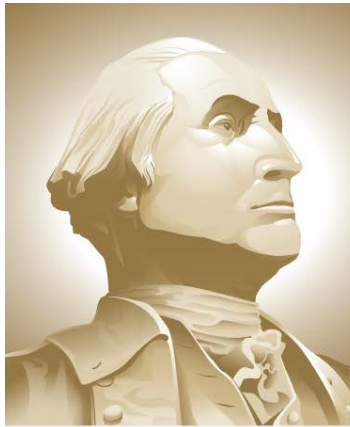


VTRA 2010

TRAFFIC DENSITY ANALYSIS

BY LOCATION - ALL TRAFFIC

Presentation by: J. Rene van Dorp



**THE GEORGE
WASHINGTON
UNIVERSITY**

WASHINGTON, DC

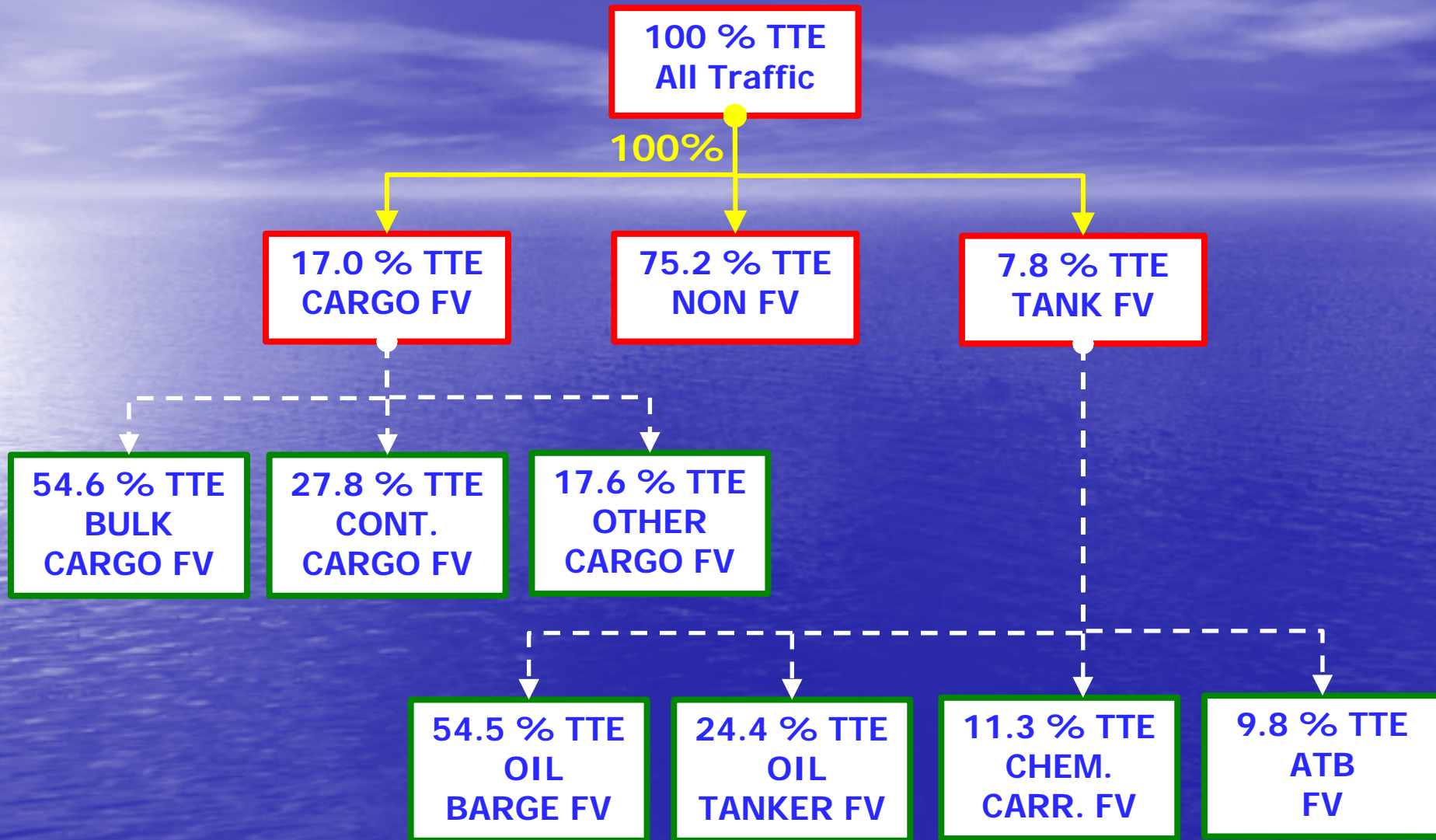
**V
C
U**

GWU Personnel: Dr. J. Rene van Dorp

VCU Personnel: Dr. Jason R. W. Merrick

June 5, 2013

A TAXONOMY OF 2010 VESSEL TRAFFIC

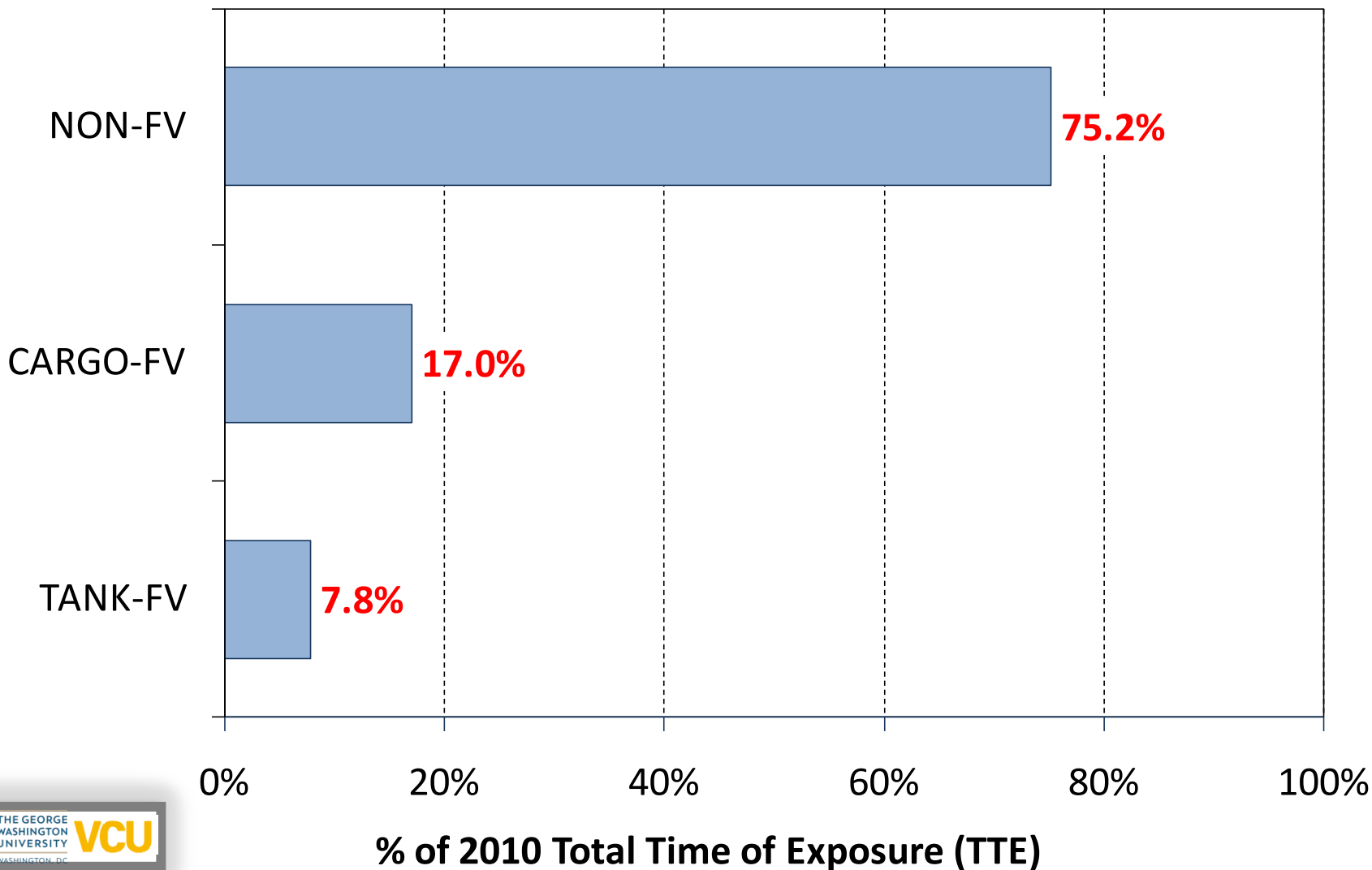


TTE = TOTAL TIME EXPOSURE:

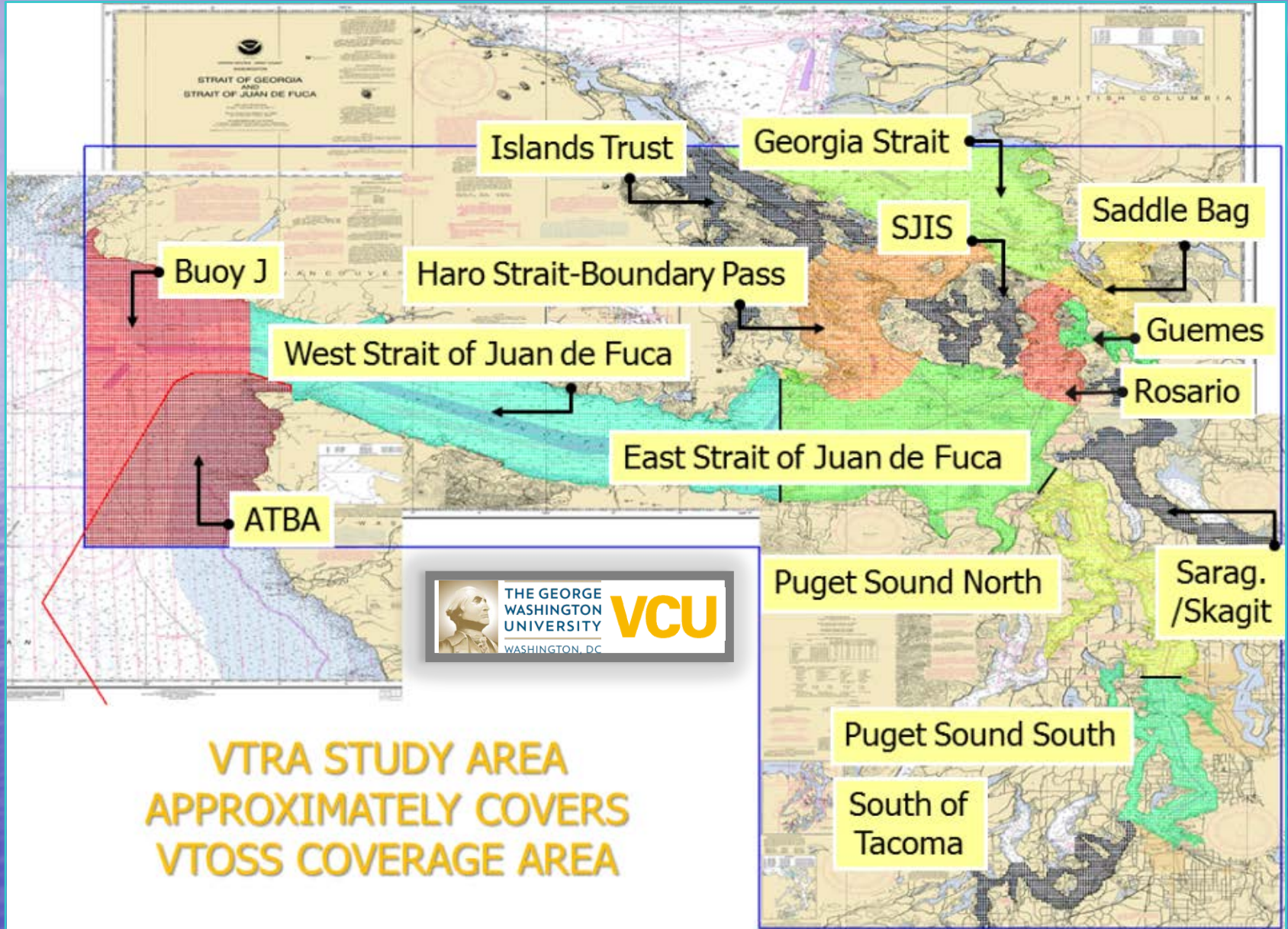
TOTAL AMOUNT OF ANNUAL TIME A VESSEL IS MOVING IN THE VTRA STUDY AREA

VTRA MODEL - VTOSS 2010

VESSEL CLASSIFICATION



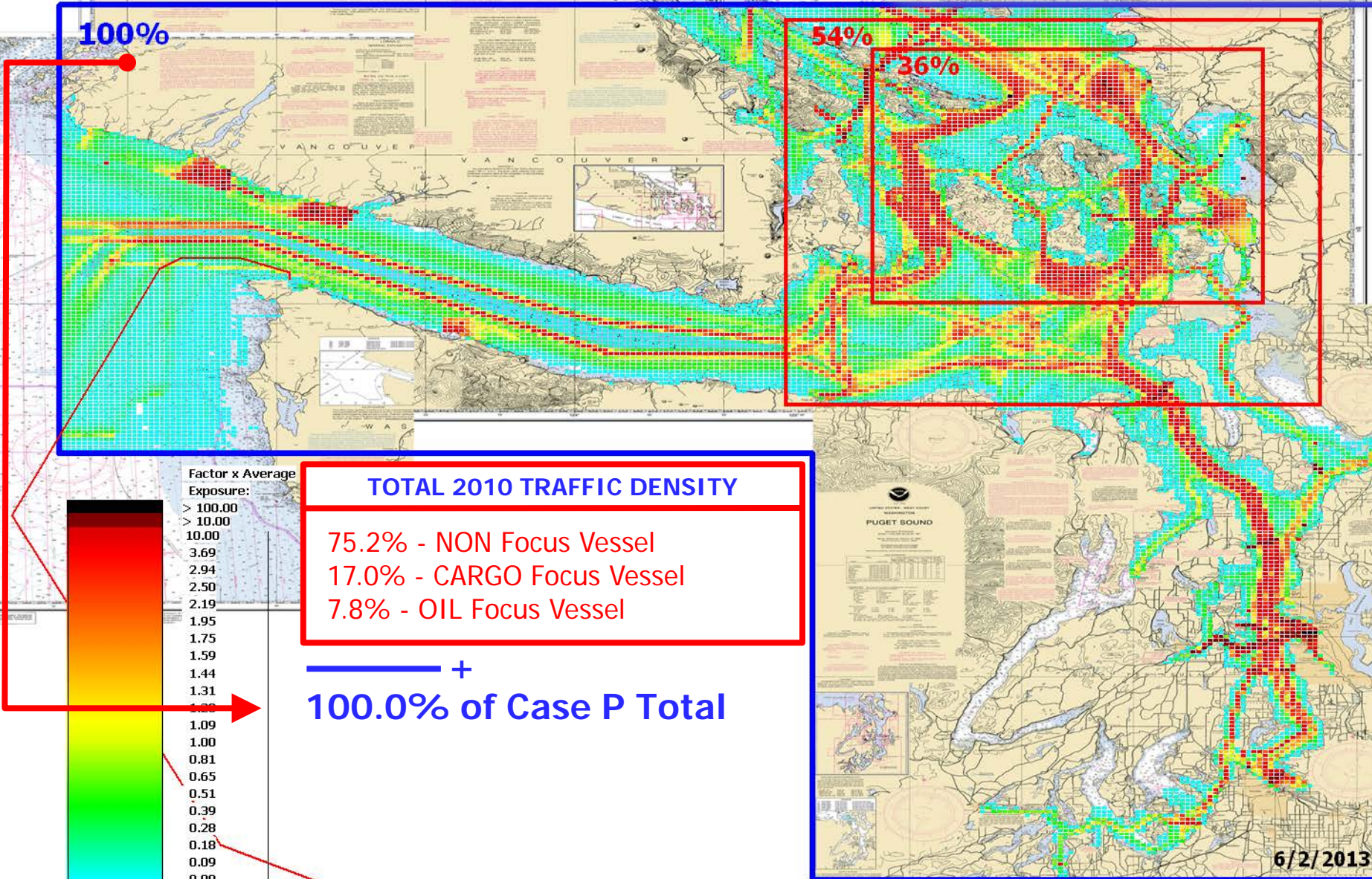
Location definitions used in the GW/VCU MTS simulation model.



100% of Total Traffic Density



P: VTRA 2010 - Total Density



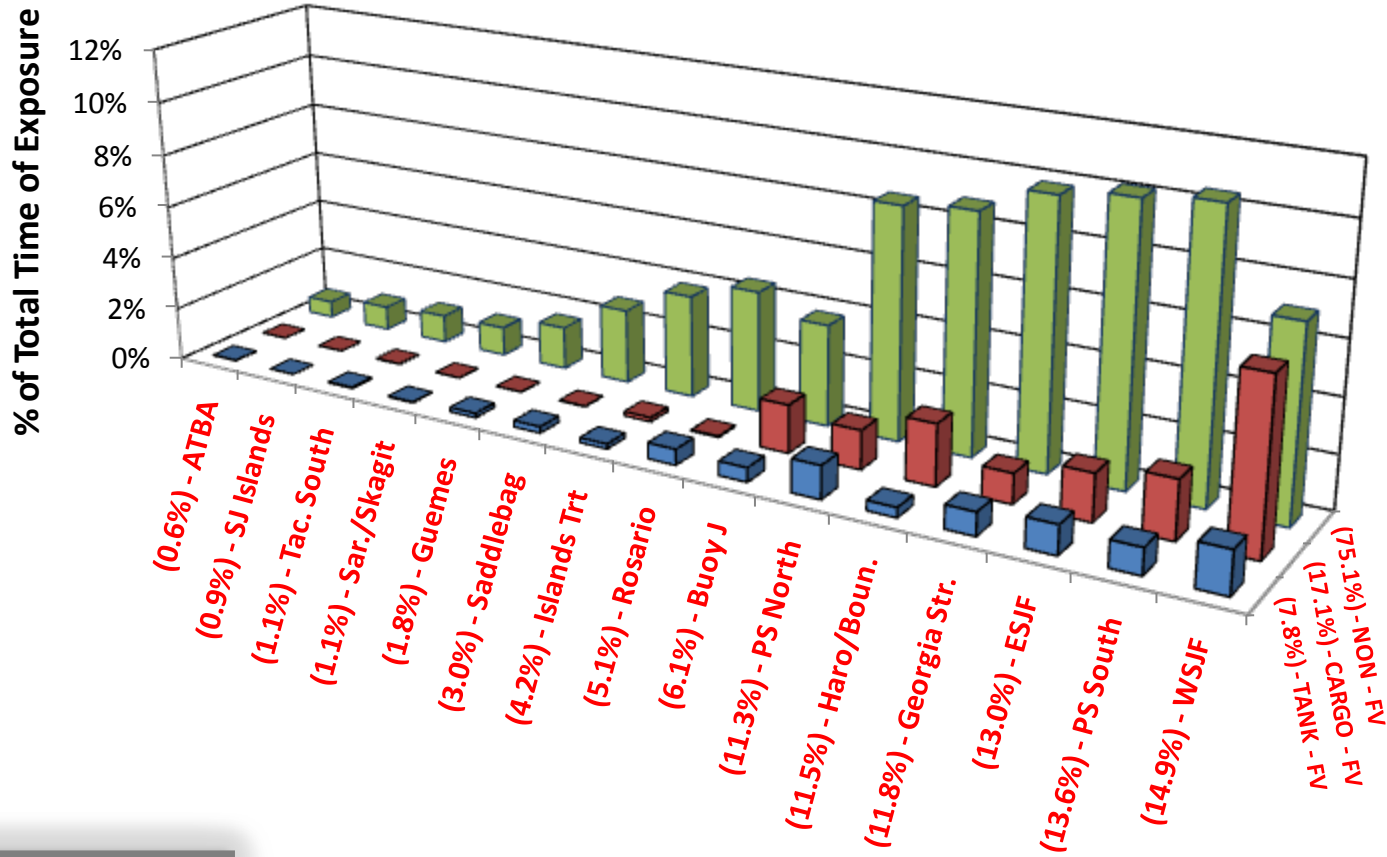
TOTAL 2010 TRAFFIC DENSITY

- 75.2% - NON Focus Vessel
- 17.0% - CARGO Focus Vessel
- 7.8% - OIL Focus Vessel

— +
100.0% of Case P Total

Traffic Density by Location – All Traffic

VTRA MODEL - VTOSS 2010 - 100% of TRAFFIC



2010 Traffic Density Analysis by Location – All Traffic

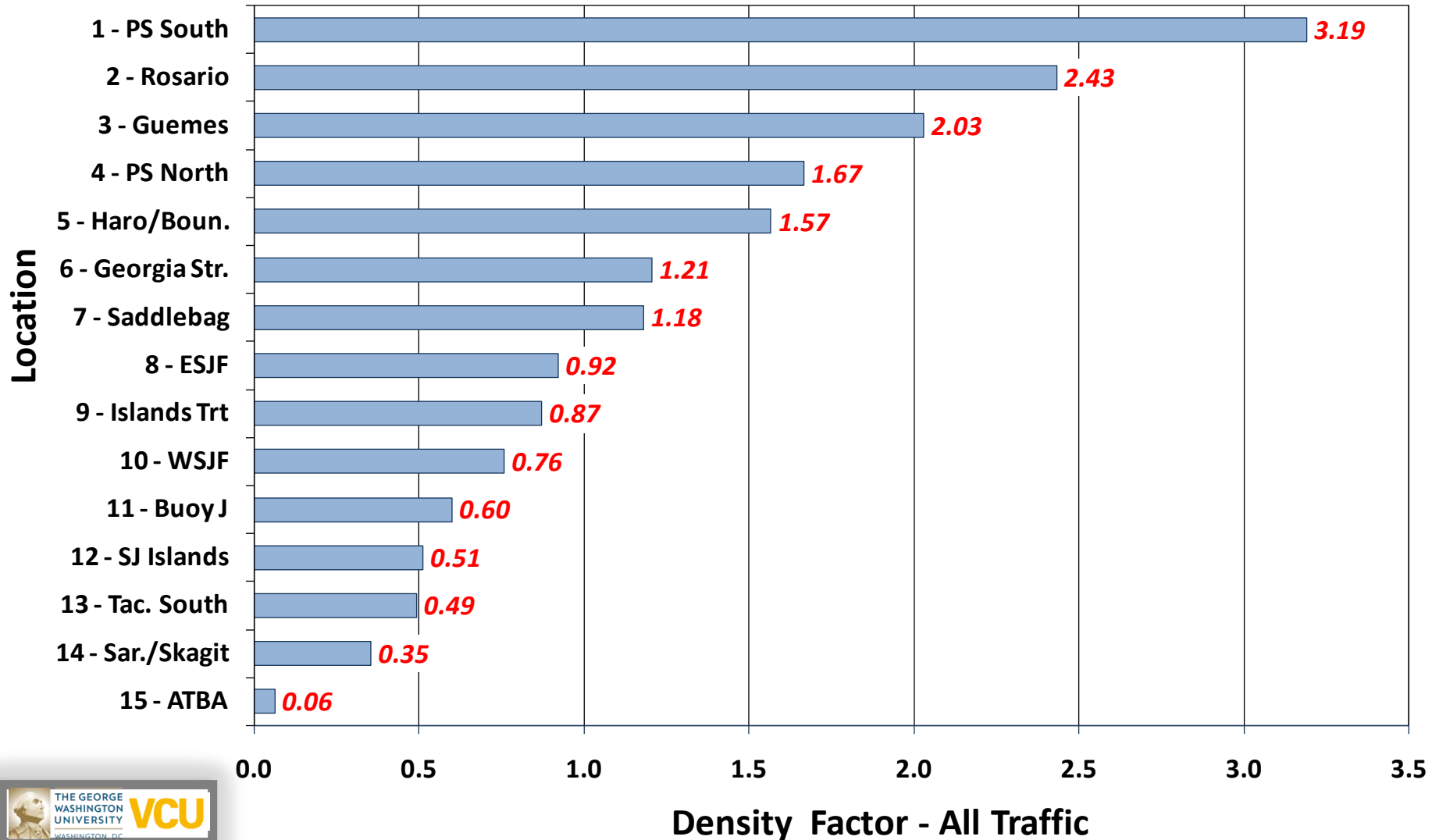
<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>	<i>Column 4</i>	<i>Column 5</i>	<i>Column 6</i>	<i>Column 7</i>
LOCATION	# Grid Cells	% Area	# Days Vessel is Moving per year	Average # of Vessels in Location	% of Total Time of Exposure	Density Factor (DF)
WSJF	2857	19.6%	3870	10.6	14.9%	0.76
PS South	619	4.3%	3528	9.7	13.6%	3.19
Guemes	127	0.9%	461	1.3	1.8%	2.03
ESJF	2049	14.1%	3375	9.2	13.0%	0.92
Georgia Str.	1424	9.8%	3068	8.4	11.8%	1.21
PS North	983	6.8%	2926	8.0	11.3%	1.67
Saddlebag	375	2.6%	791	2.2	3.0%	1.18
Haro/Boun.	1066	7.3%	2983	8.2	11.5%	1.57
Rosario	307	2.1%	1334	3.7	5.1%	2.43
Buoy J	1478	10.2%	1582	4.3	6.1%	0.60
ATBA	1520	10.5%	168	0.5	0.6%	0.06
Tac. South	326	2.2%	286	0.8	1.1%	0.49
SJ Islands	259	1.8%	237	0.6	0.9%	0.51
Sar./Skagit	459	3.2%	290	0.8	1.1%	0.35
Islands Trt	696	4.8%	1084	3.0	4.2%	0.87
Total	14545	100.0%	25982	71.2	100.0%	1.0



Locations ranked by Density Factor – All Traffic

VTRA
2010

Density Factor (DF) by Location - All Vessels =
100% of total traffic i.e. 100% of Non-FV and FV-Traffic



Locations ranked by Density Factor – All Traffic

VTRA
2010

Total Time Exposure (TTE) by Location - All Vessels =
100% of total traffic i.e. 100% of Non-FV and FV-Traffic

