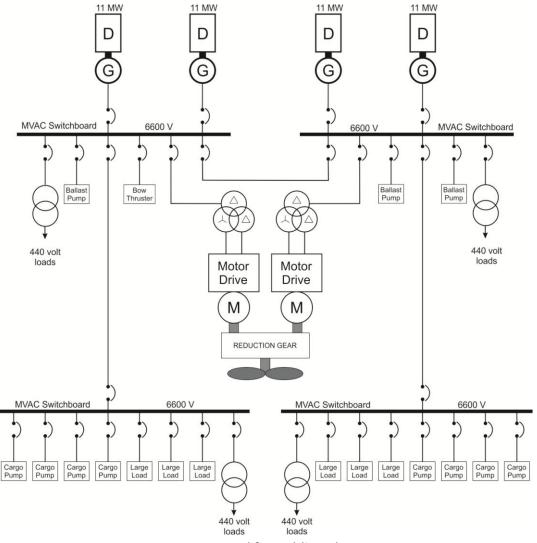
## Electric Ship Power and Energy System Architectures

Dr. Norbert Doerry
Dr. John Amy Jr.
IEEE ESTS 2017
August

### **Existing Ships**

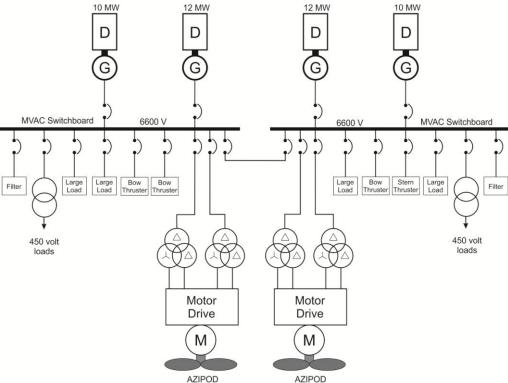
#### Liquefied Natural Gas (LNG) Carrier



#### Cruise Ship



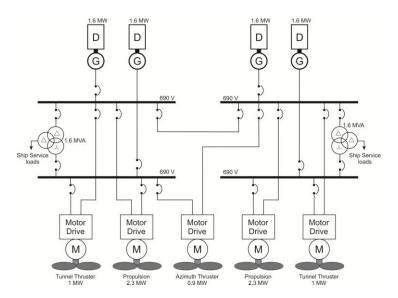
Regal Princess (Photo by Norbert Doerry)

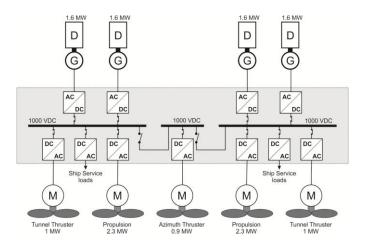


#### Platform Supply Vessel



Siem Symphony (photo by DXR: https://creativecommons.org/licenses/by-sa/4.0/)

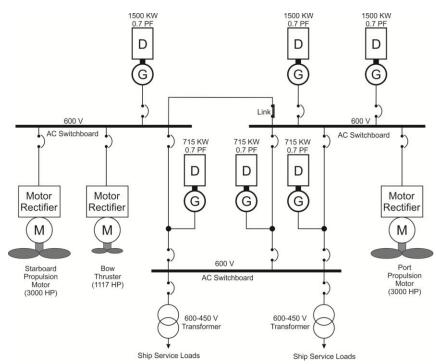




# T-AGOR 23 Thomas G. Thompson



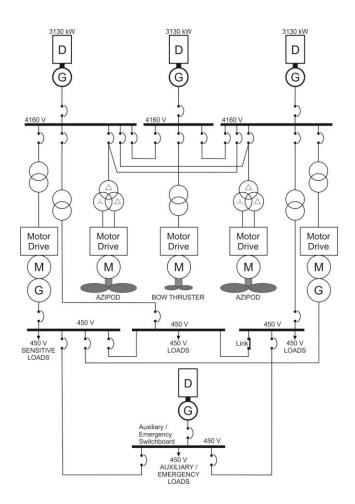
Photo by Doug Russell, University of Washington



# WLBB 30 USCGC Mackinaw



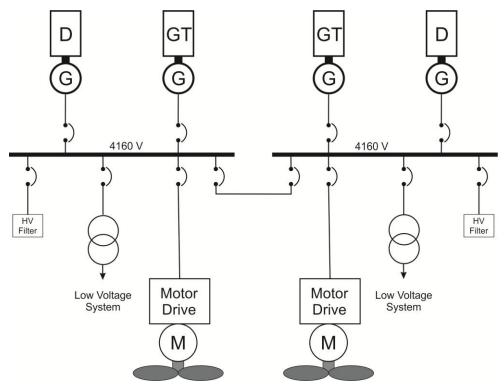
USCGC Mackinaw (WLBB 30) (US Coast Guard Photo by PA3 George Degener)



#### **HMS** Daring



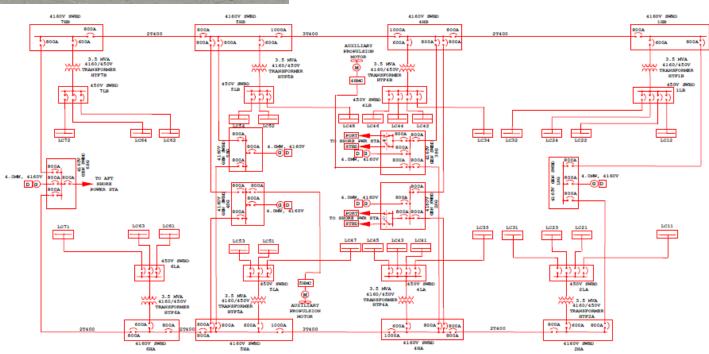
HMS Daring (CC-BY-SA-3.0/Brian Burnell)





#### USS Makin Island LHD8

US Navy photo by Brett A. Anderson



Thomas Dalton, Abe Boughner, C. David Mako, and CDR Norbert Doerry, "LHD 8: A step Toward the All Electric Warship", presented at ASNE Day 2002.

ALL LOAD CENTERS ARE 2000A

- "\*", "\", "\", "\", "\" = INTERLOCKED
  ALL 4160V CABLE TO BE TYPE LS5KV