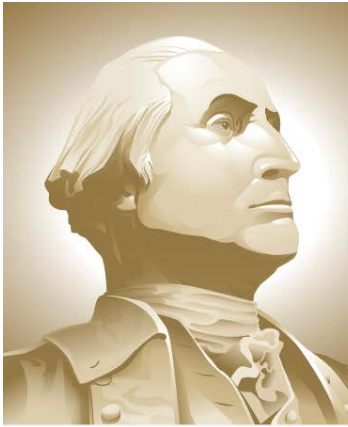


# VTRA 2010

## WHAT IF SCENARIO SIMULATION

Presentation by: Jason R. W. Merrick



THE GEORGE  
WASHINGTON  
UNIVERSITY

WASHINGTON, DC

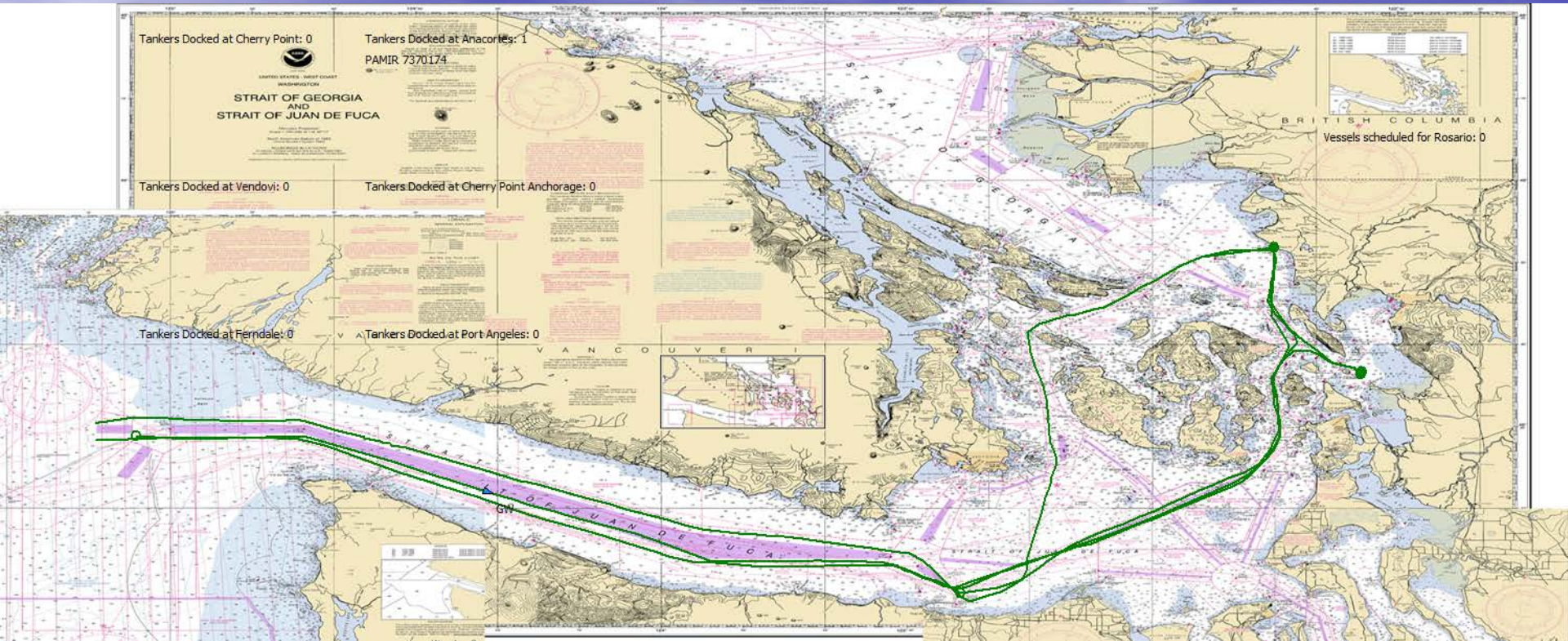
VCU

**GWU Personnel:** Dr. J. Rene van Dorp

**VCU Personnel:** Dr. Jason R. W. Merrick

**JUNE 5, 2013**

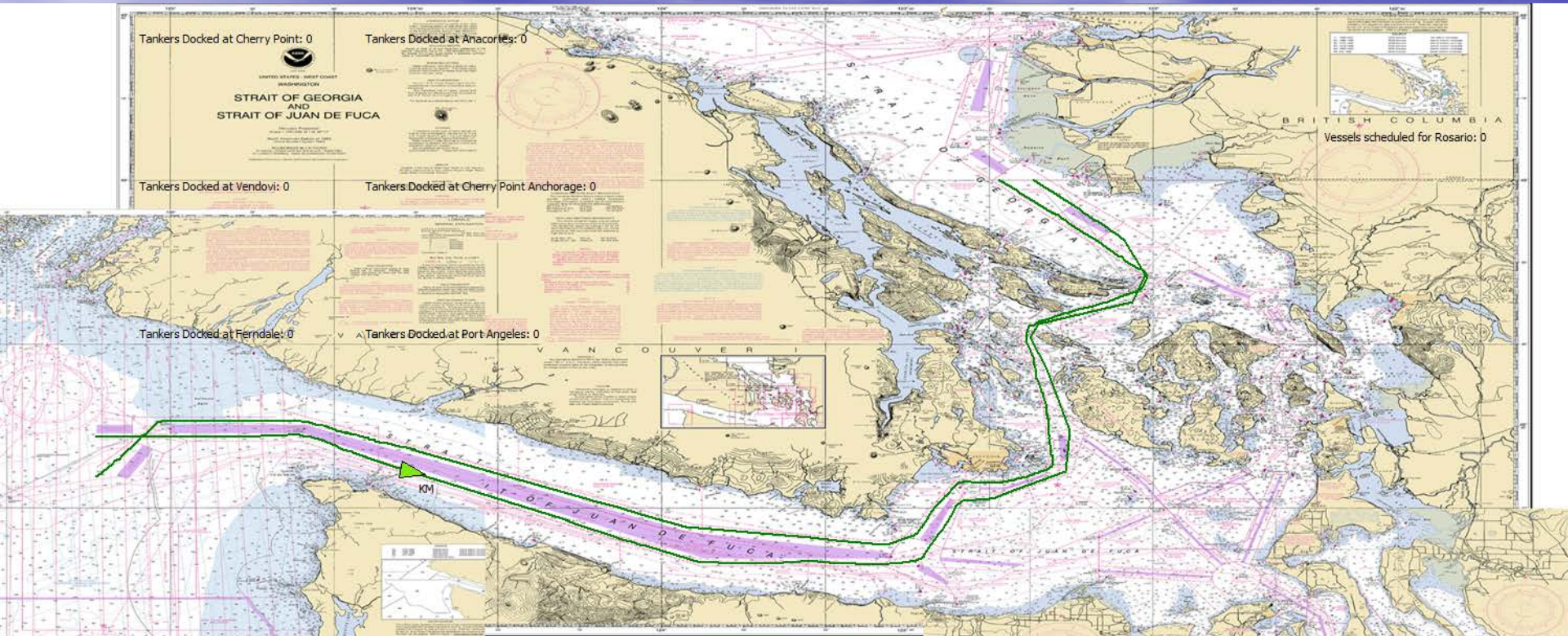
# GATEWAY PACIFIC TERMINAL



- ADD 487 BULK CARRIERS
- OUTBOUND VESSELS USE HARO IF ROSARIO IS BUSY
- 47% OF INCOMING VESSELS DETOUR FOR BUNKERING
- 50% CASE ADDS 243 BULK CARRIERS



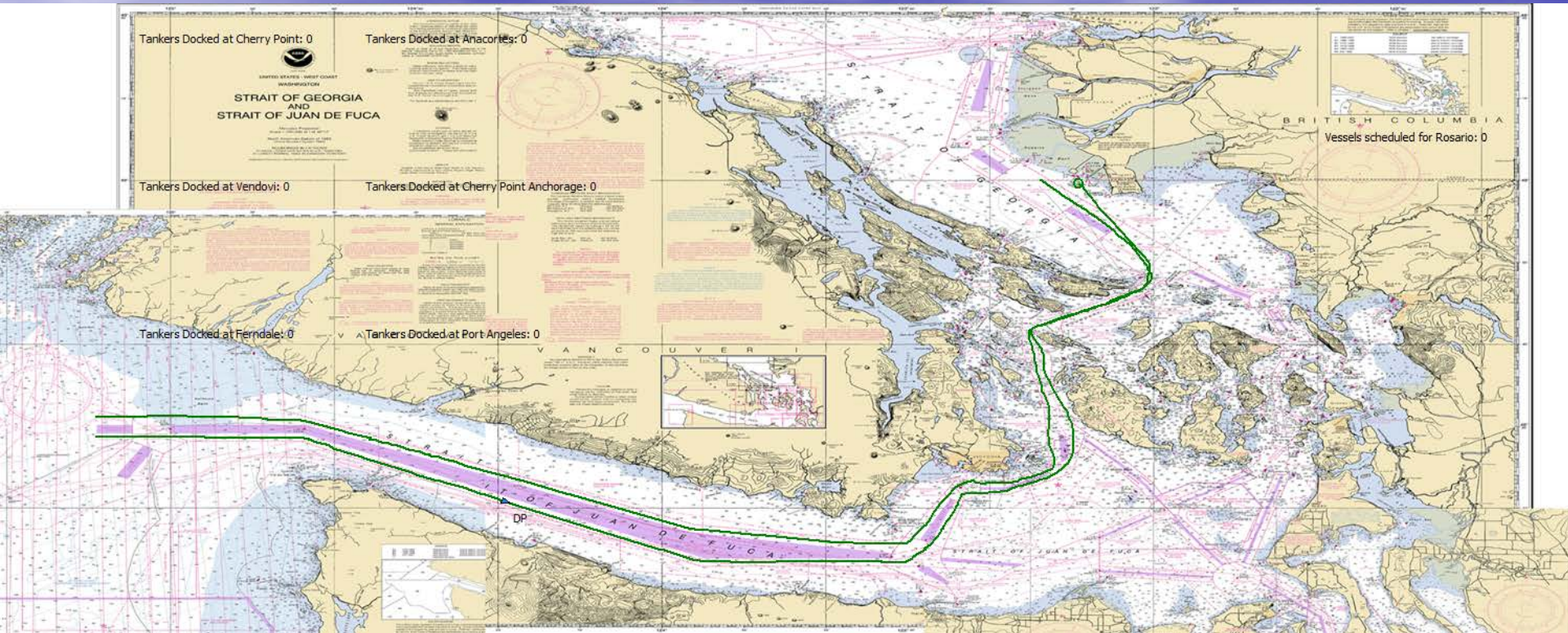
# KINDER MORGAN



- ADD 358 OIL TANKERS
- ALL VESSELS USE HARO STRAIT
- 21 BUNKERING TRANSITS
- 50% CASE ADDS 179 OIL TANKERS



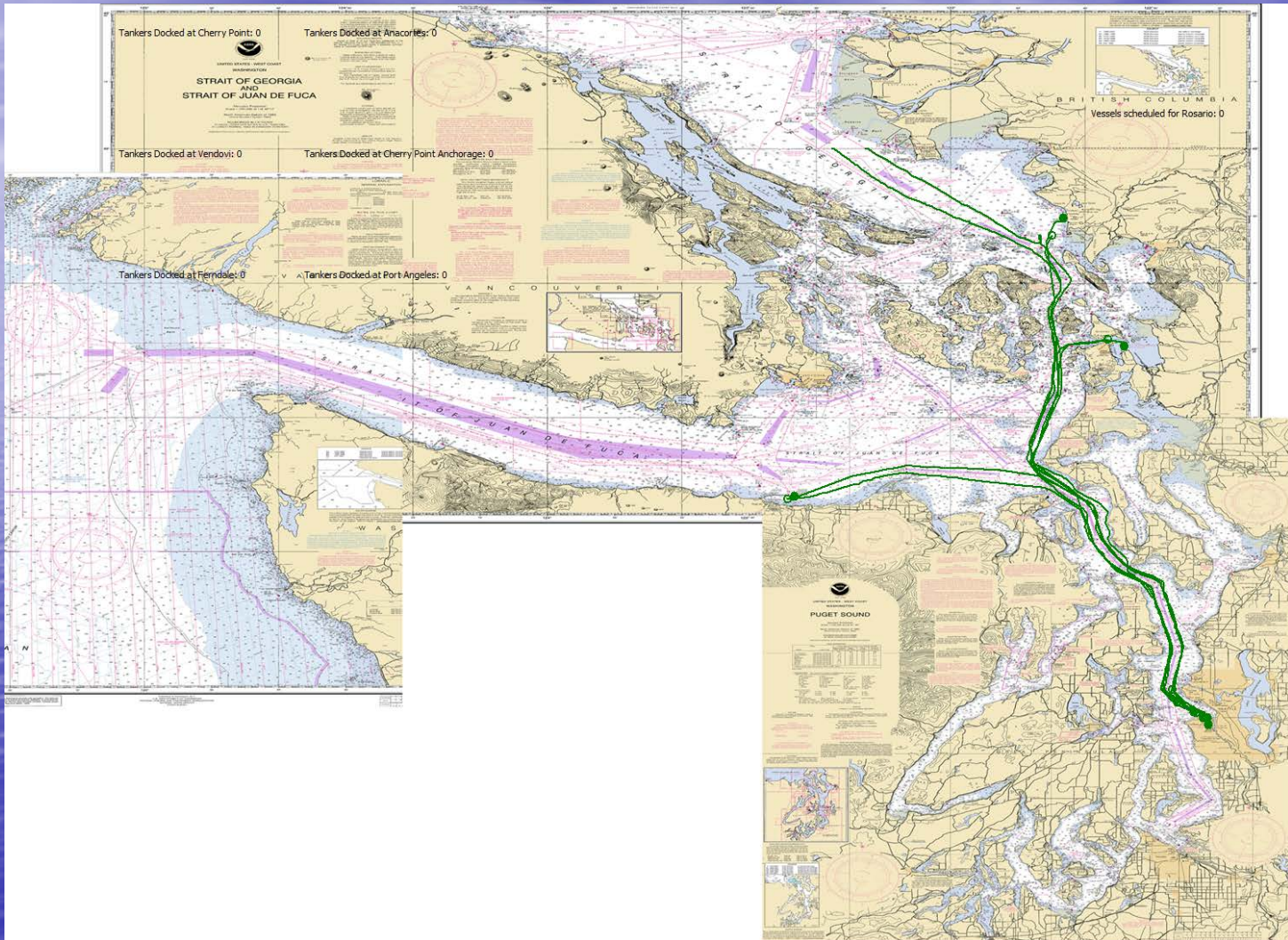
# DELTA PORT



- ADD 348 BULK CARRIERS AND 67 CONTAINER VESSELS
- ALL VESSELS USE HARO STRAIT
- 40 BUNKERING TRANSITS
- 50% CASE ADDS 174 BULK CARRIERS AND 33 CONTAINERS



# BUNKERING SUPPLY TRANSITS



- ADD TUGS WITH OIL BARGES