EKKE NE

A Science Service Publication Volume 139, No. 6, February 9, 1991

E.G. Sherburne Jr. Patrick Young Laurie Jackson

Production/Design Janice Rickerich

Bruce Bower Ivan Amato

Richard Monastersky Janet Raloff Ron Cowen Kathy A. Fackelmann, Rick Weiss Ivars Peterson Jonathan Eberhart Jennifer L. Miller Wendy Gibbons Liz Marshall Donald R. Harless

Publisher Editor Managing Editor

Director Behavioral Sciences Chemistry/ Materials Science Earth Sciences Environment/Policy General Science Life Sciences/

Biomedicine

Mathematics/Physics Space Sciences Editorial Assistant Science Writer Intern Books/Resource Manager Advertising/Business Manager

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$34.50 for 1 year or \$58.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, D.C. 20036. Second-class postage paid at Washington, D.C., and additional mailing office. POSTMASTER: Send address changes to Science News, 231 West Center Street, Marion, OH 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided. SCIENCE NEWS (ISSN 0036-8423) is published

Copyright © 1991 by Science Service, Inc. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A.

Editorial and Business Offices:

1719 N St., N.W., Washington, D.C. 20036 (202-785-2255)

Republication of any portion of Science News without written permission of the publisher is prohibited.

Subscription Department: 231 West Center St., Marion, OH 43305 For new subscriptions only, call 1-800-247-2160.

This Week

U.S. Skies Harbor Ozone Destroyer

84 Brain killer stable in soil

Water storage spurred growth of Maya cities 85 Grapefruit juice gives drug an added punch 85 85 Scorpion toxin tells an evolutionary tale 86 Two reports take aim at asthma jeopardy 86 Helium theory gets high-precision test

President's budget: Rosy outlook for R&D 87

Research Notes

92 **Biomedicine** 92 Earth Sciences

Articles

88 Gauging the Winds of War

Cover: Anthropologists find that virtually every society they study — ranging from small tribes to large states — has engaged in organized fighting. Investigations of ancient and modern warfare have turned up a variety of explanations for the ubiquity of human combat. (Painting: George Catlin's "Battle Between Sioux, Sauk, and Fox," 1846-48, National Museum of American Art, gift of Mrs. Jesoph Harrison, Ir. Joseph Harrison Jr.)

90 Global Warming Underfoot



Departments

83 Letters 93 **Books**

Science Service Institution for the public understanding of science founded 1921; a nonprofit corporation. Soard of Trustees — Chairman, Glenn T. Seaborg; Vice Chairman, Gerald F. Tape; Treasurer, Willis Harlow Shapley; Joseph W. Berg Jr.; Robert W. Fri; David A. Goslin; J. David Hann; Milton Harris; Leon M. Lederman; Shirley M. Malcom; Elena O. Nightingale; Ben Patrusky; H. Guyford Stever; Deborah P. Wolfe. Honorary Trustees — Edward Bliss Jr.; Bowen C. Dees; O.W. Riegel; John Troan.

President: E. G. Sherburne Jr.; Business Manager: Donald R. Harless

Letters

Sharing vs. securing

Your discussion of computer security ("Risky business: Tackling computer security," SN: 12/15/90, p.373) collapses a crucial distinction between destructive tampering with electronic information and mere access to it.

By assuming that access itself, even to "nonmilitary, unclassified" systems, should be controlled, and that "information" is a possession to be guarded from "theft," we abandon a basic value of enlightened democracy. As the public library and public university cease to be our models for the open sharing of information and ideas, thought itself and, of course, its attendant power becomes the property of an elite, with computer languages replacing the Latin encoding with which knowledge was once withheld from the masses.

Bruce Henricksen Professor of English Loyola University New Orleans, La.

The National Research Council (NRC) urges the creation of a "not-for-profit, federally sanctioned organization to tackle the problem" of computer security, you report. But such an organization already exists. It's the National Computer Security Center (NCSC), a branch of the National Security Agency (NSA).

NCSC maintains criteria for rating computer systems in terms of their security abilities. The rating is a letter-number designation, the highest being A1. It's intended to be fair and rigorous enough to use as a criterion in federal procurements. By controlling how large amounts of money are spent, it can act as a powerful stimulus to computer manufacturers to improve security. NCSC and the National Institute of Standards and Technology (NIST) also give annual security conferences.

If these folks were less than dead serious about security, or if they weren't too bright, or if they had an unresponsive attitude toward taxpayers, I would go along with the NRC panel's recommendation to form a private "Information Security Foundation" in competition with them. But since that has not been my experience with them, it would make more sense to at least check out what they're doing, and see if it doesn't already fit the bill.

Steve Seaquist President U-1100 Systems & Applications, Inc. Temple Hills, Md.

In describing the NRC report, panel chairman David D. Clark states: "Government agencies such as NSA and NIST, as well as several trade organizations, have made some strides recently in improving computer security. Our committee concluded, however, that none of these organizations is properly positioned for the multifaceted, large-scale task of moving the market and the field forward.

In the report itself, the panel states: "Because of its defense-oriented charter, the NSA cannot. more actively foster development or widespread dissemination of technology for use in the nonclassified or commercial world. Indeed, its defense-related focus - specifically a focus on systems that process classified information - has been narrowed in recent years." - I. Peterson

FEBRUARY 9, 1991 83