#### SOMETIMES THERE JUST AREN'T ENOUGH ROCKS...

CMANC 12 NOVEMBER 2020

Chuck Mesa USACE – Los Angeles District Chief, Coastal Engineering









#### COASTAL NAVIGATION STRUCTURE ASSET MANAGEMENT



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dit       SPD       Los Angeles       Channel Islands Harbor       North Jetty, California       Jetty       2017-10-13       B		Division	<ul> <li>District</li> </ul>	Project Name	Structure Name 🗸 🗸	Structure Type 🛛 🗸	Previous Rating Date	Previous Structural	<ul> <li>Structural Condition</li> </ul>		Previous Functional	<ul> <li>Functional Condition</li> </ul>
SPD       Los Angeles       Channel Islands Harbor       Offshore Breakwater, California       Breakwater       2017-10-13       D       D       Structural Remarks       A       B       B       B       B       B       Channel Islands Harbor       Channel Islands Harbor       Channel Islands Harbor       Channel Islands Harbor       D       D       D       D       Structural Remarks       B       B       B       B       B       B       Channel Islands Harbor       Channel Islands Harbor       Channel Islands Harbor       D       D       D       D       Structural Remarks       B       B       B<	Jit	SPD	Los Angeles	Channel Islands Harbor		Jetty	2017-10-13	В	В	Structural Remarks	Â	A
hit (2017-10-13) (and the second	dit	SPD	Los Angeles	Channel Islands Harbor	Offshore Breakwater,	Breakwater	2017-10-13	D	D	Structural Remarks	Ä	. <b>A</b>
	lit	SPD	Los Angeles	Channel Islands Harbor		Jetty	2017-10-13	D	D	Structural Remarks	В	B



# **STRUCTURE INSPECTION PROCEDURES**



#### When:

Annually during the summer months

#### **Procedures:**

Tier 1: Visual inspections

Tier 2: In-situ data collection





### **USACE CURRENT R&D EFFORT**



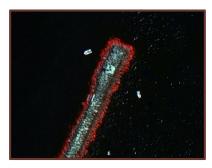
- Remote Inspection of Coastal Structures
- HQUSACE (Operations) directed; ERDC/CHL technical lead; input/support from Districts
- Develop comprehensive understanding of District needs/methods; safety
- Inspection: frequency, techniques, tools, technology, reporting, data storage, imagery, multi-beam bathymetry, side scan sonar, subbottom profiling, photogrammetric, LiDAR, ROV, UAV, IR, satellite
- Make recommendations for standardized methodology
- \$150K; 2 years (complete Sep 2021)



WorldView-3 Satellite



WorldView-3 Satellite Image, LALB Harbor Middle Breakwater, April 15, 2020, 14.5 inch resolution



NIR False Color Composite



## **USACE FUTURE NEEDS**



- Climate Change Sea Level Rise Impacts
- Comprehensive Evaluation of Projects with Respect to Sea Level Change (CESL)(2016)
- O&M Authority is limited
- Need modern O&M Authority to comprehensively address how to respond to sea level rise

CECW-OD Regulation No. 1130-2-520	Department of the Army U.S. Army Corps of Engineers Washington, DC 20314-1000	ER 1130-2-520 29 Nov 96
	Project Operations NAVIGATION AND DREDGING OPERATIONS AND MAINTENANCE POLICIES	
	Distribution Restriction Statement Approved for public release; distribution is unlimited.	



## **CURRENT LOS ANGELES DISTRICT CONTRACTS**



- Port of Long Beach and Port of Los Angeles, \$27.5M; complete Sep 2020
- Mission Bay Jetty Repair; \$6.4M; complete Dec 2020
- Newport Bay Harbor Jetty Repair; \$1.3M (est), Award Dec 2020; complete TBD 2021
- Channel Islands Harbor Breakwater/Jetty Repair; \$7.5M; Award 1st Qtr 2020; initiate Apr 2021; complete Aug 2021
- Port San Luis Breakwater Repair; E&D, \$10M (est), Award 2021; complete late 2021

