

APPENDIX VI

R/V Western Flyer Preliminary vessel data

General:

Length:	117 feet
Beam:	53 feet
Loaded DWL: (draft at fully loaded condition)	12 feet
Freeboard: (distance from DWL to main deck)	12 feet
Depth Midship: (distance from keel to main deck)	24 feet
Loaded Displacement:	416 long tons
Laboratory area(s)	
Wet lab:	452 ft ²
Dry lab:	435 ft ²
ROV Control Room:	434 ft ²
Lab #2:	164 ft ²
Crew (proposed reduced manning plan submitted to U.S.C.G.):	9
Scientists (includes rov pilots/technicians):	15
Total	24

Weights and loading breakdown:

Estimated Light Ship

Item Estimated weight (long tons)

Structure	150.23
Mechanical & Electrical	95.8
Cabin interior	19.67
Outfitting	10.87
Acoustic insulation	1.1
Paint	5.7
Margin	0.64
<i>Subtotal</i>	<i>290.1</i>
Specialized Equipment	54.99
Estimated Light Ship	345.09

DWL 12'
draft condition

DWL 12'
draft condition

	#1		#2
Displacement @ 12'	416.05		416.05
Estimated Light Ship	345.09		345.09
Remaining available load	70.96		70.96
15,379 gallons fuel	48.95	9,000 gallons fuel	28.65
700 gallons lube oil	2.4	350 gallons lube oil	1.2
2,400 gallons fresh water	8.91	1,200 gallons fresh water	4.46
personnel, gear, tools, etc.	2.52		2.52
consumables	3		3
<i>Subtotal</i>	<i>65.78</i>		<i>39.83</i>
Remaining available load	70.96		70.96
Minus Subtotal	65.78		39.83
Payload	5.18		31.13

(Payload includes portable vans, any additional ballast for trim, deck loads, etc.)

	9'4" Minimum draft condition #1		9'4" Minimum draft cond. #2
Displacement @ 9'4"	373.84		373.84
Estimated Light Ship	345.09		345.09
Remaining available load	28.75		28.75
3,058 gallons fuel	9.73	3,626 gallons fuel	11.54
200 gallons lube oil	0.69		0.69
500 gallons fresh water	1.86		1.86
personnel, gear, tools, etc.	2.52		2.52
consumables	3		3
<i>Subtotal</i>	<i>17.8</i>		<i>19.61</i>
Remaining available load	28.75		28.75
Minus Subtotal	17.8		17.8
Payload	10.95		9.14

(Payload includes portable vans, any additional ballast for trim, deck loads, etc.)

9'4" Minimum draft condition #3

Displacement @ 9'4"	373.84
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Estimated Light Ship	345.09
Remaining available load	28.75
6,497 gallons fuel	20.68
200 gallons lube oil	0.69
500 gallons fresh water	1.86
personnel, gear, tools, etc.	2.52
consumables	3
<i>Subtotal</i>	28.75
Remaining available load	28.75
Subtotal	28.75
Payload	0

(Payload includes portable vans, any additional ballast for trim, deck loads, etc.)

Speed, Range, Endurance (DWL 12' draft condition # 1):

SOG, kts.	miles/day	fuel gal/day	fuel gal/n.m.	range n.m.	Days
14	336	2174	6.47	2376	7.1
12	288	1554	5.4	2850	9.9
10	240	1066	4.44	3464	14.4
8	192	569	2.96	5191	27
On station	0	1133	-----	-----	-----

SOG 14 knots, calm weather conditions, DWL 12' draft condition # 1:

days on station	3	5	7	9	11	13
days in transit	5.5	4.5	3.4	2.4	1.3	0.3
Total days	8.5	9.5	10.4	11.4	12.3	13.3
max. distance	1851	1501	1151	800	450	100

SOG 8 knots, calm weather conditions, DWL 12' draft condition #1

days on station	3	5	7	9	11	13
days in transit	21	17	13	9.1	5.1	1.1
Total days	24	22	20	18.1	16.1	14.1
max. distance	4038	3274	2510	1765	1001	237

This Appendix also includes a "Range, Speed, Endurance" Table that allows for the determination of these different parameters in determining possible cruise profiles. Copies of this table are available from the UNOLS Office

There are four line drawings of the deck layouts and machinery profile of the WESTERN FLYER. Copies of these drawings are available from the UNOLS office.

