

# Dam releases water to test new valves

□ Twelve outlet gates are being installed to modernize an overflow system that has been in place since 1935.

**By Keith Rogers**  
Review-Journal

Water from the bottom of Lake Mead rushed from an outlet valve Tuesday below Hoover Dam and showered the canyon walls of the old Colorado River bed with a spray not felt in some 60 years.

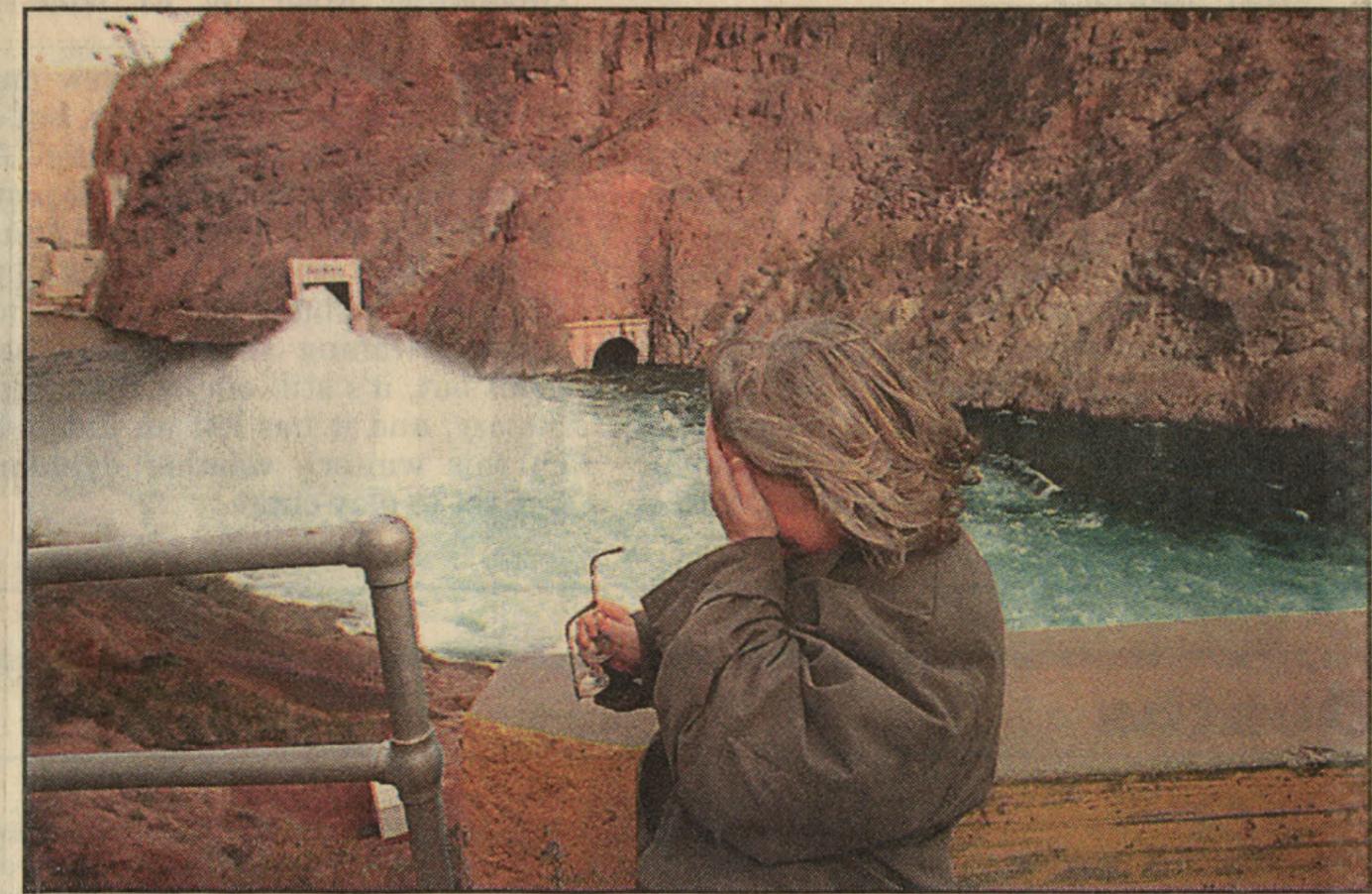
The test was to see how well new jet flow gates will work in replacing the

needle valves that since 1935 have been part of the dam's overflow control system.

The old valves were used only once, during the early years of the dam in the late 1930s or early 1940s, according to Bureau of Reclamation spokesman Bob Walsh.

He said it was a coincidence that the series of tests on the 12 new jet flow gates is taking place this year, when Lake Mead has reached its highest level since 1983. That was another year when high snowpack in the Rocky Mountains along the upper Colorado

**Please see DAM/3B**



Hoover Dam employee Debbie Majewski wipes spray from her face as water from Lake Mead is released Tuesday from a new valve system below the dam.



Water from Lake Mead surges from a jet flow gate below Hoover Dam during a test Tuesday to see how well the new outlet valves will replace the ones installed in 1935.

Mike Salsbury  
Review-Journal

## From 1B

River prompted engineers to fill Lake Mead to near its capacity.

"It wasn't done in anticipation of high runoff or El Niño," Walsh said. "This is something that's been on the books for a long time. We finally had the money to do it."

The jet flow gates are being installed under a \$2 million contract between the bureau and J.R. Jacks Construction of Las Vegas.

Bureau field engineer Don Bader said Tuesday's test of two gates on the dam's Arizona side was "like pulling the plug on the bottom of a big keg."

Bystanders were doused with a spray that built up in the canyon as water poured from the gates at a clip of 28,000 gallons per second.

Normally, water from Lake Mead only flows from penstocks in the dam through hydroelectric

power generators before discharging into the headwaters of Lake Mohave. Bader said Tuesday's exercise was a test to see how the generator system and the jet flow gates work together.

"We'd rather have a controlled release," he said, noting that another overflow mechanism is to let water fall over the spillways.

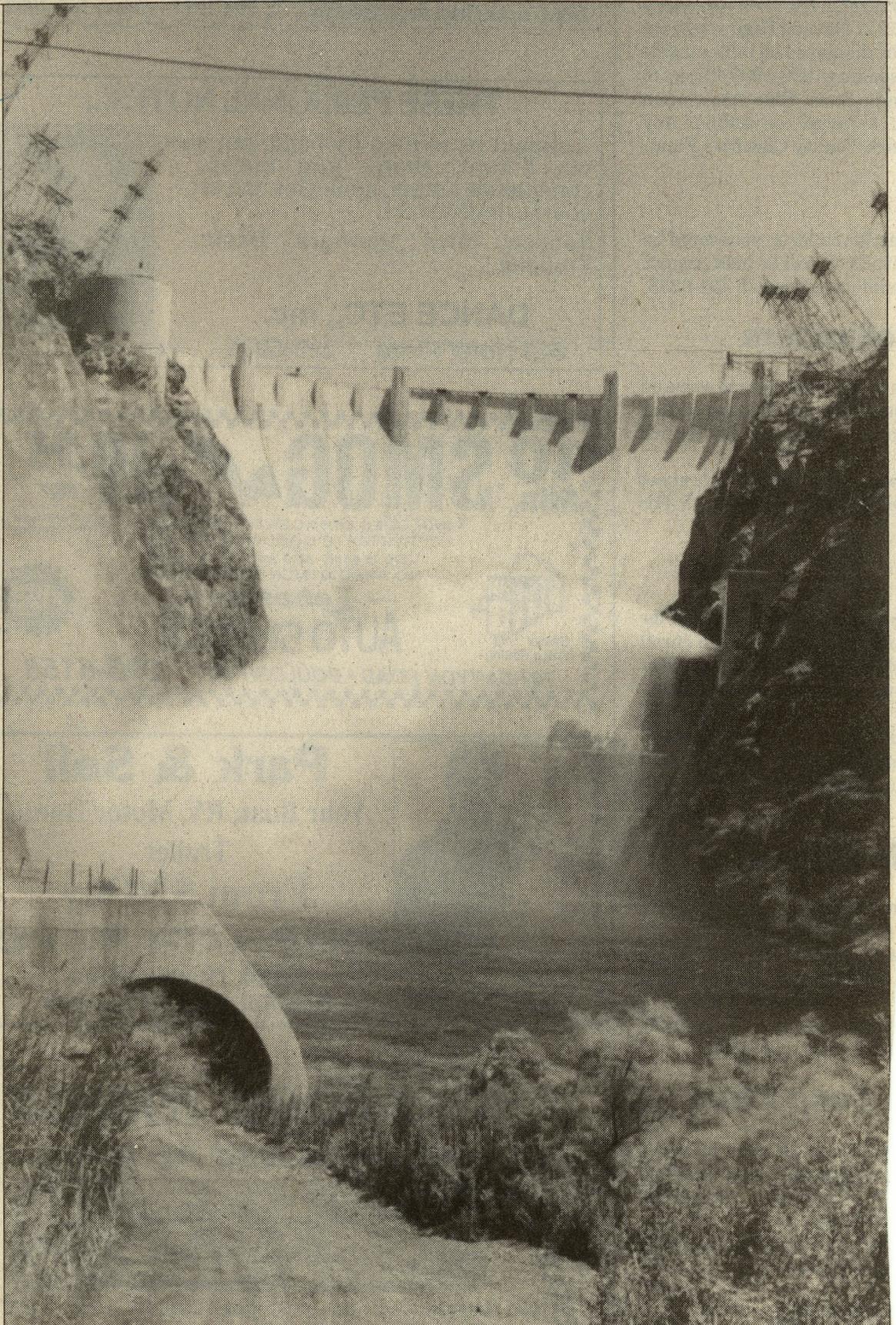
The only time Lake Mead water had to be discharged over spillways was 1983 when the lake level approached the 1,226-foot elevation mark — the crest of the dam.

This year, the lake's level peaked at about the 1,215-foot elevation mark, Bader said.

Walsh said current projections show the lake level probably will not exceed an elevation of 1,216 feet. "It has peaked based on everything we know today, which doesn't mean as the snow season continues we won't have to change our forecast," he said.

# WATER SHOW

From Page 1



Kathleen Wood/News Staff

**The Bureau of Reclamation tested one of 12 jet flow gates on Tuesday. The gates release water in extreme situations when downstream requirements exceed generator capacity. All 12 jets will be tested today.**

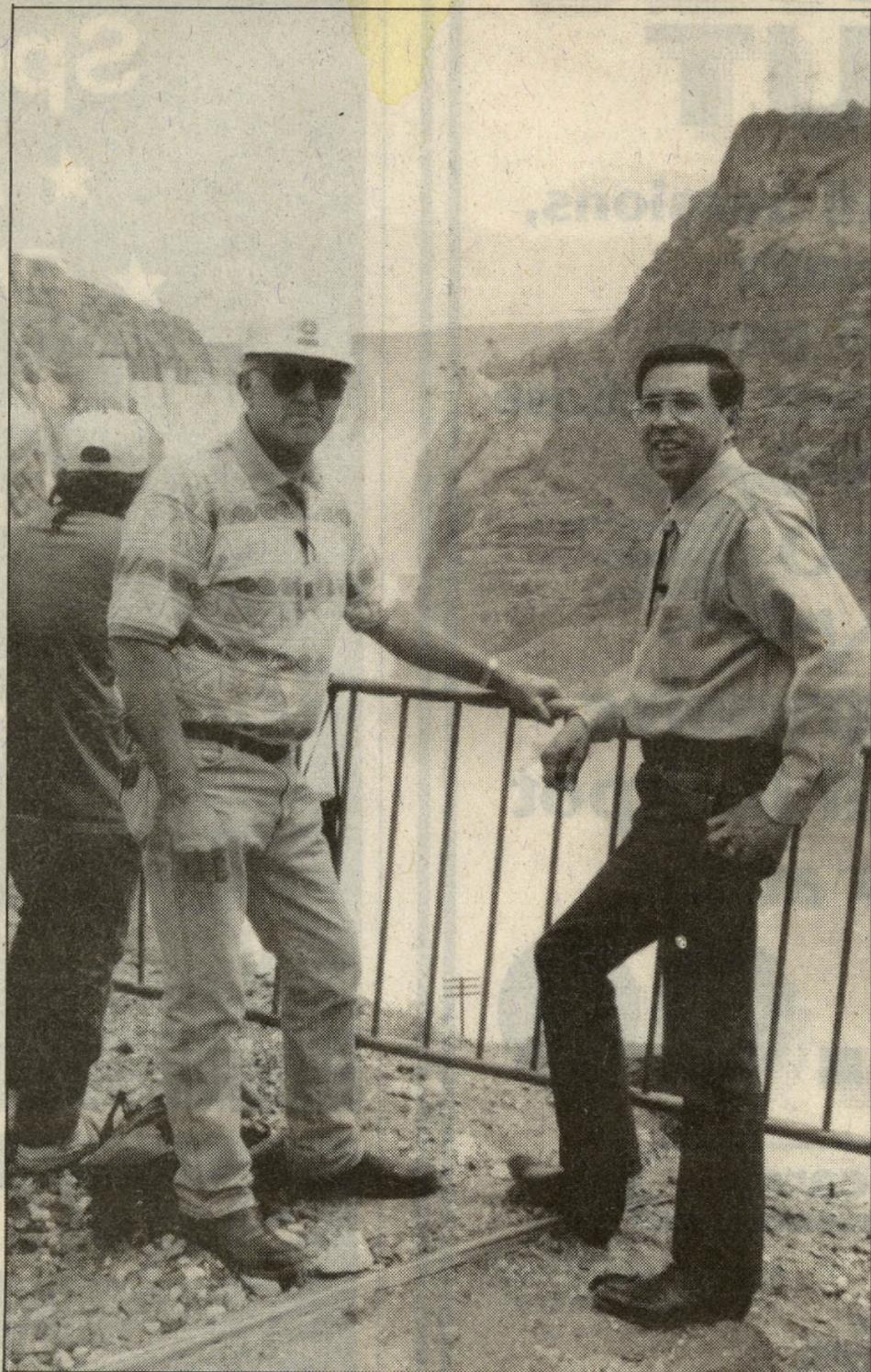
rarely be used in the future. However, they are necessary to allow the dam to meet maximum flood or emergency release require-

ments should the need ever occur.

The schedule for the Commissioner's visit is, briefing

and tour of retrofit work, 9:30-11 a.m.; open valves, 11 a.m.; valves close 11:30 a.m.; depart dam, 12 p.m.

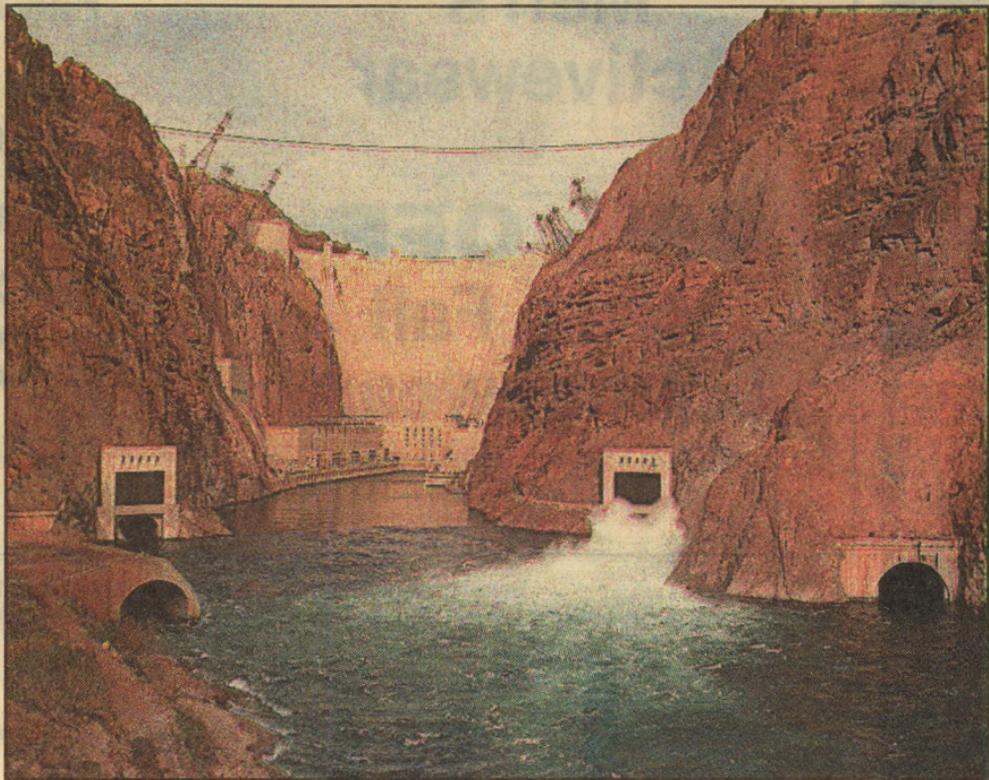
# GREAT VIEW!



Kathleen Wood/Staff

**GUEST VIEWERS** — Robert Radtke, left, a planner at Hoover Dam, views the release of water from two jet flow gates last week at the dam with Eluid Martinez, U. S. Bureau of Reclamation Commissioner. The view is looking south down river from the top of Hoover Dam.

# GO WITH THE FLOW



**Mike Salsbury**/Review-Journal

Water rushes from a jet flow gate during a test Tuesday on the Arizona side of Hoover Dam, which stands in the background wedged between steep canyon walls. See story, Page 1B.



Kathleen Wood/News Staff

**IN FLIGHT** — Startled cormorants take to the sky, silhouetted against a powerful whitewater spray at Hoover Dam. On Tuesday, the Bureau of Reclamation tested one of 12 jet flow gates. The gates release water in extreme situations when downstream requirements exceed generator capacity. All 12 jets will be tested today.

## Water show planned today at Hoover Dam

U.S. Bureau of Reclamation Commissioner Eluid Martinez will be at Hoover Dam today at 9:30 a.m., to start a spectacular water release and to attend a briefing on recent safety enhancement and other improvements at the 63-year-old structure.

During his visit, Commissioner Martinez will open new valves installed in the last year in Hoover Dam's upper and lower penstocks (the large pipes that carry water from Lake Mead to the dam's generating units). A total of eight valves will be open for 30 minutes as part of a test program, sending 15 million gallons of water per minute from the upper valves shooting into the downstream Colorado River 180 feet below.

Technically called "jet flow gates," the new valves replace the dam's original "needle" valves which were designed early this century. The old needle

valves have been replaced because of concerns with their operation and safety, according to a spokesman. The spokesman said the retrofit is an example of Reclamation's program to ensure that its facilities are maintained in a safe operating condition, and that they continue to meet their authorized purposes, such as flood control and water and power delivery, well into the next century.

From 1936 to the early 1960s, the outlet works were used to release water from the dam when downstream requirements exceeded generator capacity. After 1961, when the last generating unit was installed, all water was released through the generating units, and the valves were seldom used. Reclamation anticipates these new valves will

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**See WATER SHOW**

Page 4