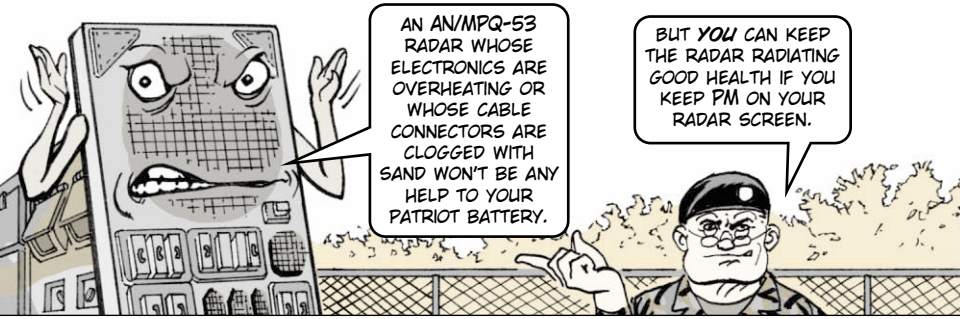
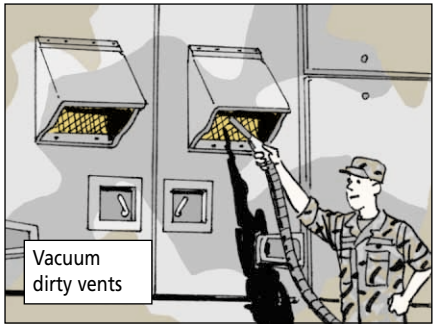
Keep PM on Your Radar Screen



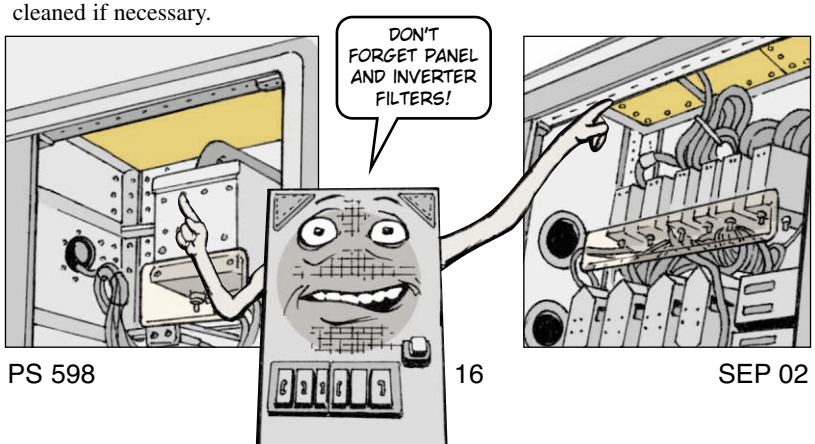
Fresh Air

The AN/MPQ-53 needs plenty of fresh air to keep its electronics from overheating, especially in the desert. That makes filters Job No. 1 during maintenance.

At least monthly (every other week in the desert), check all eight vent screens for dirt. Vacuum them if necessary. Before powering up the radar, make sure every vent is open.

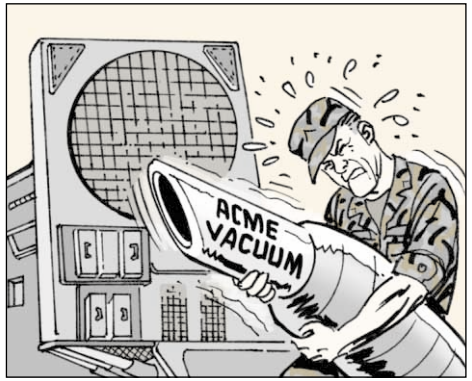


The radar's two **A100 distribution box power panel** filters, the **A122 control logic panel excitor** filter and the filters behind the **inverters** are almost always forgotten. They should be checked monthly (every other week in the desert) and cleaned if necessary.



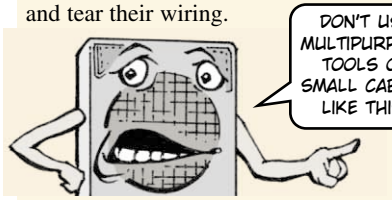
Filters will stay clean longer if you keep radar doors shut as much as possible and weekly vacuum inside the radar. Dust lying on the floor will be sucked into the air system.

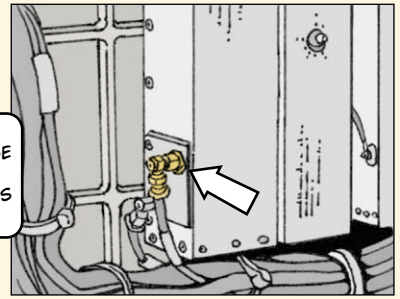
The IFF cabinet also becomes clogged with dirt and its circuit cards overheat. Weekly, wipe dirt off the IFF cabinet and follow the rest of the PMCS in TM 11-5895-824-12.



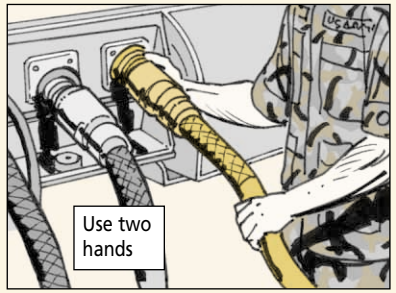
Cable Care

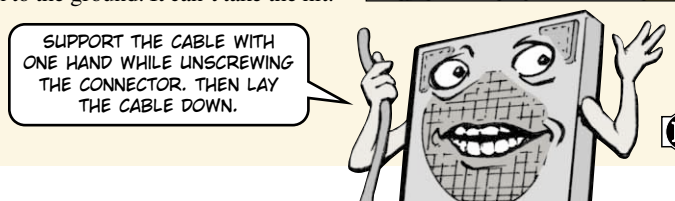
Inside the radar are numerous slender cables that require the proper wrench. If you use your multipurpose tool on them, you can twist the cables and tear their wiring.





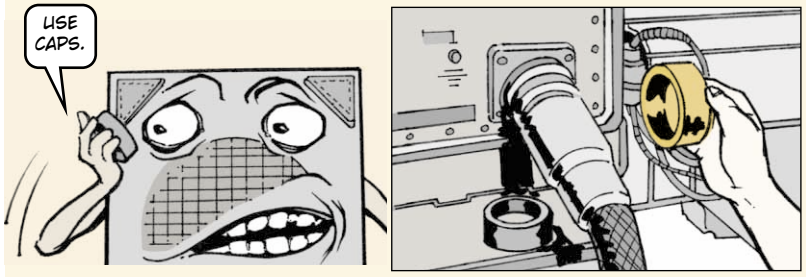
It's a different story with the big J1, J2, and J3 cables. They require two hands. If you twist cables on or off one-handed, you rip the wiring. And they're expensive. So use one hand to support the cable and take the weight off the connector. Use the other hand to turn the connector until it disconnects. Pull it straight off. Don't let the cable slam to the ground. It can't take the hit.



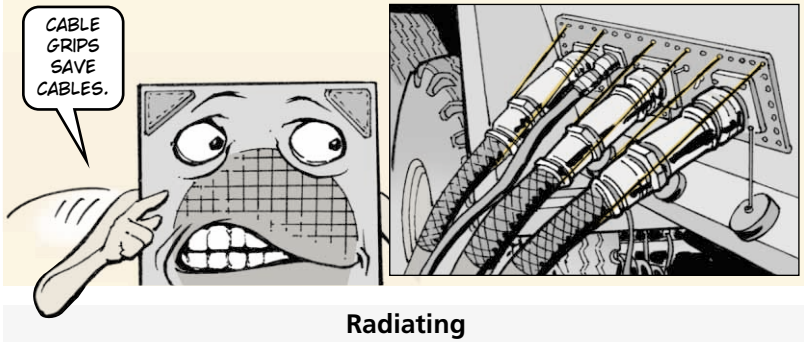


PS MORE

Cap the cables and radar connectors as soon as you disconnect them. Otherwise, dirt and sand clog the connectors. If the caps have disappeared, tell your repairmen and wrap the connectors in plastic.

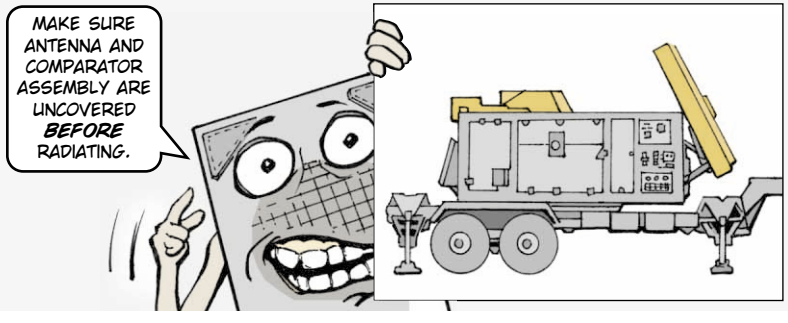


Cable grips will help these big cables last by supporting the cables' weight. Order grips with NSN 5120-01-213-9538.

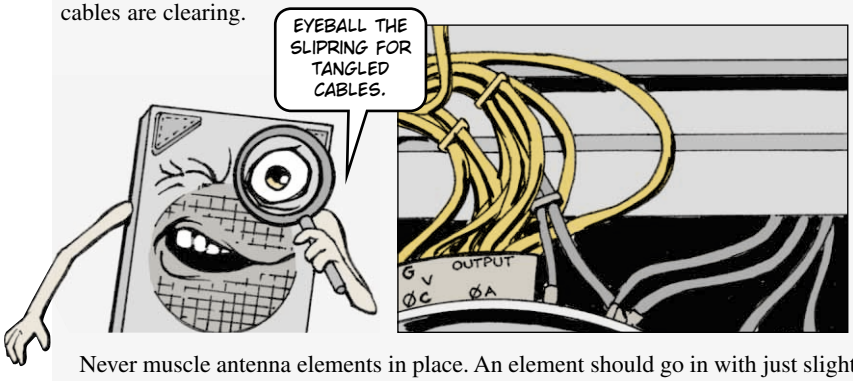


Radiating

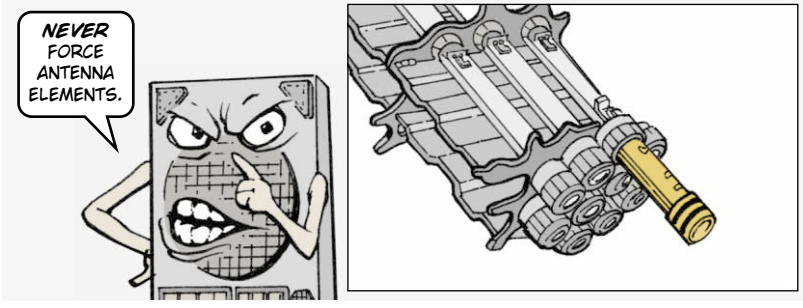
Before you radiate, double check that the covers have been removed from the comparator assembly and the antenna. If a cover's left on, it reflects the RF energy back down the wave guide and the radar becomes a microwave oven, cracking or damaging the waveguide window and other components.



Any time you're rotating and lose power, don't power up again until you inspect the slipring for tangled cables or arcing. A cable may have fallen out of the cable tray or the tray itself may be loose. If you continue to operate, cables rip out or the whole slipring burns up. A good check is to manually rotate the radar to see if the cables are clearing.



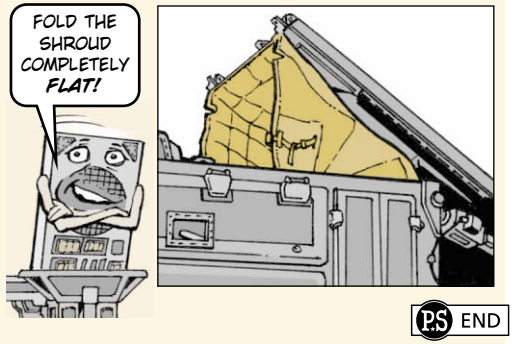
Never muscle antenna elements in place. An element should go in with just slight pressure. If it doesn't, turn the element and try again. Forcing an element bursts the antenna socket. The whole antenna has to be taken apart to fix one socket.



Hitting the Road

Before you hit the road or traverse, make sure all doors are latched and shut. If you forget just one door, it can be torn off and then the electromagnetic interference shield is ruined.

Fold the shroud completely flat before you lower the radar. If it is bunched up, it can damage the roof covers.



PS END