



Admiral Robert J. Papp, Jr.

U.S. Special Representative for the Arctic

October 2015

President Obama Speaking at GLACIER



President Obama in Alaska Visiting Seward, Kivalina, and Kotzebue



Official White House Photo by Pete Souza



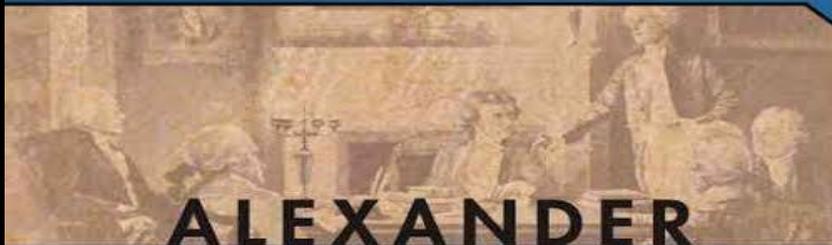
Official White House Photo by Chuck Kennedy



Official White House Photo by Pete Souza



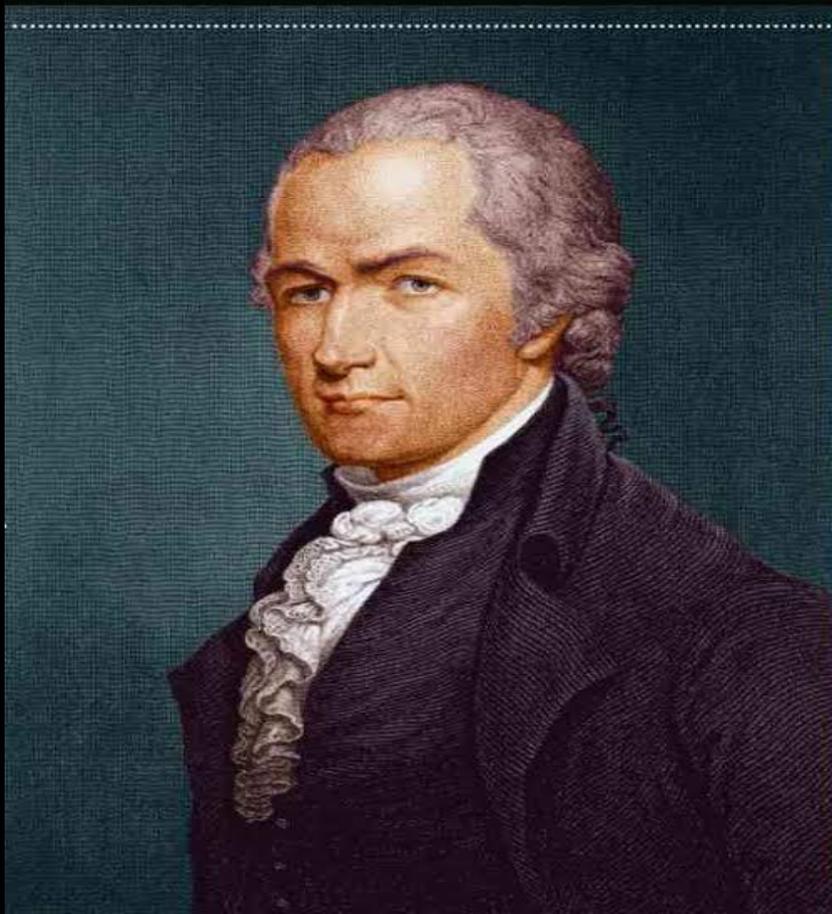
Official White House Photo by Pete Souza



ALEXANDER

HAMILTON

FOUNDING FATHER AND STATESMAN



BY
Brenda
Haugen

Signature
LIVES

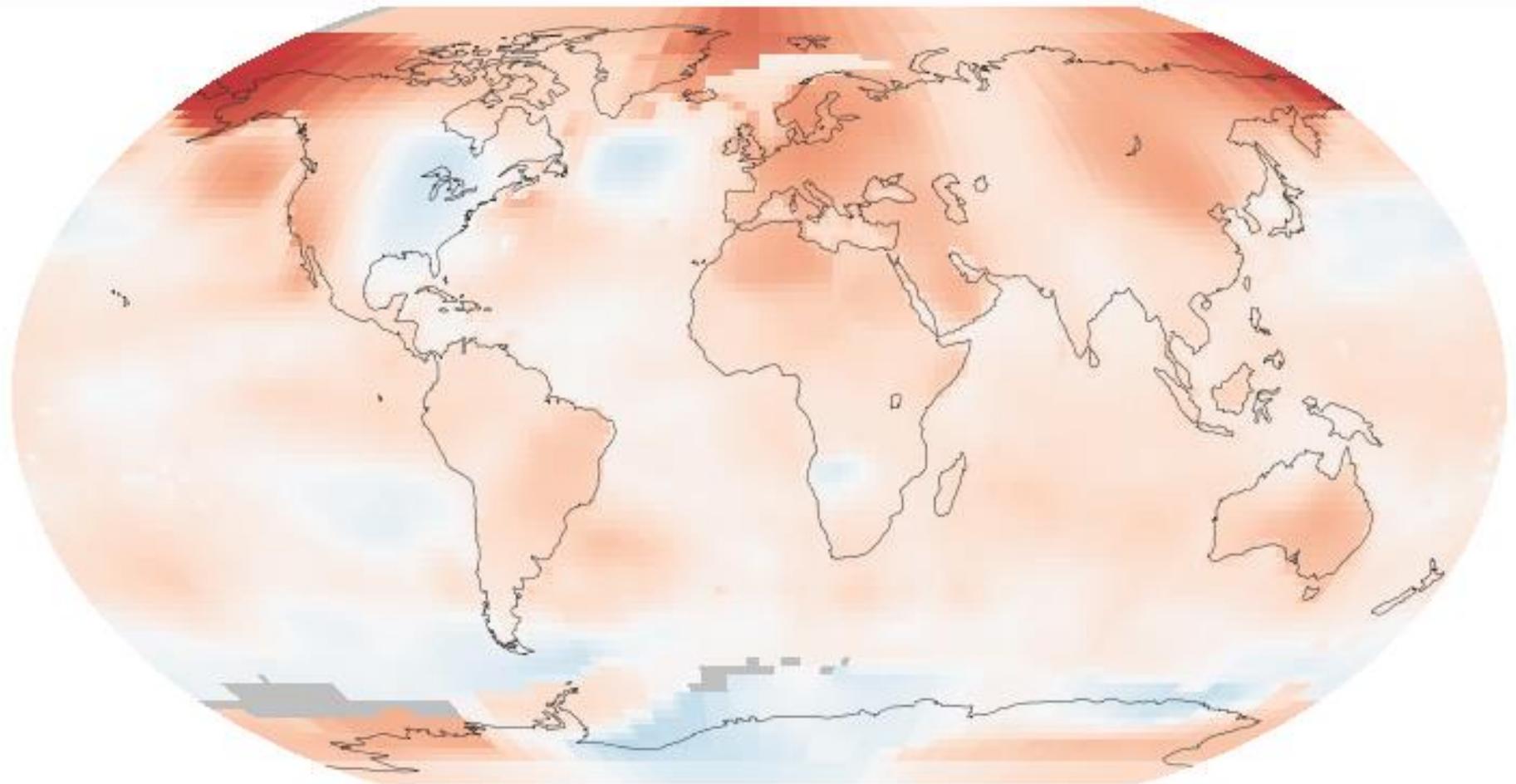
Arctic Boundary as defined by the Arctic Research and Policy Act (ARPA)

All United States and foreign territory north of the Arctic Circle and all United States territory north and west of the boundary formed by the Porcupine, Yukon, and Kuskokwim Rivers; all contiguous seas, including the Arctic Ocean and the Beaufort, Bering and Chukchi Seas; and the Aleutian chain.¹



Change in the Arctic: Rapid Warming

2014 Temperature Anomaly



2014 Temperature vs. 1951-1980 Average (°C)



U.S. National Interests in the Arctic

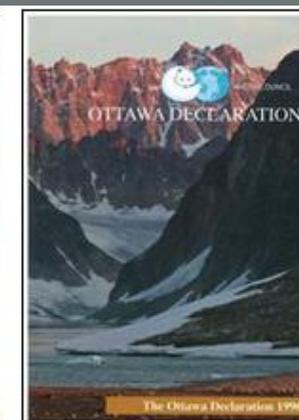
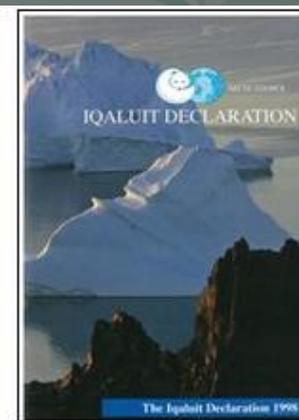
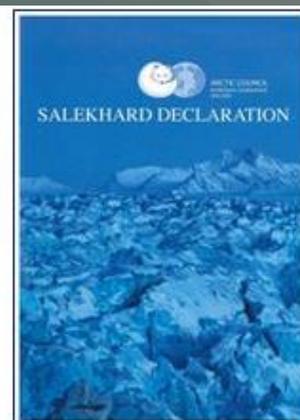
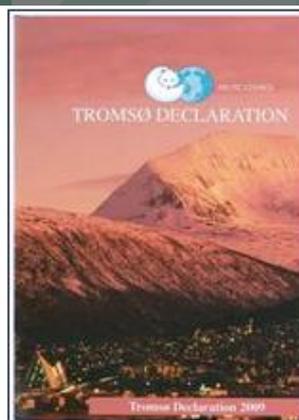
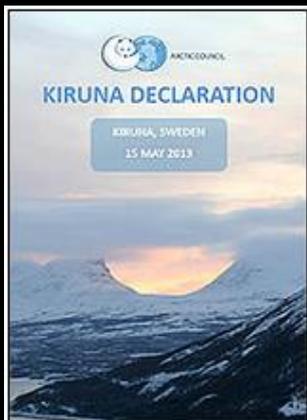
- National defense;
- Sovereign rights and responsibilities;
- Maritime safety;
- Energy and economic benefits;
- Environmental stewardship;
- Scientific research;
- Indigenous peoples and their rights & cultures;
- Preservation of the rights, freedoms, and uses of the sea as reflected in international law.

President Obama's Visit to the American Arctic

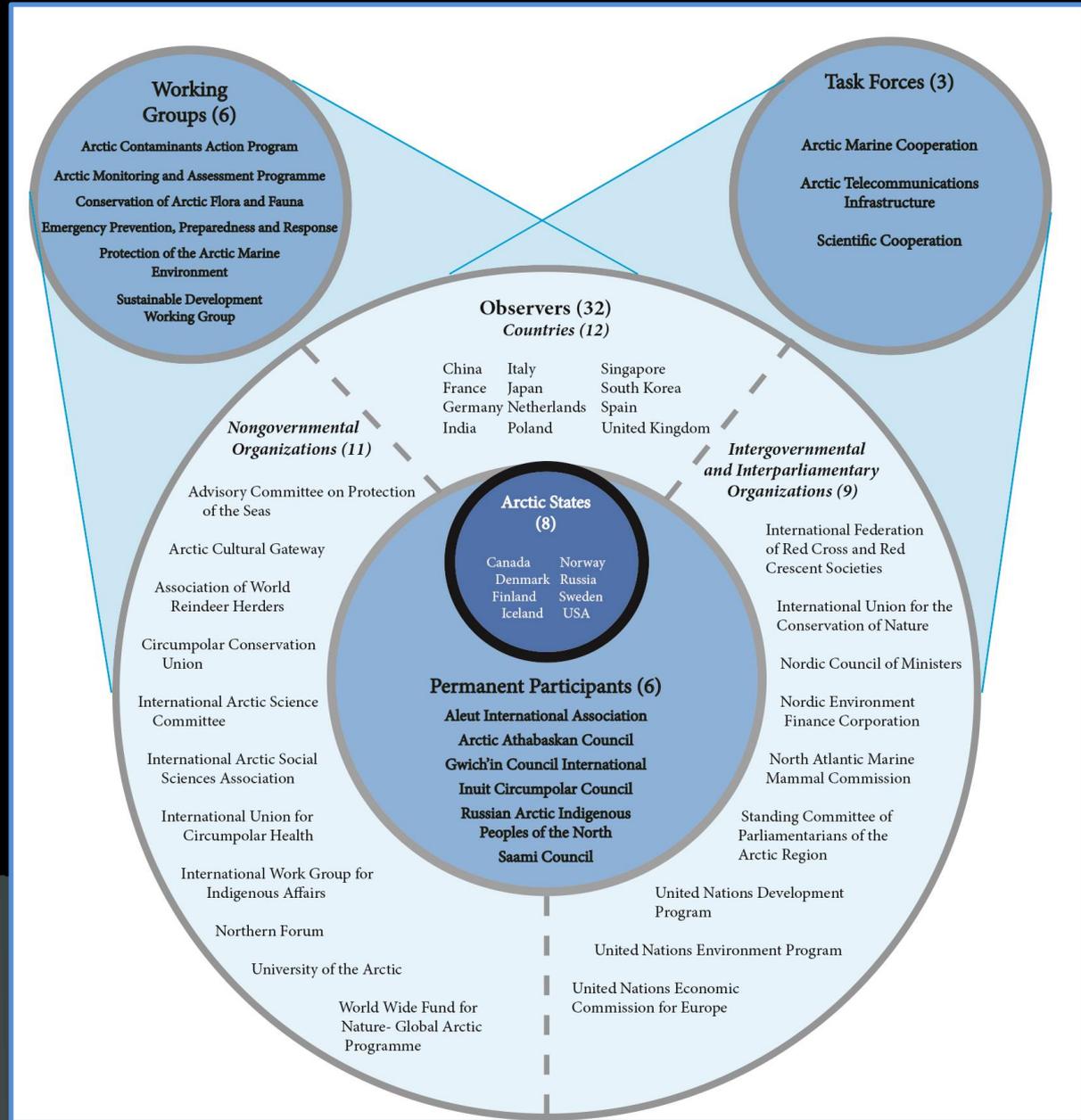
- **Safety and security**
 - New Icebreaker
- **Enabling safe marine operations and transportation**
 - Mapping and charting efforts in the Bering, Chukchi and Beaufort Seas
- **Advancing Climate Resilience**
 - Naming of Denali Commission to coordinate Federal, State, Tribal resources to assist communities to address impact of climate change
- **Access to Clean Energy Solutions**
 - New \$4 million initiative by remote Alaskan communities to adopt sustainable energy strategies, through a competitive effort
- **Releasing new climate data and tools**
 - NSF is making available in both hard-copy and explorable-digital formats the most comprehensive pan-Arctic map ever published by USG

Arctic Council
Cooperation,
with the
other Arctic

on sustainable development and environmental
Arctic; military and security issues are specifically excluded
mandate.



Arctic Council Structure: U.S. Chairmanship





Arctic Council
Special Representative
Advisor on Arctic
of the Senior Arctic
S. Senior Arctic Official: J

Overarching Goals

- Continue strengthening the Arctic Council as an intergovernmental forum
- Introduce new long-term priorities into the Arctic Council
- Raise Arctic and climate change awareness domestically and across the world

Arctic Priorities

- Balanced thematic pillars of the Arctic Council during the US Chairmanship 2015-17:
 - Arctic Ocean Safety, Security, and Stewardship
 - Improving Economic and Living Conditions
 - Addressing Impacts of Climate Change
- Arctic as a region of stability, peace and international cooperation
- Arctic climate change impacts locally and globally



Ambitious and Balanced Agenda



ARCTIC COMMUNITIES

- Renewable Energy
- Community Sanitation & Public Health
- Water Resources
- Vulnerability Index
- Freshwater Security
- Telecommunications
- Infrastructure
- Suicide Prevention & Resilience

ARCTIC OCEAN

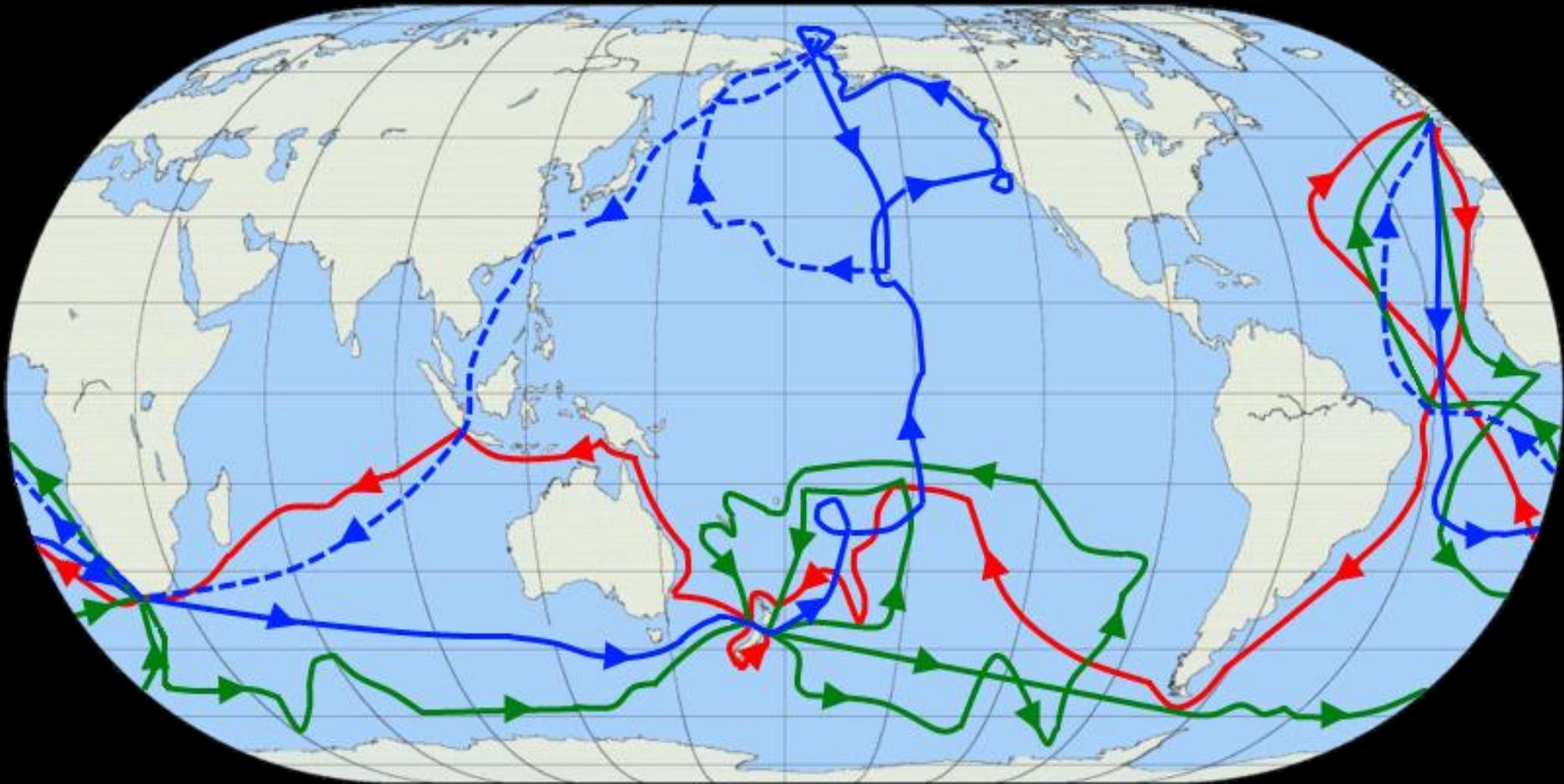
- Search & Rescue Exercises
- Marine Environmental Protection
- Marine Protected Areas Network
- Arctic Ocean Cooperation
- Arctic Ocean Acidification

ARCTIC CLIMATE

- Short-lived Climate Pollutants
- Arctic Climate Adaptation & Resilience
- Pan-Arctic Digital Elevation Map
- Early Warning Indicator System



Tracks of Cook's Three Voyages



Red = *Endeavour* (1768-1771)
Green = *Resolution & Adventure* (1772-1775)
Blue = *Resolution & Discovery* (1776-1780)

"[Crowley] writes with a racy briskness that lifts sea battles and sieges off the page." —THE NEW YORK TIMES

CITY OF FORTUNE

How Venice Ruled the Seas



ROGER CROWLEY

NEW YORK TIMES bestselling author of EMPIRES OF THE SEA

NEW YORK TIMES BESTSELLER

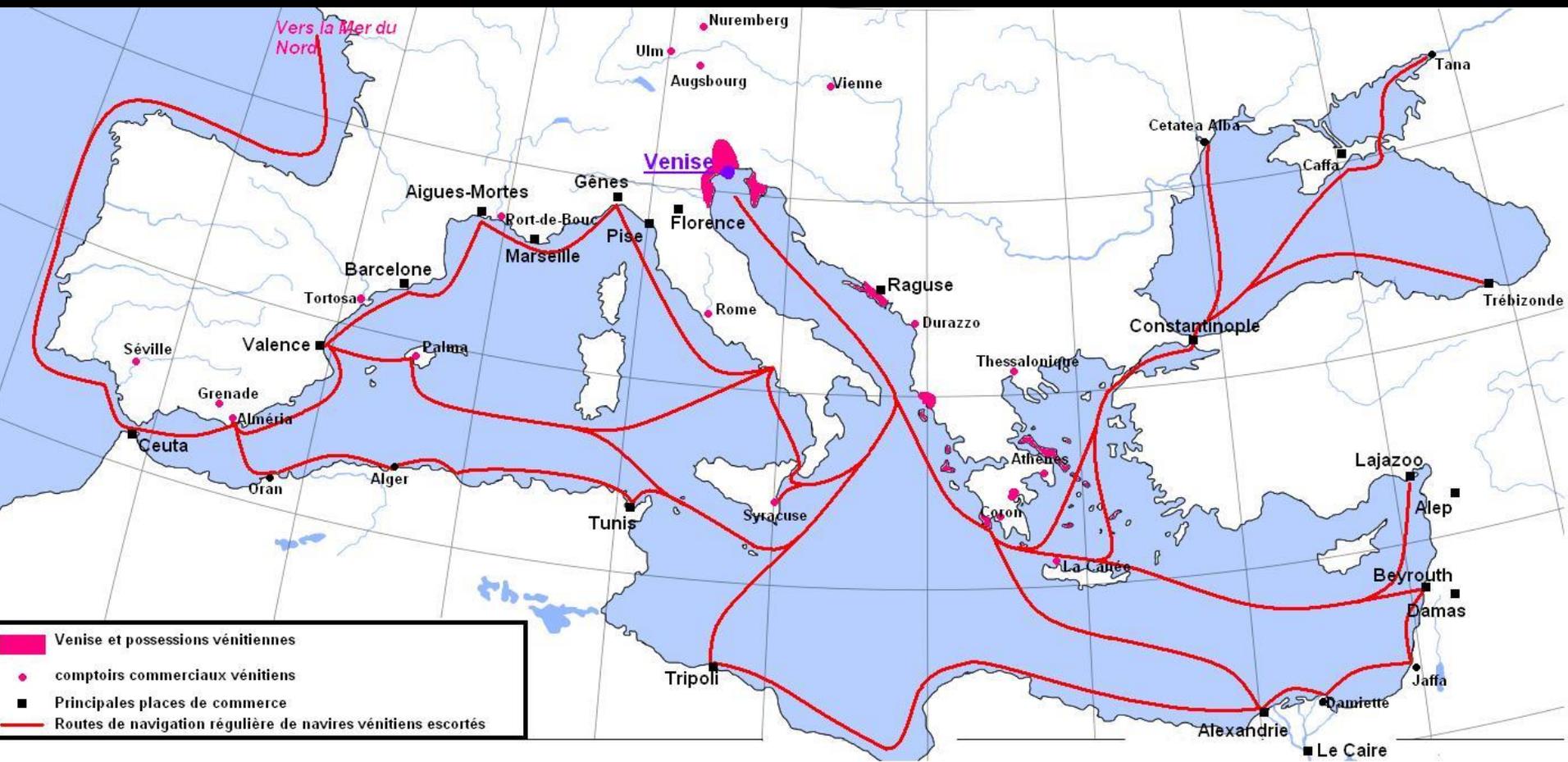
EMPIRES *of the* SEA

THE SIEGE OF MALTA, THE BATTLE OF LEPANTO, AND THE CONTEST FOR THE CENTER OF THE WORLD

ROGER CROWLEY

Author of 1453

"Crowley has an astonishing gift for narration; his account is as exciting as any thriller." —JOHN JULIUS MORWICK, *The Wall Street Journal*



ROGER CROWLEY

One of the best narrative historians currently writing *Financial Times*

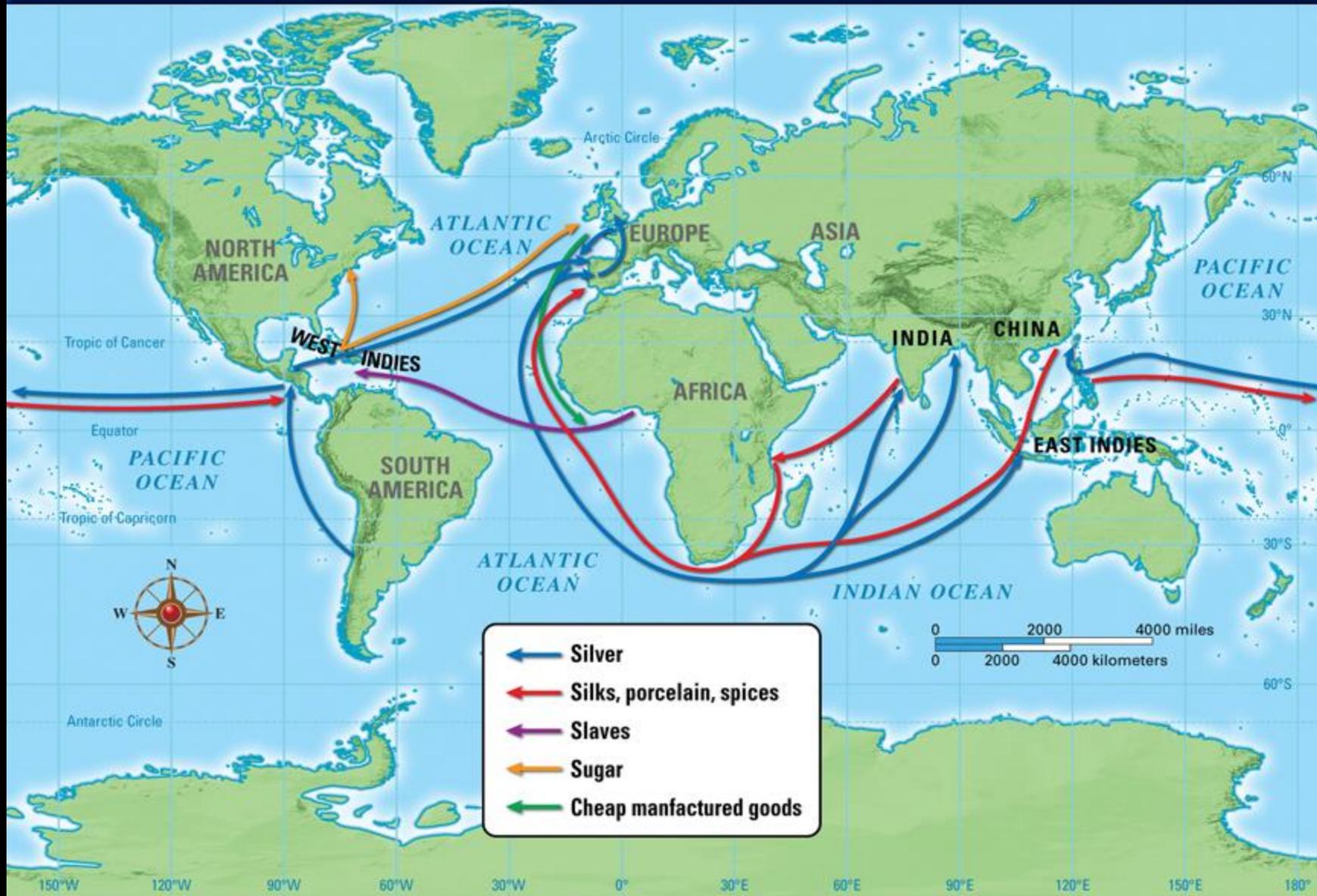


Conquerors

How Portugal seized the
Indian Ocean and forged
the First Global Empire



World Trade Patterns 1500s and 1600s





Maritime Trade Routes

→ Connector

↔ Main Trade Corridor

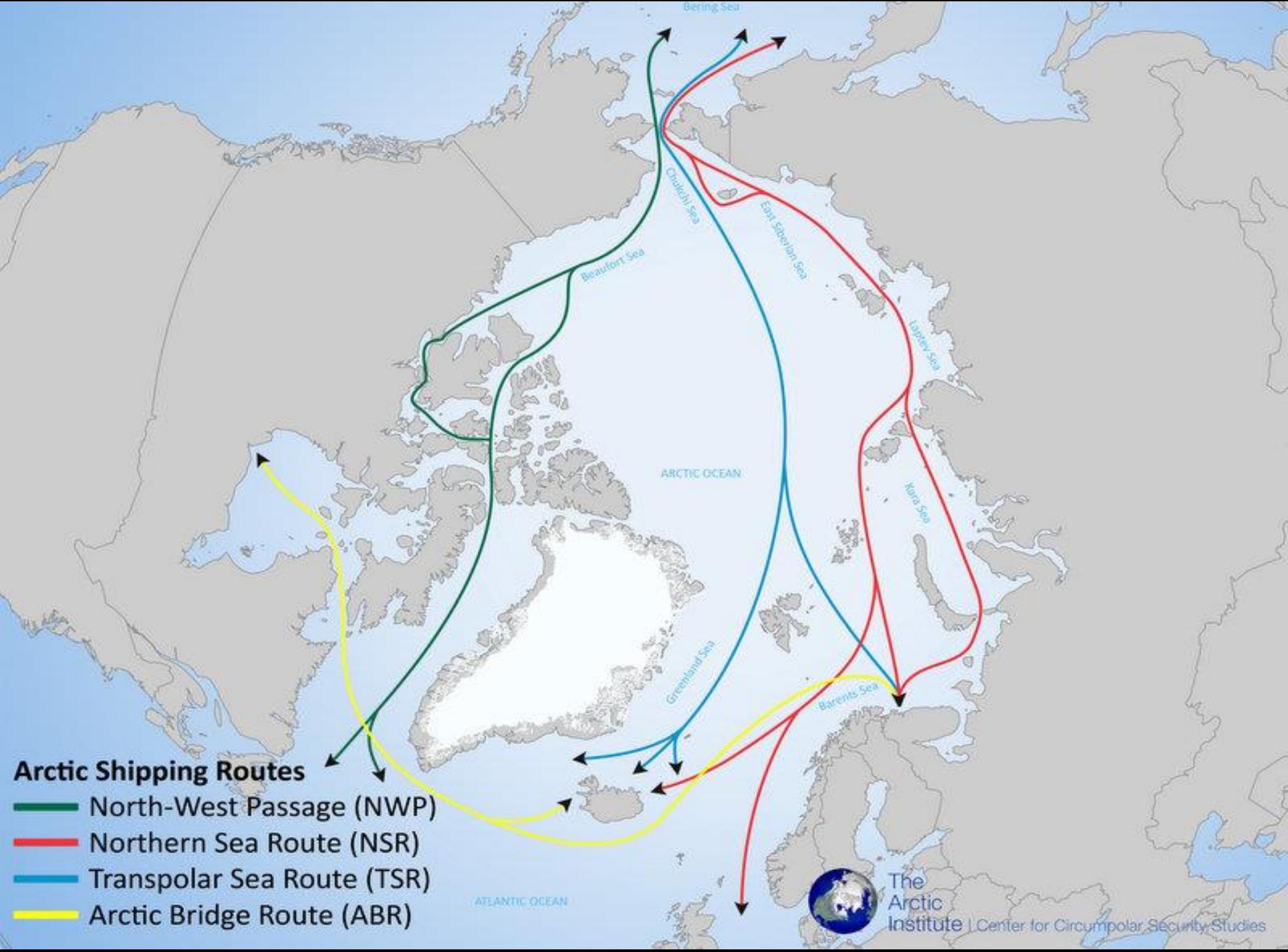
Pacific Ocean

Container Traffic (TEU, 2010)

- Less than 3 M
- 3 to 6 M
- 6 to 12 M
- More than 12 M

Strategic Importance

- High
- Average



Arctic Shipping Routes

- North-West Passage (NWP)
- Northern Sea Route (NSR)
- Transpolar Sea Route (TSR)
- Arctic Bridge Route (ABR)

Thank You







The Shipping Route

U.S. Polar Icebreaker Capabilities

Source: July 28, 2015 Congressional Research Service Report

Table 1. U.S. Polar Icebreakers

	<i>Polar Star</i>	<i>Polar Sea</i>	<i>Healy</i>	<i>Palmer</i>
Operator	USCG	USCG	USCG	NSF
U.S.-Government owned?	Yes	Yes	Yes	No ^a
Currently operational?	Yes (reactivated on December 14, 2012)	No	Yes	Yes
Entered service	1976	1978	2000	1992
Length (feet)	399	399	420	308
Displacement (tons)	13,200	13,200	16,000	6,500
Icebreaking capability at 3 knots (ice thickness in feet)	6 feet	6 feet	4.5 feet	3 feet
Ice ramming capability (ice thickness in feet)	21 feet	21 feet	8 feet	n/a
Operating temperature	-60° Fahrenheit	-60° Fahrenheit	-50° Fahrenheit	n/a
Crew (when operational)	155 ^b	155 ^b	85 ^c	22
Additional scientific staff	32	32	35 ^d	27-37

Sources: Prepared by CRS using data from U.S. Coast Guard, National Research Council, National Science Foundation, Department of Homeland Security (DHS) Office of Inspector General, and (for *Palmer*) additional online reference sources. n/a is not available.

- a. Owned by Edison Chouest Offshore (ECO) of Galliano, LA, and leased to NSF through Raytheon Polar Services Company (RPSC).
- b. Includes 24 officers, 20 chief petty officers, 102 enlisted, and 9 in the aviation detachment.
- c. Includes 19 officers, 12 chief petty officers, and 54 enlisted.
- d. In addition to 85 crew members 85 and 35 scientists, the ship can accommodate another 15 surge personnel and 2 visitors.

