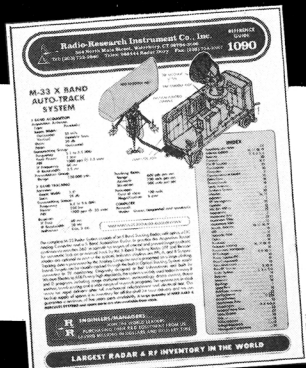


LARGEST RADAR & RF INVENTORY IN THE WORLD!

SEND FOR FREE
24 PAGE CATALOG



- **RADAR & RF SOURCES:** 150 MHz to 35 GHz.
- **ANTENNA MOUNTS:** Autotrack, Search, X-Y, Nike Herc, Ajax, Capacity 50 to 20,000 lbs. Dishes to 60 ft.
- **RADAR INDICATORS**
- **PULSE MODULATORS**
- **HIGH VOLTAGE POWER SUPPLIES**
- **TUBES & WAVEGUIDE**

NETWORK ANALYZER

5-18 GHz. Computer controlled HP8542B

60' DISH & PEDESTAL AVAILABLE

RADIO RESEARCH INSTRUMENT CO., INC.

584 N. MAIN ST. WATERBURY, CT 06704
203-753-5840 FAX: 203-754-2567

Circle number 35 on Reader Service Card

Unsecured Cash Up To \$50,000 (Quickly and Discreetly)

It's a challenge every professional faces from time to time.

You need cash *now*. But you don't want to dip into your assets and investments ... or *encumber* them in any way.

An *Unsecured Professional Loan* from APEX can be the solution. APEX can advance you cash in any amount from \$5,000 to \$50,000 ... quickly and discreetly.

As an installment loan or revolving line of credit.

Use your cash from APEX for *any purpose* you'd like. We just want to help you meet your financial objectives.

APEX, a program of The Associates, has been serving the professional community for 25 years. You can trust *our* professionals to treat you with respect, and to give your request priority attention.

Why not request your cash *now*? There is no fee to apply ... and it couldn't be more convenient.



For more information,
or to apply by phone call:

1-800-257-2739 ext. 142

A P E X

American Professional Exchange™

Serving the professional community for 25 years.

A Program of Associates Financial Services Corporation

Circle number 36 on Reader Service Card

behavior in times of low funding and lack of institutional support and for his quiet sense of humor. He was always generous with his time and was particularly helpful to graduate students and visitors. He was also a scholar of Hindu practices and Sanskrit. We will miss him.

MALCOLM SKOVE
Clemson University
Clemson, South Carolina

Adrianus Jan van Woerkom

Adrianus Jan van Woerkom, who was chief scientist in the office of the technical director of the Naval Underwater Systems Center in New London, Connecticut, died in Yale-New Haven Hospital on 8 July 1991.

Born 3 October 1915 in Werkendam, Holland, van Woerkom received his scientific training at Leiden University, where he completed his PhD degree under the guidance of the Dutch astronomer Jan Oort. While there, van Woerkom wrote an extensive and still pertinent monograph, "On the Origin of Comets." In 1948 he emigrated to the US to join the department of astronomy at Yale University as an associate professor and to become director of the first computing laboratory at the university.

Van Woerkom worked on problems in celestial mechanics and astronomy, many in collaboration with Dirk Brouwer. These problems included secular perturbations of asteroids; numerical integrations of the orbits of Mars, Ceres, Pallas, Vesta and Juno; the motions of Uranus, Neptune and Pluto; and a repetition of the well-known numerical integration of the orbits of the five outermost planets. The last calculations were first executed on the Selective Sequence Electronic Calculator in 1948, and van Woerkom repeated them on the Naval Weapons Laboratory computer to obtain a set of more definitive mass coefficients. A much cited work by van Woerkom and Brouwer published in 1950 dealt with the secular variations of the principal planets.

From 1956 to 1972 van Woerkom served at the Electric Boat Company, first as technical director and then program manager of primary research efforts that led to present-day integrated combat systems in submarines. He introduced the use of computers for engineering, scientific and business systems, including applications to the development of tactical weapons systems for submarines.

At both Electric Boat and NUSC, van Woerkom wrote numerous tech-

nical reports. He was recognized several times for his contributions to the development of technological research in submarine tactical weapons systems. He was an excellent teacher, and throughout his career he served as a scientific mentor to students and younger scientific personnel. His many friends will remember him for his good humor, helpfulness and acts of kindness.

RAYNOR L. DUNCOMBE
University of Texas, Austin
MORRIS S. DAVIS
University of North Carolina,
Chapel Hill

Wallace A. Hilton

Wallace Atwood Hilton, professor emeritus of physics at William Jewell College, died on 3 September 1991 after a stroke and a short hospitalization. A professor of physics and chairman of the department for 34 years, he had a great passion for the teaching of undergraduate physics.

Born in Hardin, Missouri, on 17 August 1911, Wally received his bachelor's degree from William Jewell College in 1933 and an EdD from the University of Missouri in 1941. After service during World War II as a captain in the US Army Air Force, he earned a master's in physics from the University of Arkansas. He began his college teaching career at William Jewell in 1946.

During the following two decades, Wally built a physics department unique among small liberal arts colleges. The teaching style of this 1978 Oersted medalist centered on lecture demonstrations and his own boundless enthusiasm. The college obtained abundant research-quality equipment as the result of his unerring sense of how to write National Science Foundation proposals. He published *Experiments in Physics* and *Experiments in Optical Physics*, two widely used physics laboratory manuals. His *Physics Demonstration Experiments at William Jewell College* became a standard reference and was reprinted under the aegis of the American Association of Physics Teachers.

A charter member of the WJC chapter of Sigma Pi Sigma in 1930, Wally was elected national president of SPS in 1976. His numerous papers have left his mark on the physics literature, and many of them afforded one or more of his students an opportunity for their first publication.

CHARLES D. GEILKER
William Jewell College
Liberty, Missouri ■