

From: DEFENSE MESSAGING SYSTEM FT MONROE SVR-01v3 [<mailto:SYSADMIN-1MONROEDOIMuc@monroe-dms.monroe.army.mil>]
Sent: Tuesday, October 19, 2004 4:11 PM
To: ATCS TRADOC COFS
Subject: R 191952Z OCT 04 DEFENSE MESSAGING SYSTEM FT MONROE SVR-01V3
CECO M Ground Precautionary Message (CECOM GPM 2005-001); Effects
Management Tool CLEAR SGS TRADOC DMSv3
Importance: Low

TO OPNS CTR ADMIN(uc)
CG TRADOC SGS(uc)
DCSOPST TOMA(uc)
DCSOPST(uc)
DCSPIL(uc)
DCSDEV(uc)
USAG MONROE(uc)
USAG OPNS CTR(uc)
MOBILIZATION(uc)
SAFETY(uc)
NERO DOL(uc)
NERO(uc)
TRADOC DOL G4(uc)

-----Original Message-----

From: ou1=HHYL1;ou2=SAFETYDIRV3;o=NJ1;a=DMS;c=US;
TO: OPNS CTR ADMIN
CG TRADOC SGS
DCSOPST TOMA
DCSOPST
DCSPIL
DCSDEV
USAG OPNS CTR
USAG MONROE
MOBILIZATION
SAFETY
NERO
NERO DOL
TRADOC DOL G4
Sent: Tuesday, October 19, 2004 11:06 AM
Subject: CECOM Ground Precautionary Message (CECOM GPM 2005-001);
Effects Management Tools (EMT), Version 6.3.2 - AFATDS
Importance: Low

UNCLAS

Subject: CECOM Ground Precautionary Message (CECOM GPM 2005-001);
Effects Management Tools (EMT), Version 6.3.2 - Advanced Field
Artillery Tactical Data System (AFATDS).

1. Distribution: Note: This is a GPM and has not been transmitted to your subordinate units. MACOM Commanders will immediately retransmit this message to all subordinate units, activities, or elements affected or concerned. Retransmittal shall reference this message. MACOM Commanders will immediately verify and retransmit this Message via DMS to:

C:US,O:U.S.Government,OU:DoD,OU:Army,OU:Organizations,L:CONUS,L:FORT MONMOUTH NJ,OU:CECOM STAFF,OU:SAFETY,OU:DIR SAFETY MONMOUTH(n) or by email to AMSEL-SF-SEC@mail1.monmouth.army.mil.

*****WARNING*****
* FAILURE TO TAKE THE USER ACTION OUTLINED BELOW *
* COULD RESULT IN SEVERE PERSONNEL INJURY *
* AND EQUIPMENT DAMAGE *
* *

2. Problem/Discussion:

A. SUMMARY: A safety hazard has been identified on the AFATDS EMT software which has the potential to endanger friendly forces due to inaccurate situational awareness. The EMT receives a linear target as a center point and a length and attitude. To display the linear target on the Joint Mapping Tool Kit (JMTK) map, EMT actually calculates the geodetic locations of the linear target end points, and passes these values to JMTK. JMTK uses these values to plot the two ends of the linear target. To calculate the endpoint locations, EMT converts the target length in meters to an angular value (i.e. degrees, minutes, seconds) that can be applied to the target center location to determine the target end points. The calculation results in target end points (for linear targets) that are incorrect. The end points generated are generally not far enough apart to accurately depict the target on the map.

B. FINDINGS: In performing the above conversion, EMT uses a constant factor for converting meters to degrees. This is incorrect because the longitudinal conversion factor does not take into account the latitude of the geodetic location. The conversion factor increases the farther the location is from the equator. (The current EMT algorithm uses the value that is only correct for the equator and its immediate vicinity.) As a result, the target end points for linear targets are usually not far enough apart to accurately depict the target on the map. For instance, a 900-meter long linear target drawn in Iceland (roughly 60 degrees North latitude) with an east/west orientation would be about 500 meters too short when drawn on the map. If the operator is depending on visual inspection to perform violation checking of active missions with friendly unit locations, for example, and is confronted with a long linear target in the vicinity of a unit location, the map could prove misleading, and suggest that a target in the vicinity of the unit area was safe to fire. The result of a target being drawn too short in EMT 6.3.2 is the operator has an inaccurate situational awareness picture. An operator making a visual target check against friendly units may think that the target would not affect the friendly unit, when in fact it could. As a result, the operator could make an erroneous tactical decision based upon the inaccurate situational awareness picture. This could possibly result in endangering friendly personnel.

3. User actions: This issue only applies to linear targets.

A. Corrective procedures: Commanders must ensure that EMT operators do not rely solely on visual inspection of the EMT map display to identify potential dangers to friendly units and other protected areas caused by engaging linear targets. Any visual violation checking of linear targets should be done on the AFATDS Operational Facility (OPFAC).

B. EMT Software version 6.4.0 will correct this safety hazard; this software update is scheduled for release during the fourth quarter fiscal year 2005 (JUL-SEP 05).

4. POCS for questions regarding this message:

A. Technical and logistical point of contact: Bun Tse, PM-IE (AFATDS),
DSN 992-6734 or CML (732) 532-6734, e-mail
bun.tse@c3smail.monmouth.army.mil

B. Safety point of contact: Farid S. Youssef, CECOM Directorate for
Safety, DSN 992-7472 or Commercial (732) 427-7472, e-mail

5. This message has been coordinated with Project Manager for
Intelligence and Effects (PM-IE), Army Developmental Test Command,
Marine Corps, Navy, AFATDS TRADOC Systems Manager (TSM), and the CECOM
Directorate for Safety.

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