THE FCC's MODEL CRITERIA

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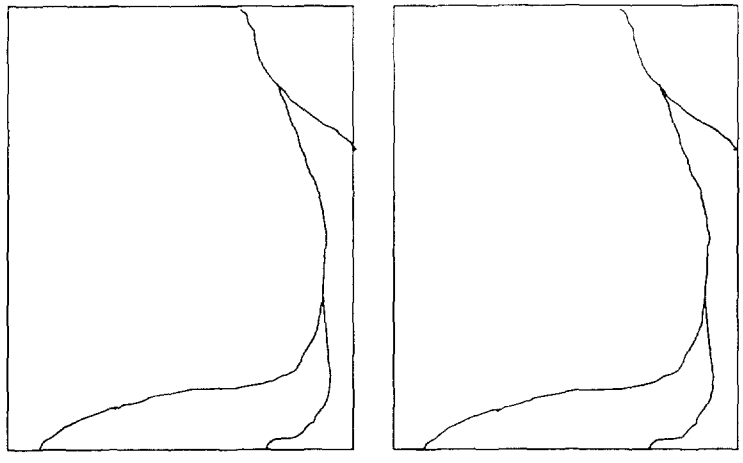

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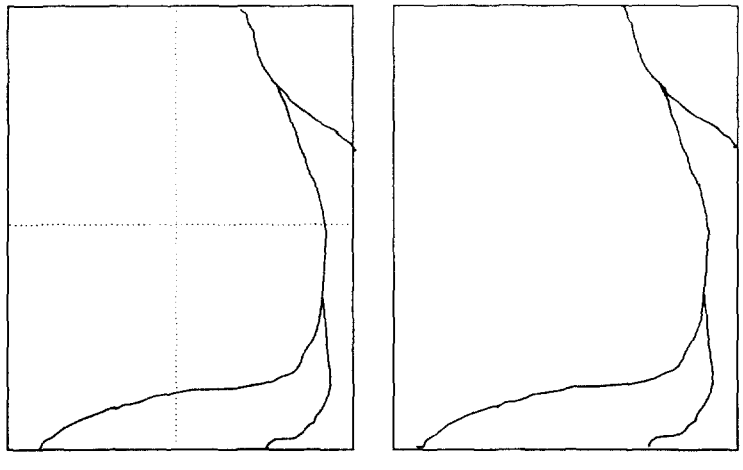

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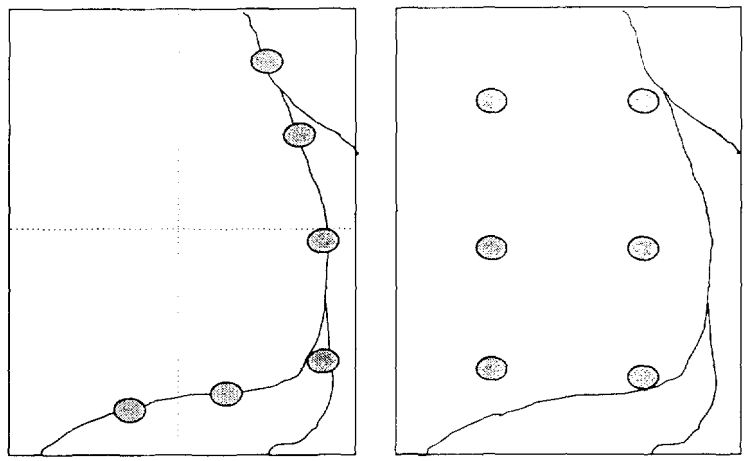

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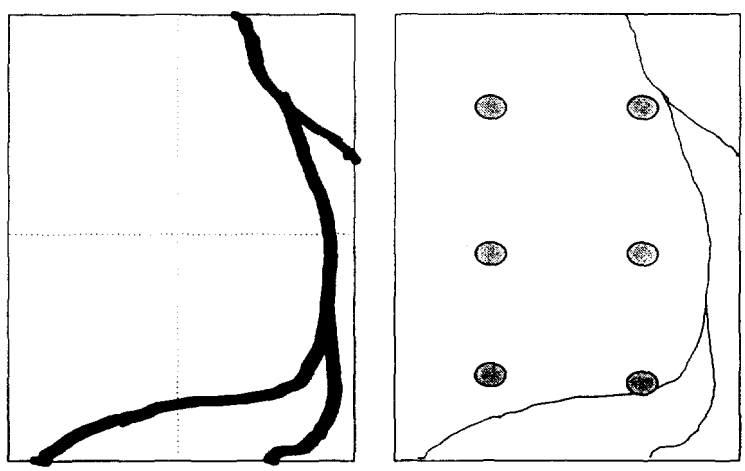

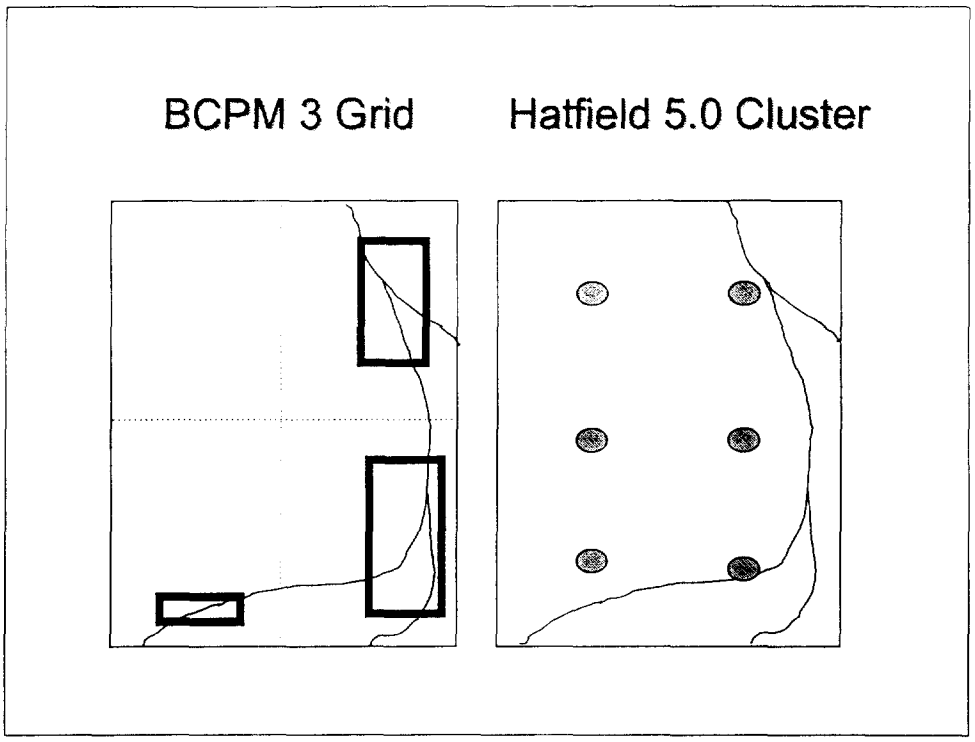
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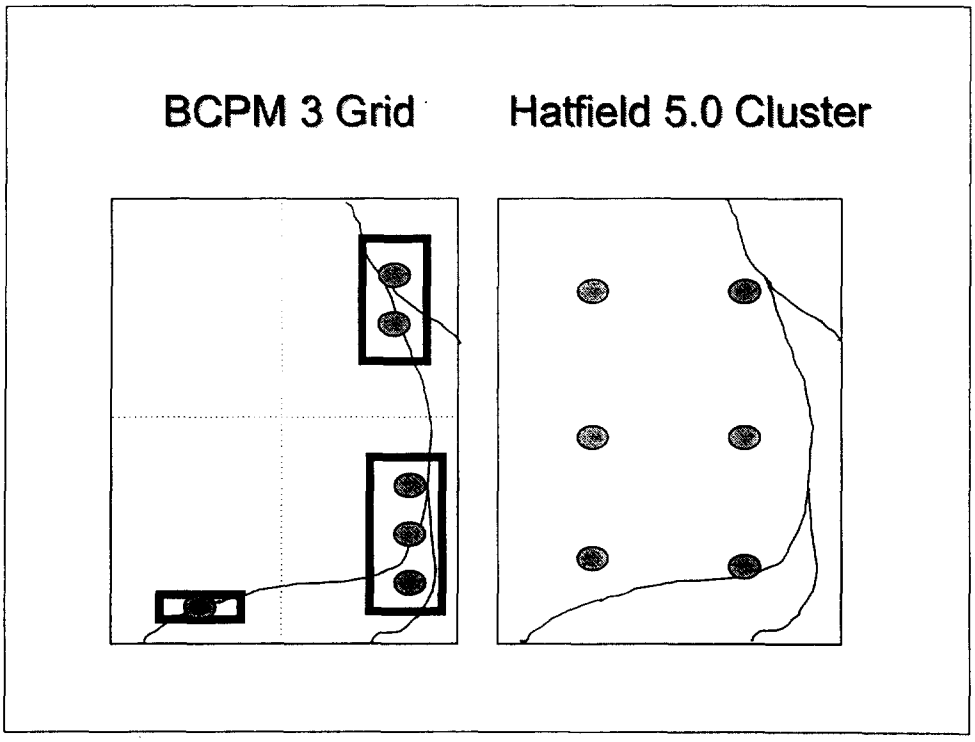
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Benchmark Cost Proxy Model
BCPM3

Platforms, Issues, Differences:
BCPM3 & Hatfield Model 5.0
February 9, 1998

sponsored by Sprint. USWEST BELLSOUTH

WHAT IS THIS PROCEEDING ABOUT?

- Select a Proxy Cost Model Platform.
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- Meet the Criteria of the 1996 Telcom Act.
- Meet the FCC's Criteria for Proxy Models.
- This Proceeding Is **NOT** About
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THE BOTTOM LINE - HOW DO PLATFORM RESULTS COMPARE?

	Dollars - Millions			
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	Default	Common	Common	Default
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SUMMARY

- In aggregate, with common inputs, the models produce similar results.
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- The real differences between the models include:
  - The accuracy of customer location,
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CUSTOMER LOCATION

- The Commission Has Said:
  - *At this point we conclude that we should not select one model over another because both models lack a compelling design algorithm that specifies <u>where</u> within a CBG <u>customers are located</u>...* (5/8/97 Order at 278)
- The Facts Are These:

FACT: Hatfield 5.0 contains NO design algorithm that specifies where within the basic unit of analysis customers are located.

FACT: The much touted "geocoding" of customers is only used to identify the boundary of "clusters" of customers. Once clusters are created, this information is not used again, ancustomers are assumed to be uniformly distributed throughout the cluster.

FACT: Thousands of clusters nationwide are 10, 15, 20 square miles in area or more. Hatfield 5.0 contains NO methods for locating customers within these large land areas. Many populated areas are not included.

FACT: BCPM contains extensive algorithms for locating customers within "grids". Grids are all less than 9 square miles, all are subdivided into quadrants, unpopulated areas are eliminated, distribution areas centered over road (population) centroids, sized to reflect population, etc.

FACT: Ironically, if accurate geocoded information were to become available it would not improve the network design accuracy of Hatfield 5.0 due to the uniform distribution assumptions. BCPM could use such data to more accurately build the network to where customers actually are located

CUSTOMER LOCATION
(CONTINUED)

- The Commission Has Said:
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TECHNICAL SPECIFICATIONS

- Congress and the Commission have said:
  - *Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonable comparable to those services that are provided in urban areas*... (1996 Act Section 254(b)(3))
  - *The technology assumed in the cost study or model must be the least-cost, most-efficient, and reasonable technology for providing the supported services...The loop design incorporated into a forward-looking economic cost study or model should not impede the provision of advanced services*. (5/8/97 Order at 250)
- The Facts Are These:
  - **FACT:** The BCPM3 uses a standard and state-of-the-art CSA network architecture. The Hatfield 5.0 uses a non-standard network design which regularly provides copper loops of 18,000 feet or more.
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    CSA design rules call for nonloaded pairs with a maximum physical range of 12,000 feet or 750 ohms conductor loop resistance, whichever occurs first. In the case of 26-gauge wire, this equates to a maximum loop range or 9,000 feet. Today the CSA design rules ensure quality 2-wire voice transmission and the capability to support advanced digital services, including repeaterless digital data service (DDS), ISDN basic rate transmission (2B+D), high-bit-rate digital subscriber line (HDSL). (DSC Litespan Practice OSP 363-20-010 Issue 6, July 1997 at 5.3.1)

TECHNICAL SPECIFICATIONS

(Continued)

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> *To achieve a 28.8 Kbps connection on the Public Switched Telephone Network (PSTN), three conditions would always need to be met. One and two are non-loaded cables at both ends of the connection with a length of no more than 9 Kft. The third condition is only one A/D and D/A conversion on the connection.* (Guidelines for High Speed Analog Data Transmission in the Switched Network, TM-25704, December, 1996)

SOME INACCURATE CRITICISMS OF BCPM

- BCPM Does Not Compute Costs for Unbundled Network Elements.
  - FACT: BCPM Computes Costs for ALL Network Elements
  - FACT: BCPM Reporting Module can be programmed to display UNE Costs.
- BCPM Does Not Use Geocoded Locations.
  - FACT: BCPM Uses Geocoded Locations for Roads.
  - FACT: BCPM Uses Publicly Available Customer Location Data at the Census Block Level to Place Customers Along Roads Within "Grid-Cells". Customers Live Along Roads.
  - FACT: BCPM Methodology Is Many Times More Granular and Accurate Than the Hatfield Methodology.
- BCPM Uses Proprietary Data From the SCIS Model.
  - FACT: BCPM Does Not Include Any Portion of SCIS.
  - FACT: All Switching Cost Inputs Are Adjustable by the User.
  - FACT: While SCIS Was Used in the Development of the Default Values Used by the BCPM Sponsors, Any Other Source (e.g., Dr. Gable's Study) Can Be Used As Input.
- BCPM does not accurately estimate lines per serving area.
  - FACT: BCPM is designed to use actual line counts obtained from LECs to build appropriate network, consistent with the May 8th Order.

CONCLUSIONS

- Hatfield 5.0 Fails to Meet Many of the FCC Criteria for Proxy Models, and Congressional Criteria for Network Design.
- BCPM More Accurately Locates Customers and Designs a Superior Least-Cost Forward-Looking Network.
- The FCC Should Select BCPM as the Model Platform for the Next Phase of its Inquiry Regarding Data Inputs.

CRITERIA FROM THE 1996 ACT

1996 ACT CRITERIA	BCPM3	HATFIELD 5.0
Sec. 254(b)(1) Quality services should be available at just, reasonable and affordable rates.	YES	• Builds only to current customers, and ignores need to serve new customers. • Sub-standard network design for voice and data services.
Sec. 254(b)(2) Access to advanced telecommunications and information services should be provided in all regions of the Nation.	YES	• Not capable of delivering 28.8 bps modem service and other advanced services to all customers.
Sec. 254(b)(3) Consumers in all regions of the Nation should have access to services that are reasonably comparable to those provided in urban areas, at reasonably comparable rates.	YES	• Remote rural customers will not have comparable service due to non-standard network design.
Sec. 254(b)(5) There should be specific, predictable and sufficient mechanisms to preserve and advance universal service.	YES	• Unrealistic "structure sharing" assumptions will result in insufficient funding in high-cost rural areas.

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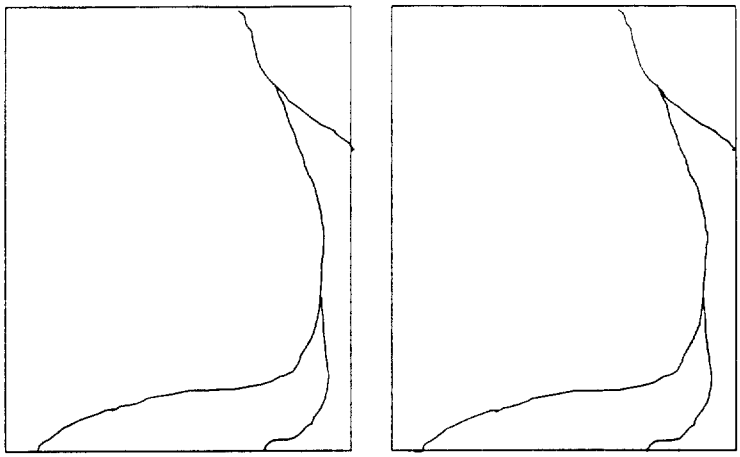

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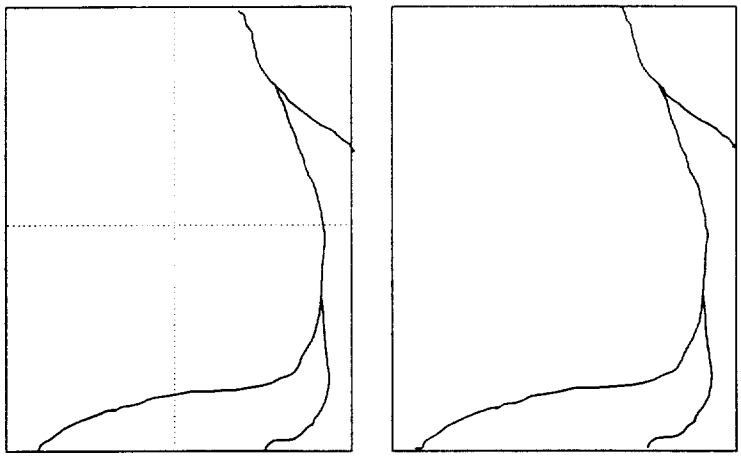

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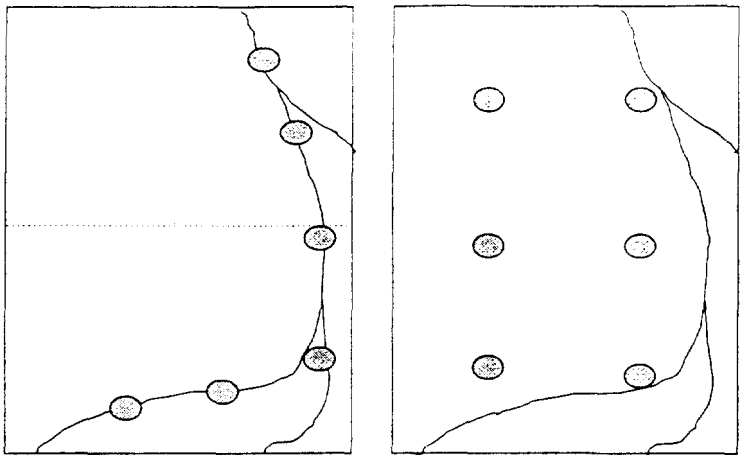

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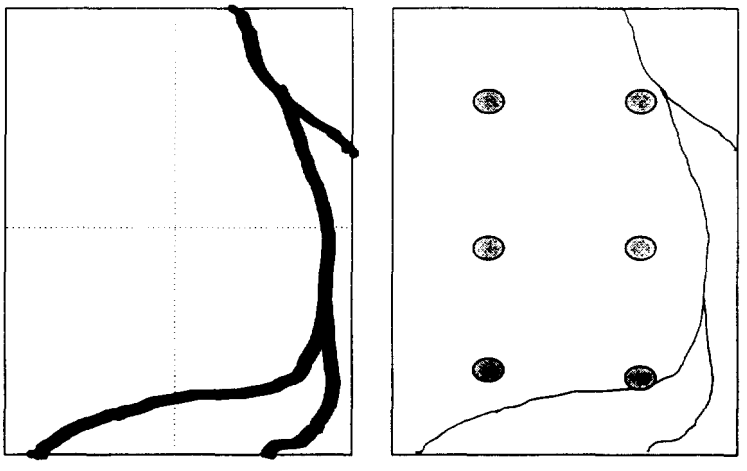

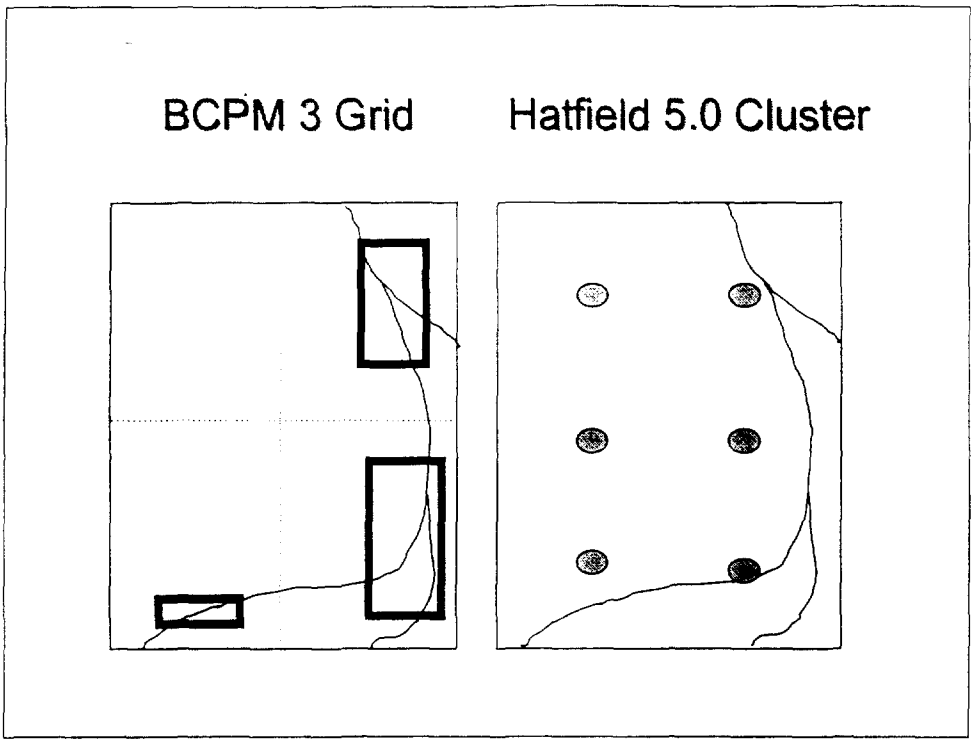
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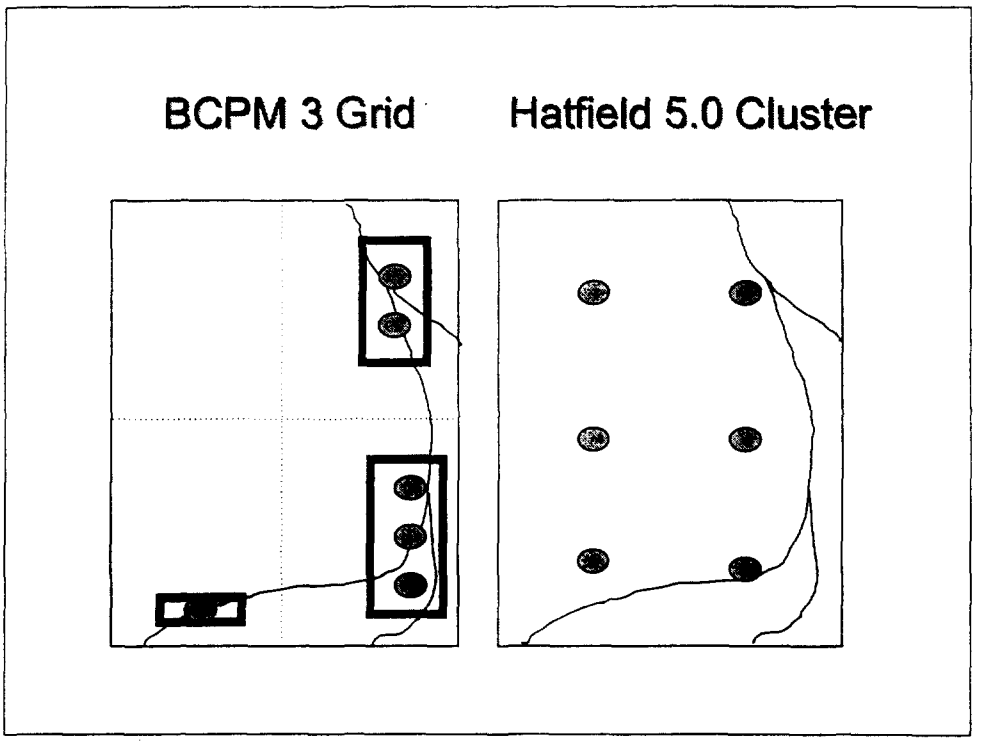
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