance for Defense Evaluation

This estimate does not prove the defendant did not fire the shot. It does establish that, under the official distance, environmental conditions, and the limited practice evidence currently attributed to him, a first-round lethal hit is a low-probability performance outcome. The prosecution's case must therefore rely heavily on the identity-linked evidence (DNA, movement surveillance, documentary items) to bridge the feasibility gap. Any weakness in those identity layers increases the relevance of the performance-feasibility problem.

Defense may consider further development of: exact wind vector at the roof at 12:23 p.m., optical/mirage conditions, absence of documented field zero, and the distinction between static paper practice and a dynamic elevated shot under gusty winds and stress.

6. Limitations

- All figures are order-of-magnitude analytical judgments, not laboratory or peer-reviewed statistical results.
- Exact wind speed and direction at the Losee Center roof at the moment of the shot remain publicly unpinned.
- This memorandum addresses performance feasibility only and takes no position on ultimate identity or guilt.
- New primary evidence regarding training history, confirmed zero, or precise environmental data can revise the range.

End of Memorandum – Privileged and Confidential

Prepared for defense evaluation under ZionPattern Solver analytical framework. Provisional.