

AN/GSM-421 SYSTEM

Introduction

The AN/GSM-421 vehicle is a stand-alone vehicle primarily used during mobile employment and split-based operations. The AN/GSM-421 can provide calibration support allowing the Calibration Set (CALSET) 2000 system to operate in a true split-based mode. The calibration workstations of the AN/GSM-421 are housed in an SICPS rigid-wall shelter (RWS) mounted on the rear of the heavy HMMWV.

Customer

PM TMDE, Redstone Arsenal, Alabama.

MACRO's Role

MACRO performed an engineering study and provided written recommendations for the design of the AN/GSM-421 system. This study considered human, physical and environmental concerns. Over the course of three years, a finalized version of an AN/GSM-421 build kit was developed. MACRO manufactured, assembled and installed the build kits. The build kits included all components that are installed in the AN/GSM-421, excluding COTS/GOTS communications and computer network hardware. A complete and detail drawing and installation package was also developed.



AN/GSM-421
SICPS Shelter on Heavy HMMWV



Key Components Developed

- Bll Bay Doors - Lockable bay doors for both sides provide storage for Bll items.
- Redesigned Ladder - Redesigned for safety and provides greater stability. Uses existing mounting brackets. Rungs are wider than existing ladder.
- DC Power Kit - Added to increase reliability. The DC power kit increases battery life by allowing the DC power to be turned off when not needed. With the current design the DC power is always on, draining the batteries unnecessarily.
- Step - Added for personnel safety. This kit allows you to safely access the roof of the shelter by reducing the first step from 43 ½" to 27 ½". This modification is bolted on using existing hardware for the shelter mounting kit.
- Generator Cover and Stand - Added for personnel safety. The current vibration and noise levels emitted by the generator are a real concern. This kit significantly reduces the vibration and noise levels by approximately 50% in the interior and exterior of the shelter. The covers replace the external hoods and are permanently attached to the vehicle. The stand conducts vibration and noise away from the shelter into the ground.
- Generator Cable Mount - Added for personnel safety / equipment damage. Prevents power cables and fuel lines from being cut.
- Rapid Decompression RFI Filter Shield – Damage to the RFI filter prevents the shelter from being mission capable. This shield prevents damage to the RFI filter.



Interior View



Generator Cover and Adjustable Stand

Status

The AN/GSM-421 was been deployed and is in use in areas such as Kosovo and Afghanistan. This design is a permanent part of the U.S. Army Calibration Set Modernization Program.