

regional highlights

North Atlantic

The North Atlantic Region's Division of Planning and Resource Preservation has purchased a small computer system, based on a Hewlett-Packard 9845C microprocessor with a color CRT, a 9874A digitizer, a 9872A 8 pen plotter, a 9895A flexible disc drive, a 2631G impact printer, and a 9871A daisy-wheel printer. The Division of Management and Operations, (encompassing Natural Resource Management and Visitor Protection) has acquired a Datapoint system, which includes an 1800 microcomputer with two diskette drives and a dot matrix printer. Since the installation of these two systems several program operations have been automated with new computer applications being developed to assist research, planning and resource management efforts.

For example, in the Office of Scientific Studies, monitored air and water quality data bases have been computerized and vegetation, soils and shoreline maps have been digitized from recent aerial photographs and historical maps. These computerized and digitized data are easily displayed in graphic form on the 9872A for interpretation by staff scientists and resource managers. Vegetation maps such as the Fire Island National Seashore Vegetation map shown in Figure 1 have been used extensively in field research projects. The Fire Island maps have been used in a fire ecology research project as well as to identify air quality sensitive vegetation.

The quantitative nature of the digitized maps permits numerical analysis of vegetation change or, as in the case of shoreline maps, the rate of shoreline change can be determined. Temporal variability in shoreline mobility trends range from the long-term (150-year coverage afforded by NOS "T" sheets) to the short-term intervals of recent aerial photography. The area changes also are combined with selected, digitized beach profiles to yield the volumes for sediment budget analysis. The monitored data and digitized maps are updated periodically to show resource changes in response to natural and anthropogenic source disturbances.

Resource managers in several park units in the Region (three to date) have easy access to this system using HP 85 remote terminals. These areas have begun to telecommunicate resource information for analysis and storage. The terminals also are used to retrieve meteorological data from remote automated weather stations (RAWS). RAWS transmit meteorological data through the GOES satellite to several surface locations, allowing the measurement of weather conditions at remote park areas. These data are accessible through the AFFIRMS system for use in calculating fire weather.

New applications planned include cataloguing all natural resource reference material, which is located in the regional office and available for use by regional and field scientists, resource managers and planners.

The Office of Planning and Design will use the HP 9845C as an environmental simulator for the Battle Road Development Concept Plan being prepared for Minute Man National Historical Park. The impact of proposed scenarios for Route 2A (running through much of the Park) on cultural resources and visitors will be assessed by means of three dimensional computer graphic simulations of the Battle Road Corridor. This process also will be used to help guide the final siting of a through-park bikeway. Most importantly, the simulation capability will help park management to prepare well documented responses to State and Regional transportation proposals and to better plans for preserving the integrity of the historic Battle Road.

The Datapoint 1800 system in the Division of Management and Operations includes a Universal Data System (UDS) 212A modem (300 or 1200 Baud) which connects the Datapoint microcomputer, using telecommunications, to other computer systems in the NPS as well as to other agencies (such as BLS Inquire Data Bases and AFFIRMS). A Co-axial cable connects the Datapoint 1800 to the ARCNET system which uses the Datapoint 6600 as a file processor. With access to the 6600 system (located in the NAR Information Management Division within the Directorate of Administration), the storage capability of the 1800 microcomputer is greatly increased. Several NAR parks also have Datapoint systems so, with use of modems, natural resource information can be transferred electronically.

Management and Operations obtained the Datapoint 1800 last year and the development of computer applications for management of Natural Resource data has begun. For example, wildfire reports (Form DI-1201) are now entered on the com-

FIRE IS VEG(NF-4R) D1009:H7,7,1

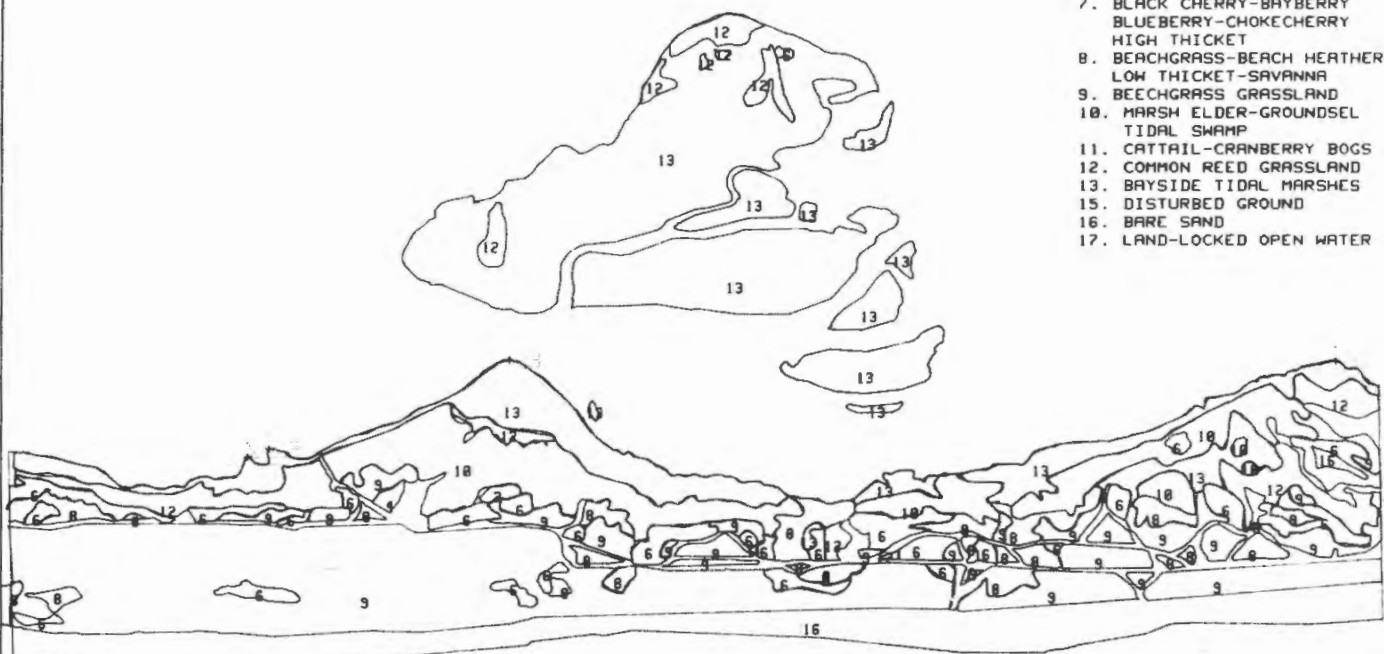


Figure 1

puter as they are received from the parks. The Multiplan software allows easy access to fire records and quickly tabulates regionwide totals of variables such as acreage burned and expenditures related to the fires. The AFFIRMS system has been used to access and retrieve weather data to use in fire weather calculations. Special Use Permits also are on the Datapoint system using Multiplan.

This year the 1984 Pest Management Program submissions (FORM 10-21A and pesticide use logs) will be entered on the microcomputer. This will facilitate regional and WASO review and allow rapid searches for control measures currently in use at NAR park areas. Access to WASO computer systems may eventually allow submission of pest management reports using the computer.

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