PASADENA BUSINESS

A Wild Program

By Joe Mullich

Imagine: your plane has just crashed in the Sierra Nevada Mountains, the pieces are scattered across the snow, and you are the sole survivor. You pull your light windbreaker tightly around you as you search the debris to find a topography map. Miles away is a ranger outpost, but between you and safety are wild animals and rugged terrain. The weather seems to worsen with each passing moment. The only food available is the wild plants and roots growing about, but who's to say which will provide a nourishing meal and which will cause ptomaine? Relax, it's just a game — an exciting 3-D computer game which two JPL scientists, Dr. Wes Huntress and Charles Kohlhase, have designed to give you the savvy of a modern-day Daniel Boone.

"In the game, you don't pull out lasers to defend yourself," says Kohlhase. "You have to make real decisions according to the rules of physics."
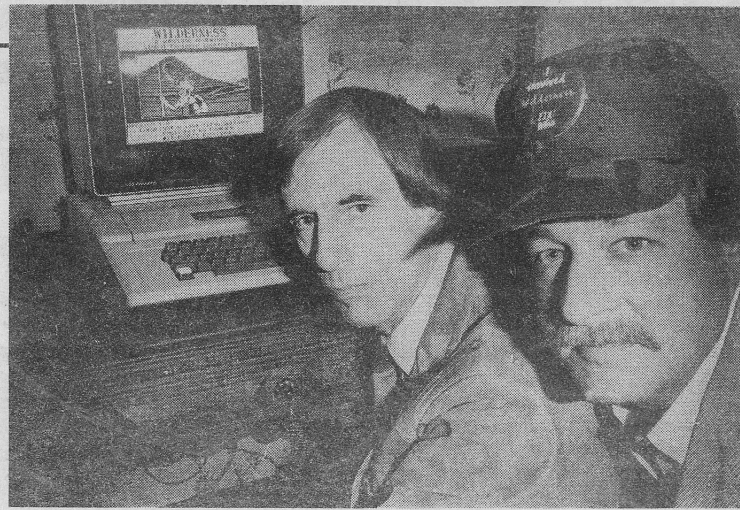
"Survival: A Wilderness Adventure" uses an advanced graphics system, which heretofore has been applied only by large computers for research, to create three-dimensional panoramas of rivers, mountains and forests. The screen doesn't present a bunch of amorphous pods chasing each other around a maze. Instead, you can look in any direction for 45 miles; the game's terrain is limited only by your ability to explore it.

"Anybody can create a game where you put someone in a dangerous situation," says James E. Palen, a Cape Giraldeau surgeon and pilot who was one of the game's expert advisors. "But this game represents the subtleties of stressful situations, such as the effect of dehydration and low oxygen on the ability to think while you're climbing a mountain."

When Dr. Wes Huntress is not designing video games, he is a JPL atmospheric scientist. "I study the chemical evolution of the universe," he says. Hmm. Now doesn't seem the right time to ask if he felt daunted designing a game that was so complex. Huntress previously created "Rendezvous," a computer game that simulates a space shuttle flight.

Ironically, Huntress' partner on Wilderness Survival but not the space shuttle game is the Mission Designer of the Voyager Project. Charles Kohlhase won the NASA Leadership Medal for that work and the JPL Outstanding Achievement Award for the 1969 Mariner Mars Mission design.

But how good is the game? At a recent Las Vegas exposition where it was unveiled, "Wilderness Survival" attracted considerable industry attention. *Sierra* magazine, published by the Sierra Club, found the game of such high entertainment and educational value that it will be the first software product to be included in the magazine's book review section.

The game comes equipped with a wealth of reading material, since one cannot reasonably be expected to carry a home computer while backpacking.

The game's survival guide includes part of the training manual of the Air Force Survival School. It's hoped Wilderness will eventually be used as a teaching aid, like the pilot's game, Flight Simulator 2, which has topped the best-sellers list for two years.

"Most computer games offer adventures that are only fantasy," says Huntress. "But this is an experience you could genuinely have in real life."

And you can experience the excitement and danger and still be close enough to the refrigerator to get a cold beer. That's what survival is all about.

Charles Kohlhase and Wes Huntress programmed the difficulties of wilderness survival into a computer game.