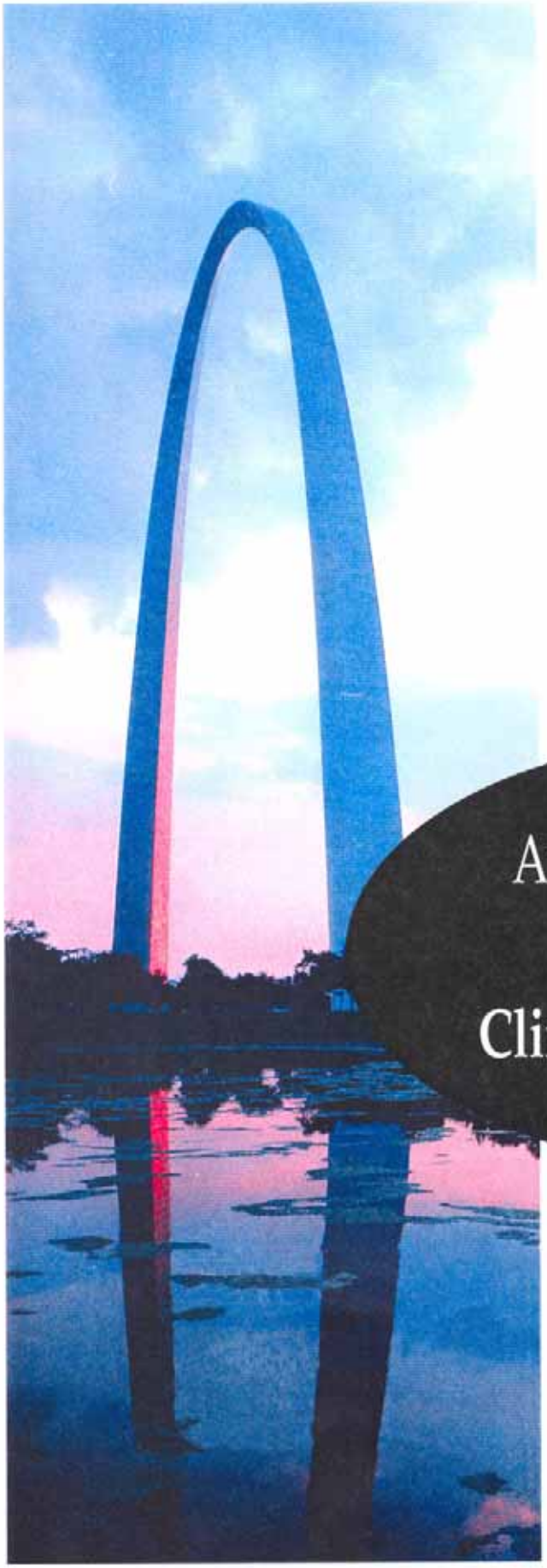

NATIONAL REGIONAL STATE CLIMATE CENTERS

At the Gateway of a New Climate Service System

Regional Climate Center
Director's Meeting

April 20 - 22, 1999

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AGENDA FOR THE

REGIONAL CLIMATE CENTER
DIRECTORS MEETING WITH NCDC STAFF

April 20-22, 1999
NATIONAL CLIMATIC DATA CENTER
ROOM 500

Tuesday, April 20

8:30am	Administrative items	Steve Doty
8:40am	- The New NCDC	Tom Karl
	- RCC's integrating into NCDC	RCC Directors
	- Funding issues (Initiatives/add-on/etc)	All
	- Action items from 98 Dir Meetings	Steve Doty
10:30am	RCC presentations	RCC Directors
Noon	Lunch	
1:30pm	A Review of the State Climatologist Program Steve Doty/Dick Reinhardt/George Taylor	
4:00pm	Miscellaneous discussions	NCDC staff

Wednesday, April 21

8:00am	Photo session	RCC Directors
8:30am	Customer Service Plan	TBD
10:30am	Climate Monitoring/Impacts Guidelines Mike Changery/Tom Ross	
Noon	Lunch	
1:00pm	RCC Program Management Plan	Steve Doty
4:00pm	Optional tour of Biltmore House and Gardens (Spring Festival of Flowers) and Dinner at the Bistro (@the Winery) Check out www.biltmore.com	

Thursday, April 22

8:30am Plans for converging on-line systems & IT requirements
Wayne Faas, moderator
Dan Manns/Kevin Robbins/Neal Lott

10:00am Other outstanding issues

Naming Climate Service Constituents Leaders

CIASTA proposal status, FY99 and FY00

Site evaluations, identifying team, establishing guidelines, selecting 2 Centers, establishing schedules

An RCC annual report?

Regional Climatologist workshop theme

Tech Paper 40, any hope?

Other items of interest

Noon We're through .....

rccagenda_99.wpd

NATIONAL CLIMATIC DATA CENTER

Director	T. Karl	E/CC
Deputy Director	K. Davidson	E/CCx1
Budget Officer	G. Cooper	E/CCx2
Planning Officer	W. Faas (acting)	E/CCx3
	M. Crowe (acting)	E/CCx4
	EF0000	

Climate Data Division
R. Quayle
E/CC1 EF1000

- Data Ingest & Processing Branch — A. DeCotiis — E/CC11 EF1100
- Active Archive Branch — A. Shumbera — E/CC12 EF1200

Scientific Services Division
K. Davidson (acting)
E/CC2 EF2000

- Climate Archaeology & Analysis Branch — T. Peterson — E/CC21 EF2100
- Climate Monitoring Branch — M. Changery — E/CC22 EF2200
- Product Development Branch — M. Plantico — E/CC23 EF2300

Climate Services Division
J. Jensen
E/CC3 EF3000

- Customer Services Branch — V. Woldu — E/CC31 EF3100
- Data Access Branch — P. Steurer — E/CC32 EF3200
- Satellite Services Branch — C. Carpenter — E/CC33 EF3300

Support Services Division
R. Money
E/CC4 EF4000

- Mission Support Branch — V. Shuler — E/CC41 EF4100
- Systems Branch — S. Evans — E/CC42 EF4200

ESTABLISHING GOALS AND OBJECTIVES FOR THE NATIONAL CLIMATIC DATA CENTER AND REGIONAL CLIMATE CENTER PARTNERSHIP

RESULTS OF THE DIRECTORS MEETING
MAY 6-8, 1998
ASHEVILLE, NORTH CAROLINA

I. Introduction

During the first week of May 1998, the Directors of the Regional Climate Centers meet at the National Climatic Data Center. This was their first meeting at NCDC since coming under the administrative control of NESDIS. The purpose of the meeting was to set long term goals and short term objectives for the new NCDC/RCC partnership. The meeting at NCDC also provided the opportunity for the RCC Directors to meet the NCDC staff.

The RCC Directors in attendance included:
Dick Reinhardt, WRCC
Kelly Redmond, WRCC
Ken Hubbard, HPCC
Kevin Robbins, SRCC
Mike Helfert, SERCC
Stan Changnon, MCC (for Ken Kunkel)
Warren Knapp, NRCC

The NCDC senior staff in attendance included:
Tom Karl
Rob Quayle
Bob Money
John Jensen
Wayne Faas
Steve Doty
Dick Davis

II. Five-year Goal

The following five-year goal was adopted:

Fully implement a three-tier integrated National Climate Services System in data building, user services, applied research, and climate monitoring.

1. Provide all scales of data, real-time to historical, to monitor health of observational systems.

2. Make NOAA aware of value of NCDC/RCC partnership.

3. Fund adequately to achieve the goal.

4. Establish service climatologists program - the third tier.

III. Action items for 1998

To take the first steps towards meeting the five year goal, the following action items were agreed upon. These are to be completed during 1998. A review of the progress towards meeting these objectives will be made at the next Directors meeting in early August 1998.

1. Hold a NCDC/RCC/UCAN planning meeting as soon as possible for the purpose of identifying technical linkages between UCAN and NCDC in order to strengthen the partnership. Invitees include Bill Noon, Kevin Robbins, Ann Lazar, Neal Lott, Dan Manns, Pete Steurer and others. Meeting to be held on May 21-22, 1998, Steve Doty coordinating.

2. Develop a Customer Services Plan in order to implement a fully coordinated and integrated user services system within five years. The first draft should be completed by late June. The second draft should be completed by early August. Bob Money, NCDC has the lead. An outline of the proposed 5-year goal is attached.

3. Implement a "monitoring" effort including quality and quantity on the health of the cooperative network. The Regional Climate Centers to begin as soon as possible with Kelly Redmond as focal point. The National Climatic Data Center project leader to be named by Rob Quayle.

4. Identify "Climate Service Constituent Leaders" as soon as possible. The Regional Climate Center Directors have the lead. A list of names and terms of reference by June 15, 1998. Dick Reinhardt to coordinate. A constituents meeting, to be held at NCDC, will be scheduled for the fall 1998 (Steve Doty). A meeting with Dr. Baker and DOC leaders to be held before February 1999 (Tom Karl).

5. Develop "RCC Terms of Reference" to be the performance measures for the Regional Climate Centers. Steve Doty has the lead, to be accomplished by the end of July 1998 with coordination with the RCC Directors. Draft data minimums and staffing minimums are attached.

6. Rethink "Climate Products Review Workshop" agenda. An extra day will be added for presentation of the customer servicing plan and other timely issues? Regional climatologist to attend the extra day. Steve Doty has the lead, to be determined by May 15, 1998.

7. Provide real-time daily data to NCDC and unedited keyed cooperative data to the RCCs beginning July 1, 1998. NCDC to establish a team to work on task, Steve Doty has the lead. RCC Directors to coordinate among themselves as required.

8. Submit ESDIM proposals in conjunction with the RCCs so as to gain addition funding for high priority tasks.. Tasks include:

a. Climate network monitoring

b. Station history building and quality control

c. Acquisition of real-time daily data to be used in a variety of ways including climate assessment and monitoring, calculation of divisional averages, and support of general customer requests.

d. Automation of station history ingest function.

e. Documentation of observing sites through the use of digital photography.

Steve Doty to coordinate with Gus Shumbera on submissions and with RCC Directors on content and actions.

9. Develop a plan for the establishment of "service climatologists", a new classification that enhances (expands on) the state climatologists. NCDC has lead, Mike Helfert and Ken Kunkel to be RCC focal points.

5-Year Goal

Fully coordinated/integrated user services

		Training	Education (Marketing
Year 1:	User services plan developed*	X	X
Year 2:	Standard prices Free requests	X	X
Year 3:	Prepayment Distribution of data sales	X	X
Year 4:	COMPS Certification	X	X
Year 5:	NCDC staff down 50% RCC staff fills gap	X	X

* First draft by June 1998; second round by August 1998

DATA MINIMUM	STAFFING MINIMUMS
POR - SOD	Director
"TDXX"	Regional Clim - MS/BS
Hourly SFC	Research Clim - PhD
Hourly Precip	User Service Staff (2)
Monthly	System Analyst
Satellite?	Programmer (2)
NEXRAD?	Data Manager/Specialist
U/A	Administrative Assistant
Regional	
State	
Local	
Organized to meet application needs	$1M required to support this size staff at all 6 sites

rccrecap.wpd

A REJUVENATED STATE CLIMATOLOGIST PROGRAM FOR THE UNITED STATES

DRAFT AS OF MARCH 12, 1999
FOR REVIEW BY NCDC AND RCC DIRECTORS

EXECUTIVE SUMMARY

A cadre of loosely defined State Climatologists (SCs) have been administered by the National Climatic Data Center (NCDC) ever since the demise of the Federally sponsored State Climatologist program in 1973. As a group they have established the American Association of State Climatologists (AASC) to promote the issues and programs of the State Climatologists.

In 1998, the Regional Climate Center (RCC) Program was transferred to the National Oceanic and Atmospheric Administration's (NOAA's) National Climatic Data Center, thus bringing together the three tiers, National, Regional, State/Local, of the climate services into one organization. Seizing upon this opportunity to enhance the 3-tier system, the NCDC, the RCCs and the AASC, seek to rejuvenate the State Climatological Program across the United States. This paper proposes the steps necessary to bring to fruition a new level of SC Programs, called the NCDC Recognized State Climatologist (NRSC). The ultimate goal is to have an NRSC in every state by December 31, 2000.

STATUS

Twenty-six years ago the Environmental Science Services Administration, now known as NOAA, terminated the State Climatologist program for budgetary reasons. These federally funded positions were available in each state to service the climatological needs of their state. To fill the void left by this program termination many states established their own State Climate Office. By 1978 there were sufficient states had ongoing programs that the American Association of State Climatologists (AASC) was established as a non-profit organization.

The State Climatologist program, without federal funding, has received moral support and token financial support from NOAA's National Climatic Data Center (NCDC) in Asheville, NC. The NCDC has coordinated the recognition of individual State Climatologists through the establishment of a Memorandum of Agreement (MOA) between the host state agency, the National Weather Service (NWS), and the National Climatic Data Center. The NCDC provided limited access to data, publications and shared data archives. A State Climatologist Exchange program, begun by NCDC in 1984, supplied funding for SCs working at the NCDC on projects of mutual benefit. Also, the NCDC in cooperation with the AASC has been producing a quarterly publication called *The State Climatologist*. Unfortunately, due to variety of reasons, this quarterly publication has not been produced on a regular basis.

The number of named State Climatologists has varied over the years but not every state has had one at the same time. Today, some 40 states and Puerto Rico have named SCs. However, of these only about half are "active", in the sense that the State Climate Office is a functioning service center. The

original founders of the state funded programs have now retired, leaving a new generation of climatologists to fend for themselves.

In the late 1980's the concept of Regional Climate Centers was brought to fruition. Through congressional funding, these six Regional Climate Centers were all fully functional by 1993. Until 1998 these Centers were administratively attached to the National Weather Services's Climate Prediction Center (CPC). In fiscal year 1998 Congress moved the program to NCDC part of the National Environmental Satellite, Data, and Information Services (NESDIS). The implementation of a 3-tiered climate service program in the United States is becoming a reality as the three levels of service are housed within the NCDC.

THE NEED

In January 1999 the National Climatic Data Center decided that it was the appropriate time to take a fresh look at the State Climatologist Program given the following facts:

- over half the named State Climatologists appear to be inactive; Memorandum Of Agreement's are either out of date or non-existent

- the Regional Climate Center Program is now managed by NCDC

- data are available instantly via the Internet

- the number of automated state and local weather observational networks is growing

- the need for climate services is higher now than ever before as public awareness of the value of climate information has increased, and as climate change has become an increasingly important issue

- federal dollars to support climate services continue to decline

- weather and climate have become common topics in the media; El Nino, global warming, and ozone depletion are mentioned frequently, and we now have a "Weather Channel" broadcasting nationally.

A meeting of AASC, NCDC and RCC representatives was convened with the goal of presenting ideas that would strengthen the State Climatologist Program and thus the entire 3-tiered climate services system. It was felt that only by increasing the expectations for state climatological services could the entire program be made into a viable and well functioning services system, a system that could meet the demand for critical data at a time of increasing climatological importance.

The ideas presented in this paper are an outcome of a meeting held in St. Louis, MO in January 1999 at which the following climatologists participated:

Stephen R. Doty, NCDC, RCC Program manager
John Hughes, NCDC, SC Program manager
George H. Taylor, SC for Oregon and President of the AASC
Mary Knapp, SC for Kansas and President-elect of the AASC
Dr. Ken Kunkel, Illinois State Water Survey, former Director, Midwestern Climate Center and former SC for New Mexico

Dr. Richard Reinhardt, Director of the Western Regional Climate Center
Dr. Lesley-Ann Dupigny-Giroux, SC for Vermont

THE ROLE OF THE STATE CLIMATOLOGIST

In March 1978, a paper entitled *A Service-Oriented State Climate Program for the Citizens of the United States* released by the American Association of State Climatologists, described the purpose and function of the State Climatologist Program. On page 2 of the document it states that "It [the State Climatologist Program] will provide a method of delivering climate information and services to individuals and to private and governmental agencies in a timely fashion. The services will include impact assessments, climate research, diagnosis, and projections at the local, state, and interstate level. The State Climate Centers will also coordinate and collect weather observations from places not included in the national networks; they will collect and make data available quickly after weather events occur; and they will summarize, publish, archive, and disseminate information to users at the community, state and interstate levels."

The foregoing statement reflects the current consensus of the panel regarding state climate program activities. Perhaps the only function not mentioned explicitly that should now be added is the need to educate the user as to the beneficial consequences of using climatological data and information in his/her decision making; and the need to support the education of children and adults about the various aspects of climate.

STEPS TO A REJUVENATED STATE CLIMATE PROGRAM

Establishing NCDC Recognized State Climatologists (NRSC)

In order to implement a new level of service to the State Climate Program, the National Climatic Data Center will be re-establishing official recognition of individual State Climatologists through a process known as NCDC Recognized State Climatologists (NRSC). The initial recognition process will commence this year and be completed by December 31, 2000. Currently named State Climatologists who do not receive official recognition by this date will be dropped from the NCDC SC database. However, those State Climatologists who desire extra time to create a viable SC office will be extended Interim SC status until December 2001.

Interested and qualified individuals in states without a named or a NRSC can apply to the NCDC to be recognized as an Interim SC. The interim recognition will be removed after official SC recognition is granted by the NCDC or a period of two years expires without the Interim SC being officially recognized. Only one Interim SC will be recognized by the NCDC at any given time.

NRSCs are expected to maintain a climate service as detailed in the Term of Reference. Failure to meet these Terms will be grounds for the NCDC to withdraw NRSC standing.

TERMS OF REFERENCE

This section describes the "Terms of Reference" for an NCDC Recognized State Climatologist.

Data Access
NRSCs must have direct unrestricted access to the Internet in order to access data archives at the NCDC, RCCs, and other locations. Duplication of data locally is acceptable but not necessary. Appropriate hardware and software are essential (users can be advised of minimum requirements). The NRSC is expected to improve the quality of data archives by assisting in on-going quality assurance activities.

Data Services
NRSCs must have the capability and the willingness to provide data to end users. Multiple pathways for dissemination should be developed. For example, delivery by mail, fax, e-mail should be available, and both hard copy and digital products provided. NRSCs are encouraged to provide information on Web pages for ease of access by users. Depending upon the organization's legal and practical capabilities, NRSCs are encouraged to charge fees for data services. Typical pricing schedules and suggestions for setting up billing software are available from the NCDC, RCC, and AASC. Each NRSC should evaluate the user community and their needs on an ongoing basis, and attempt where possible to satisfy those needs.

Outreach
NRSCs should have an outreach plan and be active in outreach activities. There are many forms of outreach, and each NRSC is free to choose a suitable mix of activities. However, a significant outreach component should be part of every NRSC's work. Among the outreach activities recommended are the following:

- **Education:** The NRSC should attempt to educate the people of his/her state on current and emerging climate issues. This may include personal speaking engagements, publications, news articles, radio/TV appearances, and web sites.

- **Publications:** Published information, both printed and on-line, is an effective form of outreach, often reaching many more people than one NRSC could contact personally.

- **Publicity:** The NRSC should make efforts to publicize his/her program as well as regional and national programs. This may involve brochures and flyers, press releases, news articles, letters, personal appearances and web usage.

- **Media Relations:** The print and broadcast media should be seen as important partners to the NRSC. The media can greatly assist the NRSC's efforts to obtain publicity and educate the public, since the NRSC is often the best source of information on the magnitude and significance of a weather/climate event. Ideally, when such an event occurs, the NRSC will be among the first contracted by the media.

- **Other:** NRSCs may develop many other methods for outreach. The NCDC, RCCs, and the AASC will be pleased if NRSCs will share their experiences, and will make such ideas available to others in the climate community.

Impact Assessment

The NRSC should possess or develop a working relationship with the RCCs and the NCDC, for assessing impacts of weather and climate events. In some cases, this will serve legal and economic purposes. For example, insurance companies and attorneys are involved in the settlement of claims and lawsuits regarding weather-related damages, and are in need of timely and accurate portrayals of weather at a given time and place. Often such events require interpolation or extrapolation from available observation sites, and the NRSC may be the most qualified person to make such an assessment (it is recognized that some NRSCs may be unable to perform such duties, which are the purview of the private sector in some states).

NRSCs are often uniquely able to determine the return period of an event (for example, a 25-year flood). Heightened awareness in recent decades about climate change demands assessment of long-term trends at both the local scale and larger scales, and the NRSC will be expected to provide such a historical perspective for his/her state. NRSCs will be asked to assist NCDC and RCCs in identifying extreme events and weather/climate impacts by participating in the Climate Impact Reporting project.

Program Reporting

Each NRSC shall submit a "state of the State Climatology Program" report at least once per year, which can be done at the annual AASC meeting. This report also shall be sent to the AASC in care of *The State Climatologist* publication with copies to the Regional Climate Center and the National Climatic Data Center. NCDC shall use this report to ascertain the level of activity within the respective State Climatology Program.

Qualifying State Institutions and Individuals

The NRSC program in each state shall be hosted by a state agency, preferably an agency in the services sector. Example of such agencies or institutions in preferred order are:

- separate state agency at the Governor's staff level
- land grant university
- environmentally related agency such as the Department of Natural Resources

Private sector institutions are not eligible to host the NRSC program since this would be a conflict of interest.

The individual holding the position of NRSC must also be qualified in terms of education and or experience. It is expected that the individual also have the desire and the "heart" to serve his/her state's need for climatological data and information. The individual should be willing to promote the SC program at every opportunity.

BECOMING AN NRSC - THE PROCESS

In order to be an NRSC an individual and his/her host institution must secure a Memorandum of Agreement (MOA) with the National Climatic Data Center. The MOA shall be between the NCDC and the host institution. The Director of NCDC shall sign on behalf of the government and a senior management official must sign for the state.

The MOA shall commit both NCDC and the state climate program to carry out their respective responsibilities as outlined the NRSC Terms of Reference and as detailed in the MOA. A sample MOA can be found in Appendix A.

Currently named eligible State Climatologists are encouraged to begin the recognition process as soon as possible.

Qualified individuals and state institutions who seek to become new NRSCs should contact the NCDC requesting Interim State Climatologist status. The request should outline the qualifications and the willingness to establish a State Climate Program within two years.

In order for NCDC to officially recognize an individual and the host institution as an NRSC several basis documents must be on file or accompany the submitted and signed Memorandum of Agreement. These documents include:

- Qualification statement by individual and host institution and a plan of action addressing the Terms of Reference. The plan shall address available funding to support the program. A minimum of one-half full time equivalent (FTE) for the State Climatologist, and related support staff must be demonstrated.

- Letter of support from the state's Regional Climate Center Director. (See Appendix B for a sample letter.)

- Letter of support from the National Weather Service's state forecast office. Where several forecast offices exist in the state, the office servicing the most counties (parishes) shall be the supporting NWS office. The letter of support shall be signed by the NWS Area Manager. (See Appendix C for a sample letter.)

- Letter of support from the American Association of State Climatologists. The letter shall be signed by the President of the AASC. (See Appendix D for a sample letter.)

The Memorandum of Understanding shall be valid for five years or until the individual SC changes.

ROLE OF THE NATIONAL CLIMATIC DATA CENTER

The National Climatic Data Center is committed to supporting the NRSC (or interim SC) in the following areas:

- The NCDC will provide data and information free of charge as long as these data are used to support the on-going operations of the SC Program.

- The NCDC will conduct a State Climatologist Exchange Program each year. This program is open to NRSCs only and not to Interim SCs. The program allows NRSCs to work at NCDC on topics of mutual benefit. These fully supported work opportunities are provided on a competitive basis. Program announcements are made in December with work completion required by end of September of the following year.

- The NCDC will work with the NRSCs to establish fair and equitable pricing guidelines for climate services as to be consistent with the NCDC and the RCC price guidelines.

- The NCDC will work to foster SC Programs at the national level as part of the 3-tier climate services system.

- Although no direct funding is likely from the NCDC, the Center will work with state offices to help procure funding. For example, the NCDC will provide letters of support for in-state funding requests, and work with single or multiple NRSCs who seek funding via grants or foundation support.

ROLE OF THE REGIONAL CLIMATE CENTER

The Regional Climate Center is committed to supporting the NRSC in the following areas:

- The RCC will provide data and information free of charge as long as these data are used to support the on-going operations of the SC Program.

- The RCC will serve as the data archive for local and state observational data and metadata.

- The RCC will serve as coordinator for climate assessments and impacts.

- The RCC will work to foster SC programs within their region through a variety of means including funding of joint projects, hosting region-wide NRSC annual meetings, conference calls, etc.

- The RCC will work to promote the NRSC programs to funding agencies and through available grant/proposal opportunities.

- The RCC will provide general support and guidance for the NRSC.

ROLE OF THE AMERICAN ASSOCIATION OF STATE CLIMATOLOGISTS

The American Association of State Climatologists is committed to support the NRSC in the following areas:

- The AASC will automatically recognize the NRSC as a voting member of the Association.

- The AASC will aid individuals and host institutions in establishing an NRSC program. The AASC will provide a variety of materials and support to individuals wishing to become an NRSC.

- The AASC will issue on at least a quarterly basis the publication *The State Climatologist*. *The State Climatologist* shall contain articles of interest to all states including official state reports such as the "state of the State Climatology Program", RCC reports and/or NCDC reports. Other articles of interest to the general SC audience shall also be published.

APPENDIX A **SAMPLE MEMORANDUM OF AGREEMENT**

MEMORANDUM OF AGREEMENT

BETWEEN THE

NATIONAL CLIMATIC DATA CENTER

AND THE

_____

TO NAME

_____

AS THE

NCDC RECOGNIZED STATE CLIMATOLOGIST (NRSC)

FOR

_____

The National Climatic Data Center officially recognizes _____ as the State Climatologist for _____. He/she shall have all the rights an privileges of a NRSC. The State Climate Office in _____ has demonstrated adequate support from the Regional Climate Center, the National Weather Service, the American Association of State Climatologists, and the host state agency. Furthermore, an acceptable plan of action has been received and approved by the National Climatic Data Center. Therefore, official status a National Climatic Data Center Recognized State Climatologist is granted.

The NCDC and _____ commit themselves to carry out their respective responsibilities as outlined in the attached Terms of Reference.

This agreement shall be in affect for five years from the latest date shown below.

_____	_____
Director, National Climatic Data Center	State Representative
_____	_____
Date	Date

Attachment

APPENDIX B **SAMPLE REGIONAL CLIMATE CENTER LETTER OF SUPPORT**

RCC Letterhead

Thomas R. Karl
Director
National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801-5001

Dear Mr. Karl,

The _____ Regional Climate Center is pleased to offer its support for _____ to be recognized as the National Climatic Data Center Recognized State Climatologist (NRSC) for the state of _____.

We have meet with _____ and have found that his/her program plans are adequate. The _____ Regional Climate Center is committed to work with _____ in his/her role as the NRSC for _____.

It is a pleasure to provide this letter of support.

Sincerely,

Director

cc:
State Agency seeking NRSC status

APPENDIX C **SAMPLE NATIONAL WEATHER SERVICE LETTER OF SUPPORT**

National Weather Service letterhead

MEMORANDUM FOR: Thomas R. Karl
Director, National Climatic Data Center

FROM: National Weather Service Area Manager, _____

SUBJECT: Support for candidate for State Climatologist

The _____ National Weather Service Office is pleased to offer its support to _____ as the recognized State Climatologist for _____. We will strive to work jointly with the State Climate Office in the provision of climatological data and information. It is recognized that only through cooperation that we can meet the climatological needs of the citizens of _____.

We welcome the State Climate Office as a partner in the provision of climate services.

cc:
Regional Climate Center
NWS Regional Headquarters

APPENDIX D **SAMPLE AMERICAN ASSOCIATION OF STATE CLIMATOLOGIST LETTER OF SUPPORT**

American Association of State
Climatologists Letterhead

Thomas R. Karl
Director
National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801-5001

Dear Mr. Karl

The American Association of State Climatologists (AASC) is pleased to support _____ as the State Climatologist for _____. Once officially awarded the status as a National Climatic Data Center Recognized State Climatologist, the AASC will extend full membership and voting rights to _____.

The Association is pledged to support the State Climate Office in _____ to the fullest extend of its capability.

It is a pleasure to provide this letter of support.

Sincerely,

President

cc:
State Climate candidate
Regional Climate Center
AASC, Secretary

Appendix A.2

Customer Service Plan

Customer Service Integration
The National Climatic Data Center
and the
Regional Climate Centers

Implementation Plan For the Period
Nov 1998 - May 2000

November 1998

Goal

The purpose of the plan is to set forth the steps and actions necessary to integrate the customer servicing functions of the Regional Climate Centers (RCC) with the customer servicing functions of the National Climate Data Center (NCDC). This document is based on the goals and recommendations of the "NCDC/RCC's Climate Services Plan" dated July 1, 1998 and agreed upon by both the NCDC and the RCCs.

In the fall of 1998, certain tasks were identified to be accomplished in year one of the three year Climate Services plan. These include: Staff familiarization, joint access to on-line data, joint products guide, joint WWW page, joint marketing plan, and the COMPS to the WRCC.

This plan will be further developed at a later date to include action items for the out years.

I. Staff familiarization

The goal is to cross train RCC and NCDC user service staff, upgrading the skills of personnel from all centers.

NCDC will host two RCC user services personnel during November 1998. They are Jim Ashby from the Western Regional Climate Center and Karin Gleason from the Midwest Climate Center. The RCC staff will be teamed with CSD personnel. Training will also include visits to DOB, GCL, DBMB, etc.

NCDC will host two additional RCC staffers from each center in the Apr-Jun 1999 and again during the Sep-Nov 1999. Selected NCDC user staff will visit RCC's during May 1999 through Feb 2000.

Actions:

a. WRCC/MCC staff to NCDC Nov 16-20, 1998

b.	SRCC/SECC staff to NCDC	Apr - Jun 1999
c.	HPCC/NRCC staff to NCDC	Sep - Nov 1999
d.	NCDC staff to RCC's	May 99 - Feb 00

Tom Ross coordinating

II. Customer Service NCDC/RCC Teams

NCDC would like to develop a team of user service personnel from among the RCC's and NCDC to address the other tasks in the implementation plan. NCDC requests that each RCC identify a lead person and backup to work with NCDC on these items by the end of February 1999. Many of these items can be worked at each individual RCC site and reviewed and discussed via telephone or video conference.

Action:

a.	RCC name team representatives	Feb 1999
b.	Meeting of team @NCDC	Jun - Jul 1999

NCDC proposes that the following topics should be addressed by the team:

1) Standardize RCC Home pages

RCC web pages should have a similar look and feel and refer to the other RCC's and NCDC. The RCC's at least on the opening pages should be emphasizing "climate" rather than "forecasting". There should be a homogeneous look and feel to the RCC pages. This should also lead to a one page front end access for users to be able to access all RCC's and NCDC from one source- possibly a national map type interface- like the WRCC uses.

Identify "strong points" at each center and then incorporate then into each of the RCC"s. For example, the WRCC has an excellent way of presenting summaries and averages for individual states/stations in their region. NCDC would like the RCC's to incorporate these processes into their own individual RCC's WWW pages. A smooth method to allow WWW access to these data on a regional and national basis from all the RCC's and NCDC. In order for this to work the RCC's need to be using the same database and software, perhaps UCAN.

Actions:

a.	Develop draft criteria for RCC Web pages	May 1999
b.	Final criteria agreed upon	Aug 1999
c.	RCC web pages upgraded to new criteria	Mar 2000

2) Joint Products and Services Guide.

Develop a Joint Product and Services Guide that can be distributed at various exhibits, scientific conferences, etc. This should NOT be a bulky document but a "one-pager" from each RCC to incorporate into the guide. This should be distributed mainly via the WWW.

Actions:

a.	Draft "one-pages" submitted by RCC to NCDC	Apr 1999
b.	Guide finalized by team	Aug 1999
c.	Guide printed by NCDC	Dec 1999

3) Joint Marketing Plan

The RCCs and the NCDC must develop a joint marketing plan. The goal is to begin "marketing" or "educational outreach" in a coordinated manner. Items that need to be discussed include target audiences, new/improved products, marketing/educational tools, participation at conferences and meetings.

Incorporate the Joint Products and Services Guide into a joint marketing plan.

Also a "one pager" document can be developed highlighting the RCC's and NCDC. This can be distributed at the various conferences/exhibits attended. NCDC would also like to coordinate schedules of conferences that each RCC attends. We could then use these Products and Services Guides and the "one pager" at these meetings. This would give a broad exposure to all of us at these meetings without everyone needing to attend.

Actions:

a.	RCC/NCDC handout completed	Jun 1999
b.	Draft marketing plan completed	Jul 1999
c.	Final marketing plan completed	Feb 2000

4) Access to On-line Data

The RCCs and the NCDC must have free and open access to each others on-line data and information. This can be accomplished by the exchange of user Id's and passwords. Familiarization and training must also be a part of the effort. This can be accomplished during the time of NCDC/RCC staff exchanges.

Actions:

a.	RCC/NCDC to open systems to each other	Nov 1999

III. COMPS integrated into the WRCC.

Preliminary plans are to integrate the COMPS into the WRCC in 1999. The project will take the NNDC operational COMPS module for customer service support and install it at the WRCC. That will allow WRCC personnel the capability to order NNDC products for their customers. This pilot project will then be evaluated for integration to other RCC's. Fiscal arrangements will need to be coordinated to distribute funds generated by data sales through the COMPS system.

Actions:

a.	COMPS installed at WRCC, training complete	Jun 1999
b.	6 - month test results documented	Dec 1999
c.	Decision to expand COMPS to other RCCs	Apr 2000

The National Oceanic and Atmospheric Administration's

REGIONAL CLIMATE CENTER PROGRAM

MANAGEMENT PLAN

1999 - 2003

DRAFT DRAFT

National Climatic Data Center
Thomas R. Karl, Director
Stephen R. Doty, Program Manager

Regional Climate Center
Directors:
Michael R. Helfert, Southeastern, Columbia, SC
Steve Hilberg, Midwestern, Champaign, IL
Kenneth G. Hubbard, High Plains, Lincoln, NE
Warren W. Knapp, Northeastern, Ithaca, NY
Richard L. Reinhardt, Western, Reno, NV
Kevin Robbins, Southern, Baton Rouge, LA

January 1999

National Climatic Data Center
National Environmental Satellite, Data, and Information Service
National Oceanic and Atmospheric Administration
Asheville, North Carolina

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PART III. NAMING OF REGIONAL CLIMATE CENTERS

Appendix

A.1 History of RCC/NOAA Relationship
A.2 Customer Service Plan
A.3 State Climatologist Program Review - A Status Report

Introduction

The National Oceanic and Atmospheric Administration's (NOAA) Regional Climate Centers (RCCs), a federal-state cooperative effort, were formed as a result of the National Climate Program Act of 1978. Their primary purpose continues to be the distribution of climate information and data and delivery of climate related services at the regional level across the United States. See Appendix A.1 for additional details on the history of the NOAA/RCC relationship.

Part I of this document contains the **Principles** of the National Climatic Data Center's (NCDC) management of the RCC Program. Part II contains the minimal set of required **Activities** that each RCC must accomplish and maintain in order to be a recognized NOAA Regional Climate Center.

PART I. STATEMENT OF PRINCIPLES - NCDC MANAGEMENT

I.1 RCC Mission

The mission of each RCC is to:

- Deliver a suite of contemporary climate products and services including high quality climate data and information related to their region
- Provide assistance to and education of users to make the best use of this information
- Monitor and assess regional climatic conditions and impacts

In support of this mission, each RCC will:

- Obtain, quality control, and maintain appropriate data sets
- Offer products and services
- Assess user needs and the value of climate products and applications
- Conduct applied climate research, driven by the services component, on major regional problems such as energy, agriculture, transportation, tourism, and water resources
- Conduct outreach through public and professional presentations
- Support education in grades K-16

[It is not the function of the RCCs to prepare, disseminate, or transmit forecasts and warnings as these are within the mission of the National Weather Service.]

I.2 NCDC Program Manager

The National Climatic Data Center's (NCDC) RCC Program Manager is the focal point for all RCC Program activities. The Program Manager will perform all coordinating activities to ensure the smooth and efficient operation of the program for the benefit of the RCCs, NOAA, and the citizens of the United States. All RCC communications to NOAA or National Environmental Satellite, Data, and Information Service (NESDIS) senior management shall be coordinated with the RCC Program Manager before being transmitted.

I.3 Guiding Documents for Regional Programs

The RCC Program Management Plan, as described here, is the guiding document for the national management of the program by the NCDC.

Part II of this document, a Statement of Activities for RCCs, is an updated version of the Dimensions of Regional Climate Center Activities and is the

guiding document for all functional activities of an RCC. It is the standard for evaluating the performance of each center. The requirements contained within the Statement of Activities for RCCs, which have been agreed to by NCDC and the RCC Directors, are the minimal requisites at which each center must perform. All minimal criteria, except those noted as optional, must be met by June 1, 2000, in order to maintain NOAA recognition as a Regional Climate Center.

I.4 Funding

During the 5 years of this management plan, it is assumed that the RCC Program will continue to be funded through a Congressional add-on in the NESDIS budget. Both NCDC and the RCC budgets are subject to variability in Congressional funding. Within these funding constraints, NCDC is committed to the equitable, regular, and timely transfer of NOAA funds for operation of each RCC. Funding is conditional upon approval of an annual RCC proposal of work by the NCDC Program Manager. Notwithstanding uncontrollable variations in the Federal budget, the NCDC will strive for continuous funding; that is, without gaps between annual renewal of RCC funding.

The National Climatic Data Center will continue to use NOAA's Cooperative Institute for Atmospheric Sciences and Terrestrial Applications (CIASTA) as the method for dispensing funding. CIASTA management support shall be paid out of the RCC Program funding. The exact amount of this support shall be negotiated with CIASTA at the beginning of each budget year but will be no more than 3% of the total funding available unless otherwise agreed upon by the RCC Directors and NCDC.

The NCDC and the RCCs have agreed to jointly fund the support of the RCC Program Manager at NCDC. This support includes administration, program enhancements, and program initiatives. Some examples are the RCC Program Manager's (and other NCDC staff directly working on RCC programs) salaries and benefits, office support, travel, site evaluations of RCCs, peer review of the RCCs' annual proposals, RCC Visiting Scientist Program, and inter-regional research and development projects. NCDC will hold management costs at or below 10% of the available funding unless otherwise agreed upon by the RCC Directors. NCDC will provide the RCCs a list of expenditures in support of the RCC Program within a reasonable amount of time after the end of each fiscal year.

The operations and services component of the program at each RCC shall be targeted for approximately 80% of the annual total dollar amount received by each center, with the remainder to be used for on-site and--when funding is adequate--extramural applied research and development. This percentage can be adjusted under certain circumstances; i.e., programmatic changes, expansion of RCC operations, or budgetary changes.

No Center shall accept non-NOAA funding from any one group or agency for more than the annual funding received from NOAA without the approval of the NCDC Program Manager.

The NCDC will not support secondary indirect charges on subcontract funds that have already been assessed for indirect charges by the home institution.

I.5 NOAA Budget Initiatives

It is the policy of NCDC to pursue NOAA budget initiatives in support of the RCC Program as opportunities arise. The active advice, support, and participation of the RCCs is desired.

I.6 Site Evaluations

The NCDC will arrange site evaluations of the RCCs to be performed on a 5-year cycle by an independent team selected by the Program Manager with suggestions from the RCCs. The site evaluations will begin in 1999. The actual evaluations will be completed for each RCC as quickly as funding allows with a target of two RCC evaluations per year.

At each center, the following activities shall be addressed and evaluated by the review team:

- Present and future climate service programs
- Climate data availability and management, and center support systems
- Ongoing and future research programs
- Center management and staff capabilities
- Institutional arrangement for the RCC including internal financial support, space, and facilities

The review team shall present their findings and recommendations in a final report of each center. It is expected that each RCC Director and the home institution, resources permitting, will respond favorably in a reasonable amount of time to incorporate the team's recommendations for the improvement of the center.

The NCDC will organize follow-up site reviews of the RCCs, as needed, to address any unresolved issues remaining from the initial evaluation. At least one representative each from NCDC and the site review team will conduct any follow-up evaluations.

I.7 Progress Reporting

The RCCs shall submit a monthly activity report by the fifth working day of the following month. The report, in a format agreed upon by the Program Manager and the Directors, shall contain information detailing accomplishments made over the past month, significant advances in systems or databases, details of user contacts and orders, and upcoming events.

The RCC Directors, the NCDC Program Manager, and other NCDC staff as available, shall meet twice per year at times and places mutually agreed upon. These meeting will be devoted to problem solving and other topics of mutual interest. The NCDC Program Manager shall prepare the agenda and chair the meetings.

NCDC will work with the RCCs to develop an Annual Report. The report will be targeted at NOAA senior management, Congress, Office of Science and Technology Policy, Federal agency partners, and other collaborators or potential collaborators. It will be available in hard copy and on the RCC Web page. The target date for completion is March 1 of each year.

I.8 Climate Service Constituent Leaders (an advisory body)

NCDC requires that each RCC establish and maintain a Climate Service Constituent Leaders (CSCL) group for the service and research areas. This group would be available to assess and establish priorities in services, data management, and applied research and provide guidance to the RCC Director. Group members should consist of individuals from the climate- and weather-impacted public and private sectors and may come from both within and outside of the region. The group, consisting no less than 4 members, shall meet annually beginning in 1999.

NCDC will establish a national CSCL Group to advise NCDC management and the RCC Directors. The national group will consist of six members, one from each regional CSCL group. NCDC, in agreement with the RCC Directors, will select a Group Leader, who may be the seventh member, to conduct meetings every other year beginning in 2000.

I.9 Extramural Projects

NCDC policy is to encourage and support the concept of extramural projects within the constraints imposed by strategic planning, peer review, and available resources. Extramural participation is encouraged for the services component as well as the research and development component. Each RCC shall seek the best way to apply and leverage its resources to foster cooperative, extramural efforts.

I.10 Providing Services

The concept of providing services and products for identified economic sectors is recognized and encouraged by NCDC. Each RCC must adequately serve customers in the private sector, Federal field offices, state and local governments, and academia and remain responsive to their needs. To accomplish this, each center must regularly monitor the usage and assess the value of its products and services on a regular basis, then determine and develop new products to meet the requirements of its users.

I.11 Relationship to State Climatologists

The Regional Climate Center shall support the NCDC Recognized State Climatologists (NRSC) in the following areas:

- The RCC will provide data and information free of charge as long as these data are used to support the on-going operations of the NRSC Program.

- The RCC will serve as the data archive for local and state observational data and metadata.

- The RCC will serve as coordinator for climate assessments and impacts.

- The RCC will work to foster SC programs within their region through a variety of means including funding of joint projects, hosting region wide NRSC annual meetings, conference calls, etc.

- The RCC will work to foster the NRSC programs to funding agencies and through available grant/proposal opportunities.

- The RCC will provide general support and guidance for the NRSC.

The RCCs shall provide state agencies who are seeking NRSC status, a letter of support and recognition once the RCC considers the agency as a viable candidate for the position. See Appendix A.3 for additional details on the State Climatologist program.

I.12 Private Meteorological Sector

The RCCs shall work in a cooperative manner and provide the necessary services to support the activities of professional private meteorologists. The RCCs should follow existing NOAA guidelines on public/private partnerships and avoid competing directly with private industry. The centers should develop

alliances with the private meteorological community, especially in the delivery of new climate information and the development of new applications. A member of the private sector meteorological community shall be a member of the Climate Services Constituent Leaders group.

I.13 Education/Training

The NCDC endorses the concept of RCC participation in educational programs that help primary and secondary schools in instructional programs in the physical sciences. Furthermore, NCDC encourages the RCCs to hold conferences and workshops to inform and educate media and users on pertinent climate issues, new climate information, applications, and products. When appropriate, the RCCs shall have visiting scientists, including those from other RCCs, at their institutions. The RCCs shall work with and assist university students though research and on-the-job training as opportunities arise.

I.14 Establishment of New RCCs

Where a need and available resources exist to establish additional regional centers, the RCC Directors, in conjunction with NCDC management, will solicit interested universities or state agencies to submit an application for the establishment of a new regional climate center.

Applicants for a position as a new RCC must prepare and present a proposal of work which clearly indicates how the addition of their proposed center would enhance both the RCC Program and the nationwide program of Climate Applications and Services. The proposal must clearly demonstrate that they have the expertise, facilities, equipment, resources, and home institutional support to deliver a level of climate services and applied climate research that are being provided by existing RCCs. The final decision as to the acceptability of an application shall rest with the RCC Directors and the NCDC Director.

Under the assumption the RCC Program is not in NOAA's budget, the proposed RCC must work with the other RCCs to secure Congressional funding for its creation as well as its continuing existence in subsequent years. In the event Congress does not include an additional increment for start-up of the proposed center, the latter will not begin operation unless it can obtain comparable funding from other sources.

I.15 Adverse Action/Disqualification Procedures

The RCCs are a key component of a nationwide system of climate applications and services. As such, it is critically important that the centers maintain high standards in the performance of their functions. A well-functioning center will be evaluated primarily through site reviews and evaluations of annual (or multi-year) proposals for funding by the Program Manager. Failure to operate a well-functioning center may result in a loss of NOAA funding for that RCC. A successful center must:

1) have completed by June 1, 2000--with the exception of those denoted as optional--all of the minimal activities defined in the Statement of Activities for RCCs in Part II of this document,

2) adhere to established guidelines and schedules for written progress reports,

3) incorporate the recommendations resulting from RCC site evaluations, as appropriate, in a reasonable amount of time, and

4) incorporate recommendations resulting from peer review of annual (or multi-year) proposals for funding.

In the event that a Center fails to meet any of these criteria, NCDC will attempt first to negotiate an agreement for improvement. A letter stating the problems and providing a suitable grace period, not to exceed six months, for corrective action will be sent, with copies to senior management of the center's host institution. If corrective action is not accomplished by the center before the end of the grace period, the NCDC will present a letter of assessment to the RCC Directors at their next scheduled semi-annual meeting and seek their advice. If this fails to encourage corrective action within six months, the NCDC will 1) send a letter of intent to NESDIS management, the Director of the RCC, and the Senior management of the host institution, 2) follow Federal guidelines to initiate either a reduction in funding or a disqualification procedure.

PART II. STATEMENT OF ACTIVITIES - REGIONAL CLIMATE CENTERS

The Regional Climate Centers are a key link in developing a 3-tier nationwide system of climate applications and services. This system also includes the National Climatic Data Center and the State Climatologists. Vital linkages must also be maintained with the Climate Prediction Center, NWS Forecast Offices, the Cooperative Observers Program, components of other agencies involved in collecting climate data, and the private sector. Therefore, their work needs to be clearly defined and their performance must be monitored to prevent any lapse in services and corresponding negative feedback.

This Statement of Activities for RCCs defines the minimal set of activities that each RCC must accomplish to be recognized by NOAA as an official Regional Climate Center. It is an updated version of an earlier document entitled, Dimensions of Regional Climate Centers Activities. Changes have been made to reflect results of RCC site evaluations, the organizational change to NESDIS/NCDC and the general maturing of the RCC Program.

Activities of an RCC can be grouped under a number of functional areas. The primary functions of an RCC are the delivery of climate products and services and climate monitoring and impacts. Supporting functions include applied climate research on key regional issues and data base development and management. Cutting across these functional areas are other groups of activities; i.e., user education, external interactions, and RCC management.

The following subsections contain the required criteria and activities. To be considered a NOAA recognized RCC, a center must have completed all of these minimal activities, except those denoted as optional. The NCDC Program Manager, with the input from the RCC Directors, may modify activities as conditions warrant.

II.1 Services

In accordance with the Customer Services Plan (see Appendix A.2) each regional center must accomplish the following service related functions:

1. Establishment of a clearly defined system for meeting user requests in a timely manner. This system shall be fully coordinated with NCDC user services operation. This system will be reviewed by a senior member of the NCDC staff on an annual basis for efficiency and productive use of resources.

2. Monitor user contacts and requests by month and maintain a monthly

breakdown by user category of web/internet/on-line requests and direct contact requests. Standardized customer categories for the purpose of summarization shall be established by NCDC.

3. Continuous monitoring and assessment of user requirements, and usage of climatological information and products available from the regional center.

4. Development of a strategy for providing services and products to specific economic sectors and interacting with users to enhance product adoption. Thus being able to provide, in a cost-effective and timely manner, new information and specific regional climate products that are unavailable elsewhere and are designed for major users within the region.

5. Establishment of a clear charging policy, consistent with NCDC, that includes rates and prices for use of RCC computer on-line systems, climate data and products, and professional services. The pricing structure--based on the frequency and magnitude of requests and on the source of the request--shall be developed, periodically reviewed, and appropriately adjusted by the six RCCs so that it is consistent throughout the regional climate system.

It is expected that data access and delivery systems for each center, as part of the Unified Climate Access Network (UCAN) will include:

1. The availability of an on-line, interactive system to provide easy access to data (including its manipulation), data products, and information. Standard and compatible (among the RCCs) menus and products agreed to by NCDC and the RCCs must be available on each on-line center's system.

2. On-line access to historical Summary-of-the-Day data for all current operating stations through the interactive system. However, because of the potential for inappropriate use of data due to imbedded problems, appropriate caveats should be inserted where necessary along with a suggestion to contact one of the center's climatologists.

3. Access to a wide variety of contemporary climate products (in addition to data) designed around known informational needs of users through the on-line/web system.

4. National network connections via high speed communication lines to Federal and regional systems to access national, state, and local climate databases across the nation.

II.2 Databases

Each RCC shall obtain and maintain the following:

1. Recent climate data collected through Family of Services or private communication links.

2. Data from acceptable local and state networks in the region based on availability, quality, and utility of data shall be archived to the National Archives and Records Administration (NARA) standards as per NCDC guidelines.

3. Access to climate impacts from media sources, anecdotes, regional agencies, or operational assessments.

4. Station history information for non-NOAA stations in the region for which data held by the RCC, or the name and address of the organization holding this

information.

5. Data and summaries from new sources--as they become available--based on quality and utility for the region, such as that resulting from NWS modernization.

6. Consistent and documented quality control procedures for archived data that have not been previously checked.

The RCCs will use and support NCDC's national databases in order to provide consistent answers and data to customers.

1. RCCs shall maintain the ability to access NCDC's on-line data base including hourly, daily, and monthly surface data; upper air data; and station history information.

2. The RCCs shall provide feedback to NCDC concerning the quality of the NCDC on-line databases. Where appropriate, the RCCs will suggest replacement data values with justification.

3. The RCCs shall provide cooperative station information (metadata) to NCDC as it concerns the observing status and location of cooperative network stations thus helping NCDC maintain a current station history database.

4. The RCCs shall provide real-time cooperative data to NCDC in a format mutually agreed upon. Other real-time data sets might also be included before NCDC develops the capability to receive and process real-time data.

5. The RCCs shall provide a liaison service between the NCDC and the NWS field offices on data issues deemed to be local in nature.

II.3 Monitoring of Climatic Conditions and Impacts

Activities for each RCC shall include the following. NCDC will provide guidelines for submission descriptions and impacts by March 1, 1999.

1. Prepare and issue, as soon as possible, on-line descriptions of the major climate features of the region, and their impacts on the region. Special attention should be paid to climate anomalies.

2. The development or availability of climate relationship models to monitor regional conditions and generate products (e.g., crop yield status and forecasts, seasonal energy demands).

3. Issuance of timely news releases concerning major climate anomalies and impacts as they occur, including initiation and cessation. Copies of these releases shall be shared with NCDC.

4. Assessment of climate impacts on an annual basis working with NCDC to provide requested information.

II.4 Applied Research

Activities for each center in this OPTIONAL functional area shall include:

1. The development of a 5-year plan for applied research as part of its 5-year Strategic Plan. It shall include a) a rationale and objectives, b) a clearly defined process for establishing priorities for research projects that

should be based on the needs and products of the regional services program of the center and the primary climate sensitive issues in the region, c) plans for securing funding, and d) extramural versus on-site research.

2. Establishment of a regional Advisory Panel for research and development to advise the RCC Director on the center's research program and its priorities, projects for funding--both internal to the center and done externally--and helping to assess the quality of the program. This panel could be the same as the Advisory Panel for services and operations, or a subgroup of that panel. The panel will meet every other year beginning in 2000.

3. When it is appropriate, widely disseminate Requests for Proposal(s) which shall clearly state the types of research projects available for funding and other pertinent information.

4. Research projects that focus on major regional issues in applied climatology. These projects must establish a clear relationship to design, operational, and forecast assessment problems in energy, water resources, agriculture, transportation, disaster mitigation, recreation, etc. Other studies may deal with the relationship between climate conditions and other environmental or economic conditions and lead to new tailored products and improvements in services.

5. Submission of research findings for publication in peer reviewed scientific journals and presentation of results at national professional meetings.

6. Establishment and maintenance of a Research Report Series containing descriptions and results of climate research supported by the center, reports to NOAA, graduate theses, position papers, and descriptions of special climate conditions.

7. Engage in collaborative research with institutions and scientists within the region or hold workshops on key regional problems to foster applied climate research and result in partnerships to strengthen the regional program.

8. Consolidate research efforts that have multi-regional applications with other RCCs to reduce costs and promote efficiencies in research.

II.5 Management

Within this topic, it is expected that activities for each center shall include:

1. Actively work with the NCDC recognized State Climatologists within the region in order to strengthen the 3-tier climate system.

2. Development, every fifth year beginning with 1999, of a 5-Year Strategic Plan for all activities and functions of the RCC Program. There shall be one overall 5-year RCC Program plan but the individual RCC activities shall be detailed. (Every 5 years beginning in 1999)

3. Establishment of a list of deliverables which shall appear in the formal proposal of work for renewal of the center's grant. (Annually)

4. Participation in a site evaluation conducted by an external, independent team with final reports provided to the center and NCDC. (As scheduled)

II.6 Expertise

Criteria to be achieved by each center in this area shall include the employment of:

1. Scientists experienced in providing reliable and timely climate data and information to users.

2. Personnel knowledgeable in the characteristics of the nation's existing climate network.

3. Personnel with a knowledge of the data bases archived by NCDC, other RCCs, Climate Prediction Center, as well as other Federal, state, and local agencies.

4. Scientists who understand the impacts of major climate fluctuations on various physical conditions and economic sectors in the region.

5. Scientists who have a thorough understanding of applied climatology; that is, how climate data are collected, the normal procedures of statistical analysis of climate data, and use of standard procedures for presentation of climate data and information.

6. Personnel who can work with special user groups and assess major user needs and value of products.

II.7 Personnel

The minimal staff of an RCC shall include:

1. RCC Director; Ph.D. or equivalent, 75% or more;

2. Regional Climatologist; Ph.D. or equivalent, full-time;

3. Customer Services Representative (Service Climatologist); B.S./M.S. or equivalent, 1.5 FTE minimum;

4. Systems/Database Manager/Programmer, 1.5 FTE minimum.

5. Administrative Assistant/Secretary, part-time.

It is desirable, though optional, that the following staff positions also be part of the RCC:

1. Research Climatologist; Ph.D. or equivalent, part-time as funding permits.

2. Extension Climatologist, B.S. or equivalent, to support the activities of the senior staff, part-time as funding permits.

3. Affiliated staff (could include post-doctorate) available for research and applications development as well as providing guidance on climate studies and information relative to hard to solve or approach complex, climate related issues.

4. Students for research and services training. These students could be from a university cooperative education program for alternating periods of 6 months work, 6 months study for a 2-year period, similar to that used by NOAA.

The RCC staff shall be under the direct supervisory control of the RCC Director.

II.8 Interactions with Other Institutions

RCC activities in this area shall include:

1. Development of literature that describes all aspects of the regional center including its operation, services, data bases, applied research program, and pricing policy for data and information. This literature should range from basic brochures to detailed descriptions of such things as data inventories, dial-up systems, etc. This literature shall be in concert with the Customer Service Plan. See Appendix A.2.

2. Conducting local workshops, specialized conferences, or sessions in conjunction with society meetings on timely climate issues in concert with Federal and state agencies and private concerns.

3. Working cooperatively with NWS Regional Headquarters and Forecast Offices and Centers within the region. Examples of cooperation are accepting referrals for climate information from the Forecast Offices, presenting climate impacts for national summaries, and joint research or developmental projects.

4. Development and periodic issuance of a **newsletter** for an extramural audience. This newsletter could consist of relevant RCC events, climate issues, applied climate research including the results of projects, the availability of data and climate products, or other subjects the RCC deems appropriate. (Optional)

5. Participation in outreach programs that assist primary and secondary schools in their instructional programs in the physical sciences. This could include speaking engagements, providing instructional materials, assisting in a tour of facilities, etc. (Optional)

PART III. NAMING OF REGIONAL CLIMATE CENTERS

The Regional Climate Centers shall be known as NOAA's Regional Climate Centers. As such, the NOAA logo shall be present on RCC literature and web pages.

The Regional Climate Centers shall carry the official name by June 1, 2000, as follows:

Northeastern Regional Climate Center (NRCC)

Southeastern Regional Climate Center (SERCC)

Southern Regional Climate Center (SRCC)

Midwestern Regional Climate Center (MRCC)

Central Regional Climate Center (CRCC)

Western Regional Climate Center (WRCC)

Appendix A.1 History of RCC/NOAA Relationship

The network of RCCs was developed gradually during the 1980s as Congress appropriated funds for their creation. By 1990, the current configuration of six centers was reached. Although there was no master plan for the number of centers and areas served by each, they evolved out of a national need for climate services and according to geographic and climatic considerations.

Organizationally, the RCCs initially were attached to NOAA's National Climate Program Office. In October 1989, the program was transferred to the Climate Prediction Center (CPC)/National Centers for Environmental Prediction (NCEP) of the National Weather Service (NWS). In October 1997 the program was transferred to the National Environmental Satellite, Data, and Information Service (NESDIS) and its National Climatic Data Center (NCDC).

A management document under which the program was run nationally while attached to CPC was developed shortly after transfer of the program to CPC. This, along with Dimensions of Regional Climate Center Activities written by Prof. Stanley Changnon and the Directors of the RCCs in 1990--which defines minimal and desirable sets of activities to be performed by RCCs--have been the guiding documents for operation of the centers until now.

The results of a retreat of CPC leaders and RCC Directors held in Boston, MA, on April 25-29, 1994, led to the development of a Strategic Plan for the RCC Program for 1995 - 2000. In particular, this companion document to the *RCC Strategic Plan* was a response to 1) the reorganized RCC Program contained in the Strategic Plan, and 2) recommended actions of an independent RCC site review team contracted by CPC in 1992-94 to review all aspects of each RCC.

The **objective of the RCC Program** is to support the mission of NOAA: to describe and predict changes in the Earth's environment, promote global stewardship of the world's ocean and atmospheric data, and manage the nation's ocean and coastal resources. The consequence of this objective is to enhance sustainable economic opportunity for the nation. Support of NOAA's mission by the RCCs will be accomplished by 1) developing a nationwide network of climate applications and services which integrate efforts at the local, regional, and national levels, and 2) ensuring the RCC Program's stability and capability of delivering high quality climate applications and services, including expertise and data.

Suggested Climate Monitoring Guidelines
Regional Climate Center
3/18/99

NCDC is looking for input from the RCC's in developing and complementing one another in terms of climate monitoring. NCDC seeks "climate monitoring" input in the form of events, monthly, seasonal, and annual summaries. These summaries should document extreme events in context of climate history - (coldest, warmest, driest, wettest, etc).

The contextual information should not conflict with the NCDC report in terms of ranking or summaries of any data. If a RCC is using periods or methodology for ranking states of regions, please use caveats explaining the differences so there is no confusion that NCDC is saying one thing and a RCC is saying another. If you have any questions on state or national rankings, the contact are Richard Heim/William Brown at NCDC.

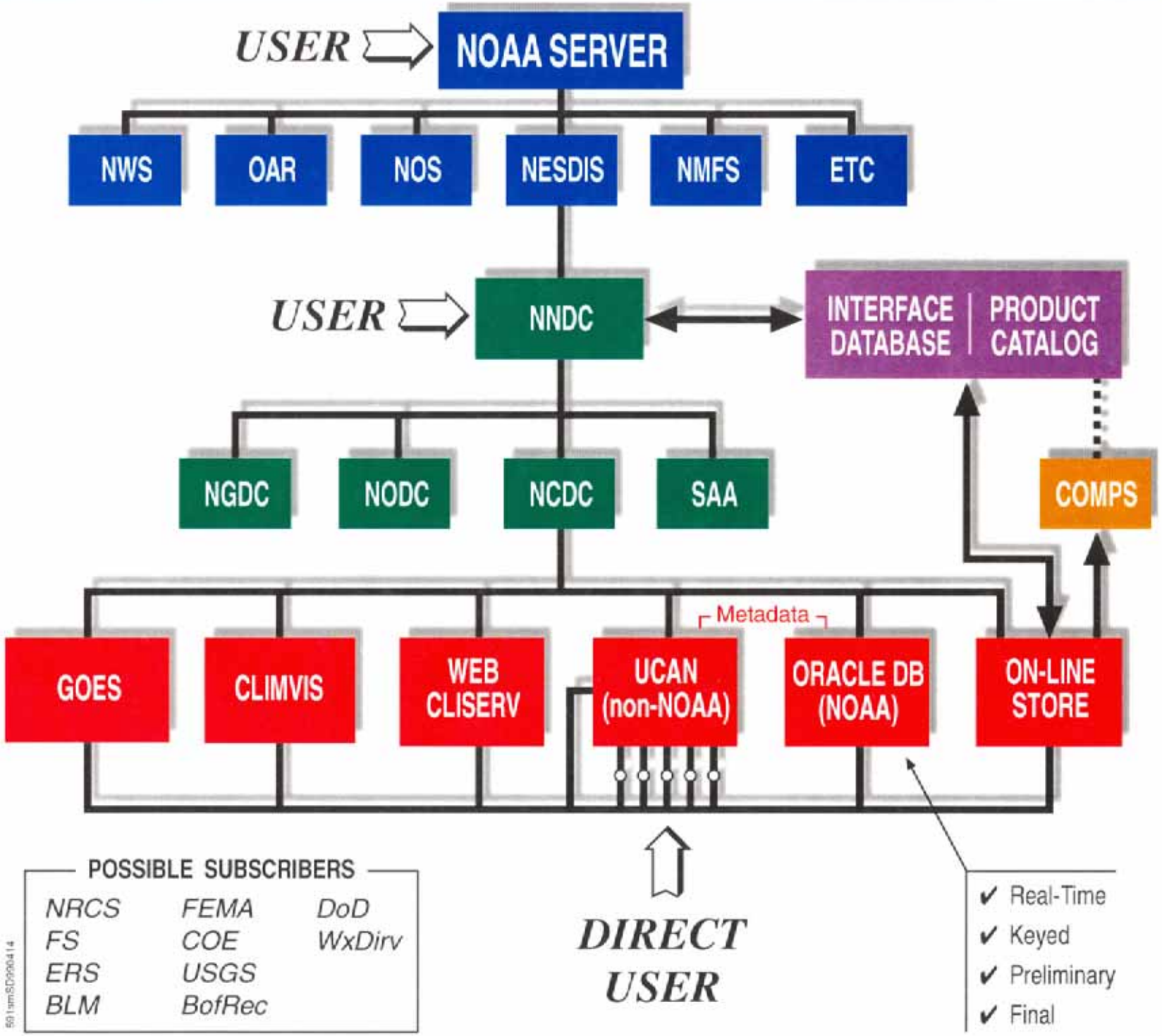
NCDC is specifically looking for input from the RCC's in terms of extreme event information and what were the climate impacts in their regions. Information on personal injuries and deaths plus property damage reports are also requested if readily available. The state and regions are usually able to get this type of information quicker than NCDC due to a closer partnership with state and emergency officials in their respective regions.

NCDC would like the RCC's to have this information available on their own WWW pages. The RCC's should develop a "climate monitoring" page that speaks to this type of monitoring effort. This would include monthly, seasonal, annual, or special climate vignette's that happened that month. NCDC would like the RCC's to have a commonality to this type of "Climate Watch" theme. The NCDC , "Climate Watch" page could be used as a template for this effort or the RCC's could develop their own theme page if desired.

These RCC pages would then be linked from the NCDC monthly monitoring WWW reports as needed. NCDC may use individual images or text directly from the RCC'S in its' report but in the majority of cases, NCDC would like to be able to have active links back to all the RCC's and the RCC'S should also link back to NCDC.. This type of approach will help us all integrate our information and make it easier for our users.

NCDC would like to have the WWW page URL's available to NCDC by the 9th of each month. Please point to a location on your site where it is located to Tom Ross, tross@ncdc.noaa.gov, 828-271-4994 ext 181.

rccguide.wpd


USER
NOAA SERVER
NWS
OAR
NOS
NESDIS
NMFS
ETC
USER
NNDC
INTERFACE DATABASE
PRODUCT CATALOG
NGDC
NODC
NCDC
SAA
COMPS
Metadata
GOES
CLIMVIS
WEB CLISERV
UCAN (non-NOAA)
ORACLE DB (NOAA)
ON-LINE STORE
POSSIBLE SUBSCRIBERS
NRCS
FS
ERS
BLM
FEMA
COE
USGS
BofRec
DoD
WxDirv
DIRECT USER
✔ Real-Time
✔ Keyed
✔ Preliminary
✔ Final

Regional Climate Center
Site Evaluation Guidelines

April 19, 1999

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I. Goals of evaluation

The goal of the 5-year cycle of Regional Climate Center (RCC) site evaluations is to conduct in-depth assessments of the programs and activities undertaken by each Center and to enable new ideas to flourish across all six Centers. Also included in the evaluation process will be the relationship between the National Climatic Data Center (NCDC) and the RCCs. The objectives of the evaluations are to assess each center's activities, staffing, and host institution relationships, as measured against the current version of the *Regional Climate Center Program Management Plan*. In general the evaluations will focus on the following questions:

1. Has each Center (RCC and NCDC) met or surpassed the minimal criteria as listed in the current version of the *Management Plan*?

2. How well has each Center achieved its stated goals, objectives, and tasks, as revealed in its proposals and other documents?

3. Is each Center's long-range plan dovetailed with the goals and objectives of the overall National Climatic Data Center and Regional Climate Center Program?

4. What innovative ideas, e.g., new products and internal management systems, have been developed which may be applicable nationwide?

II. Evaluation criteria

Major areas of evaluation shall include:

Areas concerning the National Climatic Data Center:

Management of the RCC Program

Level of support, i.e., financial, staff, program

Integration into NCDC activities

Areas concerning the Regional Climate Centers:

User services program

Climate data bases and data management

Monitoring of climatic conditions and their impacts

Applied research program

Extramural activities
- Climate Service Constituents Leaders
- State Climatologist relationships
- Educational outreach

Institutional issues
- Management
- Staffing
- Outreach - other institutions, societies, etc
- Funding - internal and external
- Facilities
- Planning activities

III. Guiding documents

The guiding documents for the site evaluations are as follows:

Regional Climate Center Program Management Plan, 1999 - 2003
- Customer Service Plan
- State Climatologist Program Review

Recent CIASTA funding proposals (last two years)

IV. Evaluation process

Each Center shall be evaluated once every 5 years as funding permits. The order of evaluation shall be as follows unless changed by mutual agreement by NCDC and the RCC Directors:

year 1: SERCC and WRCC	Or	year 1:	SERCC
year 2: HPCC and MCC		year 2:	WRCC and HPCC
year 3: NRCC and SRCC		year 3:	MCC and NRCC
		year 4:	SRCC
		year 5:	Finish cycle of innovations/corrections as needed

[Note: the order of the evaluations as present here is the same order as the evaluations done in the early 1990's]

The cycle will repeat beginning in year 6.

The evaluation team shall consist of up to 4 members. The members shall possess expertise in the following areas, with the full team covering all areas:
- Climate data management
- User services
- Climate monitoring
- Applied climate research
- Center management

To begin the process the NCDC, the RCC, and the evaluation team chair shall mutually agree to team staffing and time table for the evaluation. Once these items are established and agreed upon, both the NCDC and the RCC shall provide written background material to the team chair as required. The team shall make a 1.5 day site visit. Upon conclusion of the site visit, the team shall issue a written report of their findings. The report shall list those strengths and weaknesses as noted and provide recommendations for improvement. In addition, the report shall cite an particular activities or products that might be of interest to the other Centers. The report shall be issued to the

National Climatic Data Center and the Regional Climate Center's within 45 days of the site visit.

Based upon report recommendations, NCDC may issue a set of actions required to bring the RCC into compliance with the minimal standards. The procedures to be used are outlined in the *Management Plan*, in section 1.15 "Adverse Action /disqualification Procedures". As required, the Team chair may be requested to visit the RCC a second time to insure that progress is being made or has been accomplished. The Team Chair shall issue a report of progress or lack thereof as the findings warrant. Based on this report NCDC may enter into the final phase to bring the RCC to full compliance or to begin the effort to disqualify the RCC.

Based upon report findings, NCDC may seek to further the innovative ideas, products, new markets, or management systems as highlighted by the team's findings. NCDC in conjunction with the RCCs shall promote the findings through demonstrations held during the bi-annual Directors meetings, or through the use of workshops, or even website interaction.

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