

**Commonwealth of Virginia**  
**Standards for Off-Road Motorcycle & All Terrain Vehicle**  
**Adopted April 27, 2002**  
Prepared by  
**Virginia Search and Rescue Council**  
**Off-Road Vehicle Standards Committee, James R. Nida, Chairman**

### **DEFINITIONS**

- Off Road Motorcycle - Self propelled motorized two wheeled vehicle, without pedals, unlicensed or licensed for normal highway use. Commonly referred to as trail, enduro, dual sport, motocross, etc. motorcycle.
- All Terrain Vehicle - Self propelled vehicle having not less than three not more than six wheels and having an engine of not greater than 1000cc. unable to be licensed for normal highway use. Commonly referred to as an ATV.
- Team - Group of not less than three persons approved through the Virginia Search and Rescue Council.
- Approved Class - Class approved through the Virginia Search and Rescue Council and its appropriate committee(s).

### **PURPOSE**

- The off-road motorcycle / ATV standards were developed to define the minimum requirements necessary to assist in search and rescue missions in the Commonwealth of Virginia using off-road motorcycles and ATV's as the primary means of transportation to accomplish assigned tasks. Hereafter, all references to "team" refer to Off-Road Motorcycle & All Terrain Vehicle Teams. Members of these teams may be used as a unit or placed with other search teams to accomplish certain tasks. Tasks include:
  - Search for missing person to include: search of trails, wooded areas, logging roads, power lines, fields, roadway edges and ditches, etc.
  - Logistical support – transportation and communication services
- The team member should be capable of performing these functions anytime of the year, day or night and in all weather conditions experienced in the Commonwealth. The type of equipment used in an operation may depend on certain weather or terrain conditions present at the time of the mission. Conditions such as ice, trail width and terrain will determine the type of equipment used. In order to accomplish tasks, each team member shall, as soon as possible, successfully complete an approved motorcycle / ATV class. Each team member should also complete a Field Team Member Course through VASARCO to become familiar with the methods and practices used by other search and rescue teams throughout the Commonwealth.

### **TEAM EQUIPMENT**

- Team Equipment – Teams may use one or both types of equipment:
  - Off-Road Motorcycle
    - Shall be fitted with stock type exhaust and spark arrestor
    - Four stroke motor is preferred

- Front and rear lights / as needed
- Optional – saddle or tank bag, spotlight, radio mount
- ATV
  - Shall be fitted with stock type exhaust and spark arrestor
  - 4wd is preferred
  - Front and rear lights / as needed
  - Straps to secure basket stretcher and other equipment
  - Optional – front & rear storage racks, winch, tow hitch, ropes, chain saw, spotlight, radio mount, ice chains
- Communications & Liaison to Incident Commander
  - Cellular telephone
  - Means to communicate with other members of the team
  - Team member acting as liaison should have equipped SAR management kit

## **TRAINING**

- Teams should conduct regular training using their off-road motorcycle or ATV.
- Team members should cross-train to gain working knowledge of all team member's responsibilities.
- Team members are required to attend an approved off-road motorcycle / ATV class at the earliest opportunity. This class should concentrate on search and rescue techniques using the off-road motorcycle and ATV.
- Teams should establish a "call-out" list and procedure for activation by the Department of Emergency Management.
- Team members should attend a state certified "Field Team Member" class at the earliest opportunity. Members are also encouraged to attend the "Field Team Leader," "Field Team Signcutter," MSO/PSO and other search and rescue courses offered through the Department of Emergency Management.

## **OPERATIONS**

- Advantages of off-road motorcycle and ATV's in SAR
  - Mobility and speed, if necessary
  - Extended range
  - Visibility – riding offers 18" of additional height
  - Minimal track – approximately 3" for motorcycles
  - Terrain, water, weather – few problems
  - Hauling gear
  - Minimal physical exertion on personnel –
    - Off-road motorcycles and ATV teams can arrive on perimeter of search area experiencing little fatigue
    - ATV's can transport additional personnel and equipment to outer search area
- Guidelines for Team Assignments and Responsibilities
  - Search Team – will consist of a minimum of two team members
  - Assist Team – one or more team members may assist another SAR team

- Rescue Team –
  - Advanced medical personnel, if any, should be kept at the base until needed
  - Logistical support
- Recovery Team –
  - Assist / Become 2<sup>nd</sup> search team
  - Assist 1<sup>st</sup> search team with unusual terrain conditions on task
  - Primary logistical support
- Liaison and Communications
  - Provides direction and coordination
  - Receives tasks from base for search, rescue and recovery
  - Assist base management staff as needed
  - Liaison between the team and other search teams
  - Supplies for the team
- Task Procedure Guidelines
  - Off-Road Motorcycle
    - Trails – Team member will drive at low and moderate speeds, using single track line riding when necessary. Whenever possible, vehicles exiting base on a search task will ride approximately one foot, to the left of, and off the existing trail. Trails entered off any main route will be marked with a long single strand of marking tape on each side of the trail. After completing a check of that secondary trail, the long strands of tape at the entrance will be connected, providing a visible, but passable barrier. When returning to base, motorcycles will follow their entrance track.
    - Steep Hill Trails – If a greater speed is necessary to ascend a steep hill, the team will dismount and examine the hill on foot for any sign. Motorcycles may be ridden straight up or down a hill, cross at angles to the trail, or use ascending or descending circles around the hill to complete the task.
    - Woods, Fields and Open Areas – Team members may use methods of Purposeful Wandering or Line Search at the direction of the IC or Operations Sections.
    - Creeks and Streams – Team members should check for sign along the bank before crossing any body of water. Motorcycles may generally be ridden in up to 24 inches of water. Motorcycles may be driven continually in water to check creek and stream banks for sign.
    - Perimeter / Containment – Stationary or roving patrols as directed.
  - ATV's
    - Same as above is motorcycles are not available or if additional search tasks are given.
    - Shuttle additional personnel, to include dog teams in and out of the search area. Should be used to remove injured dog w/ handler from field.
    - Transport equipment and / or patient in and out of search area.

- Foot Search
  - At the direction of the Incident Commander, team members may assist other SAR teams in foot searches.
- Medical Response
  - Medical personnel shall not exceed standards of care authorized by their license.
  - Whenever possible, the local emergency room physician will be contacted to authorize level of care to be given by team paramedics and EMT's to patients in the field. Emergency room doctor may authorize Basic or Advanced Life Support.
  - All team members should be trained to a minimum of basic first aid. All teams are encouraged to have EMT's or paramedics or other medical personnel on their team.
- Clue Detection
  - When clues are located, mark with three flags and mark clue on your map.
  - Ask mission base if the clue should be left in place or recovered and returned to the base.
  - Remember that the clue could be evidence in a criminal case. Law enforcement should be consulted before disturbing the clue.
- Liaison and Communications
  - Teams should attempt to have a member trained in SAR management. That member can be a liaison to the Incident Commander.
  - Teams should have means of communication with the base.

## **SUGGESTED EQUIPMENT**

- Mechanical Equipment List (all field personnel)
  - Off-road motorcycle, ATV (stock type exhaust & spark arrestor)
  - DOT approved full face or motocross helmet (open face should not be used)
  - Clear safety goggles, safety glasses or face shield
  - Leather gloves
  - Fuel in approved safety container
  - Motor oil
  - Chain lube
  - Hand tools
  - Battery tender (if needed)
  - Small air pump and tire gauge
  - Extra spark plug
  - Small wire brush
  - Cleaning rags
- Optional ATV Equipment List
  - Manual winch and rigging straps

- Bolt cutters
- Hatchet
- Hand saw
- Basket stretcher and gear
- Utility trailer
- Team Member – Medical Equipment List (recommended for all field personnel) \*\*\*\*\*WARNING – Equipment should only be used after proper training. EMT's and paramedics may carry extra equipment as required by licensing.
  - Medical gloves
  - Watch w/ sweep second hand
  - Oral airway
  - Trauma trodes (patch for gunshot wounds)
  - Vaseline gauze (3X9) (large gunshot wounds)
  - Pressure dressing / sanitary napkins
  - Gauze 4X4
  - Kling Roll
  - Hy-Tac 3" tape roll (may be pink in color)
  - Triangular bandage
  - Trauma scissors
  - Toilet paper roll (splint)
  - Webbing (extrication)
  - Raincoat or poncho (extrication)
  - Barrier device (MDI micro mask)
- Optional Medical Equipment
  - Quick Splint (SAM splint)
  - Eye pads X4
  - ABD pads X2
  - Trauma dressing X2
  - ACE bandage X2
  - Kerlix gauze rolls
  - Penlight w/ extra batteries
- Personal Equipment List
  - Windshell Jacket
  - Waterproof jacket or parka (a gortex/like jacket can serve for both)
  - Rain chaps or rain pants (add gaiters for foot and winter missions)
  - Heavy wool shirts or sweaters as required
  - Wool or insulated Gortex type pants (no cotton insulation)
  - Long underwear of wool, silk, polypro or other suitable synthetic material
  - Wool stocking cap / balaclava should be worn under helmet in cold weather
  - Heavy wool socks with lighter weight liner socks (no cotton)
  - Leather gloves w/ wool liner (lighter gloves will be used for warm weather riding)

- Heavy weight backpacking or mountaineering boots with suitable lug sole are recommended. Combat boot are acceptable. Jungle boots are acceptable for warm weather riding. Steel toed boots are discouraged for cold weather riding. Motocross boots are discouraged unless other boots are carried in back.
- Backpack large enough for equipment for 24 hours
- One quart minimum canteen or water bottle
- Pocket knife
- Whistle
- Orienteering-type compass
- Flashlight with alkaline batteries, spare batteries and spare bulb.
  - Headlamps are not acceptable as primary light source for law enforcement personnel.
- Waterproof matches or disposable lighter
- Personal first aid kit (see medical equipment list)
- Storm shelter: tube tent, space blanket or lightweight tarp
- One 30 gallon leaf bag
- One day supply quick energy food
- Any needed medications
- Prescription glasses
- Suggested additional pack items
  - Sleeping bag and suitable shelter
  - Zip lock bags
  - Parachute cord
  - Toilet paper
  - Wet wipes
  - Moleskin
  - Backpacking stove
  - Mess Kit
  - Signal mirror
  - Aerial flares
  - Small notebook and pen
  - Insect repellent
  - Iodine-type water purification tablets
  - Marking tape and flags