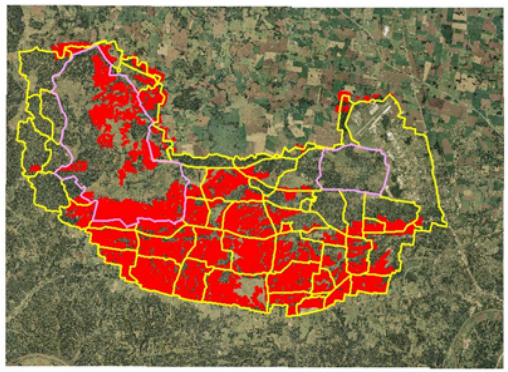
Concept: Sustain training areas for repetitive use by multiple units while sustaining the environmental character of the installation. *Above photos: training impacts which exceeded the land carrying capacity*

RTLA Mission: "To acquire data and assess impacts of training to maximize the capability and sustainability of land to meet the Army training mission".

Procedures For Recovering Mechanical Digging Within Fort Campbell's Training Lands

Procedures Proponent:
Range Division
and
ITAM-RTLA
Developed by:
Jimmy Harmon,
RTLA Coordinator

FORT CAMPBELL FIELDS WITH DICKSON SILT LOAM SOIL



- Schedule Training Area with Range Control
  270-798-2321
  270-798-4809
- Contact Malinda Powell, ITAM-GIS Specialist
  Dig Permits - Approval – GIS Maps
  270-798-5742
- RECON Training Area: Ensure correct site, ensure area is clear of trash, and other issues.
- Provide 8 digit grid of training site, and anticipated end date of training exercise and recovery date.
- Mechanical Digging: Mound or yard topsoil off to one side (not to impede training site). Construct Berm (Force Protection, etc.), Fighting Position, or other training structure.
- At the end of training exercise, land smooth soil (Berms, fill holes. Etc), then backfill training features with the yarded – mounded topsoil.
- After recovery call ITAM for Inspection of Training Site.
- Ronald McKinney, ITAM Training Area Inspector
  270-956-1767

Below: Soil horizons have been inverted by Force Protection digging, Individual Fighting Position digging, and/or through years of erosion the upper layers (12” to 18”) of soil have eroded away.

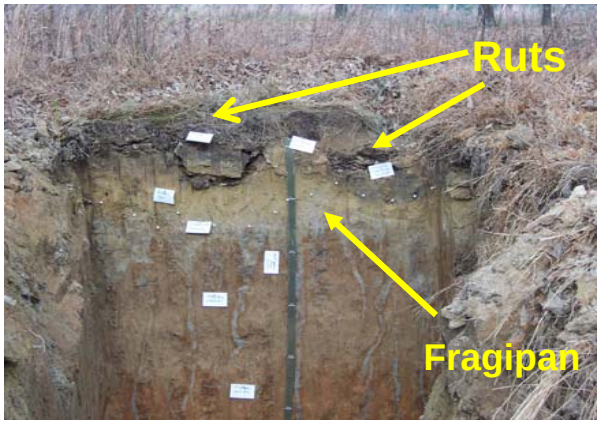


Photo highlights the soil compaction of the ruts. The soil is broken or platy. Water and roots DO NOT penetrate the fragipan. The ground water within this region will be perched and practically on top of the ground.

List three ways this type of soil analysis provides VALUE ADDED to the training units:

Each soil type has a (developed by NRCS) rating for Tactical Operation Centers (TOC), Landing Zones/Drop Zones (LZ/DZ), Fighting Positions, Trafficability (maneuvers), Firing Points, etc. These ratings are used to list the soil types and associated features such as; slope, surface, soil strength, stickiness, slipperiness, vegetation, organic soil layers, ponding of water, presence of stones, dust, etc., that can or potentially affect military training capabilities/operations. Examples: Soil Trafficability is the capacity of the soils to support military vehicles. Knowledge of soils characteristics is prudent for developing maneuver corridors. Knowing how different vehicles will respond to certain soil types during dry and wet conditions can enhance maneuvers. Wheeled vehicles sink and become stuck very easily in Dickson soil. There are training benefits to extracting vehicles. However, this can become a never ending activity (see all photo’s on the left). Dickson soils are very droughty in the summer months. Coupled with low amounts of ground cover, this soil type becomes very susceptible to wind erosion. This can assist real-time training operations by simulating desert type conditions especially for aviation operations. Conversely, these conditions could also limit training by increasing safety hazards and/or un-necessary risks, or reduce the ability to obtain METL or doctrinal training objectives. Recover your fighting positions and force protection berms: During the winter months, when holes are dug in this soil (individual fighting positions, force protection berms, etc.) water seeps into the hole. Again the water does not drain so, unless the water is pumped out the fighting position, etc. is rendered useless. Also, if the hole is left un-recovered, and standing water is left behind, this could later be labeled an artificial wetland. Or, depending on Federal jurisdictional laws, could become a certified wetland which could limit the amount of available training land and negatively impact training.