

IT'S THE SIMPLE THINGS!

WHEN WE TAKE CARE OF YOU, WE KNOW YOU'LL TAKE CARE OF US.

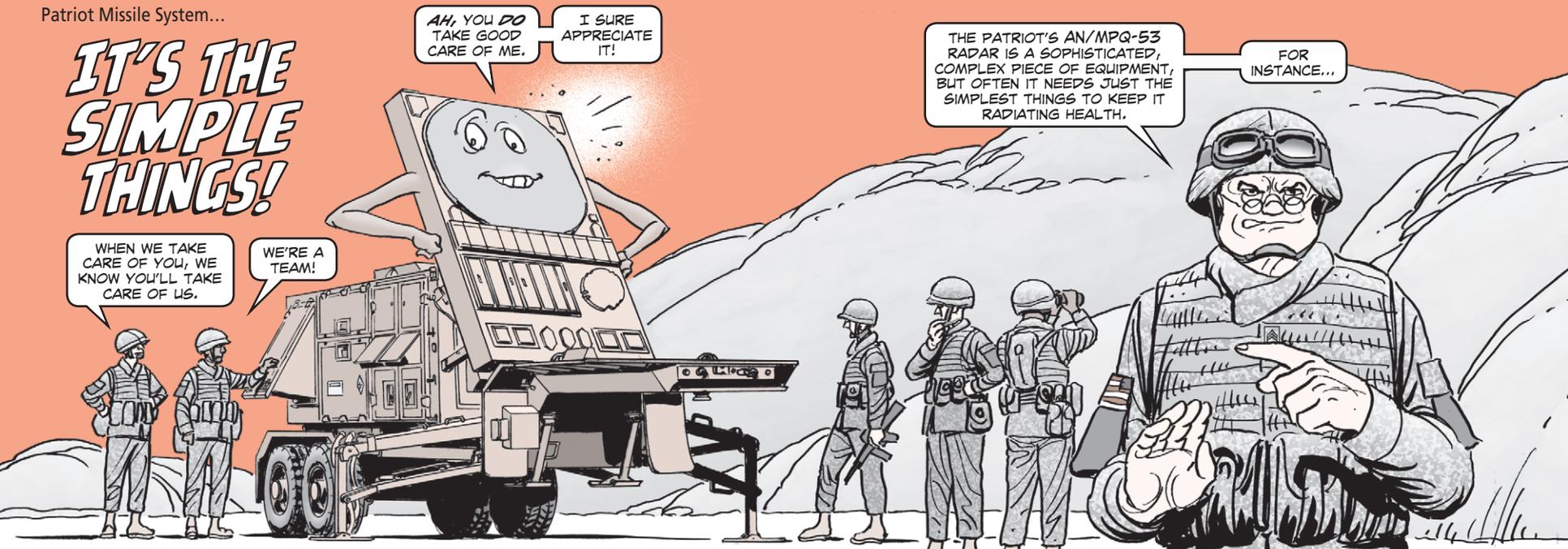
WE'RE A TEAM!

AH, YOU DO TAKE GOOD CARE OF ME.

I SURE APPRECIATE IT!

THE PATRIOT'S AN/MPQ-53 RADAR IS A SOPHISTICATED, COMPLEX PIECE OF EQUIPMENT, BUT OFTEN IT NEEDS JUST THE SIMPLEST THINGS TO KEEP IT RADIATING HEALTH.

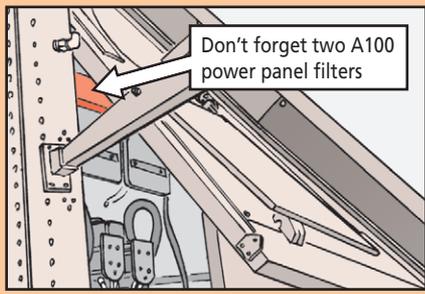
FOR INSTANCE...



Vents and filters—The AN/MPQ-53 has lots of electronics that produce lots of heat. If the radar can't get enough cool, fresh air, those electronics overheat and the radar stops working.

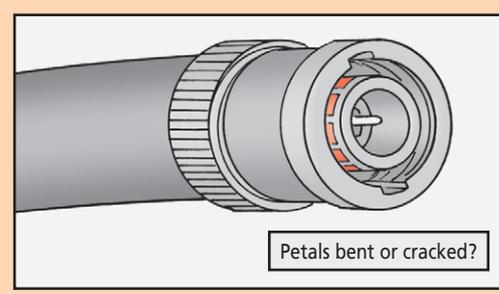
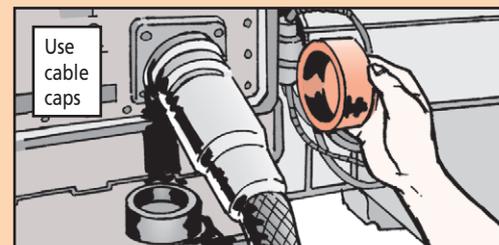
Before powering up, make sure all eight vents are open and clean. You can clean them with your shop vac.

The two antenna filters and the two A100 power panel filters are often forgotten during PMCS. They need to be checked at least monthly. In an area with lots of blowing dirt and sand, make that weekly. Clean them if possible. If they're too dirty, replace them. It's a good idea to keep extra filters on hand. It can take a long time to get replacements.

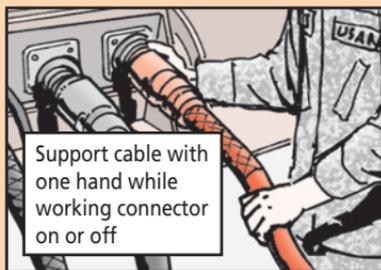


Cables—Cap the cables and their connectors when they're not connected. Otherwise, dirt clogs them and you get poor connections and faults. Caps also seal out moisture that can cause pins to corrode. If caps have disappeared, tell your repairman so he can order more. In the meantime, cover the cables and their connectors with plastic.

Check the shielding for the radio frequency (RF) cable connectors. If the shielding petals are bent or cracked, you get RF interference. Get damaged cables replaced.



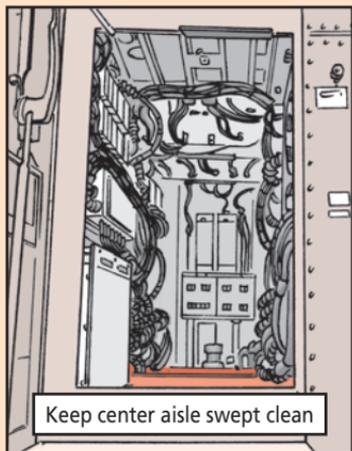
More cables—Use two hands with the J1, J2, and J3 cables. They are too heavy to put on or take off with one hand without damaging wiring. Use one hand to support the cable and take the weight off the connector. Use the other hand to screw the connector on or off. Pull the connector straight off and lay the cable on the ground. Don't drop it or you could damage the connector.



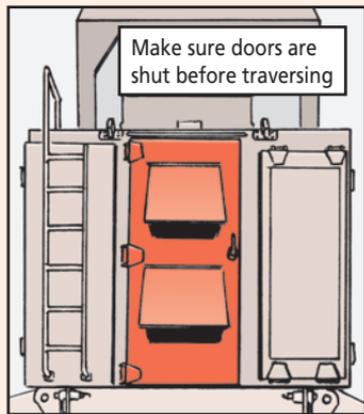
Cleaning—Keep the center aisle inside the radar compartment swept clean. Otherwise, dust accumulates and is sucked into the electronics, where it causes problems. Keep dirt out by keeping the door shut as much as possible.

Weekly, wipe clean the IFF cabinet if your maintenance officer approves. If it becomes clogged with dirt, its circuit cards can overheat. During semiannual maintenance, remove the IFF from the radar, take out its circuit cards, and blow out the IFF with low-pressure air.

Never use a water hose above wheel level on the radar trailer. If you forget, water shoots into expensive electronics and shoots up your unit's repair bills.



Radiating—Before traversing, make sure all doors are shut tight. If you forget even one door, it can get caught on something and bend. That ruins the electromagnetic interference (EMI) shield.



Also double-check that the covers for the comparator assembly and antenna have been removed. If a cover's left on, radio waves are trapped and stuff like the wave guide window gets cooked.

