



Unified Port
of San Diego

**AAPA
2015
Executive
Management
Conference
May 7, 2015**

Agenda

- About the Port of San Diego
- Technology Environment
- Cyber Security
- Automation for Maritime
- Technology Strategic Plan
- Technology Governance




The Port's Jurisdiction

3,535

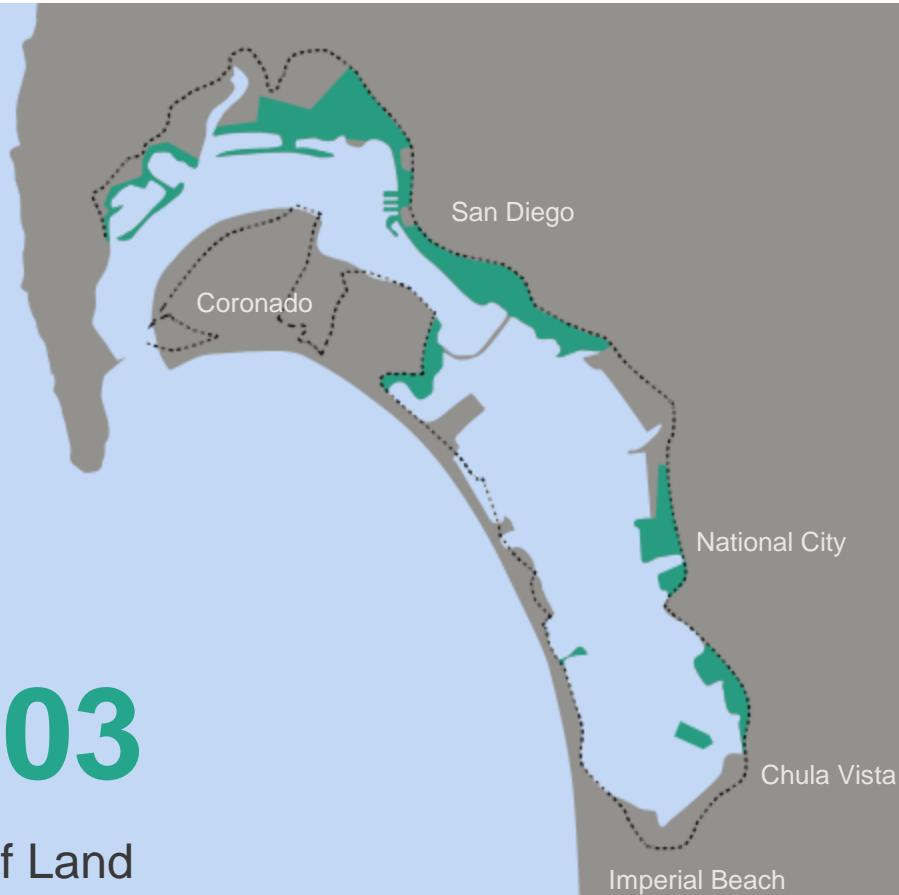
Acres of Water

2,403

Acres of Land

 Tidelands

--- Mean High Tide Line



Tidelands Trust Act

- Details Port's responsibilities
- Directs Port to manage San Diego Bay and the Tidelands
- Port must promote commerce, navigation, recreation and fisheries



Governance

- Seven-member appointed board
- 526 employees
- \$144.6 million budget
- Funded through business ventures, not taxes.



Board of Port Commissioners



Dan Malcolm
Chairman



Marshall Merrifield
Vice Chairman



Dukie Valderrama
Secretary



Garry Bonelli



Rafael Castellanos

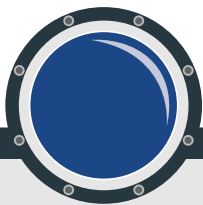


Ann Moore



Bob Nelson

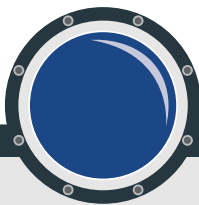
What we do



Harbor Police



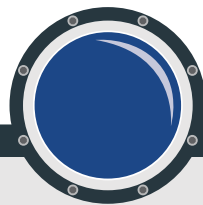
- Land/Water
- Firefighting
- Airport



Maritime



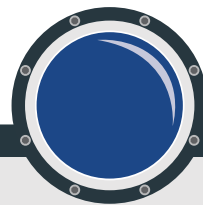
- Cruise
- Cargo
- Strategic Port



Recreation



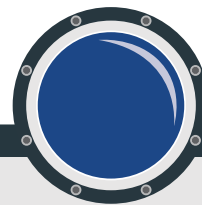
- 22 Parks
- 150 Acres
- Special Events



Environmental and Land Use



- Land Use Planning
- Green Programs
- Restoration



Real Estate Development



- 800 Leaseholds
- New Development

Technology Environment



Cyber Security

Cyber Security

- Newly Dedicated IT Security Section
 - IT Security Supervisor
 - IT Security Analyst
- Adoption of NIST Cyber Security Standards for Critical Infrastructures
- Risk-based Management Approach
 - Audit Plan of Action & Milestones
 - Continuous Vulnerability Scanning
- Added Risk Mitigation through Cyber Insurance



Cyber Security

- Current Projects
 - Disaster Recovery Cloud Solution
 - Cyber Security Awareness Training (Basic, CJIS and PCI)
 - Firewall Hardening
 - Encrypted USB Mobile Devices
 - State of California Automated Threat Information Exchange (ATIX)



Cyber Security

- Prospective Grant Projects
 - Enterprise Identity Management
 - PIV-I Smart Card (Logical/Physical Access, Digital Signature and Encryption)
 - Security Information And Event Management (SIEM)
 - Privileged Credential Management



Cyber Security

- Area Maritime Sensor Program



Maritime Automation

Tariff & Billing rules

Pricing conditions and routines are set up in SAP to determine pricing and calculate the net value.

Per the tariff, full dockage is charged based on a rate determined by the length overall (LOA) of the vessel.

If the vessel's stay is less than 24 hours, the customer is charged a minimum of 24 hours. If the vessel stays more than 24 hours, the customer is charged per 6 hour increments.

In this example, the vessel's stay was 23 hours and 17 minutes and will therefore be charged for 24 hours.

RATES FOR FULL DOCKAGE					
Overall Length of Vessel in Meters (FT)			Overall Length of Vessel in Meters (FT)		
Over	But Not Over	Charge Per 24-Hour Day	Over	But Not Over	Charge Per 24-Hour Day
0 (0)	30 (98.4)	\$82	210 (689.0)	225 (738.2)	\$3,585
30 (98.4)	45 (147.6)	\$123	225 (738.2)	240 (787.4)	\$4,144
45 (147.6)	60 (196.8)	\$169	240 (787.4)	255 (836.6)	\$4,744
60 (196.8)	75 (246.1)	\$236	255 (836.6)	270 (885.8)	\$5,386
75 (246.1)	90 (295.3)	\$350	270 (885.8)	285 (935.0)	\$6,065
90 (295.3)	105 (344.5)	\$550	285 (935.0)	300 (984.2)	\$6,786
105 (344.5)	120 (393.7)	\$789	300 (984.2)	315 (1033.5)	\$7,253
120 (393.7)	135 (442.9)	\$1,066	315 (1033.5)	330 (1082.7)	\$8,348
135 (442.9)	150 (492.1)	\$1,386	330 (1082.7)	345 (1131.9)	\$9,188
150 (492.1)	165 (541.3)	\$1,746	345 (1131.9)	360 (1181.1)	\$10,070
165 (541.3)	180 (590.5)	\$2,145	360 (1181.1)	375 (1230.3)	\$10,990
180 (590.5)	195 (639.8)	\$2,585	375 (1230.3)	390 (1279.5)	\$11,953
195 (639.8)	210 (689.0)	\$3,065	390 (1279.5)		(1)

(1) Dockage charges for vessels 390 meters in overall length or over shall be \$33.00 per day for each lineal meter of overall length or fraction thereof in excess of 390 meters in addition to the above charge of \$11,953.

(2) Charges beyond the first twenty-four (24) hours shall be assessed in whole six-hour increments at twenty-five percent (25%) of the full rate for each subsequent six (6) hour period.

(3) Vessels on lay status, which is defined as a vessel waiting for a berth to discharge and/or load cargo, may be permitted to moor at idle terminal berths, upon the discretion of the Executive Director, when such berths are available. Lay status permission must be obtained by written application prior to the vessel's arrival. Dockage charges for vessels on lay status will be assessed at fifty-percent (50%) of the full dockage rate.

(4) Lay berthing of commercial barges at Port of San Diego facilities when space is available will be at 100% of the full dockage rate.

NOTE: Length in feet for reference only. Dockage charged by length in meters.


0575
(A)

Berth Request






A request to reserve a berth comes from a vessel's agent and the information is entered into SAP as a notification.

Notification	400000703	ZB																	
Notific. Status	OSNO	INTL																	
<div>Ship Arrival Notification Berth Request Details Utilities Wharfage Details Partner Details</div>																			
Vessel Name	JEAN ANNE			<input type="checkbox"/> Not to be reported Dock & Sail															
Expected Arrival Date	01/05/2015	Expected Arrival Time	10:51:13																
Expected Departure Date	01/06/2015	Expected Departure Time	00:00:00																
Berth Requested	BU 1000/00000005/00000053			Berth 24-2															
<table border="1"><thead><tr><th></th><th>Country</th><th>Port Name</th></tr></thead><tbody><tr><td>Last Port of Call (Vessel)</td><td>US</td><td>USA HILO</td></tr><tr><td>Next Port of Call (Vessel)</td><td>US</td><td>USA HONOLULU</td></tr><tr><td>Origin Country (Cargo)</td><td></td><td></td></tr><tr><td>Destination Country (Cargo)</td><td></td><td></td></tr></tbody></table>						Country	Port Name	Last Port of Call (Vessel)	US	USA HILO	Next Port of Call (Vessel)	US	USA HONOLULU	Origin Country (Cargo)			Destination Country (Cargo)		
	Country	Port Name																	
Last Port of Call (Vessel)	US	USA HILO																	
Next Port of Call (Vessel)	US	USA HONOLULU																	
Origin Country (Cargo)																			
Destination Country (Cargo)																			
Type of Vessel	CARGO VESSEL																		
Sub-Type Of vessel	RORO																		
Vessel Classification	RORO																		
Actual Arrival Date		Actual Arrival Time	00:00:00																
Actual Departure Date		Actual Departure Time	00:00:00																
Actual Berth																			
Email ID for Contractor																			
Total Hours	0.00	Reference Text																	
No. Of Days	1	Reference Text																	

Supervisor review & approval

Notification **400000703** ZB 

Notific. Status OSNO **APPR**

 Ship Arrival Notification
  Berth Request Details
  Utilities
  Wharfage Details
  Partner Details

Vessel Name **JEAN ANNE** ☐ Not to be reported

Expected Arrival Date **01/05/2015** Expected Arrival Time **10:51:13**

Expected Departure Date **01/06/2015** Expected Departure Time **00:00:00**

Berth Requested **BU 1000/00000005/00000053** Berth 24-2

	Country	Port Name
Last Port of Call (Vessel)	US USA	HILO
Next Port of Call (Vessel)	US USA	HONOLULU
Origin Country (Cargo)		
Destination Country (Cargo)		

The information is displayed on the SDMIS website as the Commercial Vessel Schedule

Date: Apr 15, 2015

Status	Vessel Name	Arrival	Time	Departure	Time	Last Port	Ctry	Next Port	Ctry	Berth	Movement	Cargo Type	Agent	Stevedore	Flag
In Port															
In Port	TRIANON	03/25/2015	18:50:00	03/25/2015	unkn	PORT HUENEME	US	ULSAN	KR	Berth 24-10, Sweetwater	INBOUND	AUTOMOBILES	PSH	PASHA	NO
Sailed															
Sailed	CSAV RIO GRANDE	01/04/2015	06:30:00	01/05/2015	13:00:00	TACOMA	US	LÁZARO CÁRDENAS	MX	Berth 24-5, Container	INBOUND	AUTOMOBILES	PSH	PASHA	LR
To Arrive															
To Arrive	JEAN ANNE	01/05/2015	10:51:13	01/06/2015	unkn	HILO	US	HONOLULU	US	Berth 24-2					US
To Arrive	CROWN PRINCESS	01/29/2015	15:00:25	02/11/2015	16:00:00	LOS ANGELES	US	ENSENADA	MX	Berth B-4			PSH	METRO	BH

Dock & Sail updates

Wharfinger updates SAP when the vessel docks

Dock

Date docked 01/05/2015

Time docked 16:38:00

Actual Berth BU 1000/00000005/00000053

Draft Forward Meters(M)

Draft After Meters(M)

Docking Pilot

Wharfinger

Docking Notes

OK Cancel



..... and when the vessel sails

Sail

Date Sailed 01/06/2015

Time Sailed 16:17:00

Draft Out Forward Meters(M)

Draft Out After Meters(M)

Sailing Pilot

Sailing Wharfinger

Sailing Notes

OK Cancel

Calculations

- Displays actual arrival and departure
- Calculates total hours for dockage calculation and determines charges

Notification	400000703	ZB																	
Notific. Status	OSNO	APPR																	
Sales ord.																			
Ship Arrival Notification Berth Request Details Utilities Wharfage Details Partner Details																			
Vessel Name	JEAN ANNE			<input type="checkbox"/> Not to be reported															
Expected Arrival Date	01/05/2015	Expected Arrival Time	10:51:13																
Expected Departure Date	01/06/2015	Expected Departure Time	00:00:00																
Berth Requested	BU 1000/00000005/00000053			Berth 24-2															
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Actual Departure Date	01/06/2015	Actual Departure Time	16:17:00																
Actual Berth	BU 1000/00000005/00000053			Berth 24-2															
Email ID for Contractor																			
Total Hours	24.00																		
No. Of Days	2																		
Reference Text																			
Reference Text																			

Sales Order

EMOS Sales Order 915 Net value 39,560.55 USD

Sold-To Party 228 Pasha Group, The / 1309 Bay Marina Drive / National City CA 91950

Ship-To Party 228 Pasha Group, The / 1309 Bay Marina Drive / National City CA 91950

PO Number PO date

Sales Item overview Item detail Ordering party Procurement Shipping Reason for rejection

Req. deliv.date 01/05/2015 Deliver.Plant

Contract start Contract end

☐ Complete div. Total Weight 0 KG

Delivery block Volume 0.000

Billing block 02 Compl Confirm Missng Pricing date 01/07/2015

Payment card Exp.date

Card Verif.Code

Payment terms NT45 Net due in 45 days Incoterms

All items

Item	Material	Order	Order Quantity	Un	Description	PO Details	Net value
100	0575	1005 BERTH 24-2	176.470	M	FULLDOCK		1,619.47
200	0666	1005 BERTH 24-2	91	EA	WHARFHITRD		1,086.23
300	0666	1005 BERTH 24-2	243.670	T	WHARFHITRD		3,320.67
400	0666	1005 BERTH 24-2	1	EA	WHARFHITRD		143.52
500	0666	1005 BERTH 24-2	0.495	T	WHARFHITRD		6.61
600	0666	1005 BERTH 24-2	38.227	T	WHARFHITRD		510.85
700	0666	1005 BERTH 24-2	1	EA	WHARFHITRD		16.35
800	0666	1005 BERTH 24-2	6	EA	WHARFHITRD		339.75
900	0666	1005 BERTH 24-2	8	EA	WHARFHITRD		906.00
1000	0666	1005 BERTH 24-2	1,546	EA	WHARFHITRD		18,453.91
1100	0666	1005 BERTH 24-2	314.664	T	WHARFHITRD		4,288.17

Repairs

Billing Approval

The Sales Order goes through automated workflow and is reviewed/approved by the Marine Terminal Supervisors.

Once approved, it is ready for billing and the customer is invoiced.



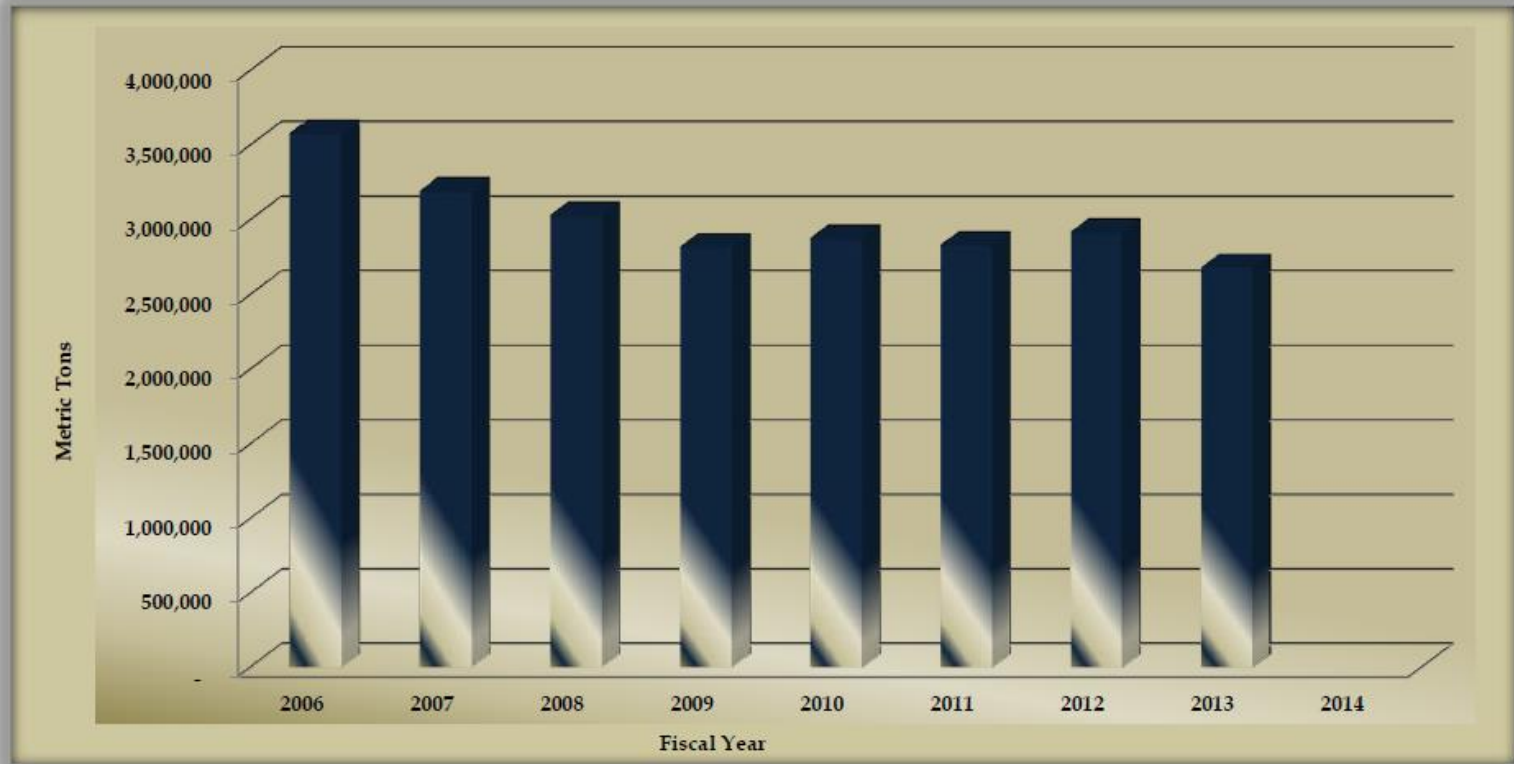
SAN DIEGO UNIFIED PORT DISTRICT
FINANCE DEPARTMENT
P.O. BOX 120488
SAN DIEGO, CA 92112-0488

PHONE: (619) 686-6258
FAX: (619) 686-6279
WEB: www.portofsandiego.org

INVOICE NO: 90001428						
TRIP REF: 400000703			INVOICE DATE: 02/20/2015			
VESSEL: JEAN ANNE			DUE DATE: 04/06/2015			
BERTH: Berth 24-2						
SERVICE DATE: 01/05/2015 16:38:00 - 01/06/2015 16:17:00						
CUSTOMER: Pasha Group, The dba Pasha Automotive Services 1309 Bay Marina Drive National City CA 91950			CUSTOMER NO: 228 REFERENCE:			
ITEM	TARIFF	SERVICE AND DESCRIPTION	QTY	MEAS	RATE	AMOUNT
10	0575	Full Dockage	4.000	6 HRS	\$36.25	1,619.47
20	0666	Hawaiian Trade (A) VEH, AUTO, PLEASURE, PAX	91.000	EA	15.81	1,086.23
30	0666	Hawaiian Trade (B) COMM, Vehicles, Trailers	243.670	T	18.05	3,320.67
40	0666	Hawaiian Trade (D-1) ENCL 48' Trailer--Loaded	1.000	EA	190.09	143.52
50	0666	Hawaiian Trade (F) REC & UTL Trailers	0.495	T	17.7	6.61
60	0666	Hawaiian Trade (G) Cargo N.O.S.	38.227	T	17.7	510.85
70	0666	Hawaiian Trade (H) Empty Trailers	1.000	EA	21.65	16.35
80	0666	Hawaiian Trade (M-1) CRG NOS (0 - 7 Meters)	6.000	EA	75	339.75
90	0666	Hawaiian Trade (M-3) CRG NOS (Over 9 Meters)	8.000	EA	150	906.00
100	0666	Hawaiian Trade (A) VEH, AUTO, PLEASURE, PAX	1,546.000	EA	15.81	18,453.91
110	0666	Hawaiian Trade (B) COMM, Vehicles, Trailers	314.664	T	18.05	4,288.17
120	0666	Hawaiian Trade (C) MACH, FARM, CONST, Other	231.777	T	17.7	3,097.35
130	0666	Hawaiian Trade (D-1) ENCL 48' Trailer--Loaded	6.000	EA	190.09	861.11
140	0666	Hawaiian Trade (F) REC & UTL Trailers	3.261	T	17.7	43.68
150	0666	Hawaiian Trade (G) Cargo N.O.S.	129.750	T	17.7	1,733.92
160	0666	Hawaiian Trade (H) Empty Trailers	15.000	EA	21.65	245.19
170	0666	Hawaiian Trade (M-1) CRG NOS (0 - 7 Meters)	3.000	EA	75	168.67

Reports & Dashboards

Total Annual Tonnage



Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	3,580,967	3,192,885	3,030,929	2,819,472	2,877,298	2,830,463	2,920,337	2,682,661	
% Change	-	-10.8%	-5.1%	-7.0%	2.1%	-1.6%	3.2%	-8.1%	-100.0%

Reports & Dashboards

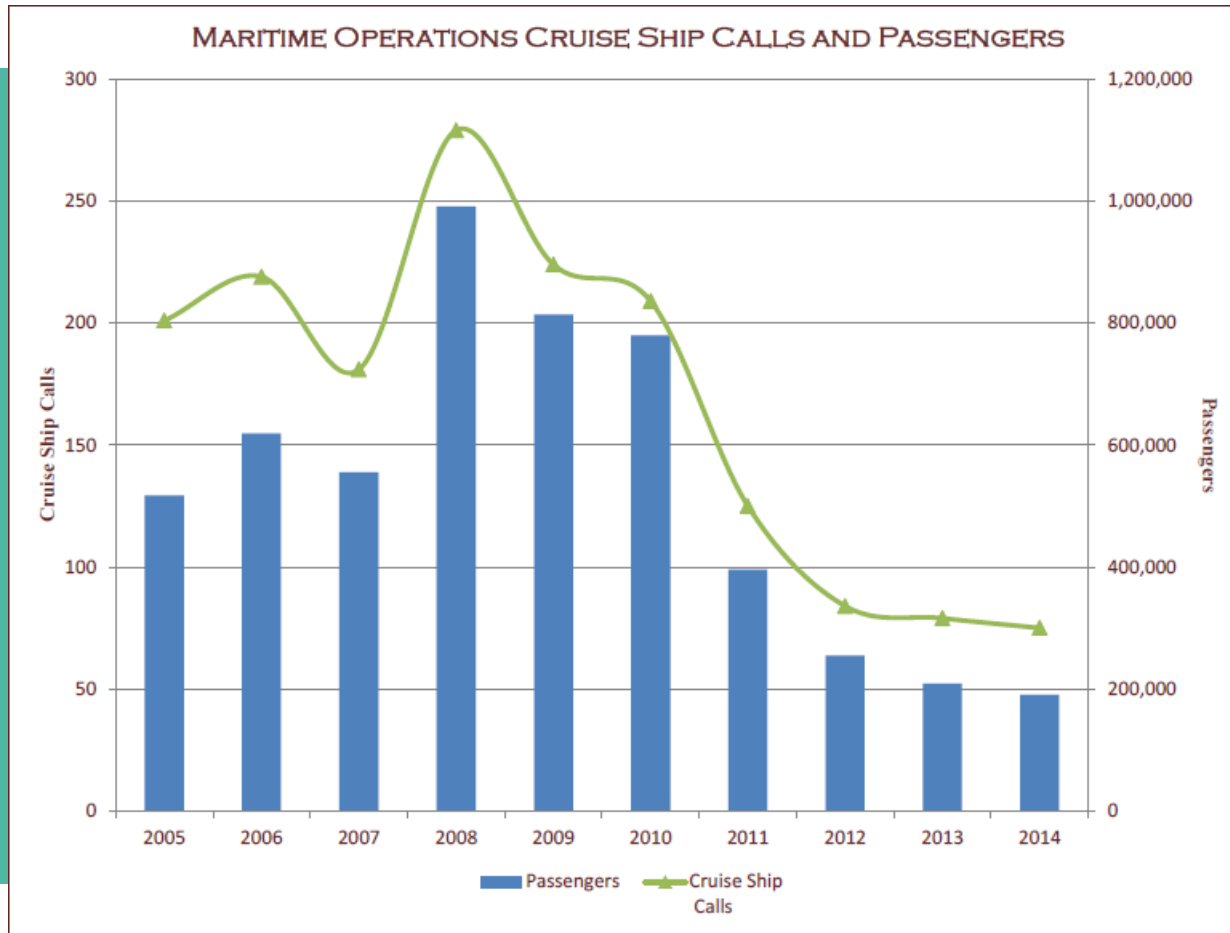
Cargo Volumes by Type

(EXPRESSED IN METRIC TONS)

Cargo	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Cement	651,488	759,942	547,708	227,423	160,590	127,679	122,233	115,962	88,618	121,218
Sand	390,331	474,748	378,422	215,501	114,537	-	-	-	-	-
Fertilizer	163,284	85,406	69,263	77,470	46,849	54,478	41,494	50,917	36,503	41,304
Soda Ash, Potash, Sodium Sulf.	-	-	5,184	-	-	-	-	14,928	10,897	51,570
Lumber	151,407	142,127	116,958	134,732	80,146	63,994	72,645	77,188	65,344	17,701
Fresh Fruit	51,848	59,866	45,295	29,870	-	-	-	-	-	-
Newsprint	34,410	29,922	27,628	2,283	-	-	-	-	-	-
Petroleum	126,721	137,900	133,086	178,078	153,589	162,225	111,078	75,806	71,822	74,003
Autos	352,147	458,900	543,715	664,870	394,569	401,375	379,821	468,786	545,001	556,954
Container	639,476	670,246	615,208	618,830	604,841	580,822	617,289	640,586	621,921	660,586
Steel Coils	8,544	335	3,831	31,358	20,400	5,546	6,732	9,849	43	-
Windmills	-	41,819	93,262	63,191	94,101	25,106	10,763	68,541	15,360	3,942
Other	118,728	160,446	139,239	162,002	121,384	150,015	129,487	172,800	219,577	140,966
Total Cargo	2,688,384	3,021,657	2,718,799	2,405,608	1,791,006	1,571,240	1,491,542	1,695,363	1,675,086	1,668,244
Minimum Annual Guarantee (MAG)	613,875	559,310	474,086	625,322	1,028,467	1,306,058	1,338,920	1,224,974	1,007,575	996,412
Total Cargo with MAG	3,302,259	3,580,967	3,192,885	3,030,930	2,819,473	2,877,298	2,830,462	2,920,337	2,682,661	2,664,656

Reports & Dashboards

Cruise Ship Calls and Passengers



Technology Strategic Plan

Technology Strategic Plan

5 year Technology Strategic Plan

- Developed 2012
- Currently in Year 3
- Now 7 year plan

Technology Strategic Plan 2013-2019

YEAR 1 FY12/13

Board Room Equipment Refresh
Dash Board
Data Center Study
ECMS, RMS, Imaging, AW, Email
MS Windows 7 Upgrade
Permitting System Parks / Events
Refresh Desk/Laptops Older than 5 Years
Refresh Server Older than 5 Years
Replace GroupWise

YEAR 4 FY15/16

BITS Staff Resources (ECMS, WEB, GIS)
Computer Aided Dispatched System (CAD)
CRM Application
Disaster Recovery Mirrored Site
ECMS Phase III – Records Management
Events Scheduling Application
GIS Applications
Lease Negotiation & Real Estate
Refresh Desk/Laptops Older than 5 Years
Refresh Server Older than 5 Years
Enterprise Budget Prep & Mgt. Requirements
Refresh Mobile Terminals
Scanner Equipment & Backfile Updates

YEAR 2 FY 13/14

Automated Board Agenda Application
BITS Staff Resources (ECMS, WEB, GIS)
Board Room Equipment Refresh
ECMS, RMS, Imaging, AW, Email
E-Government Website / Portal
MOIS Replacement
Refresh Desk/Laptops Older than 5 Years

YEAR 5 FY 16/17

BITS Staff Resources (ECMS, WEB, GIS)
CCTV Security Strategy
Disaster Recovery Mirrored Site
Enterprise Benefits Management System
Grants Management Application
Refresh Desk/Laptops Older than 5 Years
Refresh Server Older than 5 Years
Modify SAP for Year End Process
Enterprise Reporting & Warehouse Management
Modify SAP Payroll Process

YEAR 7 FY 18/19

BITS Staff Resources (ECMS, WEB, GIS)
Contract Management System
Enterprise Asset Management System
Learning Management System
Performance Evaluation Application
Refresh Desk/Laptops Older than 5 Years
Refresh Server Older than 5 Years
SAP Reporting
SAP Treasury Function Integration

YEAR 3 FY14/15

BITS Staff Resources (ECMS, WEB, GIS)
CRM – Requirements Gathering
Disaster Recovery Mirrored Site
ECMS Phase II – Digital Asset Management
E-Gov Go-Live Phase – NEW Internet Site
E-Gov – eDiscovery & Public Records Request
EPM – Project Reporting and Task Management
Park Permitting System
Refresh Desk/Laptops Older than 5 Years
Lease Negotiation & Real Estate Requirements
SAP AP Electronic Approval
Enterprise Budget Management (BETA)
Enterprise Reporting & Warehouse
IT Security Functions
Planned Maintenance Enhancements
Audit Management Software

YEAR 6 FY 17/18

BITS Staff Resources (ECMS, WEB, GIS)
ERP HR E-Personnel Files
Leave of Absence Application
Refresh Desk/Laptops Older than 5 Years
Refresh Server Older than 5 Years
SAP Reporting

What is Technology Governance?

- Process to vet and prioritize technology initiatives
- Why
 - ✓ Assures that the investments in IT generate business value
 - ✓ Mitigates the risks that are associated with IT
 - ✓ Improves project success
 - ✓ Compliance Issues addressed proactively instead of reactively
- **Members are Directors and Executive Leadership**

TGF Key Rules

- Oversee IT strategy and policy decisions
- Base information technology decisions on the Technology Strategic Plan (TSP)
- Position BITS as a strategic department that resolves business issues with information technology
- Ensure the TSP remains up-to-date, relevant, and in alignment with the Ports technology and strategic goals

TGF Process

Step 1 - Submission



Step 2 – Request Review



Step 3 – Business
Justification



Step 4 – TGF Formal
Review

Criteria for Prioritization

Criteria	Score			
	5	3	1	0
Supports Enterprise Arch	Enterprise	Department	Section	No
Improves Efficiencies	Enterprise	Department	Section	No
Improves Customer Service	Transaction	Interactive	Informational	No
Supports Legal Mandates	Required	Facilitates	Supports	No
Cost Benefit Potential	>\$2.0M	\$1.0 - \$1.9M	\$250k - \$900k	<250k
Capacity BITS	FY+1	FY+2	FY+3	FY+4
Capacity Department	FY+1	FY+2	FY+3	FY+4
Budget	FY+1	FY+2	FY+3	FY+4
Project Alignment	5P	3P	1P	No

Questions?

