Electrical Budget Worksheet (Black Feathers - Cal 20)

1 Calculate your DC Loads:

Lighting	Amps	Hours	AH/Day
Running Lights - bow			0.0
Masthead Tricolor Light			0.0
Anchor Light			0.0
Strobe Light	0.3	10	3.0
Spreader Lights			0.0
Cabin Light (small)			0.0
Cabing Light (big incandescent)			0.0
Cabing Light (flourescent)			0.0
Instrument Lights - compass light			0.0
Handheld Spot Light			0.0
Other - Stern Light			0.0
	Lighting AH		**3.0**

Galley	Amps	Hours	AH/Day
Refrigeration			0.0
Prop Solenoid			0.0
Other			0.0
	Galley AH		**0.0**

Electronics	Amps	Hours	AH/Day
Autopilot			0.0
VHF (receive)			0.0
VHF (transmit)			0.0
SSB (receive)			0.0
SSB (transmit)			0.0
SSB Digital controller			0.0
GPS with AIS Receiver	0.2	24	4.8
Instruments - knot/depth			0.0
Weather fax receiver			0.0
Radar Detector (CARD)	0.1	10	1.0
Radar (transmit)			0.0
Solar Panel Regulator	0.01	24	0.2
Energy Monitors - Link 20	0.03	24	0.7
Stereo			0.0
Computer (screen off)			0.0
Computer (screen on)			0.0
Computer (serial adapter)			0.0
Other			0.0
	Electronics AH		**6.8**

Page two
Energy Plan for the 2008 SSS TransPac
Black Feathers

Plumbing	Amps	Hours	AH/Day	
Fresh Water Pump			0.0	Calculate using average water consumption.
Bilge Pump(s) - Two manual			0.0	This should be zero unless the boat leaks.
Other			0.0	
	Plumbing AH		**0.0**	

Inverter	Watts	Hrs/day	AH/Day	
Microwave			0.0	Power factor may mess up this estimate.
Chargers (nicad)	0.4	2	0.8	
Other			0.0	
	Inverter AH		**0.8**	

Gross Energy Consumption AH/Day	**10.6**	

2 Alternative Energy Sources

Device	Amps	Hrs/day	AH/day	
Solar, avg	4.0	5	20.0	Assumes one large panel.
Wind, avg			0.0	Assumes AIR Marine wind turbine in good location.
Water, avg.			0.0	
Contribution of AES AH/Day			**20.0**	

3	Net Energy Consumption, AH/Day	**-9.4**	
4	Desired Hours Between Charging	**NA**	
5	Range of Battery Use (Two 73 AH Gels)	**73.00**	For example, from 50-85% state of charge.
6	Recommended Battery Capacity	**NA**	
7	Alternator Output, Amps	**NA**	Target would be 25% flooded, 40% gel, of capacity.
8	Charge Efficiency Factor	**NA**	Gels = 95%, flooded cells = 85%
9	Minimum Minutes to Charge	**NA**	Assumes alternator runs at full output.