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JAN 16 1962

To: Chairman TOG

From: H. O. Lorenzen

Subj: Future Program

The author was designated to chair a sub-group to complete a future program for the Navy's satellite effort. Two interim reports have been written setting forth certain conclusions and recommendations.

It is felt that certain TOG approved decisions have already been made.

1. The Navy would continue to plan for a four frequency band satellite design commencing with the April shot.

2.

3. The best approach to the fixing problem at present

4. The Navy's program be outlined to cover as completely as possible the radar frequency spectrum.

5. Should NSA's proposal to Dr. Charyk for a simultaneous launch of a two ball system be approved the Navy's program be tailored to compliment this proposal.

Attached is a chart of the program as proposed. It is felt that this arrangement will permit a continuing flexible program for the Navy with the possibility of utilizing simultaneously the higher numbers in a combined two ball launch preferably Numbers 5 and 6 or 6 and 7 should be utilized in this launch if approved.

H. O. LORENZEN

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JAN 16 1962

Event	Coverage Bands				
1.					2600 - 3250
2.		550 - 620		810 - 920	
3.	165 - 185				2600 - 3250
4.	192 - 237	300 - 380	595 - 770		1600 - 2000
5.	230 - 300	490 - 600	665 - 855		3500 - 4400
6.	172 - 216	380 - 490	575 - 710	830 - 1080	
7.	250 - 320	595 - 770		1080 - 1350	2000 - 2700
8.	200 - 250		1300 - 1650	3000 - 3650	4950 - 5050

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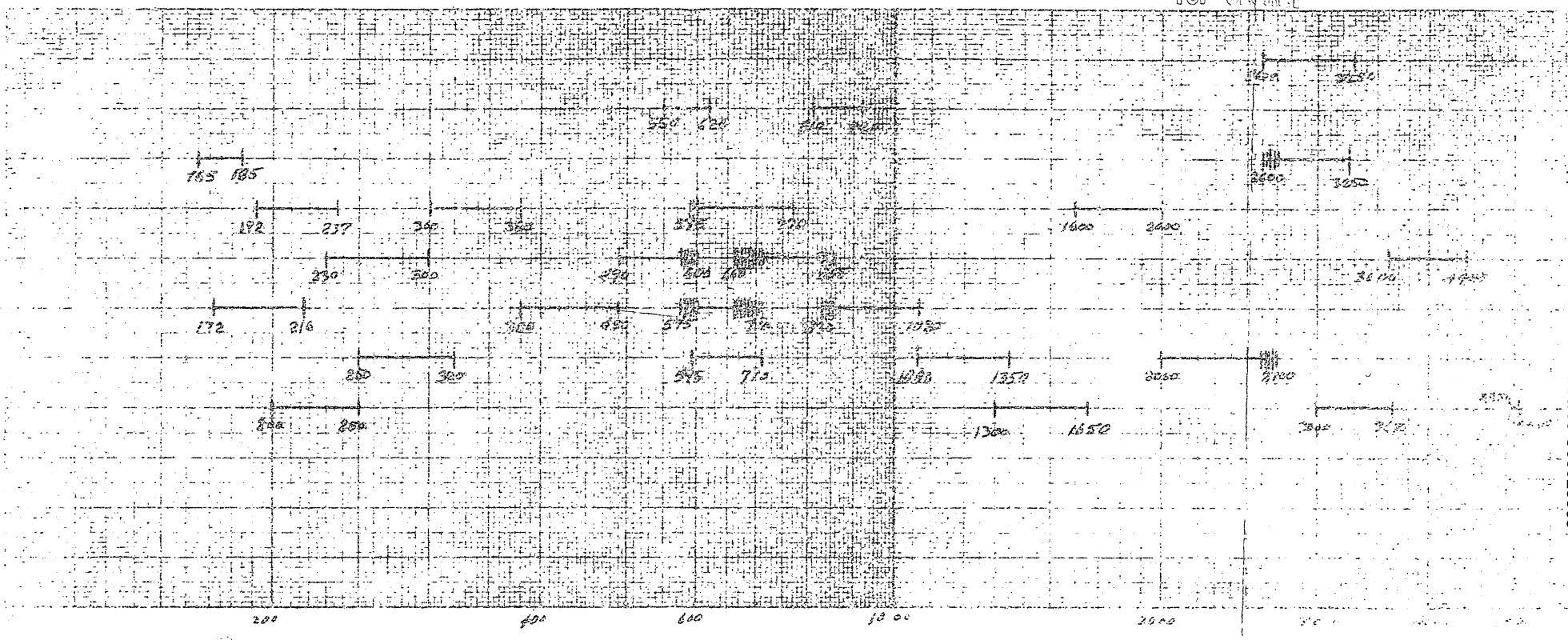


Rocket Fails, Other Shots Wait

By John G. Norris
Staff Reporter

CAPE CANAVERAL, Jan. 24—The failure of the "buckshot" satellite launching vehicle this morning presents a graphic example of what scientists face in seeking major space advances.

Compared to the two space spectaculars tentatively slated for Friday and Saturday—the moon and the man-in-orbit shots — today's purely scientific project was lacking in glamor.

Yet the attempt to launch five satellites at once, utilizing a novel and relatively inexpensive new method, promised significant gains in space science, a field in which the United States has consistently led Russia.

And it brought home to scientists of the National Aeronautics and Space Administration, hoping to get Astronaut John H. Glenn into orbit and Ranger III off in the right trajectory toward the moon this week, how the malfunction of one of many thousands of parts can result in delay or disaster.

Mercury Operations Director Walter C. Williams announced in the usual end-of-the-day developments report that "Work is proceeding on schedule for an orbital launch attempt no earlier than Saturday, Jan. 27."

And unofficial reports had the reassembly of the Atlas launch vehicle for the moon shot proceeding well.

Convair engineers took unusual step of "pulling" sustainer engine from the Atlas while the huge rocket in upright position for launching, in order to repair the fuel tank. If all goes well, Ranger III may be off to hand instruments on the moon Friday afternoon.

If this deadline is missed, they may try again Saturday afternoon, although it will be touch and go to avoid conflict with the Glenn flight should it be late getting off Saturday morning.

Should the Mercury launching have to be postponed beyond 12:30 p. m. Saturday, it ...cted to go over until ...y, while if the moon ... delayed beyond Saturday afternoon, it must be put off until the moon and earth return to a favorable relative position late next month.

All this means that everything must click for the man-in-orbit and second-billed moon shots to get off this week, and the odds are against all going well in the highly complex satellite projects.

It is not known just what went wrong in today's "buckshot" launch. The Thor-Ablestar launcher, with five satellites ranging in weight from eight to 59 pounds packed in its nose, went off all right. The second stage separated from the Thor booster and was started in the air, but failed to build up enough velocity to carry into orbit.

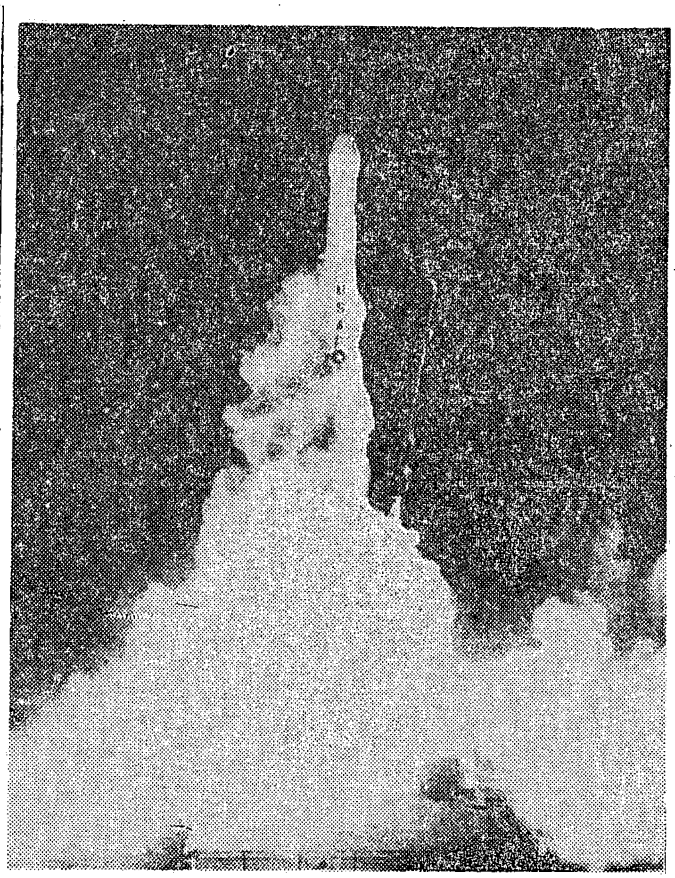
It dropped in the Caribbean Sea from about 50 miles up. Six of nine Thor-Ablestar satellite shots have been successful.

"Buckshot" — officially known as Composite I—was conducted by the Naval Research Laboratory and sought to put up five instrumented "moons," each of which would have sent back different types of information.

Such multiple launches have been pressed by the Navy as a means of collecting scientific data much more economically than by sending up satellites separately. They might also mark the way for commercial applications of space. In the establishment of world-wide communications and TV systems, for instance, large numbers of orbiting satellites will be required.

The five satellites in "buckshot" would have taught scientists more about the dangers to astronauts of the Van Allen belt radiation, measured the suns X-ray emmissions, studied radio wave propagation, and provided more precise calibration for the Navy's space surveillance system and Army engineers earth mapping project.

NRL scientists said they have no immediate plans for repeating the projects, as they must first get the Air Force to schedule another Thor-Ablestar launching.



Associated Press.

This is how a Thor-Able Star rocket carrying five satellites lifted off its Cape Canaveral launching pad yesterday, only to have a second-stage malfunction prevent putting its multiple payload in orbit.

Steel Flaws Delay Big Telescope

By Howard Simons
Staff Reporter

A little understood steel defect that has plagued engineers and metallurgists for ... caused a ... lapsed in 1944, taking 128 lives."

Brittle fracture was also responsible for the sudden splitting open of a giant molasses tank in Boston in 1919, a ... pany for the making of new parts, some of which will be cast, rather than fabricated, as were the ori...

The 140-foot ... signed as a ... instrument to