Northern Virginia Regional Commission

REGIONAL COMMUTER FAST FERRY INFRASTRUCTURE GAP ANALYSIS

Project Development

Fast Ferry Policy Committee Meeting #4

September 21, 2017

Prepared by:

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Elliott Bay Design Group

Architectural & Engineering Services for the Marine Industry

Today's Agenda

- Welcome & Self-Introductions
- Introductions
- Reports:
  - Development of Travel Demand Model
  - Information from FTA
- Site Visits
  - The Yards
  - The Wharf
  - Diamond Teague Park
  - Georgetown
- Vessel/Terminal Technical Specs
- Other Matters of Interest
- Next meeting Thursday, October 26 - National Harbor

Reports

- Development of Travel Demand Model
- Information from FTA

The Yards

Diamond Teague Park

The Wharf

Georgetown – Washington Harbor

Infrastructure Gaps

The difference between what exists today and what is needed to establish a commuter ferry operation within the next five years.

Looking for:

- Sites where grant funds can be used to improve the terminal
- Sites that make sense in terms of meeting the commute needs of the intended population

Initial Criteria and Evaluation

Terminal Site / Evaluation Criteria	Occoquan Marina	Belmont Bay (1) George Mason	Belmont Bay (2) Current Marina	Belmont Bay (3) Restaurant site	National Harbor	JBAB South	JBAB North	The Wharf	Diamond Teague Park	The Yards	Georgetown
Location suitabilty for commuter market	5	4	4	3	5	4	5	5	5	5	5
Transit Connections											
Present	1	1	1	1	4	1	1	4	4	5	5
Degree of improvement required	1	1	1	1	3	1	1	5	3	4	2
Transit Access Improvements											
Needed	1	1	1	1	5	1	1	5	5	5	5
Feasibile	4	4	4	1	5	4	5	5	5	5	5
Parking											
Present	3	1	2	1	NA	NA	NA	NA	NA	NA	NA
Degree of improvement needed	3	2	3	1	NA	NA	NA	NA	NA	NA	NA
Access improvements feasible	3	4	4	1	NA	NA	NA	NA	NA	NA	NA
Docking Facilites											
Adequate navigational space	3	5	5	5	5	4	5	5	5	4	3
Substantial in water construction required	1	1	3	1	5	1	2	5	5	5	3
Shoreside pedestrian access upgrades	3	1	1	1	5	4	3	5	5	5	5
Degree of passenger amentiy improvements	3	1	2	1	5	2	2	5	4	4	4
Compatible adjacent land uses	5	4	4	2	5	4	5	5	5	5	5
Compatible adjacent marine activities	5	5	2	5	5	2	5	5	5	5	3
Degree of site control possible (lease or ownership)	5	5	3	1	1	5	5	3	4	4	4
Significant additional ferry run time	1	4	4	5	1	4	5	4	5	5	2
Dregding needed	2	2	5	5	3	5	5	5	5	5	5
Cost of access	2	2	1	1	2	3	3	3	5	3	4
Suitability for application of FTA funds	3	4	3	2	1	5	5	1	4	1	3

Vessel/Terminal Design

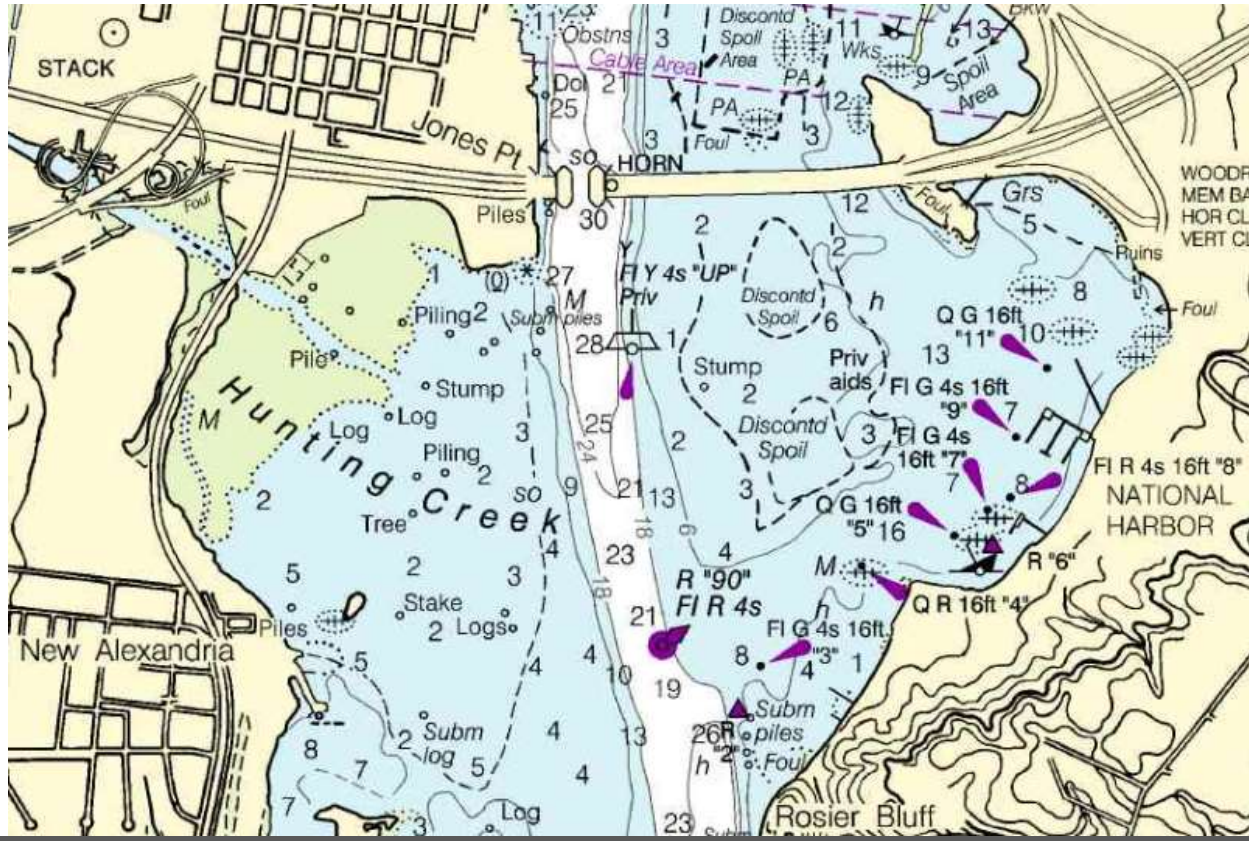
Vessel and Terminal Design Topics

- Experience
- Challenges
  - Routes
  - Terminals
- Vessel Design
- Vessel Operations
- Vessel Impacts
  - Wake Wash
  - Noise

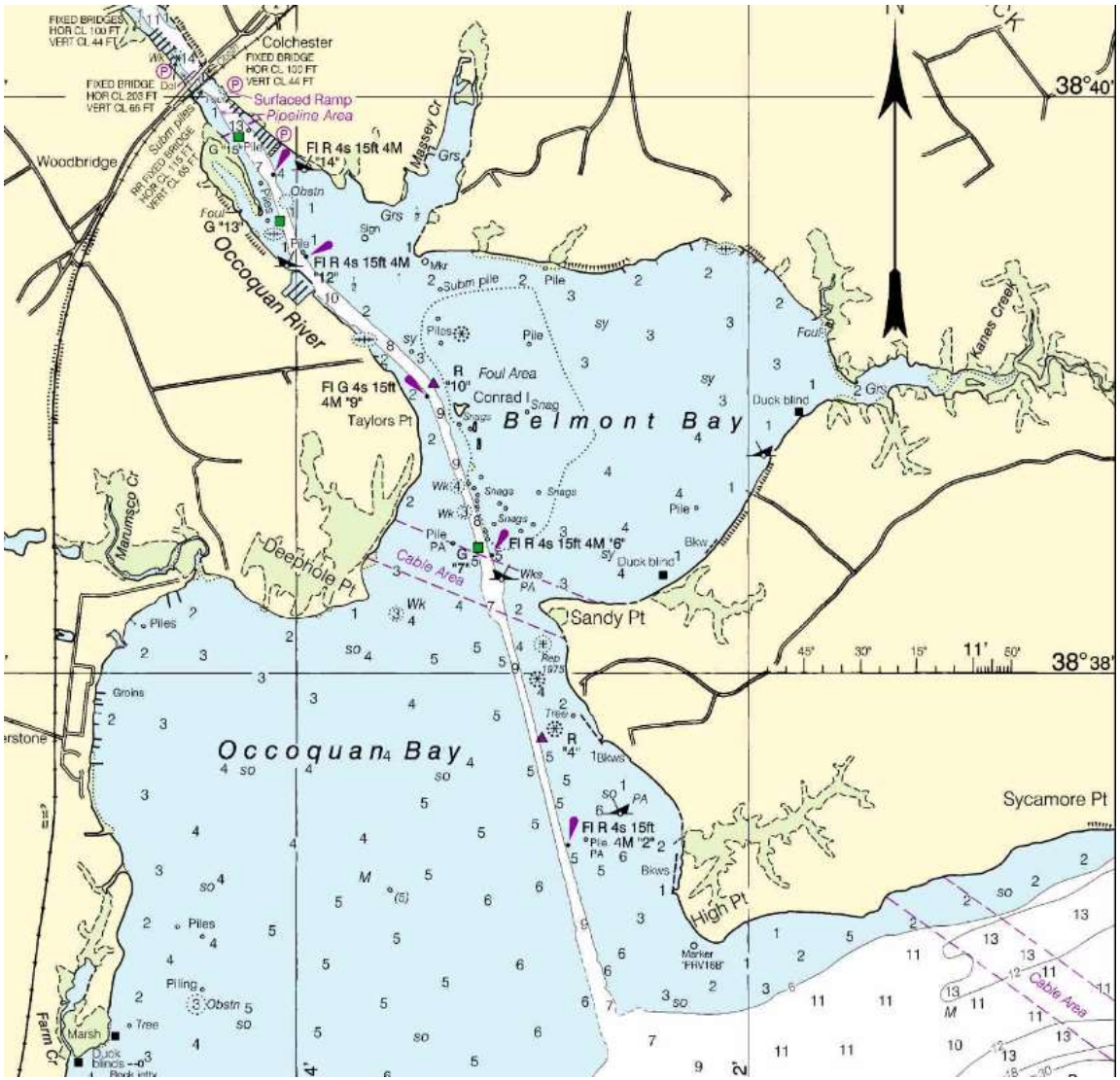
Experience

Challenges- Routes

- Shallow Water
- Debris & Ice
- Narrow Channel



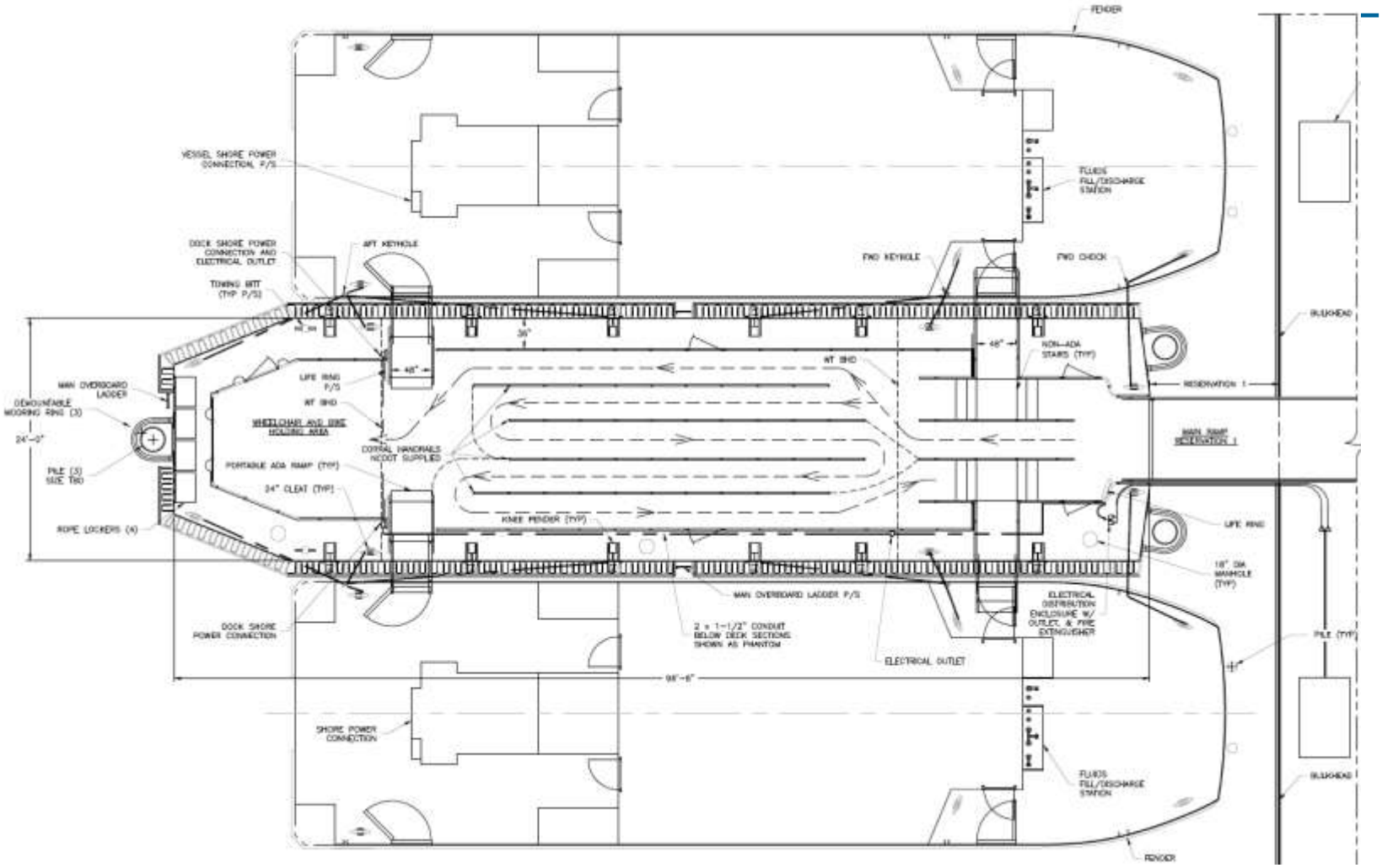
Challenges- Routes



Challenges- Terminals

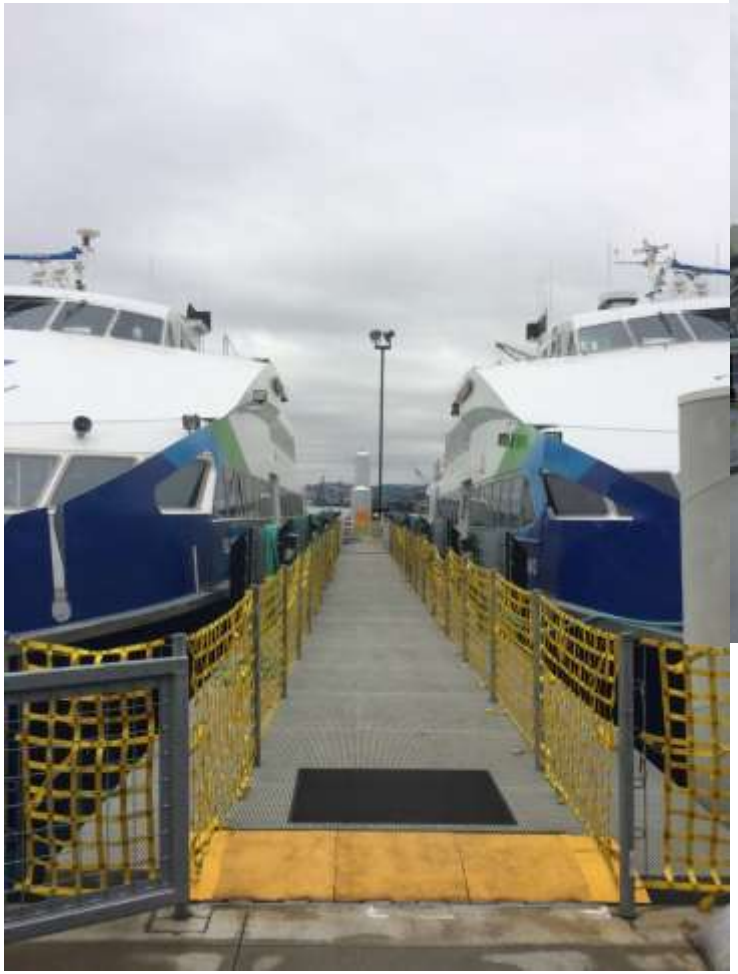
- Passenger Loading
- Night Operations
- Safety
- Maneuvering
- Prop/Jet Scour
- Vessel Services
- Maintenance

Challenges- Terminals



Challenges- Terminals

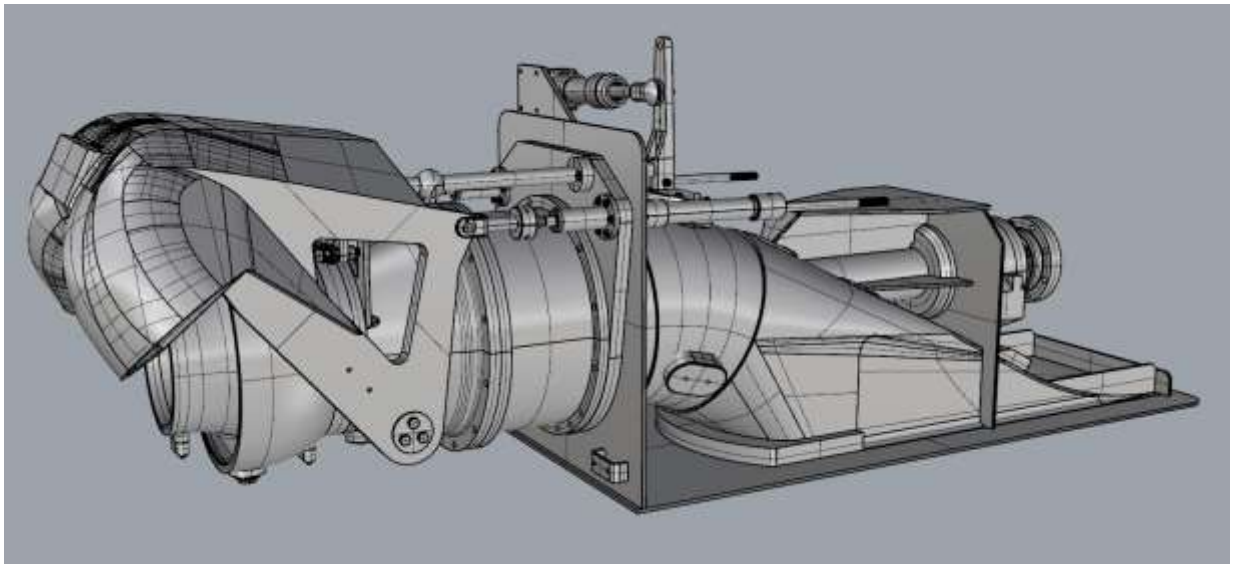
- WETA



Design Considerations

- Props vs Jets
- EPA Tier 4
- Ice belts

- Jet backwashing
- Loading arrangements
- Weight



Operating Considerations

- Passenger capacity
- Crewing
- Bike capacity
- Amenities
- Vessel tracking
- Navigation

Wake Wash

Wake Wash

Wake Wash

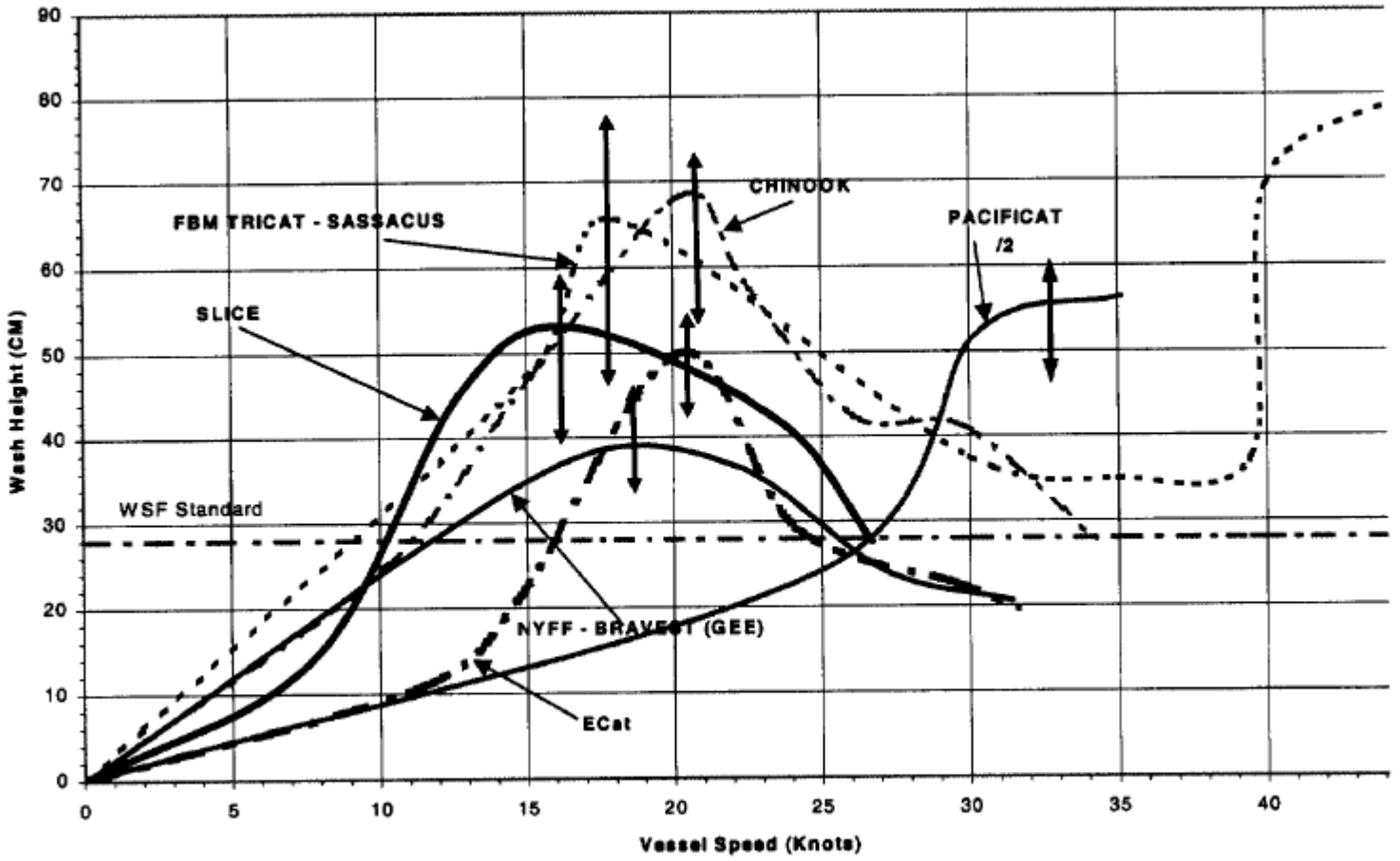


Figure 3: Comparison of Vessel Wash Height at 300 Meters

Wake Wash

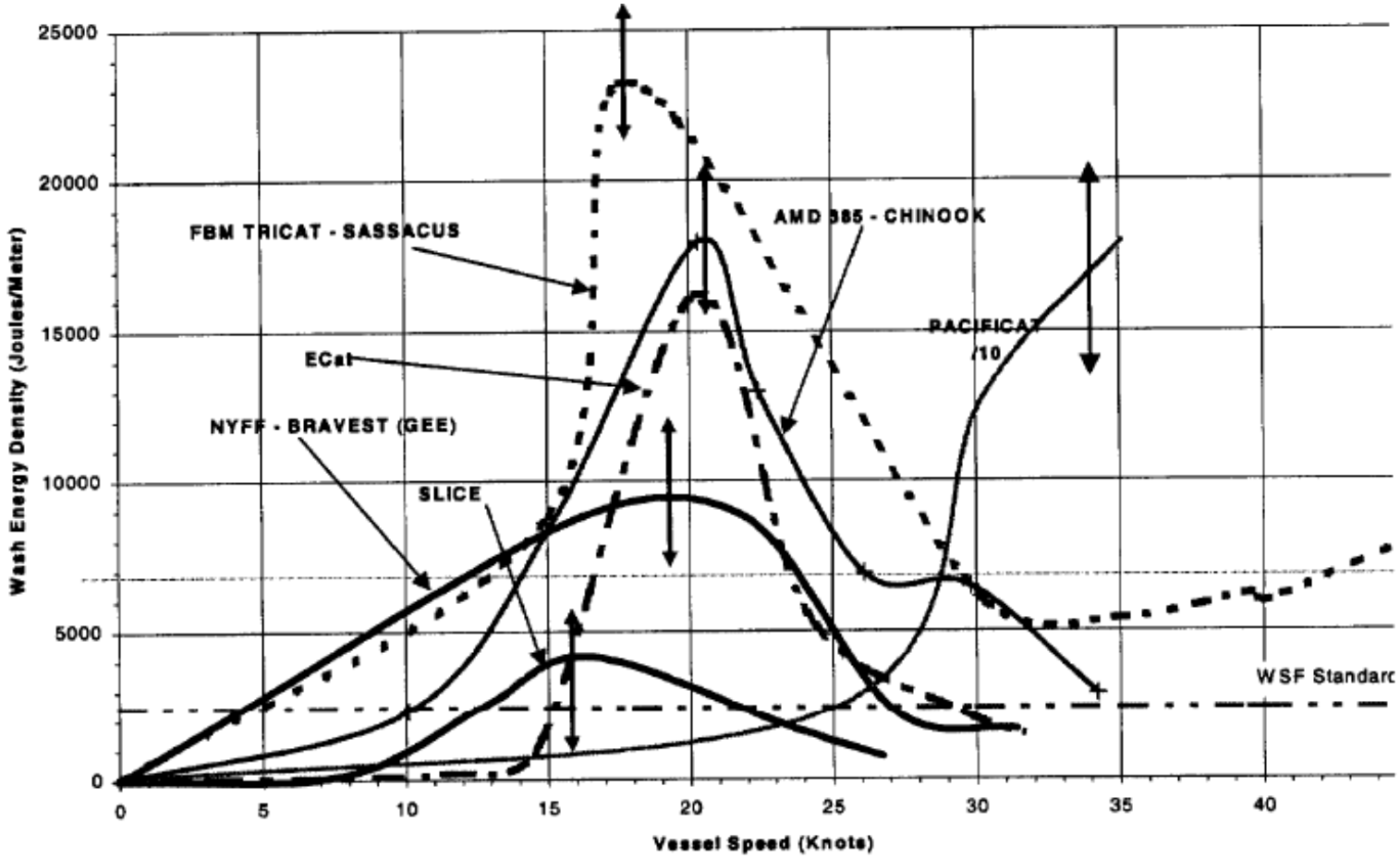


Figure 4: Comparison of Vessel Wash Energy Density

Radiated Noise

- Exhaust
- Jets and Props
- Minimize impact on environment

Questions and Discussion

Next Steering Comm. Meetings

- #5 October 26- National Harbor
- #6 Proposed Week of November 13

Other Matters of Interest

- Ferry Summit this evening

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Project Schedule

Task	Description	2017																																					
		May					June				July					August					September				October					November									
		1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27							
1	**PUBLIC OUTREACH**																																						
1.1	Develop Website and Populate with Initial Information																																						
1.2	Regional Fast Ferry Steering Committee						SC#1			SC#2				SC#3						SC#4				SC#5					SC#6										
1.3	Regional Fast Ferry Technical Committee									TC#1				TC#2						TC#3				TC#4															
1.4	Develop a Project Brochure																																						
1.5	Conduct Area Open Houses																					OH	OH																
1.6	Summary of Outreach																										D												
2	**INFRASTRUCTURE GAP ANALYSIS AND SUPPORTING ACITIVITIES**																																						
2.1	Infrastructure Gap Analysis																																						
2.2	DRAFT Final Report																		DR																				
2.3	NEPA Documentation Preparation																			D																			
2.4	Incorporation of Project into STIP/TIP																					D																	
2.5	Final FTA Grant Scope, Schedule and Budget																						D																
2.6	Final Report																											DF#2				FR							