



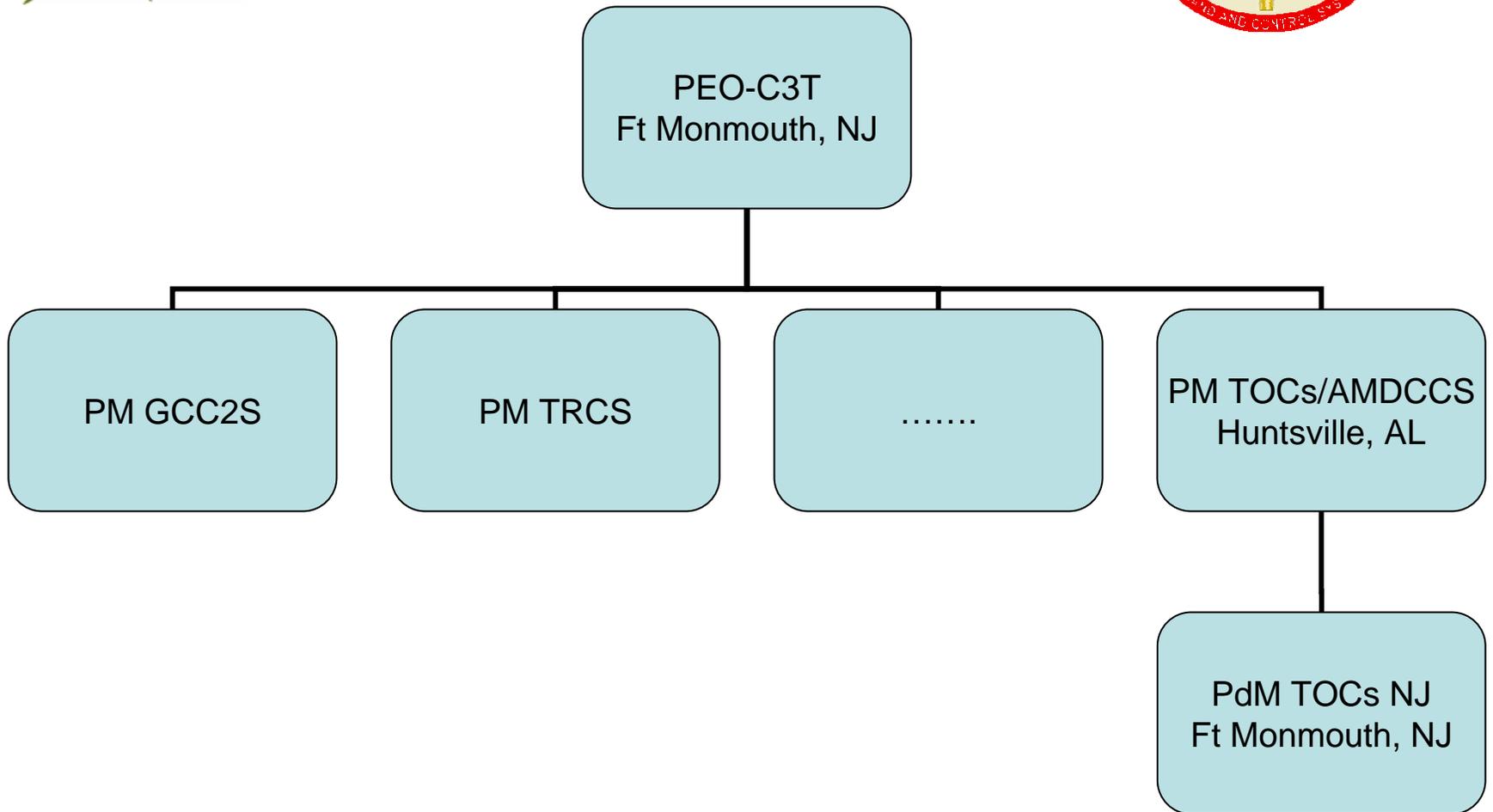
# CPP (Command Post Platform) Shelter Paradigm Shifts

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# Shelter History

- V-1 Shelter, designed by Natick, late 1980s, 255 produced early 1990s.
- V-3 Shelter, pre-production prototypes, 6 produced for testing.
- V-4 Shelter, based on Natick design but modified by Gichner Shelter Systems, 507 produced 1996 – 2002.
- V-5 Shelter, based on Natick design but modified by Marion Composites (now GD/ATP Marion Operations), 110 ordered, 2001 – 2006.

# Shelter Commonality

- ALL of the above shelters have the same basic dimensions; 102 in long, 84 in wide, 67 in high.
- ALL of the above shelters have 1 fixed interior workstation with crew seat and work surface for on-the-move operations.
- ALL of the above shelters have left side, right side and forward equipment racks.
- Represents 20 yrs of shelter design & production and almost 900 shelters.

# CPP Changes Dimensions

- Length is reduced by 12 inches, new length 90 inches.
  - Shelter does not overhang the truck bed
  - No need for a pintel extension, saves 50 lbs.
  - Shifts CG forward, HMMWV rear axel loading has been a problem.
  - Shifts trailer tongue load (200 – 300 lbs) 12 inches forward, also helps with rear axel loading.

# V-5 Shelter, 102 in length overhangs truck bed



# CPP Changes Operating Concept

- No operator inside the shelter
  - Eliminates crew seat and seat belt
  - Eliminates Chem/Bio filter (GPFU)
  - Retains ECU for equipment cooling
  - Retains onboard APU to power shelter equipment
- On-the-Move operations accomplished from HMMWV cab, passenger seat
  - Digital comms via laptop and LAN connection to routers, switches, and radios inside shelter
  - Voice comms via cab intercom connection to radios inside shelter

# CPP Changes Tent Concept

- All workstations located in the tent
  - Computers remain inside shelter
  - MPU (Multiple Processor Unit) can run 4 ABCS applications at once, MCS, ASAS, AMDCCS, etc.
  - Keyboard Video Mouse connections on TIP
  - Intercom connections on TIP
- Tent requires environmental control
  - TMSS (Trailer Mounted Support System)
  - Trailer with 20KW gen, 60K btu/hr ECU, ducting, and medium tent



# CPP Changes Tent Design

- Standard SICPS tent no longer used for TOCs
  - 11ft by 11ft, when complexed together, tent poles every 11 ft.
- Medium tent about the size of 4 SICPS tents
- Large tent about the size of 8 SICPS tents

# CPP Changes Power System

- Onboard APU is 3 phase 208 volt ac, 10kw
- ECU is 3 phase 208 volt
- Import power, if used, will have to be 3 phase 208 volt

# CPP Changes rack layout

- Left side and right side racks go all the way from the back wall to the front wall.
- No front equipment racks.
- Power control is from a TIP.

# CPP Advantages

- Reduces the footprint of the TOC by reducing the number of vehicles.
- Fewer C-130s to deploy.
- Reduces set-up and tear down time by leaving the computers and LAN equipment in the shelter. Only 1 tent to set up.
- Environmentally controlled tent.
- Planned Product Improvement – Secure wireless LAN vehicle to vehicle.

# Standard Shelter Availability

- 110 V-5s on order will be delivered by Sep 30 05
  - ~80 by April 30 2005
- Will probably only order another 20 – 100 V-5 shelters in 2006.
  - V-5 shelter users have requests / needs for about another 100.
  - V-5 shelter users have only funded about another 20.
- V-5 production contract ends in Sep 2006.