



# All Terrain Vehicles



Safety issues associated with ATV vehicles used in the workplace



# How ATV's can be beneficial to wireless business operations

- Traversing rough terrain
- Use for snow or mud
- Access to remote or rural locations
- Use during emergency or disaster



# Snapshot of the Situation

- ATV use in the workplace is increasing
  - Parallels:
    - ATV RECREATIONAL fatalities in 1982: 29
    - ATV RECREATIONAL fatalities in 2004: 470
    - ATV RECREATIONAL injuries in 2004:136,000
  - Expected trends in the workplace point to EXPONENTIALLY increasing use in the next few years

# On the up side



- Ease of traversing rough terrains
- Relatively simple to operate
  - Simplicity hides the real dangers of use
- Adaptable to many different situations
- Reasonable cost (vs. conventional 4WD)
- Can be rented, purchased or even borrowed

# On the down side

- Limited range
- Maintenance issues
- Training and PPE
- If you use one, you have to trailer
- Ability to carry equipment
- Rough terrains can still be hazardous terrains
- Licensing for commercial use
- Cost vs. use and risk factors





# ATV Work Environment



# Factors affecting safe use:

- Vehicle transport
- High CG vehicle
- Variable loading issues
  - Overloading (cargo vs. passengers)
  - Mis-loading
  - Out-of-balance conditions
- Suspensions differ from conventional vehicles.



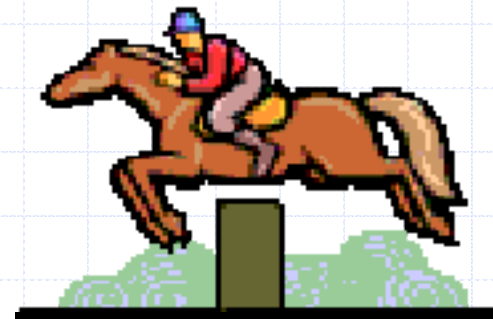


# The other side of the story

- Operators should receive extensive training in safe operation
  - (Operators should also receive training for the environment in which they will be working)
- Require special training on PROPER loading, securing loads, balancing loads.

# Think about it!

“Driving a car qualifies a person to operate an ATV in the same way that driving a car qualifies one to ride a horse in a race”.



# Personal Protective Equipment

- DOT approved Helmet
  - (65% of fatalities are head/neck related)
- Appropriate boots
- Gloves
- Goggles
- Proper clothing!!!
- Reflective vest
- Padded or inflatable vest



# Maintenance

- ATVs require extensive maintenance and inspection programs!
  - Thoroughly inspect before each use
  - Programmatic PM necessary by experienced personnel
- Prone to hidden damage from shock impacts
- Typically not attended to unless needed for immediate job assignment (sit in the corner of the shop most of the time)

# Other Considerations

- Recalls (yes, there have been quite a number!)
- Legal considerations from state to state
  - Registrations?
  - Operating equipment required?
  - Operation on public roadways?



# Recommendations

- Provide instruction and hands-on training for ATV operators
  - from manufacturers
  - From 3<sup>rd</sup> party contractors
- Train about safety in the environment they will be operating in (survival training, alternative communications, etc)



# Recommendations (cont.)

- Develop specific procedures for operation including rules of operation
- Implement pre-trip inspections in written form
- Do NOT allow passengers on an ATV!
- Establish a maintenance program addressing maintenance related faults and failures.

# Recommendations (more!)

- Develop site-specific utilization plans for those locations where ATV use is anticipated.
- Establish operating practices for loading that are specific to ATVs
- Do not modify or allow modifications without consulting proper engineering resources.

AND



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