

NATF Redacted Operating Experience Report

Roll Away ATV in Right-of-Way

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North American Transmission Forum (NATF) operating experience reports highlight positive or negative transmission (reliability or resiliency) experiences worth sharing for learning opportunities or potential trending. The overall goal is to help each other learn without experiencing the same issues first-hand. This sharing originates confidentially within the NATF membership.

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Topic

Roll Away ATV in Right-of-Way

Description

A vegetation management (VM) crew was working in a right-of-way corridor in a rural area. Crew tasks consisted of roping and felling trees along the western edge of a line. The crew began work at approximately 6:00 a.m., and the incident occurred at approximately 3:00 p.m.

The incident location is adjacent to an agricultural farm field surrounded by a heavily forested landscape. The area north of the farmland sloped heavily, with the gradient sloping downward an estimated 35 to 40 percent over a 450' distance. Initially, the VM crew parked the all-terrain vehicle (ATV) in an area toward the line at the farmland and forested landscape intersect, in a fairly level location (slight incline).

As VM crew members continued the clearing work throughout the afternoon, they distanced themselves further north from their ATV and associated tools and materials. At approximately 2:00 p.m., the crew decided to bring the ATV closer to the work area. A VM student employee was instructed by a supervisor to retrieve the ATV from the up-sloped area where the vehicle was originally parked, approximately 150 yards from the crew's current location. The employee drove the ATV to an area approximately 75 yards away, on the down-sloped terrain, parking the vehicle in an area that would be considered less sloped, but still on the incline. The employee placed the vehicle in park and noted the mechanical parking brake detent was engaged. The vehicle was parked facing 5-10 degrees toward the northeast in a downward direction. The employee joined the rest of the team on the west side of the right-of-way corridor to continue the clearing activity.

Approximately 30-40 minutes after the ATV was relocated, the supervisor-vegetation management witnessed the ATV travelling at a relatively high rate of speed down the sloped terrain with no driver, heading to the northeast. The vehicle continued unrestricted over the terrain, passing between two large trees, out of visual sight. The supervisor knew the area and felt the vehicle had toppled over an embankment/cliff.

The team made its way to the area where the vehicle traveled and identified the vehicle at rest, on its side, at the valley of the embankment, some 60' below. At approximately 6:00 p.m., the team successfully retrieved the vehicle to the top of the hillside without further incident.

An incident analysis team, including VM leadership, the VM crew involved in the event, and the safety manager re-assessed the event at the location.

Lessons Learned

1. Company service territory and footprint contain diverse terrain, including vast slopes and valleys. Throughout the regular task of maintaining these corridors and lines, and/or working on or near the structures, the overall hazard the terrain presents becomes "normalized" while performing the task at hand. Crews often fail to recognize the severity of the slope or the continued hazards that such terrain presents with each situation. The laws of physics take over when gravitational forces exceed mechanical controls and stops, without situational awareness being a stronger input into the discussion and decision points. The specific terrain along with the location where the ATV was parked is believed to have been a major contributing factor to the root cause of the roll-away incident with the ATV.

2. Ensuring that the mechanical detent, or other parking brake mechanism, is engaged is critical when parking ATVs. The practice should be to refrain from parking ATVs and utility terrain vehicles (UTVs) on steep inclines whenever possible.
3. The direction with which vehicles are parked on a sloped terrain can reduce the risk of unintended roll, property damage, and personal injury. Parking the vehicle in a direction pointing away from the workers is an important takeaway from this incident.
4. Additional methods can be used to physically stabilize, or otherwise prevent unintended movement of, vehicles parked on a sloped terrain. Chocking tires and/or anchoring the ATV against a solid object (e.g., tree in the area) could have prevented this roll-away from occurring.
5. The transmission of this ATV model was noted as being difficult to engage into park, making it more susceptible to or possibly contributing to the ATV coming out of gear and rolling freely. Mechanical maintenance on the vehicle's braking system and associated transmission linkage was current, per company records. The most-recent brake replacement was approximately one year prior to this incident. Per discussion with company mechanics, this ATV model's transmission linkage was known to be challenging at times to engage into park, although the linkage was intact and shifted appropriately when tested after the incident.
6. Supervision failed to recognize the situational risks and limitations of the student employee. This could have been avoided with more specific instruction on where and how to park the ATV.
7. Training for student personnel should be consistent with their assigned work responsibilities. Training for student personnel on the use of company equipment was not thoroughly documented by the supervisor or foreperson.

Corrective Actions

1. Review the incident with all appropriate field crews.
2. Review ATV and "side-by-side work method" with all field crews.
3. Ensure all ATV users have documented training in the safe use and operation of company equipment.

Extent of Condition

Our personnel utilize ATVs and UTVs throughout the organization for diverse workflows required to complete their tasks. With additional awareness on the incident that occurred, along with human-performance training, our staff should be able to take appropriate action to avoid placing themselves and the equipment in similar situations in the future.

Photos



Path of Travel

Relocated
Location of ATV



View from the top, looking down into the ravine at damaged vehicle

