THE CHARLOTTE NEWS

★★★★★ FINAL

Largest Evening Newspaper In The Two Carolinas.

Established Dec. 8, 1888. Charlotte North Carolina, Saturday, February 1, 1958 30 Pages—Price Ten Cents

Satellite Circling In Space

WE DID IT! THE MOON IS UP

WORLD NEWS

Killings Weighed

LINCOLN, Neb. (AP)—Pint-sized killer Charles Starkweather and Caril Fugate, his 14-year-old girl companion, languished in separate institutions today while authorities weighed their respective roles in a shocking series of 11 killings.

4 Die In Crash

NEW ORLEANS (AP)—Four men died early today when a Humble Oil Co. helicopter crashed into rough waters of the Gulf of Mexico two miles south of Grand Isle, La. Seven other persons were rescued.

City Snowbound

ST. LOUIS (AP) — Snow-struck St. Louis recovered slowly today from a 11-hour surprise storm that paralyzed traffic and marooned hundreds in factories and schools.

Egypt, Syria Under 1 Flag

CAIRO, Egypt (AP)—Egypt and Syria merged into one Arab state today.

A joint proclamation signed by Presidents Nasser of Egypt and Shukri Kuwatly of Syria made the merger official.

The two presidents affixed their signatures to the historic document amid wild cheering from an Egyptian crowd assembled outside the old Presidential Palace.

The new state will have one flag, one cabinet, one Parliament and one army. Nasser is expected to become president and Cairo the capital.

It unites about 28 million Arabs in one state, its land areas separated by 150 miles of territory in which lie the states of Israel and Jordan. Egypt's population is more than 23 million and its land mass far graeter than that of Syria.

Leaders of both countries already are urging other Arab countries to join the union in one great Arab-speaking nation covering the Middle East. Countries which would be eligible for membership are Jordan, Iraq, Lebanon Saudi Arabia, Yemen, Sudan, Libya, Tunisia, Morocco, Algeria and the sheikdoms of the Arabian Peninsula.

Our Weather

Partly cloudy and windy. Much colder tonight and continued windy. Sunday fair and cold.

Low this morning	47
Low tomorrow morning	23
High today	55
High yesterday	56
High tomorrow	40

Sunrise today 7:22 a.m.; sunset today 5:52 p.m.

More Weather Data on Page 3-A

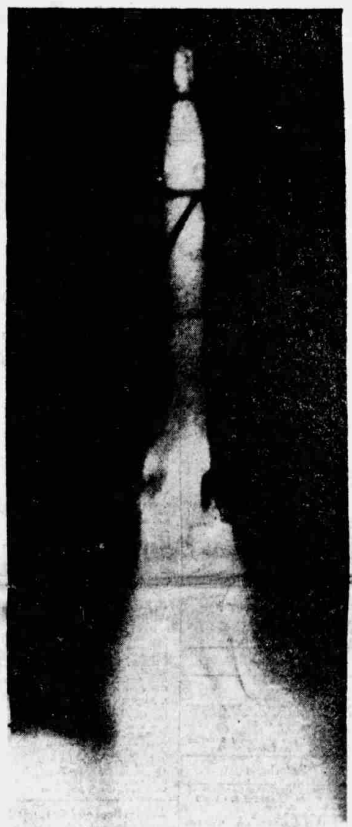
NewsWords Solution Too Tough

See answers on Page 3-B

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Go, Baby, Go!

Jupiter Rises Slowly From Ground With U.S. Satellite In Its Nose



And Go It Does!

Mighty Rocket Gains Speed Leaving Fiery Trail Behind

AP PHOTOFAX PICTURES FROM THE SCENE

Satellite Baring Secrets Of Space

By ALTON L. BLAKESLEE
AP Science Reporter

NEW YORK (AP) — America's first satellite is a true chatterbox gossiping about space.

Its radio voices talk continuously, not with the beep-beep-beep of Russia's first Sputnik.

All this talk is in code, telling what the Explorer is learning about cosmic rays, meteorites, and temperatures hundreds of miles above earth.

This system is telemetering, a kind of telegram from space.

Telemetering has long been done with rockets which soar up 50 to 200 miles, then fall down again. Instruments record information, code it, and broadcast in code. Ground stations record the signals on magnetic tape, then they are translated.

In a sense, your automobile gasoline gauge could be considered a telemetering device. The needle tells you how much gas you have — you don't have to put a stick inside the tank.

In essence, here's how the little moon's system works:

It is broadcasting on two transmitters, one on 108.03 megacycles, the other at 108 megacycles. (Radio waves travel through space or air — they don't need air to travel in).

Each one has four channels for telemetering information, from descriptions published in technical journals before the launching.

These channels operate in different ranges of cycles per second.

In one method of measuring meteors, a sensitive microphone detects pings from hits by these tiny space bullets. Signals from the microphone drive a counting circuit for continuous transmission of the cumulative number of hits.

The radio signal is continuous. But the code is contained in a series of transmitted bursts. The code can be in how frequent the bursts are, how long the burst lasts, or the time interval between bursts.

'Explorer' In Brief

By ASSOCIATED PRESS

SHAPE: A pencil-like tube 80 inches long, and six inches in diameter.

WEIGHT: 30.8 pounds, of which 12.67 pounds is the final stage of the rocket with its fuel spent, and 18.13 pounds the satellite instruments inside a steel case.

ORBIT: Early estimates are it comes as near as 185 to 230 miles of the earth, and swings 1,230 to 2,000 miles out into space.

ROUNDTRIP TIME: 106 to 113 minutes.

SPEED: 18,000 to 19,400 miles per hour.

LENGTH OF LIFE: 2 to 10 years.

LAUNCHED: At 10:48 p.m. Friday, Jan. 31, by the Army-developed Jupiter-C rocket.

'HAM' HEARS SIGNAL

WINSTON-SALEM (AP) — Radio ham Roscoe Sicroloff reported early today he heard the "purring" signal from the U. S. satellite Explorer at a frequency of 108.03 megacycles.

Moonwatch Mans Tracking Station

By JULIAN SCHEER
News Staff Writer

Charlotte moonwatchers, man your station!

That's the word today.

The U. S.s "Explorer" — the Jupiter satellite — may be seen over Charlotte at twilight.

Members of the Operation Moonwatch team have been asked to report to the Mint Museum tracking station at 5:30 p.m. Some time after that — weather permitting — monoculars may pick up the satellite.

MAY SEE ROCKET

The "Explorer" will not be visible to the naked eye on its first pass over Charlotte, but the last stage of the Jupiter rocket may be.

The "Explorer" won't be as bright as Russia's second sputnik, but experts say the rocket stage should be somewhat brighter and may possibly be seen without instruments.

The satellite may be seen after sundown at 5:52 p.m. Estimates figure the satellite will be in this area from that time up until about 7:30.

It will be traveling on a path from west to east and the weather man says the twilight should be clear. There will be some scattered clouds at about 4,000 feet, but after sundown they are expected to be out of the way.

Odds are about 50-50 for an instrument spotting at best, but the Smithsonian Astrophysical Observatory at Cambridge, Mass., wired its request for a tracking attempt today. The local group, mostly members of the Charlotte Astronomy Club, reports directly to Cambridge.

Bob Selby, pinchhitting for his father, chief moonwatcher Forest T. Selby, will set up the moonwatch team.

Army Rocket Takes 'Explorer' Into Sky

By BEN FUNK

CAPE CANAVERAL, Fla. (AP) — The United States' first man-made satellite whirled around the earth today and the Army disclosed that it is preparing to hurl another one into orbit.

It was the Army's Jupiter-C missile that fired a 30.8-pound "moon" aloft last night and recovered some of the U. S. prestige lost when Russia boosted her two Sputniks into space last fall.

"That's wonderful!" President Eisenhower exclaimed when news of the Army's success reached him at Augusta, Ga., where he had gone for a weekend of relaxation.

With a huge burst of flame and a thunderous roar that could be heard for miles along Florida's east coast, the Jupiter-C blasted off from this top-secret firing base at 10:48 p.m. (EST) last night.

About an hour and three-quarters later, its satellite had completed its first journey around the world and tracking stations were receiving its radio signals.

2-10 YEAR LIFE PREDICTED

It was so well established in orbit, said Maj. Gen. John B. Medaris, head of the army's missile test program, that it will remain aloft from 2 to 10 years.

It is unlikely the Army's satellite will be visible to the naked eye. In an announcement the army said: "It will appear in its orbit with about the brilliance of a one-fifth to one-sixth magnitude star, and a star of this brightness can barely be seen without some magnification."

There are no living organisms in the satellite, the Army said. The Navy plans to put yeast cells in one or more of its satellites in an experiment to provide data on the reaction of living matter to conditions outside the earth's atmosphere.

There was confusion in early reports about the altitude of the satellite. Medaris said the distance from the earth in its eliptical orbit would range between 185 and 1,230 miles. Dr. Wernher von Braun, designer of the rocket, said it would swing as high as 2,000 miles and as low as 230.

Von Braun said the 6-foot-long metal tube is circling the earth once every 113 minutes. Medaris said the time was 106 minutes.

They disagreed also on the baby moon's speed. Von Braun figured it at 19,400 M.P.H.; Medaris said almost exactly 18,000.

LONE VOICE IN OUTER SPACE

The satellite—christened the Explorer by its Army sponsors—has the only radio voice coming to earth from out in space. Sputnik I has disintegrated and the radio batteries of the dog-carrying Sputnik II have long been dead.

Two hours after the firing, Medaris told a news conference here that the Army "has been directed to fire one more (satellite) at the present time."

The date has been set, he said, but will be kept secret.

The army received a go-ahead to launch its little space traveler after the Russians had fired their two Sputniks. Previously, the space program had been assigned exclusively to the Navy.

Efforts to get the Navy's Vanguard rocket off the ground have failed. The first Vanguard blew up on its launching pad here Dec. 6. The firing was highly publicized in advance and the failure was a severe blow to U. S. pride.

Last night's spectacular success was no surprise to the Army, which claimed it could have done the job long before the Sputniks if it had been given the chance.

Medaris was so confident that in a statement prepared several days ago he predicted "about a 90 per cent degree probability" for success of the Army's first try.

POWER SHOWS IN BLAST-OFF

The great blast of orange flame that marked the Jupiter-C's departure from the earth indicated it was one of the most powerful rockets ever launched here. Taking off more quickly than other big missiles, it gained momentum swiftly as its mighty engine thrust it high into the starry night sky.

Seven minutes after the blastoff, its satellite was in orbit.

The army said the satellite, a metal capsule 80 inches long and 6 inches in diameter, contains no living organism. Its primary mission is to measure cosmic radiation.

Data picked up by the satellite will be relayed to earth by two radio transmitters. A high-powered transmitter, broadcasting on 108.03 megacycles, will send out information on temperatures, inside and outside the satellite. Another of lower power will broadcast impacts with cosmic rays and meteorites.

The bigger battery is expected to last two weeks. The other probably will operate about two months.

CELEBRATION TO BE BIG

The launching of the Explorer came on the eve of the second birthday anniversary of the Army Ballistic Missile Agency at Huntsville, Ala. Medaris told newsmen a celebration had been planned at Huntsville and "It'll be a whopper now."

Medaris went to nearby Patrick Air Force Base soon after he firing to meet with newsmen in a theater there.

After answering hundreds of questions, Medaris begged the reporters to end the conference "so I can get a couple of hours keep and be in shape for that celebration."

Asked what the Army will do next, Medaris said it has made several proposals for other programs.

He declined to amplify but asserted that "when your Army

See WE DID IT on page 3-A