

~~TOP SECRET~~  
~~ISI~~ NATIONAL RECONNAISSANCE OFFICE  
WASHINGTON, D.C.

THE NRO STAFF

May 19, 1971

~~TOP SECRET~~

## MEMORANDUM FOR THE RECORD

SUBJECT: Visit to Congressman Mark Andrews

At the request of SAFLL I accompanied a group to Congressman Mark Andrews' office on May 18. The purpose of the meeting was to advise Congressman Andrews as to the origin of two items of space debris which had been recovered on a North Dakota farm. Several objects had fallen onto North Dakota soil over a 50 mile track sometime between April 10 and April 15. Two items were sent directly to the Congressman by one of the farmers with the understanding that the farmer would be assured of being able to retain possession following the conclusion of any necessary investigations.

The other members of the party included Major [redacted] [redacted] SAFLL, Mr. Ed Butler and Captain [redacted] both of FTD and Captain [redacted] SAFOI.

In Mr. Andrews' office it was ascertained by the FTD people that the two objects, both cold gas spheres, one about 53 inches in circumference and the other about 18 inches in circumference, were of U. S. origin. Congressman Andrews was interested in obtaining information about the nature of the spacecraft so that he could satisfactorily respond to his constituents. Although this event had not received wire-service coverage, the local papers have been giving it much attention. A Fargo, N. D. article is attached.

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BYEMAN  
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Mr. Andrews has been briefed on our program as a member of the House Appropriations Committee. The Committee Staff Chairman was contacted informally by the NRO Staff prior to our visit and apprised of the fact that the mission of the spacecraft, if it were of U.S. origin, was likely a sensitive one. Mr. Andrews apparently took this fact into account for he stated that his desires were not to impinge on any classified areas but, by the same token, was in a position where he had to provide his constituents as much information as possible.

After FTD had stated with high assurance that the spheres were indeed of U.S. origin and following a brief picture taking session of Congressman Andrews, his staff and the spheres, Congressman Andrews asked me, off to the side, if I would be able to provide him with a briefing on the nature of the mission. I offered to provide him a broad description of the mission in private. After excusing the others from the room Congressman Andrews and I discussed broadly the nature of the photographic mission from which we suspect the spheres emanated. We are fairly certain since the spheres are of U.S. origin that they come from CORONA Mission 1114. That mission was launched on March 24 and was tracked in decay by NORAD on April 12. It was predicted to impact in northern Canada. Congressman Andrews expressed an appreciation for protecting the nature of our program and stated that he understood the difficulty encountered in responding to his request. I offered to provide him with as much information as possible about the Agena vehicle and assured him that we would respond to his request with all possible haste.

During the course of our informal conversation, he let it be known that he was extremely sympathetic to the military having attended West Point himself. He confided that his real problem was one of pacifying his opposition in North Dakota so as not to undermine his support of the SAFEGUARD program for the North Dakota area.

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I candidly expressed to him in private that occurrences of this nature are infrequent but that they are also finitely probable and with this system in particular there was no practical way to eliminate inadvertent failure to burn up upon re-entry. He expressed his understanding of this situation. I went on to explain that this particular program was coming to a close and that other similarly oriented mission vehicles are not quite as uncontrolled in terms of re-entry characteristics as is this vehicle.

In summary of our private conversation, I found Congressman Andrews to be extremely appreciative of the sensitivity of the situation and, on the surface, extremely supportive of our efforts and of the need to protect the secrecy of the reconnaissance activity.

Subsequent to the visit to Mr. Andrews' office, I agreed with SAFLL that we would provide the requested information through their channels to the Congressman. In summary, this situation could have been an extremely ticklish one if Congressman Andrews had not been already briefed on the program. However, as it turned out, I feel that it was a highly satisfactory meeting, although somewhat like a Max Sennett comedy with the experts using the Congressman's office as a Metals Laboratory and the attempts at "overplaying" the situation by SAFLL and the Congressman's administrative staff.

I have contacted SAFSP to enlist their aid in supplementing our Unclassified Agena data in order to assist in the formulation of the paper for Mr. Andrews.

*Harold S. Coyle, Jr.*  
HAROLD S. COYLE, JR.  
Major, USAF

1 Attachment  
Newspaper Article

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2500 Main Ave., Fargo  
Phone 230-6634

# Mystery Balls Puzzle N.D. Communities

By CHET GEBERT  
Staff Writer

OAKES, N. D. — Two identical, round metal objects found four days and nine miles apart in farm fields near here are posing something of a mystery for residents around this southeastern North Dakota community.

Each is 53 inches in circumference — about two times more than a basketball's outside measurement, even more volumewise — and each has fittings indicating its use was to contain a gas or liquid at one time. Both weigh in excess of 21 pounds.

Identical bandings or maybe remnants of painted stripes show on their charred outside surfaces.

Each shows evidence of having been exposed to extremely high heat.

The bottom — or top — of one has a five-inch diameter hole with uneven edges giving an appearance that sufficient heat came from inside to melt the metal, which is about 3/8 inch thick.

This ball's interior surface is discolored to an off-white in the area surrounding the intact threaded fitting opposite the hole. About a two-inch long section of broken pipe 3/8 to 1/2 inch in diameter extends outside the ball from the fitting.

A fitting on one end of the other ball appears to be simply a plug. On the other end, most of the fitting has been burned or melted away; it has the appearance of bronze.

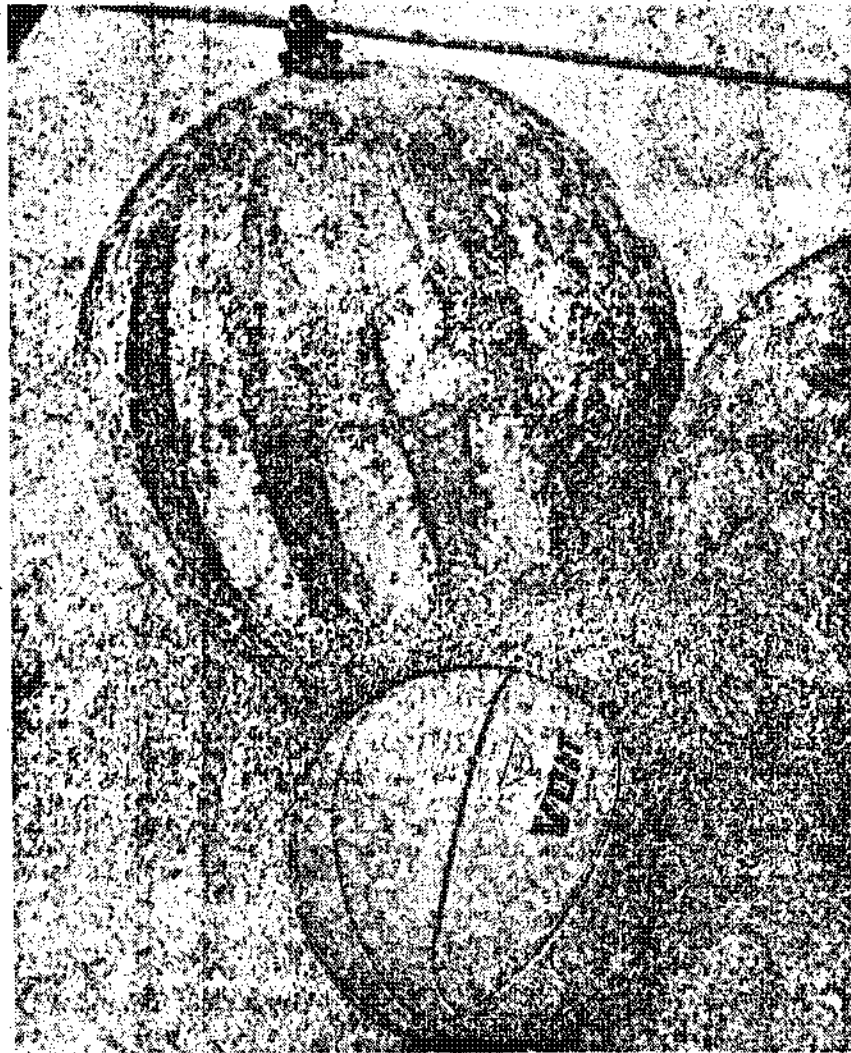
The half with the burned-out hole has two breaks in it. Neither break shows any sign of heat like the inside and outside surfaces, and the metal at the breaks is clean.

Where did the spheres come from? What were they used for?

There are about as many guesses as there are people around here. Each is about as good or unfounded as the next.

Did they come from some space shot?

Maybe, but space hardware usually burns to an ash on reentry into or passage through the atmosphere at high



Basketball shows comparable size with t

speed. And, Oakes, N.D., is far out of the usual overhead path of space flights — unless there was an unannounced errant flight.

Did the objects fall away from some airplane? Maybe a military plane?

North Dakota Air National Guard mechanics at Hector Airport, Fargo, and an officer at Malmstrom Air Force Base at Great Falls, Mont., say military craft have hydraulic and oxygen equipment similar to the balls. But they discard the idea that the spheres could have come from an aircraft in flight.

*These aren't  
the one of these is not  
the one Bud Cogle saw.  
He saw a 53" and  
8" sphere.  
B.*

"I'd sure as hell know it," said Lt. Col. W. E. Phelan of Fargo, a NDANG operations officer.

Maj. Dwayne M. Shackleton, air safety officer at Malmstrom AFB, who was in Fargo Wednesday night, was even more emphatic:

"In order for that sort of thing to come off an airplane, you would have to tear the plane apart," he said.

And there have been no known military or large aircraft crashes for miles around the Oakes area. Or have there?

That leaves an unidentified flying object, a prank or a hoax.

This area was unnerved a bit some time back when a small farm boy and his mother reported the landing of a three-legged space craft. The incident never was explained by Air Force investigators.

How about a prank?

Ray Nelson, this area's top practical joker, was suspected. But, the Oakes area farmer disclaimed any knowledge of the balls. He did, however, acknowledge that "it might not have been a bad idea" for him to have worked on.

A hoax or publicity stunt also were considered after Ronald Brummond brought the first ball to town.

He said his son, Corwin, 19, noticed the ball lying in a field he was working on April 20.

Many persons stopped to examine it and offer possible suggestions as to its origin after it was put on display at Ruhn's Farm Supply store. Doubters snickered at the idea that it could have come from outer space; others asked, "You got a better idea?" One possibility was that it had been a propane gas tank — but it had no evidence of handles or a base.

Few really took Brummond's ball seriously until Melvin Michel brought in a second one on April 24.

The Brummond farm, near Crete, N.D., and the Michel farm, east of Oakes, are about nine air miles apart. The farms are almost on a north-south line from each other.

Michel said he had seen this ball in a flax field and had gone by it several times on his tractor without giving it much thought.

"I saw it down there all spring but didn't bother to pick it up," he said. "One time I went by it and saw the stripes and thought it was a dirty beach ball that had blown across the field."

Then, when his mother, Mrs. Francis Michel, told him about a strange metal ball being found near Crete, he went back to the field and hauled it back to his farmhouse.

"Then I realized that, if it had been a beach ball, with the wind we've had, it would have been in Texas," Michel said.

In both instances, the farmers said there was no evidence of any fire near where the balls were found. Neither ball was imbedded in the soil either.

Both farmers believe the balls got on their farm land during the winter months.

Brummond assumes that his — if it fell out of the sky — was broken on impact with the frozen ground. Michel thinks his may have landed in a snowbank.

"Wouldn't it have made quite a thump if it had hit the roof of the house?" Michel said.

The mystery of the spheres has deepened to the point that inquiries have been made of government, military and space program officials in search of a sure-fire explanation of their origin.

In the meantime, the balls, tanks or whatever that would fit inside an average garbage can are on display here — Brummond's at Ruhn's Farm Supply and Michel's at the Oakes Times, the weekly newspaper.



SAFLLI] [redacted] 57204/Betty/May 26

MAY 26 1971

Dear Mr. Andrews:

Per your request, attached are details pertaining to the origin of the space fragments which fell in North Dakota on April 12, 1971. We have endeavored to provide as much unclassified information as possible. Since certain aspects of this mission are classified, we would appreciate it if you could assist in reducing speculation into the nature of the mission. Please feel free, however, to use all of the data provided in the attachment.

If we can be of further assistance to you on this matter, please let us know.

Sincerely,

[redacted] Colonel, USAF  
Congressional Inquiry Division  
Office of Legislative Liaison

FACT SHEET  
Attachment

Honorable Mark Andrews  
House of Representatives

SAFUSS

INFORMATION FACT SHEET REGARDING ORIGIN OF SPACE  
FRAGMENTS FOUND IN NORTH DAKOTA

Air Force metals' experts recently confirmed that the space fragments which fell on North Dakota in April emanated from an Agena spacecraft.

The Agena is a multi-purpose vehicle designed and built by Lockheed Missiles and Space Company of Sunnyvale, California. Both the Air Force and NASA employ the Agena. It will be remembered that Agenas have been used by NASA as docking vehicles in the Gemini program to illustrate man's ability to perform docking maneuvers in space. Other NASA related uses of the Agena have been as a relatively short-lived, high-performance booster stage for satellites and lunar and interplanetary probes. The Air Force has used the Agena for self-injecting spacecraft applications for development of spaceflight techniques and technology.

The identified fragments were cold-gas spheres used for attitude control of the spacecraft. The spheres were a part of the spacecraft launched by the Air Force's Space and Missiles Systems organization from Vandenberg Air Force Base on March 24, 1971. This vehicle carried the United Nations Registry Number 71-22A. The Space Defense Center of the North American Air Defense Command at Colorado Springs, Colorado, identified the spacecraft as Object 5059/71 in its tracking network. The spacecraft was tracked in decay by the Space Defense Center and was predicted to decay and burn-up on a track over Southern Canada during the mid morning of April 12.

Occasionally, some of the components of a naturally decaying satellite fail to burn up completely upon re-entering the atmosphere. It has been calculated by scientists, however, that the chance of one of these components landing in a populated area and causing property damage or personal injury is infinitesimally small.

The gas spheres which fell near Oakes were a part of the Agena's guidance and control system. The Agena spacecraft consists of five functional systems: structure, propulsion, electrical power, guidance and control, and telemetry. Overall the basic vehicle is 20 feet long and 60 inches in diameter. The control gas spheres are mounted in the guidance and control system on the aft equipment rack. The gas is used to provide attitude control for the spacecraft.

The Agena's engine is the Bell Model 8096 which is a turbopump-fed, dual-start, liquid bi-propellant rocket engine. The engine develops a rated thrust of 16,000 pounds in a vacuum for a period of 240 seconds. Fuel is unsymmetrical dimethylhydrazine; oxidizer is inhibited red-fuming nitric acid.

Launch configuration includes a first-stage or a combination of boosters which provide the velocity, attitude control, and discrete commands necessary to initiate the operation of the Agena. At separation of the first stage, following launch, a pyrotechnic device releases the Agena from its booster adapter. Retro rockets, mounted on the booster adapter, provide the reverse thrust necessary to reduce the velocity of the first stage. As the velocity is reduced, the Agena, continuing at an undiminished rate, leaves the adapter.

When separation has been accomplished, the Agena assumes an appropriate attitude, ignites the main propulsion system, and continues through a programmed series of events. The programmed flight may include injection into a variety of earth orbits or a trajectory into space. Attitude controls are exercised by a combination of programming, attitude-sensing, propulsion thrust deflection or passive gas jets. Upon reaching the desired orbital path or space trajectory, the Agena may remain and function as an integral part of the payload, initiate payload functions and separation, or perform other desired activities.

Several drawings and schematic portrayals of the Agena spacecraft are furnished to illustrate the placement and function of the spheres which were recently identified.



