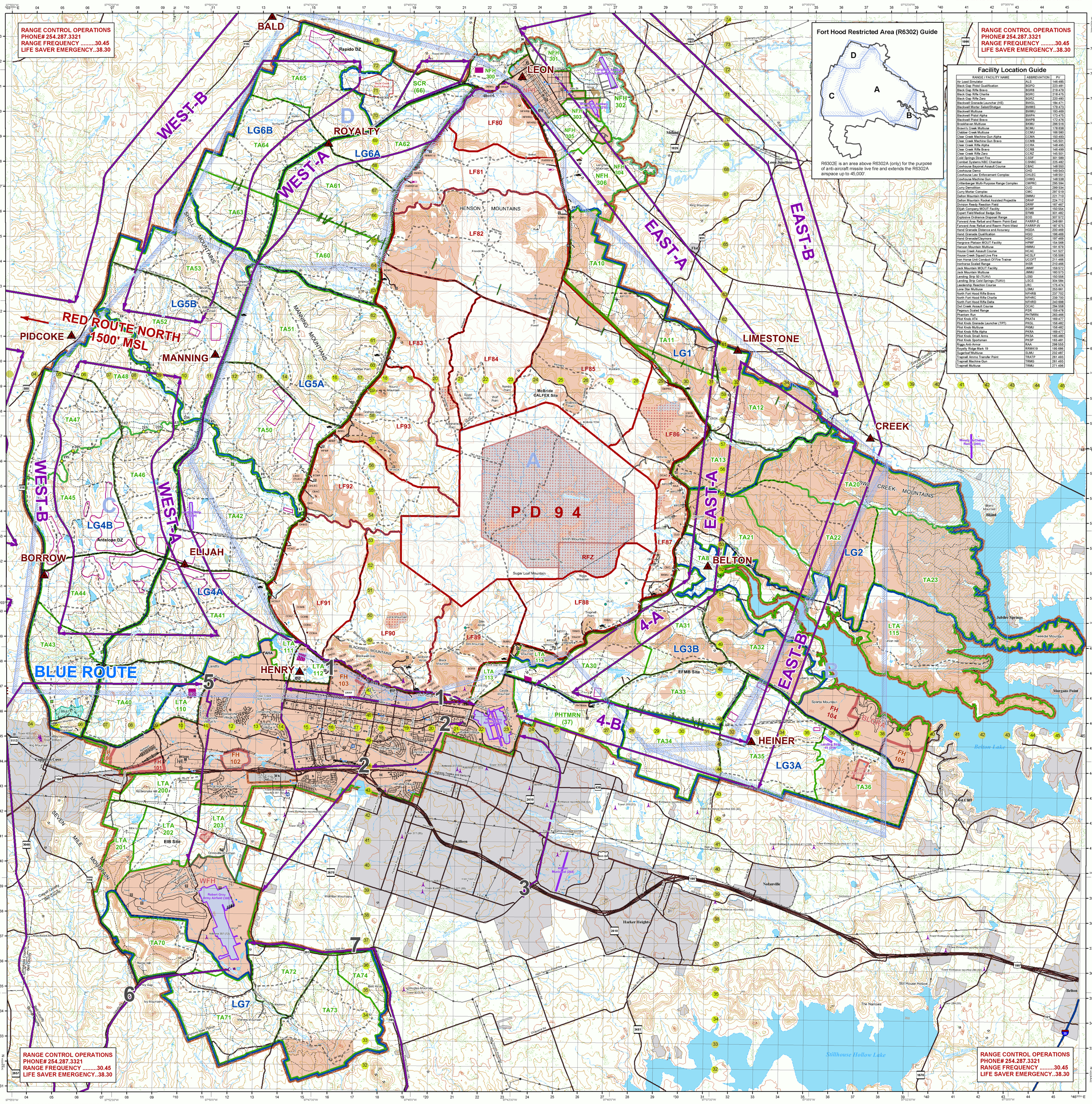
TEXAS 1:50,000 NAD 83 / WGS 84

FORT HOOD AIR ROUTE STRUCTURE

EDITION 1 SERIES V782 SHEET AVNSPEC-ITAM

THIS MAP DOES NOT SUPERSEDE FORT HOOD TRAINING MAP EDITION 9 (JULY 2004). THIS MAP PROVIDES FORT HOOD AIR ROUTE STRUCTURE INFORMATION.



RANGE / FACILITY NAME	ABBREVIATION	PV
Air Load Simulator	ALS	146 485
Black Gap Pistol Qualification	BGPQ	223 481
Black Gap Rifle Bravo	BGRB	219 479
Black Gap Rifle Charlie	BGRC	218 475
Black Gap Rifle Zero	BGRZ	220 480
Blackwell Grenade Launcher (HE)	BWGL	184 471
Blackwell Mortar Sabot/Shotgun	BWMS	179 473
Blackwell Multiuse	BWMU	193 469
Blackwell Pistol Alpha	BWPA	173 475
Blackwell Pistol Bravo	BWPB	172 476
Brookhaven Multiuse	BXMU	298 516
Browns Creek Multiuse	BCMU	179 638
Clabber Creek Multiuse	CCMU	166 680
Clear Creek Machine Gun Alpha	CCMA	150 493
Clear Creek Machine Gun Bravo	CCMB	145 501
Clear Creek Rifle Alpha	CCRA	148 495
Clear Creek Rifle Bravo	CCRB	146 499
Clear Creek Rifle Zero	CCRZ	145 501
Cold Springs Direct Fire	CSDF	301 589
Combat Systems NBC Chamber	CSNBC	225 482
Cowhouse Bayonet Assault Course	CBAC	148 550
Cowhouse Demo	CHD	149 543
Cowhouse Law Enforcement Complex	CHLEC	148 551
Cowhouse Machine Gun	CHMG	148 538
Crittenberger Multi-Purpose Range Complex	CMPRC	295 594
Curry Demolition	CUD	299 534
Curry Mortar Complex	CMC	297 519
Dalton Mountain Multiuse	DMMU	221 710
Dalton Mountain Rocket Assisted Projectile	DRAP	224 712
Division Ready Reaction Field	DRRF	167 467
Elijah Company MOUT Facility	ECMF	150 554
Expert Field Medical Badge Site	EFMB	301 482
Explosive Ordnance Disposal Range	EOD	307 572
Forward Area Refuel and Rearm Point-East	FARRP-E	248 681
Forward Area Refuel and Rearm Point-West	FARRP-W	187 675
Hand Grenade Distance and Accuracy	HGDA	200 469
Hand Grenade Qualification	HGQ	196 469
Hand Grenade/Claymore	HG/C	197 469
Hargrove Platoon MOUT Facility	HPMF	154 568
Henson Mountain Multiuse	HMMU	191 679
House Creek Assault Course	HCAC	141 527
House Creek Squad Live Fire	HCSLF	135 506
Iron Horse Unit Conduct Of Fire Trainer	UCOFT	211 466
Ironhorse Scaled Range	IHSR	210 466
Jack Mountain MOUT Facility	JMMF	159 572
Jack Mountain Multiuse	JMMU	160 573
Landing Strip 50 (TUAV)	LS50	150 556
Landing Strip Cold Springs (TUAV)	LSCS	304 584
Leadership Reaction Course	LRC	175 474
Lone Star Multiuse	LSMU	253 661
North Fort Hood Rifle Bravo	NFHRB	237 702
North Fort Hood Rifle Charlie	NFHRC	239 700
North Fort Hood Rifle Delta	NFHRD	240 698
Owl Creek Assault Course	OCAC	294 558
Pegasus Scaled Range	PSR	159 478
Phantom Run	PHTMRN	263 466
Pilot Knob AT4	PKAT4	169 477
Pilot Knob Grenade Launcher (TPT)	PKGL	156 482
Pilot Knob Multiuse	PKMU	156 482
Pilot Knob Rifle Alpha	PKRA	169 477
Pilot Knob Small Arms	PKSA	165 480
Pilot Knob Sportsman	PKSP	163 481
Riggs Anti-Armor	RAA	298 555
Royalty Ridge Mark 19	RRMK19	195 686
Sugarloaf Multiuse	SLMU	232 487
Trapnell Ammo Transfer Point	TRATP	281 493
Trapnell Machine Gun	TRMG	281 493
Trapnell Multiuse	TRMU	271 496

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The TRAINING MAP was produced by the ITAM Program, Fort Hood, Texas.

Not all data layers represented maintain the same accuracy level, therefore the map scale applied does not necessarily equate to the implied horizontal and vertical positional accuracy. The boundary for Fort Hood should not be considered authoritative.

CAUTION: NOT ALL TELEPHONE AND ELECTRIC SERVICE LINES ARE SHOWN. IN DEVELOPED AREAS ONLY THROUGH ROADS ARE CLASSIFIED.

MAP INFORMATION AS OF JULY 2004

TRANSPORTATION
- Interstate
- US Highway
- Primary Road
- All Weather Loose Surface
- Fair Weather Loose Surface
- Street
- U.S., State, Farm Road
- Railroad
- Bridge; Mid-Level Water Crossing

HYDROGRAPHY
- Reservoir
- Permanent Water Body
- Intermittent Water Body
- Dry Lake, Dam, Pond
- Permanent Stream
- Intermittent Stream

BOUNDARIES
- County Boundary
- Installation Boundary

HYPSOGRAPHY-METERS
- Index Contour
- Non-Index Contour
- Spot Elevation Point

MISCELLANEOUS
- Forest
- Open Woodland
- Solid Waste / Landfill
- Built Up Area; Building
- High Tension Powerline
- Pipeline
- Hospital
- Water Tank
- Cemetery
- Quarry/Mine/ Borrow Pit
- Aerial Obstruction AGL 300, AGL (70) meters

MILITARY FEATURES

Boundaries
- Dudded Area, Off Limits
- High Hazard Restricted Access Area
- Off Limits To Training
- Live Fire Range Area
- Training Area
- Land Group Area
- Endangered Species Core Habitat**
- Bald Eagle Restricted Aviation Zone**
- Brigade Support Area (BSA)

Aviation
- Helicopter Pad
- Forward Arming & Refueling
- Reporting Point
- Fort Hood Air Route Structure
- Fort Hood Restricted Area (R6302)
- Airfield Surface AGL 300 meters

Excavation Area
- Controlled Dig Site
- Free Dig Site

Tactical Low-water Crossing Sites
- Year Round
- Seasonal

Miscellaneous
- Maintained Trail/Firebreak
- Unimproved Trail
- Pipeline Crossing *
- Vehicle Staging Area
- Firing Point
- MLRS Site
- Observation Point
- Range Tower
- Digital TOC Site
- Telephone Drop
- Wash Rack
- Road Barricade

* HIGH PRESSURE PIPELINE UNDERGROUND CROSS AT AUTHORIZED CROSSING ONLY

** FOR COMPLETE EXPLANATION OF ENVIRONMENTAL RESTRICTIONS CONTACT DPW NATURAL RESOURCES, BLDG. 1939, PHONE #: 287-2885

GRID NORTH / MAGNETIC NORTH

2004 G-M ANGLE 5.1° (90 MILS) 4.3° ANNWAY (112 MILS)

GRID CONVERGENCE 4.1° (72 MILS) FOR CENTER OF SHEET

TO CONVERT A MAGNETIC AZIMUTH TO A GRID AZIMUTH ADD G-M ANGLE

TO CONVERT A GRID AZIMUTH TO A MAGNETIC AZIMUTH SUBTRACT G-M ANGLE

CROSSING GUIDELINES

There are only 18 approved tactical low water crossing sites on Fort Hood. These sites are listed above on map and are the ONLY sites approved for use by units training on the Fort Hood training area. These sites are marked with warning signs, gates which will be closed when conditions warrant, and depth gauges to indicate to units whether sites are safe to cross or not.

In addition, there are six approved seasonal crossing sites, which will be opened as seasonal conditions allow. These six sites will be barricaded with jersey barriers when not opened. No other tactical crossing sites are authorized for use on Fort Hood at any time.

Upon Closure of tactical low water crossing sites, **6 hard stand mid level water crossing sites** are authorized for crossing by tactical vehicles. When the hard stand mid level crossing sites are closed, **3 bridges** are authorized for crossing by tactical vehicles. These sites are listed above on map and are the ONLY approved crossing sites on paved roads.

Units using these hard stand mid level or bridge crossing sites for tactical crossings are responsible for cleaning the roads after crossing. Units must provide a detail with shovels and brooms to clean these sites after every unit crossing. When mud on the road exceeds the capability of units to clear, the unit will request assistance from DPW. Units may contact Range Control on FM 30.45 or contact DPW direct. Units will post Traffic Control Points (TCPs) on both ends of the crossing site until road-clearing equipment arrives. Sites left muddy and unsafe will be reported to the COC by Range Control, and units will be contacted to return to the site and clean it.

TRAINING GUIDELINES FOR USE OF ENDANGERED SPECIES CORE HABITAT

- LEVEL 1 CORE RESTRICTIONS
(IN EFFECT 365 DAYS/YR)

* IMMEDIATELY report all fires to Range Control, FM 30.45
* No open fires authorized
* No excavations authorized
* No tree/brush cutting authorized
* No tampering with cowbird traps authorized
* Use pre-existing artillery, fighting, and emplacements positions in habitat

- LEVEL 2 CORE RESTRICTIONS
(EFFECTIVE ANNUALLY, 1 MARCH THROUGH 31 AUGUST)
- Level 1 and 2 if are in effect during level 2 timeframe, level 2 overrides level 1 where conflicts exist

* Vehicle movement and dismount training are restricted to and must use existing roads and trails
* Unit movement, halts or occupation are limited to less then 2 hours
* No use of smoke generators, obscurant smoke, or chemical (riot control-CS) grenades in or within 100 meters
* Bivouac and tying to or covering vegetation with camouflage nets are prohibited
* Applicable ranges will comply with range rules regarding the use of flares, incendiary munitions, etc.

BALD EAGLE RESTRICTED AVIATION ZONE
1 Oct - 31 Mar
Minimize disturbance from low-level helicopter flights and other aviation assets. Flight restrictions will be lifted when no bald eagles have been observed for a period of two weeks.

NOTE: FORT HOOD (FH) 100, 101, 102, 103, 104 & 105 LANDS ARE CONTROLLED BY DPW - NATURAL RESOURCES, PH# 254.287.2885

Excavations in Training Lands

Units are to submit an excavation request for all digging events. Open excavations must be properly marked, if unoccupied, until refilled to prevent accidents. Site restorations remain a unit mission at the end of the training event. Types of excavations on training lands:

Controlled Excavation Areas are high use dig areas in maneuver corridors. Units must use Global Positioning System (GPS) equipment and dig inside depicted boundaries. The land manager's approval, in the comment block of the excavation request, and Range Control, ITAM is the approving authority for the request. Caution: trails, streams and woody vegetation exist within the controlled excavation area; digging within 50 meters of these features is prohibited.

"Free" dig sites are four bermed-defined sites on the installation. Sites allow several units to conduct training, without coordination at the same time for individual, squad, or 'Sergeant's Time' training.

Normal excavation request procedures governs all other excavation requests to include unit requirements that extend outside of Controlled Excavation Areas boundaries as part of a training exercise. Routing procedures go through DPW and Range Control. Approvals can take up to 21 days.

These excavation policies govern training lands only.

FREE DIG SITES:
PV 2160 7188; PV 1034 4669; PV 1476 4831; PV 2380 4753

SCALE 1:50,000

1,000 500 0 1,000 2,000 3,000 4,000 Meters

1 0.5 0 1 2 3 4 Miles

ELEVATIONS IN METERS
CONTOUR INTERVAL - 10 METERS

SPHEROID: WORLD GEODETIC SYSTEM 1984
GRIDZONE: 2.5 MINUTE LATITUDE-LONGITUDE TICS
GRID: 1000 METER STATIONS 14
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR
CENTRAL MERIDIAN: 99° W LONGITUDE
LATITUDE OF ORIGIN: 0° LATITUDE
VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929
HORIZONTAL DATUM: WORLD GEODETIC SYSTEM 1984
CONTROL BY: US DEPARTMENT OF NATURAL RESOURCES, SURVEY PLANES
PREPARED BY: FORT HOOD ITAM PROGRAM, GPTS RANGE DIVISION

SAMPLE 1,000 METER GRID SQUARE: 12, 13, 45, 46

100,000 M. SQUARE IDENTIFICATION: PV

GRID ZONE DESIGNATION: 14R

100 METER REFERENCE
1. Read large numbers labeling the VERTICAL grid line left of point and estimate tenths (100 meters) from grid line to point. 12 3
2. Read large numbers labeling the HORIZONTAL grid line below point and estimate tenths (100 meters) from grid line to point. 45 6
Example: 123456
WHEN REPORTING ACROSS A 100,000 METER LINE, PREFIX THE 100,000 METER SQUARE IDENTIFICATION IN WHICH THE POINT LIES
Example: PV123456
WHEN REPORTING ACROSS THE GRID ZONE DESIGNATION AREA, PREFIX THE GRID ZONE DESIGNATION
Example: 14RPV123456

ENVIRONMENTAL POLICY

"Protecting what we defend."

Fort Hood's mission is to provide an efficient and effective power projection platform – training, mobilization, deployment, and sustainment support to produce the world's best-trained and most lethal war fighters.

Fort Hood is committed to observe applicable Federal, State, and local laws and regulations aimed at sustaining the installation and the environment.

Fort Hood shall identify, document, and review environmental objectives and targets to continually improve daily mission activities.

Guiding Principles:

- All personnel are responsible for protecting and preserving the environment.
- Minimize or eliminate waste generation from all operations to reduce impact on the air, water, land, and surrounding community.
- Sustain effective partnerships with community stakeholders and remain attentive to their concerns.
- Prevent pollution.

Preserving natural resources increases our ability to train Soldiers, therefore environmental management and sustainability is part of Fort Hood's mission.

Stop Pollution
Continue Improvement
Assure Compliance
Leadership Commitment
Everyone Involved

CONVERSION GRAPH

SLOPE GUIDE

SLOPE GUIDE APPLIES TO CONTOUR INTERVAL 10 METERS ONLY

Elevation Guide

HIGH MEDIUM LOW

Location Diagram

USGS 7.5 Minute Quadrangles

Texas, USA

Land Group Guide

LAND GROUP (LG)	TRAINING AREAS (TA)					
LG 1	10	11	12	13		
LG 2	20	21	22	23		
LG 3A	34	35	36			
LG 3B	30	31	32	33		
LG 4A	40	41	42			
LG 4B	43	44	45	46	47	48
LG 5A	50	51				
LG 5B	52	53				
LG 6A	60	61	62			
LG 6B	63	64	65			
LG 7	70	71	72	73	74	

ITAM Leader Checklists

MANEUVER PLANNING

UNITS HAVE:
-VEH DRIP PANS?
-TRASH BAGS?
-CONDUCTED BRIEFINGS?
-ESTABLISHED UNITS POLICES?
-MANEUVER DAMAGE REPORTS?
-FIRE FIGHTING EQUIPMENT?
-FUELING SPILL PANS?
-SPECIFIED TRASH DUMPS?

MANEUVER PLANNING:
-WHICH RESTRICTIONS CAN I USE AS A MINEFIELD OR CONTAMINATED AREA, MANEUVER OBSTACLES?
-WHICH ROUTES IN HABITATS ARE BEST IN CONDUCTING PASSAGE OF LINES TRAINING?
-WHICH RESTRICTIONS CAN I USE TO TEST IMMEDIATE ACTIONS?
-WHICH RESTRICTIONS CAN I USE IN MY DEFENSIVE PLAN?
-WHAT IS, NEW LAND DAMAGE, NOW OUT THERE THAT WILL IMPACT MY TRAINING PLAN?
-HOW MUCH TIME AND ASSETS ARE REQUIRED TO RESTORE THE LAND, FROM MY MANEUVER?
-RETRANS SITES IDENTIFIED, DECONFLICTED WITH ENDANGERED SPECIES, AND NOTAM FILED?
-EXCAVATIONS AND REFUEL OPERATIONS, SEE THOSE CHECKLISTS

LAND MANAGER

-ASSIGNS LAND IAW 350-40?
-ASSIGNS LAND BASED OF TRAINING REQUIREMENTS?
-ASSIGNS LAND AROUND HABITAT RESTRICTIONS?
-FURNISHES LAND DAMAGE INFORMATION TO UNITS?
-INSPECTS LAND BEFORE CLEARING UNIT?
-UNITS REPAIR LAND WITHIN UNIT CAPABILITIES?
-MAINTAINS UNITS CLEARANCE FORMS?
-MAINTAINS JOINT USE CLEARANCE FORMS?
-MAINTAINS DAMAGE OVERLAYS ON LAND GROUPS?
-SUBMITS MANEUVER DAMAGE REPORTS ON UNCORRECTED LAND?
-PASSES LAND DAMAGE INFORMATION TO NEXT LAND MANAGER AND RANGE CONTROL?
-MAINTAINS DATA FOR SIX MONTHS?

EXCAVATIONS

1. BEFORE OPERATIONS:
-ALL SITES IDENTIFIED?
-SITE GRIDS ARE GPSed?
-REQUEST GRIDS GOOD?
-DIG ASSETS AVAILABLE?
-NITE MARKING ON HAND?
-HET SUPPORT AVAILABLE?
2. DURING OPERATIONS:
-AT CORRECT DIG GRID (GPSed)?
-DIG REQUEST AT DIG SITE?
-TOP SOIL BEING SAVED?
-NITE MARKERS USED?
3. AFTER OPERATIONS:
-REFILL ASSETS ON HAND?
-SITE PROPERLY REFILLED?
-TOP SOIL PLACED ON TOP?
-SITE SHAPED/BANKED LIKE A NEW GRAVE?
-ALL SITES REFILLED?
-MASTER OVERLAY CORRECT?
-HET SITE CLEARED?

BIVOUAC, BSA, & LOGISTICS

SITE SELECTION:
-GOOD COMMO?
-HARDENED MSR?
-NUMEROUS EGRESS ROUTES?
-CLEARED PERIMETER DEFENSE?
-GOOD CONCEALMENT?
-GOOD OPLP SITES?
-ADEQUATE SPACE, DISPERSION?
-INTERLOCKING FIRES?
-HARDENED INFRA TRAILS?
-CONCEALED COMMO LINES?
-LEVEL SITES FOR MAINT?
-HARDENED PADS FOR VEHS?

DISCIPLINE INDICATORS
-CENTRAL TRASH POINTS?
-CENTRAL SUPPLY POINTS?
-TROOPS CLEAN AS THEY GO?
-WIRE LINES CONCEALED?
-SPILL BERM AROUND CLASS III POINTS?
-BERMED SITE FOR WASTE POL?
-USE OF HARDENED ROADS TO MASK VEHICLE NUMBERS?
-ENDANGERED SPECIES RESTRICTIONS ENFORCED?
-CAMOUFLAGE NETS USED?

LAND CLEARING

-ALL OBSTACLE SITES CLEARED?
-BARBED & CONCERTINA WIRE REMOVED?
-ENGINEER STAKES REMOVED?
-MINES & SANDBAGS REMOVED?
-ALL EXCAVATIONS REFILLED?
-TOP SOIL REPLACED?
-EXCAVATION OVERLAY CORRECT?
-RETRANS SITES CLEARED?
-COMMO WIRE REMOVED?
-BIVOUAC SITES CLEARED?
-TRASH REMOVED?
-FUEL SITES CLEARED?
-CLASS I SITES CLEARED?
-CLASS III SITES CLEARED?
-CLASS IV SITES CLEARED?
-CLASS IX SITES CLEARED?
-MAINTENANCE SITES CLEARED?
-MANEUVER DAMAGED RECORDED?
-DAMAGED AREAS REPAIRED?
-UNREPAIRED AREAS REPORTED TO RANGE CONTROL?
-JOINT USE UNITS CLEARED BY LAND MANAGER?
-SLICE ELEMENTS CLEARED BY TASK FORCE COMMANDER?
-UNITS CLEARED BY COMMANDER?
-HET SITES CLEARED?
-NEW LAND MANAGER ACCEPTS THE LAND GROUP?

REFUEL OPERATIONS

REFUEL SITES:
-50 METERS AWAY FROM STREAMS AND DRAINAGE SYSTEMS?
-50 METERS AWAY FROM LAKES?
-DRIP PANS UNDER FUELER?
-BOTH VEHS PROPERLY GROUNDED?
-CATCH PANS USED?
-FIRE EXTINGUISHERS?
-CREW EXTINGUISHER MANNED?
-PROPER INTERVAL S?
-EXTRA NOZZLES, ON SITE?
-NIGHT LIGHTING?
-GROUND GUIDES USED?
-FUEL SPILLED?
-REPORTABLE SPILL?