

Historical Climate Network Modernization (HCN-M)



Objectives

- **Enable continued monitoring and assessment of regional climate variability**
- **Sustain the historical climate record**
- **Provide climate observational data & metadata**
- **Improve data quality and availability**
- **Distribute data to customers for current and future use**
- **Integrate with NOAA's Global Earth Observing Integrated Data Environment (GEO-IDE)**
- **Plan and program resources to complete Project by FY13 (i.e., complete 1000 sites)**

HCN-M Outline

- **Stations**
- **System Architecture**
- **Resources**
- **Schedules**
- **Paperless COOP Initiative update**

Prototype HCN Site

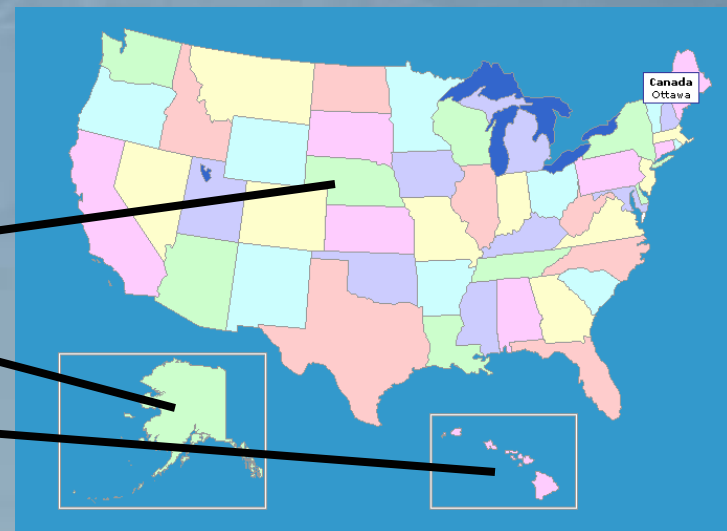


Stations

Stations selected by NCDC with NWS input

- 1,000 stations total
- Expansion capability to collect other measurements (e.g., NIDIS soil moisture, snowfall & snow depth, etc.)

Area	No. of Stations
CONUS	945
Alaska	41
Pacific Region	14
Total	1,000



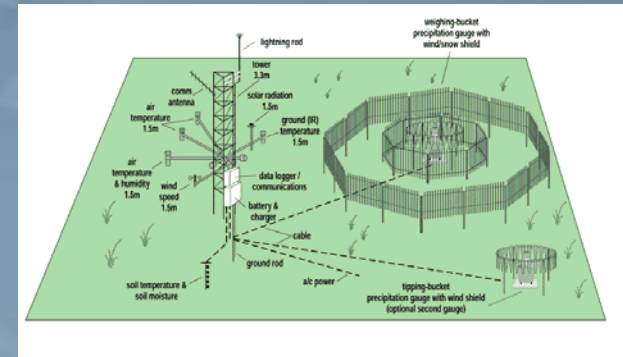
Coop #	State	Division	Station Name	County	HPD Site	Begin Mon.	Begin Day	Begin Year
450008	WA	1	ABERDEEN	GRAYS HARBOR		4	1	1891
450729	WA	3	BLAINE	WHATCOM	Y	8	1	1893
450945	WA	4	BUCKLEY 1NE	PIERCE		1	1	1913
451233	WA	5	CEDAR LAKE	KING	Y	7	1	1898
451276	WA	3	CENTRALIA	LEWIS		1	1	1893
451484	WA	3	CLEARBROOK	WHATCOM		3	1	1903
451504	WA	6	CLE ELUM	KITTITAS		1	1	1899
452007	WA	7	DAVENPORT	LINCOLN		3	1	1893
452675	WA	3	EVERETT	SNOHOMISH	Y	8	24	1894
452914	WA	1	FORKS 1E	CLALLAM		11	1	1907
453222	WA	8	GOLDENDALE	KLICKITAT		6	1	1948
454154	WA	8	KENNEWICK	BENTON		11	1	1884
454769	WA	4	LONGVIEW	COWLITZ	Y	11	14	1924
455224	WA	3	McMILLIN RESERVIOR	PIERCE		6	1	1948
455946	WA	9	NORTHPORT	STEVENS	Y	4	1	1910
456039	WA	7	ODESSA	LINCOLN		12	4	1902
456096	WA	2	OLGA 2SE	SAN JUAN		1	1	1890
456610	WA	10	POMEROY	GARFIELD		6	1	1881
456624	WA	2	PORT ANGELES	CLALLAM	Y	1	14	1883
456678	WA	2	PORT TOWNSEND	JEFFERSON		1	1	1857
456789	WA	10	PULLMAN 2NW	WHITMAN	Y	1	1	1893
457059	WA	8	RITZVILLE 1SSE	ADAMS		3	18	1899
457507	WA	3	SEDRO WOOLLEY	SKAGIT		8	6	1896
457773	WA	4	SNOQUALMIE FALLS	KING	Y	10	1	1898
457938	WA	9	SPOKANE WSO AP	SPOKANE		8	4	1880
458059	WA	6	STEHEKIN 4NW	CHELAN	Y	1	20	1906
458207	WA	8	SUNNYSIDE	YAKIMA	Y	2	1	1894
458773	WA	4	VANCOUVER 4NNE	CLARK		12	1	1849
459012	WA	7	WATERVILLE	DOUGLAS		1	1	1890
459074	WA	8	WENATCHEE	CHELAN		4	20	1912
459238	WA	7	WILBUR	LINCOLN		3	12	1892
459376	WA	6	WINTHROP 1WSW	OKANOGAN		4	1	1904

System Architecture

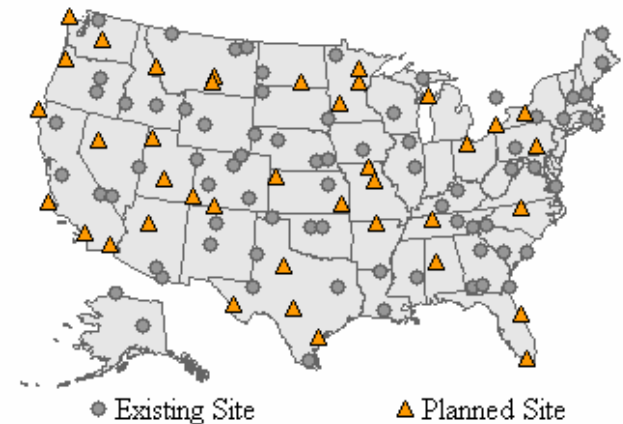
CRN Connection

HCN-M leverages CRN in these aspects:

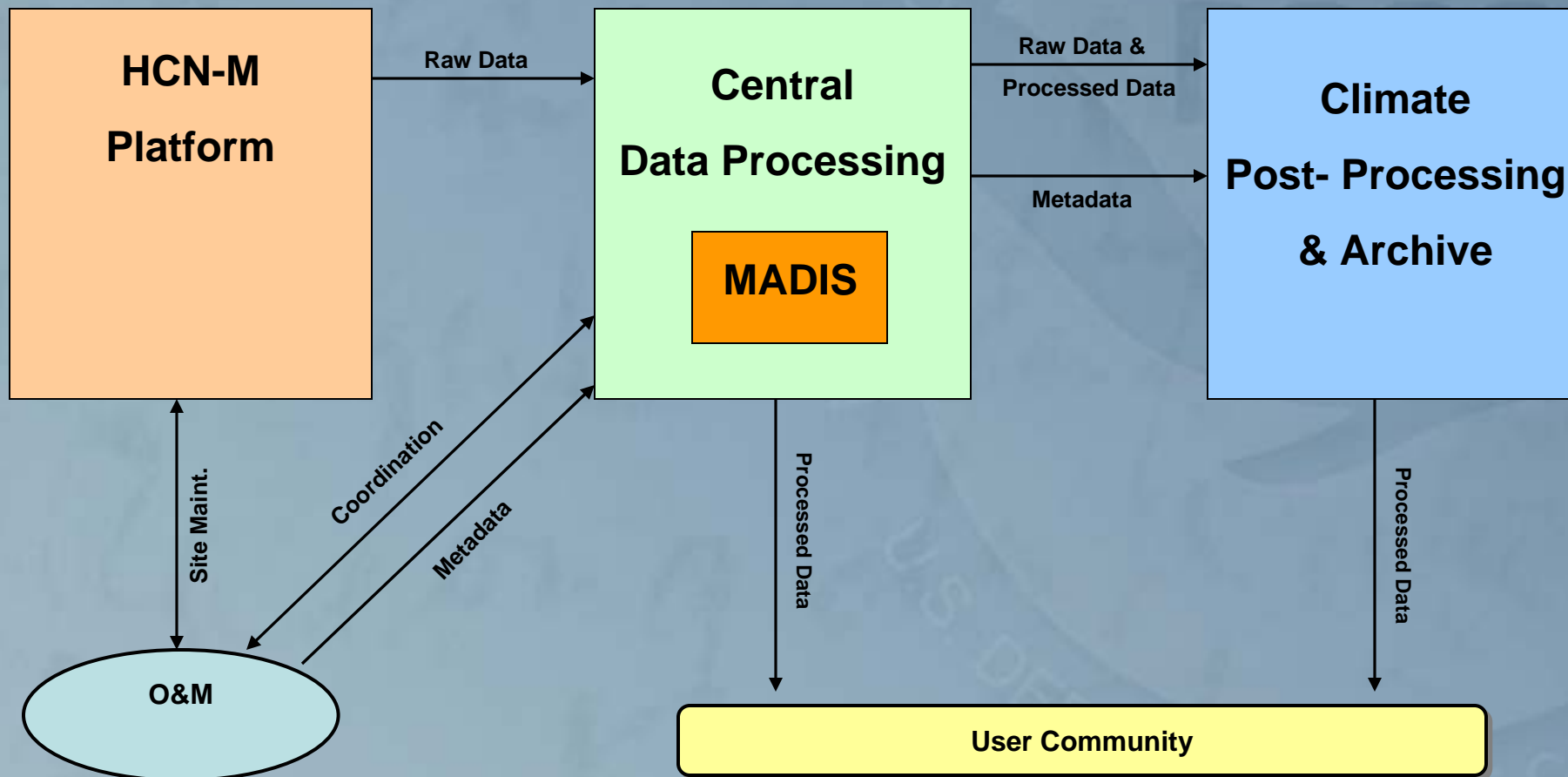
- Equipment standards
- Instrumentation
- Software and algorithms
- Siting standards
- Metadata standards
- Calibration standards
- Documents and plan
- Lessons learned



Planned CRN Sites



System Architecture



Resources - Budget

- **Current Status:**
 - FY07 funding is \$4.2M for execution by NWS
 - FY08 and beyond still in NOAA planning stages
- **100% program plan funding (\$6.7M) will complete HCN-M in FY13.**
- **If budget flat-lines at current \$4.2M, significant delays in completion occur.**



Schedules

Activity	Date
NEP HCN-M approval at KDP1	1 st qtr. 2007√
KDP2/KDP3 briefing updated project plan	4 th qtr. 2007
Corporate approval of Functional Req. Doc.	4 th qtr. 2007

Schedules

PHASE

KDP1

KDP2

KDP3

KDP4

ACTIVITY

- Determine mission needs and alternatives

- Develop project scope

- Pilot demos
- Evaluate various sensor configurations

- Pre-production testing

- Full scale system deployment

↑
1st qtr. 07

↑
1st qtr. 08

↑
4th qtr. 08

TIME →

WxC3 Implementation Team:

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[5] NOAA/National Weather Service/Chicago Weather Forecast Office, Romeoville, IL

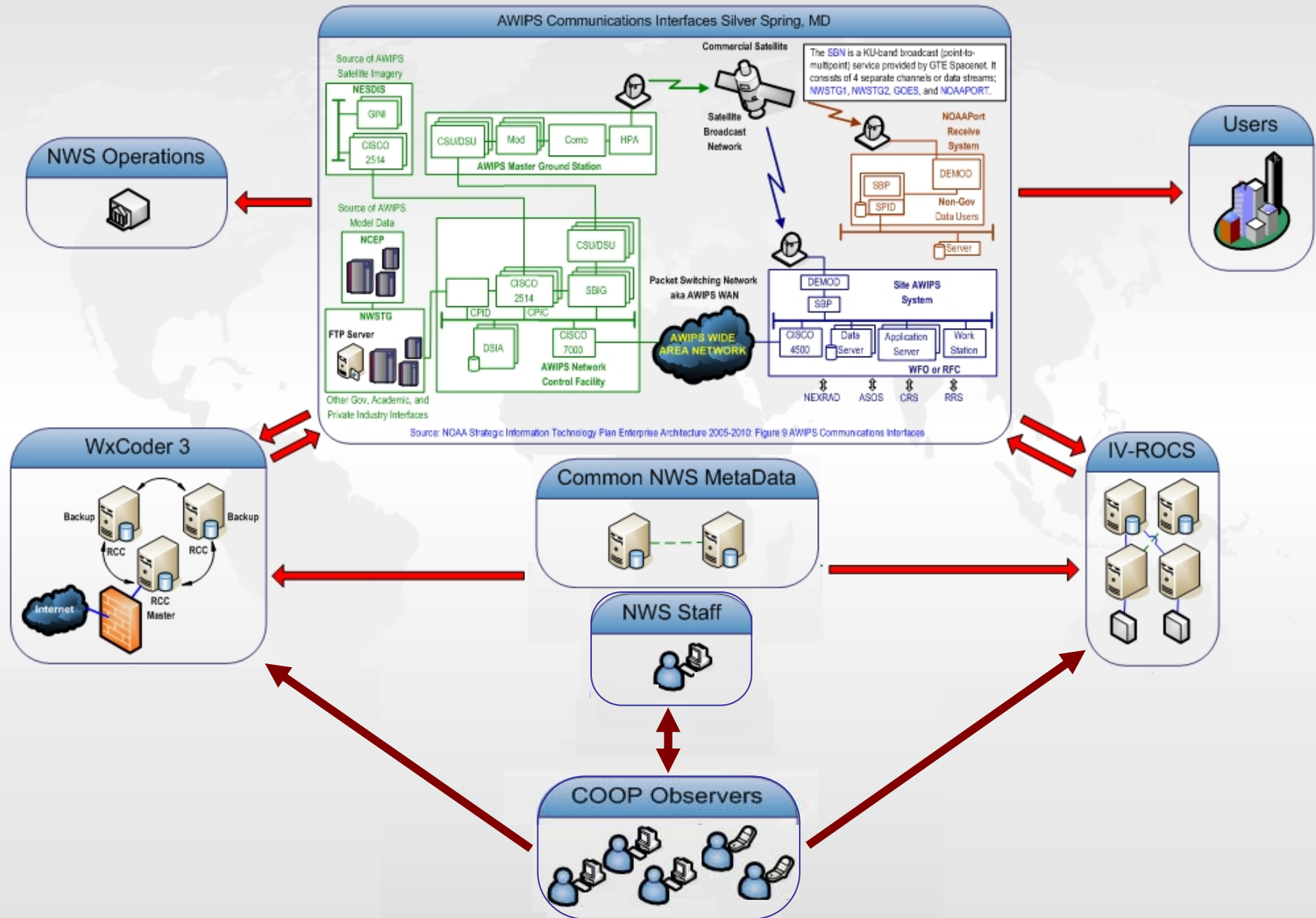
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[8] NOAA/National Weather Southern Region Headquarters, Ft. Worth, TX

<http://acis.dri.edu/wxcoder/home/>

WxCoder III: System Architecture



The background of the slide features a large, faint watermark of the NOAA logo. The logo is circular and contains the text "NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION" around the top edge and "U.S. DEPARTMENT OF COMMERCE" around the bottom edge. In the center of the logo, the word "NOAA" is written in a large, bold, sans-serif font. The background also has a light blue, wavy pattern at the bottom, suggesting water or a horizon line.

Questions?