

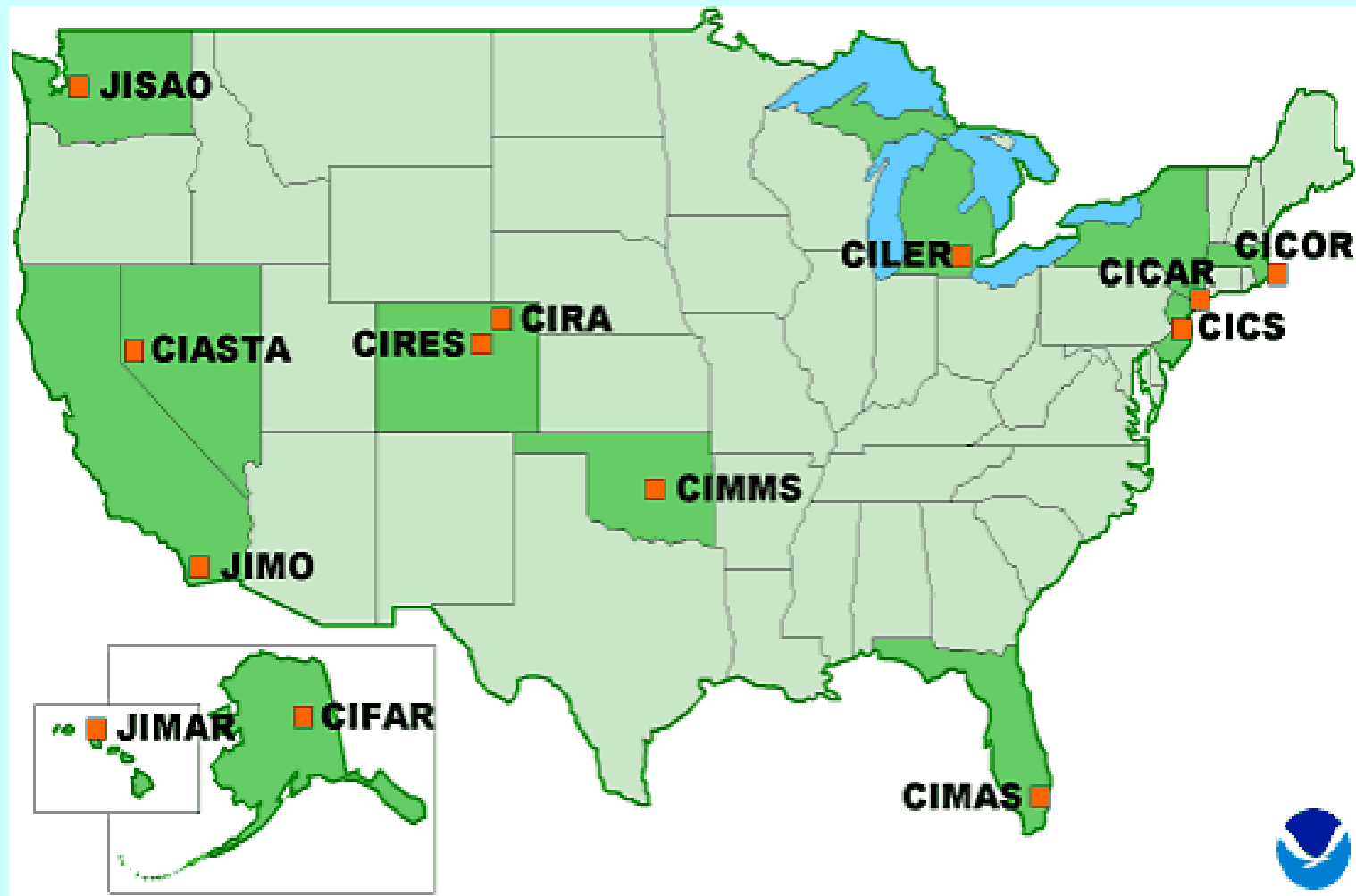
Cooperative Institute For Alaska Research (CIFAR)



Update: June 2013

OAR Cooperative Institutes

“to establish and maintain long-term collaborative research agreements between NOAA and research institutions . . . to develop research centers of excellence in topics relevant to NOAA’s mission.”



Graphic from J. Cortinas, NOAA, CI, 3/05

CIFAR Fellows

- **Mark Herrmann, Dean, School of Management, UAF**
- **Larry Hinzman, Director, International Arctic Research Center, UAF**
- **Anne Hollowed, AK Fisheries Science Ctr, NMFS, NOAA, Seattle, WA**
- **Kris Holdereid, NOAA National Ocean Services, Homer, AK**
- **Henry Huntington, Pew Foundation, Eagle River, AK**
- **Zygmunt Kowalik, Institute of Marine Science, UAF**
- **Gordon Kruse, School of Fisheries and Ocean Sciences, UAF**
- **Molly McCammon, Alaska Ocean Observing System, Anchorage**
- **Phil Mundy, ABL, NMFS, NOAA, Juneau, AK**
- **James E Overland, PMEL, NOAA, Seattle, WA**
- **James Partain, Director, NOAA Alaska Regional Climate Services**
- **Carven Scott, NWS Alaska Region, Chief, Env. and Scientific Services**
- **Clarence Pautzke*, Executive Director NPRB, Anchorage, AK**
- **Mark Myers, Vice Chancellor for Research, UAF**
- **Terry Whitley, Institute of Marine Science, UAF**

Categories of activity/funding

- **Task I: Administrative (~110K per year)**
- **Task II: Research initiatives (CIFAR/NOAA programs)**
(Requests for proposals, reviews, administration of funds)
- **Task III: Pass-through funds (NOAA-directed)**

CIFAR research themes

- **Climate change and variability**
- **Ecosystem Studies and Forecasting**
- **Coastal hazards**

Themes were specified in federal funding opportunity for Alaska regional CI that was competitively awarded to CIFAR

Prominent in CIFAR's recent research portfolio:

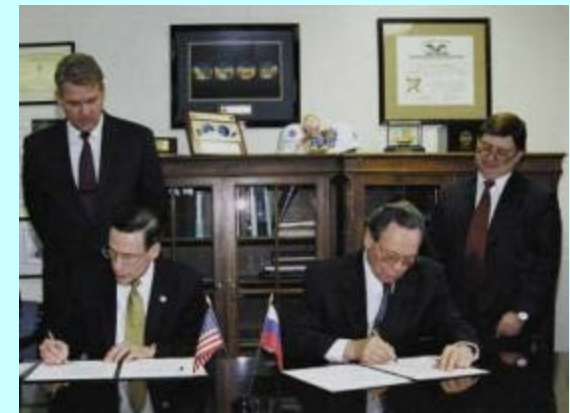
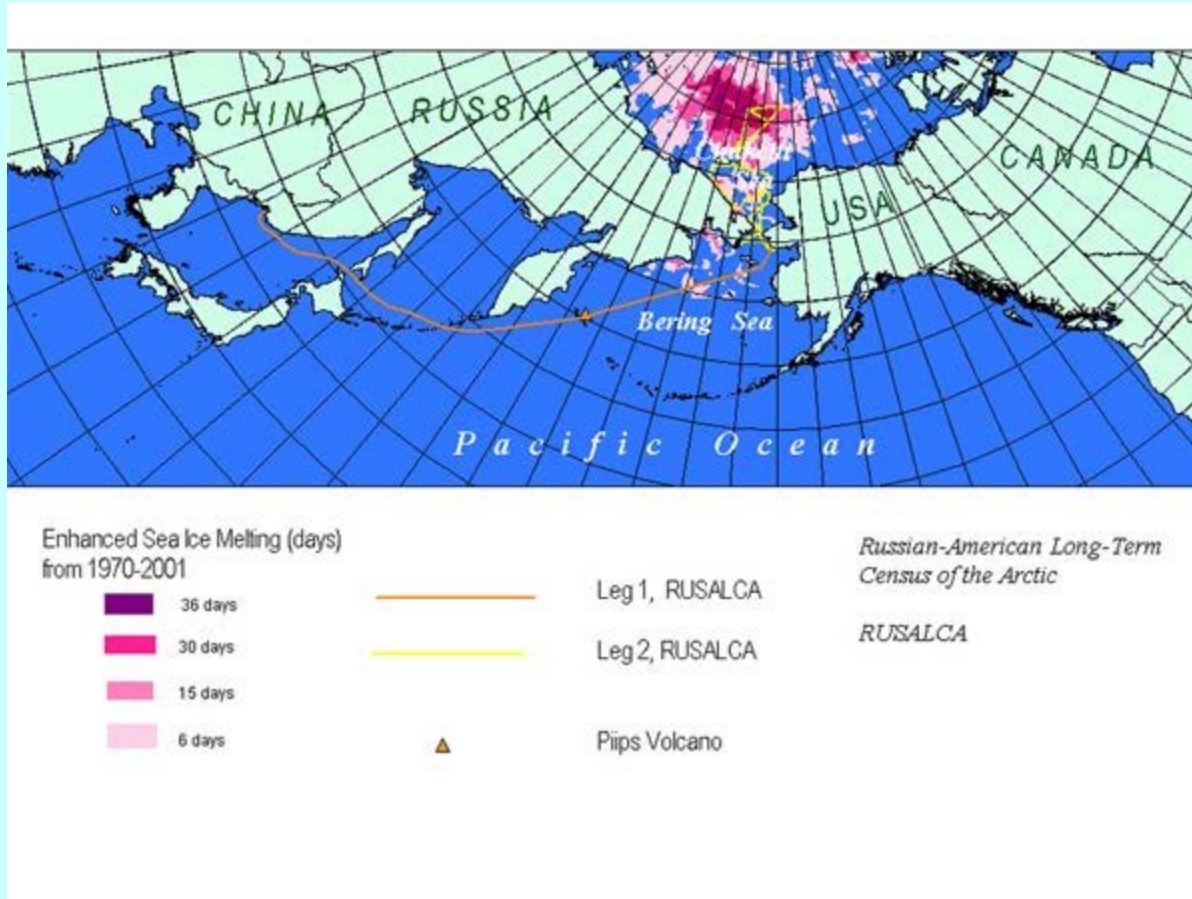
- 1) RUSALCA: Russian-American Long-term Census of the Arctic**
- 2) CRESTnet: Alaska Earthquake Information Network seismic stations**
- 3) Climate Program Office projects**
 - coastal storms and sea ice retreat**
 - downscaling of climate model output for Alaska**
 - global sea ice digital database, 1850-2012**
- 4) UAS surveys (tsunami debris)**
- 5) NESDIS-supported projects**
 - Heinrichs/Cherry (remote sensing for hydrology)**
 - Webley (volcanic ash)**

RUSALCA: Russian-American Long-term Census of the Arctic

- **Make physical, chemical and ecological observations where Arctic sea ice is diminishing**
- **Monitor fresh water and nutrient fluxes via long-term moorings in Bering Strait**
- **Monitor ecosystem indicators of climate change**
- **Improve international Arctic science collaboration**
- **Explore the unknown Arctic**

RUSALCA (Russian-American Long-term Census of the Arctic)

Major cruises: 2004, 2009, 2012/2013



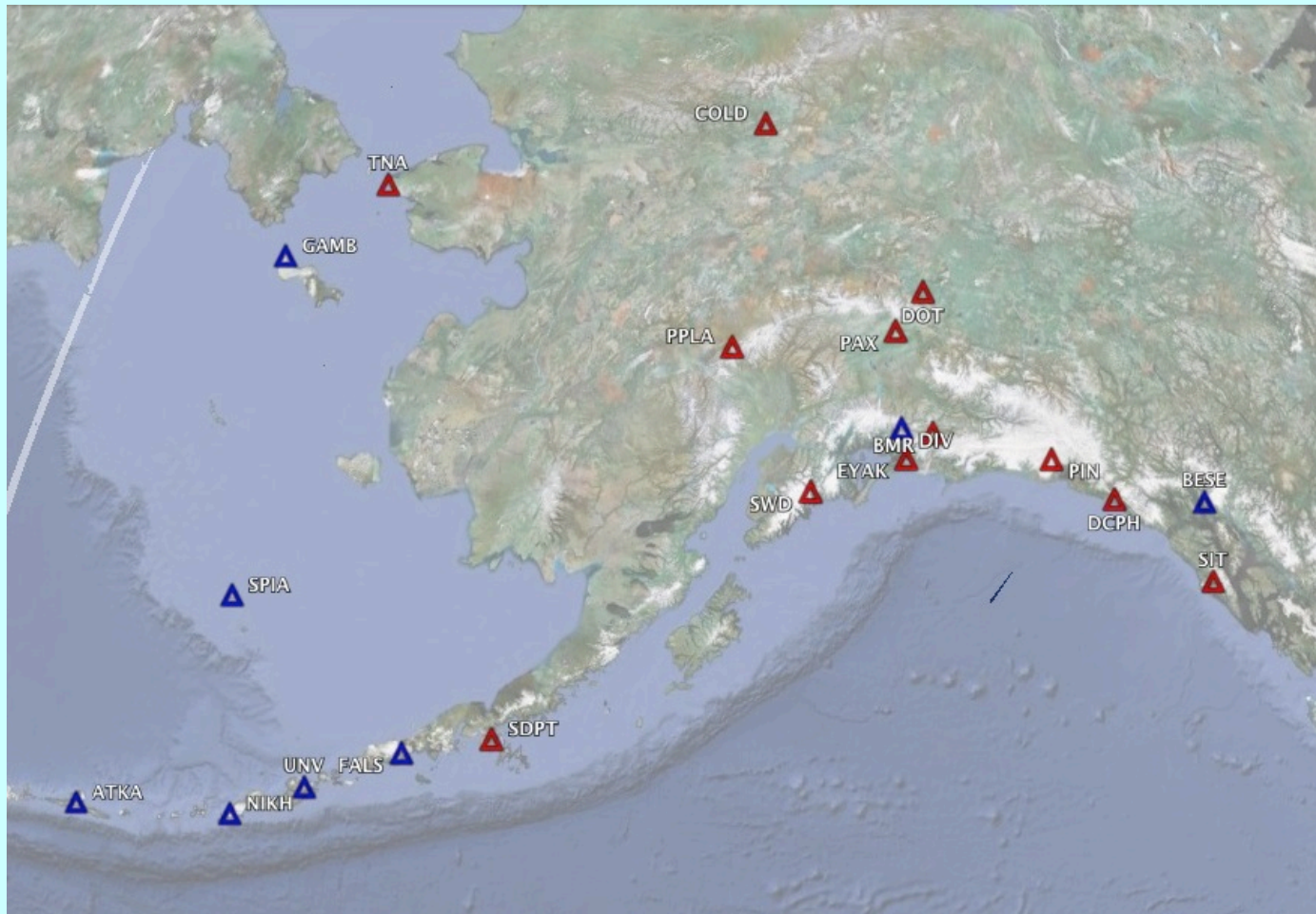
RUSALCA cruise



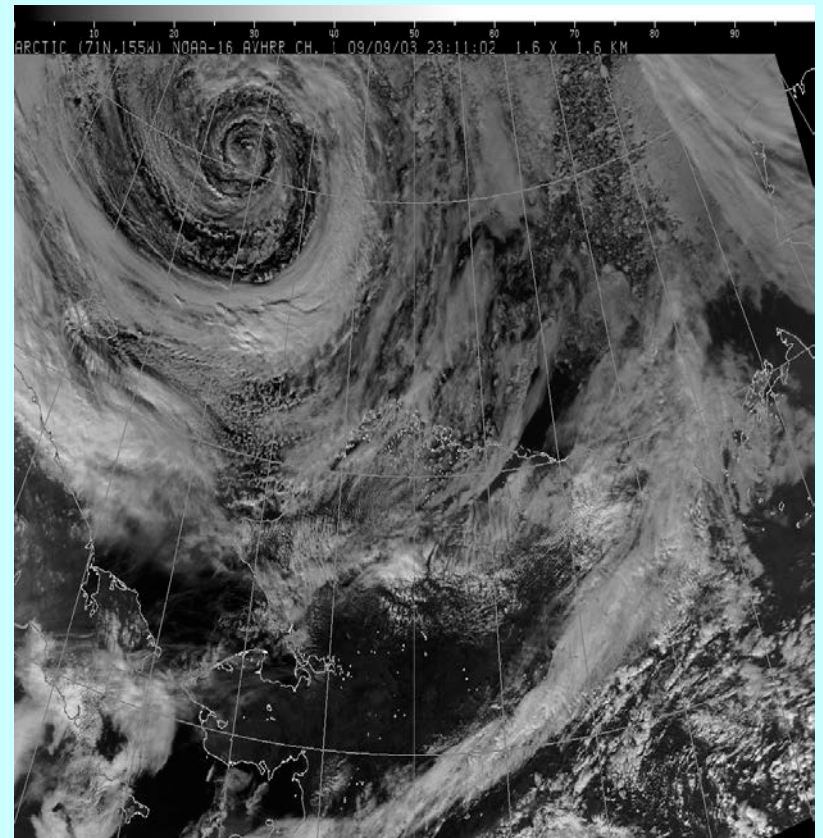
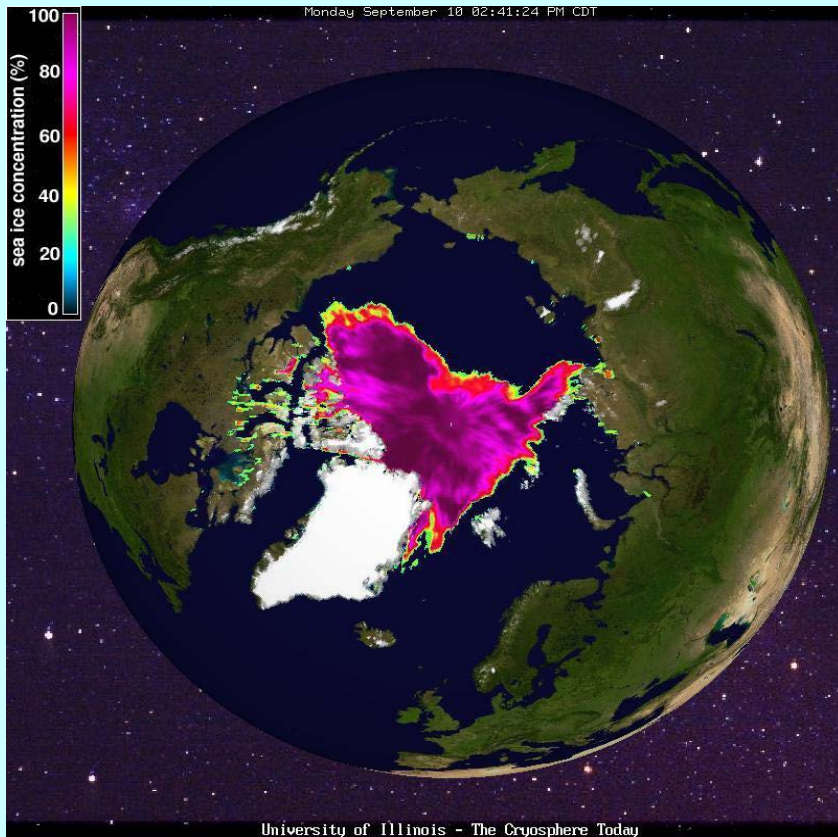
CRESTnet Seismic Stations

Blue: CREST stations included in FY14 project

Red: CREST stations no longer funded



CIFAR Research on Climate Variability

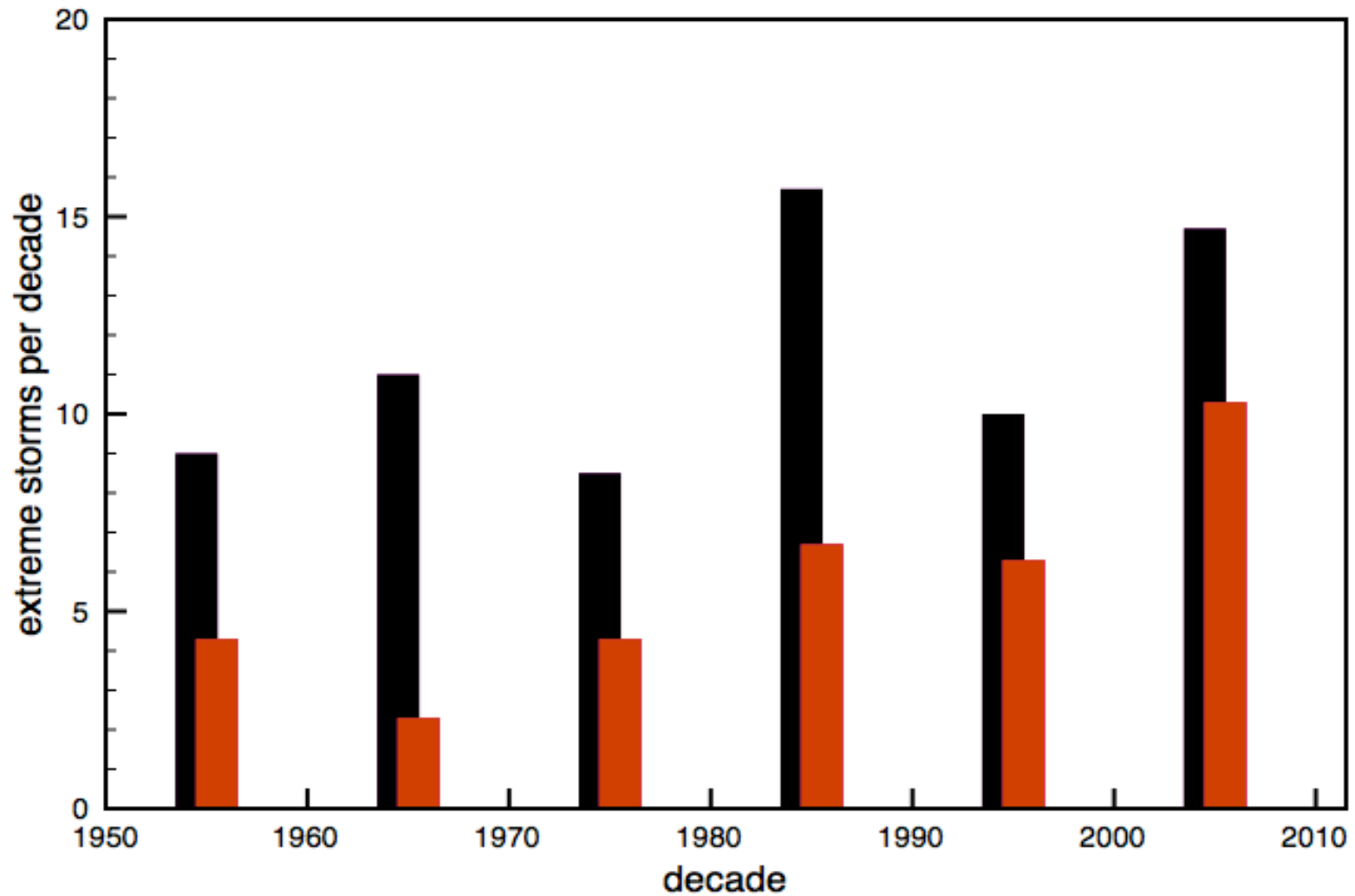


Three projects under CIFAR's climate theme

- 1) Coastal storms and sea ice retreat**
- 2) Downscaling of climate model simulations for Alaskan coastal regions**
- 3) Historical sea ice database, 1850-2012**

Autumn storm events by decade, northern Alaskan coast

[red = open water]

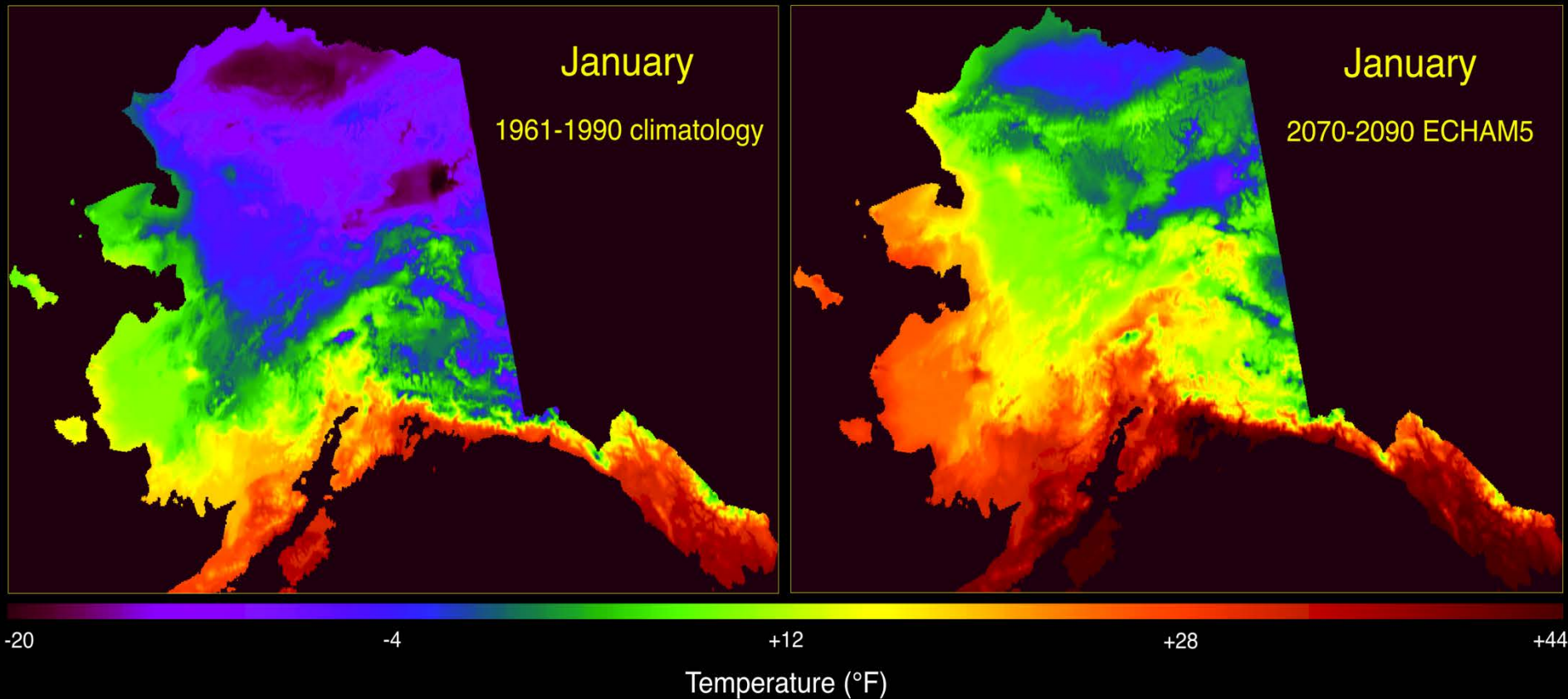




Downscaled January Temperatures

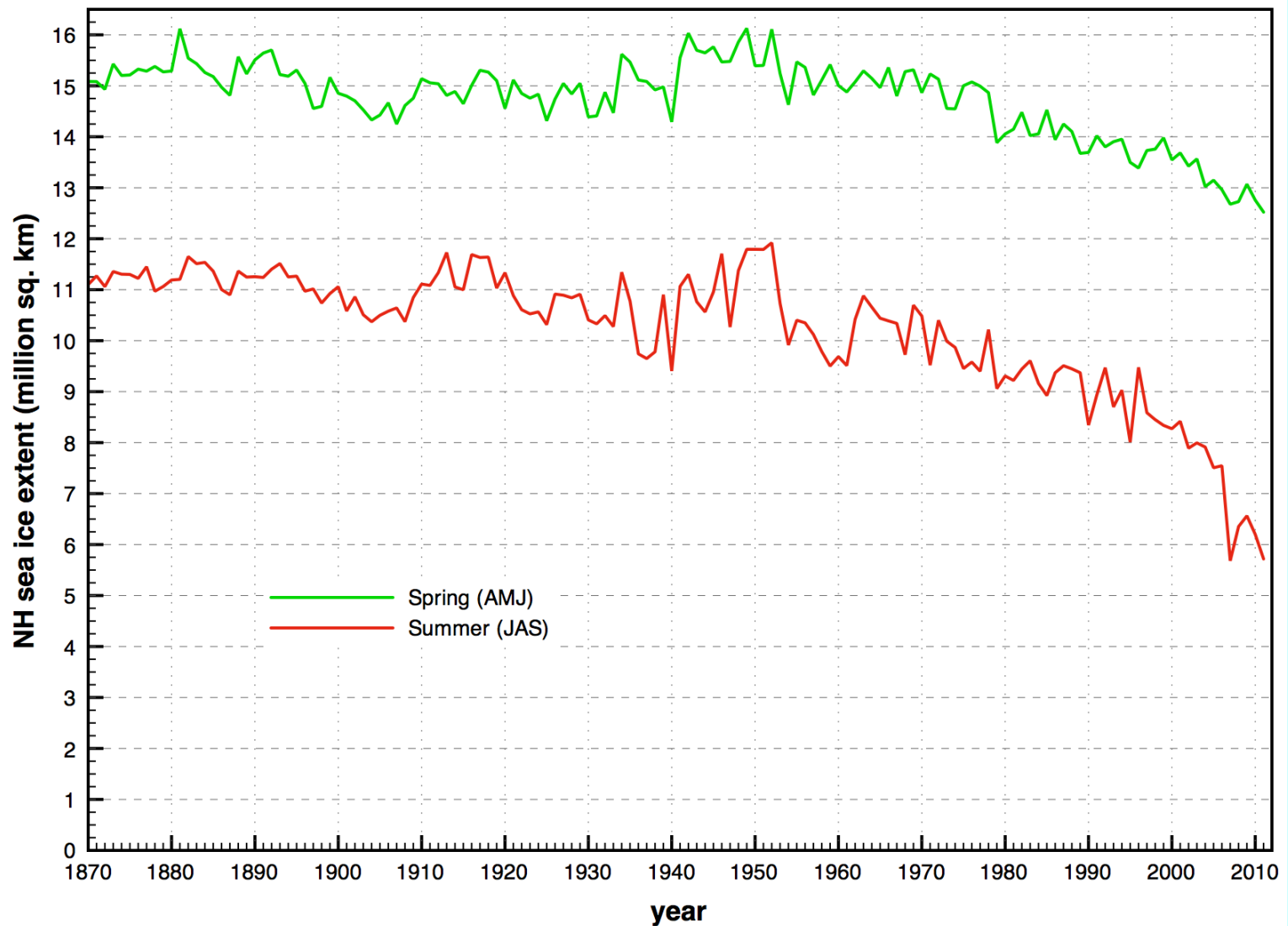
1961-1990 (PRISM climatology)

2070-2090 (ECHAM5)



Extended time series of Arctic ice extent, 1870-2011

[incorporating ACSYS, AARI sea ice data into HadISST]



How CIFAR helps NOAA “science to operations”

Stock Assessment traineeships (~\$422K since 2002)

**Four NOAA Auke Bay Laboratory Research Fishery
Biologists trained; 3 at Ph.D. level; 1 at M.S.**

**IPY traineeships (total \$330 K) awarded to 17 projects: 9
Ph.D., 4 M.S. or M.A., 5 B.A. or B.S. in climate &
climate modeling (10), sea ice (3), contaminants (2),
marine ecosystems (2)**

Student Career Experience Program (SCEP) students

New Projects in 2013

CIFAR Renewal Cooperative Agreement

1 July 2013 to 30 June 2014 (Projects in gray are still pending)

Last	First	Proposal Title	Amend ment	Project Budget	Theme Description	Funding Source
Task 1 Activities: CI Administration and Education & Outreach						
Walsh	John	Regional Alaska Cooperative Institute (2013–2014)	0	\$10,000	Administration	OAR
NOAA Non-Competitive Projects (NA13OAR4320056)						
Norcross	Brenda	RUSALCA fish ecology research	1	\$73,400	Ecosystem Studies & Forecasting	OAR
Whitledge	Terry	RUSALCA Global change in the Arctic: Interactions of productivity & nutrient processes	2	\$105,748	Ecosystem Studies & Forecasting	OAR
Iken	Katrin	RUSALCA: Arctic food web structure & epibenthic communities	3	\$99,672	Ecosystem Studies & Forecasting	OAR
Hopcroft	Russell	A Synthesis of long-term observations of Pacific-Arctic Zooplankton Communities	4	\$92,001	Ecosystem Studies & Forecasting	OAR
Walker	Gregory	UAS Survey of marine debris generated by the 2011 Japanese tsunami	5	\$129,165	Coastal Hazards	OAR
Heinrichs	Thomas	High latitude proving ground—Improving forecasts & warnings by leveraging GOES-R investment to deliver & test NPP/JPSS data in support of operational forecasters	6	\$112,500	Climate Change & Variability	NESDIS
Hopcroft	Russell	RUSALCA data management 2013/2014	7	\$119,994	Ecosystem Studies & Forecasting	OAR
Reynolds	Jennifer	Geological substrate & potential habitat map for deep sea corals and sponges in the Gulf of Alaska margin & the Aleutian shelf and slope regions		\$36,223	Ecosystem Studies & Forecasting	NMFS
West	Mike	Alaska Earthquake Information Center Seismic Station (CRESTnet)		\$187,488	Coastal Hazards	NWS
		Total projects funded (including CI administration)		\$966,191		