
SICPS

Standardized Integrated CP System

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The single purpose of a command post (CP) at any organizational level is to provide a structural framework that supports the decision maker in his task. The current command and control facilities in the Army's inventory do not provide the flexibility, commonality, and operational compatibility a commander needs to direct and control his forces in a fast-paced highly active combat situation. They definitely lack mobility, and therefore survivability.

For example, there is no CP vehicle at all for the light infantry or motorized divisions. Although the heavy units do have M577 tracked vehicles and combinations of truck-mounted systems, these lack NBC protection, display unique visual signatures, and do not easily accept the new electronic systems.

The Army's answer to this long-recognized problem is the Standardized Integrated Command Post System (SICPS). The system consists of three major components that will be fielded over the next four years—a tent CP with accessories, a rigid wall shelter CP to be mounted on light vehicles, and a track CP for M577 and M113 vehicles.

SICPS configurations throughout the battlefield will make it harder for the enemy to identify the organizational level of a CP or its specialized function. They will support CP functions by providing standard environments that incorporate all the facilities necessary to ensure the command post imperatives of survivability, mobility, dispersion, and redundancy.

As automation and communications systems evolve, tactical CPs must be able to support them. The SICPS is intended to be flexible enough to accommodate plug-in/plug-out equipment, which will allow commanders and staffs to reconfigure individual vehicles and shelters quickly and easily.

The SICPS will support battlefield command and control functions throughout Active Army and Reserve Components in standard and airborne corps; heavy, airborne, air assault, motorized, and light divisions; and brigades, regiments, battalions, and squadrons. The system will be used throughout a theater of operation by combat, combat support, and combat service support units.

CHARACTERISTICS

The development of the system includes a consideration of the following characteristics:

- An ability to use electrical power from multiple sources (for example, on-board power, generator, commercial power).
- Common auxiliary equipment (extension tent, light set, mapboards, tables, heater, and surface wire grounding system).
- A cable management feature that allows data transfer and communication for both intra-system and inter-system equipment, including local area net (LAN).
- Ability to operate on the move within the capabilities and tolerances of the internally mounted systems.

- The reduction of unique CP electronic and visual signatures.
- Electromagnetic, biological, and chemical protection.
- Seating and work space for two or three personnel.

The tent CP consists of a lightweight tent with an easily erected lightweight frame. It is modular with different panels that can be placed on any side. Some of these panels have entrances or windows, while others have a boot for connecting a vehicle shelter.

Auxiliary equipment includes lightweight tables, mapboards, a heater, an overhead light set, and a surface wire system to ground the interconnected automation components and supporting communications equipment.

Additionally, the tent CP can be assembled and disassembled quickly under field conditions by a unit's currently assigned CP personnel. It also has black-out protection and an air-drop capability. (Figure 1 depicts the tent CP and the way several can be put together.) The tent CP is the basic workspace building block that allows vehicles and other tents to be connected in support of operations, from a single facility to a corps arrangement.

Since the light infantry divisions are now using old, heavy tentage and are most in need of tents that will help with their deployment and employment, they will receive the tent CP and its accessories first under a limited production contract. The four light divisions (the 6th, 7th, 10th, and 25th), the 2d Infantry Division, the 9th Infantry Division (Motorized), the 82d Air-

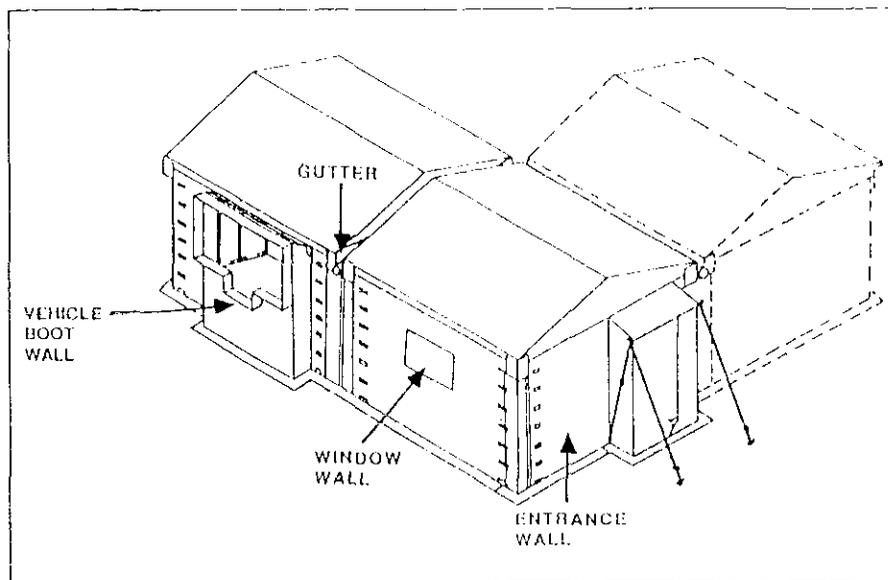


Figure 1. Tent CP

borne Division, the 101st Airborne Division (Air Assault), and the 193d Infantry Brigade (Separate) have begun receiving their tent CPs. Other Army units will be able to order them (either the entire tent CP or the separate components) through Common Table of Allowance (CTA) catalogs in Fiscal Year 1991.

The second element of the SICPS, the rigid wall shelter CP, will be mounted on a HMMWV (high mobility multipurpose wheeled vehicle) or CUCV (commercial utility cargo vehicle) chassis in appropriate units. A configuration similar to the present

M577 CP can be created with the attachment of the tent CP to this shelter. The shelter will provide for power generation, power and communication distribution, heating and cooling, and arranging and mounting automation and communications equipment. No additional personnel will be required to operate it.

The interior of the shelter will be arranged with the power source, heater, and air conditioner enclosed and placed against the forward bulkhead to reduce the noise level. Access panels on each side of the shelter will allow those items to be serv-

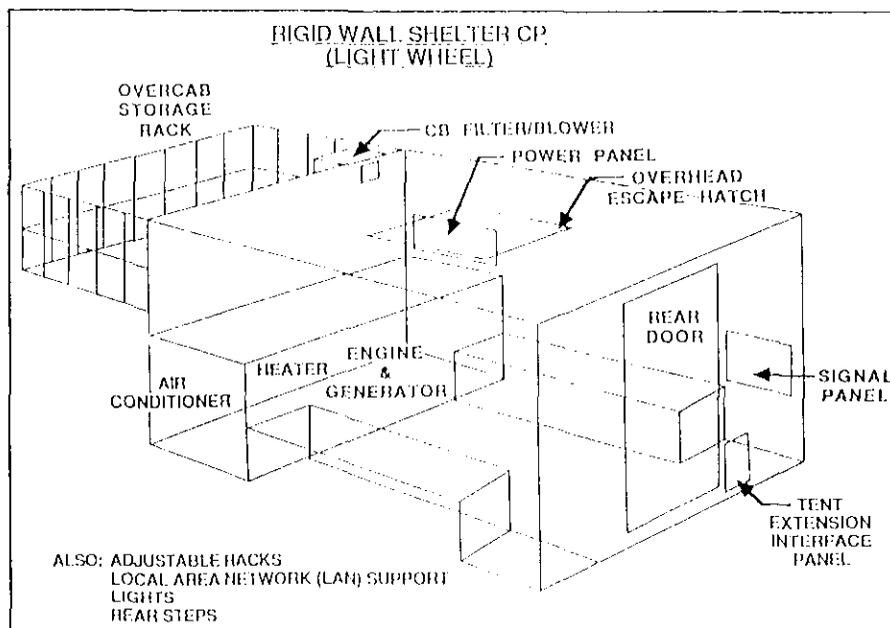


Figure 2. Shelter CP (Cutaway View)

iced. Power distribution panels will be built so the shelter can either receive power (from another SICPS shelter or commercial power) or export power. A signal distribution panel will allow for the easy connection of mobile subscriber equipment, local area networking, and SINCGARS FM radios.

Operations can be conducted both inside the shelter and in the attached tent CP through the power and signal interface panels. A chemical filtration unit and an overpressure system will allow continuous operations in the shelter during periods of biological or chemical activity. (Figure 2 shows a cut-away view of the shelter's interior components.)

The rigid wall shelter CP is scheduled to be fielded in late Fiscal Year 1991. Its initial distribution will follow that of the tent CP with the light, airborne, air assault, and motorized forces. Combat support and combat service support elements in heavy units will also be authorized this CP.

The third part of SICPS, the track CP, is an effort to improve on the effectiveness of the current track CP. This sub-program of the system focuses on improving the internal configuration of a CP while providing the capability to connect and operate current and emerging automation and communications systems.

The current CP tent extension will be replaced by the SICPS tent CP, and improvements will be made to the power generation and distribution systems and to communication distribution capabilities. The CP's ability to support the mounted or remote operation of communication and automation systems will also be upgraded. A unit's existing M577 and M113 vehicles will be refurbished to incorporate these capabilities. Heavy units can expect this modification to occur in early Fiscal Year 1992.

The development of the Standardized Integrated Command Post System will improve the efficiency and survivability of command posts, making them more mobile, rapidly deployable, and applicable to a broad range of command post functions at levels

from battalion through corps. The combination of standard vehicles, both tracked and wheeled, with associated tents will make it more difficult for the enemy to distinguish between types of units and echelons of command. With the standardization provided by the SICPS, new electronic systems can

be incorporated more easily and inter-connected more readily regardless of the CP configuration selected by a particular unit. Command posts will be set up or moved faster, operations conducted more efficiently, and unit loads lightened.

Above all else, SICPS will support

a commander's decision-making process on a fast-paced modern battlefield.

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Electronic Signature Eraser

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The tactical operations center (TOC) of armored and mechanized infantry brigades and battalions is a mobile command center that suffers from a significant disadvantage—its electronic signature. A TOC has at its disposal some of the most sophisticated radio communication equipment that can be assembled in one place—FM radio nets, a single sideband voice net, AM radio teletype nets, and a multichannel radio system. This equipment gives a commander and his staff instant communication with higher, lower, and adjacent units and with Air Force, artillery, engineer, and intelligence sources.

At the same time, however, it also gives the opposing force a lucrative target either to exploit or to destroy. If steps are not taken to prevent it, the radio direction finding (RDF) equipment of an opposing force should have little difficulty in locating and disposing of this target. (See also "Improving CP Survivability," by Lieutenant Colonel Jack Silva, INFANTRY, November-December 1987, pages 23-27.)

Our current thinking suggests several ways of reducing the likelihood of detection, but each of these has its drawbacks:

Change frequencies at least every 24 hours. A TOC has several nets at its location and the nets change frequencies at a predesignated time. For example, the "A" net will change from its frequency while the adjoining "B" net may be changing to a frequency close to the one the "A" net just vacated. Under this policy, it won't take an opposing force long to pinpoint the TOC's location and determine its size.

Operate radios with low power as much as possible. A TOC will normally give up the best communication conditions in order to achieve the best cover and concealment. Unfortunately, this requires the use of higher power when transmitting, which also increases the possibility of detection.

Use directional antennas. This is a good way to eliminate a large portion of an electronic signature, but not many people in a TOC can "cut" an accurate antenna, much less position it. If an antenna is not fabricated correctly, it decreases the equipment's operating range and may even damage it. And if an antenna is not positioned correctly, communication is lost or, worse yet, it gives the opposing force prime reception.

Use location and relocation. The

best means of deceiving an opposing force is to choose a location that places mass between the TOC and the opposing force's RDF unit and then to move on a regular basis to keep it off guard. Again, however, trying to conceal a TOC often means sacrificing good communication. If mass is placed between the TOC and the opposing force, then mass is also placed between the TOC and the troops it is supporting. A relocation itself involves a tremendous expenditure of man-hours. Reconnaissance has to be conducted to find new locations, tentage has to be torn down, equipment stowed, movements made, and tentage erected again. Also, each time the TOC is moved the opposing force has an additional opportunity to detect it by observing the move, slips in communication, increases in radio traffic, and the addition of frequencies to control convoy movements.

Remoting and retransmitting. These are certainly helpful ways of getting the electronic signature away from the TOC, but the necessary equipment is not always available. There are only four AN/GRA-39 remote sets in a battalion communications platoon, slightly more at brigade (depending on MTOE), and only one retransmission