

VESSEL TRAFFIC RISK ASSESSMENT (VTRA) 2010

3D Relative Risk Profile Comparison
Oil Time Exposure

CASE P: BASE CASE & CONTAINER 17 KNOTS MAX

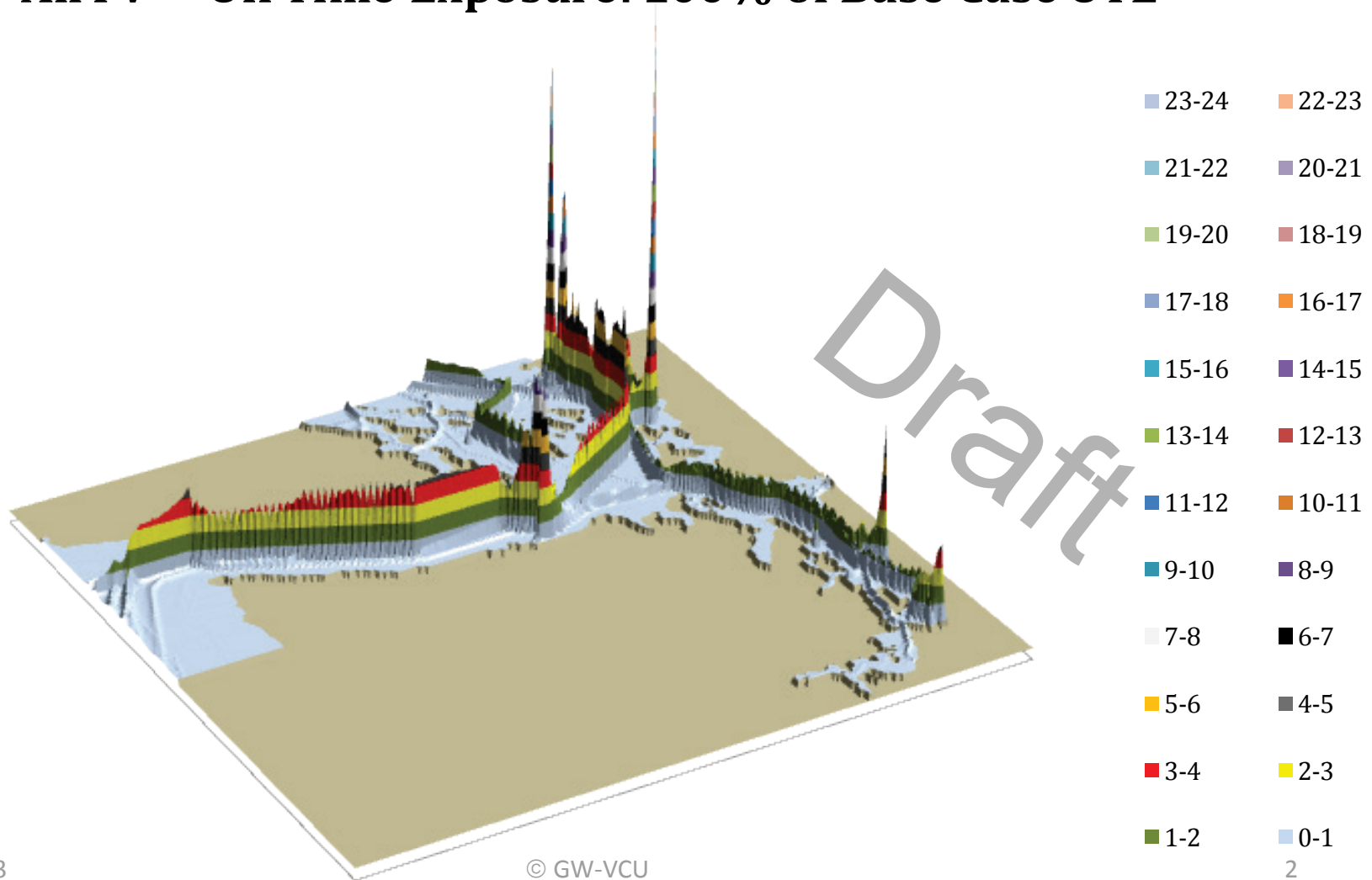
Dr. J. Rene van Dorp and Dr. Jason R.W Merrick

November 2013



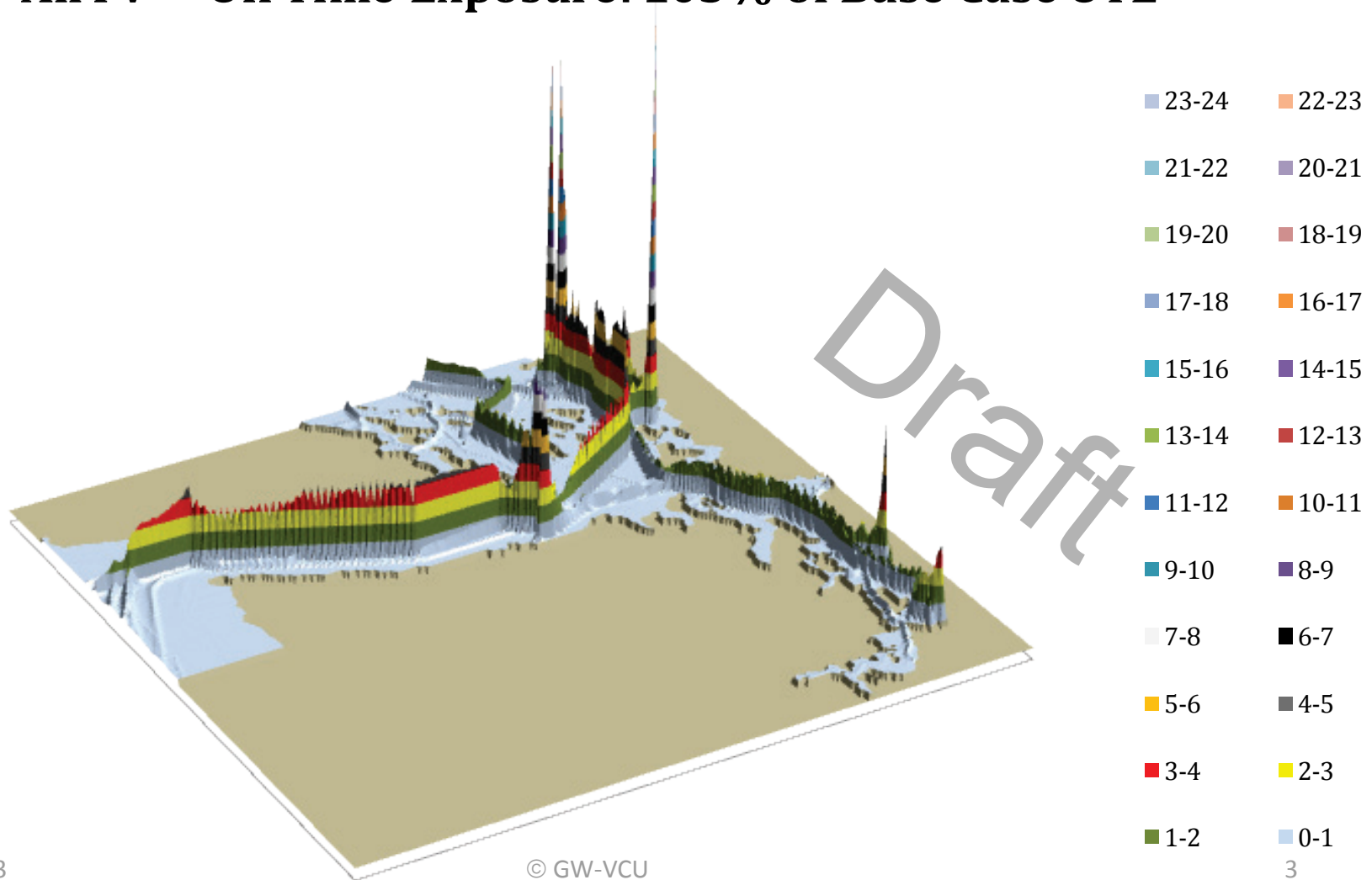
VESSEL TRAFFIC RISK ASSESSMENT (VTRA) 2010

P: Base Case 3D Risk Profile All FV - Oil Time Exposure: 100% of Base Case OTE



VESSEL TRAFFIC RISK ASSESSMENT (VTRA) 2010

P: BC & CONT 17KNTS 3D Risk Profile All FV - Oil Time Exposure: 103% of Base Case OTE



VESSEL TRAFFIC RISK ASSESSMENT (VTRA) 2010

P: VTRA 2010 - BASE CASE - All FV

100.0%

13.0%

54.4%

33.5%

Factor x Average
Oil Outflow

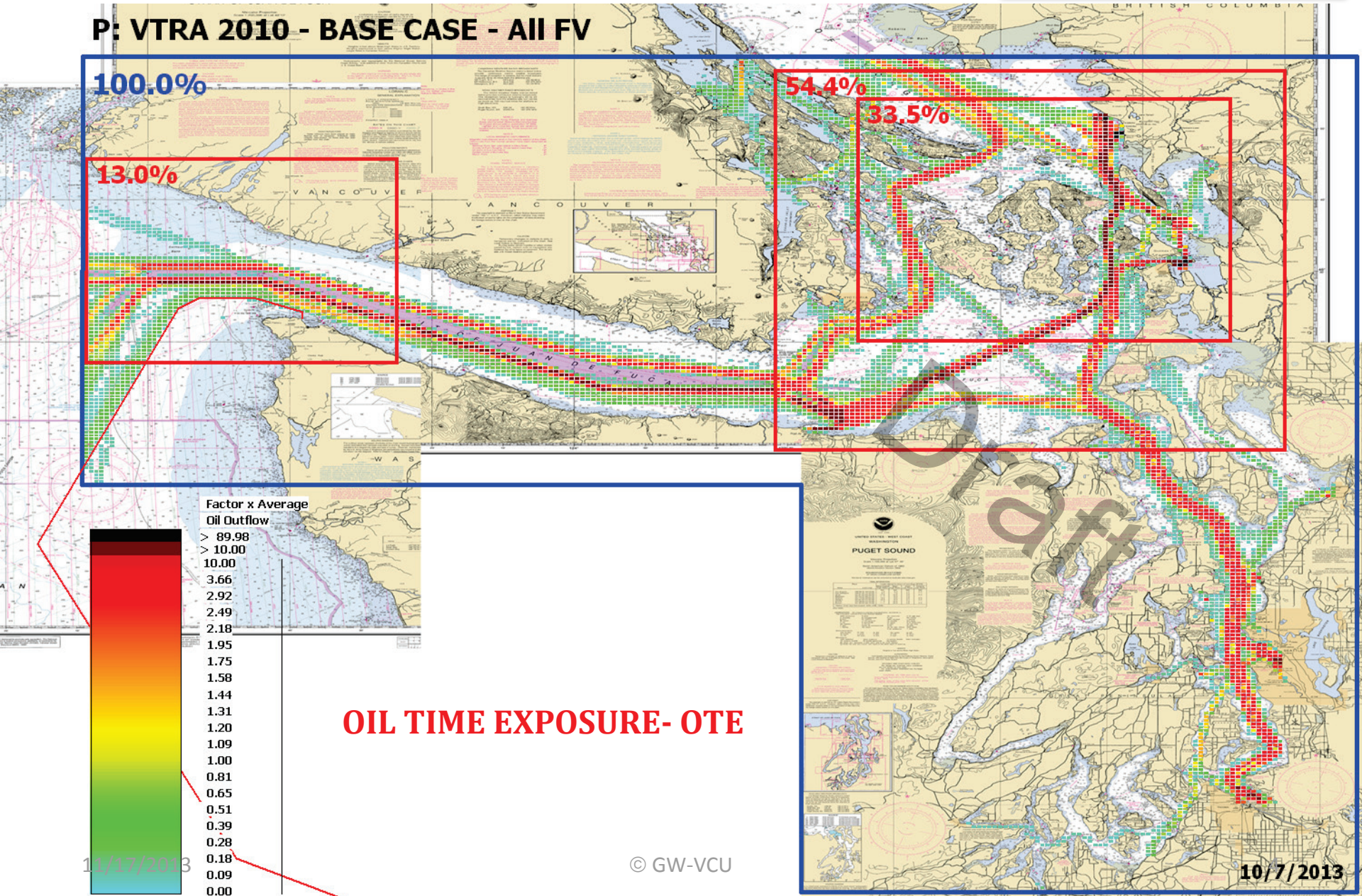
- > 89.98
- > 10.00
- 10.00
- 3.66
- 2.92
- 2.49
- 2.18
- 1.95
- 1.75
- 1.58
- 1.44
- 1.31
- 1.20
- 1.09
- 1.00
- 0.81
- 0.65
- 0.51
- 0.39
- 0.28
- 0.18
- 0.09
- 0.00

OIL TIME EXPOSURE- OTE

11/17/2013

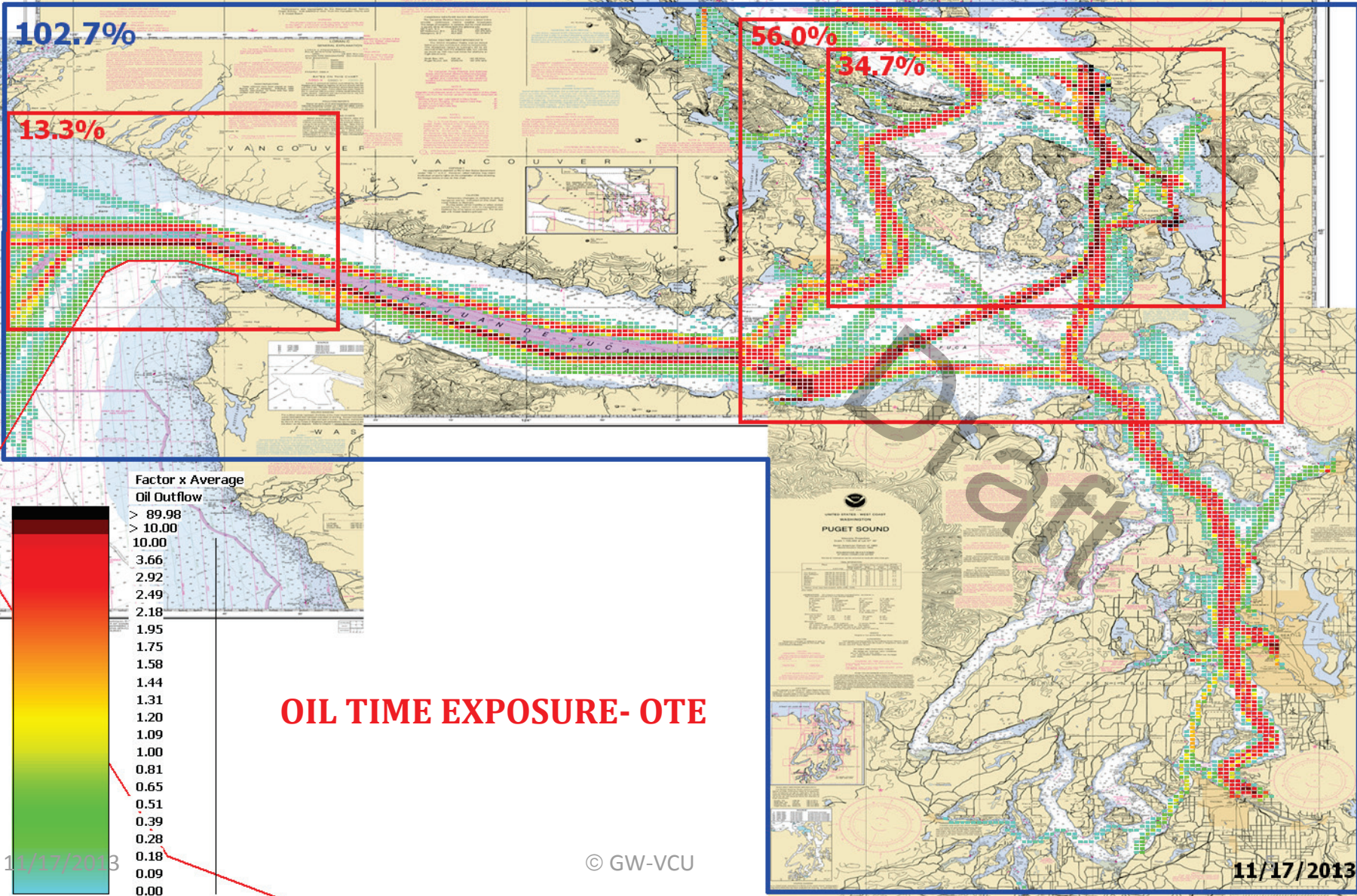
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10/7/2013



VESSEL TRAFFIC RISK ASSESSMENT (VTRA) 2010

P: BC & Slow containers to 17 knots max speed - All FV



OIL TIME EXPOSURE- OTE

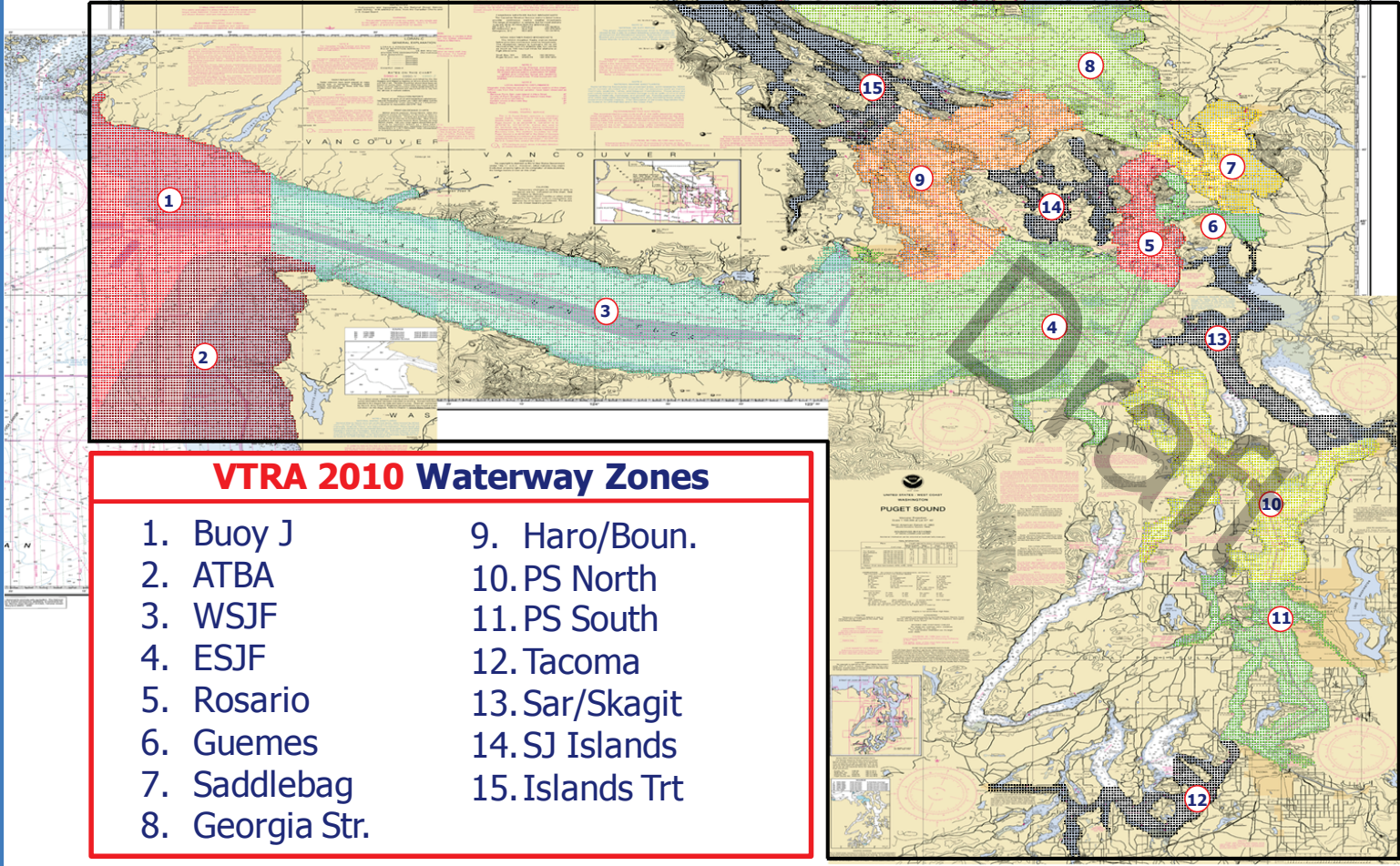
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VESSEL TRAFFIC RISK ASSESSMENT (VTRA) 2010

DEFINITION OF 15 WATERWAY ZONES



VESSEL TRAFFIC RISK ASSESSMENT (VTRA) 2010

% Base Case Oil Time Exposure - ALL_FV

Waterway Zone:

