








Comparison of candidate vessel characteristics

							
Vessel Name	<i>Chinook/Snohomish</i>	<i>Spirit</i>	<i>RV2/RV3</i>	<i>Suna-X/Solent Express</i>	<i>Stilleto</i>	<i>MAPCorp FSH-Foil (concept)</i>	<i>River Runner 150 MkII</i>
Hull type	Catamaran	Foil-assisted catamaran	Dynamically adjustable foil-assisted catamaran	BHT-130 Hovercraft	Planing/air cavity	Fully Submerged Hydrofoil	Catamaran
Design	AMD	Teknicraft Design	Teknicraft	Hoverwork	M-ShipCo	MAPCorp	Aimtek
Built	1998/99	2005	Concept under development	2007/2005	2006	Concept under development	2001
Location	Dakota Creek Industries, Anacortes	All American Marine, Bellingham	All American Marine, Bellingham	Kvichak Marine, Seattle/ Aluminum Shipbuilders, Isle of Wight, UK	Knight & Carver, San Diego	MAPCorp, MD	NQEA, Cairns, Australia
Hull material	Aluminum	Aluminum	Aluminum	Aluminum	Carbon fibre	Aluminum	Aluminum
Purpose	POFF commuter	Tour boat	POFF commuter	Cargo/POFF	Naval experimental - stealth	POFF commuter	POFF commuter
Length, m (LOA)	44	22	27	30/28	27	27.5	32.1
Beam, m	12	8	10	13.5	12	6	7.8
Draft, m	1.5	1	1.1	N/A	1	3.7 / 2	1.3
Gross tonnage, t	99	59	78	70	65	51	14
Cruising Speed, kts (Max speed, kts)	40 (35)	35 (28)	41 (37)	60 (45)	50 (40)	40 (35)	24 (25.2)
Propulsion	Waterjet	Waterjet HJ 362	Waterjet HJ403	Hoverwork air thrusters	Arneson surface piercing propellers	Inclined shaft fixed pitch propeller	Propeller-driven
Engines (#)	Detroit Diesel 16V149TI (4)	Detroit Diesel S-60 (4)	MTU 10V2000 (4)	2 DDA 16V2000 propulsion 2 DDA 12V2000 lift (4)	Caterpillar C-32 (4)	Caterpillar C-32 (1)	Caterpillar 3406E (2)
Total horsepower, bhp	7,200	2960	4800	4220	6600	1600	676
Passengers	350	150*	150	50/130***	N/A**	150	150
Fuel use at 37 knots, gal/hr	384	135	198	100	220	90	
Fuel eff. At 37 knots, gal/nm	10.4	4.8	5.4	2.9	5.9	2.6	
Pros		Meets wake criterion with interceptors	CFD indicates potential to meet criterion	Initial measurements indicate it meets wake criterion	Potential to meet criterion at high speeds (>30 knots)	Potential to meet criterion	Potential to meet criterion at 24 knots
Cons	<ul style="list-style-type: none"> Caused significant wake wash impacts High fuel consumption Does not meet wake criterion 	<ul style="list-style-type: none"> Not optimized for wakewash Insufficient HP to meet speed criterion 75 passenger 		<ul style="list-style-type: none"> Possible Noise Impact Highest initial capital cost 	<ul style="list-style-type: none"> Experimental vessel with surface piercing props Poor wake wash performance in transition speeds (< 30 knots) High fuel consumption at speed > 30 kts 	<ul style="list-style-type: none"> Concept vessel, requires USCG acceptance and certification to operate in USA potential safety issues with debris collision 	<ul style="list-style-type: none"> Unsuitable for Puget Sound based on sea-keeping Unable to meet speed requirement