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MEMO TO: Bill Michener

FROM: Susan Stafford Susan

SUBJECT: Proposed Intra LTER Site Developments for 1984-85

DATE: November 30, 1984

Here is the list of proposed intra LTER site developments for 1984-85. This provides a good basis for site comparison and will help all sites track their progress during the year.

Congratulations again on a fine Symposium and Workshop. All your hard work really paid off!

cps

Enclosure: List

cc: Carl Bowser
Walt Conley
Dick Marzolf
✓ Jerry Franklin

Major Intra-LTER Site Developments

Proposed (1984-85)

1. Andrews--Susan Stafford, Paul Alaback
   a. Developing local area networking (LAN's)
   b. Continue microcomputer conversion of faculty and staff (IBM's)
   c. Working towards computer literate faculty
   d. Continue cataloging and documentation of all data sets
   e. Moving towards distributed processing
   f. Will investigate acquisition of in-house minicomputer (VAX)
2. Jornada--Walt Conley
   a. Will pursue workbench idea for those who are not "computer gurus"
   b. Will focus on nationwide-effort for production
   c. Will increase personnel from a .4 secretary to an additional full-time technician ($18K/annum)
   d. In 1984-85 will be $50K^{+} in the data management budget which represents a significant increase in money and effort in data management, analysis, and processing over previous years
3. North Inlet--Bob McLaughlin
   a. Cannot get away from "nuts & bolts" of documentation
   b. Expanding documentation to include 40 categories
   c. Developing in-house computer networking to decrease costs and save money
   d. Instrumentation interfacing
   e. More consulting with PI's for those projects most closely tied to LTER
   f. Will establish long-term data set committee

4. Wisconsin, No Lakes--Carl Bowser
   a. Inputting a data catalog with common formats to facilitate better interfacing with data
   b. Lab automation and computer interface
   c. Output is now very expensive, putting data in better form will reduce costs
   d. Will increase database management personnel from 1 1/2 to 2 - 2 1/2 people this year
   e. Suggest bringing in experts to review site data management system. This will be an alternate form of advisory review committee. Will focus on strengths and weaknesses in data management area.
5. Konza Prairie--Marty Gurtz for John Briggs
   a. Data entry and documentation well in place
   b. Archiving backlog on magnetic tape
   c. Major hardware purchase--IBM PC AT with RS/1 to increase exploratory and data analysis capabilities
   d. Would benefit from listings of hardware and software (both commercially available and developed in-house) used at LTER sites and other biological field stations
   e. More laboratory instrumentation planned
   f. Plan to better document database to facilitate more flexibility in report writing
   g. Suggest that intersite communication not be limited to only LTER sites

6. NIWOT Ridge--Vera Komarkova
    a. Implementing data dictionaries and abstracts
    b. Have several microcomputers and plan to acquire more
    c. Library maps are on-line
    d. Developing hardware, software, and a geographical database system
    e. Have automatic data loggers
    f. Developing chemistry data set
    g. Recruiting a full-time data manager/modeller
    h. Have existing intersite data exchange
    i. Goal is to have all data sets on-line
7. Cedar Creek--Bob Buck
    a. New data manager (Bob Buck)
    b. Move data manipulation from mainframe to microcomputers (IBM XT and PC's)
    c. Train PI's to use system themselves and not rely on data manager
    d. Plan to hire 1/2 to 1 more people to carry out mundane aspects of data management
8. Illinois Rivers--Frank Brookfield
    a. Plan to further develop microcomputer systems already in place
    b. Plan to develop biological model
    c. Will continue to use mapping system for hydrologic data
    d. Menu driven system for data access between PI's
    e. Expanding and exploring distributed computing system for field stations
    f. Talk of land sat and photogrammetry data in the future

9. Okefenokee--Dan Kearns
    a. Standardize field data forms for all student projects
    b. Integrate data management activities to all studies on swamp
    c. Have minicomputer (Compupro 10) installed at the Institute of Ecology which is used for data management, and documentation, prior to archiving data on the mainframe on magnetic tape
10. Colorado/Pawnee--Tom Kirchner
    a. Using IBM PC for data entry from keypunch
    b. Has been a change in data management philosophy from having data as databases to sequential files. Users like sequential files better. Most data is accessed infrequently and sequential files are easier to store.
    c. Will create a database of abstracts which are machine- and human-readable using INGRESS on VAX and R-BASE on the micros.
    d. Will train PI's to use these systems and hire personnel with statistics and database specializations
11. Oak Ridge National Laboratory--Mike Farrell
    a. Have National Climatological databases which are free to users
    b. Caution that peer review of databases is very important and should not be overlooked in the future
12. Coweeta--Lloyd Swift
    a. There will be a full-time database manager starting January 1985 (Polly Casale)
    b. Documentation of data is on paper not on-line
    c. Have 50 years of data from Coweeta and 20 years of data from Institute of Ecology. Too much volume and too little demand to go on-line. Facing important question, "How much do we have to put on-line?"

12. Coweeta (continued)

d. Using punched cards have worked effectively in the past in a 1-on-1 individual basis. It works and there is no need to change.

e. Most data sets are of restricted use that are still in active use by original PI and this won't change

f. Most data set users are outside LTER

g. There is divided custody of data sets between Government (Forest Service) and University

h. In the past, it was decided not to duplicate storage but that may change with new data manager

i. Important intrasite decisions to be made (1984-85) include: What data to catalog and how much data to put on-line.

j. Will need to balance the risk of loss against the future need and the cost of having data out front