

Storm plan forming

by DEBBIE NELSON
Battalion Staff

Some people have called the coastal area around Galveston Bay a disaster waiting to happen, lacking only a hurricane to set it off. A Texas A&M University researcher is working to change that.

Dr. Carlton Ruch of the Center for Strategic Technology is busy coordinating efforts for a hurricane evacuation plan to be ready by June 1981 that could, if implemented correctly, save many lives in the fast-growing Galveston Bay area.

Many researchers are contributing to the plan, which the media will help distribute to Harris, Brazoria and Galveston county residents, who are histor-

said experts dispute the exact height to which a surge in the Bay area could rise.

Ruch will be utilizing the National Weather Service's newly-developed storm surge model. The model will be able to predict for hurricanes approaching the Galveston Bay area where and when the storm surge will pass over the land and how deep it will be.

Ruch said the National Weather Service will run several types of storms through the storm surge model. This will give researchers some idea of what to expect when a real hurricane hits the coast, such as when roads are expected to be blocked by floodwaters.

Ruch said the highest road off Galveston Island is probably less than six feet above mean sea level, making escape routes very susceptible to flooding.

The system is not the answer to all prayers, but a prediction tool, Ruch said. "Hurricanes can strike 1,000 different ways with 1,000 different results."

Thomas Urbanik, local assistant research engineer of the Texas Transportation Institute, will soon begin work on a traffic analysis of the hurricane-prone area.

Using census and phone-survey data, Urbanik and Ruch will learn approximate evacuation intentions for various types of storms. Urbanik said he will probably use a computer model to determine highway demand on each escape route.

When approximate numbers of evacuees are known, residents in the most vulnerable areas can be advised to leave first. Also, it will be possible to

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ically the Texans hardest hit during the yearly June-October hurricane season.

Ruch is assembling the plan, which is based at Texas A&M, but input comes from every level, from the National Weather Service to the governor's office to city civil defense units.

Ruch said a hurricane is an emergency transcending any one level of governmental authority. One example Ruch described which would need community cooperation is a possible congestion on Interstate 45 resulting from all communities evacuating along that route.

Therefore, Ruch said, he is working with people on many jurisdictional levels so the plan can be accepted by all concerned.

A Texas Transportation Institute representative from the Galveston area has predicted some evacuees could have as little as 12 hours between first warning of a hurricane and the beginning of flooding on escape routes.

Increased hurricane-awareness and distribution of evacuation materials will greatly aid coastal residents, many of whom are new to the area and largely ignorant of hurricane destruction.

Hurricanes, with their 75-200 mph winds, have hit some part of the Texas coast on the average of once every two to three years since 1900.

In the September 1900 Great Galveston Hurricane, 3,600 homes were levelled by storm tides and an estimated 6,000-8,000 people died.

Ruch said 90 percent of hurricane deaths are drowning deaths, caused by the storm surge which always accompanies a hurricane. The surge, a large body of seawater pushed ahead of the storm, could flood low-lying areas with up to 19 feet of water. Ruch

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predict the placement of evacuation shelters and critical area shelters where residents may not have enough time to evacuate the area.

Besides an awareness of escape routes, the public needs an awareness of different types of hurricanes and their danger. The media have begun distribution of information released earlier this month by Ruch and Texas A&M psychology professor Larry Christensen.

Funded by the Sea Grant College Program, the psychological survey of Galveston residents concluded people need to be aware of the different forces of hurricanes, how long it takes to evacuate the area and specifically what to do during a hurricane watch (first alert of possible hurricane threat) and a hurricane warning (notice a hurricane may strike a coastal area within 24 hours or less).

Summer camps not just for scouts

Cadets receiving training

Many Texas A&M University students who wear a uniform during the school year are still in military garb this summer, serving throughout the United States and around the world.

The Air Force, Army, Navy and Marine Corps officer-commissioning programs at Texas A&M have 266 cadets at summer camps or cruises. Their training ranges from four to six weeks.

Seventeen of 91 Naval ROTC cadets are in Marine Corps "bull-dog" training at Quantico, Va. Navy officer candidates including seniors, juniors and sophomores are aboard ships for cruises in the Western Pacific originating at Norfolk, Va.; Honolulu, San Diego, Calif., and Guantanamo Bay, Cuba. Col. Robert Gib-

son, professor of naval science, said one cadet is training in Sweden on a foreign exchange cruise.

Air Force cadets from Texas A&M are scattered to Lackland Air Force Base at San Antonio; Vandenberg and McClellan, Calif., and McConnell, Wichita, Kan. Col. Kenneth Durham, professor of aerospace studies, said 70 cadets are divided between two four-week training phases. The first starts June 15.

The Army ROTC program at Texas A&M has 105 cadets in training, said Col. James Woodall, professor of military science and commandant. All but two are at Fort Riley, Kan., for six weeks training that began June 6. Two are in Ranger School at Fort Benning, Ga. The Ranger training is accepted in lieu of regular Army summer field training.

The cadets' summer training combines with on-campus military courses and training to lead to officer commissions on graduation.

New rabies vaccine given OK

WASHINGTON — The government has approved a more effective and less painful rabies vaccine that requires only five shots instead of 23 and is given by injection into the arm instead of the stomach.

The vaccine is produced from viruses grown in human cell cultures, instead of in duck eggs as is the present vaccine.

Dr. Jerry Winkler of the federal Center for Disease Control in Atlanta estimated the cost of the medicine alone will be at least \$370 for the five vaccinations. The duck egg variety runs \$325 for the series of 23 shots.

Comedian Pryor critically burned

LOS ANGELES — Comedian Richard Pryor, the upper half of his body critically burned by a cigarette lighter that exploded in his hand, has only a 35 percent chance of surviving the third-degree burns.

The 38-year-old entertainer was in critical condition Tuesday at Sherman Oaks Community Hospital's burn ward, where he was rushed by paramedics shortly after the butane lighter exploded Monday night.

Authorities were unable to provide details on how or why the lighter exploded.

"Mr. Pryor sustained a serious 50 percent total body surface burn over his hands, chest, abdomen, back and face," said Dr. Jack Grossman. "He is in critical but stable condition at this time."

Grossman said the comedian has third-degree burns over the entire upper half of his body, adding that "only 25 to 35 percent of the people in his age group survive burns that extensive."

"It's a very bad burn," said Grossman, adding that Pryor was conscious and talking to family members early Tuesday.

Police said Pryor's clothing became engulfed in flames at his home in nearby Northridge.

"A neighbor apparently heard commotion and made the call to police," said Sgt. H. J. DeLong.

Fire Department paramedics picked up Pryor, who was sprawled in front of his house on Parthenia Street in the northern San Fernando Valley. Pryor, engulfed in flames, apparently had run into the street and collapsed.

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- MSC Fall Leadership Conference, Susan Dempsey, chairman
- MSC Welcome Back Picnic, Noel Watkins, chairman
- MSC Open House, David Ruiz, chairman
- MSC MBA/Law Day, Doug Noah, chairman

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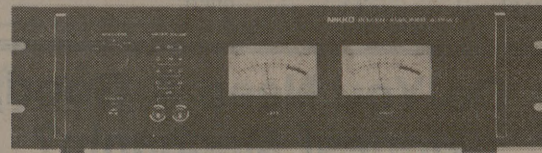
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BETA II PRE-AMPLIFIER

ALPHA II BASIC STEREO POWER AMPLIFIER



Featuring dual power meters, calibrated in watts and in decibels with four meter ranges, the Alpha II incorporates dual power supplies with separate filters and transformers for each channel, so that maximum regulation and minimum crosstalk are achieved.

Dual power supplies permit the awesome power necessary to maintain low distortion during high, continuous power drain. Circuitry in the differential amplifier section employs a current mirror design with a cascade circuit in the first stage for extra stability.

The Alpha II protection circuit monitors the output for irregular voltages. The circuit disconnects the speakers from the amplifier circuitry utilizing a "wide gap" relay that will not let power arc across the relay terminals as the unit is activated. A thermostat monitors heat levels and activates the relay under conditions approaching thermal overload.

Power Output: 110 watts per channel minimum RMS, both channels driven into 8 ohms 20 to 20,000 Hz with no more than 0.03% THD. Less than 0.03% at rated output.

Intermodulation Distortion: 70 at 8 ohms, 1 kHz

Damping Factor: 1 volt

Input Sensitivity: 110 dB

Signal/Noise Ratio (IHF A): 19" x 5 1/2" x 12 1/2"

Dimensions: 30 lb

Net Weight:

Reg. 500⁰⁰ SALE 339⁹⁵



The Beta II optimizes performance as well as flexibility. It provides output level and high phono overload capacity necessary to handle direct-to-disc recordings.

Twin regulated power supplies minimize line hum and provide maximum signal-to-noise ratio and low residual distortion. The FET differential input stage results in direct coupling of the phono cartridge, eliminating the phase shift of coupling capacitors. An active current source and cascade amplifier insure low noise and ideal current regulation.

Bass and treble controls provide 10 dB of boost or cut at 70 Hz and 10 kHz. When set at 12 o'clock, the tone controls are bypassed for maximum transient response. Other features include a 12-dB/octave subsonic filter, 20-dB audio muting, phono impedance selection (22, 47 or 100 kohms) and bidirectional dubbing. Volume and tone control detents facilitate repeatability of settings. A turn-on transient protector eliminates initial power surges that could damage speakers.

Frequency Response (High Level): 10-100,000 Hz, +0/-1 dB

RIAA Phono Accuracy: ±0.2 dB

Signal/Noise Ratio (IHF A) Phono 1, 2 (ref. 10 mV): 89 dB

Tuner, Aux: 100 dB

Total Harmonic Distortion Phono Pre-Amplifier: 0.006%

Tone Control Pre-Amplifier: 0.0007%

Maximum Phono Input: 250 mV

Input Sensitivity Phono 1, 2: 2.5 mV

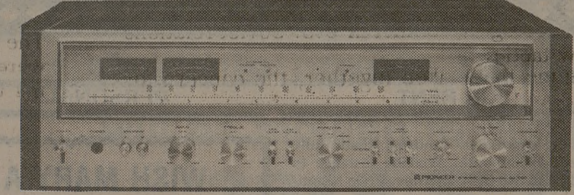
Tuner, Aux: 150 mV

Dimensions: 19" x 2 1/2" x 11 1/2"

Net Weight: 10 lb

Reg. 260⁰⁰ SALE 189⁹⁵

PIONEER SX780

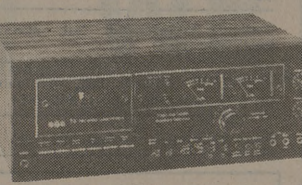


Pioneer SX-780 Stereo Receiver with Hybrid DC Power Amplifier Circuitry provides the latest improvements in FM/AM tuner performance.

Continuous power output of 45 watts* per channel, min. at 8 ohms from 20 hertz to 20,000 hertz with no more than 0.05% total harmonic distortion, or 45 watts* per channel at 4 ohms from 20 hertz to 20,000 hertz with no more than 0.08% total harmonic distortion.

Reg. 375⁰⁰ SALE 229⁹⁵

B.I.C. T-3

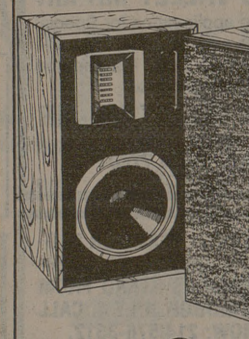


Reg. 530⁰⁰

SALE 359⁹⁵

Norman Eisenberg and Len Feldman report on the B-I-C T-3 Two-Speed Cassette Deck for *Modern Recording*: The performance of the B.I.C. T-3 — at both speeds — was definitely suggestive of cassette decks costing much more than it does. This verdict applies to all tested performance areas: frequency response, distortion, signal-to-noise, recording headroom, wow and flutter, and so on. The specifications for the T-3 are impressive enough; our lab tests confirmed or surpassed them. 'MR' tested the unit at both speeds, using two different tapes types as applicable, and came up with nothing but superlatives on all counts. The "worst case" response made it out to 19 kHz; the best response extended from below 20Hz to beyond 20 kHz. S/N varied from 57 dB to 69 dB, depending on speed and tape used. The latter figure, of course, suggests the kind of performance you'd expect of a high-grade open-reel deck.

ESS PS-8

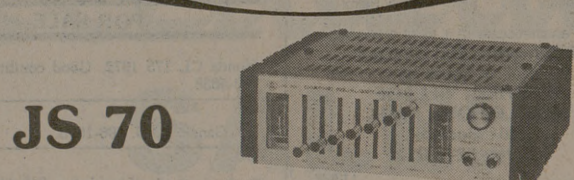


The heart of the Heil air-motion transformer is a feather-weight pleated Teflon diaphragm bonded with conductive aluminum strips. The diaphragm is suspended within a massive magnet structure. A series of precision milled focus lenses concentrate an intense magnetic field around the diaphragm.

When a signal passes through the diaphragm's foil strips, the bellows-like motion of the pleats squeezes air out at five times the speed of the vibrating diaphragm itself. This virtual "instant acceleration" distinguishes the Heil from all other loudspeakers.

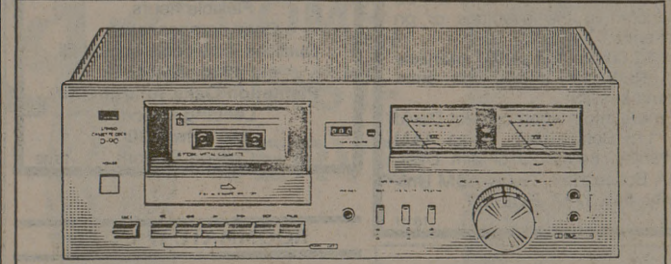
SALE 179⁹⁵ ea.

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SALE 99⁹⁵



SANSUI D-90 Cassette Deck

Frequency Response: 20-16,000Hz (Chromium Tape), 20-15,000Hz (Normal Tape). Wow Flutter: 0.055% (WRMS) S/N Ratio: 69dB (Dolby in) (Chromium Tape).

SALE 179⁹⁵

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