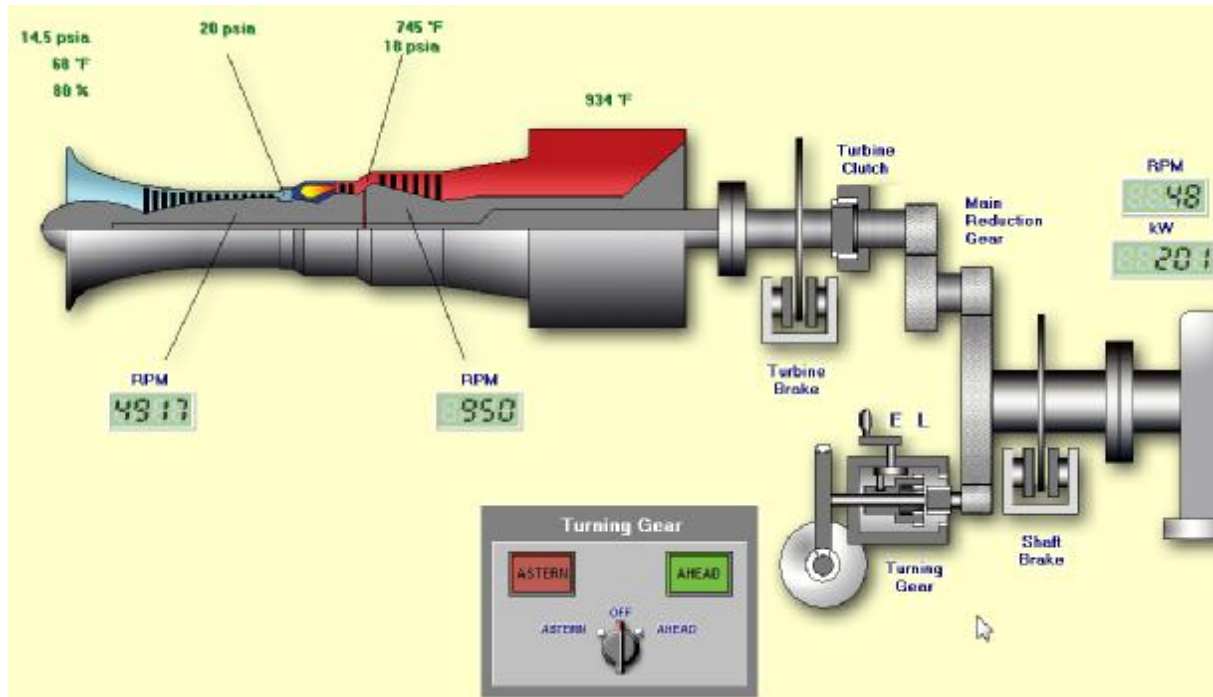


Gas Turbine Simulator

Gas Turbine Simulator (GTS) is the simulator of the navy type engine room powered by a two shaft gas turbine.



GTS includes the animation of the main reduction gear, turbine clutch, brakes and the turning gear in all operational modes:

The main educational tasks, which can be accomplished with **GTS** are listed below:

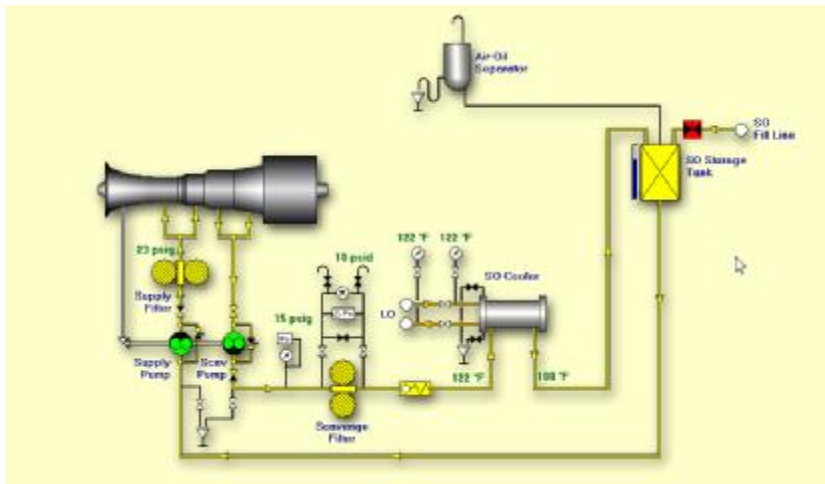
- Learning gas turbine engine room **operating routines** with the support of the integrated **checklists**.
- Ship's engine room **operation training**. The user will be able to accomplish any operational task starting from pre-prepared or previously saved **exercises**.
- Training in corrective action when faults occur. **Different faults** can be mixed in the run-time or loaded from disk.

GTS

GTS simulator model includes the following systems:



- The main engine (two shaft gas turbine with ca. 25000 kW of power at 3600 rpm at the output shaft) powers the controllable pitch propeller (CPP) via main reduction gear
- The engine control from control room (CCS) and bridge. Both: remote manual and programmed control are possible.
- Fuel system.
- Synthetic oil system.
- Gear oil system.
- Sea water system.
- Starting air system.
- Washing system.
- Fire fighting system.
- Automated control system.
- Monitoring system.

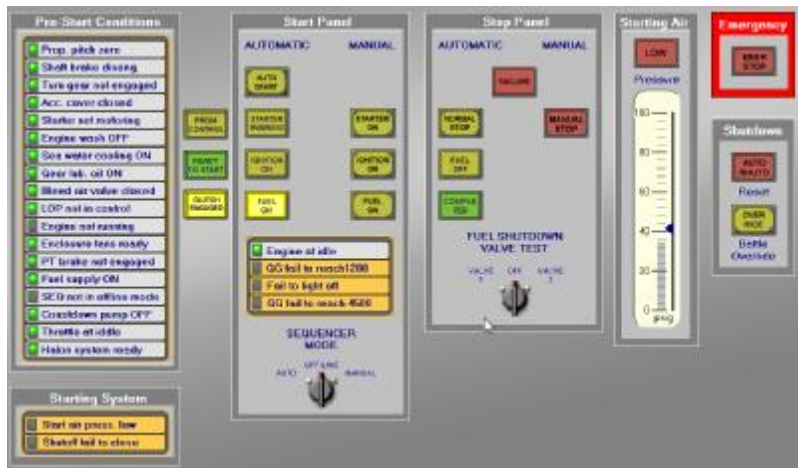


Here is a list of GTS main features:

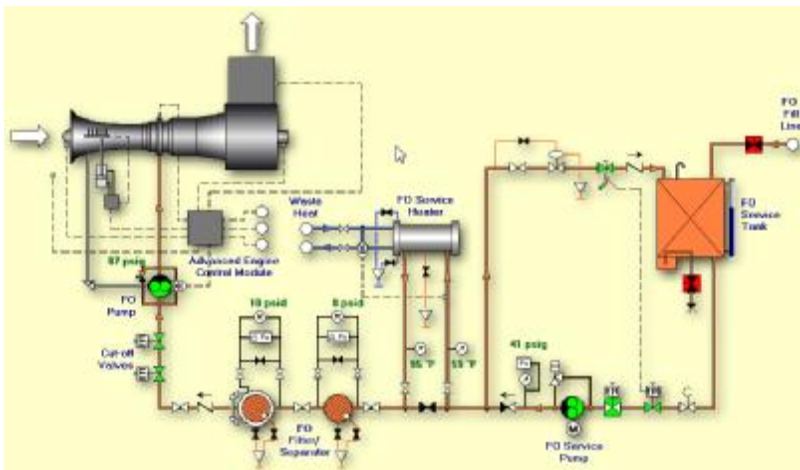
- GTS is a **highly realistic simulator** for ship's engine room training which can also be used as a low cost introductory simulator.
- The mathematical model simulates a typical navy type engine room with a **standard gas turbine engine** and its auxiliary systems.
- The realistic simulation of the electronic control system has been implemented.
- **Mimic diagrams** with active valves, pump status indicators, tank level indicators and selected digital gauges make the system easy to use.
- Multichannel **digitised sound** provides a very realistic ship's engine feel. The sound effects include: gas turbine sound correlated with engine speed, the sound of a starting combustion chamber and machine telegraph buzzers. The volume level for all sound channels can be freely selected according to personal preferences.
- It is possible to switch on fly between **British and Metric units**.

GTS

GTS offers different types of user interface:



The control panels include very realistic, animated virtual controls like switches, gauges and lamps. The control panels imitate the most important parts of the control room equipment.



The mimic diagrams show the gas turbine auxiliary systems and include all active controls necessary for the normal operation. The main operational parameters are displayed directly at the diagrams.

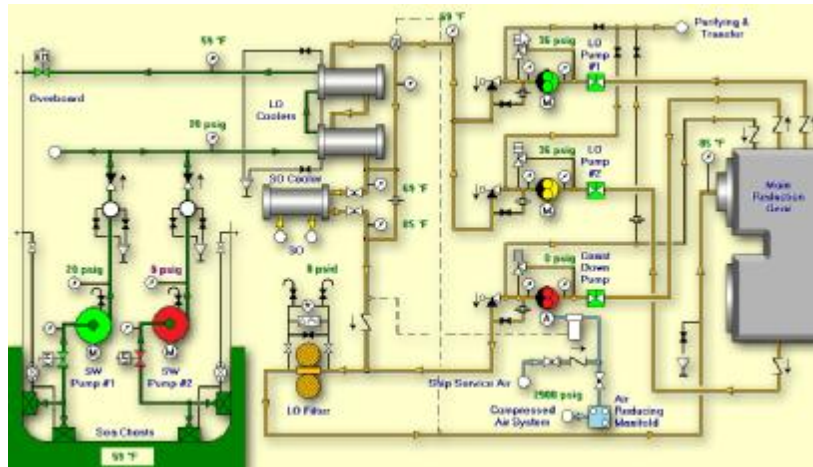


The bridge control panel enables the remote operation of the gas turbine engine.

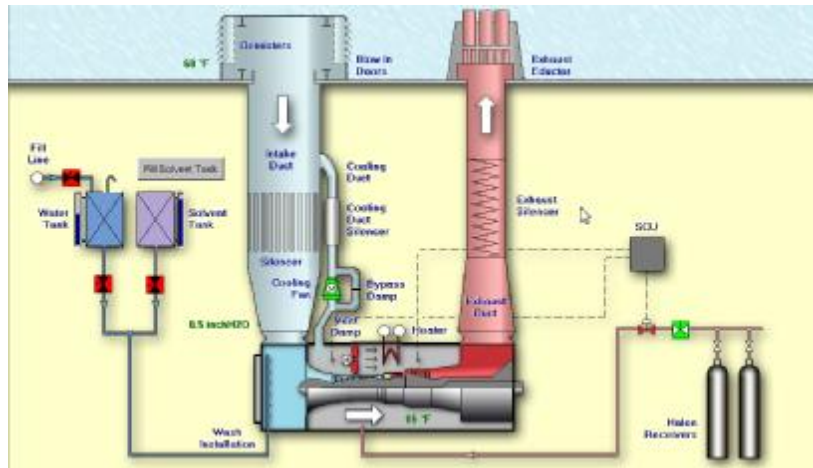
GTS

Other examples of **GTS** auxiliary systems are shown below:

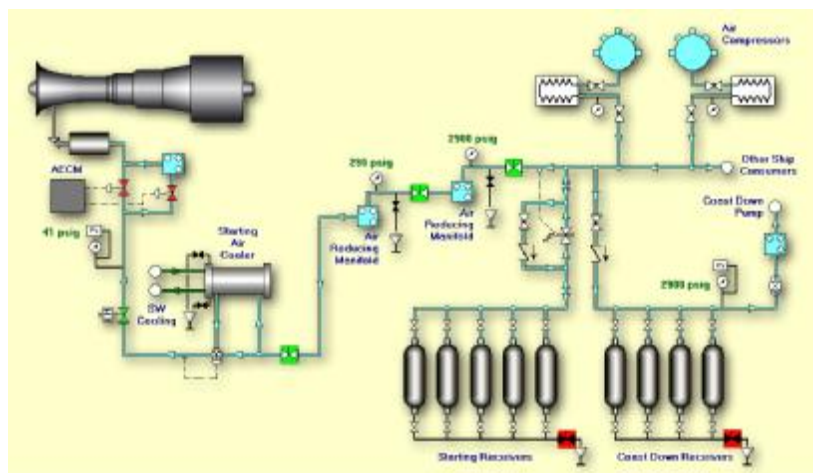
The gear oil and the sea water system have been integrated in the one diagram. The different operation modes of the circulation pumps are possible.



The enclosure diagram includes also the washing system and the fire fighting system. The operation of the blow-in doors and the dampers has been integrated as well.



The navy type starting air system has been simulated in detail.



For further information please contact: