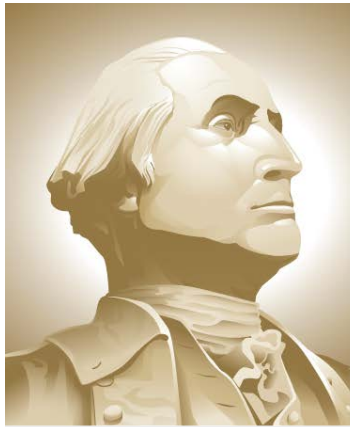


VTRA 2010

TRAFFIC DENSITY ANALYSIS

BY LOCATION CARGO – FOCUS VESSELS

Presentation by: J. Rene van Dorp



**THE GEORGE
WASHINGTON
UNIVERSITY**

WASHINGTON, DC

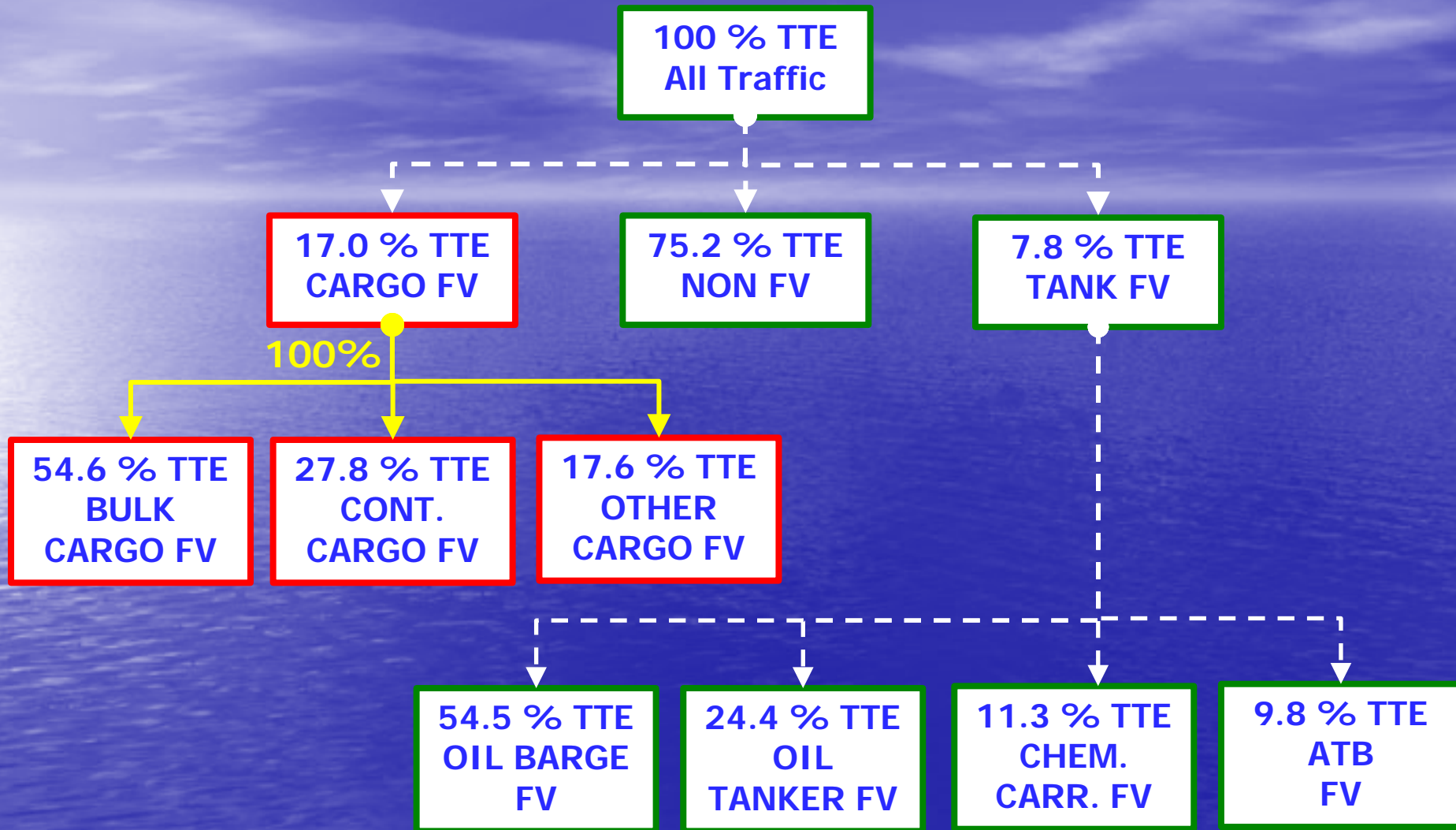
**V
C
U**

GWU Personnel: Dr. J. Rene van Dorp

VCU Personnel: Dr. Jason R. W. Merrick

JUNE 5, 2013

A TAXONOMY OF 2010 VESSEL TRAFFIC

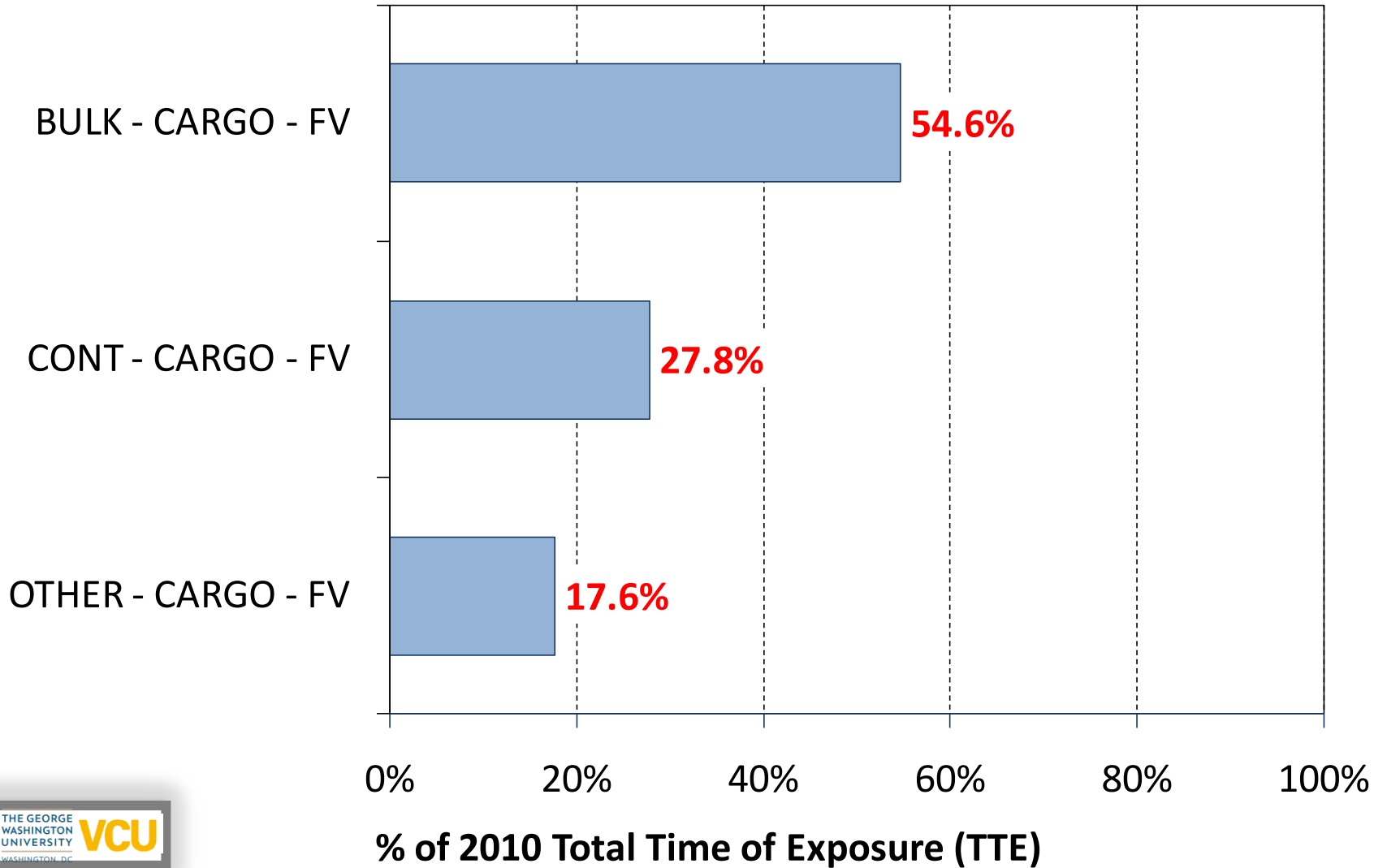


TTE = TOTAL TIME EXPOSURE:

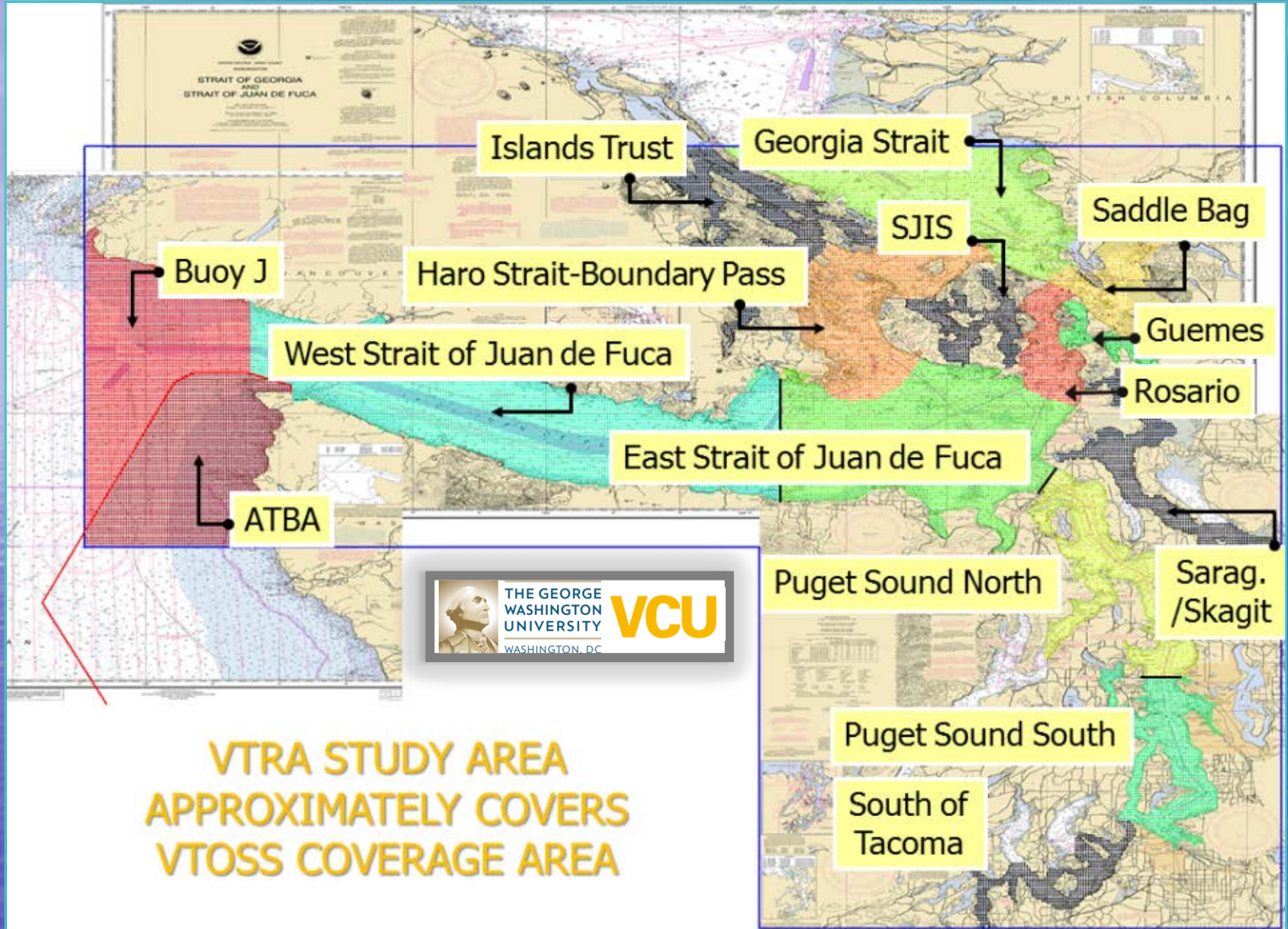
TOTAL AMOUNT OF ANNUAL TIME A VESSEL IS MOVING IN THE VTRA STUDY AREA

VTRA MODEL - VTOSS 2010

CARGO FV - CLASSIFICATION



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

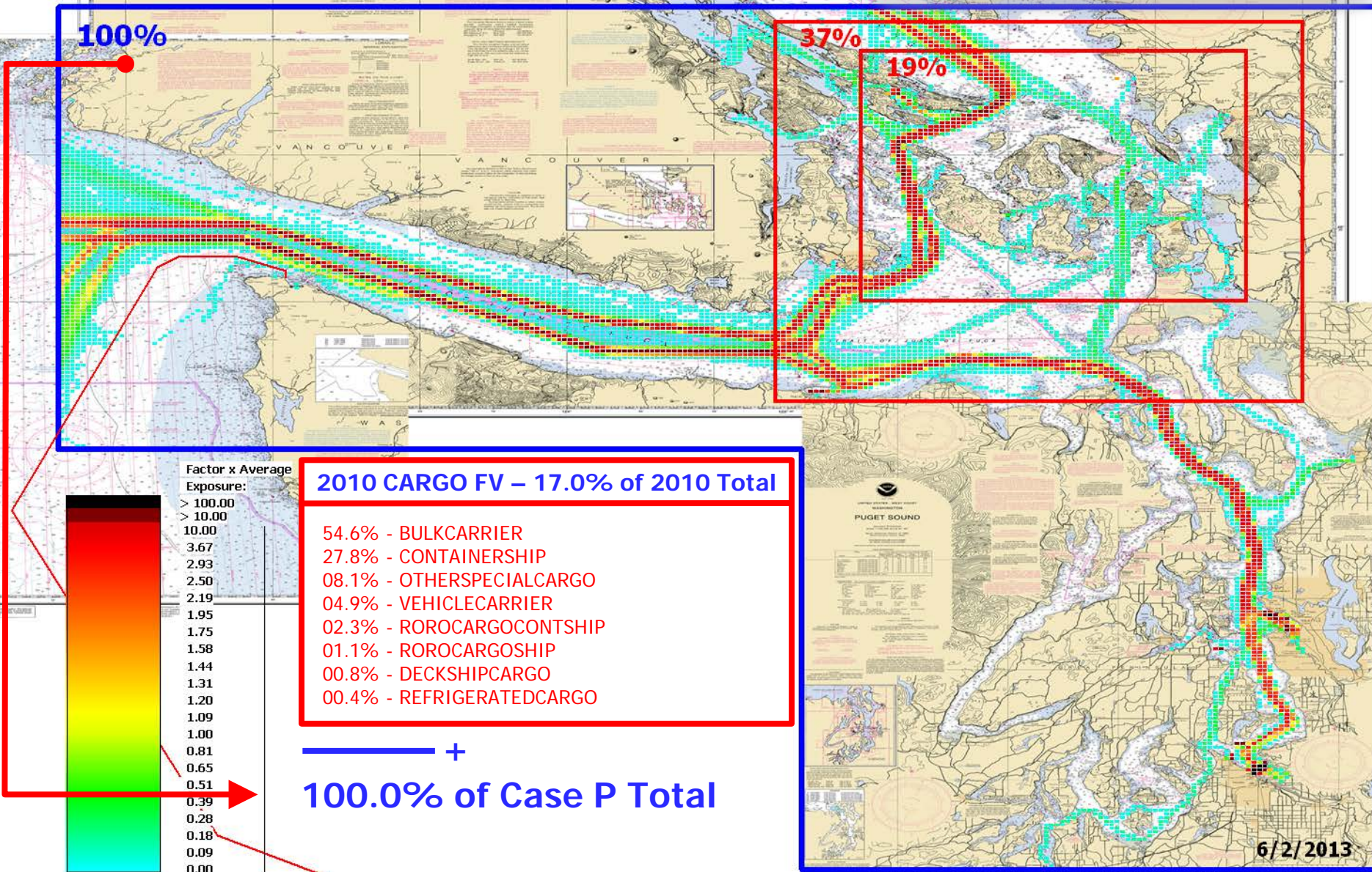


**VTRA STUDY AREA
APPROXIMATELY COVERS
VTOSS COVERAGE AREA**

17.0% of Total Traffic Density

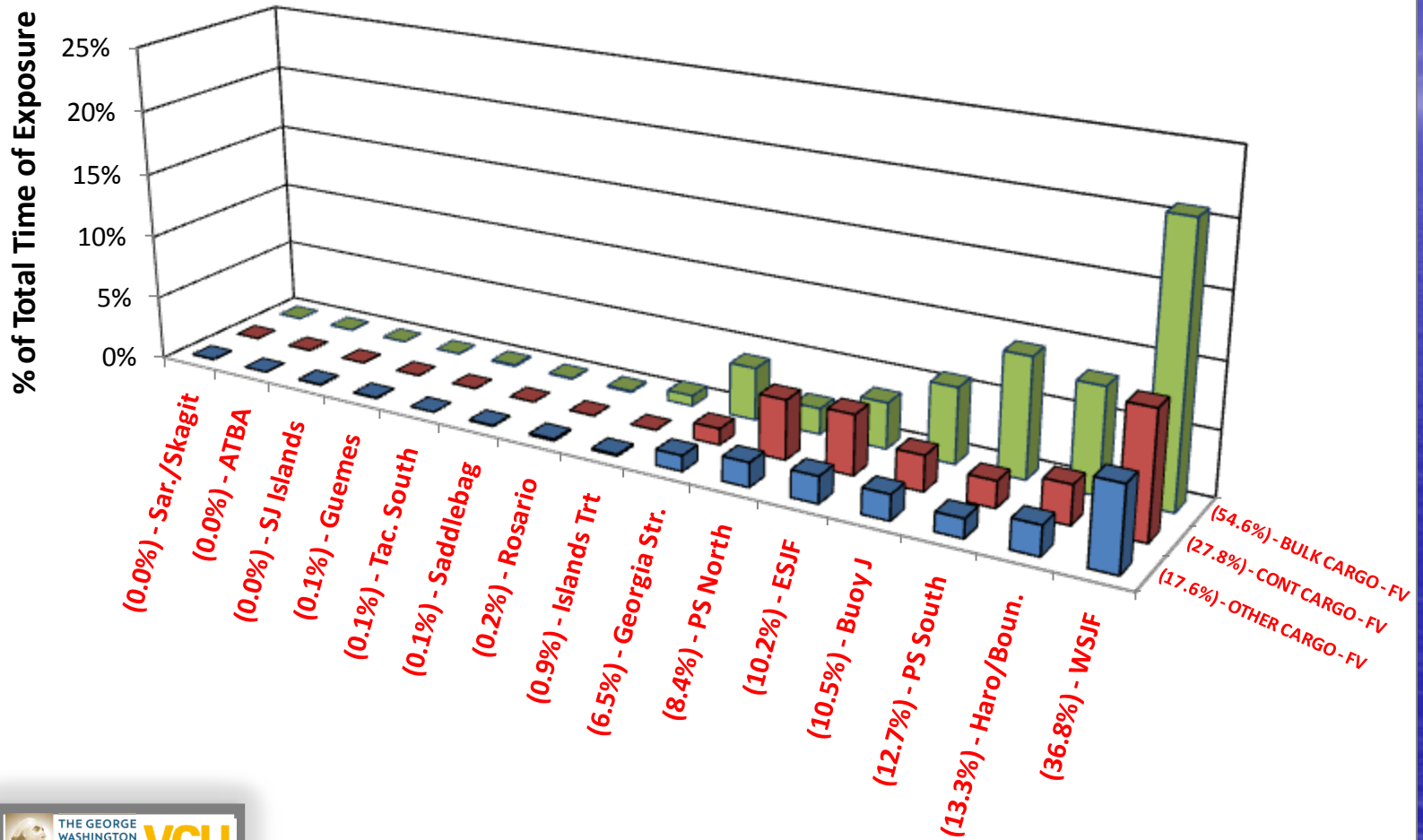


P: VTRA 2010 - CARGO Focus Vessel Density



Traffic Density by Location – Cargo Focus Vessel Traffic

VTRA MODEL - VTOSS 2010 - 17% of TRAFFIC - 100% of CARGO FV



2010 Traffic Density Analysis by Location limited to Cargo-Focus Vessels

<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%	1631	4.5	36.8%	1.87
PS South	619	4.3%	561	1.5	12.7%	2.98
Guemes	127	0.9%	3	0.0	0.1%	0.07
ESJF	2049	14.1%	452	1.2	10.2%	0.72
Georgia Str.	1424	9.8%	289	0.8	6.5%	0.67
PS North	983	6.8%	374	1.0	8.4%	1.25
Saddlebag	375	2.6%	5	0.0	0.1%	0.04
Haro/Boun.	1066	7.3%	591	1.6	13.3%	1.82
Rosario	307	2.1%	10	0.0	0.2%	0.11
Bouy J	1478	10.2%	464	1.3	10.5%	1.03
ATBA	1520	10.5%	2	0.0	0.0%	0.00
Tac. South	326	2.2%	5	0.0	0.1%	0.05
SJ Islands	259	1.8%	2	0.0	0.0%	0.02
Sar./Skagit	459	3.2%	1	0.0	0.0%	0.01
Islands Trt	696	4.8%	41	0.1	0.9%	0.19
Total	14545	100.0%	4432	12.1	100.0%	1.0



↑
Column 4

 365

↑
Column 4

 Tot. Col. 4

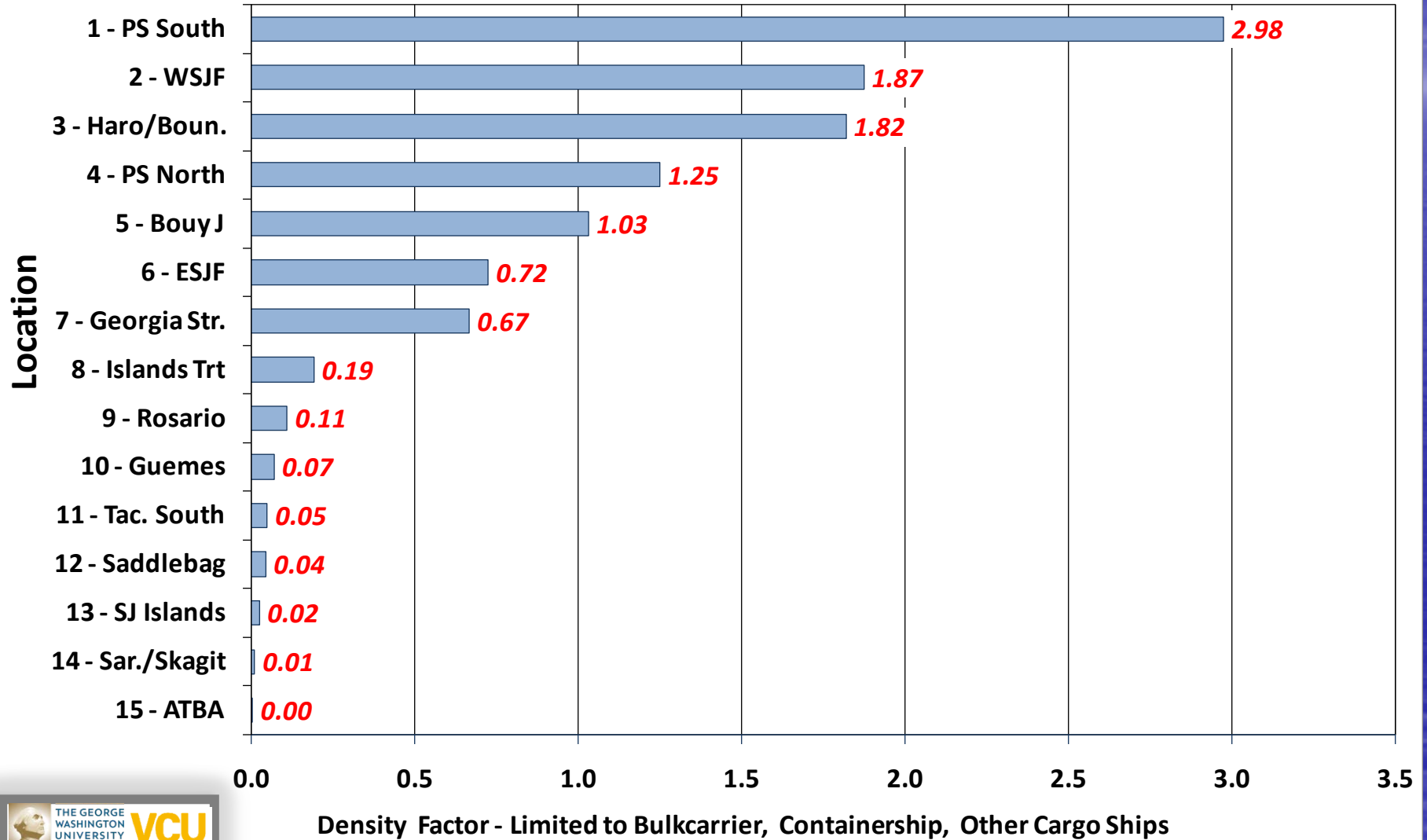
↑
Column 4

 Column 3

Locations ranked by Density Factor limited to Cargo Focus Vessels

**VTRA
2010**

**Density Factor (DF) by Location - Cargo Focus Vessel only =
17.0% of total traffic - 68.5% of FV Traffic**



Locations ranked by Density Factor limited to Cargo Focus Vessels

**VTRA
2010**

**Total Time Exposure (TTE) by Location - Cargo Focus Vessel
only = 17.0% of total traffic - 68.5% of FV Traffic**

