AMERICAN OCEAN SECURITY IN THE 21ST CENTURY

RDML Tim Gallaudet, PhD, USN Ret.

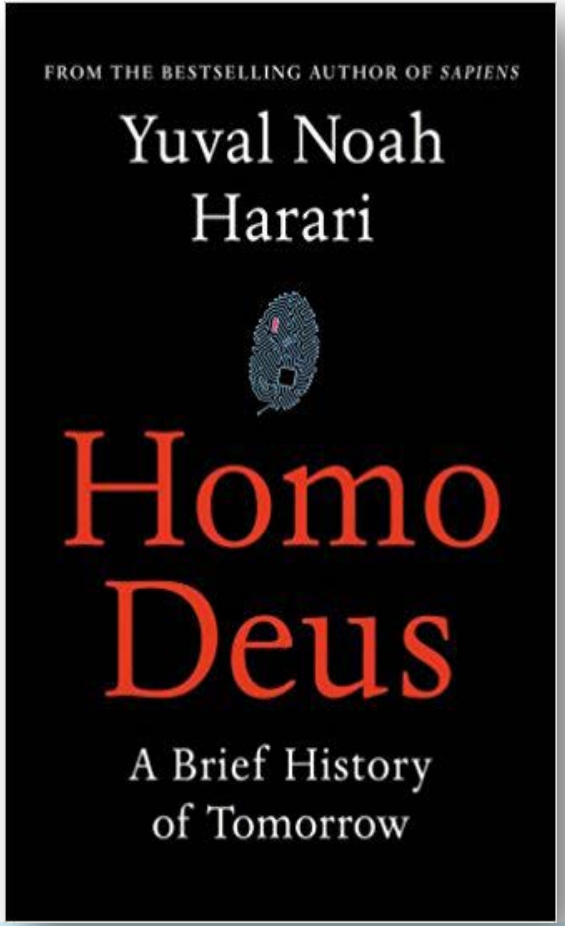
Assistant Secretary of Commerce for Oceans and Atmosphere and
Acting Under Secretary of Commerce for Oceans and Atmosphere

October 30, 2017

1.

21ST CENTURY TRENDS

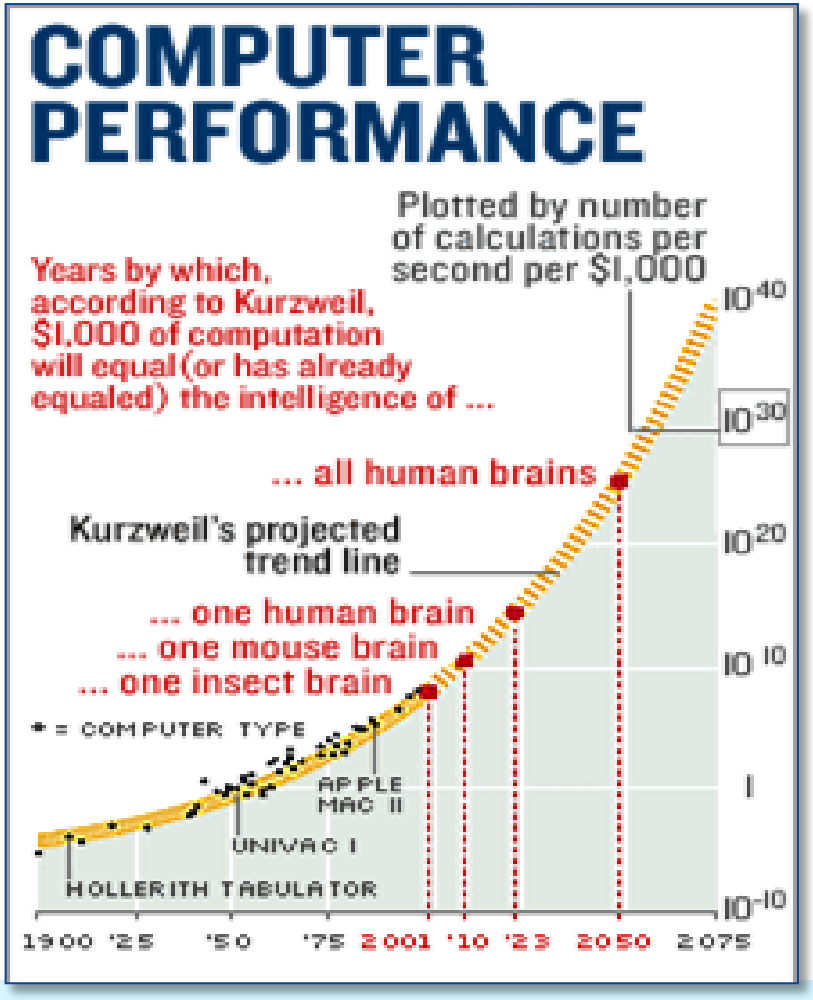
ACCELERATING TECHNOLOGICAL ADVANCEMENT



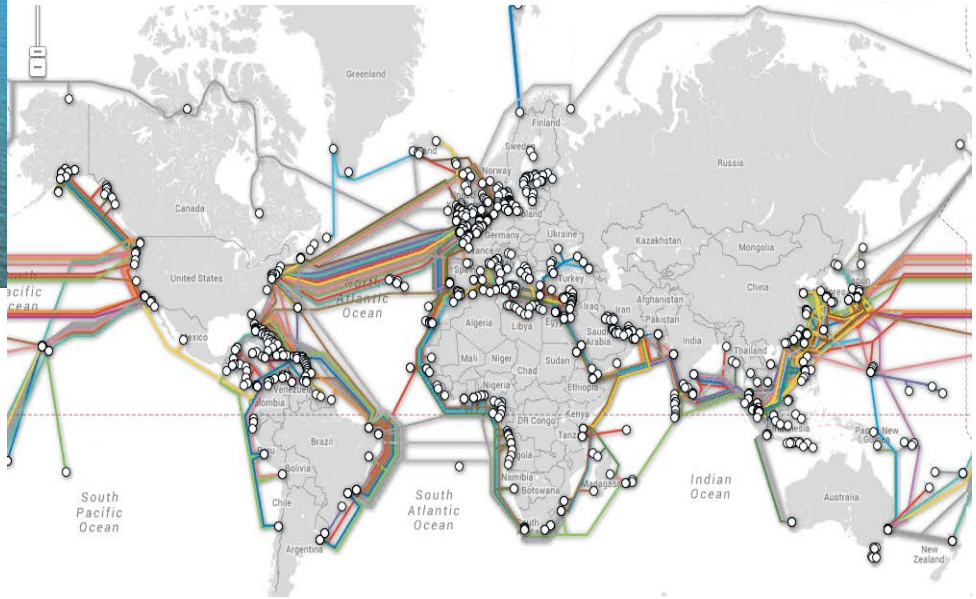
EXPONENTIAL INFORMATION GROWTH

THE KURZWEIL CURVE

Moore's Law is just the beginning. The power of technology will keep growing exponentially, says Kurzweil. By 2050, you'll be able to buy a device with computational capacity of all mankind for the price of nice refrigerator today

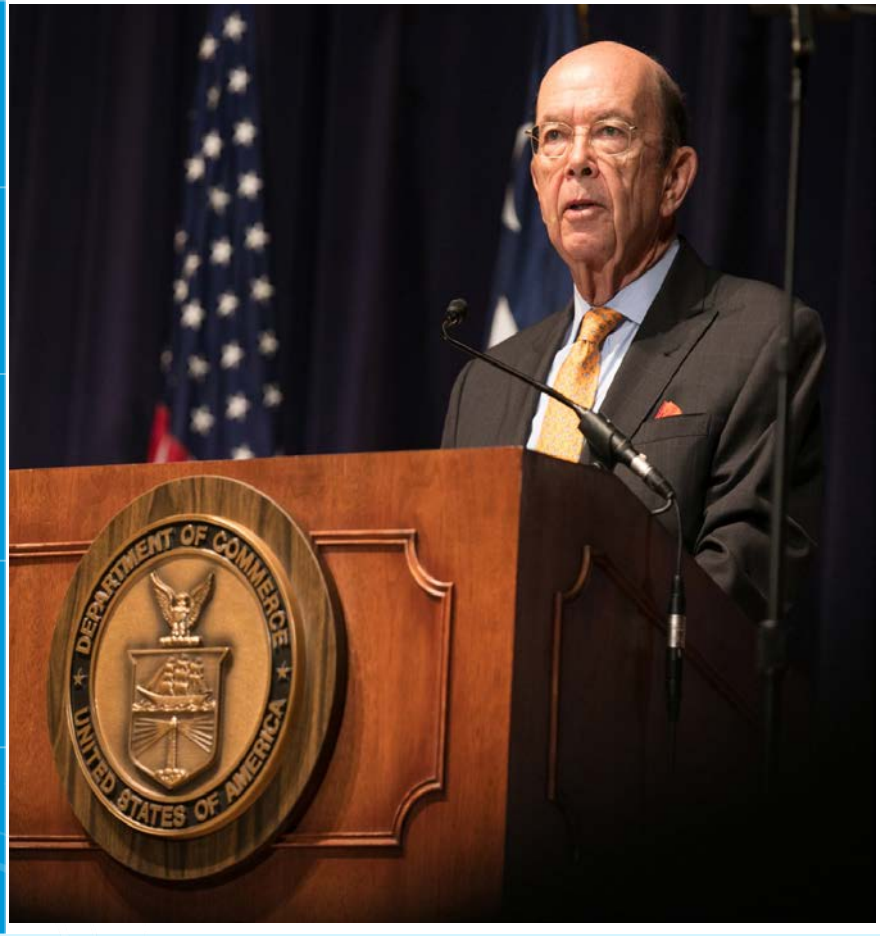


A MARITIME MOORE'S LAW



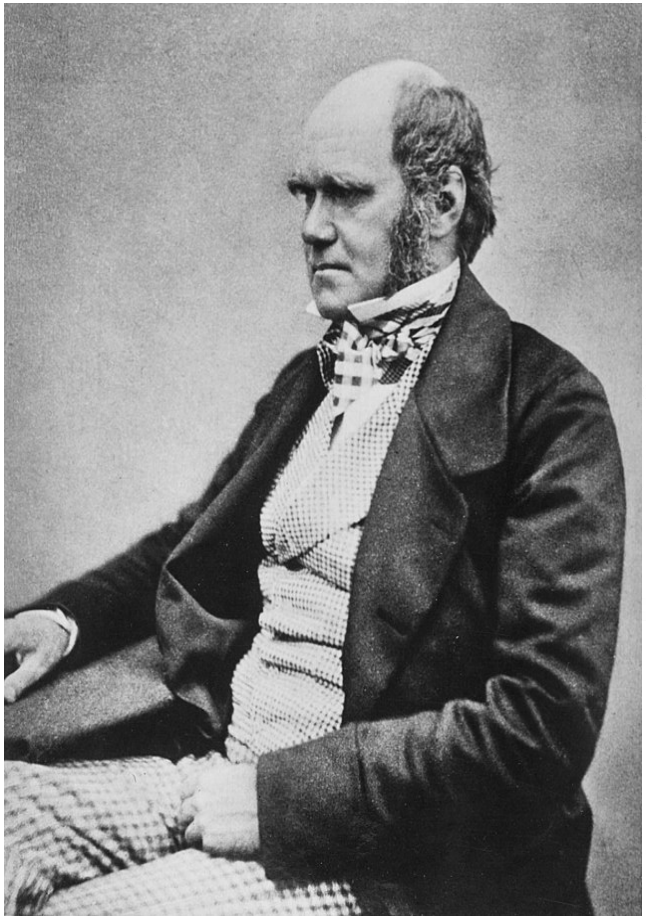
RETURN TO GREAT POWER COMPETITION

SHIFTING RESOURCE PRIORITIES



NONLINEAR CHANGE…

"IT IS NOT THE STRONGEST OF THE SPECIES THAT SURVIVE, NOR THE MOST INTELLIGENT, BUT THE ONE MOST RESPONSIVE TO CHANGE."

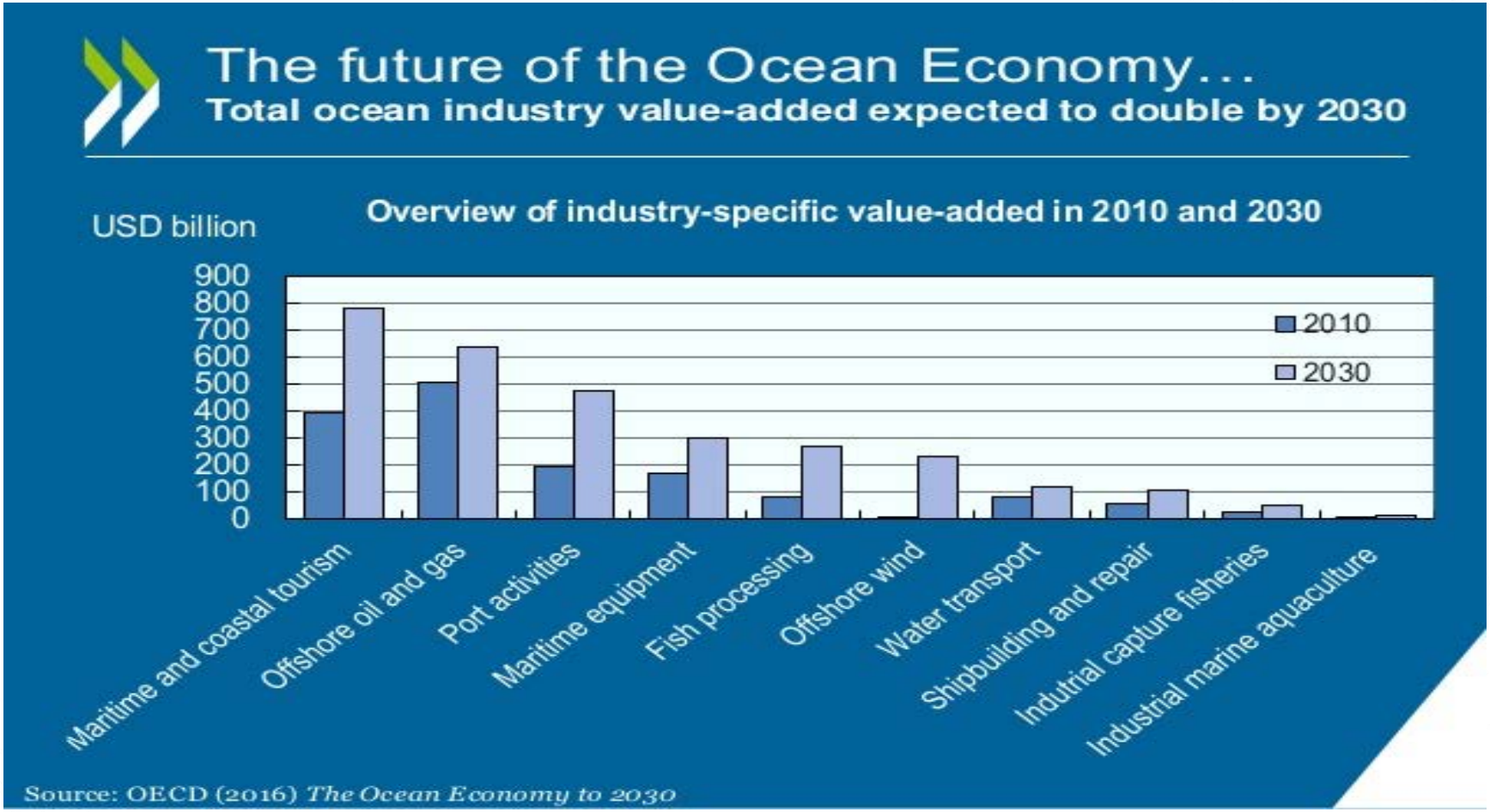


2.

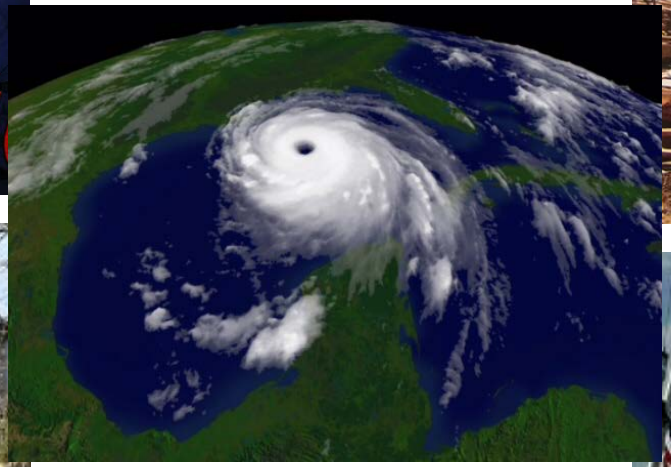
OCEAN SECURITY IMPERATIVES

NATIONAL SECURITY

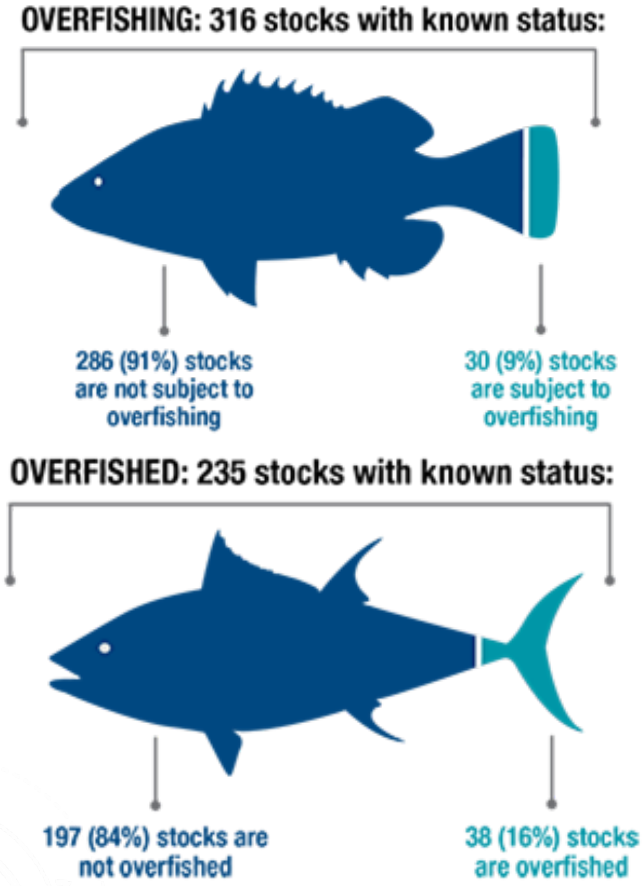
ECONOMIC SECURITY



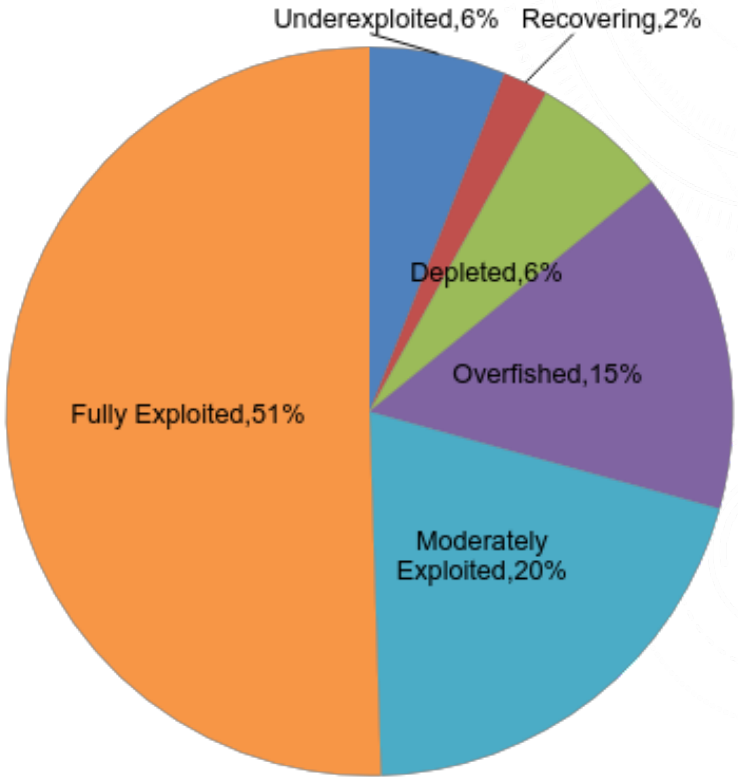
HOMELAND SECURITY



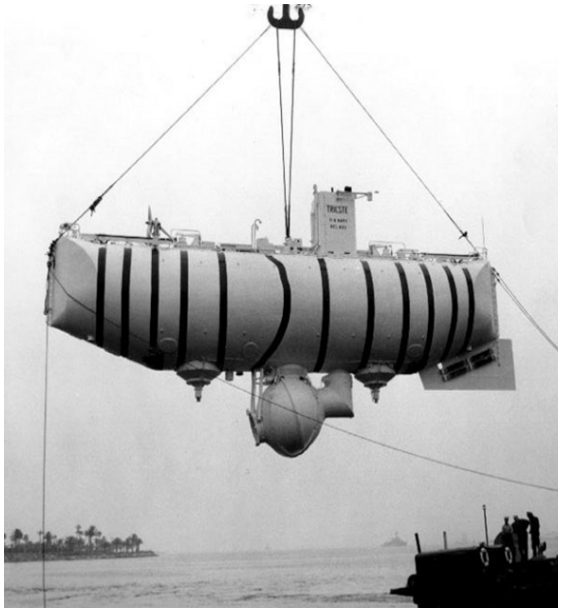
NATURAL RESOURCE SECURITY



MARINE FISHERIES



CYBER SECURITY



Maritime Cyber Security: Shoal Water Ahead?

Walsh, Don

July 2015

U.S. Naval Institute Proceedings;Jul2015, Vol. 141 Issue 7, p88

Conference Proceeding

Article

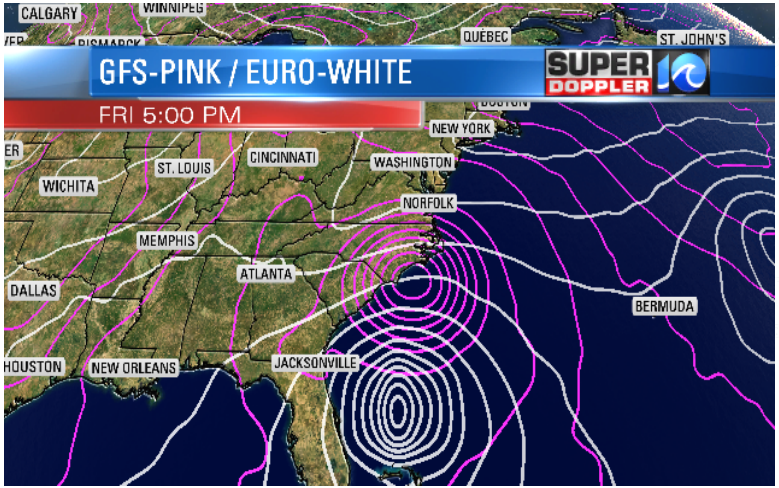
READ THE ARTI
COURTESY OF YOUR

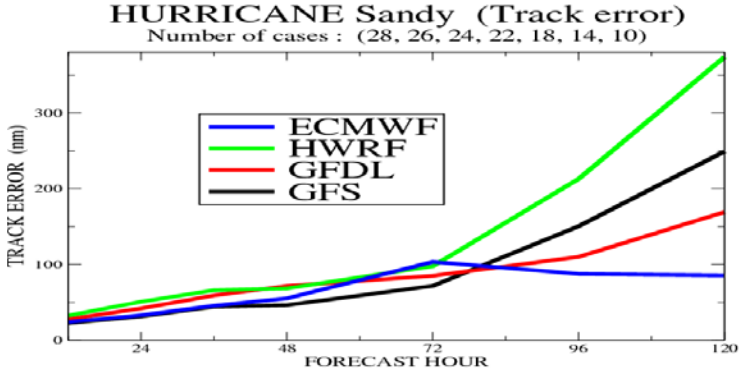
The article focuses on cyber security of transportation system of maritime shipping. Topics discussed include increasing use of automation in the system to reduce cost and increase efficiency, automated communication systems for coordinating shore activities, dependence of automation systems on global positioning system (GPS), damage to maritime industry due to cyber threats, and the automatic identification system (AIS) for ship-tracking.

3.

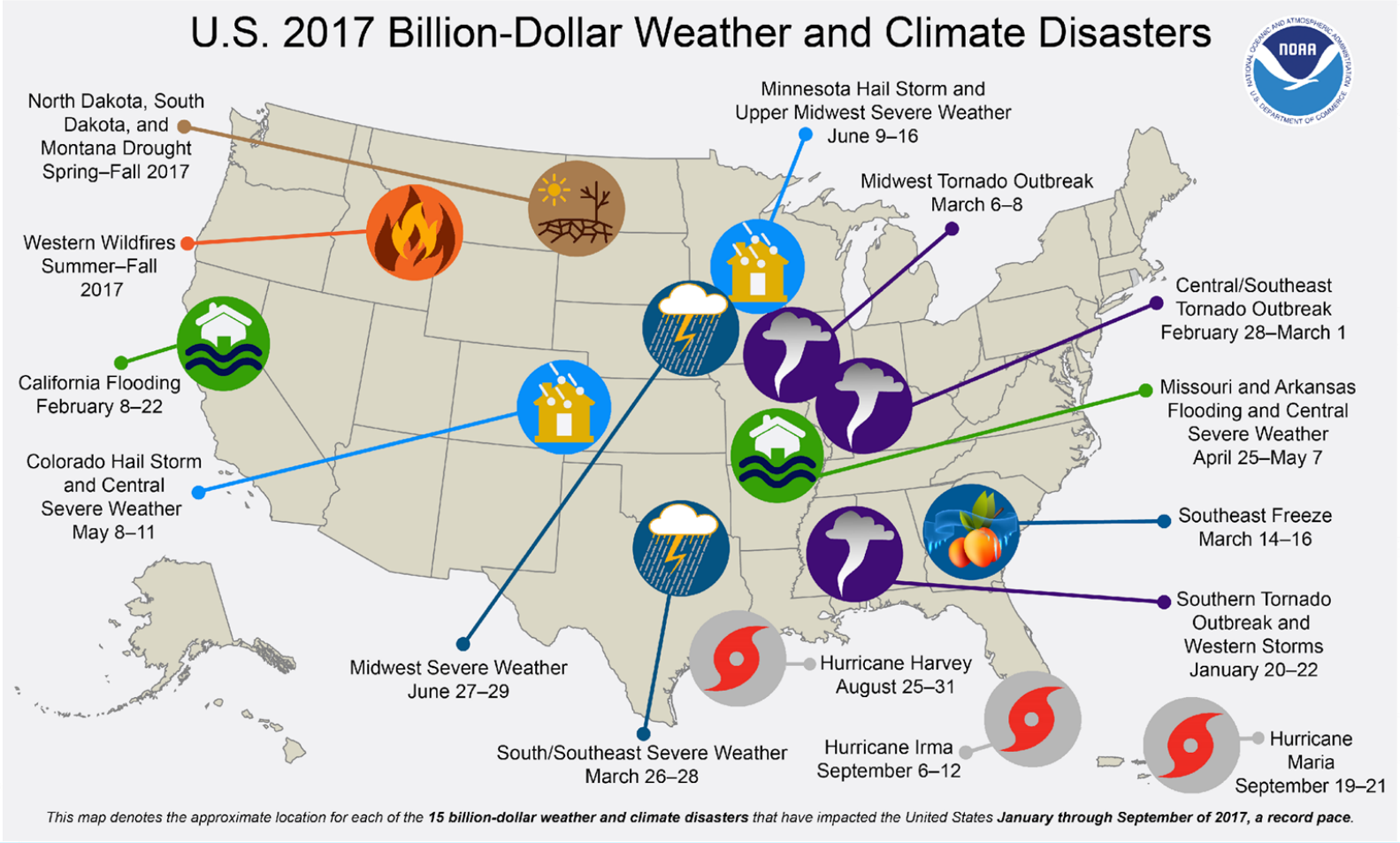
NOAA PRIORITIES FOR 2017-2022

#1. LEAD THE WORLD IN EARTH SYSTEM OBSERVATION & WEATHER PREDICTION

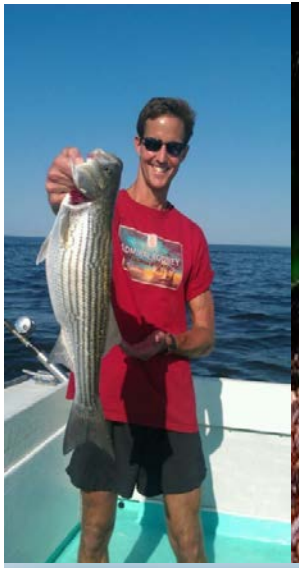


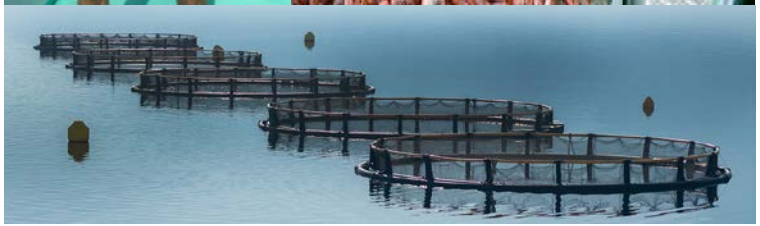


#2. MINIMIZE IMPACTS FROM SEVERE WX



#3. INCREASE THE SUSTAINABLE ECONOMIC CONTRIBUTIONS OF OUR FISHERIES & OCEANS





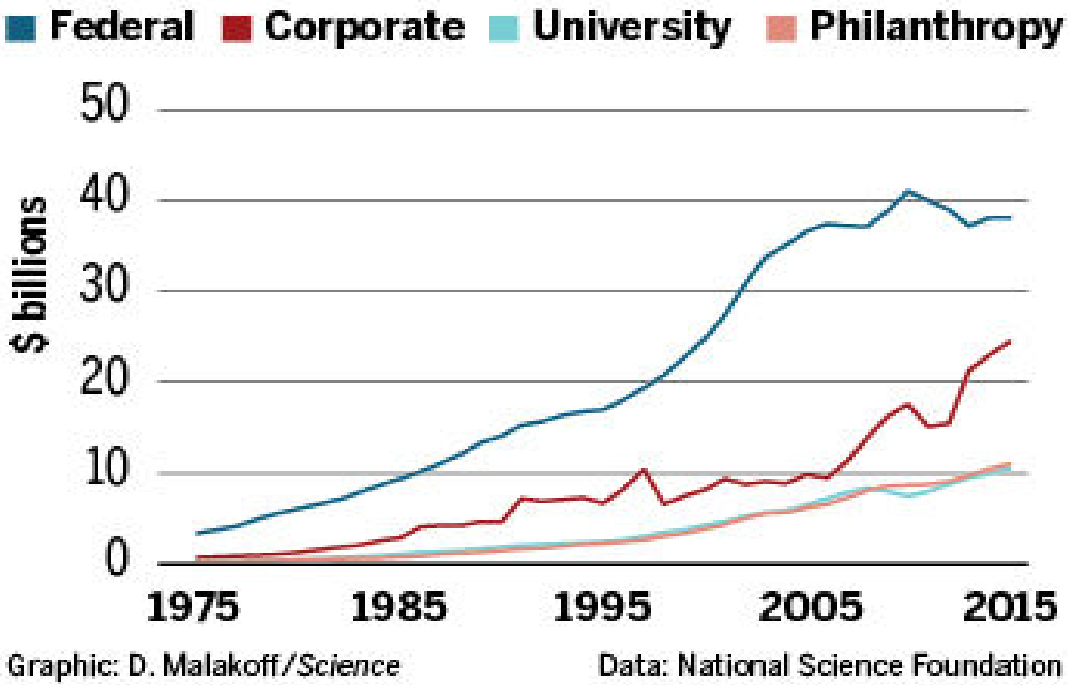
4.

CRITICAL OCEAN SECURITY ENABLERS

PARTNERSHIPS

A basic shift

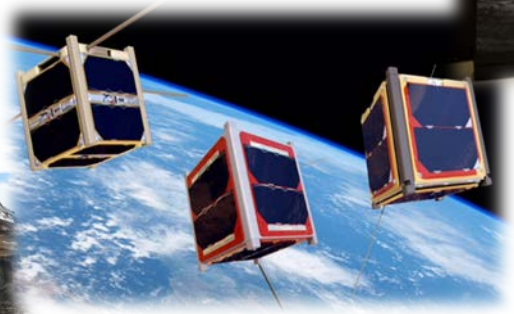
Federal agencies provided less than half of U.S. basic science funding in 2015, a result of stagnant budgets and rising investment by industry, universities, and philanthropies.



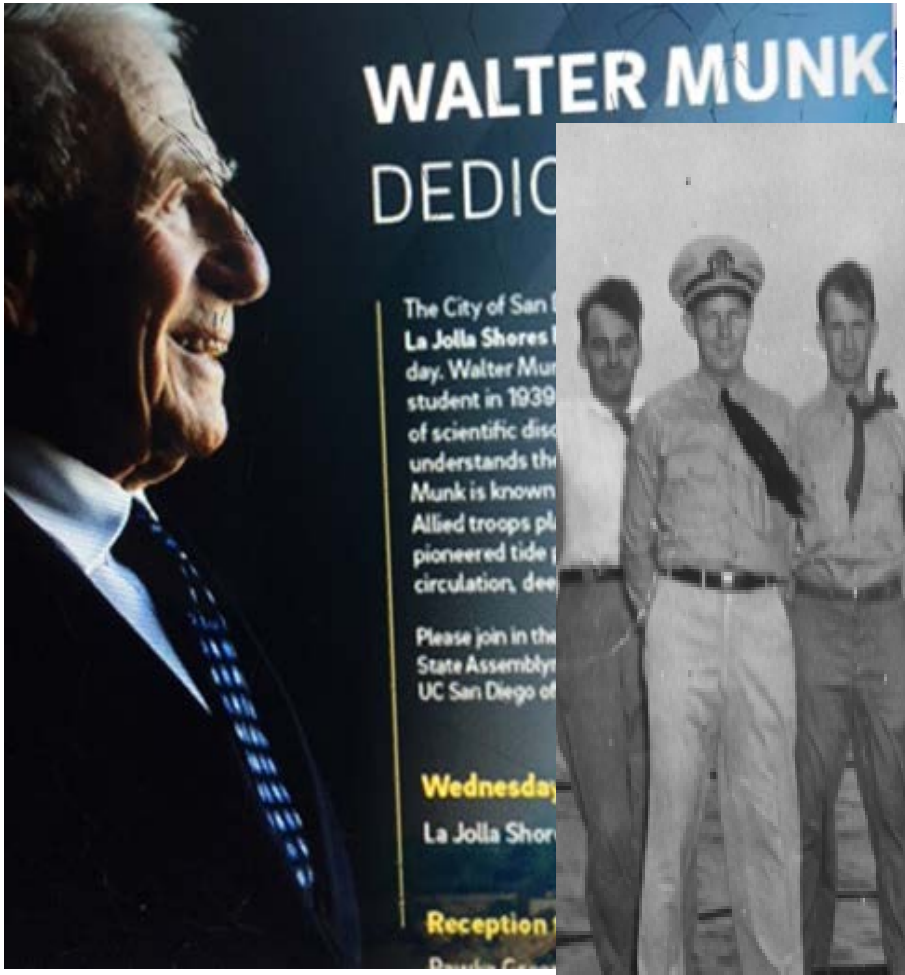
Graphic: D. Malakoff/*Science*

Data: National Science Foundation

INNOVATION



PEOPLE


WALTER MUNK
DEDIC
The City of San
La Jolla Shores
day. Walter Mu
student in 1939
of scientific disc
understands th
Munk is known
Allied troops pl
pioneered tide
circulation, dee
Please join in th
State Assembly
UC San Diego o
Wednesda
La Jolla Shor
Reception

WHAT OCEAN SECURITY DOESN'T LOOK LIKE…

5.

TRANSITION/ PERSONNEL UPDATE

Mr. Barry Myers

Nominee for Under Secretary for Oceans and Atmosphere and NOAA Administrator

Dr. Neil Jacobs

Nominee for Assistant Secretary for Environmental Observation and Prediction

Ms. Julie Roberts

Director of NOAA Communications

NOAA Corps Admiral Michael Silah

Director of NOAA Corps and Office of Marine and Aviation Operations

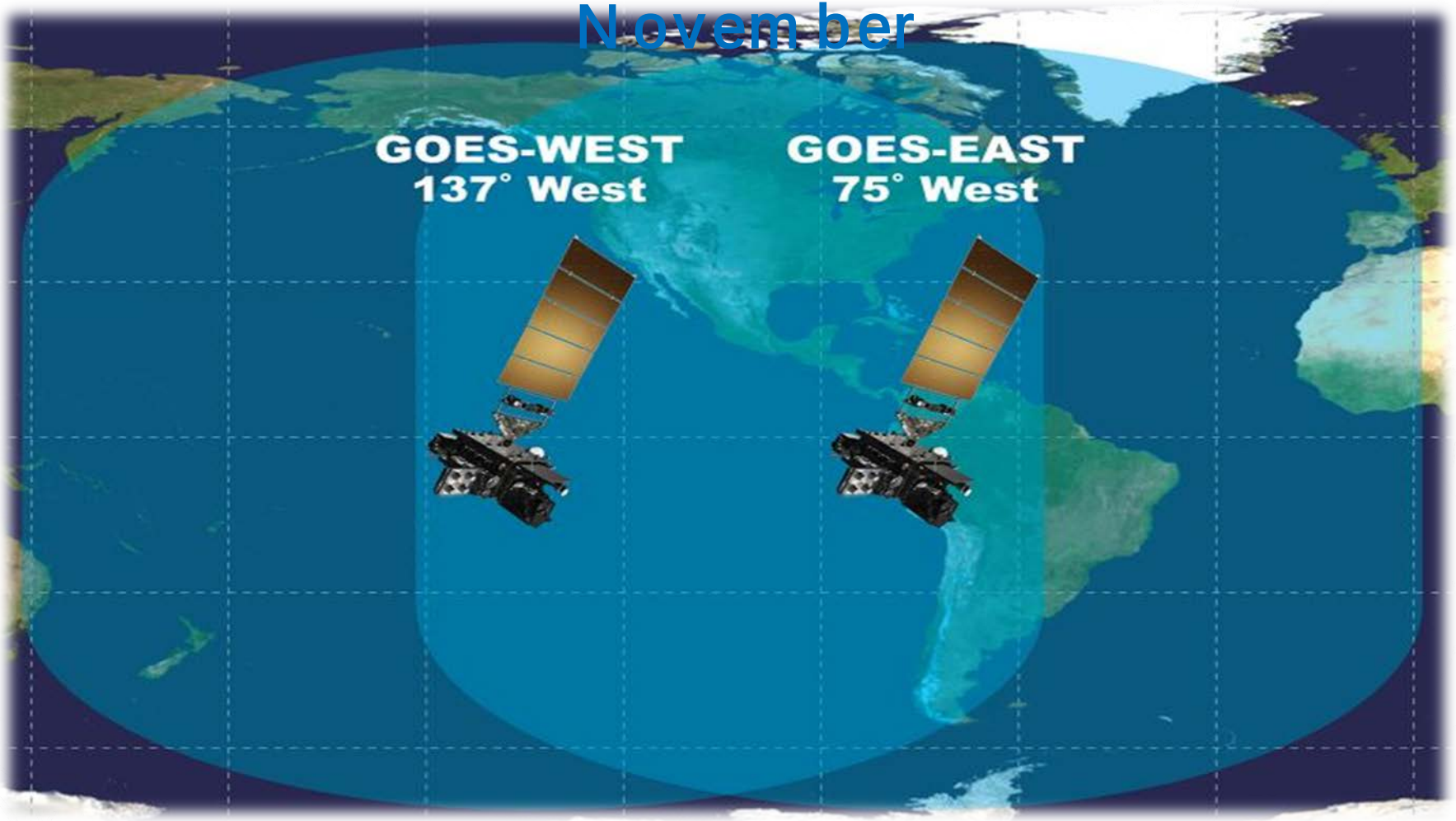
6.
OPERATIONS UPDATE

Hurricanes

Inches
20
15
10
6
4
2
1
Hurricane HARVEY
Day 1-7 Rainfall Forecast (inches)
Valid 7:00 PM CDT Thu Aug 24 2017
Local point maximum rainfall may be higher than shown

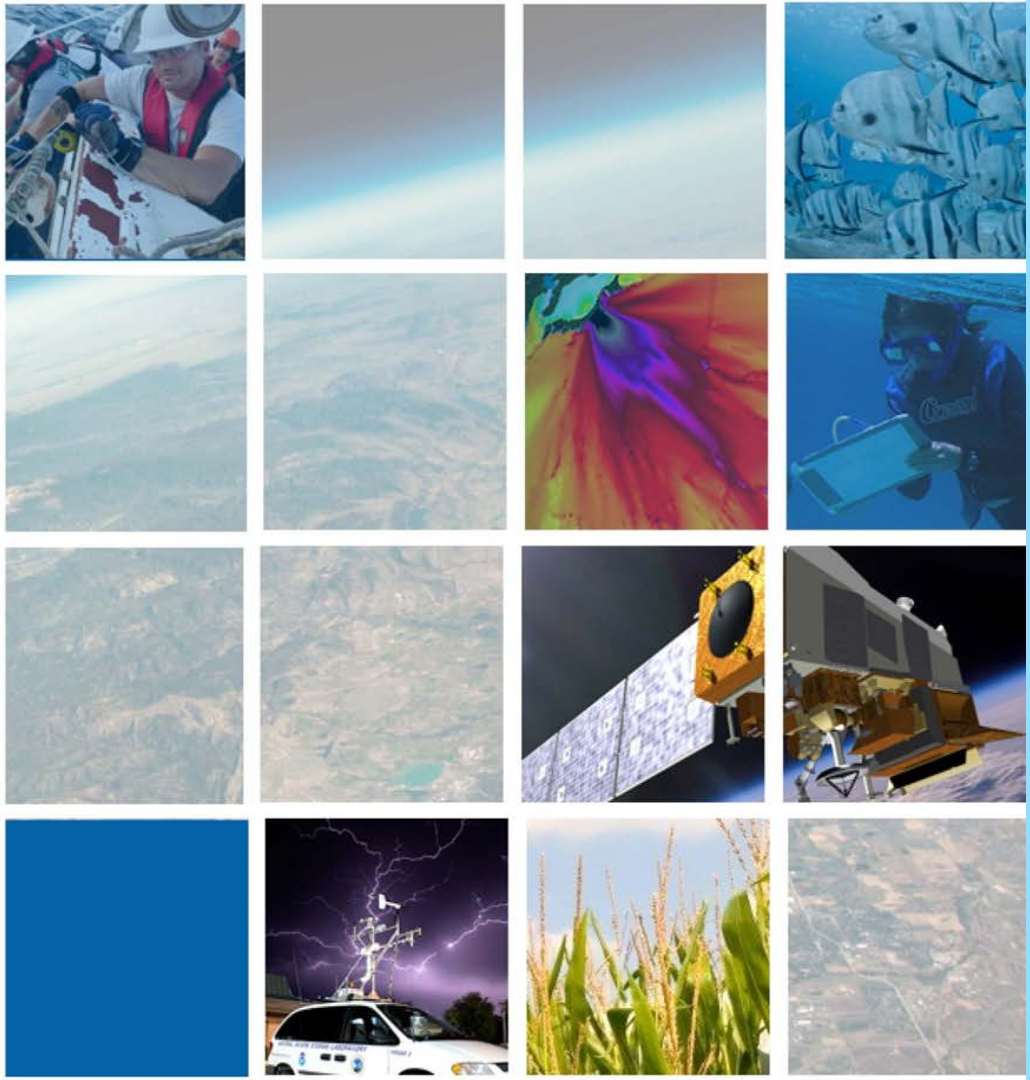
JPSS-1 Launch in November

GOES-16 Set to Become GOES-EAST in November



50th Anniversary for NOAA Ship Oregon II

7.
ORGANIZATIONAL UPDATE

DOC Awards Ceremony

Thank You!