

Marine Exchange of Southern California and Vessel Traffic Service of Los Angeles & Long Beach



**MX SoCal
Delivers
Efficiency, Security, and Safety**

**PORTCON
Los Angeles & Long Beach**

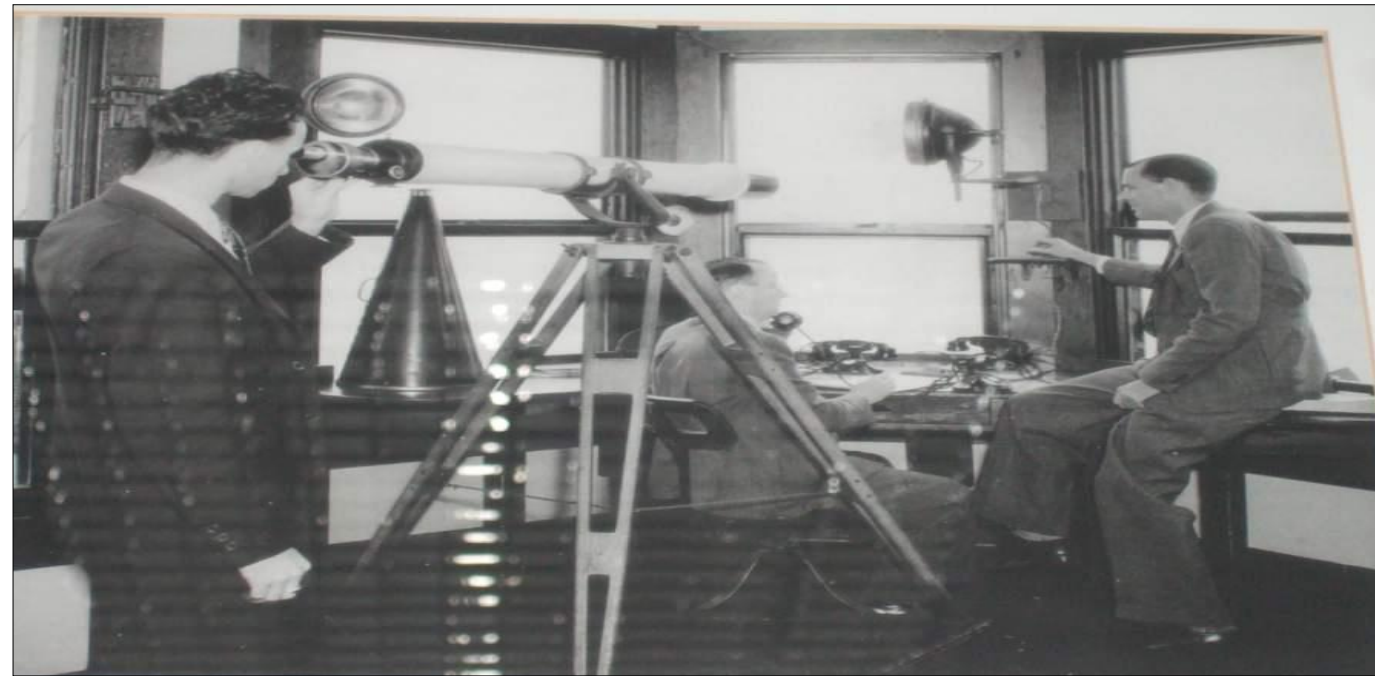
28 October 2019

**Capt. Kip Louttit
USCG, Retired
Executive Director**

***Safe, Secure, Efficient, Reliable &
Environmentally Sound Maritime Transportation***

MX SoCAL: 1923 to 2019

96 years of changing functions, processes, and technology to meet needs of customers and ports.



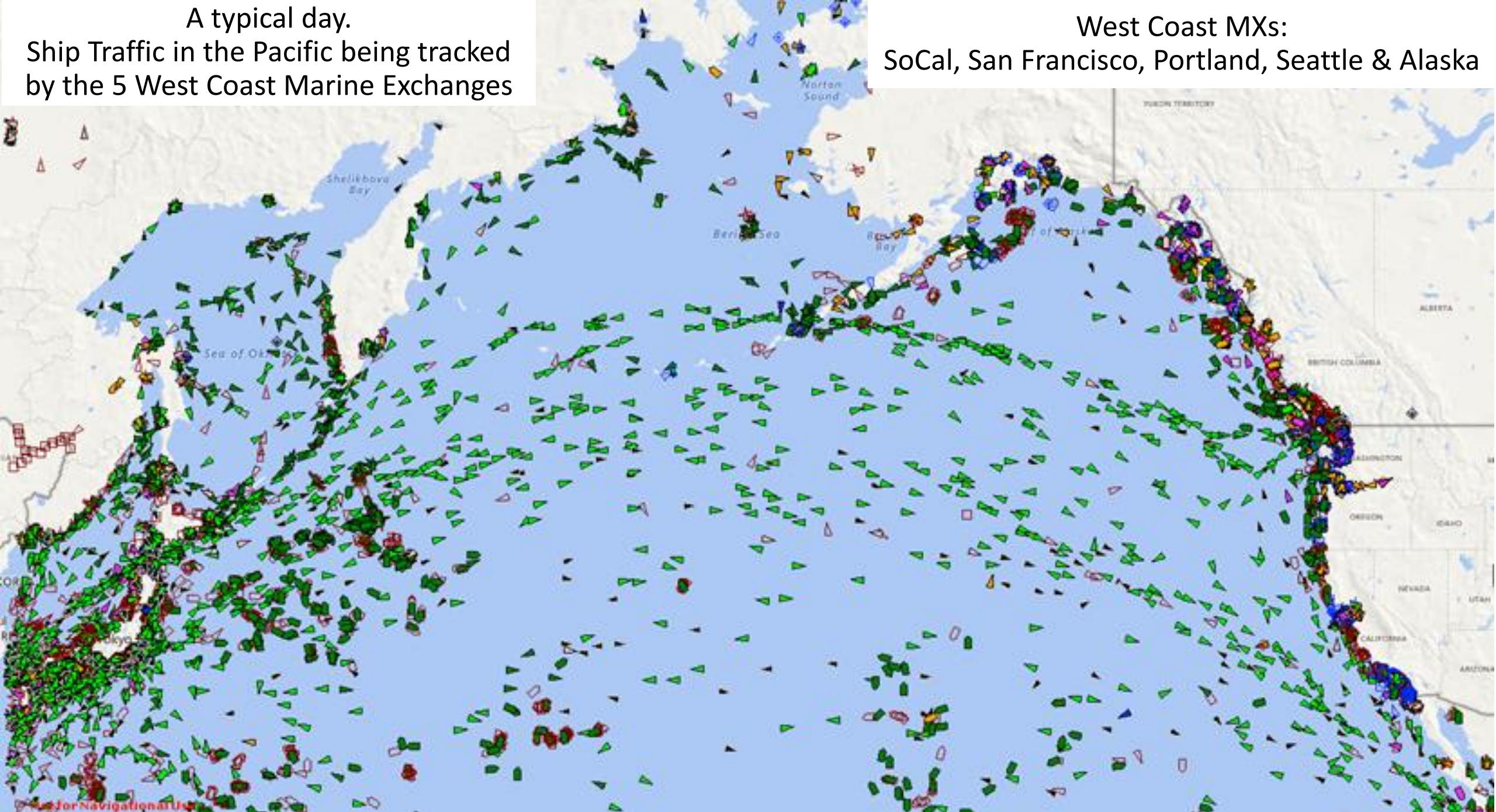
Telescopes, megaphones & blackboards replaced by state of the market technology!

A typical day.

Ship Traffic in the Pacific being tracked by the 5 West Coast Marine Exchanges

West Coast MXs:

SoCal, San Francisco, Portland, Seattle & Alaska



Ports of Los Angeles – Long Beach

- Nation's Largest Container Port Complex
 - LA #1, LB #2, NY/NJ #3
- World's 9th busiest port complex by container volume (2018) (same as 2017)
- **17.5m TEUs (2018)** (16.1m 2017)
- ~\$1.3B cargo value *per day*
- Nearly 50% of the seaborne cargo entering the U.S.
- > 1 million passengers
- > 50% of California's oil
- ~500,000 autos
- ~3 million jobs nationwide



MX SoCal: 2 Main Business Lines

Maritime Information For SoCal

- 1923 to present
- Gather and collate schedules for ~4,550 vessels/year arriving, departing, shifting in ports of LA/LB
- 50-60 ships in port every day
- 96 Hour Advance Notice of Arrival program (Help CG enforce Post 9/11 Security protocols)
- Gather and collate schedules for Port Hueneme, El Segundo (Chevron Offshore Terminal) & San Diego
- Conduct Special Programs such Vessel Speed Reduction Programs for Air Quality for POLA and POLB (*Green Flag*)

501c(6) non-profit firm that reports to a Board of Directors

MX Vessel Traffic Service LA/LB

- 1994 to present
- Unique Public/Private Partnership
 - MX, U.S. Coast Guard & State of California
- Maritime Version of Air Traffic Control
- Over 28,000 safe vessel movements (2018)
- Excel at Special Events
 - LA Fleet Week
 - LB Gerald Desmond Bridge Replacement
- Excel at Crisis Management
 - Pasha Pier Fire, 6" Tsunami, Congestion 2014-2015, Planes & Helo Crashes, Oil Spill, Hanjin Bankruptcy & Maersk Cyber Attack

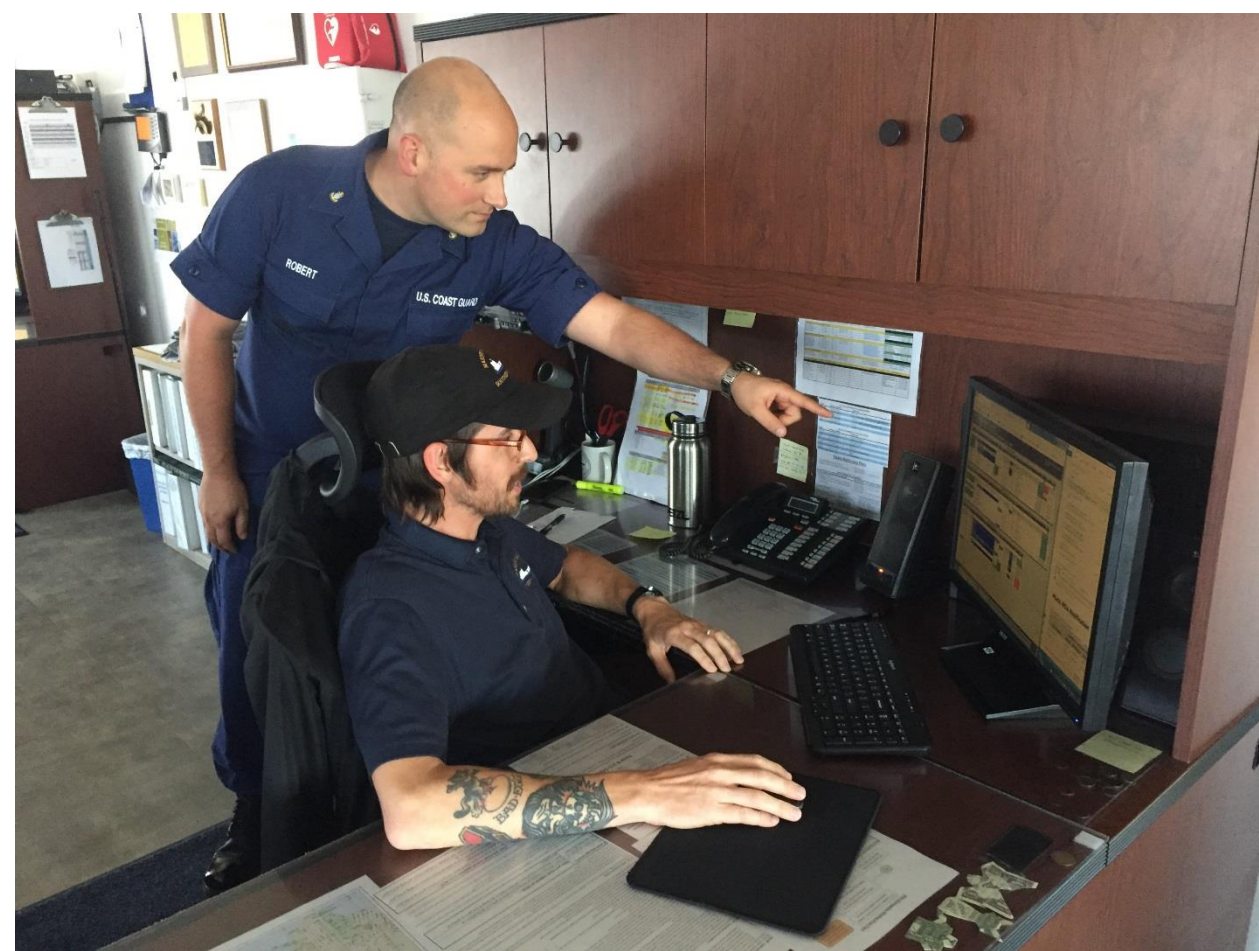
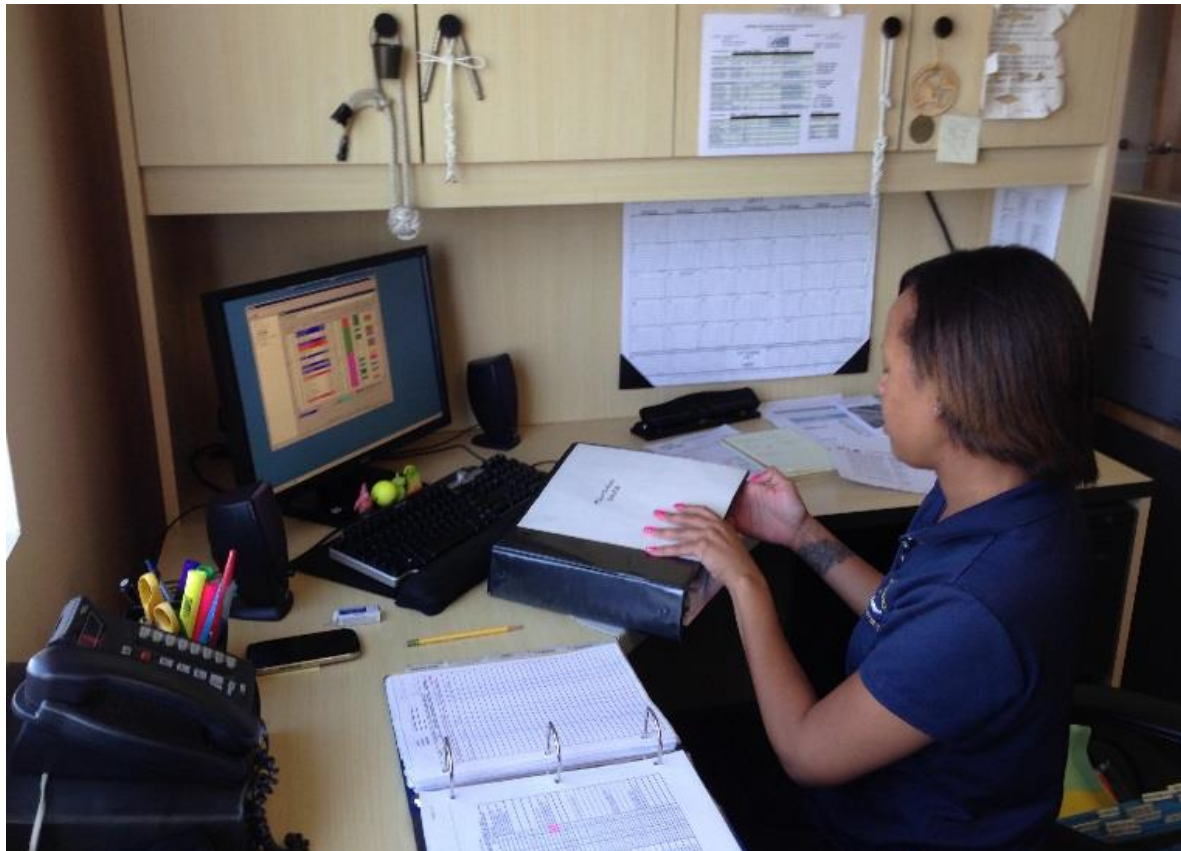
Zero Collisions, Allisions, or Groundings in more than 600,000 Vessel movements in 25 years of service

MX Marine Information Specialists

Office Hours:

0600-1700 Mon-Fri 0600-1400 Sat/Sun

1. Contact agents daily to gather & update ship movement info & create MX reports



2. Cross-check agent info to Coast Guard 96-hour Ship Advance Notice of Arrival database; identify anomalies
3. MIS & MX VTS partnership quickly resolves issues when schedules/berths/anchorage change

Maritime Information Services

• Sample Vessel Info:

- Arrival
- Departure
- Shift
- LPOC/NPOC
- Agent
- Berth
- Other info

• Pushed out daily at 0700 and 1200

• On-line 7/24 by subscription

• Custom Reports, Research & Analysis

MARIS 2.2 Screen Shot
 Color Coded Displays

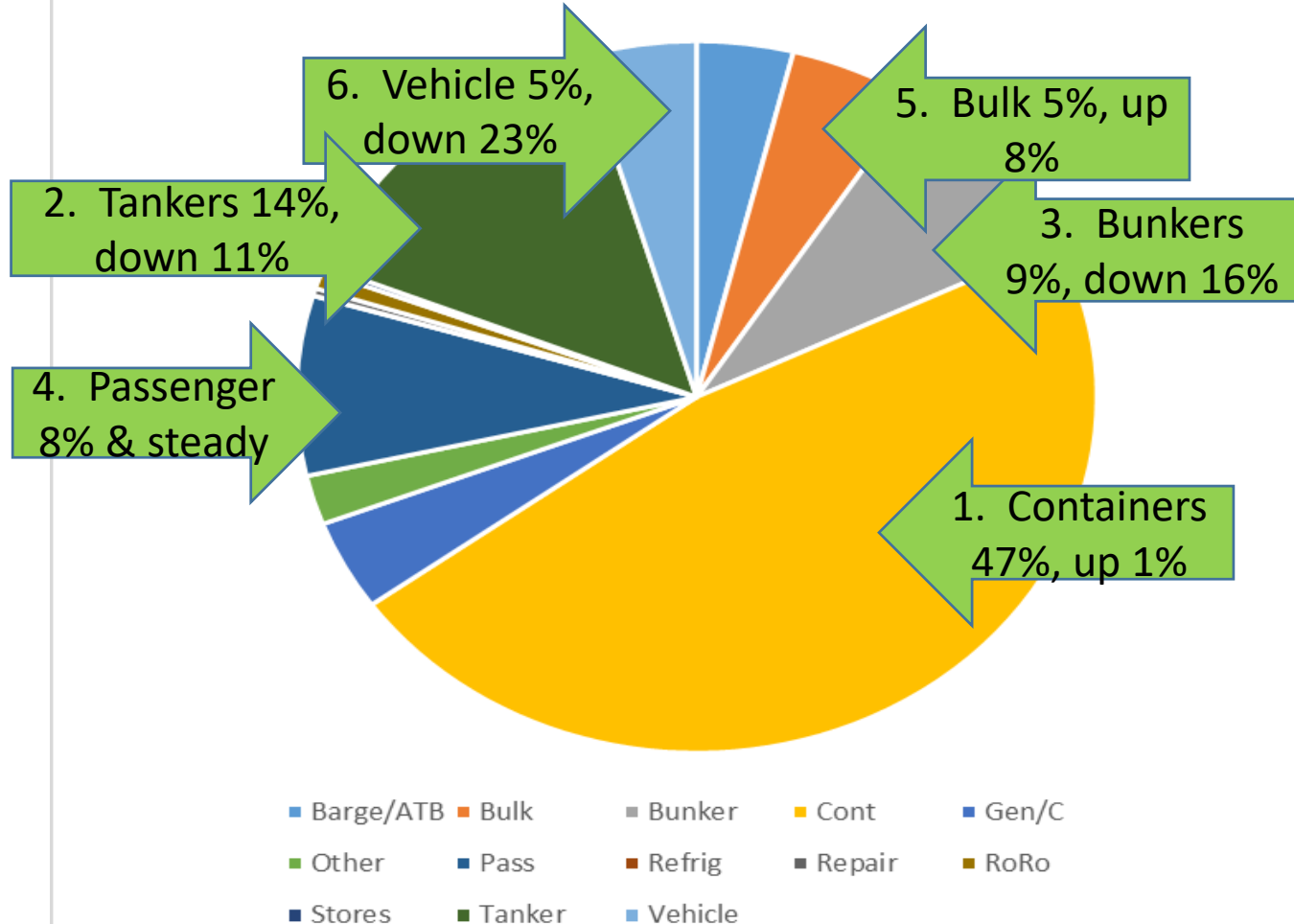
The screenshot displays the MARIS (MARitime Information System) interface. It features a navigation menu at the top with options like Home, Events, Local Events, Events Summary, Agent's Events, Vessels, Port/Berth/Terminals, A/S/D List, and Settings. The main content area is divided into three sections:

- Pending Vessels (110):** A table with columns for Info Source, ETA, Name, Berth, Activity, LOA, Flag, Type, Call Sign, From, EDA, NOA ETA, and NOA EDA. The 'USS AMERICA' vessel is highlighted with a red box, showing an ETA of 14:30 and activity 'PubRe'.
- Vessels Due To Sail (116):** A table with columns for Under Way, Info Source, ETD, Name, Berth, LOA, Flag, Type, Call Sign, and For. It lists vessels like 'SUNSET BAY(T: MIKIONA)' and 'KING DORIAN' with their respective departure times and agents.
- Vessels Due To Shift (26):** A table with columns for Under Way, Info Source, ETS, Name, From Berth, To Berth, LOA, Flag, Type, Call Sign, and EDS. It shows vessels like '650-2 (GULF RELIANCE)' and 'FLORIDA VOYAGER' with their shift times and agents.

Green diagonal labels are overlaid on the right side of the screen: 'Arrivals' (top), 'Departures' (middle), and 'Shifts' (bottom).

MX VTS works with Pilots to sequence vessels with simultaneous arrival times

Ship Types Arriving LA & LB by Percent 2018



Arrivals to Ports of Los Angeles and Long Beach arrayed by ship type.

Percent of total (market share) and percent change from 2017

Jan-Sep 2019 compared to 2018:
Total ships down 60
Container ships down 89

Updated 10/17/2019

Ranking	8	5	3	1	7	9	4	13	11	10	12	2	6	
2018	Barge/ATB	Bulk	Bunker	Cont	Gen/C	Other	Pass	Refrig	Repair	RoRo	Stores	Tanker	Vehicle	Total
Count	177	240	396	2146	187	102	371	1	15	36	12	653	211	4547
Percent	4%	5%	9%	47%	4%	2%	8%	0.02%	0.3%	1%	0.3%	14%	5%	100%

2018 had the same ranking as 2017 with the exception that vehicle and bulk ships swapped... vehicle dropped to #6 and bulk went up to #5.

**SENSITIVE
INFORMATION**For security reasons, please
handle and dispose of
properly**THE MARINE EXCHANGE**

P.O. BOX 1949, SAN PEDRO, CA 90733 - PHONE (310) 832-6411

**Vessel Advance Arrival Report
LOS ANGELES/LONG BEACH HARBOR**

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Vessel Name	Flag	Prop	Type	Call Sign	Activity	From	Agent	ETA	Berth
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6 ships Arriving Today**Tuesday, 10/29/2019**

* BOSTON	LBR	M	TCR	D5BA5	Bnkrs	Basrah, IRQ-Sea (PAL)	GAC Shipping (USA)	1400	Anc-IS
IVORY ARROW	BHS	M	URR	C6TM4	Disc	Lazaro Cardenas, MEX-San Diego, USA	K-Line America	0100	B83
* MSC AZOV	MLT	M	UCC	9HA3457	D/L	Manzanillo, MEX	Norton/MSC	0400	T134
MSC SILVANA	PAN	M	UCC	3EEI3	Load	Oakland, USA	Norton/MSC	0400	T136
* NYK LAURA	PAN	M	UCC	H9LL	D/L	Manzanillo, MEX	Norton/ONE	1400	212
* SEALAND GUAYAQUIL	LBR	M	UCC	A8QP3	D/L	Lazaro Cardenas, MEX	Maersk Line	1300	402

18 Ships Arriving Tomorrow**Wednesday, 10/30/2019**

* ARIANE	LBR	M	TPD	D5FO5	CoC	Vanino, RUS	GAC Shipping (USA)	1700	Anc-IS
* CAP PALMERSTON	LBR	M	UCC	A8MW6	D/L	Lazaro Cardenas, MEX	Maersk Line	0300	T140
* CAP PAPATELE	SGP	M	UCC	9V3741	D/L	Pago Pago, ASM	Maersk Line	1300	A94
* EMINENT ACE	JPN	M	MVE	7JUL	Disc	Toyohashi, JPN	Norton Lilly Int'l	0500	B83
* EVER LEGACY	SGP	M	UCC	9V9290	D/L	Taipei, TWN	Evergreen Shpg Agcy (America)	0500	230
* GERDA MAERSK	DIS	M	UCC	OUJS2	D/L	Prince Rupert, CAN	Maersk Line	0300	TT1
GRAND PRINCESS	BMU	DE	MPR	ZCBU5	D/L	Victoria, CAN-Santa Barbara, USA	Princess Cruises	0530	93A
* HYUNDAI FORCE	MHL	M	UCC	V7PT8	D/L	Pusan, KOR	Hyundai (UCC)	1400	404
* HYUNDAI JAKARTA	KOR	M	UCC	D7HJ	D/L	Pusan, KOR	Hyundai (UCC)	1400	T134
MOKIHANA	USA	M	URC	WNRD	D/L	Honolulu, USA	Matson Nav.	1630	C62
* NYK THESEUS	PAN	M	UCC	3FOG4	D/L/B	Cai Mep, VNM	Norton/ONE	1430	G232
* OOCL MEMPHIS	HKG	M	UCC	VRLQ3	D/L	Kaohsiung, TWN	OOCL (USA) Inc.	1515	E26
* SM NINGBO	LBR	M	UCC	D5SW4	D/L	Pusan, KOR	Norton/SM Line	0500	A96
STAR PRIDE	SGP	M	GRF	9V9351	Bnkrs	Port Hueneme, USA	General SS	1000	Anc-IS

8 vessels from 8 U.S. Ports

1. Sea/PAL after Iraq
2. San Diego, CA after Mexico
3. Oakland, CA
4. Santa Barbara, CA after Canada
5. Honolulu, CA
6. Port Hueneme, CA
7. El Segundo, CA
8. Cherry Point (Bellingham, WA)

16 vessels from 8 Foreign Ports

1. Mexico (5)
2. Russia (1)
3. Pago Pago (1)
4. Japan (2)
5. Taiwan (2)
6. Canada (1)
7. Korea (3)
8. Vietnam (1)

12.5 ships/day normal average
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Vessel Name	Flag	Prop	Type	Call Sign	Activity	From	Agent	ETA	Berth
STORVIKEN	BHS	M	TCR	C6ZT8	Bnkrs	El Segundo, USA	GAC Shipping (USA)	0500	Anc-IS
* TAMESIS	NIS	M	MVE	LAOL5	D/L	Hitachinaka, JPN	Norton/WWL	0500	F205
TORM SUPREME	SGP	M	TPD	9V5664	Bnkrs	Cherry Point, USA	Inchcape Shipping Svcs.	2300	Anc-IS
* VISION OF THE SEAS	BHS	DE	MPR	C6SE8	D/L	Cabo San Lucas, MEX	Intercruises	0530	92

Data-driven decisions can be made using this sort of information

Advance Ship Movements for next 2 days

10/28/2019 06:45

SENSITIVE INFORMATION
For security reasons, please handle and dispose of properly

THE MARINE EXCHANGE

P.O. BOX 1949, SAN PEDRO, CA 90733 - PHONE (310) 832-6411

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ADVANCE SHIP MOVEMENTS AT LOS ANGELES/LONG BEACH HARBOR

Period: 10/28/2019 To 10/30/2019

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Event	Vessel Name	LOA	Flag	Type	Prop	Net Tons	Date	Time	From	To	Activity	Agent	Operator
Departure	IVORY ARROW	199.96	BHS	URR	M	21,037	10/29/2019	2300	F207			K-Line America	K Line
Shift	GULF PEARL	228.19	BHS	TCR	M	21,863	10/29/2019	2330	Anc-D7	164	Disc	GAC Shipping (USA)	Gulf Energy Maritime
Arrival	CAP PALMERSTON	186.36	LBR	UCC	M	9,277	10/30/2019	0300		T140	D/L	Maersk Line	Maersk Pacific
Arrival	GERDA MAERSK	366.89	DIS	UCC	M	57,019	10/30/2019	0300		TTI	D/L	Maersk Line	Maersk Pacific
Departure	OOCL LONDON	322.97	HKG	UCC	M	59,077	10/30/2019	0300	E24			OOCL (USA) Inc.	OOCL (USA) Inc.
Shift	LONDON VOYAGER	336.00	BHS	TCR	M	111,537	10/30/2019	0400	Anc-IS	T121	Disc	GAC Shipping (USA)	Chevron Shipping Co. LLC
Departure	MAUNALEI	207.40	USA	UCC	M	12,538	10/30/2019	0400	C62			Matson Nav.	Matson Nav.
Departure	MSC SILVANA	331.99	PAN	UCC	M	59,577	10/30/2019	0400	T136			Norton/MSC	MSC
Departure	APOLLO	225.00	MHL	BBU	M	26,159	10/30/2019	0500	G214			General SS	Norden A.S.
Arrival	EMINENT ACE	199.95	JPN	MVE	M	17,578	10/30/2019	0500		B83	Disc	Norton Lilly Int'l	Mitsui Bulkship
Arrival	EVER LEGACY	334.98	SGP	UCC	M	48,236	10/30/2019	0500		230	D/L	Evergreen Shpg Agcy (America)	Evergreen Shpg. (America)
Departure	HORIZON RELIANCE	272.30	USA	UCC	S	13,355	10/30/2019	0500	121			Pasha Hawaii Holdings	Pasha Hawaii Holdings
Arrival	SM NINGBO	304.00	LBR	UCC	M	44,353	10/30/2019	0500		A96	D/L	Norton/SM Line	SM Line Corp
Arrival	TAMESIS	244.52	NIS	MVE	M	23,674	10/30/2019	0500		F205	D/L	Norton/WWL	Wallenius Wilhelmsen
Arrival	GRAND PRINCESS	289.52	BMU	MPR	DE	72,417	10/30/2019	0530		93A	D/L	Princess Cruises	Princess Cruises
Arrival	VISION OF THE SEAS	279.00	BHS	MPR	DE	46,471	10/30/2019	0530		92	D/L	Intercruises	Royal Caribbean Cruise Line
Shift	KANALA	182.50	MLT	TPD	M	14,372	10/30/2019	0600	Anc-G5	118	Disc	Transmarine Nav.	Astra Ship Management
Departure	MARLIN APATITE	183.16	MHL	TPD	M	14,291	10/30/2019	0600	Anc-IS			Transmarine Nav.	MSBA Apatite LLC
Arrival	STAR PRIDE	162.50	SGP	GRF	M	6,724	10/30/2019	1000		Anc-IS	Bnkrs	General SS	Del Monte
Departure	CSL TECUMSEH	228.60	BHS	BBU	M	17,091	10/30/2019	1200	D44			General SS	CSL
Arrival	STORVIKEN	274.55	BHS	TCR	M	46,578	10/30/2019	1200		Anc-IS	Bnkrs	GAC Shipping (USA)	Petrobras
Arrival	CAP PAPATELE	147.79	SGP	UCC	M	5,117	10/30/2019	1300		A94	D/L	Maersk Line	Maersk Pacific
Arrival	HYUNDAI FORCE	339.60	MHL	UCC	M	51,638	10/30/2019	1400		404	D/L	Hyundai (UCC)	Hyundai (UCC)
Arrival	HYUNDAI JAKARTA	303.83	KOR	UCC	M	43,151	10/30/2019	1400		T134	D/L	Hyundai (UCC)	Hyundai (UCC)
Arrival	NYK THESEUS	304.06	PAN	UCC	M	27,684	10/30/2019	1430		G232	D/L/B	Norton/ONE	Ocean Network Express
Arrival	OOCL MEMPHIS	334.95	HKG	UCC	M	55,603	10/30/2019	1515		F26	D/L	OOCL (USA) Inc.	OOCL (USA) Inc.
Arrival	MOKIHANA	262.14	USA	URC	M	18,844	10/30/2019	1630		C62	D/L	Matson Nav.	Matson Nav.
Arrival	ARIANE	228.60	LBR	TPD	M	22,444	10/30/2019	1700		Anc-IS	CoC	GAC Shipping (USA)	Navig8 Pte. Ltd.
Departure	CAP PALMERSTON	186.36	LBR	UCC	M	9,277	10/30/2019	1700	T140			Maersk Line	Maersk Pacific
Departure	PRESIDENT EISENHOWER	300.04	USA	UCC	M	48,047	10/30/2019	1700	304			Norton/APL	ASM
Departure	SEALAND GUAYAQUIL	208.97	LBR	UCC	M	13,016	10/30/2019	1700	402			Maersk Line	Maersk Pacific
Departure	GRAND PRINCESS	289.52	BMU	MPR	DE	72,417	10/30/2019	1730	93A			Princess Cruises	Princess Cruises
Departure	VISION OF THE SEAS	279.00	BHS	MPR	DE	46,471	10/30/2019	1730	92			Intercruises	Royal Caribbean Cruise Line

~12.5 vessel arrivals per day to LA & LB
~30-35 large vessel movements per day (arrivals/departure/shifts)

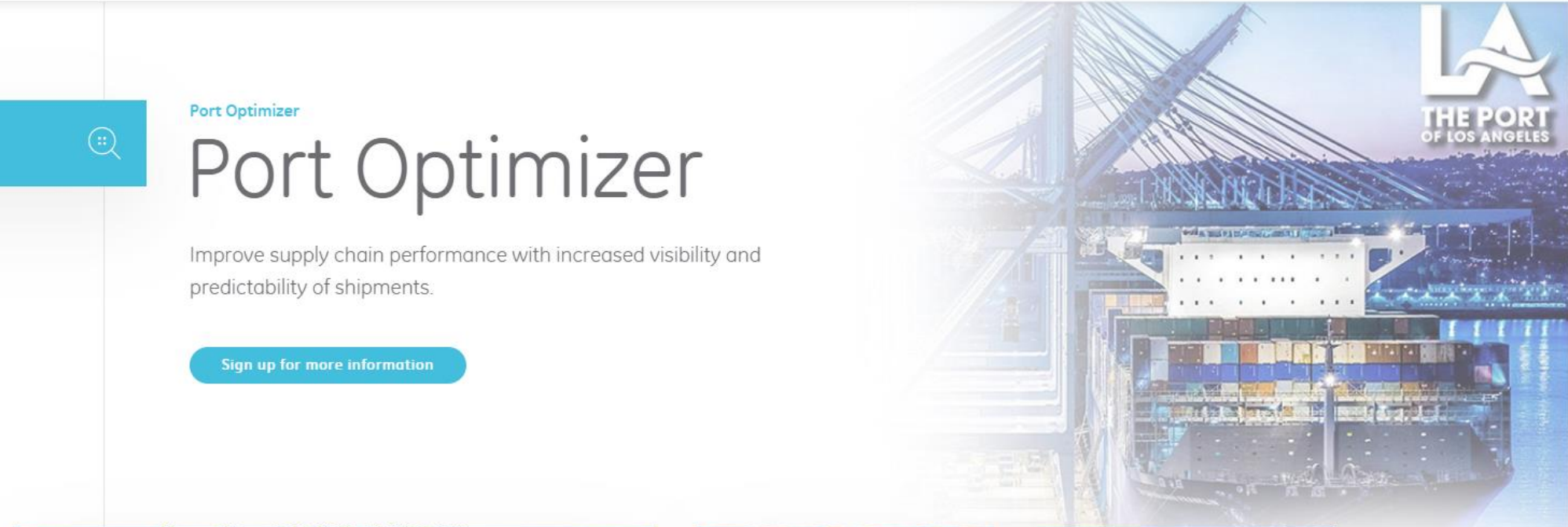
Morning Rush Hours
16 vessels in 3 hours

Dinnertime Rush Hour

7 vessels in 1 hour

Goal: "Improve supply chain performance with increased visibility and predictability of shipments."

MX SoCal gives ship arrival, departure & shift data feed.



Port Optimizer

Port Optimizer

Improve supply chain performance with increased visibility and predictability of shipments.

[Sign up for more information](#)

Featured Solution



News



Event

Minds + Machines: Port of Los Angeles'...

FEBRUARY 09, 2018

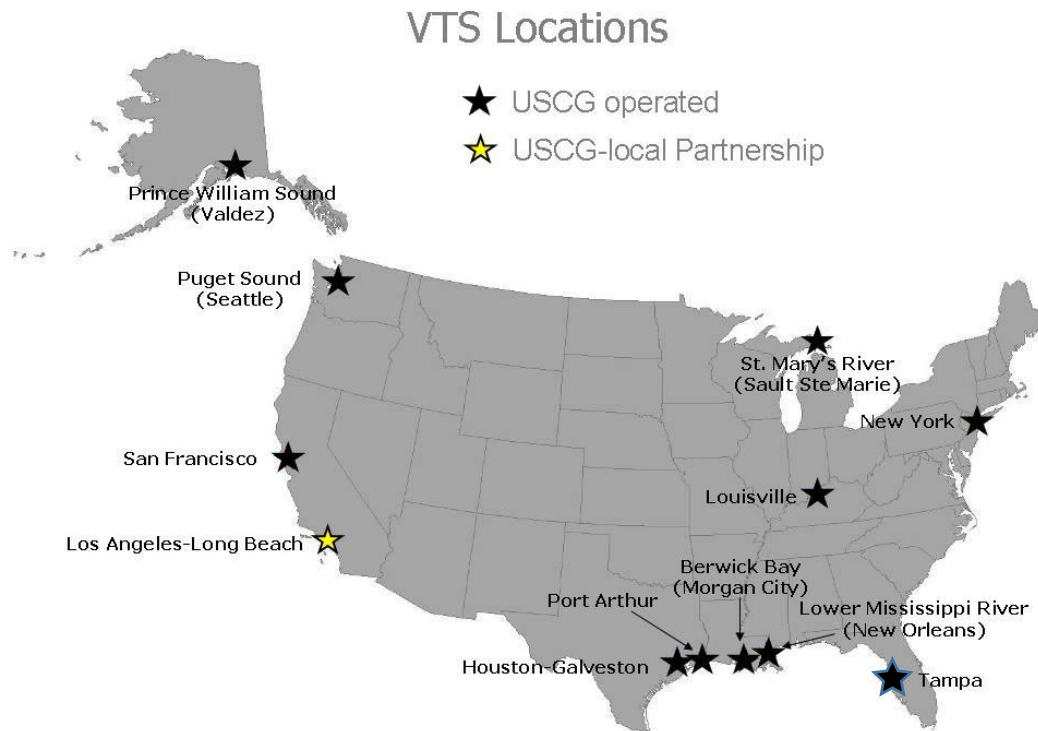
Find out how the Port of Los Angeles is partnering with GE Transportation to align its people,

12 Vessel Traffic Services (VTS) in the U.S.

“The purpose of a Vessel Traffic Service (VTS) is to provide active monitoring and navigational advice for vessels in particularly confined and busy waterways.” USCG

11 VTSs are staffed, equipped, operated, and funded by the Coast Guard

LA/LB, is a unique public/private partnership between the Coast Guard, Marine Exchange, & local partners



The unique Public/Private VTS Partnership in LA/LB is safe, effective & efficient

>28,000 vessel movements per year

More than 600,000 safe movements since system established in 1994

Zero collisions, allisions, or groundings of participating vessels

The unique Public/Private Partnership between the Coast Guard and MX is safe, effective & efficient



- 6 Coast Guard members assigned to the MX
- Each VTS Watch includes:
 - ✓ 2 Marine Exchange Controllers, funded by user fees
 - ✓ 1 CG Controller, funded by the CG



CG Controller gives MX VTS LA/LB its Captain of the Port Authority 13

VTS Equipment

- Kongsberg Norcontrol C-Scope VTS system
- State of the Market Equipment
- Integrated radar sites
- Integrated AIS sites
- VHF-FM radios
- Optical camera
- “*Big-Eyes*” binoculars
- Recording Equipment



The nation's largest port complex has a world class Vessel Traffic Service with great equipment, very well maintained, and fabulous, experienced, and well-trained/qualified team of CG & MX traffic controllers.

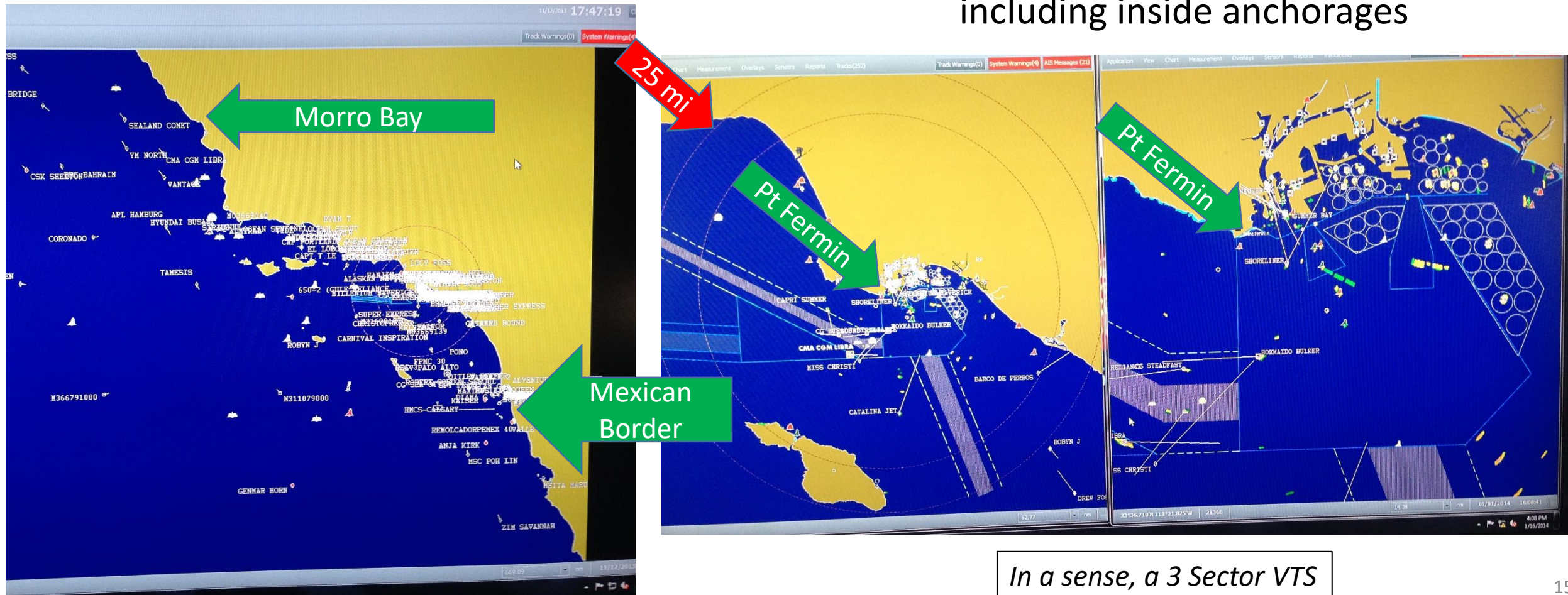
3-4 people in the building 7/24/365

Maritime Domain Awareness for Safety and Security

MX can reliably see all vessels using AIS from Morro Bay to the Mexican Border and out 100 miles

Vessel Traffic Control:

1. Marine Exchange's VTS LA/LB controls traffic within 25 miles of Point Fermin and the outside anchorages
2. Pilots control traffic inside the breakwaters:
 - a. Los Angeles Pilots (LAP)
 - b. Jacobsen Pilot Service (JPS) (Long Beach)... including inside anchorages



In a sense, a 3 Sector VTS



Busy MX VTS operations;
>28,000 vessel movements/year

Volume of Traffic
 Largest ships in the world

Non-Participating vessels
 in lanes and
 precautionary area

Cross traffic to/fm the coast
 and Catalina

Commercial vessel "Incidents"
 Loss of Propulsion & Steering

VTS Sequence: Monitor, Inform, Recommend, Direct

MX Partnerships

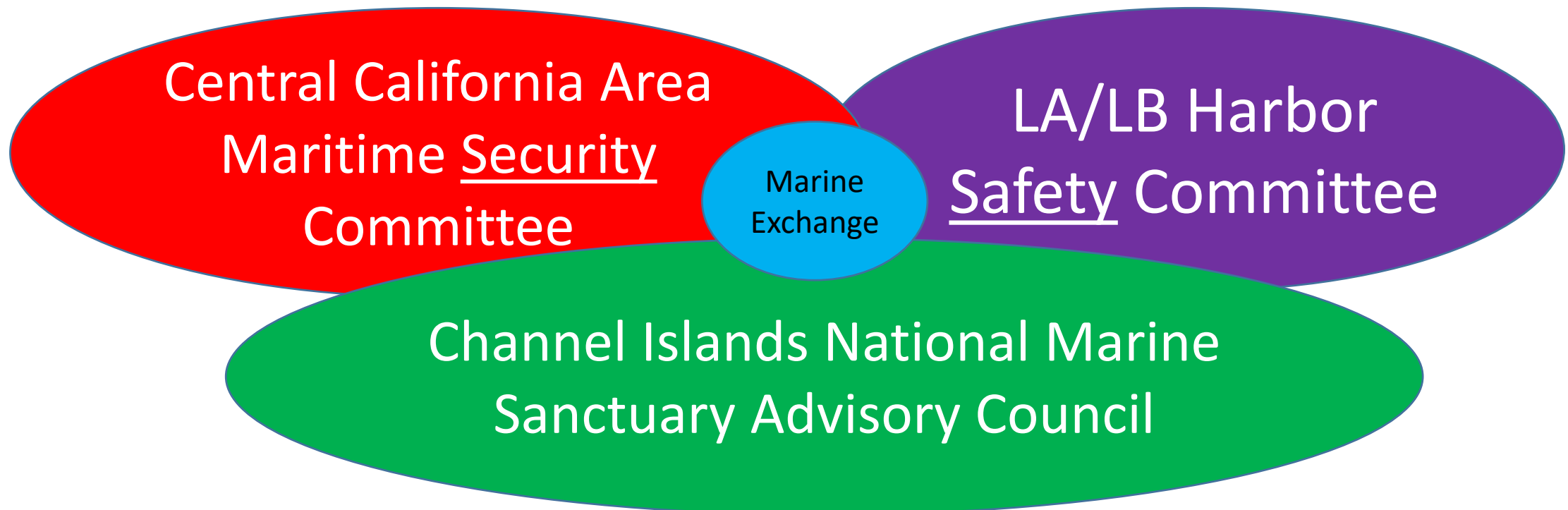
- Marine Exchange
- U.S. Coast Guard
- State of California
- Ports of LA, LB, Hueneme, San Diego & Chevron El Segundo
- LA & LB Pilot Organizations
- Maritime Industry & Stakeholders
- LA & LB Harbor Safety Committee
- Central California Area Maritime Security Committee (AMSC)
- Channel Island National Marine Sanctuary Advisory Council

- Ship Operators, Owners & Agents
- Terminals & Waterfront Business Community
- Railroads and Truckers
- Cargo consignees and shippers
- Environmental Groups
- Government: (Federal...NOAA, **FBI**, US Secret Service, DoD (USN, USAF, USACOE)), State (BOE), County/Local (PD, FD), etc.
- Universities: USC (Create & Sea Grant), UCSD (Scripps, SCCOOS, CDIP)
- Vessel Types:
 - Petroleum & Chemicals
 - Container, Bulk & General Cargo, & Reefers
 - Passengers and Ferries
 - Vehicles & Roll-on/Roll-off
 - Tugs, Barges & Towing
 - Bunker (fueling)
 - Commercial Fishing
 - Recreational Boaters and Fishing

Partnerships & Intersections...

MX and many partners serve on different committees & councils,
...which have different areas of focus.

Many organizations & people are on several to ensure coordination.



5 Vessel Traffic Service Partners in LA/LB – 1 Common Operating Picture



Los Angeles Pilot Station



Long Beach Pilot Station
Jacobsen Pilot Service



Marine Exchange VTS Watch Floor



CG Sector LA/LB Command
Center on Terminal Island
Photo unavailable for security reasons



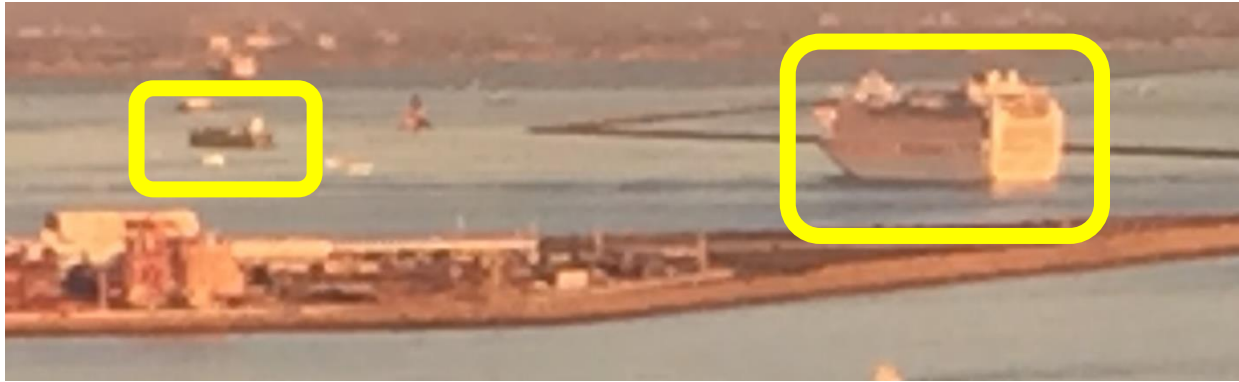
Port of Long Beach
Joint Command and Control Center

All 5 partners use the same **Kongsberg Norcontrol VTS** system on one Local Area Network

Common Operating Picture

Crisis Management – Planes crash Fri 5 Feb 2016

Enabled safe and coordinated operations between the CG, divers, VTS, and the LA and JPS/LB pilot organizations



Above: Friday - Diverted outbound Tug/Barge *Vision* & Cruise Ship *Crown Princess* out Long Beach Gate due to Los Angeles Gate being closed.

Right: Through Wednesday, diverted ships around dive operations. Here, outbound Cruise Ships *Norwegian Jewel* and *Ruby Princess*, and inbound *Salvia Ace*

Rescue/Recovery thru Wed 10 Feb



Challenges:

Huge ships... getting bigger

Deep draft tankers... up to 69' draft

Narrow channels

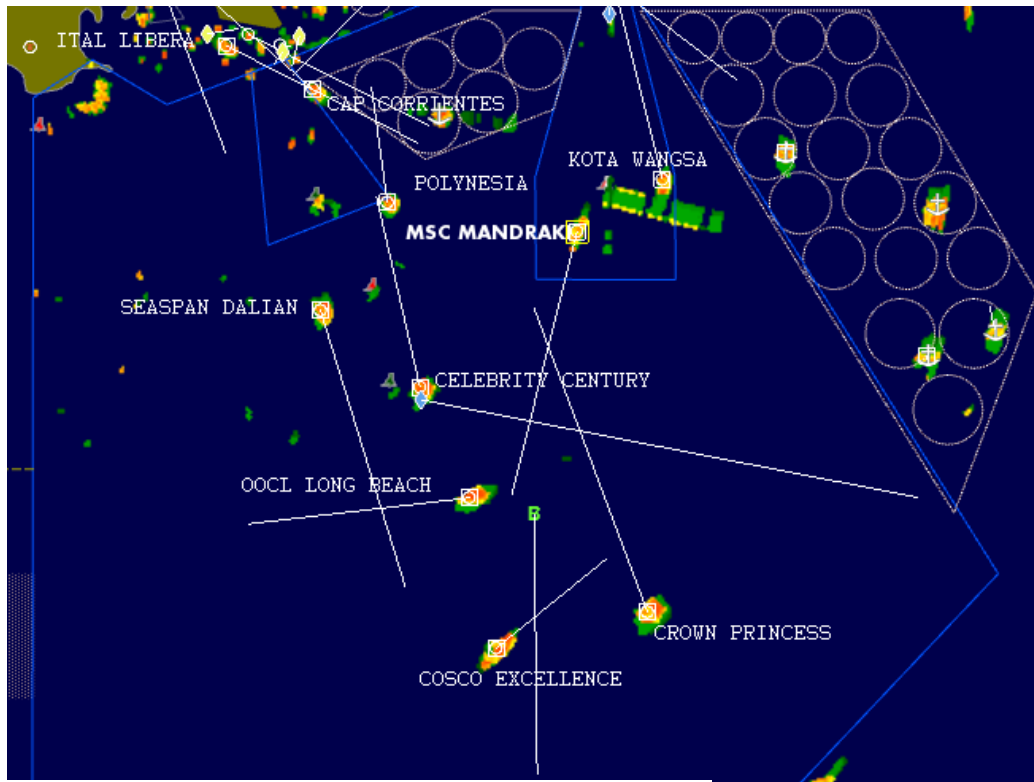
Tight schedules

Bad weather

7x24x365 MX, VTS, Pilots, Tugs, Ports & Port Partners work together to ensure safe, secure, efficient, reliable, and environmentally sound vessel movement



Deeper Drafts: 69' draft tankers started entering Long Beach 4/1/2017



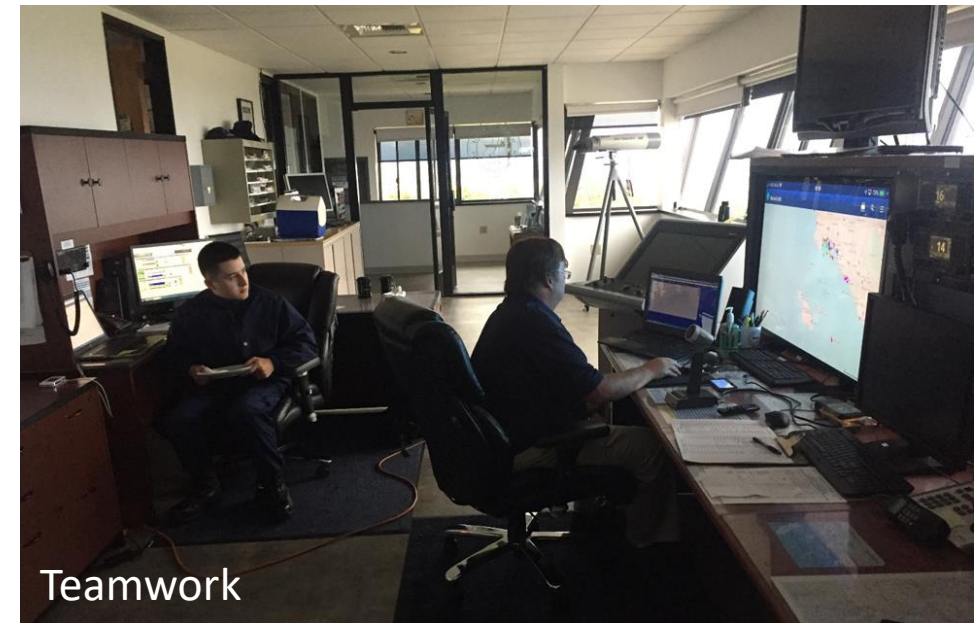
5:09 AM... a typical busy morning

VTS Record of success:

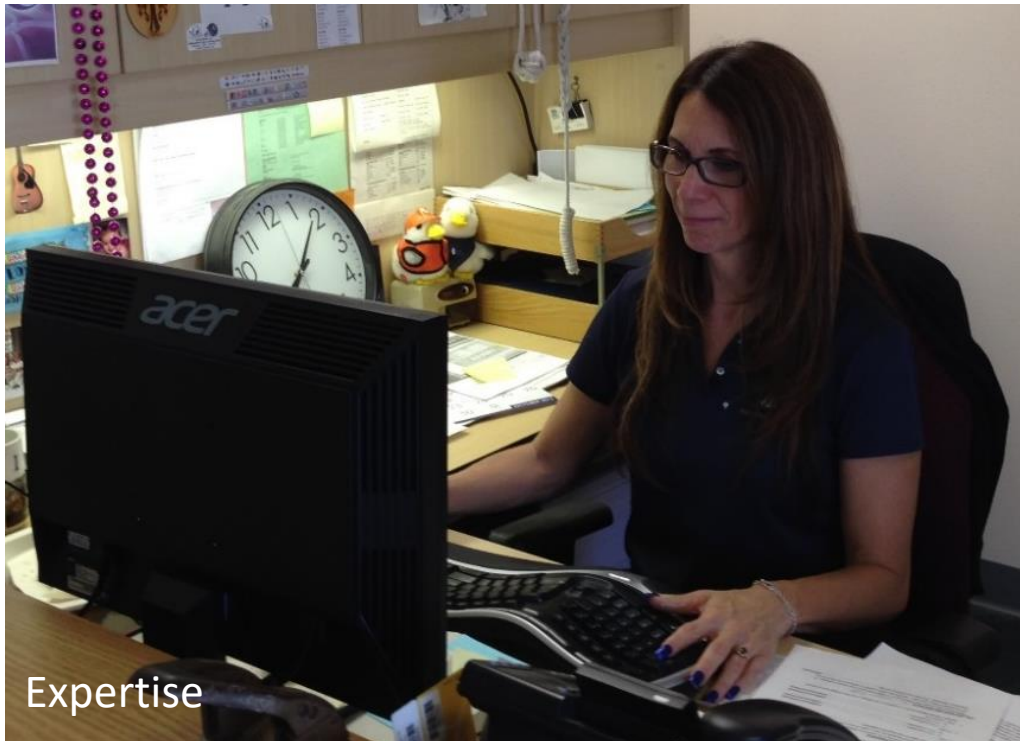
ZERO collisions or groundings of participating vessels in more than 600,000 transits during 25 years of operations.

Modern Equipment
+ Great MX & CG People
= a Strong Marine Exchange & VTS

...helping ensure a safe, secure, efficient, reliable,
and environmentally sound
marine transportation system for SoCal & LA-LB



Teamwork

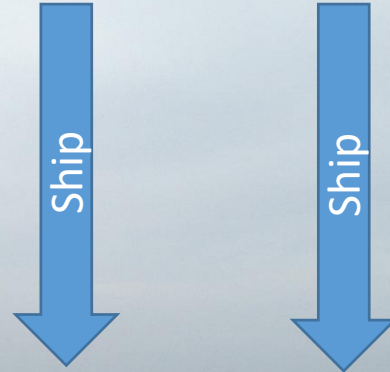


Expertise



Vigilance

We enable close, efficient & safe spacing



We enable safe ship movement when other ports would need to shut down.



MX mission: 7 x 24 x 365 provide traffic management, communications, and maritime information services to promote a safe, secure, efficient, reliable and environmentally sound marine transportation system.

MX: There when you need us most... emergencies (fires, medical, rescue), fog and bad weather, natural or man made disasters

**24 Hour Vessel Traffic Center
Watch Floor: 310-832-6411
www.mxsocial.org**

MX SoCal, POC Capt Kip Louttit 310 519 3127
klouttit@mxsocial.org

Points of Contact:

CAPT Kip Louttit, Executive Director

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klouttit@mxsocial.org

Reid Crispino, General Manager

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reid@mxsocial.org

Pat Baranic, VTS Operations and Training Manager

Work: 310-732-5041 Cell: 310-941-0865

pbaranic@mxsocial.org

End