

WELCOME

Tom Karl
Director



Early European Ship Logs & CDMP

23-24 August, NCDC, Asheville

- *International COADS*
 - critical for climate and global change research
- Successful CLIWOC (1750-1854) project
- Many European (e.g. UK) logs still untapped
 - proposed “post-CLIWOC” cooperation
 - add to & improve ICOADS (e.g., US Maury)
- Climate Database Modernization Program
 - opportunities & constraints
- Balancing priorities & logistics?
 - instrumental (WW II), pre-instrum., etc.
- Meeting outcomes?



NOAA's Climate Database Modernization Program

NOAA Projects and Task

Joe Elms

CDMP Program Manager



Climate Database Modernization Program

- **GOAL:** To make major climate and environmental databases available via the internet
- Fifth year of the program



web search store retrieve display

Version 4.8.9

- August 23 - WSSRD. Net
- Climate Data On-line (CDO) at NCDC
- Other NOAA Web Sites (e.g. NOAA Central Library)



Surface Weather Observations (SWO)
View Document

[DOC LIST SEARCH](#)
[CABINETS ADMIN LOGOUT SETTINGS UPLOAD HELP](#)



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[MODIFY](#)

Indexes:

UNITID
AA34489

STATION NAME
ASHEVILLE

STATE
NC

DATE
01/01/1959

WBAN
13872

FORM TYPE
WB FORM 1001B

Load Date & Time
4/23/2001 10:37:24 AM

Document ID
3226270

W. B. Form 1001-B

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
SURFACE WEATHER OBSERVATIONS
DAILY RECORD

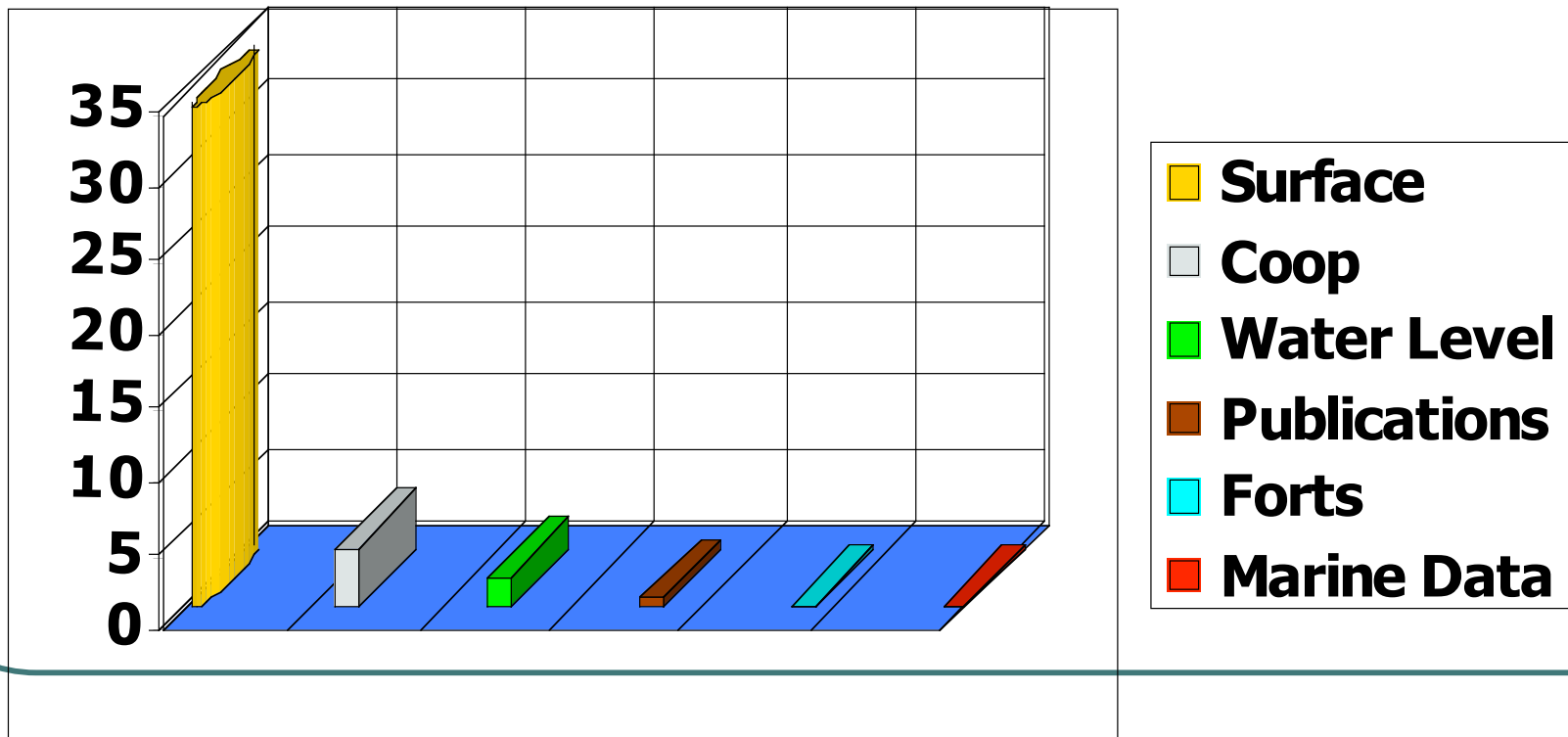
Station **ASHEVILLE, N. C.** (City Office) Date **JAN 1 1959**

Time (LST)	Temp (F)	Precipitation (Inch)	WIND		Relative Humidity (%)	Sea Obs (Inches)	Levee (Inches)	Weather and Observations	Levee (Inches)	Remarks
			Direction	Speed (Mph)						
00-00	35 T		SE	13						RF Cont'd
01-00	32 0.03		SE	13						
02-00	33 0.01		SE	11						
03-00	33 0.01		SE	13						
04-00	32 0.03		SE	15						
05-00	32 0.01		SE	13						
06-00	33 0.05 S			10				1		OFFICE OPENED 0800
07-00	33 0.02 S			11	0			2		
08-00	32 0.02 S			10	0	10	2			
09-00	34 0.02 S			11	0	10	3			
10-00	35 0.01 S			11	0	10	2 1/2			
11-00	37 0.08 S			11	0	10	2 1/2			
12-00	37 0.04 S			12	0	10	2			
13-00	38 T S			14	0	10	2			
14-00	38 0.01 S			15	0	10	4			RF - 1420 LF 1420 -
15-00	38 T SE			14	0	10	4			

viewone

WSSRD Major Cabinet Counts

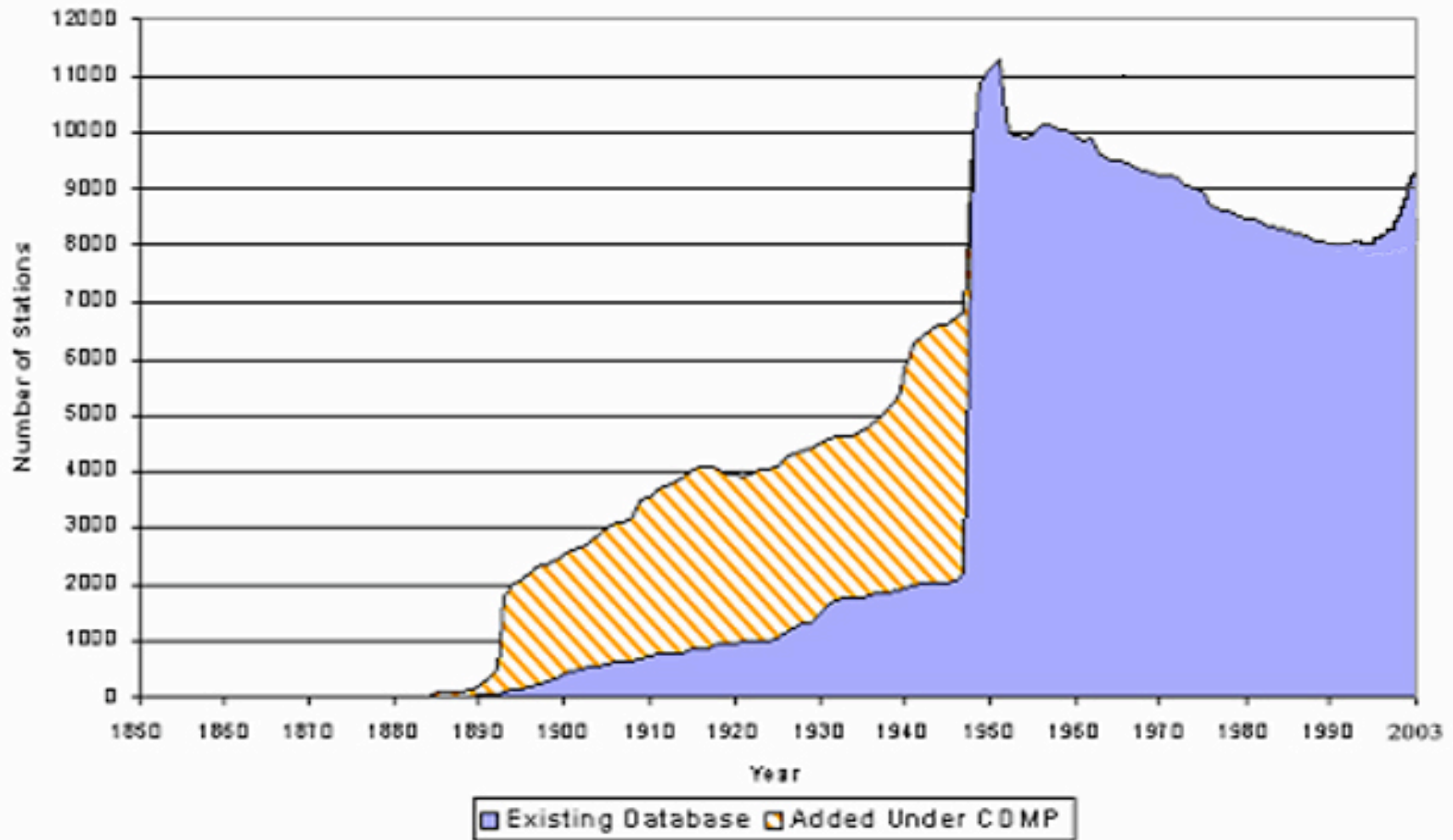
Number of Records in WSSRD
in Millions (Total = 43 Million)



Cooperative Observation Network USA Daily Temperature & Precipitation

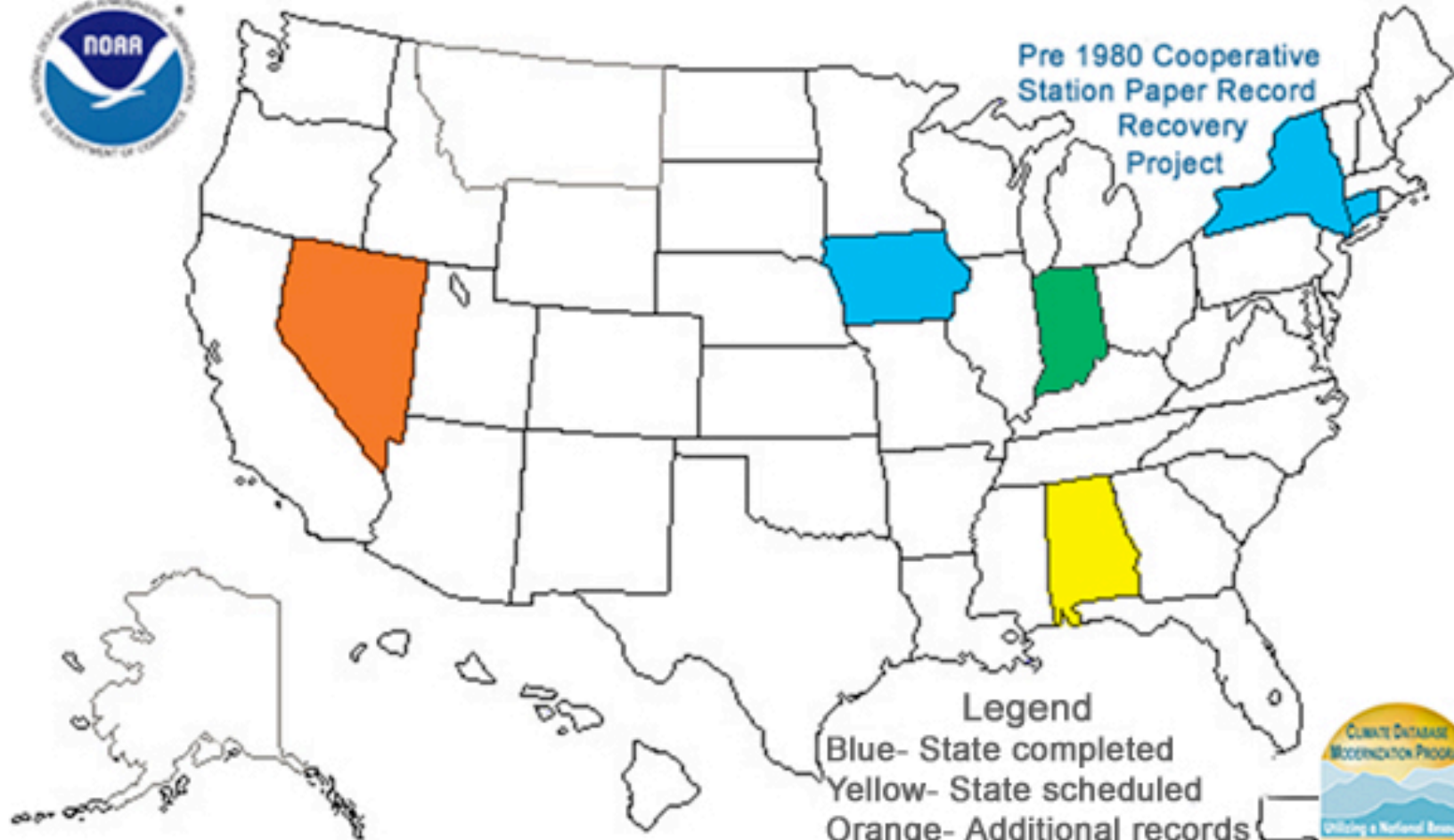
NWS Cooperative Climate Network

Available Digital Data at NCDC 1852 - 2003





Pre 1980 Cooperative
Station Paper Record
Recovery
Project



- Legend**
Blue- State completed
Yellow- State scheduled
Orange- Additional records
Green- Partial records



Station History Forms

NO Form 1144

U. S. DEPARTMENT OF COMMERCE
Weather Bureau

STATION RECORD

Station and state... **Ithaca, N. Y.** Type of station... **1st Order Weather Bureau**
 Effective date... **April 15, 1942** Date established... **Oct 1, 1899**
 Rerendered date... **April 15, 1942** Date change of status (if any)... **See Remarks**
 Previous rendition... **April 18, 1941** Date closed.....

Direct Supervising Station... **Ithaca, N. Y.** Teletype designation... **RTT**
 General Supervising Station... **U. S. No. 1, New York** Map index number.....
 Location: **About 1 mile east of Ithaca Post Office on Cornell University Campus. Located on 4th floor, Roberts Hall.** Latitude... **42° 17'**
 Longitude... **76° 20'** Local Std. time... **75th meridian**
 Airway... **Off-Airway**

ELEVATIONS:
 Official (ground) (ft.)... **888.63**
 Station (ft.)... **835.71**
 Sarmeter (ft.)... **829.58**
 8-foot plane (ft.).....

OBSERVATIONS
 (M) (M) (S) 3-hrly: (A) 6-hrly additive, groups: (R) Raob; (P) Pibal; times.....
 (S) Special service, type..... Local standard time of observations.....
 Number of record observations... **ONE AT HOOD**

00: E-W-T-01:	02:	03:	04:	05:	06:	07:
08:	09:	10:	11:	12:	13:	14:
15:	16:	17:	18:	19:	20:	21:
						22:
						23:

(Under score in red for observations by C.A.A. personnel. In blue for observations by other than C.A.A. or W.B. personnel. Where 24-hour service is rendered it is not necessary to fill out hourly blocks; merely enter 24 for number of observations, giving sequence time and underscoring if necessary in applicable color.)

How transmitted:
None transmitted.

Where telephoned or telegraphed, placed on what teletype circuit, how handled when regular facilities fail.

FORMS PREPARED (List by number)	SPECIAL ROUTINGS (Payroll purposes, etc.)	CHECKED BY	PERMANENT FILE
1001		Elkins, W. V.	Washington, D.C.
1002		do	do
1003		do	do
1014		Elkins, W. V.	Ithaca, N. Y.
1017		do	Washington, D. C.
1027		do	do
1030		Elkins, W. V.	Ithaca, N. Y.
1034		do	Washington, D.C.
1076		do	do
1088		do	Ithaca, N. Y.

PERSONNEL	STATION EXPENSES
Commissioned WB, No. ... CAA, No.	(Yearly, exclusive of gratuitous)
**Airway Observers Number... Salary.....	Rent (state if gratuitous).....
Regular { Number... Salary.....	Fuel (approximate), light, power.....
{ Number... Salary.....	Heat (approximate), light, power.....
Relief { Number... Salary.....	Telephone, exclusive of tolls.....
{ Number... Salary.....	Janitor service.....
**Group according to salary.	Miscellaneous.....

C.A.A. FACILITIES: Location with respect to teletype, radio, or field... **None**

Teletype: Number of machines: () page; () tape; by whom operated.....
 Radioc: #Class..... Frequency..... by whom operated.....
 Location of radio range.....
 #Give class such as SWRAZ-DT, SBRAZ-DT, MLL-DT, etc.

INSTRUMENTAL EQUIPMENT

Station having property accountability... **Ithaca, N. Y.**
 (Show only equipment actually in service, using (a) for WB equipment and (b) for that of other ownership.)

(X) Thermometer, exposed, dry-bulb	(X) Bearing, wind-vane, (X) 4-pt. (O) 8-pt.
(X) Thermometer, exposed, wet-bulb	() Indicator, dir.-vel. () 4-pt. () 8-pt.
(X) Thermometer, maximum	() Battery () Transformer
(X) Thermometer, minimum	() Fan, psychrometric, type.....
(X) Psychrometer	(X) Whirling apparatus, type... Hand Operated
(X) Therograph	() Support, anemo., beacon tower, cups
(X) Townsend supportft. above ground.
() Hygrograph	() Support, vane, beacon tower, vane
(X) Shelter () Station region, () Airwayft. above ground.
(S) Large,ft. above ground, PROOF	(X) Support, wind instrument,ft.,
(X) Barometer, mercurial, station	cups,ft. above ground, mounted
(X) Barometer, mercurial, extra	on.....
() Box, barometer	() Projector, ceiling light, voltage.....
() Board, barometer, () shielded	base-line,ft., angle.....
(X) Barograph, (X) 4-day () 7-day	() Projector, ceiling light, voltage.....
(X) Barometer, aneroid	base-line,ft., angle.....
() Clinometer	() Rain gauge, 8-inch
() Rain gauge, tipping bucket	() Balloon inflation device () 10g () 30g
() Rain gauge, weighing, make.....	() Clock, ceiling balloon timing
() Rain gauge support, wooden	() Regulator, balloon inflation
(X) Anemometer, type... cup	() Shed, balloon inflation
(X) Wind-vane,ft. metal,ft. wooden	() Pilot balloon equipment () 40g () 100g
() Sunshine recorder	() Radiosonde equipment
(X) Register (X) triple () single	() Clock, observat. time signaller
() Bulletin board, meteorological	()
() Interphone, type.....	()
Owner..... Number of	()
stations on circuit..... Cost to WB,	()
if participating agency.....	()

*Names of owners other than the Weather Bureau.....

PROPERTY OWNER	ADDRESS
Electricity	WBO Ithaca, N. Y.
Heat	do
Light, lamps included	do
Use of telephone	do
Janitor service	do
Quarters	do
Roof space	do
Ground space	do
Storage space	do
Instruments, equipment, fixtures	do

Mark (a) for agreement on form 4076; (v) for informal agreement; (o) for formal lease.

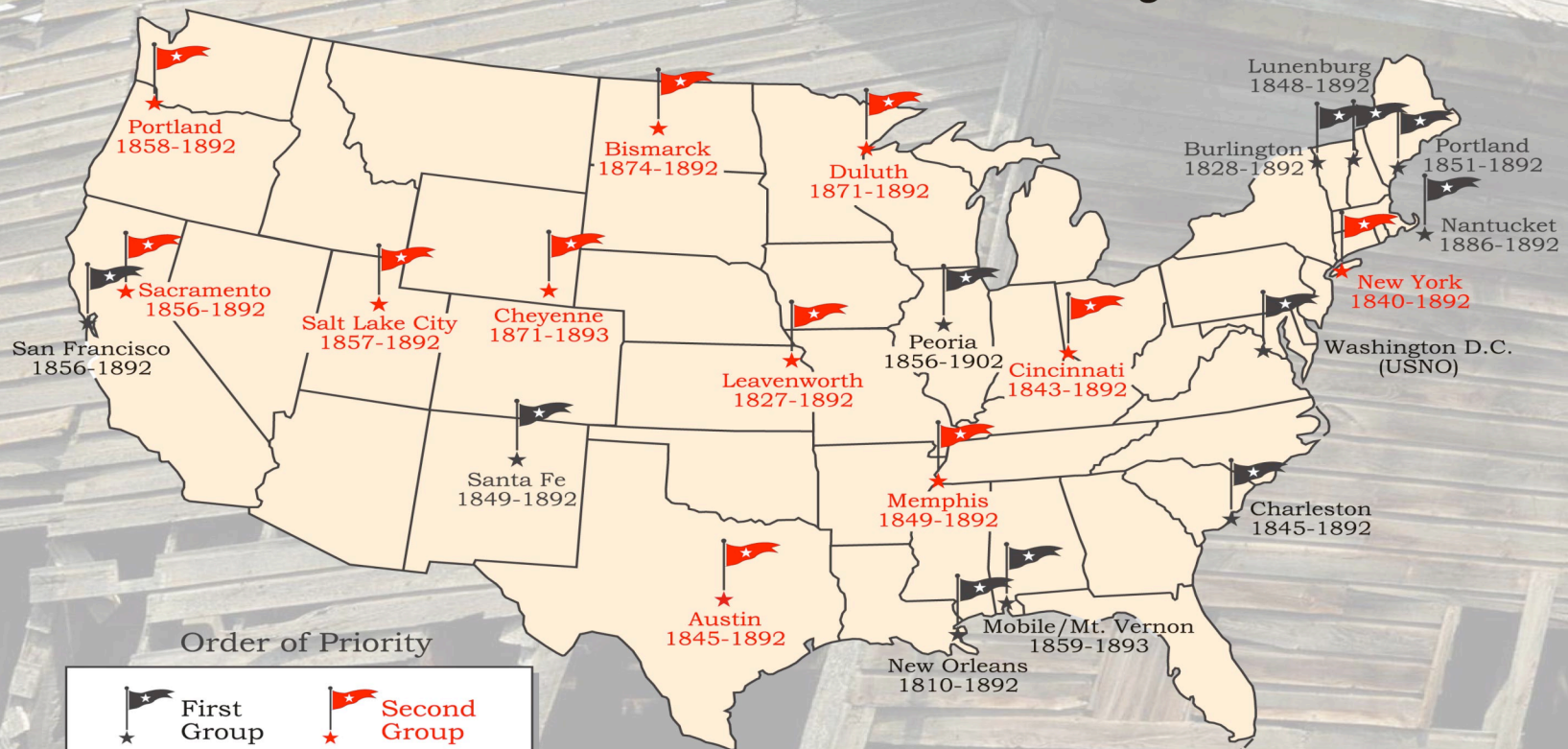
REMARKS:
Section center work transferred to Albany, N. Y. Sept. 25, 1941.
(+) Gratuitous. There is no lease or informal agreement.

This form, showing changes, to be rendered within 5 days after any change becomes effective. Complete rendition to be made annually on April 15 of each year.

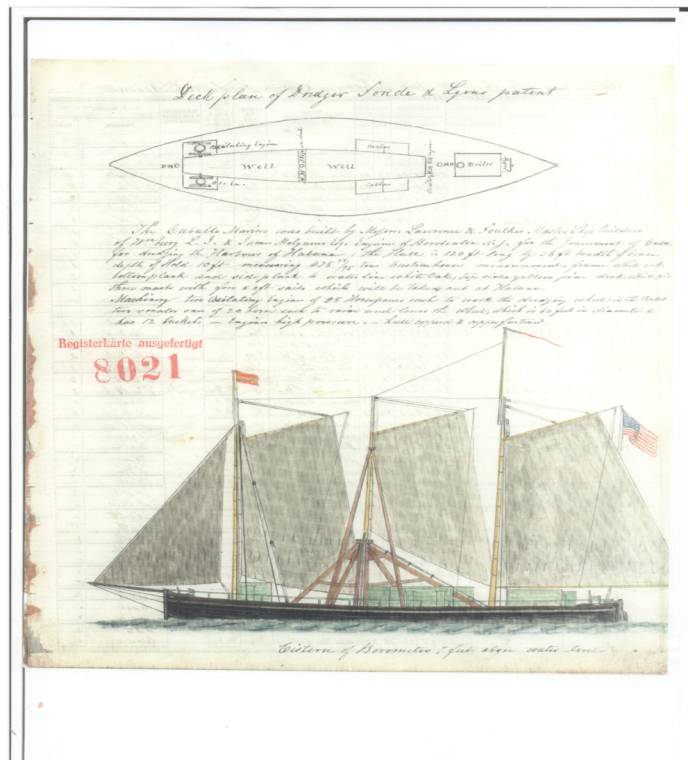
Major Keying Projects- Surface Weather Observations (SWO) & Forts Data

- SWO data keyed is from the pre-1948 period, 148 out of 209 stations have been completed.
- Northeast Regional Climate Center performing the Quality Control of the data and also formatting the keyed data to the NCDC Integrated Surface Hourly (ISH) Format.
- The Number of forms prepared surpassed 3.5 million and 27 million observations have been keyed.
- Roughly 20 stations keyed in the forts project, 87 million keystrokes. Project total is 150 stations with data from the early 1820's through the 1890's.

Forts Station Priority



Marine Imaging and Keying Projects

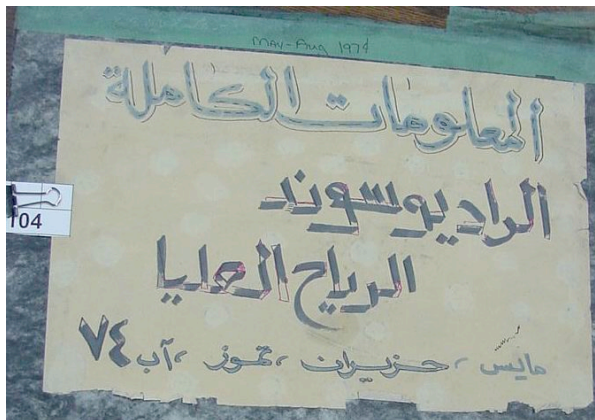


- 1955-1972 International List of Selected and Supplementary Ships (WMO Pub # 47)
- Imaged 850 German Maury Logbooks on loan from Germany, Possible keying project with China
- Image and Key incoming U.S. Navy and Voluntary Observing Ship (VOS) Records.
- Canadian VOS data
- Early European Ship Logs
- NARA imaging

Iraqi Upper Air Data (1958-1986)



Iraq Upper Air data



Daily Record Books

Radioonde Station : _____ day _____ month _____ 1977 year.

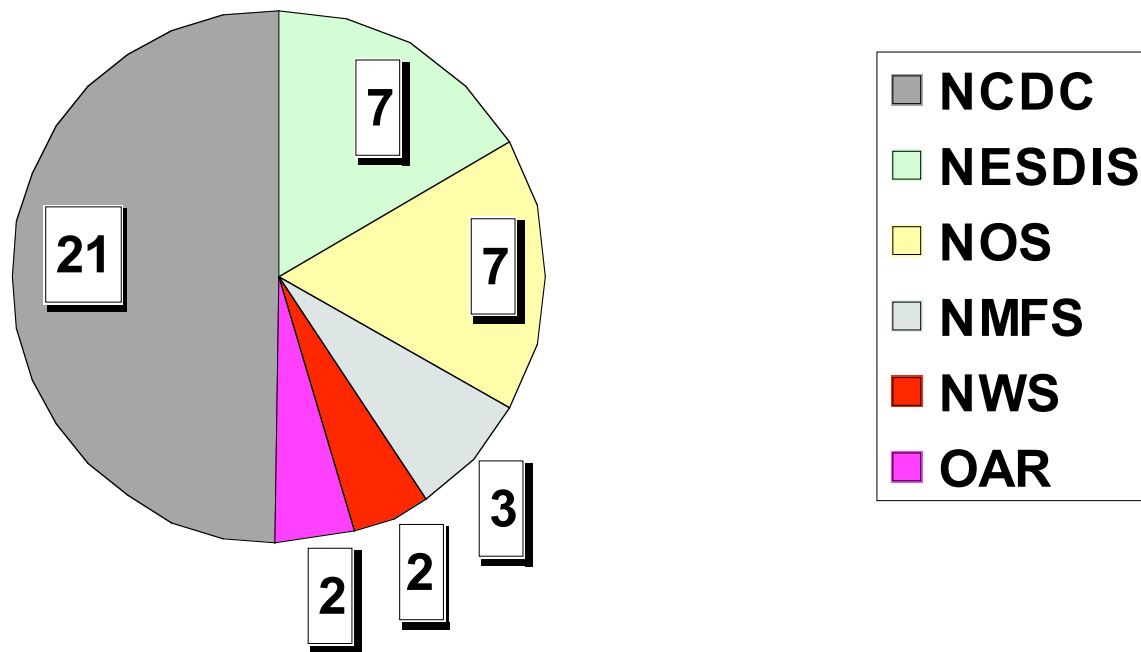
METEOROLOGICAL DEPARTMENT BAGHDAD

0000 GMT — ASCENT						Pilot 0600 GMT			1200 GMT — ASCENT						Pilot 1800 GMT					
HHHHH	P	T	U	Td	dd	fff	HHHHH	dd	fff	HHHHH	P	T	U	Td	dd	fff	HHHHH	dd	fff	
107	1000	17.5	5.8	2.7	0.5	10	34	06	06	114	1000	28.0	2.5	6.9	0.6	34	07	05		
1495	850	21.7	1.7	1.3	16		600	19	05	15 14	850	13.6	-0.1	2.2	-6	300	10	12		
5087	700	21.0	6.1	6.4	30	36	900	34	02	310	700	15.5	-2.0	4.9	15	600	12	11		
5782	500	27.9	1.4	-3.0	30	45	1200	35	05	5259	500	18.6	3.7	2.5	2.7	1200	19	08		
7368	400	31.0	1.7	-4.0	31	76	1500	36	08	7217	400	26.2	2.0	2.5	2.7	1500	22	05		
9170	300	32.4	1.5	-4.1	30	78	1800	37	11		300	28.2	2.7	2.5	2.7	1800	24	02		
10097	250	32.6	1.5	-4.6	30	78	2100	33	13	9456	250	28.2	2.7	2.5	2.7	2100	24	02		
11995	200	32.7	-	-	30	100	2400	33	20	12031	200	28.2	-	-	2.7	2400	25	04		
15768	150	32.9	-	-	30	80	2700	32	28	13725	150	28.2	-	-	2.7	2700	27	07		
16280	100	32.9	-	-	28	85	3000	32	32	16265	100	28.2	-	-	2.7	3000	28	08		
17300	85	32.9	-	-	27	71	3300	31	35		85	28.2	-	-	2.7	3300	28	12		
8470	70	48.8	-	-	16	18	3600	30	38	17700	70	28.2	-	-	2.7	3600	28	16		
19450	60	52.0	-	-	13	19	3900	29	41	18768	60	28.2	-	-	2.7	3900	28	20		
2572	50	52.7	-	-	12	12	4200	29	44		50	28.2	-	-	2.7	4200	29	21		
22000	40	53.4	-	-	12	10	4500	29	45	19460	40	28.2	-	-	2.7	4500	30	29		
							4800	30	46	20522	30	28.2	-	-	2.7	4800	30	33		
							5100	30	46		40						5100			
							5400	30	46								5400			
							5700	29	45								5700			
							6000	30	43								6000			
							6300	31	40								6300			
							6600	31	40								6600			
							6900	31	40								6900			
							7200	31	40								7200			
							7500	31	40								7500			
							7800	31	40								7800			
							8100	31	40								8100			

Daily Records- 1 pg/day, 2-4 times/day

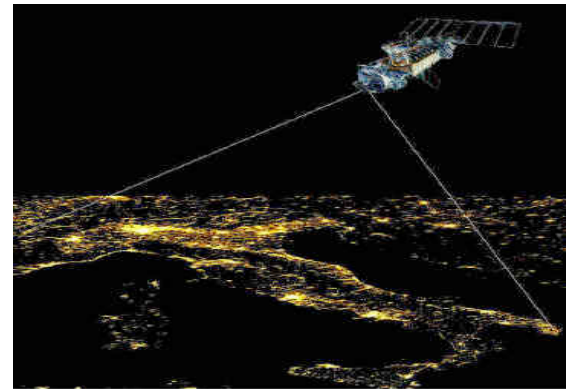
Total of 22,485 records

CDMP FY 04 Tasks by NOAA Organization



National Environmental Satellite Data and Information Service

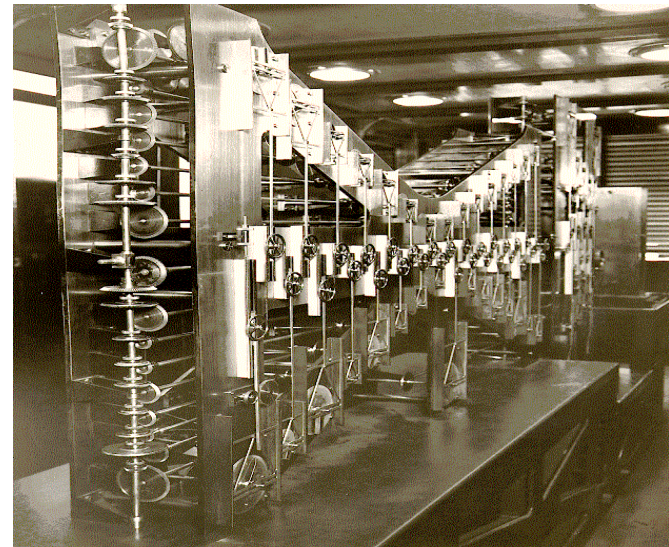
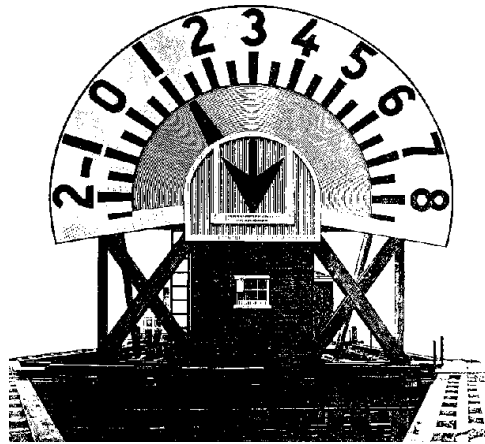
- NGDC Projects
- DMSP Images, Ionospheric Data, Solar Observations, Glacier Photographs and Arctic Sea Ice Charts



http://nsidc.org/data/glacier_photo/photo_query.html

National Ocean Service

Projects Range from
Scanning Historical Nautical
charts, Coast Pilots, Digitizing
Water Level data and SST
temperatures



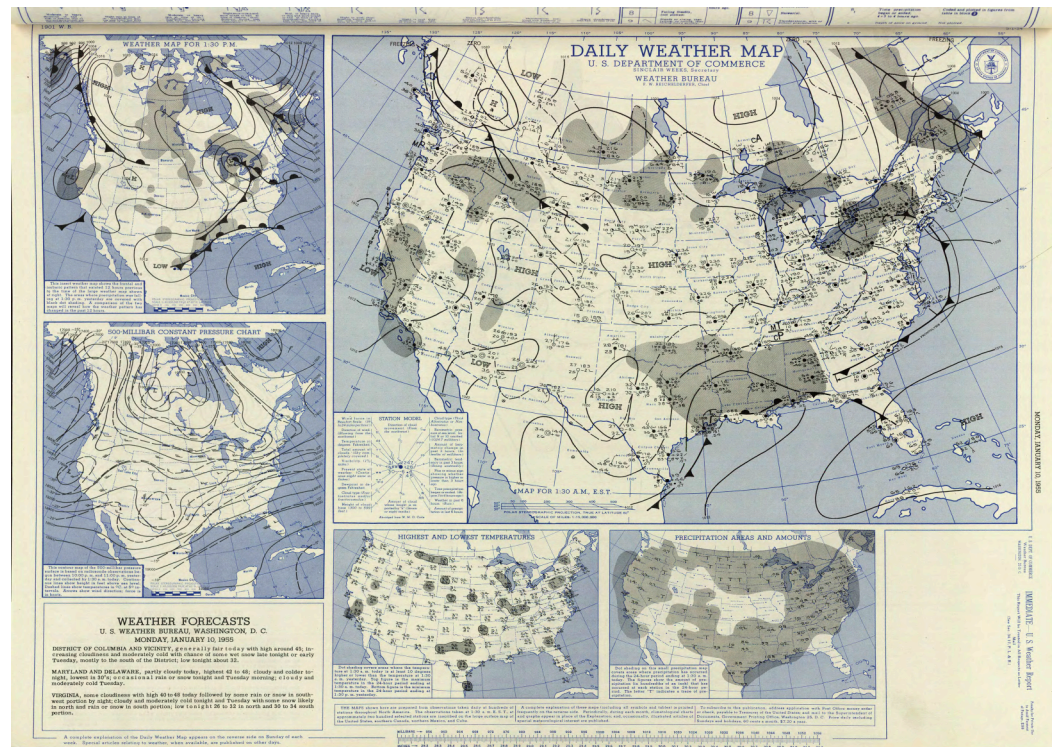
Vectorizing of Shoreline
Charts to Digital/GIS
Information Systems

National Environmental Satellite Data and Information Service

- NODC Projects
- Various Oceanographic MBT charts and NOAA Library Archive Projects including the Daily Weather Maps and Monthly Weather Review Publications, Rare Book Collection, Circular N and M Instructions to Observers.

Daily Weather Map -1955

Map includes surface analysis, high and low temps, precipitation and 500 MB Upper Air analysis



National Marine Fisheries Service

- Lightship Records Recovery
- SeaCat/Bongo
- Cetaceans- Tagging and Tracking



Cetacean Image Tagging

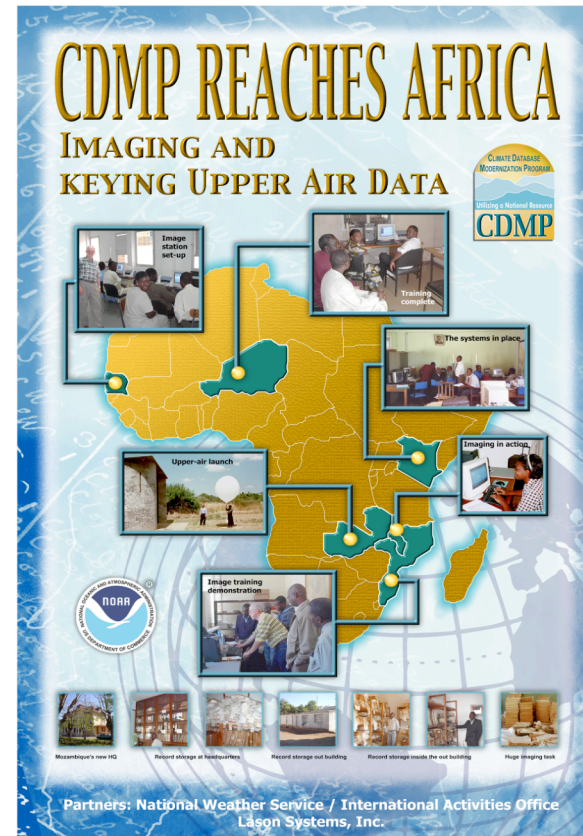


Stranded Diamond Shoals Lightship

Cetacean Images scanned at 4000 dpi to bring out scarring details on the cetaceans

National Weather Service

- Scanning and Keying Upper Air Data from Six African Countries
- HPD analog records from Nicaragua
- Surface observations from Uruguay and Dominican Republic
- 1956-1976 Hurricane Reconnaissance data



Oceanic and Atmospheric Research

- Great Lakes Ice
Thickness scanning and
Keying text information
- WMO Publication # 47.
Metadata for Volunteer
Ships- Image the
publication and then key
instrument information



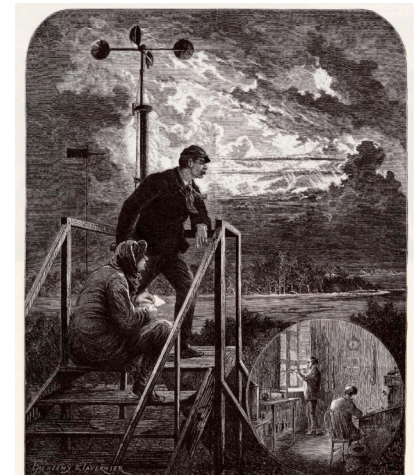


HISTORICAL CLIMATE DATA CATALOGUE



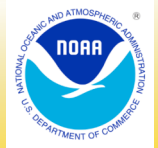
Goal: To create a catalogue of U.S. historical climate data that will serve as a directory to historical climate data not contained in the National Archives collections.

- The catalogue is being generated from information solicited from historical societies, libraries, and people with knowledge of historical climate data sources, such as State Climatologists.
- It will provide a searchable meta database of historical climate data allowing users to search for records by fields such as date, location, and author, as well as submit new entries.
- The catalogue will enable users to locate records in archives across the U.S. It will complement CDMP and HCDN efforts and include links to other sources of information on historical climate data.





HISTORICAL CLIMATE DATA CATALOGUE



The Historical Climate Data Catalogue will be maintained by the NOAA Paleoclimatology Branch, National Climatic Data Center and the WDC for Paleoclimatology, Boulder, CO

Project PI's: Cary Mock (University of South Carolina) and Connie Woodhouse (NOAA Paleoclimatology Branch)

Database Manager: Michael Hartman (NOAA Paleoclimatology Branch)

Project Funding from NOAA's Environmental Services Data and Information Management (ESDIM) Program

NEW NORTH - WEST.
DEER LODGE CITY, FRIDAY, APRIL 15.

LUNATIONS FOR APRIL.

First Quarter..... 8d... 11h... 41m..... Evening
Full Moon..... 15d... 5h... 42m..... Evening
Third Quarter..... 22d... 11h... 41m..... Morning
New Moon..... 30d... 1h... 53m..... Evening

METEOROLOGICAL RECORD.
CORRECTED WEEKLY BY GRANVILLE STUART, DESIGNATED CORRESPONDENT OF SMITHSONIAN INSTITUTION.

LATITUDE 46° 40' m. LONGITUDE 112° 40' m.
ALTITUDE 4,240 feet.

1870	T	A	M	2 P	M	3 P	M	AVERAGE	REMARKS..
Apr 8	41°	35°	34°	37	Cloudy, violent wind				
" 9	20	50	50	36%	Clear S "				
" 10	28	60	59	45%	Cloudy S W "				
" 11	43	65	50	52%	Cloudy " "				
" 12	47	40	32	39%	Cloudy, tornado				
" 13	28	64	24	28%	Cloudy N W				
" 14	16	44	32	30%	Clear & calm				

Average for week 38%. A violent tornado on the 12th began at 1.45 p. m. and lasted till 3.30. The mercury fell 20° in 20 minutes—beginning 1.45 p. m.

For more information, and to contribute historical climate data, contact: Michael Hartman (Michael.Hartman@noaa.gov)

Proposal Process

- Call for papers – August
- CDMP Data Access Workshop – November 8-9, 2004
- 25% of CDMP funding - other NOAA Organization
- \$25K available to State Climatologists

CDMP Proposal Process

- The proposals judged against the following criteria:
 - 1. Supports NOAA's Strategic Goals
 - 2. *Contribution to improved data access & rescue*
 - 3. *Value to climate community*
 - 4 *General merit to overall program*
 - 5. *Cost effectiveness*
 - 6. *Ease of digitization by the contractors*

CDMP FY 04 Contracts

March 1, 2004 – February 28, 2005

Information Manufacturing Corporation

Rocket Center, WV

&

Source Corp, London , KY

April 1, 2004 – March 31, 2005

Lason Inc., Beltsville, MD