

Man and Space

Titan Rocket Vibrations May Cause Astronauts Difficulty

By ALVIN B. WEBB JR., United Press International
Cape Canaveral - The federal space agency is upset over the prospect that the upcoming Gemini flights into space could make human milk-shakes out of America's astronauts.

As matters stand today, the first Gemini pilots would go bouncing off into orbit at the rate of 660 bounces per minute.

That's enough to jar the teeth of a hippopotamus.

The culprit in this particular pot of Gemini problems is the Titan-2 rocket that will boost the capsule and its two men. Technicians have discovered the rocket is a sort of flying accordion, vibrating up and down at the rate of 11 cycles per second.

The National Aeronautics and Space Administration (NASA) told United Press International that "NASA considers the present level of oscillation as unsuitable for a manned vehicle."

Intra-service memos on the subject are phrased considerably stronger.

Space agency officials said that if rocket, spacecraft and spacemen alike go around bouncing 11 times every second there would be "potential degradation of the functional capabilities of the pilots."

Translation: The astronauts would be shaken to the eyeballs.

It is admittedly a bit difficult to see anything clearly while one's head is going up and down 660 times per minute (11 cycles per second times 60 seconds).

"... The relative motion between the pilot's head and the instrument panel, which also would be vibrating, could make it difficult for pilots to read instruments accurately," as NASA says.

Reactions Unpleasant
Another space agency official says tests in the 11-

cycle-per-second area have turned up a long list of reactions by pilots, "most of them unpleasant."

Scientists have concluded from their studies of Titan-2 military test shots at Cape Canaveral that the critical vibrations start a little more than one minute after blast-off, and that they last for about 20 seconds or so.

The problem and the responsibility for its solution has been dumped back into the lap of the Air Force, which had the Titan-2 problems and all-built to its specifications in the first place. The difficulty has been given a name: "Pogo-stick effect."

It has been more or less pin-pointed: "... Evidently originating as a pressure disturbance in propellant pumping and piping system which results in variations in engine thrust, which feeds back through the vehicle's structure, further amplifying the pressure disturbance..."

A two-point general course of action has been proposed: 1. Stop the vibrations; 2. Fix up things in the place where they started; i.e., the fuel pumps and lines.

Never Worries
The Air Force has been flying Titan-2 missiles for going on two years, but never worried about the "pogo-stick effect" because the nuclear warheads the rocket was designed to carry don't have eyeballs to shake or teeth to rattle or stomachs to churn.

NASA long ago selected Titan-2 as the Gemini capsule booster, and has had its scientific fingers in the rocket's innards for a year or more with not notable results. The problem is still there, on every Titan-2 that flies from Cape Canaveral.

Asked whether the "pogo-stick" cause-effect solution would delay Gemini's schedule, the space agency an-

swered with a firm "no."

There is a fair amount of reason for this indication of confidence. Project Gemini already is more than a year behind schedule, and it will be another 14 months—October, 1964—before the first pair of astronauts will board the capsule for a flight into space.

That leaves a goodly slice of time for finding some way to take the spring out of the flying pogo-stick.

Arizona Newspaper Resumes Publication After 7 Months

Phoenix—UPI—The Arizona Journal, morning offset daily newspaper, resumed publication Wednesday after a seven-month shutdown.

The revived Journal's first edition of 24 pages began moving to carriers shortly after 8 a.m.

The new Journal is published by Central Arizona

Newspapers, Inc., headed by wealthy rancher James M. (Jim) Smith.

In a statement of policy on the front page of today's Journal, Smith said the newspaper's editorial policy would

be dedicated to support of the Democratic party.

"The Arizona Journal will be dedicated to printing an objective newspaper that will not slant or editorialize the news," Smith's statement said.

"We do not intend to use the editorial page of the Arizona Journal for purposes of destruction of either political party," he said. "It is our firm belief that without this great two-party system, democracy will wither and die. It is also our firm belief that in the state of Arizona, the two-party system is all but dead. This deplorable situation has come about by the fact that

the major newspapers have wilfully gone about to destroy the two-party system."

The old Journal, which had been published by Arizona Newspapers, Inc., headed by Robert Morrison, former state

attorney general, was seized by the Internal Revenue Service and Morrison reached agreement on payment of the taxes, and the federal agency turned the plant back to Morrison.

SERVICES SET

Chelsea, Mass.—UPI—Funeral services were scheduled Monday at the Arlington Memorial cemetery outside Washington for Commodore John H. McGruder, who skipped the presidential yacht Mayflower for President Calvin Coolidge. McGruder, 74, died Tuesday at the U.S. naval hospital here.

Offset Press

During the summer, the corporate structure of the newspaper was reorganized and a new offset press was leased.

General manager of the newspaper is Milton L. Whittemberger, who has more than 40 years experience in the publishing business. Ed Emmerine, formerly of Boise, Idaho,

is editorial director; Robert Temmey, city editor; Bill Guthrie, sports editor, and Mrs. Bobbie Johnston, women's department editor.

The Journal is served by United Press International.

FAT OVERWEIGHT

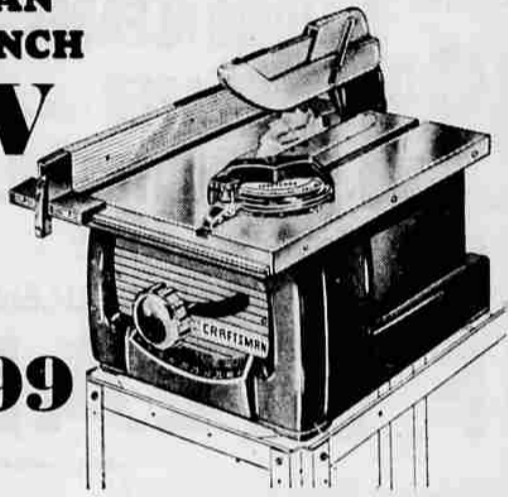
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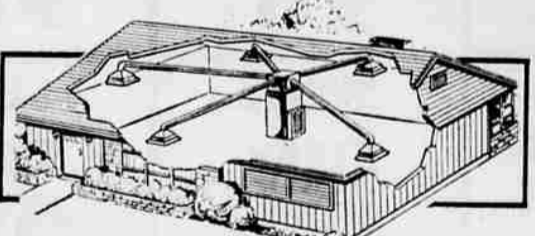
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Try and Stop Me

By BENNETT CERF

UNFORTUNATE indeed is the citizen who does not—or cannot—pay his debts to the U.S. Treasury on time. But private businessmen, lacking the government's big stick, must resort to subtler methods to collect their bills.

Possibly you have heard of one desperate creditor who enclosed a picture of his wife and 11 children with an overdue bill, noting thereon, "This is why I must have my money." Back came a letter from the delinquent with a picture of a ravishing blonde, explaining, "This why I can't pay it."



One collection letter that has proven unusually effective begins, "If you will refer to the date of our original invoice, you will note that we have done more for you than your own mother: we have carried you for fourteen months."

The Queen Elizabeth was about to pull up her gangplank and sail off one morning last month when a shiny Rolls Royce glided up to the dock and discharged a heavily furred London matron, followed by fourteen suitcases. Breathlessly, she explained why she was so late: "I told that fool chauffeur to take me to the pier—and he took me to the Pierre!"

Sunshine Magazine quotes this essay on water by an eight-year-old student: "Water is a colorless liquid that turns dark when you wash in it."