

Concrete, ND - The last bucket of concrete was placed on the roof slab of the Perimeter Acquisition Radar (PAR) building near here Wednesday. It represented completion of the major structural concrete work on the PAR building and its associated power plant and followed by two weeks the "topping out" of the Missile Site Radar (MSR) building at Nekoma, ND.

Construction on both sites is on schedule and the topping out, in effect, readies the PAR and MSR work sites for inside work that will continue through the winter.

Some 72,000 cubic yards of concrete, of which 38,000 cubic yards were placed in the 1970 construction season, have been placed in the PAR and its associated power plant. The buildings have in that massive total of concrete some 17 million pounds of reinforcing steel.

Attending the brief and cold ceremony here were Brig. Gen. Bates C. Burnell, division engineer, Col. Lochlin Caffey, contracting officer, and B.L. Trawicky, chief of the construction division, all representing the Huntsville Division US Army Corps of Engineers.

Col. John L. Lillibridge, area engineer, and Maj. Joe Perkins, represented the local government agencies, and G.W. (Bill) Gilfillan, resident manager, A.C. (Doc) Poteat, construction manager, and Norman Burgess, PAR project manager, represented Morrison-Knudsen Co. and Associates, the construction contractor.

Some 2,500 workers, down from 2,800 on Oct. 24 and from a peak of 3,100 during the summer work season, are still on the two sites - Nekoma and Concrete. The work force is expected to be cut to 1,200 to 1,300 for the winter as a shift occurs in the work emphasis from structural construction to electrical and mechanical.

Weapons Work Next - The weapons systems contractor, Western Electric, will begin work next summer on the two sites and by next October will have increased its present force of 30 to 600 workers. The total weapons systems force, which will install the radar gear and other machinery, includes the Bell Telephone Lab force that will provide the technical direction.

Morrison-Knudsen crews will complete the major portion of their contract by next fall, when the Western Electric force reaches its peak employment.

Bell Telephone Lab technicians will also provide a research and development team for the PAR facility and do testing. Unlike the MSR, there is no total prototype of the PAR and the construction here will serve that dual purpose.

Test Successful - A prototype of the MSR at the Kwajalein Missile Range in the Pacific has in testing been successful in destroying 12 of 15 Spartan missiles, including a double firing. All were launched from Vandenberg Air Force Base, CA. One missile was partially destroyed and the two that were not destroyed escaped because of a failure of the "software" - the computer was off.

The radar in the PAR building here will be able to scan the horizon at a 120 degree angle from its single radar face that includes 6,200 active elements. In contrast, the MSR facility has four faces, each with 5,001 active elements. The MSR is the short range radar, while the PAR here is the long range eye.

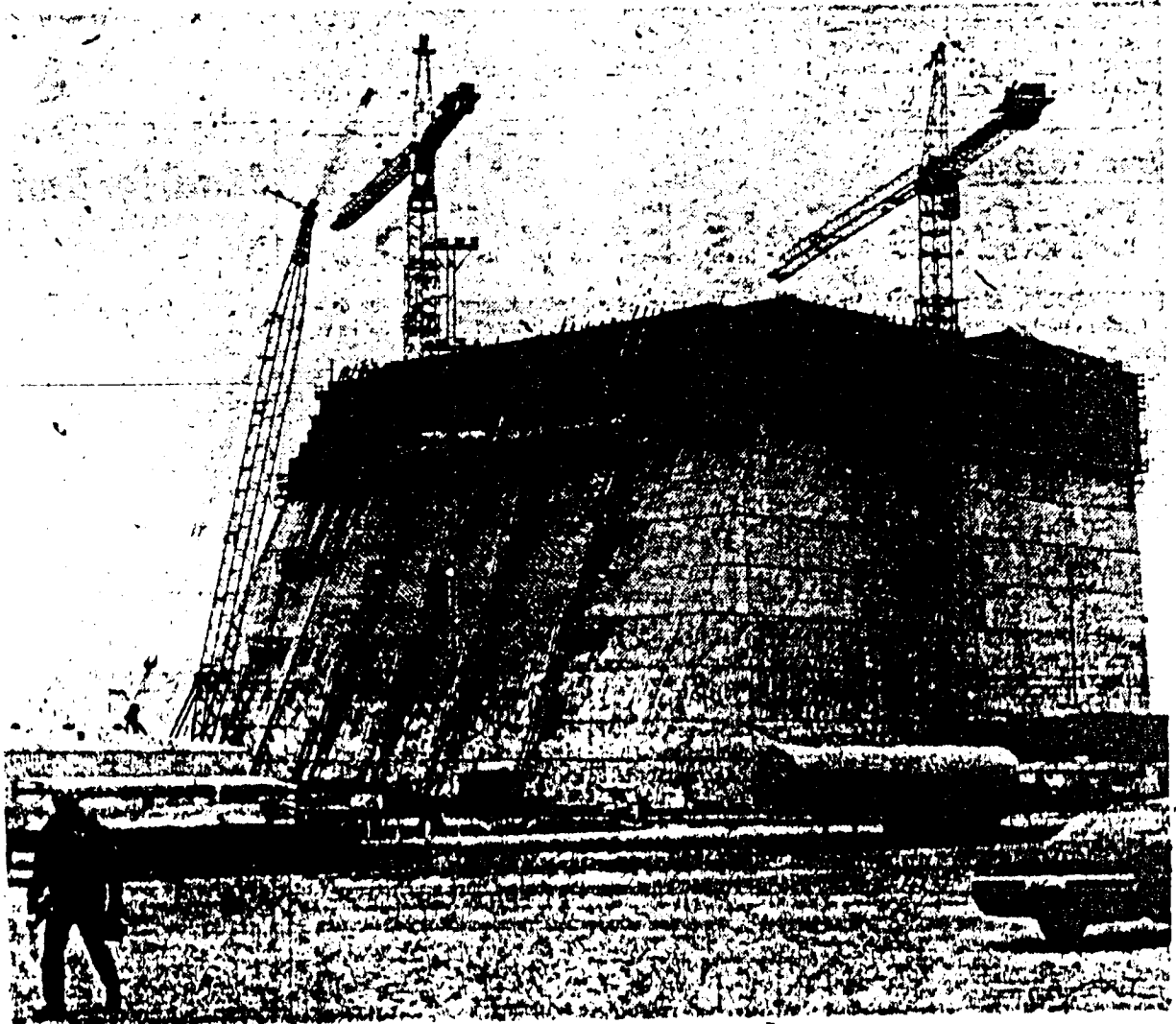
While the total PAR has no prototype, officials of Safeguard point out that individual components that will make up the facility have been tested.

Power of the radar facilities at the sites in northeastern North Dakota will enable them to determine if an attacking missile is armed, its trajectory and speed. This information can be programmed into the defense missiles - 30 Spartan cells and 68 Sprint missile cells - for intercept firings.

The interception of attacking missiles and protection of Minuteman silos in North Dakota and bombers at Grand Forks Air Force Base are the purposes of the Safeguard System.

There are no defense missiles at the PAR site here. The Safeguard system includes six missile fields, five Sprint fields and a Spartan field of which the Spartan and one Sprint field are located at the MSR site at Nekoma. The other four Sprint fields are at other locations in the area.

The entire system is to be operational in 1974.



THE LAST BUCKET of concrete to complete the roof slab on the Perimeter Acquisition Radar (PAR) building at the Concrete, N.D., Safeguard Missile site was put into place Wednesday. The event followed by two weeks the "topping

out" ceremony held at the Missile Site Radar (MSR) building at Nekoma, N.D. The completion of concrete placing readies the buildings at the two sites for work through the winter. (Herald Photo by Warren Strandell).