

# INDEX

## HEWLETT-PACKARD JOURNAL

Volumes 25, 26, 27, 28

September 1973 through August 1977

Hewlett-Packard Company, 1501 Page Mill Road, Palo Alto, California 94304 U.S.A.

Hewlett-Packard Central Mailing Department, Van Heuven Goedhartlaan 121,

Amstelveen-1134 The Netherlands

Yokogawa-Hewlett-Packard Ltd., Shibuya-Ku, Tokyo 151 Japan

## PART 1: Chronological Index

### September 1973

A Low-Frequency Spectrum Analyzer that Makes Slow Sweeps Practical, *William L. Hale and Gerald E. Weibel*

A High-Performance Beam Tube for Cesium Beam Frequency Standards, *Ronald C. Hyatt, Louis F. Mueller and Terry N. Osterdock*

### October 1973

The Logic Analyzer: A New Kind of Instrument for Observing Logic Signals, *Robin Adler, Mark Baker, and Howard D. Marshall*

A Pulse Generator for Today's Digital Circuits, *Reinhard Falke and Horst Link*

### November 1973

A Self-Contained, Hand-Held Digital Multimeter—A New Concept in Instrument Utility, *Robert L. Dudley and Virgil L. Laing*

A Portable High-Resolution Counter for Low-Frequency Measurements, *Kenneth J. MacLeod*

A High-Speed Pattern Generator and an Error Detector for Testing Digital Systems, *Thomas Crawford, James Robertson, John Stinson, and Ivan Young*

### December 1973

A Go-Anywhere Strip-Chart Recorder That Has Laboratory Accuracy, *Howard L. Merrill and Rick A. Warp*

Telecommunication Cable Fault Location from the Test Desk, *Thomas R. Graham and James M. Hood*

High-Efficiency Modular Power Supplies Using Switching Regulators, *B. William Dudley and Robert D. Peck*

### January 1974

The Logic State Analyzer—Displaying Complex Digital Processes in Understandable Form, *William A. Farnbach*

A Laser Interferometer that Measures Straightness of Travel, *Richard R. Baldwin, Barbara E. Grote, and David A. Harland*

### February 1974

Practical Oscilloscopes at Workaday Prices, *Hans-Günter Hohmann*

Laboratory Notebook—Sharp Cut-Off Filters for That Awkward UHF Band

A Data Error Analyzer for Tracking Down Problems in Data Communications, *Jeffrey R. Duerr*

### March 1974

An Automatic, Precision 1-MHz Digital LCR Meter, *Kohichi Maeda*

A Moderately Priced 20-MHz Pulse Generator with 16-Volt Output, *Günter Krauss and Rainer Eggert*

Laboratory Notebook—Logarithmic Amplifier Accepts 100 dB Signal Range

Versatile VHF Signal Generator Stresses Low Cost and Portability, *Robert R. Hay*

### April 1974

Mass Memory System Broadens Calculator Applications, *Havyn E. Bradley and Chris J. Christopher*

An Easily Calibrated, Versatile Platinum Resistance Thermometer, *Tony E. Foster*

Speeding the Complex Calculations Required for Assessing Left Ventricular Function of the Heart, *Peter Dikeman and Chi-ning Liu*

### May 1974

The "Personal Computer": A Fully Programmable Pocket Calculator, *Chung C. Tung*

Programming the Personal Computer, *R. Kent Stockwell*

Designing a Tiny Magnetic Card Reader, *Robert B. Taggart*

Testing the HP-65 Logic Board, *Kenneth W. Peterson*

Economical Precision Step Attenuators for RF and Microwaves, *George R. Kirkpatrick and David R. Veteran*

### June 1974

A New Generation in Frequency and Time Measurements, *James L. Sorden*

The 5345A Processor: An Example of State Machine Design, *Ronald E. Felsenstein*

Time Interval Averaging: Theory, Problems, and Solutions, *David C. Chu*

# Part 1: Chronological Index (continued)

Third Input Channel Increases Counter Versatility, *Arthur S. Muto*  
A Completely Automatic 4-GHz Heterodyne Frequency Converter, *Ali Bologlu*  
Interface Bus Expands Instrument Utility, *Bryce E. Jeppsen and Steven E. Schultz*

## July 1974

Powerful Data Base Management System for Small Computers, *Richard E. McIntire*  
Quality Frequency Counters Designed for Minimum Cost, *Lewis W. Masters and Warren J. O'Buch*  
A Versatile Bipolar Power Supply/Amplifier for Lab and Systems Use, *Santo Pecchio*  
An Automatic Exposure Control for a Lab-Bench X-Ray Camera, *John L. Brewster*

## August 1974

Measuring Analog Parameters of Voiceband Data Channels, *Noel E. Damon*  
Transient Measurements, *Paul G. Winninghoff*  
The 4940A Sine Wave Transmitter, *Richard T. Lee*  
Nonlinear Distortion Measurements, *Donald A. Dresch*  
Envelope Delay Distortion Measurements, *Richard G. Fowles and Johann J. Heinzl*  
Peak-to-Average Ratio Measurements, *Erhard Ketelsen*  
Microwave Integrated Circuits Solve a Transmission Problem in Educational TV, *James A. Hall, Douglas J. Mellor, Richard D. Pering, and Arthur Fong*

## September 1974

A 250-MHz Pulse Generator with Transition Times Variable to Less than 1 ns, *Gert Globas, Joel Zellmer, and Eldon Cornish*  
Optimizing the Design of a High-Performance Oscilloscope, *P. Kent Hardage, S. Raymond Kushnir, and Thomas J. Zamborelli*  
A Thin-Film/Semiconductor Thermocouple for Microwave Power Measurements, *Weldon H. Jackson*  
Microelectronics Enhances Thermocouple Power Measurements, *John Lamy*

## October 1974

A User-Oriented Family of Minicomputers, *John M. Stedman*  
Microprogrammable Central Processor Adapts Easily to Special User Needs, *Philip Gordon and Jacob R. Jacobs*  
Testing the 21MX Processor, *Cleaborn C. Riggins and Richard L. Hammons*  
All Semiconductor Memory Selected for New Minicomputer Series, *Robert J. Frankenberg*  
The Million-Word Minicomputer Main Memory, *John S. Elward*  
A Computer Power System for Severe Operating Conditions, *Richard C. Van Brunt*

## November 1974

Distributed Computer Systems, *Shane Dickey*  
A Quality Course in Digital Electronics, *James A. Marrocco and Barry Bronson*  
Simplified Data-Transmission Channel Measurements, *David H. Guest*

## December 1974

Improved Accuracy and Convenience in Oscilloscope Timing and Voltage Measurements, *Walter A. Fischer and William B. Risley*  
Laboratory Notebook—An Active Loop-Holding Device  
A Supersystem for BASIC Timesharing, *Nealon Mack and Leonard E. Shar*  
Deriving and Reporting Chromatograph Data with a Microprocessor-Controlled Integrator, *Andrew Stefanski*  
Adapting a Calculator Microprocessor to Instrumentation, *Hal Barraclough*

## January 1975

The Hewlett-Packard Interface Bus: Current Perspectives, *Donald C. Loughry*  
Putting Together Instrumentation Systems at Minimum Cost, *David W. Ricci and Peter S. Stone*  
Filling in the Gaps—Modular Accessories for Instrument Systems, *Steven E. Schultz and Charles R. Trimble*  
A Quiet, HP-IB-Compatible Printer that Listens to Both ASCII and

BCD, *Hans-Jürg Nadig*  
A Multifunction Scanner for Calculator-Based Data Acquisition Systems, *David L. Wolpert*  
Minimal Cost Measuring Instruments for Systems Use, *Gary D. Sasaki and Lawrence P. Johnson*  
Visualizing Interface Bus Activity, *Harold E. Dietrich*

## February 1975

High-Sensitivity X-Y Recorder Has Few Input Restrictions, *Donald W. Huff, Daniel E. Johnson, and John M. Wade*  
Digital High-Capacitance Measurements to One Farad, *Kunihisa Osada and Jun-ichi Suehiro*  
Computer Performance Improvement by Measurement and Microprogramming, *David C. Snyder*

## March 1975

A High-Performance 2-to-18-GHz Sweeper, *Paul R. Hernday and Carl J. Enlow*  
Broadband Swept Network Measurements, *John J. Dupre and Cyril J. Yansouni*  
The Dual Function Generator: A Source of a Wide Variety of Test Signals, *Ronald J. Riedel and Dan D. Danielson*

## April 1975

A Portable 1100-MHz Frequency Counter, *Hans J. Jekat*  
Big Timer/Counter Capability in a Portable Package, *Kenneth J. MacLeod*  
A High-Current Power Supply for Systems that Use 5-Volt IC Logic Extensively, *Mauro DiFrancesco*  
Band-Selectable Fourier Analysis, *H. Webber McKinney*

## May 1975

An Understandable Test Set for Making Basic Measurements on Telephone Lines, *Michael B. Aken and David K. Deaver*  
A Computer System for Analog Measurements on Voiceband Data Channels, *Stephen G. Cline, Robert H. Perdriau, and Roger F. Rauskolb*  
A Precision Spectrum Analyzer for the 10-Hz-to-13-MHz Range, *Jerry W. Daniels and Robert L. Atchley*

## June 1975

Cost-Effective, Reliable CRT Terminal Is First of a Family, *James A. Doub*  
A Functionally Modular Logic System for a CRT Terminal, *Arthur B. Lane*  
A High-Resolution Raster Scan Display, *Jean-Claude Roy*  
Firmware for a Microprocessor-Controlled CRT Terminal, *Thomas F. Waitman*  
A Microprocessor-Scanned Keyboard, *Otakar Blazek*  
Packaging for Function, Manufacturability, and Service, *Robert B. Pierce*

## July 1975

Modularity Means Maximum Effectiveness in Medium-Cost Universal Counter, *James F. Horner and Bruce S. Corya*  
Using a Modular Universal Counter, *Alfred Langguth and William D. Jackson*  
Synthesized Signal Generator Operation to 2.6 GHz with Wideband Phase Modulation, *James A. Hall and Young Dae Kim*  
Applications of a Phase-Modulated Signal Generator, *James A. Hall*

## August 1975

The Logic State Analyzer, a Viewing Port for the Data Domain, *Charles T. Small and Justin S. Morrill, Jr.*  
Unravelling Problems in the Design of Microprocessor-Based Systems, *William E. Wagner*  
A Multichannel Word Generator for Testing Digital Components and Systems, *Arndt Pannach and Wolfgang Kappler*

## September 1975

ATLAS: A Unit-Under-Test Oriented Language for Automatic Test Systems, *William R. Finch and Robert B. Grady*  
Automatic 4.5-GHz Counter Provides 1-Hz Resolution, *Ali Bologlu*  
A New Instrument Enclosure with Greater Convenience, Better Accessibility, and High Attenuation of RF Interference, *Allen F. Inhelder*

# Part 1: Chronological Index (continued)

## October 1975

Digital Power Meter Offers Improved Accuracy, Hands-Off Operation, Systems Compatibility, *Allen P. Edwards*  
Very-Low-Level Microwave Power Measurements, *Ronald E. Pratt*  
Active Probes Improve Precision of Time Interval Measurements, *Robert W. Offermann, Steven E. Schultz, and Charles R. Trimble*  
Flow Control in High-Pressure Liquid Chromatography, *Helge Schrenker*

## November 1975

Three New Pocket Calculators: Smaller, Less Costly, More Powerful, *Randall B. Neff and Lynn Tillman*  
Inside the New Pocket Calculators, *Michael J. Cook, George Fichter, and Richard Whicker*  
Packaging the New Pocket Calculators, *Thomas A. Hender*  
A New Microwave Link Analyzer for Communications Systems Carrying Up to 2700 Telephone Channels, *Svend Christensen and Ian Matthews*

## December 1975

A 100-MHz Analog Oscilloscope for Digital Measurements, *Allan I. Best*  
An Oscilloscope Vertical-Channel Amplifier that Combines Monolithic, Thick-Film Hybrid, and Discrete Technologies, *Joe K. Millard*  
A Real-Time Operating System with Multi-Terminal and Batch/Spool Capabilities, *George A. Anzinger and Adele M. Gadol*  
Real-Time Executive System Manages Large Memories, *Linda W. Averett*

## January 1976

An Automatic Selective Level Measuring Set for Multichannel Communications Systems, *J. Reid Urquhart*  
Designing Precision into a Selective Level Measuring Set, *Hugh P. Walker*  
Designing a Quiet Frequency Synthesizer for a Selective Level Measuring Set, *John H. Coster*  
Making the Most of Microprocessor Control, *David G. Dack*  
Real-Time Multi-User BASIC, *James T. Schultz*

## February 1976

Laser Transducer Systems for High-Accuracy Machine Positioning, *André F. Rudé and Michael J. Ward*  
Electronics for the Laser Transducer, *William E. Olson and Robert B. Smith*  
Using a Programmable Calculator as a Data Communications Terminal, *James E. Carlson and Ronald L. Stickle*

## March 1976

A Cesium Beam Frequency Reference for Severe Environments, *Charles E. Heger, Ronald C. Hyatt, and Gary A. Seavey*  
Calibrated FM, Crystal Stability, and Counter Resolution for a Low-Cost Signal Generator, *Robert R. Collison and Ronald E. Kmetovicz*  
A 50-Mbit/s Pattern Generator and Error Detector for Evaluating Digital Communications System Performance, *Ivan R. Young, Robert Pearson, and Peter M. Scott*

## April 1976

Electronic Total Station Speeds Survey Operations, *Michael L. Bullock and Richard E. Warren*  
Designing Efficiency into a Digital Processor for an Analytical Instrument, *John S. Poole and Len Bilen*

## May 1976

New CRT Terminal Has Magnetic Tape Storage for Expanded Capability, *Robert G. Nordman, Richard L. Smith, and Louis A. Witkin*  
Mini Data Cartridge: A Convincing Alternative for Low-Cost, Removable Storage, *Alan J. Richards*  
Laboratory Notebook—A Logarithmic Counter

## June 1976

Third-Generation Programmable Calculator Has Computer-Like Capabilities, *Donald E. Morris, Chris J. Christopher, Geoffrey W. Chance, and Dick B. Barney*  
High-Performance NMOS LSI Processor, *William D. Eads and*

*David S. Maitland*

Character Impact Printer Offers Maximum Printing Flexibility, *Robert B. Bump and Gary R. Paulson*  
Mid-Range Calculator Delivers More Power at Lower Cost, *Douglas M. Clifford, F. Timothy Hickenlooper, and A. Craig Mortensen*

## July 1976

A Direct-Reading Network Analyzer for the 500-kHz-to-1.3-GHz Frequency Range, *Hugo Vifian*  
Processing Wide-Range Network Analyzer Signals for Analog and Digital Display, *William S. Lawson and David D. Sharrit*  
A Precision RF Source and Down-Converter for the Model 8505A Network Analyzer, *Rolf Dalichow and Daniel R. Harkins*

## August 1976

Series II General-Purpose Computer Systems: Designed for Improved Throughput and Reliability, *Leonard E. Shar*  
An All-Semiconductor Memory with Fault Detection, Correction, and Logging, *Elio A. Toschi and Tak Watanabe*  
HP 3000 Series II Performance Measurement, *Clifford A. Jager*

## September 1976

An Easier-to-Use Variable-Persistence/Storage Oscilloscope with Brighter, Sharper Traces, *Van Harrison*  
An Automatic Wide-Range Digital LCR Meter, *Satoru Hashimoto and Toshio Tamamura*

## October 1976

Continuous, Non-Invasive Measurements of Arterial Blood Oxygen Levels, *Edwin B. Merrick and Thomas J. Hayes*  
Laboratory Notebook—A Signal-Level Reference  
An Accurate Low-Noise Discriminator  
Card-Programmable Digital IC Tester Simplifies Incoming Inspection, *Eric M. Ingman*

## November 1976

A Pair of Program-Compatible Personal Programmable Calculators, *Peter D. Dickinson and William E. Egbert*  
Portable Scientific Calculator Has Built-In Printer, *Bernard E. Musch and Robert B. Taggart*  
The New Accuracy: Making  $2^3 = 8$ , *Dennis W. Harms*  
High-Power Solid-State 5.9-12.4-GHz Sweepers, *Louis J. Kuhlman, Jr.*  
The GaAs FET in Microwave Instrumentation, *Patrick H. Wang*

## December 1976

Current Tracer: A New Way to Find Low-Impedance Logic-Circuit Faults, *John F. Beckwith*  
New Logic Probe Troubleshoots Many Logic Families, *Robert C. Quenelle*  
A Multifunction, Multifamily Logic Pulser, *Barry Bronson and Anthony Y. Chan*  
Probe Family Packaging, *David E. Gordon*  
Multifamily Logic Clip Shows All Pin States Simultaneously, *Durward Priebe*  
Interfacing a Parallel-Mode Logic State Analyzer to Serial Data, *Justin S. Morrill, Jr.*

## January 1977

A Logic State Analyzer for Microprocessor Systems, *Jeffrey H. Smith*  
Firmware for a Microprocessor Analyzer, *Thomas A. Saponas*  
A Versatile, Semiautomatic Fetal Monitor for Non-Technical Users, *Erich Courtin, Walter Ruchsay, Peter Salfeld, and Heinz Sommer*

## February 1977

A Fast-Reading, High-Resolution Voltmeter that Calibrates Itself Automatically, *Albert Gookin*  
A High-Speed System Voltmeter for Time-Related Measurements, *John E. McDermid, James B. Vyduna, and Joseph M. Gorin*  
Contemporary Design Practice in General-Purpose Digital Multimeters, *Roy D. Barker, Virgil L. Laing, Joe E. Marriott, and H. Mac Juneau*

## March 1977

A New Series of Small Computer Systems, *Lee Johnson*

# Part 1: Chronological Index (continued)

HP 1000 Operating System is Enhanced Real-Time Executive, *David L. Snow and Kathleen F. Hahn*  
 Development and Application of Microprograms in a Real-Time Environment, *Harris Dean Drake*

E-Series Doubles 21MX Performance, *Cleaborn C. Riggins*  
 How the E-Series Performance Was Achieved, *Scott J. Stallard*  
 Microprogrammed Features of the 21MX E-Series, *Thomas A. Lane*

OPNODE: Interactive Linear Circuit Design and Optimization, *William A. Rytdand*  
 Viewpoints—John Moll on HP's Integrated Circuit Technology

## April 1977

Silicon-on-Sapphire Technology Produces High-Speed Single-Chip Processor, *Bert E. Forbes*  
 CMOS/SOS, *David Farrington*

Miniature Oscilloscope Probes for Measurements in Crowded Circuits, *Carolyn M. Finch, Marvin F. Estes, and Lawrence A. Gammill*

A Small, Solid-State Alphanumeric Display, *John T. Uebbing, Peter B. Ashkin, and Jack L. Hines*

## May 1977

Signature Analysis: A New Digital Field Service Method, *Robert A. Frohwerk*

Easy-to-Use Signature Analyzer Accurately Troubleshoots Complex Logic Circuits, *Anthony Y. Chan*

Signature Analysis—Concepts, Examples, and Guidelines, *Hans J. Nadig*

Personal Calculator Algorithms I: Square Roots, *William E. Egbert*

## June 1977

A Wide-Ranging Power Supply of Compact Dimensions, *Paul W.*

*Bailey, John W. Hyde, and William T. Walker*  
 Remote Programming of Power Supplies Through the HP Interface Bus, *Emery Salesky and Kent Luehman*

Coaxial Components and Accessories for Broadband Operation to 26.5 GHz, *George R. Kirkpatrick, Ronald E. Pratt, and Donald R. Chambers*

Personal Calculator Algorithms II: Trigonometric Functions, *William E. Egbert*

## July 1977

Small Computer System Supports Large-Scale Multi-User APL, *Kenneth A. Van Bree*

APL Data: Virtual Workspaces and Shared Storage, *Grant J. Munsey*

APLGOL: Structured Programming Facilities for APL, *Ronald L. Johnston*

APL/3000 Summary

A Dynamic Incremental Compiler for an Interpretive Language, *Eric J. Van Dyke*

A Controller for the Dynamic Compiler, *Kenneth A. Van Bree*  
 Extended Control Functions for Interactive Debugging, *Kenneth A. Van Bree*

CRT Terminal Provides both APL and ASCII Operation, *Warren W. Leong*

## August 1977

New 50-Megabyte Disc Drive: High Performance and Reliability from High-Technology Design, *Herbert P. Stickel*

An Individualized Pulse/Word Generator System for Sub-nanosecond Testing, *Christian Hentschel, Günter Riebesell, Joel Zellmer, and Volker Eberle*

# PART 2: Subject Index

Month/Year	Subject A	Model	Month/Year	Subject	Model
Apr. 1974	Accounting system, desk-top computer	9880A	Apr. 1974	Angio analyzer	5693A
Sept. 1973	Adaptive sweep in a spectrum analyzer	3580A	July 1977	APL (a programming language)	3000
May 1977	Algorithm, personal calculator, square root	—	July 1977	APLGOL	3000
June 1977	Algorithms, personal calculator, trigonometric	—	July 1975	Applications for phase-modulated generator	86634A, 86635A
June 1974	Algorithmic state machine design	5345A	July 1975	Armed measurements, counter/timer/DVM	5328A*
Apr. 1977	Alphanumeric displays, solid-state	HDSP-2000	Sept. 1975	ATLAS (abbreviated test language for avionics systems)	9510D, option 100, 9500D, option 180
Nov. 1975	AM-to-PM conversion, detection of	3790A	Sept. 1973	Atomic frequency standard (cesium), high-performance	5061A, option 004
July 1974	Amplifier/power supply	6825A/6A/7A	Mar. 1976	Atomic frequency reference (cesium)	5062C
Aug. 1974	Amplitude distortion, telephone measurements	4940A	May 1975	Attenuator, classical problem	3571A/3044A/3045A*
May 1975	Amplitude distortion, telephone measurements	5453A	May 1974	Attenuators, coaxial, step, dc-18 GHz	8495A/B, 8496A/B
Nov. 1974	Amplitude/delay distortion	3770A	June 1977	Attenuators, coaxial, step, dc-26.5 GHz	8495D/K
Feb. 1974	Analyzer, data transmission errors	1645A	Feb. 1977	Autocalibration in a digital voltmeter	3455A*
Aug. 1975	Analyzer, digital pattern recognition	1620A	July 1974	Automatic exposure control for X-rays	43805
May 1977	Analyzer, digital signature	5004A	June 1974	Automatic 4-GHz frequency converter plug-in	5354A
Oct. 1973	Analyzer, logic (serial)	5000A	Sept. 1975	Automatic test system programming language (ATLAS)	9510D, option 100, 9500D, option 180
Jan. 1974	Analyzer, logic state (parallel)	1601L	June 1974	Averaging, time interval, theory	5345A*
Aug. 1975	Analyzer, logic state	1600S			
Jan. 1977	Analyzer, logic state	1611A		<b>B</b>	
Nov. 1975	Analyzer, microwave link	3790A	Apr. 1975	Band-selectable Fourier analysis	5451B
July 1976	Analyzer, network, 0.5-1300 MHz	8505A*	Jan. 1976	BASIC, real-time multi-user	92101A
Sept. 1973	Analyzer, spectrum, 5 Hz to 50 kHz, portable	3580A	Dec. 1974	BASIC/3000 timeshared computer	
May 1975	Analyzer, spectrum, 10 Hz to 13 MHz	3571A/3044A/3045A*			
May 1975	Analyzer, transmission parameter	5453A			
Aug. 1975	Analyzing microprocessor-based systems	1600S			
Apr. 1976	Angle measurements, surveying	3810A			

\*Asterisk indicates instruments compatible with the HP interface bus (HP-IB).

## PART 2: Subject Index (continued)

		system	MPET/3000	Mar. 1976	Communications, digital, error detection	3780A
Dec. 1973		Battery-powered strip-chart recorder	7155A			
Dec. 1975		Batch/spool capability for RTE systems	9600/9700	May 1975	Communications, telephone test set	3551A, 3552A
July 1977		Beating (in APL/3000)	3000			
July 1974		Bipolar power supply/amplifier	6825A-27A	Nov. 1973	Communications test data generator/error detector	3760A/3761A
Nov. 1973		Bit-error rate detector (150 MHz)	3761A			
Mar. 1976		Bit-error rate detector (50 MHz)	3780A	Nov. 1975	Communications test, microwave link analyzer	3790A
Feb. 1974		Bit-error rate detector, terminal-to-terminal	1645A	Jan. 1976	Communications test, selective level measurements	3745A*
Oct. 1976		Blood oxygen levels, measurement of	47201A			
Nov. 1974		Breadboard, digital (logic lab)	5035T	Aug. 1974	Communications test, transmission impairment measuring set	4940A
Aug. 1975		Breakpoint register (pattern analyzer)	1620A	May 1975	Communications test, transmission parameter analyzer	5453A
Feb. 1975		Breakpoint register, use of	—	July 1977	Compiler, dynamic, APL	3000
		Bus, HP interface. See HP-IB.		Mar. 1977	Computer, increased performance	21MX
Nov. 1975		Business calculator, pocket	HP-22			E-Series*
Apr. 1974		Business software for desktop computer system	9880A	Feb. 1975	Computer performance improvement	—
				Aug. 1976	Computer performance measurements	3000 Series II
				Apr. 1975	Computer power supply, switching regulated	62605M
Sept. 1975		Cabinets, system II	—		Computers. Also see Desktop Computers	
July 1974		Cabinet X-ray system	43805			
Dec. 1973		Cable fault locator, test desk	4913A	Oct. 1974	Computers	21MX*
May 1977		Calculator algorithms, square root	—	Mar. 1977	Computers	21MX-E*
June 1977		Calculator algorithms, trigonometric	—	Dec. 1974	Computer system, BASIC/3000 timeshared	MPET/3000
Nov. 1975		Calculator, business, pocket	HP-22	May 1975	Computer system for voiceband data channel measurements	5453A
June 1974		Calculator/counter systems, HP interface bus	5345A*	Mar. 1977	Computer systems	1000*
Apr. 1974		Calculator mass memory system	9880A	Aug. 1976	Computer systems	3000 Series II
May 1974		Calculator, pocket, programmable	HP-65	Nov. 1974	Computer systems, distributed	9700 Series
Nov. 1975		Calculator, pocket, programmable	HP-25	July 1977	Computer terminal, APL	2641A
Nov. 1976		Calculator, pocket, programmable	HP-67	June 1975	Computer terminal, CRT	2640A
Nov. 1976		Calculators, portable, printing	HP-91, HP-97	May 1976	Computer terminal, CRT with tape storage	2644A
Nov. 1976		Calculators, portable, programmable	HP-97		Connectors, coaxial APC-3.5	—
		Calculator, programmable, desktop. See desktop computers.		June 1977	Counter systems, HP interface bus	5345A*
Nov. 1975		Calculator, pocket, scientific	HP-21	June 1974	Counter, general-purpose	5345A*
Mar. 1974		Capacitance measurements	4271A*	Nov. 1973	Counter, high-resolution, module for 5300 system	5307A
Sept. 1976		Capacitance measurements	4261A*	May 1976	Counter, logarithmic (lab notebook)	—
Feb. 1975		Capacitance meter	4282A	July 1974	Counter, low-cost	5381A-82A
Jan. 1977		Cardiotocograph	8030A	Apr. 1975	Counter, 1100-MHz	5305A
May 1976		Cartridge, data, mini	—	Sept. 1975	Counter, microwave frequency	5341A*
Mar. 1976		Cesium beam frequency reference for severe environments	5062C	June 1974	Counter plug-in, automatic frequency converter	5354A
Sept. 1973		Cesium beam frequency standard, high performance beam tube for	5061A, option 004	June 1974	Counter plug-in, third input channel	5353A
June 1974		Channel C plug-in for 5345A counter	5353A	Mar. 1975	Counter/synchronizer for signal generator	8655A
Apr. 1976		Chromatography, gas, microprocessor control	5840A	July 1975	Counter/timer/DVM, universal	5328A*
Oct. 1975		Chromatography, liquid, flow control	1010B	Apr. 1975	Counter/timer, 75-MHz universal	5308A
Dec. 1974		Chromatography, reporting integrator for	3380A	June 1975	CRT terminal	2640A
Apr. 1974		Cineangiogram analysis	5693A	July 1977	CRT terminal, APL	2641A
Mar. 1977		Circuit design, computer-aided (OPNODE)	92817A	May 1976	CRT terminal with dual tape drives	2644A
Apr. 1977		Clip for oscilloscope probing of IC's	10024A	Dec. 1976	Current tracer	547A
Dec. 1976		Clip, logic	548A	May 1977	Cyclic redundancy check codes (CRC), used in signature analysis	5004A
Jan. 1975		Clock for systems using HP interface bus	59309A*			
June 1977		Coaxial components				
		attenuators, dc-26.5 GHz	8495D/K	Jan. 1975	Data acquisition systems, programmable	3050B*
		detectors, 0.01-26.5 GHz	8473C/33330C	Feb. 1977	Data acquisition systems, programmable	3052A*
		sliding load, 2-26.5 GHz	911C	July 1974	Data base management software (IMAGE)	24376B, 32215A, 16A
		switches, dc-26.5 GHz	33311C			
May 1974		Coaxial step attenuators, dc-18 GHz	8495A/B, 8496A/B			
Jan. 1975		Code converter, ASCII to parallel	59301A*			
Feb. 1975		Common driver circuit for guarded input	7047A	May 1976	Data cartridge, mini	—
Feb. 1976		Communications, data, desktop computer	9830A	May 1975	Data channel measurements, analog, voiceband	5453A
Feb. 1974		Communications, digital, error detection	1645A	Aug. 1974	Data channel measurements, analog, voiceband	4940A
				Nov. 1974	Data channel measurements, analog,	

## PART 2: Subject Index (continued)

		voiceband	3770A	May 1974	Edgeline transmission in attenuators	8495A/B 8496A/B
Feb. 1974		Data channel measurements, error analyzer	1645A	Aug. 1974	Educational TV receiver	—
Feb. 1976		Data communications, desk-top computer	9830A	June 1974	Electronic counter, general-purpose	5345A*
Dec. 1975		Data domain, analog oscilloscope	1740A	Sept. 1975	Enclosures, electronic instrument	—
Nov. 1973		Data generator, 150 MHz PRBS	3760A	Aug. 1974	Envelope delay distortion measurements	4940A
Feb. 1977		Data logging systems, programmable	3051A*	Nov. 1974	Envelope delay distortion measurements	3770A
Aug. 1974		Delay distortion, Bell System	4940A	May 1975	Envelope delay distortion measurements	5453A
Nov. 1974		Delay distortion, CCITT recommendation	3770A	Feb. 1974	Error analyzer, data transmissions	1645A
Aug. 1977		Delay generator, 100-ps steps	8092A	Aug. 1976	Error-correcting memory	3000 Series II
June 1976		Desktop computers	9815A/9825A*	May 1977	Error detection by transition counting and signature analysis	5004A
Feb. 1976		Desktop computer, data communications	9830A	Nov. 1973	Error detector, communications test (150 MHz)	3761A
June 1977		Detector, 0.01-26.5 GHz	8473C/33330C	Mar. 1976	Error detector, communications test (50 MHz)	3780A
Oct. 1976		Digital IC tester	5045A	July 1974	Exposure control for X-ray system	43805
Dec. 1976		Digital IC trouble-shooting instruments and kits (logic probe, logic pulser, logic clip, current tracer)	545A,546A 547A,548A	Feb. 1977	Extending a digital multimeter's range	3435A, 3465A/B 3476A/B
Sept. 1976		Digital LCR meter	4261A*	<b>F</b>		
Mar. 1974		Digital LCR meter	4271A*	Aug. 1976	Fault control memory	3000 Series II
Oct. 1973		Digital logic analyzer	5000A	Dec. 1973	Fault locator, test desk	4913A
Nov. 1974		Digital logic course	5035T	Dec. 1976	Fault (low-impedance) localization in digital logic circuits	547A
Nov. 1973		Digital multimeter, hand-held	970A	Nov. 1976	FET, GaAs for microwaves	HFET-1000
Feb. 1977		Digital multimeters, low cost	3435A,3465A/B 3476A/B	Jan. 1977	Fetal monitoring	8030A
Aug. 1975		Digital pattern analyzer for triggering	1620A	Feb. 1974	Filters, VHF coaxial (lab notebook)	—
Nov. 1973		Digital pattern generator, communications test	3760A	Oct. 1975	Flow control in liquid chromatography	1010B
Mar. 1976		Digital pattern generator, communications test	3780A	Mar. 1976	FM, calibrated, signal generator	8654B
Feb. 1974		Digital pattern generator, communications test	1645A	Apr. 1975	Fourier analysis, band selectable	5451B
Apr. 1976		Digital processor in a gas chromatograph	5840A	Feb. 1975	Fourier analyzer	5451B
Sept. 1973		Digital storage in a spectrum analyzer	3580A	June 1974	Frequency converter plug-in	5354A
Jan. 1975		Digital-to-analog converter for HP-IB	59303A*	Sept. 1975	Frequency counter, 4.5 GHz	5341A*
June 1977		Digital-to-analog converter for HP-IB	59501A*	June 1974	Frequency counter	5345A*
May 1977		Digital troubleshooting by signature analysis	5004A	Nov. 1973	Frequency counter, high-resolution module for 5300 system	5307A
Feb. 1977		Digital voltmeter, 5/2 digit, auto-calibrating	3455A*	July 1974	Frequency counters, low cost	5381A,82A
Feb. 1977		Digital voltmeter, fast reading, systems	3437A*	Apr. 1975	Frequency counter, 1100-MHz	5305A
July 1975		Digital voltmeters, options, for universal counter	5328A*	June 1974	Frequency measurements, reciprocal	5345A*
Aug. 1975		Digital word generator, 8-bit parallel	8016A*	June 1974	Frequency profile measurements, pulsed RF	5345A*
Aug. 1977		Digital word generator, serial, 300 MHz	8084A/ 8080A 7920A	Mar. 1976	Frequency reference, cesium beam	5062C
Aug. 1977		Disc drive, 50 megabytes	9880A	Aug. 1974	Frequency shift measurements	4940A
Apr. 1974		Disc drive for desktop computer	9880A	Sept. 1973	Frequency standard, high-performance cesium beam	5061A, option 004
Oct. 1976		Discriminator (lab notebook)	—	Mar. 1975	Function generator, dual source	3312A
June 1975		Display, CRT terminal	2640A	May 1975	Function generator, low distortion	3551A/3552A
May 1976		Display, CRT terminal, magnetic tape	2644A	<b>G</b>		
Jan. 1975		Display, numeric for HP interface bus	59303A*	Nov. 1976	GaAs FET amplifier, chips	HFET 1000
Apr. 1977		Displays, small solid-state alphanumeric	HDSP-2000	Aug. 1974	Gain hits measurements	4940A
July 1977		Display station, APL	2641A	Apr. 1976	Gas chromatograph, digitally-controlled	5840A
Mar. 1974		Dissipation factor measurements	4271A*	Dec. 1974	Gas chromatograph reporting integrator	3380A
Sept. 1976		Dissipation factor measurements	4261A*	Nov. 1973	Generator, digital, 150 MHz	3760A
Feb. 1975		Dissipation factor measurements	4282A	July 1975	Generator, signal, phase modulated	86634A, 86635A
Apr. 1976		Distance measurements, surveying	3810A	July 1975	Generator, signal, synthesized 2.6 GHz	86603A
May 1975		Distortion measurements, amplitude	5453A	Generators, pulse; see pulse generators		
Aug. 1974		Distortion measurements, amplitude, phase, envelope delay, nonlinear	4940A	Generators, word; see word generators		
Nov. 1974		Distributed computer systems	9700 Series	Oct. 1975	Gradient programming, liquid chromatography	1010B
July 1977		Dragalong (in APL/3000)	3000	July 1976	Group delay detector	8505A*
Aug. 1974		Dropouts	4940A	Aug. 1974	Group delay measurements	4940A
<b>E</b>				Nov. 1974	Group delay measurements	3770A
Oct. 1976		Ear oximeter	47201A			

# PART 2: Subject Index (continued)

May 1975	Group delay measurements	5453A	Dec. 1976	Logic-state analyzers, serial-to-parallel conversion	10254A
	<b>H</b>		Dec. 1975	Logic test, analog oscilloscope	1740A
Jan. 1977	Heart-rate monitoring, fetal	8030A	Aug. 1975	Logic trigger	1230A
Feb. 1975	High capacitance meter	4282A	May 1977	Logic troubleshooting by signature analysis	5004A
Sept. 1973	High-performance cesium beam tube	5061A, option 004	Aug. 1974	Loss measurements	4940A
Nov. 1973	High-resolution counter module for 5300 system	5307A	May 1975	Loss measurements	5453A
Feb. 1975	High-sensitivity X-Y recorder	7047A	Nov. 1974	Loss measurements	3770A
June 1976	HPL, desktop computer language	9825A*	May 1975	Loss measurements	3551A/3552A
Jan. 1975	HP-IB analyzer	59401A*	July 1974	Low-cost counters	5381A-82A
Jan. 1975	HP-IB, current status	—	Feb. 1977	Low-cost digital multimeters	3435A, 3465A/B,3476A/B
June 1974	HP-IB, counter systems	5345A*	Nov. 1973	Low-frequency measurements with high-resolution counter	5307A
Jan. 1975	HP-IB systems	—	Sept. 1973	Low-frequency spectrum analyzer	3580A
	HP interface bus, see HP-IB			<b>M</b>	
Apr. 1976	Horizontal distance and angle measurements	3810A	Feb. 1976	Machine positioning laser transducer	5501A*
	<b>I</b>		Jan. 1974	Machine tool calibration	5526A
Oct. 1976	IC tester, digital	5045A	May 1976	Magnetic tape cartridge, mini	—
Oct. 1976	IC testing, economic considerations	5045A	June 1976	Magnetic tape minicartridge, in desk-top computer	9815A/ 9825A*
Dec. 1976	IC troubleshooting instruments and kits	545A,546A, 547A,548A	May 1976	Magnetic tape storage, in CRT terminal	2644A
July 1974	IMAGE	24376B, 32215A-16A	Apr. 1974	Mass memory for desk-top computer	9880A
June 1976	Impact printer	9871A	Feb. 1977	Math functions in a digital voltmeter	3455A*
Aug. 1974	Impulse noise measurements	4940A	Oct. 1974	Memory, semiconductor	21MX*
May 1975	Impulse noise measurements	5453A	Sept. 1976	Meter, LCR digital	4261A*
Oct. 1976	Incoming inspection, digital ICs	5045A	Aug. 1977	MFM code, for magnetic recording	7920A
Mar. 1974	Inductance measurement	4271A*	Aug. 1974	Microcircuit TV receiver	—
Sept. 1976	Inductance measurement	4261A*	Apr. 1977	Micro-CPU chip (MC <sup>2</sup> ), CMOS/SOS	—
July 1974	Information management software	24376B, 32215A-16A	Aug. 1975	Microprocessors, logic-state analysis of	1600A
Mar. 1977	Integrated-circuit technology, viewpoint	—	Jan. 1977	Microprocessors, logic-state analyzer for	1611A
Dec. 1974	Integrator, chromatograph, reporting	3380A	Oct. 1974	Microprogrammable central processor	21MX
Jan. 1975	Interface, ASCII, for 5300-series instruments	5312A*	Mar. 1977	Microprogramming aids	1000*
	Interface bus, see HP-IB.		Feb. 1975	Microprogramming, performance improvement by	—
Jan. 1974	Interferometer, straightness	5526A, option 30	May 1974	Microwave attenuators, dc-18 GHz	8495A/B-96A/B
Apr. 1974	Inventory control system, desk-top computer	9880A	June 1977	Microwave attenuators, dc-26.5 GHz	8495D/K
	<b>J</b>		Sept. 1975	Microwave counter, 4.5 GHz	5341A*
	<b>K</b>		Nov. 1975	Microwave link analyzer, 140-MHz IF	3790A
	<b>L</b>		Nov. 1976	Microwave sweep oscillators, 5.9-12.4 GHz	86242C, 86250C
July 1977	Language, computer, APL	3000 Series II	July 1975	Modulator, phase, for signal generator	86634A, 86635A
Sept. 1975	Language, computer, ATLAS	9500D,9510D	Dec. 1974	MPET/3000, multiprogramming executive for timesharing	32010A
June 1976	Language, desktop computer, HPL	9825A*	Aug. 1976	Multilingual computer systems	3000 Series II
Jan. 1974	Laser interferometer, straightness	5526A, option 30	Nov. 1973	Multimeter, digital, hand-held	970A
Feb. 1976	Laser transducer system	5501A*	Feb. 1977	Multimeters, digital, low cost	3435A, 3465A/B,3476A/B
Sept. 1976	LCR meter, automatic, digital	4261A*	Feb. 1977	Multimeters, extending the ranges of	—
Mar. 1974	LCR meter, 1 MHz automatic, digital	4271A*	Jan. 1976	Multiplexed communications test, frequency division	3745A*
Apr. 1977	LED displays, alphanumeric	HDSP-2000	Aug. 1976	Multiprogramming computer systems	3000 Series II
July 1976	Line stretcher, electronic	8505A*	Jan. 1976	Multi-user real-time BASIC	—
Oct. 1975	Liquid chromatography, flow control	1010B		<b>N</b>	
June 1977	Load, sliding, 2-26.5 GHz	911C	July 1976	Network analyzer, 0.5-1300 MHz	8505A*
May 1976	Logarithmic counter (lab notebook)	—	Nov. 1974	Networks, computer	9700 Series
Oct. 1973	Logic analyzer	5000A	Mar. 1975	Network measurements, 2-18 GHz	—
Dec. 1976	Logic clip, multifamily	548A	June 1976	NMOS LSI processor	9825A*
Nov. 1974	Logic lab	5035T	Mar. 1974	Noise, types, in signal generators	8654A
Dec. 1976	Logic probe, multifamily	545A	Aug. 1974	Noise measurements, telephone	4940A
Dec. 1976	Logic pulser, multifamily	548A	May 1975	Noise measurements, telephone	5453A
Aug. 1975	Logic state analyzer	1600S	Aug. 1974	Nonlinear distortion measurements	4940A
Jan. 1974	Logic state analyzer	1601L	May 1975	Nonlinear distortion measurements	5453A
Jan. 1977	Logic state analyzer for microprocessors	1611A	Nov. 1975	Nonlinear distortion measurements on microwave links	3790A
				<b>O</b>	
			Dec. 1975	Operating systems, real-time	92001A,

## PART 2: Subject Index (continued)

	(RTE-II, RTE-III)	92060A			
Mar. 1977	OPNODE	92817A	Mar. 1976	Pseudorandom binary sequences (50 MHz) for testing digital communications	3780A
Mar. 1977	Optimization, circuit, computer aided	92817A			
Nov. 1976	Oscillators, sweep, 5.9-12.4 GHz	86242C, 86250C	Nov. 1973	Pseudorandom binary sequences (150 MHz) for testing digital communications	3790A
Mar. 1975	Oscillator, sweep, 2-18 GHz	86290A	June 1974	Pulsed RF frequency measurements	5345A*
Dec. 1975	Oscilloscope, 100 MHz	1740A	Mar. 1974	Pulse generator, 20 MHz, counted burst	8011A
Sept. 1974	Oscilloscope, 275 MHz	1720A	Oct. 1973	Pulse generator, 50 MHz, 16V, counted burst	8015A
Dec. 1974	Oscilloscope, dual-delayed sweep, microprocessor-controlled, numeric display	1722A	Aug. 1977	Pulse generator, 1 GHz	8080-Series
Apr. 1977	Oscilloscope probes, miniature	10017A et al.	Aug. 1977	Pulse generator, dual-output with 1/2 frequency	8092A/8080A
Feb. 1974	Oscilloscopes, low-cost, dc-15 MHz	1220A/1221A	Sept. 1974	Pulse generator, variable risetime to 1 ns	8082A
Aug. 1975	Oscilloscope triggering on digital events	10250/1230A/1620A			
Oct. 1973	Oscilloscope, used with logic analyzer	5000A		<b>Q</b>	
Dec. 1975	Oscilloscope, used with logic-state analyzer	1740A	July 1974	QUERY	24376B, 82215A-6A
Sept. 1976	Oscilloscope, variable persistence/storage	1741A			
Oct. 1976	Oximeter	47201A			
Oct. 1976	Oxygen levels in blood, measurement of	47201A			
	<b>P</b>				
Nov. 1973	PCM systems, error detection	3760A/3761A	Jan. 1974	Ray-trace program	—
Mar. 1976	PCM systems, error detection	3780A	Jan. 1976	Real-time BASIC	92101A
Aug. 1974	Peak-to-average ratio measurements on voiceband data channels	4940A	Mar. 1977	Real-time executive operating system	1000*
Aug. 1974	Phase distortion measurements	4940A	Nov. 1974	Real-time executive systems, in distributed networks	9700 Series
May 1975	Phase distortion measurements	5453A	Dec. 1975	Real-time executive systems, RTE-II, RTE-III	92001A, 92060A
Aug. 1974	Phase hits measurements	4940A	Dec. 1973	Recorder, strip-chart, portable	7155A
Aug. 1974	Phase jitter measurements	4940A	Feb. 1975	Recorder, X-Y, high-sensitivity	7047A
May 1975	Phase jitter measurements	5453A	Jan. 1975	Relay actuator for HP interface bus	59306A*
July 1975	Phase-modulated signal generator plug-in; also, applications for	86634A, 86635A	Mar. 1974	Resistance measurements	4271A*
June 1974	Plug-in, automatic frequency converter	5354A	Mar. 1975	RF plug-in, 2-18 GHz	86290A
June 1974	Plug-in, channel C	5353A	Dec. 1975	RTE-II real-time executive system	92001A
Nov. 1975	Pocket calculator, business	HP-22	Dec. 1975	RTE-III real-time executive system for large memories	92060A
May 1974	Pocket calculator, card programmable	HP-65			
Nov. 1976	Pocket calculator, card programmable	HP-67		<b>S</b>	
Nov. 1975	Pocket calculator, key programmable	HP-25	Nov. 1974	Satellite computer systems	9601, 9610
Nov. 1975	Pocket calculator, scientific	HP-21	Aug. 1974	Satellite-relayed TV	—
Nov. 1976	Portable calculators	HP-91, HP-97	Jan. 1975	Scanner for calculator-based systems	3495A*
Dec. 1973	Portable strip-chart recorder	7155A	Jan. 1975	Scanner option for printer	5150A*
Sept. 1974	Power meter	435A	Jan. 1976	Selective level measuring set	3745A*
Oct. 1975	Power meter, digital	436A*	Dec. 1976	Serial-to-parallel conversion for logic-state display	10254A
Oct. 1975	Power sensor, high-sensitivity	8484A	May 1977	Servicing digital equipment by signature-analysis circuits	5004A
July 1976	Power splitter, 3-way	11850A/B	Mar. 1974	Signal generator, 10-520 MHz	8654A
June 1977	Power supplies, 200W, wide range	6002A*	Mar. 1976	Signal generator, calibrated FM	8654B
July 1974	Power supply/amplifier, bipolar	6825A-27A	Mar. 1974	Signal generator noise specifications	8654A
June 1977	Power supply programmer (HP-IB)	59501A*	July 1975	Signal generator, phase modulated	86635A
Dec. 1973	Power supplies, switching regulator, modular, 4-28V, 300 W	62600J	Mar. 1976	Signal generator synchronizer/counter	8655A/8654B
Apr. 1975	Power supply, switching regulated, 5V, 500 W	62605M	July 1975	Signal generator, synthesized 2.6 GHz	86603A
June 1976	Printer, impact	9871A	Oct. 1976	Signal-level reference (lab notebook)	—
Dec. 1974	Printer-plotter for chromatographs	3380A	May 1977	Signature analysis	5004A
Jan. 1975	Printer, thermal, for instruments	5150A*	Apr. 1977	Silicon-on-sapphire (SOS), CPU chip	—
Jan. 1975	Printer with clock option	5150A*	Aug. 1974	Single-frequency interference measurements	4940A
Nov. 1976	Printing calculators	HP-91, HP-97	May 1975	Single-frequency interference measurements	5453A
Apr. 1977	Probes, oscilloscope, miniature	10017A et al.	June 1977	Sliding load, 2-26.5 GHz	911C
Oct. 1975	Probes, time interval	5363A*	Apr. 1976	Slope distance measurements	3810A
June 1976	Processor, NMOS LSI	9825A	July 1976	Source, RF, tracking	8505A*
Apr. 1977	Processor, CPU, CMOS/SOS	—	Mar. 1977	Sparse Y matrix, in circuit analysis	92817A
May 1974	Programmable calculator, pocket-sized	HP-65	Oct. 1976	Spectrophotometry applied to blood oxygen measurement	47201A
Nov. 1976	Programmable calculator, pocket-sized	HP-67	Sept. 1973	Spectrum analyzer, 5 Hz to 50 kHz	3580A
Nov. 1975	Programmable calculator, pocket-sized	HP-25	May. 1975	Spectrum analyzer, 10 Hz to 13 MHz	3571A/3044A/3045A*
June 1976	Programmable computer, desk-top	9815A/9825A*			
Oct. 1976	Programmable IC tester	5045A	Dec. 1975	Spooling, in RTE systems	—
July 1977	Programming language, APL	3000	May 1977	Square root algorithm, calculator	—
Sept. 1975	Programming language ATLAS	9500D, 9510D	June 1974	State-machine design	5345A*
June 1976	Programming language HPL	9825A*			
May 1977	Pseudorandom binary sequences (PRBS) for signature analysis	5004A			



## PART 2: Subject Index (continued)

Sept. 1976	Storage/variable persistence oscilloscope	1741A	Apr. 1975	Timer/counter, 75-MHz universal	5308A
Jan. 1974	Straightness interferometer	5526A, option 30	Dec. 1974	Timeshared system, BASIC/3000	MPET/3000
Dec. 1973	Strip chart recorder, portable, battery-powered	7155A	Jan. 1975	Timing generator for HP interface bus	59308A*
July 1977	Structured programming, APL/3000	3000	Apr. 1976	Total station	3810A
Apr. 1976	Surveying, distance and angle measurements	3810A	Feb. 1976	Transducer, laser	5501A*
Nov. 1976	Sweep oscillators, 5.9-12.4 GHz	86242C, 86250C	Aug. 1974	Transient measurements on voiceband data channels	4940A
Mar. 1975	Sweep oscillator, 2-18 GHz	86290A	Nov. 1976	Transistor, FET GaAs microwave	HFET 1000
Jan. 1975	Switch, VHF, for HP interface bus	59307A*	Apr. 1975	Transistor process, 5-GHz	—
Apr. 1975	Switching regulated power supply, 5V, 500W	62605M	May 1977	Transition counting algorithms	5004A
Dec. 1973	Switching regulated power supplies, modular, 4-28V, 300W	62600J	Aug. 1974	Transmission impairment measuring set	4940A
June 1977	Switches, microwave, dc-26.5 GHz	33311C	May 1975	Transmission parameter analyzer	5453A
Mar. 1976	Synchronizer/counter for signal generator	8655A	Aug. 1975	Trigger probes/recognizers	10250/ 1230A/1620A
July 1975	Synthesized signal generator, 2.6 GHz	86603A	June 1977	Trigonometric algorithms, calculator	—
Nov. 1974	Systems, distributed computer	9700 Series	May 1977	Troubleshooting logic circuits by signature analysis	5004A
Feb. 1977	Systems voltmeter, fast reading	3437A*	<b>U</b>		
<b>T</b>			July 1975	Universal counter/timer/DVM	5328A*
May 1976	Tape cartridge, mini	—	Apr. 1975	Universal counter/timer, 75-MHz	5308A
Nov. 1974	Telephone data channel measurements, analog	3770A	<b>V</b>		
Aug. 1974	Telephone data channel measurements, analog	4940A	Apr. 1974	Ventricular function, analysis of cineangiograms	5693A
May 1975	Telephone data channel measurements, analog	5453A	Feb. 1977	Voltmeters, digital	3455A*,3437A*, 3435A,3465A/B,3476A/B
Feb. 1974	Telephone data channel measurements, error analysis	1645A	Sept. 1976	Variable-persistence/storage oscilloscope	1741A
Dec. 1974	Telephone measurements, loop-holding device	3770A	Apr. 1976	Vertical distance measurements	3810A
Jan. 1976	Telephone measurements, multichannel systems	3745A*	Jan. 1975	VHF switch for HP interface bus	59307A*
May 1975	Telephone measurements, transmission test	3551A/3552A	Aug. 1977	Vibrations, mechanical analogy for servo system	7920A
Aug. 1974	Television by satellite, receiver for	—	Mar. 1977	Viewpoints, integrated-circuit technology	—
Feb. 1976	Terminal (calculator), data communications	9830A	Aug. 1976	Virtual-memory computer systems	3000 Series II
June 1975	Terminal, computer, CRT	2640A	July 1977	Virtual workspace, APL/3000	3000
July 1977	Terminal, CRT, APL	2641A	May 1975	Voiceband data channel analyzer	5453A
May 1976	Terminal, CRT, with dual tape drives	2644A	Aug. 1974	Voiceband data channel measurements, analog	4940A
Dec. 1973	Test desk cable fault locator	4913A	Nov. 1974	Voiceband data channel measurements, analog	3770A
July 1976	Test sets, network analysis	8502A/ 8503A	July 1975	Voltmeter options for universal counter	5328A*
Oct. 1976	Tester, digital IC	5045A	<b>W</b>		
Feb. 1977	Testing a multimeter abusively	3435A, 3465A/B,3476A/B	Feb. 1977	Waveform measurements with digital voltmeter	3437A*
Nov. 1976	Thermal printer, calculator	HP-91, HP-97	Aug. 1977	Word generator, 300 MHz	8084A
Sept. 1974	Thermocouple power meter	435A	Aug. 1975	Word generator, multichannel	8016A*
Apr. 1974	Thermometer, platinum, digital	2802A	<b>X</b>		
Dec. 1975	Thick-film hybrid oscilloscope amplifier	1740A	July 1974	X-ray system for bench use	43805
June 1974	Time-interval averaging	—	Feb. 1975	X-Y recorder, high-sensitivity	7047A
Oct. 1975	Time interval probes	5363A*	<b>Y</b>		
Dec. 1974	Time interval measurements, very short	1722A	Mar. 1975	YIG-tuned oscillator	—
Feb. 1977	Time-related voltage measurements	3437A*	<b>Z</b>		
July 1975	Timer/counter/DVM, universal	5328A*	Apr. 1976	Zenith angle measurements	3810A

## PART 3: Model Number Index

Model	Instrument	Month/Year	HP-22	Calculator	Nov. 1975
HP-21	Calculator	Nov. 1975	HP-25	Calculator	Nov. 1975
*21MX	Computers	Oct. 1974	HP-65	Programmable Pocket Calculator	May 1974
*21MXE-Series	Computers	Mar. 1977	HP-67	Programmable Pocket Calculator	Nov. 1976
			HP-91	Printing Portable Calculator	Nov. 1976
			HP-97	Programmable Printing Portable Calculator	Nov. 1976

\*Asterisk indicates instruments compatible with the HP interface bus (HP-IB).

# Part 3: Model Number Index (continued)

435A	Power Meter	Sept. 1974	*5150A	Thermal Printer	Jan. 1975
*436A	Power Meter	Oct. 1975	5300B	8-Digit Mainframe	Apr. 1975
545A	Logic Probe	Dec. 1976	5305A	1100-MHz Frequency Counter	Apr. 1975
546A	Logic Pulser	Dec. 1976	5307A	High-Resolution Counter	Nov. 1973
547A	Current Tracer	Dec. 1976	5308A	75-MHz Universal Timer/Counter	Apr. 1975
548A	Logic Clip	Dec. 1976	*5312A	ASCII Interface	Jan. 1975
911C	Sliding Load	June 1977	*5328A	Universal Counter	July 1975
970A	Probe Multimeter	Nov. 1973	*5341A	Frequency Counter	Sept. 1975
HFET-1000	GaAs FET	Nov. 1976	*5345A	Electronic Counter	June 1974
*1000-Series	Small Computer Systems	Mar. 1977	5353A	Channel C Plug-In	June 1974
1010B	Liquid Chromatograph	Oct. 1975	5354A	Automatic Frequency Converter	
1220A/1221A	Oscilloscopes, 15 MHz	Feb. 1974		0.015-4.0 GHz	June 1974
1230A	Logic Trigger	Aug. 1975	*5363A	Time Interval Probes	Oct. 1975
1600A/S	Logic State Analyzer	Aug. 1975	5381A/5382A	Frequency Counters	July 1974
1601L	Logic State Analyzer	Jan. 1974	5451B	Fourier Analyzer	Feb. 1975
1607A	Logic State Analyzer	Aug. 1975	5451B	Fourier Analyzer with BSFA	
1611A	Logic State Analyzer	Jan. 1977		Capability	Apr. 1975
1620A	Pattern Analyzer	Aug. 1975	5453A	Transmission Parameter Analyzer	May 1975
645A	Data Error Analyzer	Feb. 1974	5468A	Transponder	May 1975
1720A	Oscilloscope, 275 MHz	Sept. 1974	*5501A	Laser Transducer System	Feb. 1976
1722A	Oscilloscope, dual-delayed sweep	Dec. 1974	5526A opt. 30	Straightness Interferometers	Jan. 1974
1740A	Oscilloscope, 100 MHz	Dec. 1975	5693A	Angio Analyzer	Apr. 1974
1741A	Variable Persistence/Storage		5840A	Gas Chromatograph	Apr. 1976
	Oscilloscope	Sept. 1976	*6002A	DC Power Supply, 200W	June 1977
HDSP-2000	Solid-State Alphanumeric Display	Apr. 1977	6825A/6A/7A	Bipolar Power Supply/Amplifiers	July 1974
IMAGE/2000	Data Base Management System	July 1974	7047A	X-Y Recorder	Feb. 1975
2640A	Interactive Display Terminal	June 1975	7155A	Portable Strip-Chart Recorder	Dec. 1973
2641A	APL Display Station	July 1977	7920A	Disc Drive	Aug. 1977
2644A	CRT Terminal with Magnetic		8011A	Pulse Generator, 20 MHz	Mar. 1974
	Tape Storage	May 1976	8015A	Pulse Generator, 50 MHz	Oct. 1973
2802A	Platinum-Resistance Thermometer	Apr. 1974	*8016A	Word Generator	Aug. 1975
3000 Series II	Computer System	Aug. 1976	8030A	Cardiotocograph	Jan. 1977
APL/3000	A Programming Language	July 1977	8080-Series	High-Speed Pulse/Word Generator	Aug. 1977
IMAGE/3000	Data Base Management System	July 1974	8082A	Pulse Generator, 250 MHz	Sept. 1974
MPET/3000	Multiprogramming Executive	Dec. 1974	8473C	Coaxial Detector, 0.01-26.5 GHz	June 1977
*3044A	Spectrum Analyzer,		8481A et al.	Power Sensors	Sept. 1974
	10Hz to 13MHz	May 1975	8484A	Power Sensor, High Sensitivity	Oct. 1975
*3045A	Automatic Spectrum Analyzer	May 1975	8495A/B,		
*3050B	Automatic Data		8496A/B	Step Attenuators, dc-18 GHz	May 1974
	Acquisition System	Jan. 1975	8495D/K	Step Attenuators, dc-26.5 GHz	June 1977
*3051A	Data Logging System	Feb. 1977	8502A	Transmission and Reflection	
*3052A	Programmable Data			Test Set	July 1976
	Acquisition System	Feb. 1977	8503A	S-Parameter Test Set	July 1976
3312A	Function Generator	Mar. 1975	*8505A	Network Analyzer, 0.5-1300 MHz	July 1976
3380A	Chromatograph Integrator	Dec. 1974	8620A	Sweep Oscillator	Mar. 1975
3435A	Digital Multimeter	Feb. 1977	8654A	Signal Generator, 10-520 MHz	Mar. 1974
*3437A	System Voltmeter	Feb. 1977	8654B	Signal Generator with FM	Mar. 1976
*3455A	Digital Voltmeter	Feb. 1977	8655A	Synchronizer/Counter	Mar. 1976
3465A/B	Digital Multimeter	Feb. 1977	8660C	Synthesized Signal Generator	
3476A/B	Digital Multimeter	Feb. 1977		Mainframe	July 1975
*3495A	Scanner	Jan. 1975	9500D opt. 180	ATLAS Compiler and Processors	Sept. 1975
3551A	Transmission Test Set	May 1975	9510D opt. 100	ATLAS Compiler and Processors	Sept. 1975
3552A	Transmission Test Set	May 1975	9601/9610	Satellite Computer Systems	Nov. 1974
*3571A	Tracking Spectrum Analyzer	May 1975	9700-Series	Distributed Computer Systems	Nov. 1974
3580A	Spectrum Analyzer, 5Hz-50kHz	Sept. 1973	*9815A	Desktop Computer	June 1976
*3745A/B	Selective Level Measuring Set	Jan. 1976	*9825A	Desktop Computer	June 1976
3760A/3761A	Data Generator/Error Detector	Nov. 1973	*9830A	Desktop Computer (application of)	Feb. 1976
3770A	Amplitude/Delay		9871A	Impact Printer	June 1976
	Distortion Analyzer	Nov. 1974	9880A/B	Desktop Computer Mass	
3780A	Pattern Generator/Error Detector	Mar. 1976		Memory System	Apr. 1974
3790A	Microwave Link Analyzer	Nov. 1975	10017A et al.	Miniature Oscilloscope Probes	Apr. 1977
3810A	Total Station	Apr. 1976	10250-Series	Trigger Probes	Aug. 1975
*4261A	LCR Meter	Sept. 1976	10254A	Serial-to-Parallel Converter	Dec. 1976
*4271A	LCR Meter	Mar. 1974	11850A	Three-Way Power Splitter,	
4282A	High-Capacitance Meter	Feb. 1975		0.5-1300 MHz	July 1976
4913A	Test Desk Fault Locator	Dec. 1973	24376B	IMAGE/2000 Data Base	
4940A	Transmission Impairment			Management System	July 1974
	Measuring Set	Aug. 1974	32010A	MPET/3000 Operating System	Dec. 1974
5000A	Logic Analyzer	Oct. 1973	32105A	APL/3000 Subsystem	July 1977
5004A	Signature Analyzer	May 1977	32215A	IMAGE/3000 Data Base	
5035T	Logic Lab	Nov. 1974		Management System	July 1974
5045A	IC Tester	Oct. 1976	32216A	QUERY/3000 Data Base	
5061A opt. 004	High-Performance Cesium Beam			Inquiry Facility	July 1974
	Standard	Sept. 1973	33311C	Microwave Switch, dc-26.5 GHz	June 1977
5062C	Cesium Beam Frequency Reference	Mar. 1976	33321A/B	Step Attenuators, dc-18 GHz	May 1974

# Part 3: Model Number Index (continued)

33321D/K	Step Attenuators, dc-26.5 GHz	June 1977	62605M	500W Switching Regulated Power Supply	Apr. 1975
33330C	Coaxial Detector, 0.01-26.5 GHz	June 1977			
43805	X-Ray System	July 1974	86242C,	RF Plug-Ins for 8620C Sweep Oscillator	Nov. 1976
47201A	Oximeter	Oct. 1976	86250C,		
*59301A	ASCII-Parallel Converter	Jan. 1975	86290A	2-18 GHz RF Plug-In	Mar. 1975
*59303A	Digital-to-Analog Converter	Jan. 1975	86603A	1-2600 MHz RF Section	July 1975
*59304A	Numeric Display	Jan. 1975	86634A	PM Modulation Section	July 1975
*59306A	Relay Actuator	Jan. 1975	86635A	FM/PM Modulation Section	July 1975
*59307A	VHF Switch	Jan. 1975	91700A et al.	Distributed Computer Systems	Nov. 1974
*59308A	Timing Generator	Jan. 1975	92001A	RTE-II Real-Time Executive System	Dec. 1975
*59309A	ASCII Digital Clock	Jan. 1975	92001B	RTE-II Real-Time Executive System	Mar. 1977
*59401A	Bus System Analyzer	Jan. 1975	92060A	RTE-III Real-Time Executive System	Dec. 1975
*59501A	Isolated D-A/Power Supply Programmer	June 1977	92060B	RTE-III Real-Time Executive System	Mar. 1977
62604J et al.	Switching Regulated Modular Power Supplies	Dec. 1973	92061A	RTE Microprogramming Package	Mar. 1977
			92101A	Real-Time BASIC Subsystem	Jan. 1976
			92817A	OPNODE	Mar. 1977

# PART 4: Author Index

Author	A	Month/Year							
			Corya, Bruce S.	July	1975	Forbes, Bert E.	Apr.	1977	
			Coster, John H.	Jan.	1976	Foster, Tony E.	Apr.	1974	
Adler, Robin		Oct. 1973	Courtin, Erich	Jan.	1977	Fowles, Richard G.	Aug.	1974	
Ainsworth, Gerald		Oct. 1976	Crawford, Thomas	Nov.	1973	Fox, Kenneth A.	Dec.	1975	
Aken, Michael B.		May 1975	Crow, George	June	1975	Frankenberg, Robert J.	Oct.	1974	
Anzinger, George A.		Dec. 1975				Frederick, Wayne	July	1976	
Arnold, David		May 1976				Frohwerk, Robert A.	May	1977	
Ashkin, Peter B.		Apr. 1977							
Atchley, Robert L.		May 1975	Dack, David G.	Jan.	1976				
Averett, Linda W.		Dec. 1975	Dalichow, Rolf	July	1976				
	B		Damon, Noel E.	Aug.	1974	Gadol, Adele M.	Dec.	1975	
Bailey, Paul W.		June 1977	Daniels, Jerry W.	May	1975	Gammill, Lawrence A.	Apr.	1977	
Baker, Mark		Oct. 1973/ Oct. 1976	Danielson, Dan D.	Mar.	1975	Globas, Gert	Sept.	1974	
Baldwin, Richard R.		Jan. 1974	Deaver, David K.	May	1975	Gookin, Albert	Feb.	1977	
Barney, Dick B.		June 1976	Dickey, Shane	Nov.	1974	Gordon, David E.	Dec.	1976	
Barker, Roy D.		Feb. 1977	Dickinson, Peter D.	Nov.	1976	Gordon, Philip	Oct.	1974	
Barraclough, Hal		Dec. 1974	Diehl, Van	Dec.	1975	Gorin, Joseph M.	Feb.	1977	
Basawapatna, Ganesh		Mar. 1975	Dietrich, Harold E.	Jan.	1975	Grady, Robert B.	Sept.	1975	
Beckwith, John F.		Dec. 1976	DiFrancesco, Mauro	Apr.	1975	Graham, Thomas R.	Dec.	1973	
Best, Allan I.		Dec. 1975	Dikeman, Peter	Apr.	1974	Grote, Barbara E.	Jan.	1974	
Bilen, Len		Apr. 1976	Dilman, Richard	Feb.	1974	Guest, David H.	Nov.	1974/ Dec. 1974	
Blazek, Otakar		June 1975	DiPietro, David M.	Apr.	1975				
Bologlu, Ali		June 1974/ Sept. 1975	Dresch, Donald A.	Aug.	1974				
			Drake, Harris Dean	Mar.	1977				
Botka, Julius		July 1976	Doub, James A.	June	1975	Hahn, Kathleen F.	Mar.	1977	
Bradley, Havyn E.		Apr. 1974	Dudley, B. William	Dec.	1973	Hale, William L.	Sept.	1973	
Brewster, John L.		July 1974	Dudley, Robert L.	Nov.	1973	Hall, James A.	Aug.	1974/ July 1975	
Bronson, Barry		Nov. 1974/ Dec. 1976	Duerr, Jeffrey R.	Feb.	1974				
			Dupre, John J.	Mar.	1975	Hammons, Richard L.	Oct.	1974	
Buesen, Jürgen		Aug. 1975				Hardage, P. Kent	Sept.	1974	
Bullock, Michael L.		Apr. 1976	Eads, William D.	June	1976	Harkins, Daniel R.	July	1976	
Bump, Robert B.		June 1976	Eastham, Terry	June	1975	Harland, David A.	Jan.	1974	
	C		Eberle, Volker	Aug.	1977	Harms, Dennis W.	Nov.	1976	
Campbell, John W.		Dec. 1975	Edwards, Allen P.	Oct.	1975	Harrison, Joel	Aug.	1977	
Carlson, James E.		Feb. 1976	Egbert, William E.	Nov.	1976/ May 1977/ June 1977	Harrison, Van	Sept.	1976	
Chambers, Donald R.		June 1977				Hashimoto, Satoru	Sept.	1976	
Chan, Anthony Y.		Dec. 1976/ May 1977	Eggert, Rainer	May	1977/ June 1977	Hay, Robert R.	Mar.	1974	
			Elward, John S.	Oct.	1974	Hayes, Thomas J.	Oct.	1976	
Chance, Geoffrey W.		June 1976	Enlow, Carl Jr.	Mar.	1974	Heger, Charles E.	Mar.	1976	
Chen, Philip		July 1976	Estes, Marvin F.	Oct.	1974	Heinzl, Johann J.	Aug.	1974	
Christensen, Svend		Nov. 1975				Hender, Thomas A.	Nov.	1975	
Christopher, Chris J.		Apr. 1974/ June 1976				Hentschel, Christian	Aug.	1977	
						Hernday, Paul R.	Mar.	1975	
Chu, Alejandro		Mar. 1975	Falke, Reinhard	Oct.	1973	Hickenlooper, F. Timothy	June	1976	
Chu, David C.		June 1974	Farnbach, William A.	Jan.	1974	Hines, Jack L.	Apr.	1977	
Clifford, Douglas M.		June 1976	Farrington, David	Apr.	1977	Hohmann, Hans-Günter	Feb.	1974	
Cline, Stephan G.		May 1975	Felsenstein, Ronald E.	June	1974	Hood, James M.	Dec.	1973/ Aug. 1977	
Collison, Robert R.		Mar. 1976	Fichter, George	Nov.	1975				
Cornish, Eldon		Sept. 1974	Finch, Carolyn M.	Apr.	1977	Horner, James F.	July	1975	
Cook, Michael J.		Nov. 1975	Finch, William R.	Sept.	1975	House, Charles H.	Dec.	1975	
			Fischer, Walter A.	Dec.	1974	Huff, Donald W.	Feb.	1975	
			Fong, Arthur	Aug.	1974	Hyatt, Ronald C.	Sept.	1973/ Mar. 1976	
						Hyde, John W.	June	1977	

# Part 4: Author Index (continued)

<b>I</b>		Mortensen, A. Craig	June 1976	Smith, Robert B.	Feb. 1976
Ingman, Eric M.	Oct. 1976	Mueller, Louis F.	Sept. 1973	Snow, David L.	Mar. 1977
Inhelder, Allen F.	Sept. 1975	Munsey, Grant J.	July 1977	Snyder, David C.	Feb. 1975
<b>J</b>		Musch, Bernard E.	Nov. 1976	Sommer, Heinz	Jan. 1977
Jackson, William D.	July 1975	Muto, Arthur S.	June 1974	Sorden, James L.	June 1974
Jackson, Weldon H.	Sept. 1974	<b>N</b>		Stallard, Scott J.	Mar. 1977
Jacobs, Jacob R.	Oct. 1974	Nadig, Hans-Jürg	Jan. 1975/	Stancliff, Roger	Mar. 1975
Jager, Clifford A.	Aug. 1976		May 1977	Stedman, John M.	Oct. 1974
Jekat, Hans J.	Apr. 1975	Neff, Randall B.	Nov. 1975	Stefanski, Andrew	Dec. 1974
Jensen, Ronald C.	Feb. 1976	Nordman, Robert G.	May 1976	Stickel, Herbert P.	Aug. 1977
Jeppsen, Bryce E.	June 1974	<b>O</b>		Stickle, Ronald L.	Feb. 1976
Jeremiasen, Robert	Mar. 1974	O'Buch, Warren J.	July 1974	Stinson, John	Nov. 1973
Johnson, Daniel E.	Feb. 1975	Offermann, Robert W.	Oct. 1975	Stockwell, R. Kent	May 1974
Johnson, Lawrence P.	Jan. 1975	Olson, William E.	Feb. 1976	Stone, Peter S.	Jan. 1975
Johnson, Lee	Mar. 1977	Osada, Kunihisa	Feb. 1975	Suehiro, Jun-ichi	Feb. 1975
Johnston, Ronald L.	July 1977	Osterdock, Terry N.	Sept. 1973	<b>T</b>	
Joly, Robert	Mar. 1975	<b>P</b>		Tabbutt, Richard D.	Dec. 1975
Juneau, H. Mac	Feb. 1977	Pannach, Arndt	Aug. 1975	Taggart, Robert B.	May 1974/ Nov. 1976
<b>K</b>		Paulson, Gary R.	June 1976	Tamamura, Toshio	Sept. 1976
Kappler, Wolfgang	Aug. 1975	Pearson, Robert	Mar. 1976	Tang, Edward	June 1975
Keever, Jerome	June 1975	Pecchio, Santo	July 1974	Tillman, Lynn	Nov. 1975
Ketelsen, Erhard	Aug. 1974	Peck, Robert D.	Dec. 1973	Trimble, Charles R.	Jan. 1975/ Oct. 1975
Kim, Young Dae	July 1975	Perdriau, Robert H.	May 1975	Toschi, Elio A.	Aug. 1976
Kirkpatrick, George R.	May 1974/ June 1977	Pering, Richard D.	Aug. 1974	Tung, Chung C.	May 1974
Kmetovicz, Ronald E.	Mar. 1976	Peterson, Kenneth W.	May 1974	Tverdoch, Richard	Feb. 1974
Knorpp, Billy	Mar. 1975	Pierce, Robert B.	June 1975	<b>U</b>	
Krauss, Günter	Mar. 1974	Poole, John S.	Apr. 1976	Uebbing, John T.	Apr. 1977
Kuhlman, Louis J. Jr.	Nov. 1976	Pope, Richard	Oct. 1976	Urquhart, J. Reid	Jan. 1976/ Oct. 1976
Kushnir, S. Raymond	Sept. 1974	Pratt, Ronald E.	Oct. 1975/ June 1977 Dec. 1976	<b>V</b>	
<b>L</b>		Priebe, Durward		Van Bree, Kenneth A.	July 1977
Laing, Virgil L.	Nov. 1973/ Feb. 1977	<b>Q</b>		Van Brunt, Richard C.	Oct. 1974
Lamy, John	Sept. 1974	Quenelle, Robert C.	Dec. 1976	Van Dyke, Eric J.	July 1977
Lane, Arthur B.	June 1975	<b>R</b>		Veteran, David R.	May 1974
Lane, Thomas A.	Mar. 1977	Rauskolb, Roger F.	May 1975	Vifian, Hugo	July 1976
Langguth, Alfred	July 1975	Ricci, David W.	Jan. 1975	Vyduna, James B.	Feb. 1977
Larsen, James	Feb. 1974	Richards, Alan J.	May 1976	<b>W</b>	
Lawson, William S.	July 1976	Riebesell, Günter	Aug. 1977	Wade, John M.	Feb. 1975
Lee, Richard T.	Aug. 1974	Riedel, Ronald J.	Mar. 1975	Wagner, William E.	Aug. 1975
Leong, Warren W.	July 1977	Riggins, Cleaborn C.	Oct. 1974/ Mar. 1977	Waitman, Thomas F.	June 1975
Link, Horst	Oct. 1973	Risley, William B.	Dec. 1974	Walker, Hugh P.	Jan. 1976
Liu, Chi-ning	Apr. 1974	Robertson, James	Nov. 1973	Walker, William T.	June 1977
Loughry, Donald C.	Jan. 1975	Roos, Mark	July 1976	Wang, Patrick H.	Nov. 1976
Luehman, Kent	June 1977	Roy, Jean-Claude	June 1975	Ward, Michael J.	Feb. 1976
<b>M</b>		Rudé, André F.	Feb. 1976	Warp, Rick A.	Dec. 1973
Mack, Nealon	Dec. 1974	Ruchsay, Walter	Jan. 1977	Warren, Richard E.	Apr. 1976
MacLeod, Kenneth J.	Nov. 1973/ Apr. 1975	Rytand, William A.	Mar. 1977	Watanabe, Tak	Aug. 1976
Maeda, Kohichi	Mar. 1974	<b>S</b>		Weber, Lynn	Aug. 1977
Maitland, David S.	June 1976	Salfeld, Peter	Jan. 1977	Weibel, Gerald E.	Sept. 1973
Marriott, Joe E.	Feb. 1977	Salesky, Emery	June 1977	Whicker, Richard	Nov. 1975
Marrocco, James A.	Nov. 1974	Saponas, Thomas A.	Aug. 1975/ Jan. 1977	Wickliff, Robert G.	Sept. 1976
Marshall, Howard D.	Oct. 1973	Sasaki, Gary D.	Jan. 1977	Winninghoff, Paul G.	Aug. 1974
Marshalls, Lewis W.	July 1974	Schrenker, Helge	Jan. 1975	Witkin, Louis A.	May 1976
Matthews, Ian	Nov. 1975	Schultz, James T.	Oct. 1975	Wolpert, David L.	Jan. 1975
McDermid, John E.	Feb. 1977	Schultz, Steven E.	Jan. 1976	Woodhull, Frederick	July 1976
McIntire, Richard E.	July 1974	<b>X</b>		<b>Y</b>	
McKinney, H. Webber	Apr. 1975	Scott, Peter M.	June 1974/ Jan. 1975/ Oct. 1975	Yansouni, Cyril J.	Mar. 1975
Mellor, Douglas J.	Aug. 1974	Seavey, Gary A.	Mar. 1976	Young, Ivan R.	Nov. 1973/ Mar. 1976
Merrick, Edwin B.	Oct. 1976	Shar, Leonard E.	Dec. 1974/ Aug. 1976	<b>Z</b>	
Merrill, Howard L.	Dec. 1973	Sharritt, David D.	July 1976	Zamborelli, Thomas J.	Sept. 1974
Millard, Joe K.	Dec. 1975	Small, Charles T.	Aug. 1975	Zellmer, Joel	Aug. 1977/ Sept. 1974
Mingle, P. Thomas	Apr. 1975	Smith, Jeffrey H.	Jan. 1977		
Misson, William	Mar. 1975	Smith, Richard L.	May 1976		
Moll, John	Mar. 1977				
Morrill, Justin S., Jr.	Aug. 1975/ Dec. 1976				
Morris, Donald E.	June 1976				