

*LightCraft*  
Aluminium Workboats

*11.3m Combat Boat*



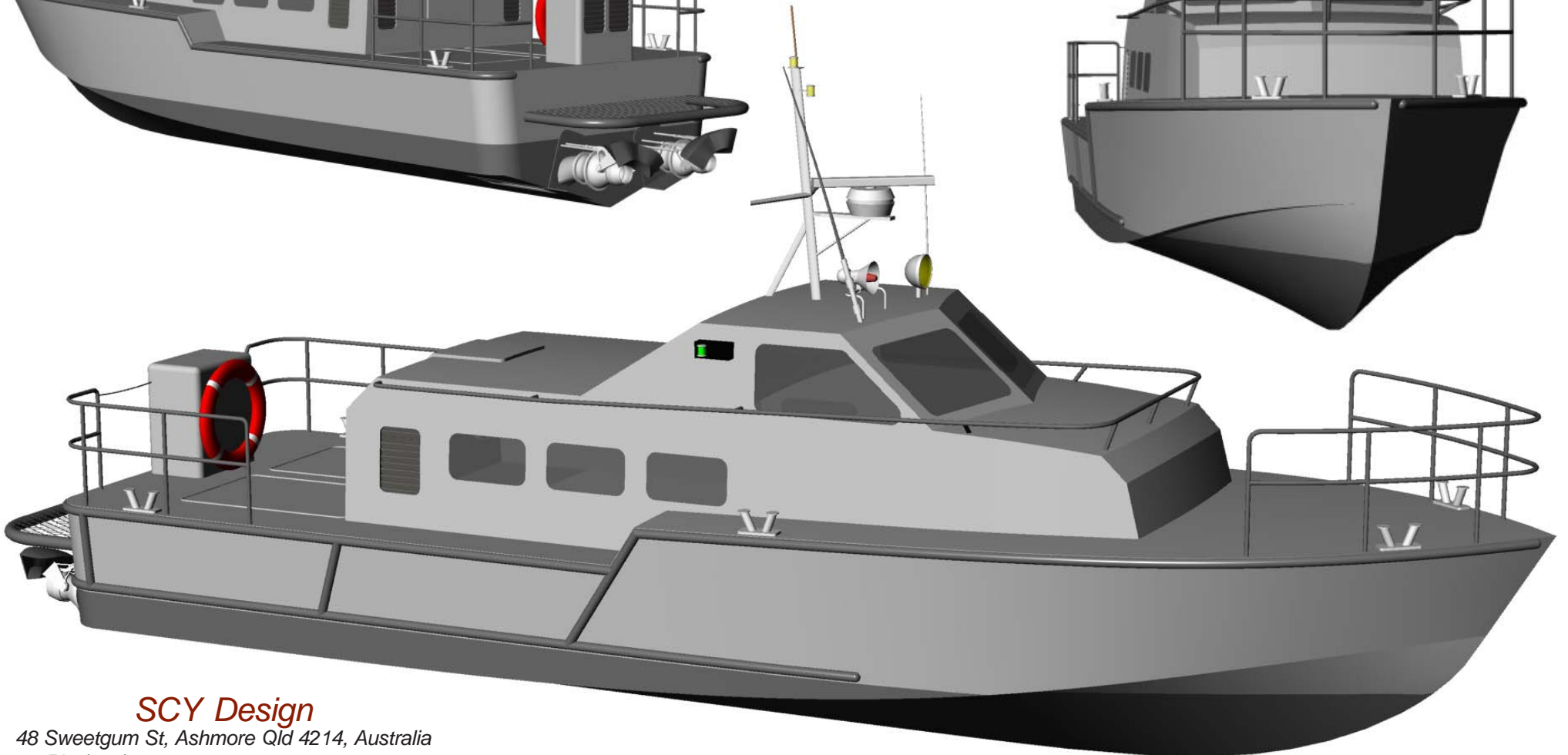
*SCY Design*

48 Sweetgum St, Ashmore Qld 4214, Australia

Ph: (617) 5597 3521 [www.scy.net.au](http://www.scy.net.au)

# *LightCraft*

*11.3m Combat Boat*



**SCY Design**

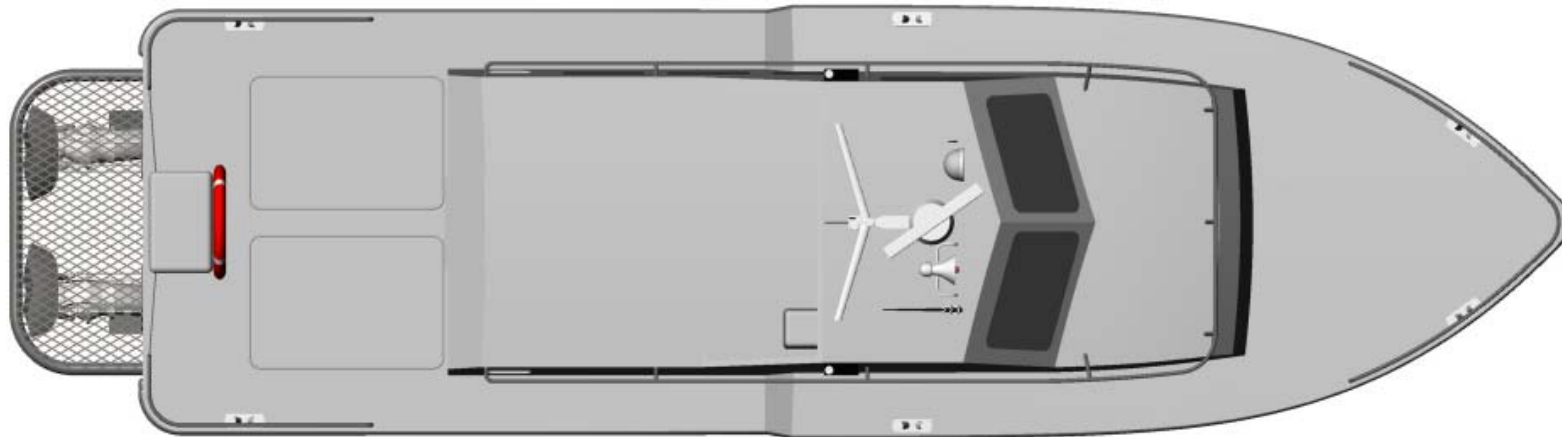
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# LightCraft

Aluminium Workboats

## 11.3m Combat Boat



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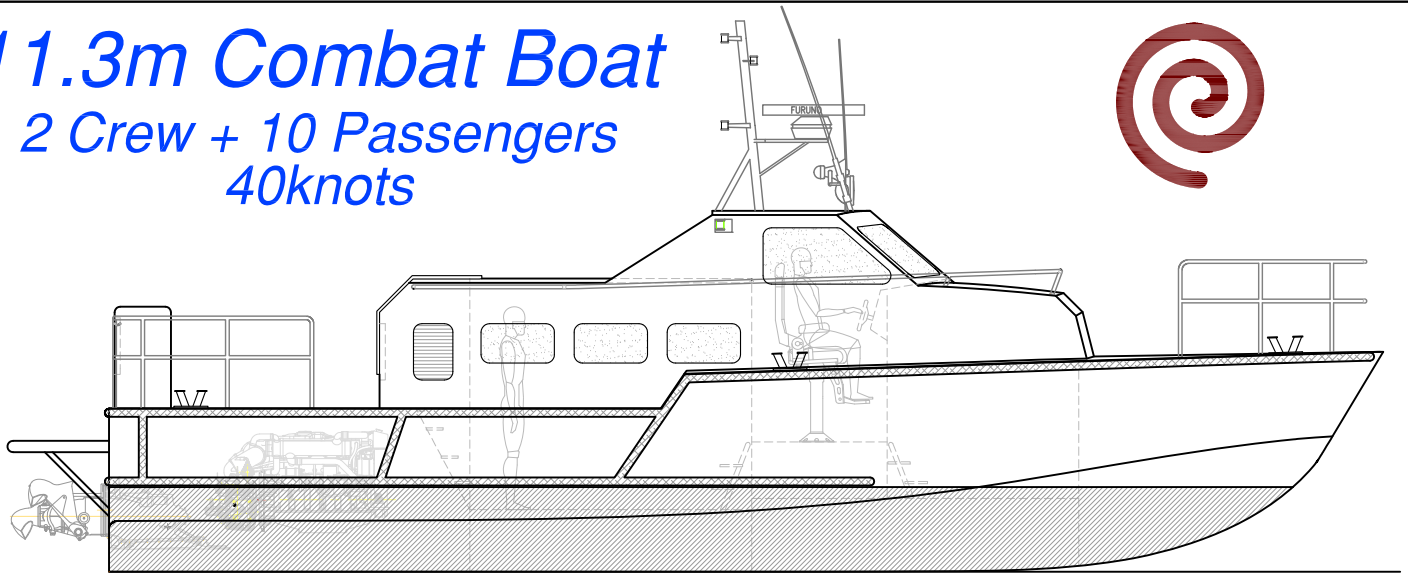
LOA : 12.4m  
Lmoulded: 11.3m  
LWL : 10.5m  
Beam : 3.34m  
Bchine: 3.04m  
Deadrise: 18deg.

Survey: USL 2C  
10+2 Offshore Operations 30nm

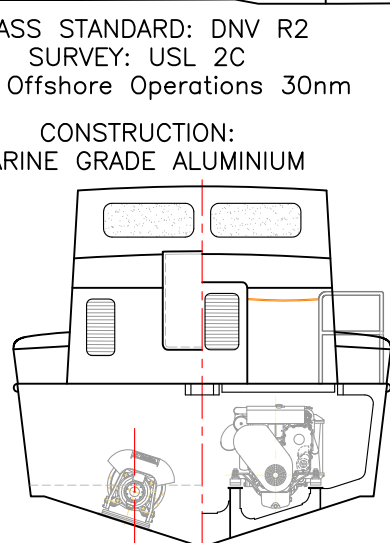
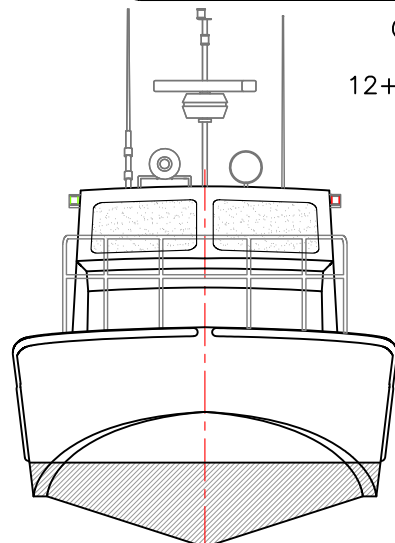
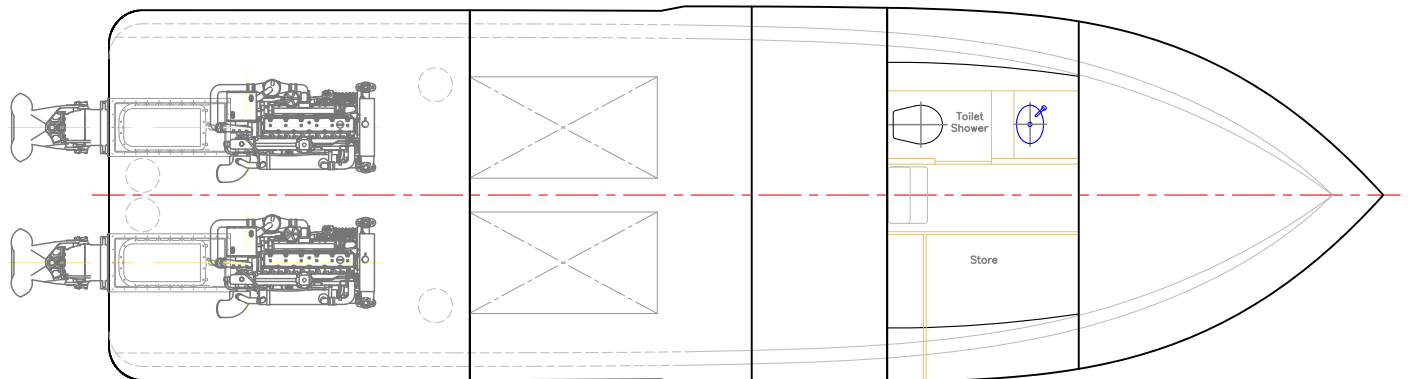
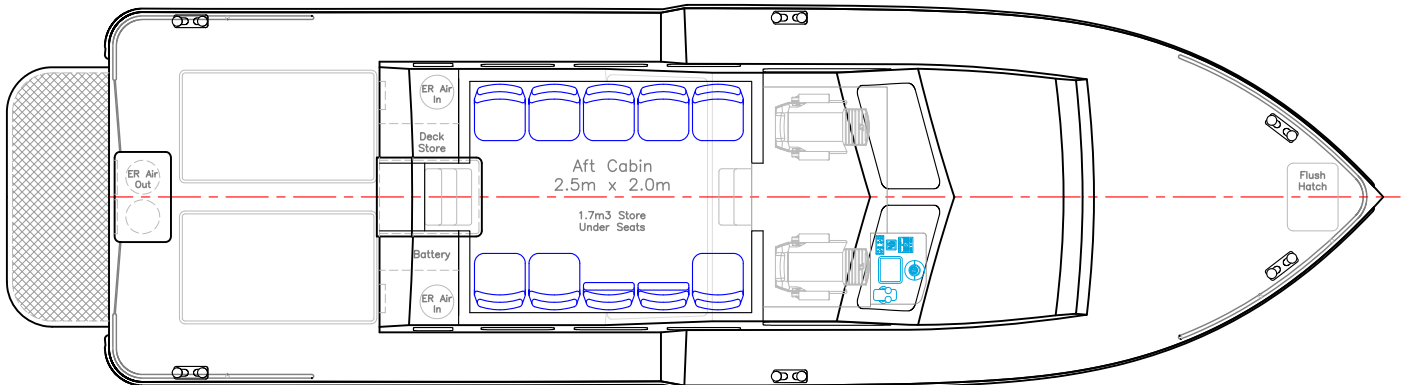
Construction :  
Marine Grade Aluminium

# 11.3m Combat Boat

2 Crew + 10 Passengers  
40knots



ENGINE ROOM 4 3.20 PASSENGERS 7 5.7 WHEELHOUSE 12 8.6 TOILET/SHOWER STORE FOREPEAK



CLASS STANDARD: DNV R2  
SURVEY: USL 2C  
12+2 Offshore Operations 30nm

CONSTRUCTION:  
MARINE GRADE ALUMINIUM

LOA: 12.2m  
Lmoulded: 11.3m  
LWL: 10.5m  
BEAM: 3.4m  
Bmoulded: 3.3m  
Bchine: 3.04m  
DRAFT: 0.6m  
DEADRISE: 18deg.  
A frontal: 8.4m<sup>2</sup>  
FUEL: 900lts

MAIN ENGINES: 2 x Iveco N67  
368kW @ 3000rpm (A2)  
GEARBOX: 2 x ZF280-1  
PROPULSION: 2 x HJ292 Waterjet  
SPEED-max: 40knots (9.8t, 2.43t dwt)  
SPEED-cruise: 30knots  
RANGE-cruise: 205nm

**LightCraft**  
aluminium workboats

VESSEL: 11.3m Combat Boat  
TITLE: GENERAL ARRANGEMENT  
DWG No: 11.3CB-100 DATE: 14/11/2011 SCALE: DRAWN: MDW  
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**SCY Design**  
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# SCY11.3m Combat Boat

IVECO N67 / HJ292

## LC 1 - Trials 1, Speed

Lightship				7120	4.60	1.13
fuel - main	97%	900	0.82	716	3.95	0.56
water	97%	200	1.00	194	6.74	0.90
sullage	0%	120	1.00	0	6.74	0.95
crew/effects		2	100	200	6.20	2.25
stores				150	7.80	1.40
Passengers		10	100	1000	4.45	1.55
Arms				200	4.00	2.35
Cargo		0	1000	0	6.00	2.00
deadweight				2460	6.57	1.65
<b>departure condition</b>				<b>9580</b>	<b>4.65</b>	<b>1.18</b>

*estimated max speed 40knots 500hp Iveco*

## LC 2 - Trials 2, Range

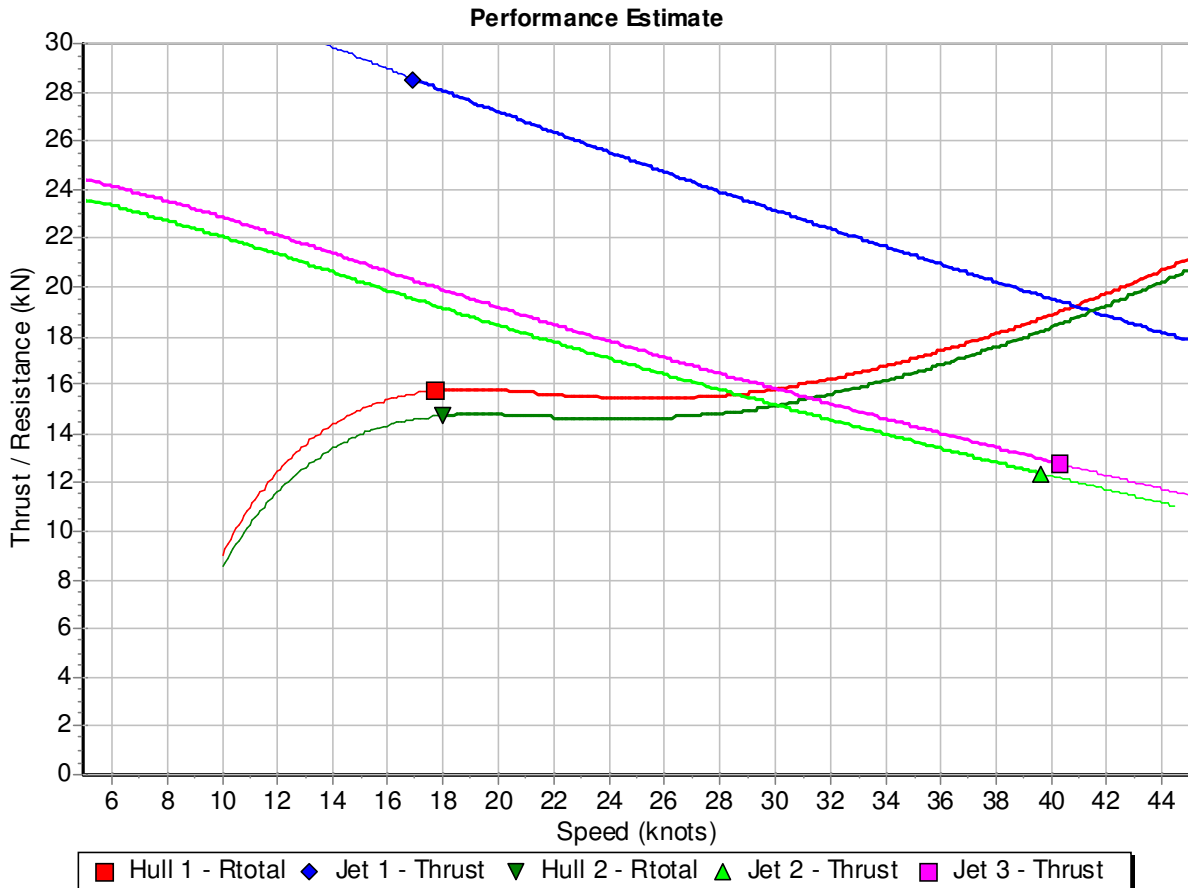
Lightship				7120	4.60	1.13
fuel - main	50%	900	0.82	369	3.95	0.56
water	50%	200	1.00	100	6.74	0.90
sullage	0%	120	1.00	0	6.74	0.95
crew/effects		2	100	200	6.20	2.25
stores				150	7.80	1.40
Passengers		10	100	1000	4.45	1.55
Arms				200	4.00	2.35
Cargo		0	1000	0	6.00	2.00
deadweight				2019	4.85	1.47
<b>departure condition</b>				<b>9139</b>	<b>4.66</b>	<b>1.20</b>

*at 30knots, estimate fuel consumption 128ltrs/hr, Range 211nm*

## LC 3 - Maximum Load Condition

Lightship				7120	4.60	1.13
fuel - main	97%	900	0.82	716	3.95	0.56
water	97%	200	1.00	194	6.74	0.90
sullage	0%	120	1.00	0	6.74	0.95
crew/effects		2	100	200	6.20	2.25
stores				150	7.80	1.40
Passengers		10	100	1000	4.45	1.55
Arms				200	4.00	2.35
Cargo		1	1500	1500	5.00	2.00
deadweight				3960	4.87	1.58
<b>departure condition</b>				<b>11080</b>	<b>4.70</b>	<b>1.29</b>

## Project: 11.3M Combat Boat - SCY Design



### Hull Resistance

Curve	Displacement	LWL	LCG	BPx	Deadrise Mid / Aft
Hull 1	9.58 T	10.50 m	4.30 m	3.04 m	18.00° / 18.00°
Hull 2	9.13 T	10.50 m	4.30 m	3.04 m	18.00° / 18.00°

Hull resistance includes allowances for light air and wave resistance plus the Blount and Fox pre-planing factor. A correction factor has been included for any change in deadrise angle.

### Jet Thrust

Curve	Jet Model	Jet Input Power	Jet RPM	Impeller	Engine Details	Gear Ratio
Jet 1	2 x HJ292	2 x 357.0 kW	2605	T 20.2	368 k.W @ 3000	1.15:1
Jet 2	2 x HJ292	2 x 217.0 kW	2206	T 20.2	30 knots at 9.13T	1.15:1
Jet 3	2 x HJ292	2 x 228.0 kW	2243	T 20.2	30 knots at 9.58T	1.15:1

Jet 1: Boat speed must exceed 22 knots if this power is input continuously (includes a 5 knot safety margin).

**Warning:** This is an estimate of speed only and no guarantee is expressed or implied. The hull resistance has been estimated using information supplied and it is the responsibility of the designer / builder to satisfy themselves as to its accuracy.

-3% transmission losses assumed

14 November 2011

11.3M Combat Boat - SCY Design Performance Prediction  
PB1.doc