



# The SPARTAN

VOL. V • NO. 1

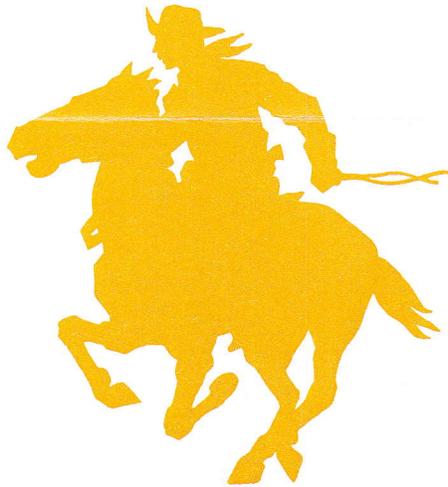
JAN.-FEB. 1976

## Out In Front

The Pony Express rider is one of the West's most dramatic symbols, and Sparta is adopting it as thematic for the bicentennial year. You'll be seeing it in the trade publications regularly, and probably again in these pages, too. We settled on the rider rather than a stage coach, miner, clipper ship, or other Western symbol because the Pony Express Western terminus was here in Sacramento.

Few other frontier endeavors captured the imagination of Americans so thoroughly as the lone relay rider and his ten-and-a-half day challenge of wilderness perils between St. Joseph, Missouri and Sacramento.

Western history began as early or earlier than the European settlement of the East; Spain sent her military



and religious emissaries north into California while the British, French, and Colonists were shaping the 13 colonies for the future by warfare and

intrigue. Spanish place names (Colorado, Montana, California . . . Sacramento, Los Angeles, San Francisco . . . Sierra Nevada, Sangre de Cristos . . .) abound in the West as English, Indian, French ones do in the East. In place of Washington crossing the Delaware we have Fr. Junipero Serra, Juan Cabrillo, John Fremont, Lewis and Clark, Jim Bridger and the mountain men . . . and the Gold Rush 49ers.

Sacramento, where the Gold Rush was headquartered, has always been the home of Western vitality, typified by the hardy souls who sought their personal El Dorado through gold and hard work. We think Sparta has inherited and modernized that mystique in the best continuation of the tradition.

### Parts Orders Get Faster Attention

Changes over the past few months in the Sparta Customer Service department, and parts ordering procedures in Purchasing, have now resulted in better parts order service to the broadcaster. The net of changes in both departments has resulted in (A) 24-hour service on small parts, or (B) immediate notification if there will be any delay of over 24 hours.

A related procedural change by Customer Service has reduced turn-around time on equipment shipped to Sparta for repair.

The Sparta 24-hour emergency telephone service is always ready to further reduce the time needed to get parts to you. Call (916) 383-5353 day or night.

### MOVING UP at SPARTA



Steve Curran

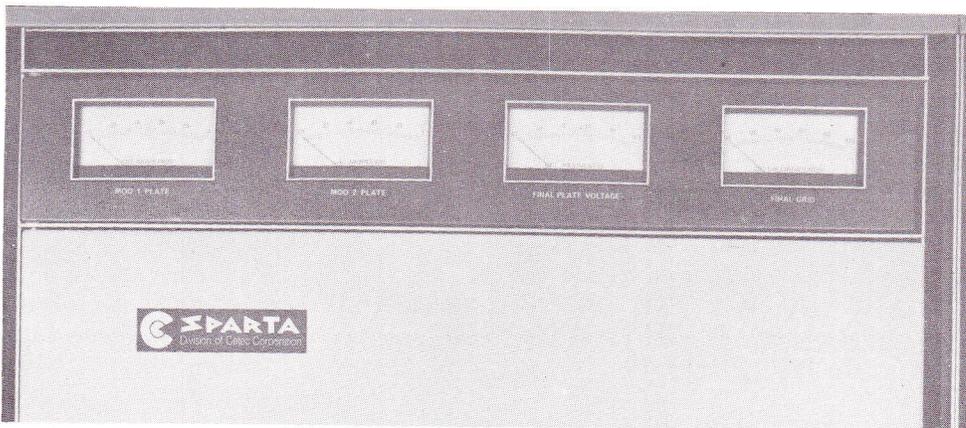
Stephen D. Curran's appointment as Sparta Factory Sales Engineer was announced by VP/Marketing Jack J. Lawson as 1975 came to a close.

Steve, a native of Sacramento, attended elementary and high school in the area before continuing on to U.C. Berkeley, where he majored in mathematics.

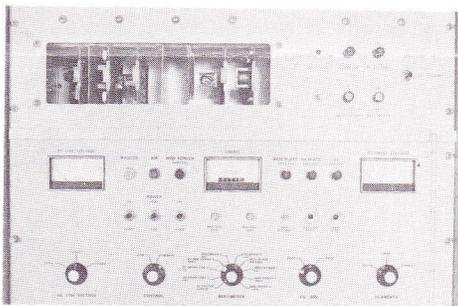
Following a tour in the Navy as an Aviation Electronics Instructor, Steve joined the faculty of I.P.T. School of Electronics. There he developed curricula and taught courses in commercial electronics equipment repair.

Steve recently completed 5 1/2 years as a recruiter and sales trainer for Gulf Development.

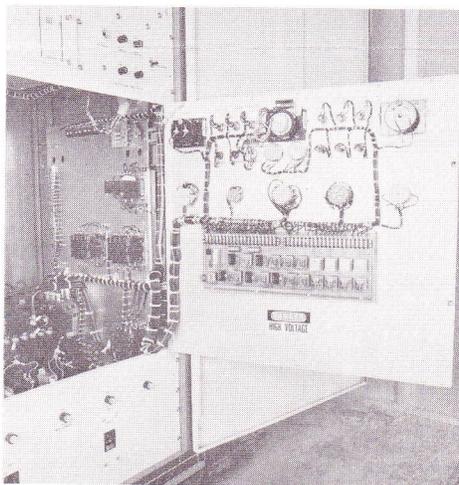
As a Sales Engineer, Steve's responsibility will be direct sales and rep firm sales from Southern California across the Southern states to Florida.



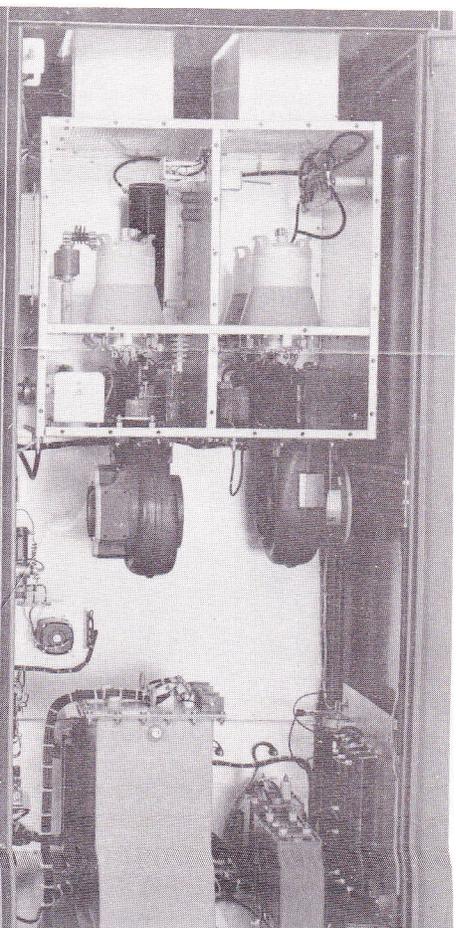
*Meter bezel and assembly housings swing out in same fashion as front doors, and can even be quick-disconnected without tools. Note also Sparta cast nameplate, new for both transmitter and audio products.*



*Closeup of the meter and control section, with door of solid state driver section removed.*



*Swingout front panel; with full rear doors, this provides unhindered access to all components.*



*Tube complement is one 4CX5000A final*

## Transient Intermodulation Articles Get Response

Dave Evans' series on Transient Intermodulation Distortion, the last of which appeared in the November issue, sparked some controversy and prompted several letters from broadcast engineers with viewpoints and opinions to share. Further comments are welcome regarding this increasingly important subject, along with suggestions for other topics to explore.

The following references are offered to readers of the past series who are interested in deepening their knowledge of the subject.

1. LEACH, W.M. "Transient IM Distortion in Power Amplifiers", Audio (February 1975), pp 34-41.
2. OTALA, M. "Circuit Design Modifications for Minimizing Transient Intermodulation Distortion in Audio Amplifiers", Journal of the Audio Engineering Society (June 1972), pp 396-9.
3. EDEN, T. "Distortion: Cause and Effect", Studio Sound (April 1973), pp 50-2.
4. HOOD, J.L. "The Straight Wire with Gain?", Studio Sound (April 1975), pp 22-8.
5. TILLET, G.W. "Amplifiers", Audio (April 1971), pp 32-40.
6. TOLCES, R. "Multi-Track Series B Recording Systems", Multi-Track, Hollywood, CA.

## New Product Literature Available

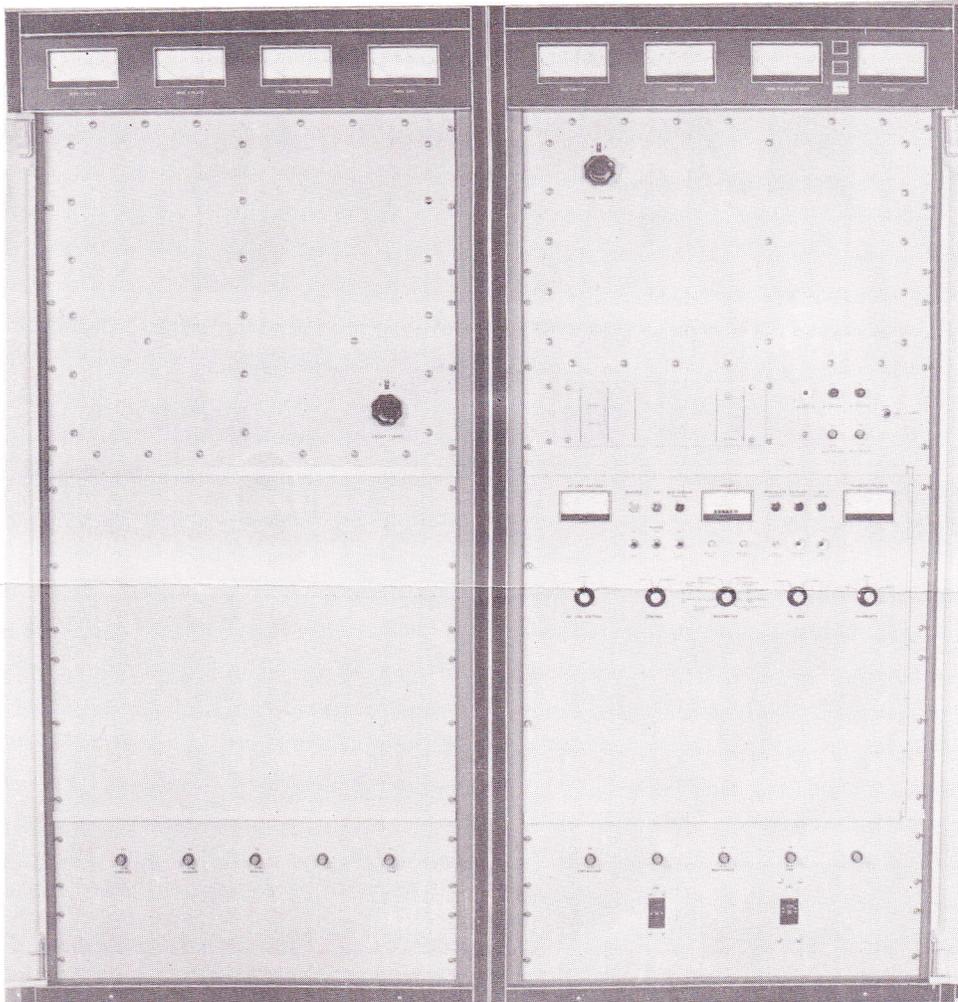
New Product Guides are available from the Sparta sales department: "Centurion Options and Accessories" and "Tape Cartridge Equipment, Services and Accessories".

Centurion Series Console choices are briefly described in the "Centurion Options" guide, plus equalization module, mixer module choices and extender cards, reverberation unit uses, peak program meter operation, and details of mixer module operation.

As the "Tape Cartridge" title suggests, such items are covered as cartridge refurbishing / reloading services, tape erasers, cartridge storage racks, test tapes, cartridge labels, and the two classes of Sparta new tape cartridges.

## Coming With Next Issue

During January a comprehensive list of used and surplus equipment will be compiled in all the Sparta storage areas. The annual sale will then be held; an insert with the March-April issue will give full details and prices.



Model 705C 5kW AM Transmitter with (non-interlocked) front doors open. Above control section at center right is the solid state oscillator/RF driver door, which conceals main and spare boards.

## Product Of The Month

The most recent design changes in the Sparta AM Transmitter line have been put into production. Five Model 705C 5kW Transmitters are being installed in Australia following December shipments.

The 705C is lighter, sturdier, even more dependable, and functionally different than its predecessor, the 705B. The C-Series (5, 10, 15 kW and higher power dual redundant combinations of these) transmitters are solid state up to the finals, incorporate other state-of-the-art design advances, and have been completely repackaged. The 705C will serve to illustrate.

### SPECIFICATIONS

**AF INPUT IMPEDANCE:** 600 ohms.  
**AF INPUT LEVEL:** 10 dBm  $\pm$  2 dBm (100% modulation). **AF RESPONSE:** 50-10,000 Hz (95% modulation)  $\pm$ 1

**dB. AF DISTORTION:** 50-10,000 Hz (95% modulation) less than 2%. **NOISE:** -60 dB or better. **FREQUENCY RANGE:** 540-1,600 KHz. **FREQUENCY STABILITY:**  $\pm$  5 Hz. **OUTPUT IMPEDANCE:** 50 ohms unbalanced. **CARRIER SHIFT:** less than 2% (0-100% modulation). **POWER OUTPUT:** 500/1000/Watts; any combination of two powers (capable 6,000 Watts). **POWER SUPPLY:** 208-240 VAC 50/60 Hz, 3-phase. Optional 380-440 VAC 50/60 Hz, 3-phase. All supplies  $\pm$  5% permissible variation from nominal. **POWER CONSUMPTION:** (5,000 Watts output - 90%PF) Approximate; 0% modulation 10,600 Watts; average modulation 12,000 Watts; 100% modulation 15,500 Watts. **AMBIENT OPERATING TEMPERATURE:** to 113° F (0 to + 45° C). **ALTITUDE RANGE:** to 7,500 feet; continuous duty at rated power output. **SIZE:** 75 1/4"H x 70"W x 30"D (1927 x 1778 x 860 mm). **WEIGHT:** 2,100 pounds (946 kilos). **OPTIONAL EQUIPMENT:** (factory

installed) RMK-2 Remote Control Kit, including control relay interface assembly. **ORDERING INFORMATION:** the 705C is supplied complete with tubes, transistors and two solid state oscillator/RF driver assemblies (1 spare), two solid state audio driver assemblies (1 spare), two instruction manuals with one set blueprints. Specify one switchable power level below 5 kW (1,000 or 500 Watts); if no specification is made the transmitter will be furnished in 5,000/1,000 Watt switchable configuration.

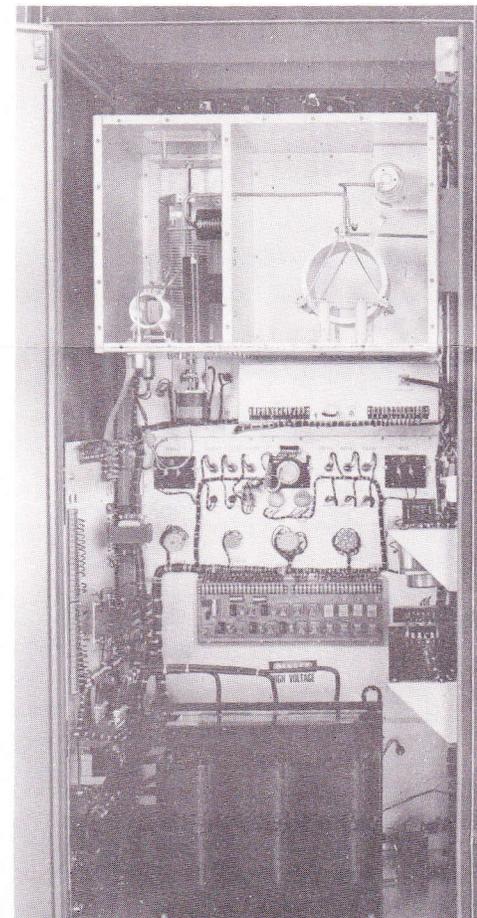
The 705C is a high level plate modulation model, with meters and indicating lamps located across the top of the transmitter front. Another packaging innovation allows the complete meter bezel housing to swing out for easy access. The popular 'Tally Light' fault locator/memory system is incorporated in the 705C and other C-Series AM transmitters.

Published Bi-Monthly By

# SPARTA

Division of Cetec Corporation

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Model 705C with (interlocked) rear doors open with two 4CX5000A modulators.

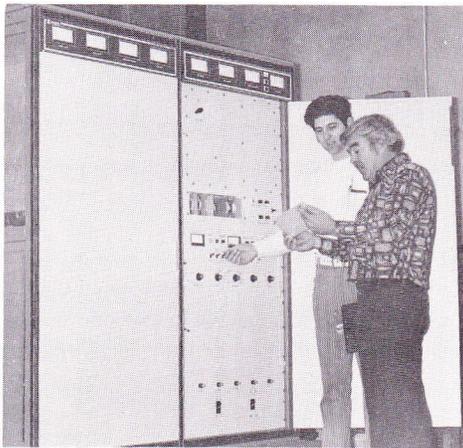
# OVERSEAS SCENE

International sales were brisk throughout 1975, with major shipments of both audio and transmitter products to Japan, Mexico, Australia, the Philippines, Nicaragua, Taiwan, Korea, Colombia, Guatemala, and England.

\*\*\*\*\*

Orders have been completed for Australian 5 kW AM power increase installations with the shipment of five Model 705C AM Transmitters [see September and November "Spartans"; Ed], and related equipment.

\*\*\*\*\*



Bob Hopkins (L) and John Fernandez ready the first Model 705C 5 kW AM Transmitter for shipment to Australia.

Tests by certain broadcast authority engineers in Europe (which must remain nameless here, since their official policies forbid recommendation of brand names) placed the Sparta GT12 Turntables ahead of three other popular broadcast brands for wow, flutter and rumble. This has resulted in orders for some five dozen to be shipped to Cetec Systems, Ltd., our rep firm in England (formerly Computer Equipment Company, Ltd.).

\*\*\*\*\*

Audio and transmitter equipment worth over \$100,000 has been shipped to the Philippines in care of Felix Zamora's Educational Enrichment Center [see November "Spartan"; Ed]. Two complete 5 kW AM stations will be installed by Zamora for universities.

\*\*\*\*\*

Radio station XEMM in Tijuana, Mexico is installing a Spartamation system which was shipped to the border city by padded van late last year.

## "... In Reply"

Three recent letters to Sparta expressed puzzlement over recent stories in The Spartan and elsewhere. One writer asked, 'Did Sparta buy Schafer?', while another queried 'Is Schafer moving to Sacramento?', and

another asked if he could buy Schafer Automation systems directly from Sparta.

We apologize for any confusion generated in these pages. In a nutshell, succinct answers to the above three questions may clarify the situation.

(A) Cetec Corporation purchased Schafer, making it a Division of Cetec Corporation. Sparta is also a Division of Cetec Corporation, as are Cetec Audio, Jampro, and Vega.

(B) Schafer will operate, as do all the Divisions, autonomously — and will retain its own facilities in Goleta, California.

And (C) ANY inquiries regarding automation equipment should be directed to Schafer Electronics in Goleta.

In further explanation; The Cetec Broadcast Group divisions together market a completely comprehensive selection of equipment, but EACH division specializes within the field to offer 'small company' flexibility and friendliness, with the bonus of very expert engineering and sales in order to best serve the broadcaster.

"... In Reply" is a new feature of The Spartan, offering a forum for your questions regarding Sparta equipment and systems, or possible information about other divisions, or Cetec Corporation itself. We welcome your letters; each will receive written reply, and portions of the most interesting, with our answers, will be printed in this column. Address The Editor, The Spartan, at the Sparta address in Sacramento.

RETURN ADDRESS REQUESTED

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Out In Front



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Division of Cetec Corporation  
**SPARTA**



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