



Teleconference
Dial-in Number: 209 647-1075
Access code: 1013004#

Webcast
Go to: <http://www.gatherplace.net>
Use the JOIN A SESSION button
Enter the Access Code: 8285433

LES for Managers

This webcast is for the management team of a supplier who is preparing to implement the SEA Roadmap. It delivers a "burning platform" message to the management team about why aerospace suppliers need to accelerate change and improvement. It also provides a high level overview of the SEA Roadmap. The duration is 1 hour.

This presentation may appear different on your computer than originally designed. If you do not have the fonts used to create the presentation, your computer will substitute others that will change the overall formatting and look of the slides.

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Michael G. Beason - Chairman for the SEA Organization



"SEA is a strategy. Other suppliers will try to compete with us based on tactics - reacting to situations as they arise.

SEA's strategy is to establish our reputation as the best suppliers in the industry. No tactic will be effective against us.

As the industry consolidates and speeds up, we'll be the ones our customers see as those who 'get it' and are busy solving their problems. "


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Objectives

- Provide information about SEA and the reasons for the industry conversion effort
- Provide an executive overview of the implementation process for the Lean Enterprise System
- Prepare the manager for the implementation of SEA LES models and methodologies with some “Lessons Learned”

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Our Industry Lean Effort

Various entities
developing tools,
standards, and
policies

LAI

NACFAM

AIA

Boeing

Northrop

Lockheed

And more

Public and private
entities providing
services

Consultants

MEPs

DoD

Tier One Suppliers

Tiers Two - Four

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SEA

- SEA was founded by Boeing, Northrop, Lockheed Martin, Raytheon, United Technologies, Parker Aerospace, Honeywell, and more.
- SEA was established in 2003 as a non-profit alliance directed by sub-tier suppliers with the mission of accelerating supply chain performance for the aerospace and defense industries.
- Customers participate in SEA at no cost and gain the resources of a world-class supplier development system.
- Suppliers participate in SEA paying the annual membership fee and follow a step-by-step process that improves performance and visibility.

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Automotive

- According to A.T. Kearney, there is a case to be made for the comparison of what happened in the automotive supply chain to what is happening now in the Aerospace supply chain
- What happened in the automotive industry?
- They've already done this for the past 15 years - what can we learn?

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Four Major Trends

- Globalization
- Consolidation
- Supply Chain Integration
- Lean Manufacturing

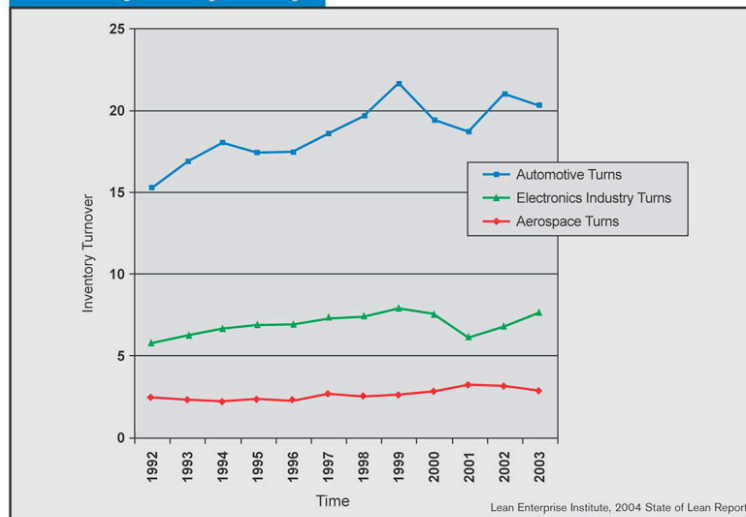
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Inventory Turns by Industry



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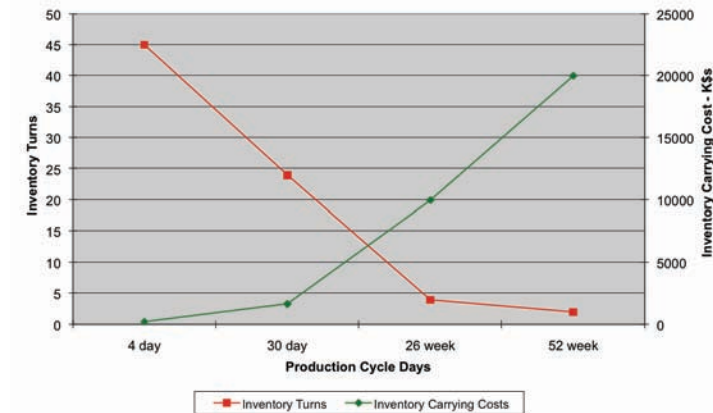
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Inventory Turns & Lean

For a \$200M Aircraft

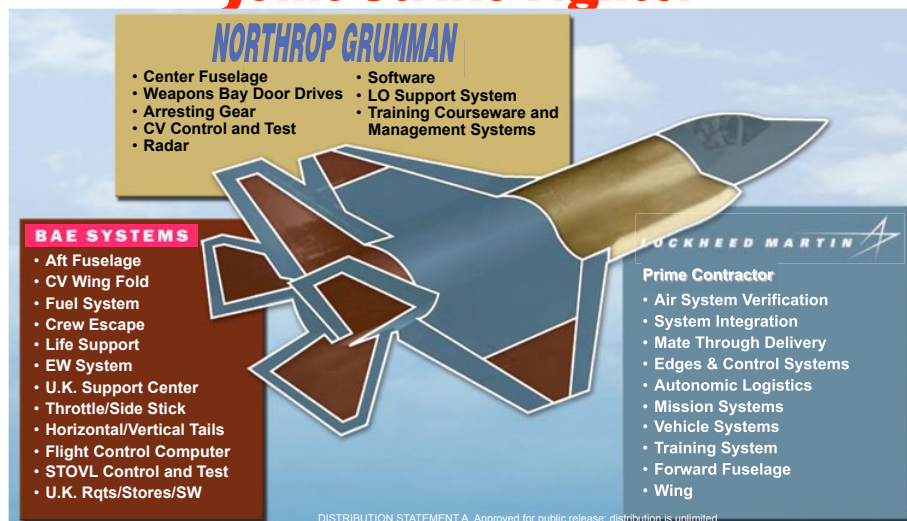

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Joint Strike Fighter


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JSF Assembly



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Dreamliner Assembly



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Boeing 737



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Pratt & Whitney

“To capitalize on an emerging market that will be booming in a few years, Pratt & Whitney Canada needs to deliver a jet engine every four hours—a feat that would be impossible without the input of its supply base.”

"We have to drive a pulse or drum beat that triggers the supply chain to deliver to a takt time (customer demand rate) of every four hours," says DiPerna.

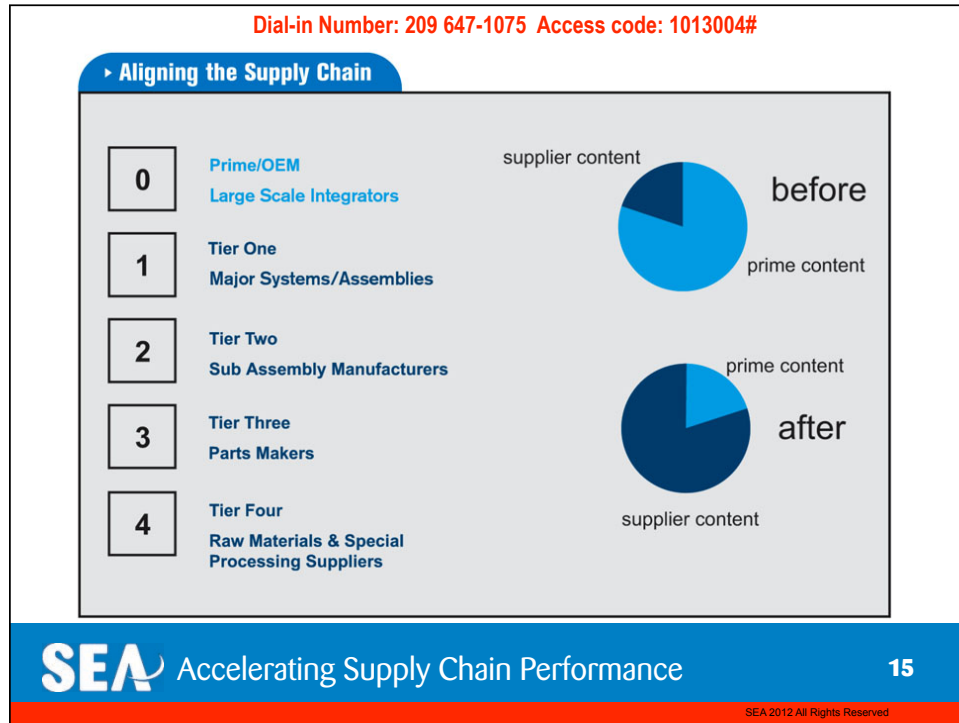
Purchasing.com



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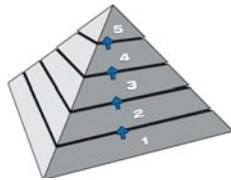
Supplier Ratings

<u>Customer Rating</u>	<u>Supplier Tactics</u>	<u>SEA Supplier Strategies</u>
<ul style="list-style-type: none"> → Grow, Center of Excellence, Gold 	<ul style="list-style-type: none"> → Expedite, Over-Inspect, Inventory, Over-Hiring 	<ul style="list-style-type: none"> → Maintain Process Capability, Emphasize Continuous Improvement
<ul style="list-style-type: none"> → Maintain, Monitor, Retain, Silver 	<ul style="list-style-type: none"> → Expedite, Over-Inspect, Inventory, Over-Hiring 	<ul style="list-style-type: none"> → Accelerate Process Improvement, Build Leadership, Workforce, and Operational Capabilities
<ul style="list-style-type: none"> → Phase Out, Exit, Bronze 	<ul style="list-style-type: none"> → Business as Usual, Ignore, Lock the Door 	

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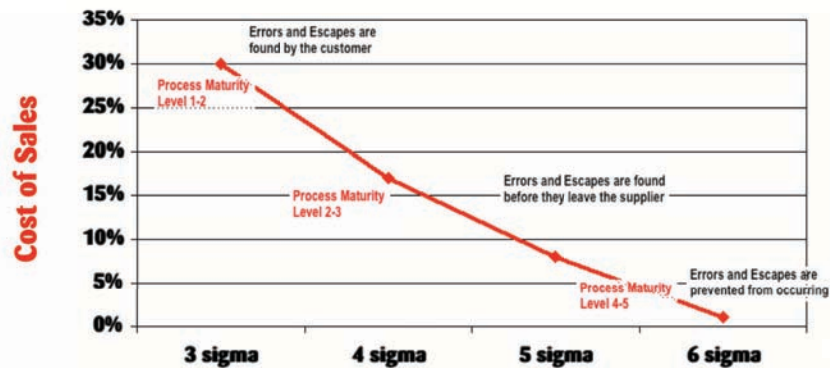
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Process Maturity Model “PMM”



Process Maturity Levels

- 5 The process shows continuous positive trends and benchmarks world-class
- 4 The process is under process control, is analyzed, and improved using data
- 3 The process has certified trainers and is standardized
- 2 The process has been documented to the work instruction level
- 1 The process has been identified, defined, and has an owner



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SEA
Lean
Enterprise
System



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The SEA Roadmap

	Stage One Stabilization	Stage Two Supply Chain Integration	Stage Three Sustainability
Leadership & Culture	Establish high-performance leadership system	Focus on supply chain integration	Focus on new product startup
Workforce Development	Establish workforce development system	Implement process control	
Operational Excellence	Accelerate sustainable lean performance improvements	Accelerate flow production	
Business Results	Establish industry-standard performance metrics	Show measureable improvement	Demonstrate reduced risk

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The SEA Roadmap

	Stage One Stabilization	Stage Two Integration	Stage Three Sustaining
Leadership & Culture	1.1.1 Strategic Planning Process 1.1.2 Leadership Communication Process 1.1.3 Organizational Performance Review Process 1.1.4 Continuous Improvement Management Process 1.1.5 Workforce Development Integration Process	1.2.1 Supply Chain Integration Process	1.3.1 New Product Startup Process
Workforce Development	2.1.1 Job Skills & Cross-Training Certification Process	2.2.1 Continuous Improvement Process	
Operational Excellence	3.1.1 Kaizen Process 3.1.2 6S Visual Workplace Process 3.1.3 Quick Changeover/SMED Process	3.2.1 Material Management Process 3.2.2 Production Planning Process 3.2.3 Development Process	
Business Results	4.1.1 Inventory Turns 4.1.2 Sales/Employee 4.1.3 On-Time Delivery 4.1.4 Parts per Million		4.3.1 Process Maturity 4.3.2 Quick Ratio

2011 Roadmap v2

Certification Level

Bronze OTD 90-94.9%, PPM<15,000

Silver OTD 95-98.9%, PPM<10,000

Gold OTD 99-100%, PPM<2,500

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SEA Process Architecture

Vision - Mission - Strategic Goals

Process Champions

Leadership
&
Culture

Workforce
Development

Operational
Excellence

Value
Stream

Processes & Owners

Standard Work Definition, Master Trainers & SMEs


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National Webcasts

NATIONAL WEBCASTS

Introduction		Feedback		More Webcasts		More Info	
SEQ	TITLE	SERIES 1	SERIES 2	SERIES 3	SERIES 4	PRESENTATION	TOOLS
0	Getting Started with SEA	9/08/11	02/01/12	11/01/11	01/05/12	PDF	PPS
1	LES for Managers	9/15/11	02/08/12	11/08/11	01/12/12	PDF	PPT
2	Annual Improvement Plan	9/22/11	02/15/12	11/22/11	01/19/12	PDF	PPS
3	Assign Process Owners	9/29/11	02/22/12	11/29/11	01/26/12	PDF	PPS
4	Roadmap Process Owner	10/06/11	02/29/12	12/06/11	02/02/12	PDF	PPS
5	Process Owner Forum	SCHEDULE	SCHEDULE	SCHEDULE	SCHEDULE	MORE INFO	
6	How to Prepare the Quarterly Report	10/13/11	03/07/12	12/13/11	02/09/12	PDF	PPS
7	Value Stream Mapping	10/20/11	03/14/12	12/20/11	02/16/12	PDF	PPS
8	Managed Process Owner	10/27/11	03/28/12	01/03/12	02/23/12	PDF	PPS
9	Master Trainer	11/03/11	04/04/12	01/10/12	03/01/12	PDF	PPS
10	Kaizen Leader	11/10/11	04/11/12	01/17/12	03/15/12	PDF	PPS
11	Supply Chain Integration	12/01/11	04/18/12	01/24/12	03/22/12	PDF	PPS
12	Preparing for the SEA Site Visit	12/08/11	04/25/12	01/31/12	03/29/12	PDF	PPS


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What's Important to YOU?

- Improve my on-time, lead time, quality, and cost performance
- Gain more visibility and opportunities for new business
- Collaborate with and learn from other suppliers who are doing the right things

Click on the one that best describes what's important to your business right now

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Improving Performance Workflow

Click on the red box text to go and take the action suggested.

Burning Platform	Create an Annual Improvement Plan	Select Champions & Process Owners	Train Process Owners	Process Owner Forum	Quarterly Performance Review
Schedule your management team into the "LES for Managers" webcast	Register and attend the "Annual Improvement Plan" webcast Option: Strategic Planning Workshop	Register and attend "Assign Process Owners" webcast Option: Strategic Planning Workshop	Register and attend "Roadmap Process Owner" webcast Option: Managing Process Improvement Workshop	Register all Process Owners into the "Process Owner Forum"	Register and attend the "How to prepare the Quarterly Report" webcast
1	2	3	4	5	6

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Improving Performance Workflow

Click on the red box text to go and take the action suggested.

Map Value Streams	Assign & Train Value Stream Process Owner	Select & Assign Master Trainers	Kaizen Leader
Register and attend the "Value-Stream Mapping" webcast	Register and attend the "Managed Process Owner" webcast	Register and attend the "Master Trainer" webcast	Register and attend the "Kaizen Leader" webcast
Option: Management Planning Workshop	Option: Managing Process Improvement Workshop	Option: Workforce Development Workshops	Option: Kaizen Leader Workshop
7	8	9	10

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Gain More Visibility Workflow

Improving Performance Workflow	Keynote	SAC Application	Benchmark Site Visits	Customer Briefings
Substantially complete the Improving Performance Workflow - achieve SEA certification	Make Keynote presentations at CEO conferences	Apply for membership in the Supplier Advisory Council	Get site visit ready and schedule two or more site visits per year	Speak at customer briefings
Video goes on Youtube and VCASMO				
1	2	3	4	5

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SUPPLIER REGISTRY								
MORE INFO	CERTIFICATION CRITERIA		SEA ROADMAP	CERTIFICATION LEVEL		PERFORMING COMPANIES		
Company Name	State	Primary Contact	Phone	Email	Video	Industry Type	OTD	PPM
CERTIFIED COMPANIES								
GENTEX Corporation (Respiratory Systems)	CA	Robert McKay General Manager	(909) 481-7667 x3600			Life Support Products - Military Commercial Markets		
Hixson Metal Finishing	CA	Douglas C. Greene President	(949) 645-4800		 	Special Processing - Anodizing, Plating, Brazing, Heat Treating, Finishes, Coating, Sealant		
Midwest Metal Products	IA	Kevin Urban President	(800) 394-6474 x132		 	Fabrication, Bending, Forming & Sheet Metal		
National Technical Systems (NTS) - Fullerton	CA	Bill McGinis CEO	(866) 787-5746			Engineering Services		
National Technical Systems (NTS) - Boxborough	MA	Bill McGinis CEO	(866) 787-5746			Engineering Services		
TSI Plastics, Inc.	MN	Pat McCready President & CEO	(763) 784-0240		 	Plastics - Parts & Assemblies		
Vaupell Northwest Molding and Tooling	WA	Keith Zeller General Manager	(206) 805-0006		 	Plastics - Parts & Assemblies		
W Machine Works, Inc.	CA	Marzel Neckien President	(818) 890-8049		 	Machining - Machined Assemblies		

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Supplier Registry

Phases Icons & Description

- Phase 4: Pre-Certification**
All stage one processes at level 3 or higher PMM
3 of 4 metrics improved from last quarter
3 or more managed processes at level 3 PMM
- Phase 3: Advanced**
6 to 10 stage one process at level 3 or higher PMM
2 of 4 metrics improved from last quarter
1 or 2 or more managed processes at level 3 PMM
- Phase 2: Early**
1-5 stage one processes at level 3 or higher PMM
1 of 4 metrics improved from last quarter
- Phase 1: Start-Up**
0 roadmap processes at level 3 or higher PMM
No metrics improved from last quarter or no previous baseline established yet

PERFORMING COMPANIES								MORE INFO
	IA	Kevin Urban President	(800) 394-6474 x132		 	Fabrication, Bending, Forming & Sheet Metal		
	KS	Jason Cox Chief Technology Officer	(316) 943-1342			Machining-Machined Assemblies		
	CA	John Yeiger President	(856) 587-6990			Electrical Systems & Subsystems		
	IL	Pat Bye President	(815) 877-1410			Machining - Machined Assemblies		
	CT	Steven A. Fournier President & CEO	(203) 729-4900 x217			Design and manufacture of hydraulic and pneumatic valves, actuators, braking devices and fuses		
	TX	Tim Holland CEO	(817) 535-3200		 	Distributor - Production Supplies Distributor - Industrial Supplies		
	CA	Douglas C. Greene President	(949) 645-4800			Special Processing - Anodizing, Plating, Brazing, Heat Treating, Finishes, Coating, Sealant		
		Javier del Valle Castellanos General Manager	(321) 95-5566 1922			Machining - Machined Assemblies		
	CA	Mike Morgan President	(951) 726-5290			Machining - Machined Assemblies		
TSI Plastics, Inc.	MN	Pat McCready President & CEO	(763) 784-0240		 	Plastics - Parts & Assemblies		
Vexin Threading Company, Inc.	CA	Greg Vesico CEO	(562) 802-1869			Specializing in Threading & Precision CNC Machining		
W Machine Works, Inc.	CA	Marzel Neckien President	(818) 890-8049		 	Machining - Machined Assemblies		
Clark Technology Systems, Inc.	PA	Faith D Clark President	(370) 523-0375			Design/Package/Fabricate process consoles		

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Collaborate Workflow

CEO Conferences

Site Visits

Individual Site Visits

Supply Chain
Summits

CEOs, senior leaders, and owners can meet and collaborate at SEA Conferences with other suppliers and customers.

Supplier site visits are open to members and you can benchmark and learn from the best.

SEA Suppliers are always willing to host an informal visit.
Many visits lead to partnerships that strengthen both companies.

Interact with customers and other suppliers on issues that significantly impact your plans for the future.

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2

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Resources

[About SEA](#) | [SEA Member](#) | [Annual Awards](#) | [SEA Certification](#) | [Case Studies](#) | [Sponsorships](#) | [Process Owner Forums](#)

EVENTS

SEA Events (click on event below to see calendar)	Who?	What?
CEO Conferences*	Everyone	Suppliers share their success stories and collaborate on integrated supply chain projects
Supplier Events	Everyone	Benchmark Site Visits, Supplier Briefings, and Customer Briefings scheduled with Supplier Advisory Council members presentations
Partner Events	Everyone	Links and information to events held by SEA Partner Organizations
Process Owner Forums**	Member Only	Process Owners study best practices and compare notes on implementation of the SEA LES
Webcasts	Member Only	Members learn how to prepare a quarterly report, how to implement the roadmap, and how to prepare for SEA certification.
Certification Workshops*	Everyone	Members and Qualified Associates learn to implement the SEA Lean Enterprise System
*fees apply **subscription required		

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Lessons Learned

- Roles & Accountabilities
- Leadership, Leadership, Leadership
- Build the capabilities to lead and sustain improvement
- Lower the Waterline - Change Management

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- SEA is a strategy - not a tactic

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Thank You



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