

BUSINESS PLAN

Project: DigiFIN
Input Output Division: MISD

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Date: 08/03/06

Executive Summary

DigiFIN addresses the towed marine seismic data acquisition needs for lateral control of streamers on all existing marine seismic streamers. Streamer steerage provides spread stabilization and supports reduced cross line data sampling. DigiFIN has been well received by customers that have seen the presentation given after the alpha test. Interest is so strong that some oil companies will delay RFQs for surveys that require streamer steerage until DigiFIN is in the market. IO has good visibility of the market opportunities and requirements. The compelling reason for IO to enter into this market segment is the value that this device will bring to the existing marine seismic fleet. The overall positioning market is forecast to grow for the next few years. DigiFIN will allow existing customers to expand their offerings. By using DigiFIN existing customers will be able to compete in the proprietary "Q" marine systems market space. Time to market is critical since Sercel is known to be working on a Bird device. Sercel's device will most likely have the capability to perform lateral steerage.

The approach used to address the market opportunities are as follows:

1. IO develops DigiFIN.
 - a. This external device is backward compatible with all marine seismic streamers.
 - b. This device is driven by the priorities of time to market and backward compatibility.
 - c. This option relies heavily on the existing knowledge of Bird design and mounting.
2. IO develops a new dry end controller, Positioning Controller System, PCS
 - a. The design of this new hardware is complete
 - b. The PCS will be manufactured out of house.
 - c. Pilot production is underway.
3. IO develops a Steerage Control System that works with the PCS
 - a. The design is complete.
 - b. In house testing is complete.
4. Manufacturing of the DigiFIN will be in house.
 - a. The first 250 units will be built exclusively in Harahan.
 - b. After the initial 250 units are built, modular final assembly capacity will be added in Stafford.

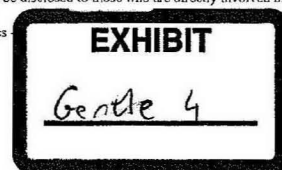


The approach is recommend based on the following reasons:

1. IO is in the best position to develop an external backward compatible steerage device.
2. This product will address customer requirements in the time frame needed.
3. Creates a new product in the positioning product family.
4. Provides pull through sales for DigiRANGE and ORCA.

The net present value calculations for this project are \$75.8M and \$47.8M for the nominal case and worst case scenarios. This translates into a return on invest of OCF all positive and 1281% respectively (see attached charts below). There is a very good financial case to complete this project even considering worse case metrics.

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Financials		*Prior	2007	2008	2009	2010	2011	PROJECT TOTAL
SALES REVENUE	million\$	4.40	38.21	38.21	38.21	38.21	38.21	195.45
OPERATING CASH FLOW	million\$	1.15	22.62	23.33	23.48	23.49	23.51	117.57
NPV (million\$) =		\$75.8		IRR =		N/A - OCF all positive		

VARIANCE MIX

R&D Cost @ 10% incr
COGS @ 10% avg incr
Sales Vol @ -10% avg
Price @ -10% avg decr
Sust. Cost @ 10% incr

NPV Standard Risk

Nominal NPV = \$75.8 millions
Nominal IRR = - OCF all positive

Worst Case NPV = \$47.8 millions
Worst Case IRR = 1281%

Product development and commercialization of DigiFIN is relatively low risk. The biggest technical risks are the steering controller and the mounting interface. The commercial risk is our ability to ramp up production to meet initial demand. Risk mitigation strategies are to have an extensive beta test and enhancement phase to address the technical issues. The commercial risk are being mitigated by shoring up vendor relationships and forward looking capacity planning with elasticity to meet changing demand.

The DigiFIN Core Team recommends that this program continue to be fully funded and staffed for Phase 4 per the program metrics as summarized in the following table. Again, time to market is key to the success of this program. IO must focus appropriate resources throughout all phases of development and commercialization to meet the market window.

VALIDATION PHASE: 4 - METRICS				
REMAINING COSTS THIS PHASE	TARGET	WAS (change)	VARIANCE LIMIT	
			+	-
• Core & Extended Team Labor (k\$)	\$421	n/a	\$42	-\$42
• Engineering-only Team Labor (k\$)	\$309	n/a	\$31	-\$31
• External Costs & Svcs (k\$)	\$35	n/a	\$4	-\$4
• Material (k\$)	\$5	n/a	\$1	-\$1
• Capital Expenditures (k\$)	\$650	n/a	\$65	-\$65
COSTS TOTAL (k\$)	\$1,111	n/a	\$142	-\$142
DELIVERY METRICS	TARGET	WAS (change)	VARIANCE LIMIT	
			+ weeks	- weeks
• Start Beta Test	10/25/06		1	1
• Beta Test Report	01/15/06		1	1
• Customer Acceptance Report	01/15/06		3	3
• Validation Gate Review	01/31/06		3	3
REMAINING STAFFING THIS PHASE	TARGET FTE	WAS (change)	VARIANCE LIMIT	
			+ FTE	- FTE
• See Page 2: Staffing avg FTE (Note 6)				
TOTAL STAFFING this contract (Man Months)	37.40	n/a		
AVERAGE STAFFING per month (FTE)	7.68	n/a	0.77	-0.77
TOTAL (average) ENGINEERING FTE =	5.64	n/a	0.56	-0.56

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BUSINESS PLAN

PROJECT OVERVIEW

PROJECT OBJECTIVES

The objective of this development and commercialization project is to provide a cost effective, horizontal streamer steering system for the marine seismic service contractor community. This is an addition to an established and mature business segment that IO has been servicing for many years. With this investment, IO will be in a position to capitalize on growing market needs / opportunities with the following goals:

- Gain 70% market share over the next 5 years of a growing steerage market.
- Be first to market an external steerage device.
- Command a market premium (price and margin) over competitors.
- Commercialize a reliable system before the February 2007.
- Position IO to capture additional DigiRANGE and ORCA sales.

PRODUCT REQUIREMENTS

Customers require an externally mounted device that will provide lateral steerage. This device should provide spread stabilization, and prevent streamer entanglement. The cable mounted device must communicate via the existing FSK communication coils. It must not have a negative effect on network depth control. It must not generate more noise in the seismic band than an existing externally mounted device. Once its basic functionality is proven customers would like to see the system accelerate deployment and retrieval, minimize the time required to complete line changes, and eventually reduce the feather angle of the network.

PRODUCT / SOLUTION DESCRIPTION

DigiFIN will be an external device similar to the existing 5011 DigiBIRD and the 5110 AcousticBIRD. The device will have weight in one wing and buoyancy in the other so that it rides on the starboard side of the streamer cable. It will have an enhanced motor module, wing module, and larger wings. It will have a pitch and roll sensor so that it can self determine its attitude. The DigiFIN will also be capable of reporting depth and will have an acoustic receiver similar to the AcousticBIRD. It will leverage the manufacturing process of the existing Bird and Acoustic product lines.

BUSINESS OPPORTUNITY

I/O Opportunities

- Strategically position IO to create the external steerage market.
- To not develop DigiFIN strategically positions Sercel to capitalize on this market.
- An enabler for additional sales of DigiRANGE and ORCA.
- A catalyst to leverage alliances between DigiCOURSE and Concept.
- Capitalize on economy of scale and more efficient use of core experience talent in Bird hardware development and support.

Benefits to Customer

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- Provides better 3D images and enables 4D, time-lapse seismic surveys. Both are proven tools to detect new hydrocarbons and additional hydrocarbons within a reservoir.
- Should be superior to other steerage alternatives both in economics and technical results based on it's compatibility with all streamer systems.

STRATEGIC FIT

Advances IO corporate strategy

- Enhances IO's diversified mix of products & services
- Improves marine imaging

Fits MISD strategic direction

- Significant addition to MISD revenue
- Leverages DigiBIRD and DigiRANGE market penetration
- Opportunities for pull through sales DigiRANGE and QuickCUFF

KEY RISKS AND RISK MITIGATION

Summarize key risks from the Marketing, Development and Operations sections, along with mitigation strategies.

<Project Name> Key Risks and Mitigation Strategy			
Risk Description	Risk Level H, M, L	Risk Affects	Risk Mitigation Strategies (Options)
manufacturing capacity	M	IO can not deliver DigiFIN	Shore up supplier relations Plan capacity in excess of that needed Issue PO for first year's production Pro-actively manage vendors
Cable construction	H	DigiFINs stability and effectiveness	Determine if Cable construction meets IO requirements Work with contractor/vendor to have cable construction meet IO requirements Develop addaptor appliance to overcome errors in cable construction
PGS acceptance	M	Market acceptance	Through the users group proactively engage PGS Compleat and pass all beta test Complete PGS enhancements as requested
Competitor develops a steerage device	M	Sales does not meet the forecast	Beat competition to market Identify and resolve all issues early in the Beta test phase Complete Beta test on schedule or earlier
Cable accident	L	Market acceptance	Phase in features with lowest risk features first

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