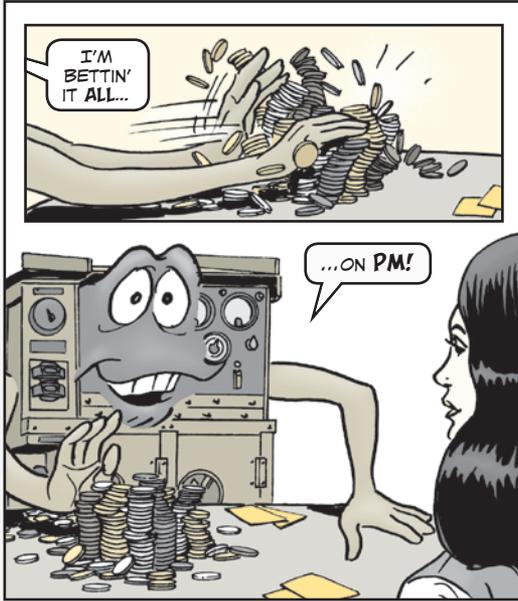
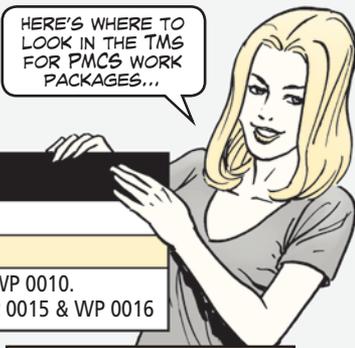


Place Your BETSS on Preventive Maintenance



That's exactly what's happening. Recently, some TQGs powering the BETSS-C stopped running because Soldiers neglected preventive maintenance checks and services (PMCS). In some cases, the failed generator or its parts were beyond repair.



TM	Work Package
TM 9-6115-641-10	WP 0010 & WP 0011
TM 9-6115-641-24	WP 0007 & WP 0008
TM 9-6115-639-13&P	Operator PMCS in WP 0009 & WP 0010. Field Maintenance PMCS in WP 0015 & WP 0016



WARNING
Never service or perform maintenance on a generator while the engine is running. Shut down the generator and let the engine cool before servicing.

Operator PMCS

ENGINE OIL: When the engine is low on oil, parts can seize and the engine can fail. Low oil pressure can cause cylinders to dry out and throw rods. Too much oil creates pressure that can blow O-rings and the gasket to the valve cover. And that can break the seals in the engine block.

Here's how to make sure the engine has the right amount of oil:

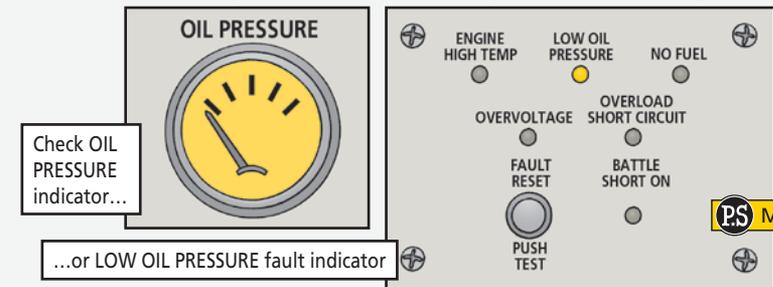
- Inspect the TQG for oil leaks before, during and after operating it. Report Class III leaks to field maintenance.
- Remove the oil fill cap and look at the dipstick. Make sure the **oil level** is at the FULL mark or between the hash marks. When the TQG's running, keep an eye on the **OIL PRESSURE** indicator on the control panel or the **LOW OIL PRESSURE** fault indicator.
- Add oil to the engine crankcase if it's low or if the indicators show the pressure is low. **Shut down the generator set before checking the oil level or adding oil.**

IF YOU HAVE A BASE EXPEDITIONARY TARGETING AND SURVEILLANCE SYSTEM-COMBINED (BETSS-C), LISTEN CAREFULLY.

THE BETSS-C IS POWERED BY ONE OF THESE GENERATORS...

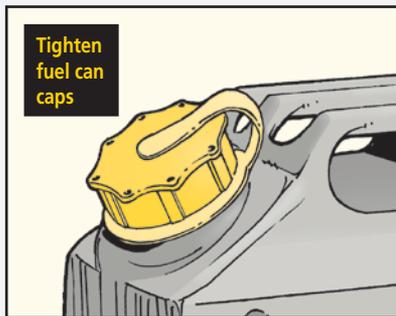
Generator	NSN 6115-	TM
5-kW MEP-802A tactical quiet generator (TQG)	01-274-7387	TM 9-6115-641-10 (Oct 09) and TM 9-6115-641-24 (Apr 12)
5-kW MEP-812A TQG	01-274-7391	TM 9-6115-641-10 (Oct 09) and TM 9-6115-641-24 (Apr 12)
3-kW MEP-831A TQG	01-285-3012	TM 9-6115-639-13&P (Apr 10)
3-kW MEP-832A TQG	01-287-2431	TM 9-6115-639-13&P (Apr 10)

If the TQG goes down, the BETSS-C has no electrical power. Security monitoring and surveillance suffer. You've lost your eyes and ears.



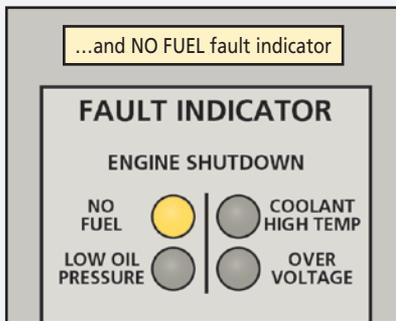
FUEL: Fuel leaks are dangerous. Inspect the TQG for leaks before, during and after operating it. If you find any, **shut down the TQG** and report the problem to field maintenance.

Dirt and debris in the fuel system make the engine run rough. They can cause engine speed to vary. And that can spike voltage and damage equipment powered by the TQG. Remove the fuel tank fill cap. Remove the **mesh fuel strainer** and wipe it clean. Also inspect your **plastic fuel cans**. Make sure the caps are screwed on snug. Covering the cans with a tarp helps keep dirt, debris and water out of the fuel, too.



The **fuel/water separator** removes water and sediment from the fuel. Open the drain cock and drain the contaminants into a container. Inspect the fuel/water separator for leaks, cracks and loose fuel lines before and after running the TQG. If you find any damage, report it to field level maintenance.

When the TQG's running, keep an eye on the **FUEL LEVEL** indicator on the control panel and the **NO FUEL** fault indicator. Never allow the fuel tank to run dry while the TQG is running. That can drain the batteries and damage the fuel pump. Depending on which TQG you have, its fuel tank holds 4 or 5 gallons, enough for about 8 hours of operation.

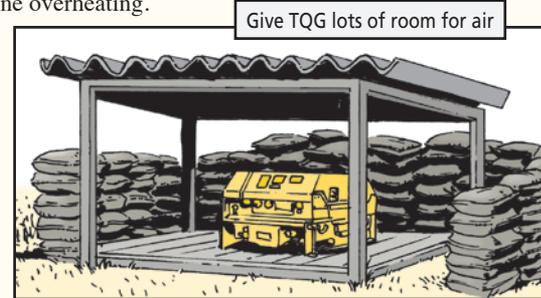


Refuel if the indicators show the fuel level is low. **Shut down the generator set before refueling.** Never refuel while the engine is running. Read your TM's **WARNINGS** about filling the fuel tank.

HEAT: A running engine creates heat. This heat needs to be released into the surrounding air to reduce engine temperature. Problem is, heat releases more slowly in hot weather than in cooler weather. That means engine temperature stays high longer. The result: The engine overheats and may stop running altogether. During hot weather, take precautions to avoid engine overheating.

If you put the **TQG in a revetment**, give it plenty of air. Center the TQG with at least 4 feet between it and the walls.

Another way to keep the TQG cooler is to put it under a **solar shade**. Solar shades block out the sun and reduce hot surface temperatures.



The shades come in two sizes:	System	Size in feet	Floor area in square feet	NSN 5410-	Each system includes cover, poles, stakes and repair kit.
	Type I	35 x 35	892	01-519-7041	
Type II	50 x 50	2000	01-519-7185		

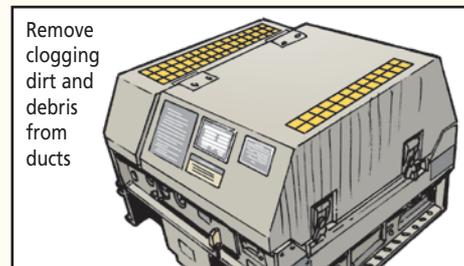


YOU CAN ALSO SHADE THE GENERATOR WITH THE ULTRA-LIGHTWEIGHT CAMOUFLAGE NET SYSTEM (ULCANS). ULCANS IS AVAILABLE IN FOUR SYSTEMS...

System	NSN 1080-
Desert radar scattering	01-475-0696
Desert radar transparent	01-475-0694
Woodland radar scattering	01-457-2956
Woodland radar transparent	01-475-0697

Heat and the 3-kW TQG

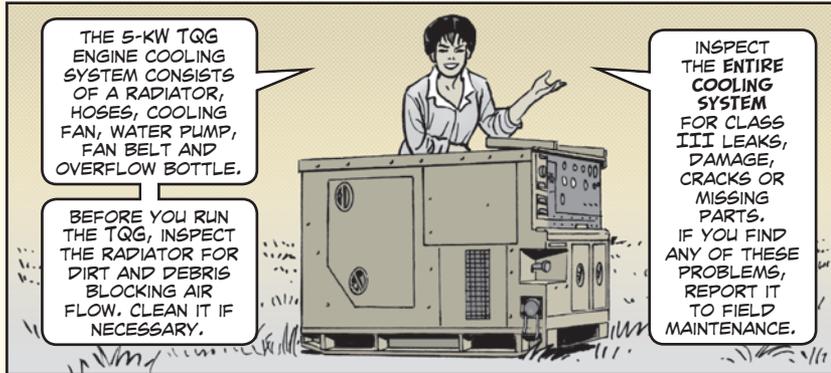
Before you run the 3-kW TQG, inspect the **air intake ducts**, **exhaust ducts** and **air filter** for clogging dirt and debris. A clogged air intake or filter chokes off air to the engine, making it work harder. The results are overheating and shutdown. Remove clogs from the ducts. Clean the filter with compressed air. Replace it if necessary.



Keep the **access doors** closed. That allows air to flow around inside and cool the generator. Closed doors also keep dirt and sand away from the engine.

Keep an eye on the **ENGINE HIGH TEMP** fault indicator on the control panel. If the indicator shows the engine's running hot, the problem could be a clogged air filter or air intake ducts. Or the generator could be overloaded. Read the operator's troubleshooting table for instructions.

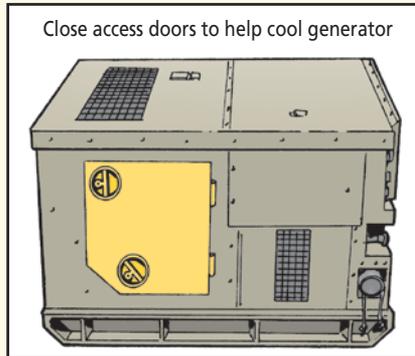
Heat and the 5-kw TQG



Also inspect the **air intake ducts**, **exhaust ducts** and **air cleaner** for dirt and debris. A clogged air intake or cleaner chokes off air to the engine, making it work harder. The results are overheating and shutdown. Remove clogs from the ducts. Check the air cleaner's restriction indicator. If it's in the red, the air cleaner element is clogged. Clean the element with compressed air. Replace it if necessary. Inspect the air cannister. If it has dirt and debris, clean it with a lint-free cloth.

Keep the **access doors** closed so air can flow around inside and cool the generator. Closed doors also keep dirt and sand away from the engine.

Now and then look at the **COOLANT TEMP** indicator on the control panel and the **COOLANT HIGH TEMP** fault indicator. If either indicator shows the engine's running hot, the problem could be a clogged air cleaner or air intake ducts. Or the generator could be overloaded. Read the operator's troubleshooting table for instructions.



Field Level PMCS

Field level PMCS is based on an interval schedule of hours, weeks or months of operation. Regular PMCS ensures that defects are found and fixed before they can disable your generator. Field maintenance must complete **all** of the checks and services in the TMs. Here are some of the highlights:

ENGINE OIL: Drain the engine oil according to the PMCS interval schedule. Add the proper type of oil. Also change the oil **filter**. If you're in a dusty or sandy place, change the oil and filter more often.

FUEL: Inspect the **fuel/water separator** by the interval schedule. Inspect it more often if the TQG is in constant use. If there's water, drain it. If the fuel/water separator has cracks, corrosion or signs of leakage, replace it.

Inspect the **engine fuel injection pump**. Look for damage or signs of leakage. Also inspect the **pump sealing gasket** for leaks. If you find problems, read TM 9-2815-257-24 (Nov 00) for instructions on pump and gasket replacement.

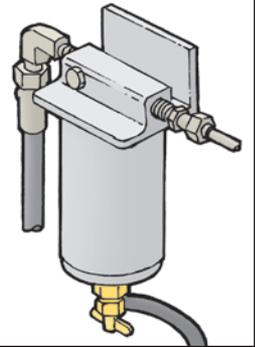
HEAT: To keep the engine from overheating, inspect the **engine air filter/air cleaner**. Look for cracks and dents. Also look for dirt and clogging. A clog chokes off air to the engine, making it work harder. Clean or replace the filter/cleaner as needed.

Field maintenance must remove and replace the engine air filter/air cleaner at least as often as the PMCS interval schedule requires.

The 3-kw TQG is cooled by two fans. Inspect the cooling fans for damage. Make sure the blades turn smoothly. Replace the fans if necessary. Also check the engine's cylinder fins for dirt and debris. Clean if necessary.

Read your TMs. In the pages following the PMCS tables, you'll find work packages for the general inspection and service of both the generator and engine.

If there's water in fuel/water separator, drain it



You're Responsible

OPERATORS AND FIELD MAINTAINERS ARE REQUIRED TO PERFORM **ALL** PREVENTIVE MAINTENANCE CHECKS AND SERVICES ASSIGNED TO THEM.

LACK OF PMCS HAS CAUSED THE TQGS AND BETS-CS TO **SHUT DOWN**. PERFORMING PMCS BY THE BOOK WILL KEEP THEM RUNNING.

