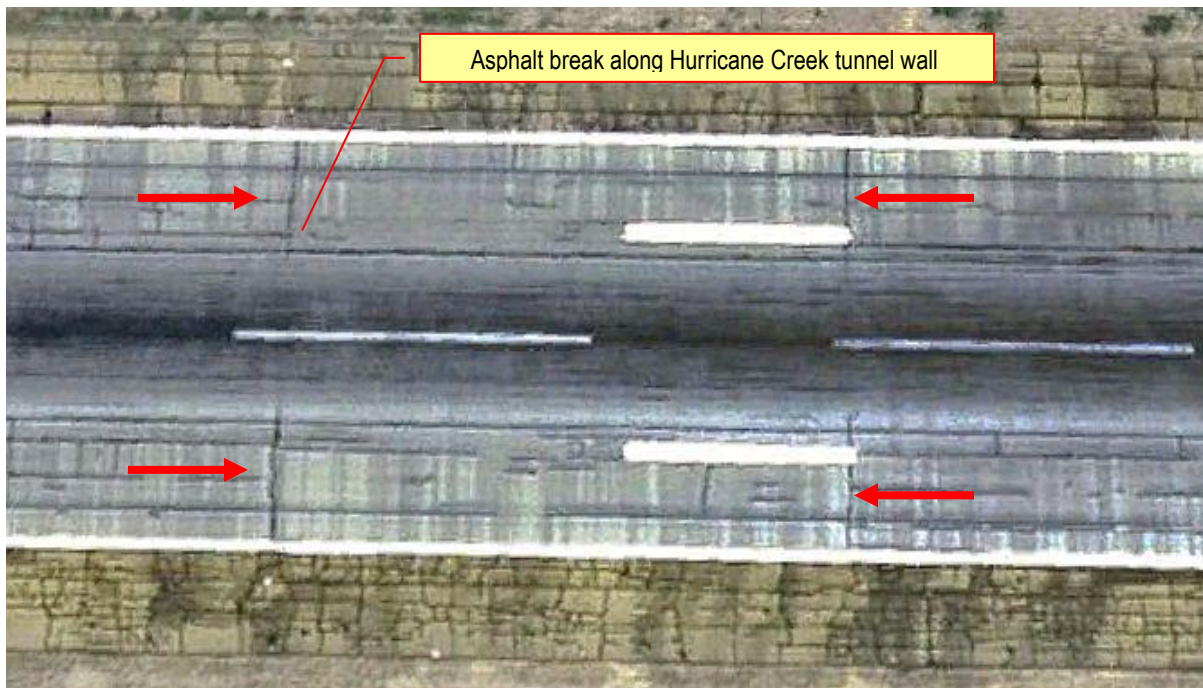


December 30, 2009

Honorable Deborah A. P. Hersman
490 L'Enfant Plaza, SW
Washington, DC 20594

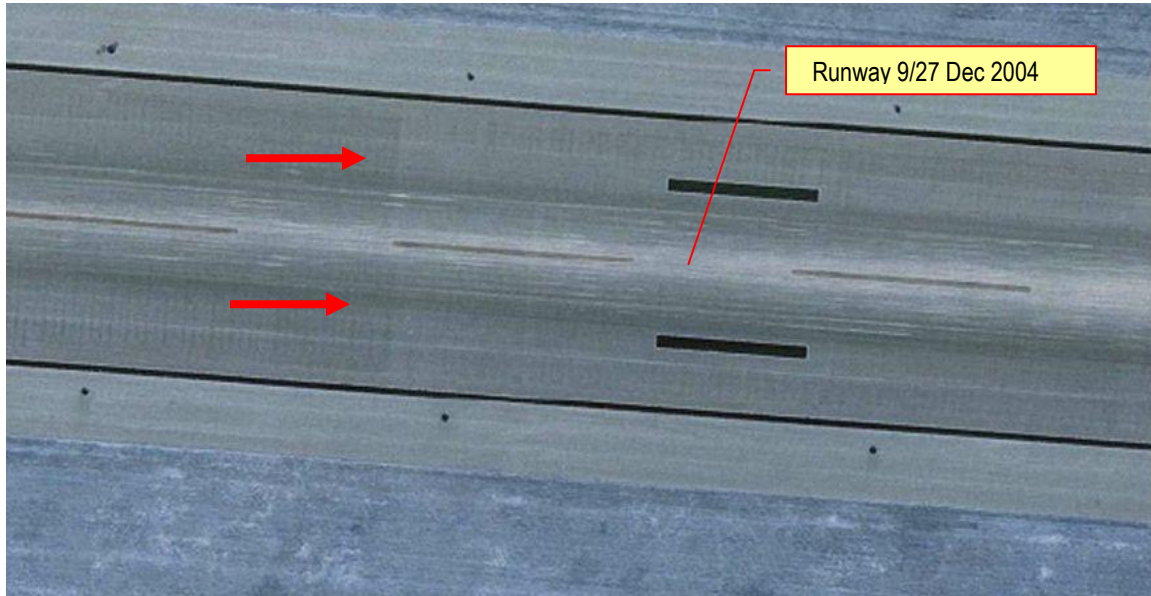
Dear Chairman Hersman,

My name is Guy Cobb. I was an internal air safety whistleblower while serving with the Business Continuity and Disaster Recovery Group at FedEx in Memphis. The reason I am writing to you is to submit some new information I believe may provide additional details in the NTSB case of a FedEx MD-11 incident on September 19, 2004 on runway 9/27 at the Memphis International Airport (NTSB ID DCA04MA082).



The satellite image above was taken on February 27, 2004 (Source: Google Earth). The image is of Memphis International Airport's runway 9/27 which serves east-west passenger and air cargo flights. This is one of the most heavily used runways in the world due to FedEx's day and nightly inbound cargo flights. In the image above you can see the condition of the runway was very poor in 2004. The largest vertical breaks in the asphalt shown by the arrows are directly above the Hurricane Creek tunnel which runs vertically north-south beneath the runway. On September 19, 2004 a FedEx MD-11 nearly crashed when it "bounced" on landing and the pilot attempted a "go around". In addition to the dangerous condition of the runway at the time, new information has come to light that the runway also had a "profile deficiency" of three feet that was recently corrected when the asphalt runway was replaced with concrete. See quote in article at the end of this letter.

I wanted to make note that there was no mention of the poor condition of the runway in the NTSB report which would prompt the question as to whether the NTSB investigators were allowed to inspect the runway following the MD-11 incident. The reason I ask this is the runway was quickly re-paved following the MD-11 incident as shown below in a Google Earth image of the runway in December 2004.



The red arrows are pointing to the area directly above the Hurricane Creek tunnel's outer wall. You can see a shadowing where the stress fractures were present prior to the re-pavement. The Memphis Shelby County Airport Authority contracted AFRAM, a structural engineering firm, to study the tunnel to determine if the runway and tunnel would be capable of supporting a fully loaded A380 aircraft which were on order by FedEx at the time. The report stated that the rebar in the interior tunnel walls would have to be at least "#8 bars @ 6'" and that "if the #5 bar option at 12" was used, the wall will not be strong enough." I was able to obtain the original structural drawings for the tunnel and verified that the interior walls were using #4 bars at 12" which provides even less support than AFRAM's recommendations.

FedEx is hyper sensitive about anything that might affect runway 9/27 since it is the primary runway for all inbound and outbound FedEx shipments into and out of Memphis. On November 6, 2008 I sent FedEx Express Manager, Randy DiGirolamo, a vulnerability report I had written about the Hurricane Creek tunnel along with the Memphis Shelby County Airport Authority's report provided by AFRAM that explained that the tunnel would not be able to support an aircraft such as an A380 without collapse. On November 28, 2008 the MSCAA announced a bid to replace the asphalt runway with concrete. When I asked Randy if there would be any additional support construction to the tunnel he wrote back that none had been approved.

The 2004 images clearly show that the tunnel is creating an undesirable affect to the runway as a result of heavier and heavier aircraft and engine vibration. The new concrete runway was built in almost six months to coincide with FedEx's busiest month of December. There was a \$2.5 million dollar incentive

to complete the project on time. Ajax Paving was quoted saying that they are working on a comparable project that is going to take two years.

In September of 2009 there was still 600 feet of runway left to complete by the November 8th FAA flight test. Most government contracts require a curing period of from 30 to 90 days and then a 28 day stress test. I requested the inspection records for the new runway from the Memphis Shelby County Airport Authority but they have not responded. They did, however, inform me that the person who was the airport's planning and design engineer, Tom Clarke, was no longer working for the Airport Authority. Tom was my contact who provided me with all of the AFRAM reports. One week before the new runway was scheduled to be complete I was terminated by FedEx after almost six years of service because they said my mother was using my personal FedEx shipping account. Federal OSHA are investigation this.

In addition to the tunnel problem with 9/27 there is now evidence that the runway also had a problem that was recently referred to as a "profile deficiency" by Ajax Paving who were in the process of building a new concrete runway in 2009. Here is a quote from the story about the runway's replacement in 2009 (the full newspaper story is at the end of this letter). I believe this "dip" could have caused the MD-11 to "bounce" during its landing in September 2004.

The project also corrected a "profile deficiency" in the old runway, Greaud said.

"It had a dip in it in a place where it didn't belong. We had to raise the runway."

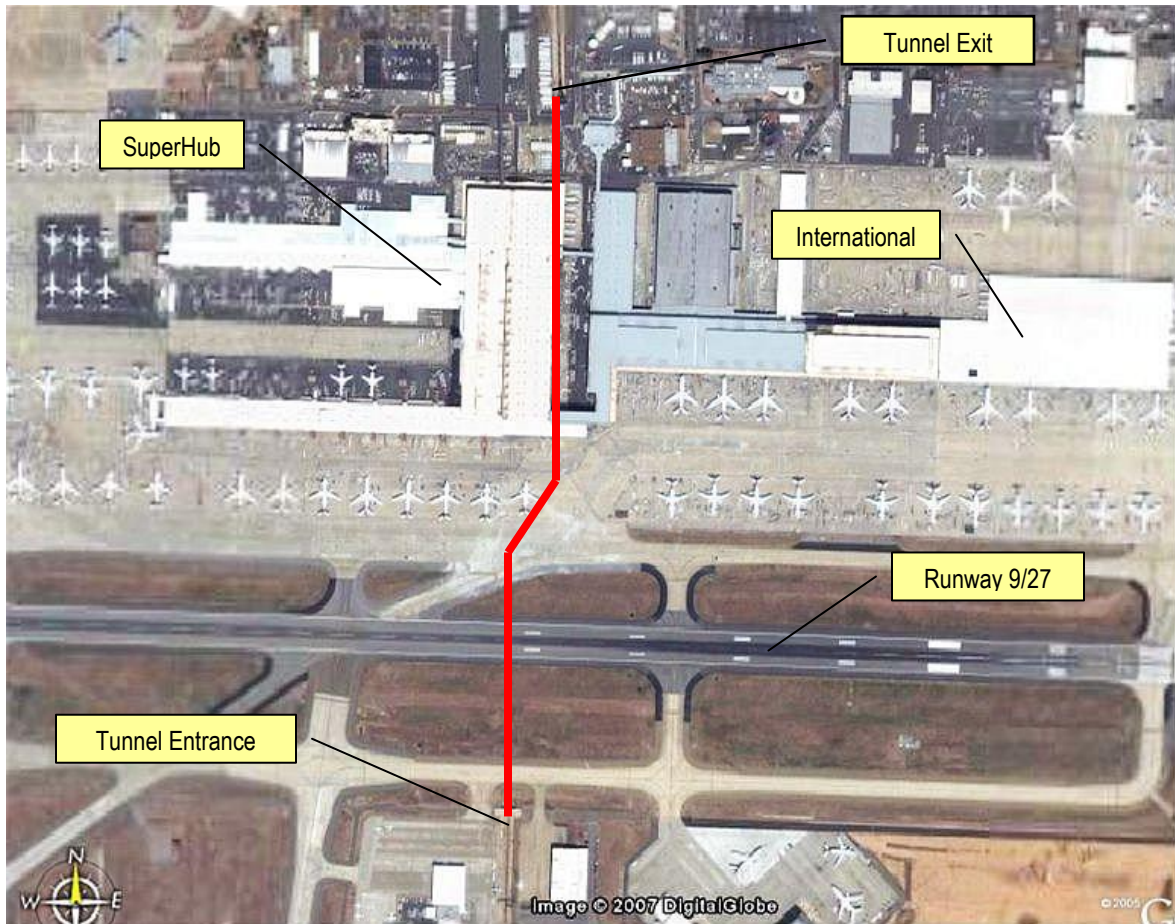
A 1,500-foot section toward the eastern end has been raised about 3 feet, he said.

Please see additional information below. Here is my contact information if you should have any questions.

Thank you,

Guy Cobb

(901)217-8962



Satellite view of path of Hurricane Creek tunnel. Water flows from south to north.



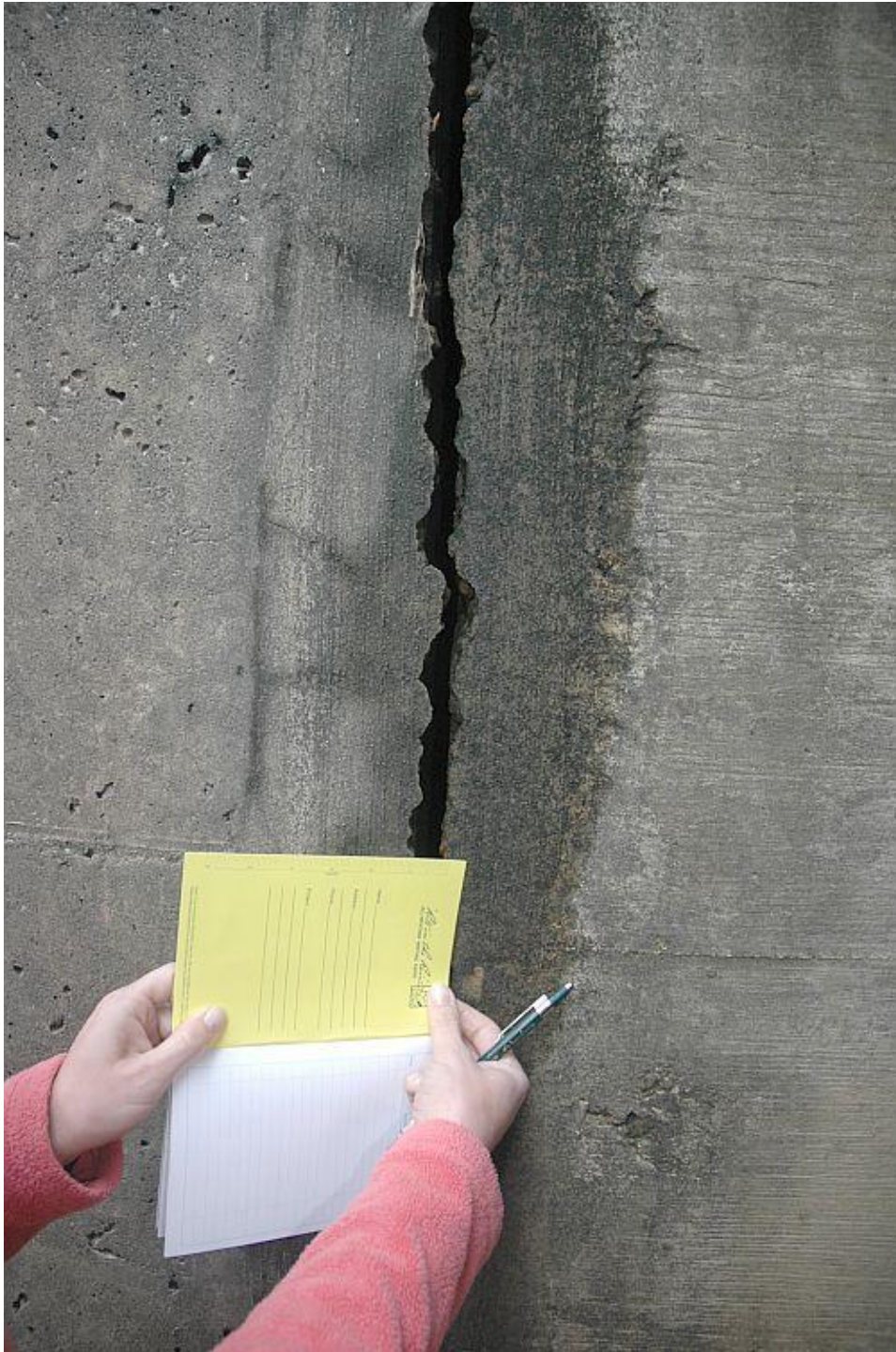
South Entrance to the Hurricane Creek Tunnel



Interior view of Hurricane Creek drainage culvert. There are four individual tunnels.



View of Hurricane Creek tunnel ceiling (November 2006)



Hurricane Creek culvert damage

Timeline of Events Starting in December 2006

December 2006	Guy Cobb creates Enterprise Vulnerability Report for Hurricane Creek tunnel
December 17, 2006	Discovery of cracks in runway 9/27 using Google Earth satellite images
December 18, 2006	Guy Cobb and Scott Crenshaw inspect runway with MSCAA Stacy Tomlinson
January 2007	WHQ Building D Computer Room Vulnerability Report Created
January 2007	Guy Cobb presents the Hurricane Creek Vulnerability report to Denise Wood, Chief Information Security Officer for FedEx.
January 9, 2007	Guy Cobb & John Baxter meet with Memphis Shelby County Airport Authority. Prior to this meeting Guy Cobb is instructed by Mike Rodriguez that FedEx Legal has instructed us not to provide the MSCAA with any of our images we took during our tour of the tunnel. We comply.
January 12, 2007	Guy Cobb sends email to MSCAA Tom Clarke expressing concern over tunnel
January 12, 2007	Tom Clarke response email
January 18, 2007	Guy Cobb emails satellite images of runway 9/27 to Tom Clarke showing damage where runway crosses the Hurricane Creek tunnel.
February 2007	Guy Cobb and Mike Rodriguez present the Hurricane Creek Vulnerability Report to large group of FedEx Express Management. Tod Ondra with FedEx Security is also present.
August 2007	Guy Cobb moves from FedEx Business Continuity and Disaster Recovery to the FedEx Innovation Group
August 2007	Guy Cobb continues to send emails and documents to Scott Mugno with FedEx Safety about Hurricane Creek and Building D computer room vulnerabilities. There will be no responses.
October 31, 2008	Guy Cobb email to Randy DiGirolamo with FedEx Express
November 6, 2008	Randy DiGirolamo response to Guy Cobb email, asks for AFRAM report
November 6, 2008	Guy Cobb sends Randy AFRAM report via COMAT (inner office mail)
November 28, 2008	Press announcement of replacement of runway 9/27
January 14, 2009	MSCAA closes bidding process for new runway
January 28, 2009	Bid awarded to Ajax Pavement

- February 12, 2009** Guy Cobb email to Randy DiGirolamo asking about additional construction. Guy Cobb will send at least two more emails to Randy about additional construction for the tunnel before he responds.
- March 1, 2009** Runway construction begins with removal of 207,000 tons of asphalt
- March 2, 2009** Guy Cobb emails Randy DiGirolamo suggesting installing cameras at both ends of the Hurricane Creek tunnel with funds from the Department of Homeland Security.
- March, 2009** Randy responds that no additional construction was approved for tunnel
- June 9, 2009** *Aerial Innovations* image of runway 9/27 construction (6.09.2009)



Runway 9/27's left and right sections are being paved first. No additional construction was approved to further reinforce the Hurricane Creek tunnel's ceiling and walls.

- September 20, 2009** 600 feet of runway remain to be completed
- October 26, 2009** Security conducts one and only interview with Guy Cobb. Asks him to identify who individual family members were that received packages from his mother.
- November 1, 2009** New runway 9/27 is complete
- November 8, 2009** FAA flight check takes place

November 13, 2009 Guy Cobb termination

November 30, 2009 Last day before runway is back in service

December 1, 2009 New runway 9/27 is operational for first time

December 20, 2009 Guy Cobb emails Mike Moon with Fed OSHA, the new information about the MD-11 incident on September 19, 2009. No response as of Dec 30, 2009.

December 27, 2009 Memphis Shelby County Airport Authority informs Guy Cobb that Tom Clarke no longer works for the MSCAA and will not provide any contact information.

December 28, 2009 Guy Cobb sends TOSHA Sheryl Messenger requested documentation via certified mail.

December 29, 2009 Guy Cobb sends request to Labor Secretary Solis for a replacement of Mike Moon as his whistleblower investigator.

NTSB Identification: DCA04MA082.

The docket is stored in the Docket Management System (DMS). Please contact [Records Management Division](#)

Nonscheduled 14 CFR FEDERAL EXPRESS CORP

Accident occurred Sunday, September 19, 2004 in Memphis, TN

Probable Cause Approval Date: 3/28/2006

Aircraft: Boeing MD-11, registration: N601FE

Injuries: 2 Uninjured.

The approach to landing was normal, and the crew stated that the touchdown was firm but not categorized as a hard landing. The airplane pitched up and bounced after touchdown and the captain became concerned that the airplane would porpoise. The speed had decreased to 107 knots, and reverse thrust had been initiated. The captain elected to conduct a go-around maneuver, and rotated the airplane to a nose high attitude of about 12 degrees prior to achieving sufficient airspeed and a positive rate of climb. The rear fuselage of the airplane contacted the runway for about 3,000 to 4,000 feet causing substantial damage to the airframe. The airplane lifted off, and the crew completed a second landing on runway 36R without further incident. Boeing training material and FedEx guidance states that "after reverse thrust is initiated, a full stop landing must be made. Do not attempt a go-around." Additionally, the FedEx tailstrike awareness training states that "the [pilot flying] must not exceed 10 degrees of pitch or retract the landing gear until the aircraft is safely airborne with a positive rate of climb."

The National Transportation Safety Board determines the probable cause(s) of this accident as follows:

The pilot's over-rotation during a go-around maneuver initiated because of a bounced landing. The go-around maneuver was initiated at a low speed and high pitch angle, and after reverse thrust was selected, contrary to Boeing and FedEx training guidance.

Memphis International Airport runway project takes off: Scheduled to finish on time for holidays

By Wayne Risher The Commercial Appeal, **Memphis**, Tenn.

Publication: [LexisNexis](#)

Date: [Sunday, September 20 2009](#)

Sep. 20--A nearly \$50 million overhaul of **Memphis** International Airport's east-west **runway** is sprinting toward a November finish.

A total reconstruction of the airport's oldest **runway** was about 80 percent complete Aug. 31 and on pace for completion before FedEx's holiday shipping season begins.

Runway

9-27 has been closed for takeoffs and landings since March. The project was compressed into a single construction season with the added challenge of keeping crossings open for cargo jets taxiing between north-south runways and the FedEx World Hub on the north side of the airport.

Ajax Paving Industries of Troy, Mich., the general contractor, aims to have the project completed by Nov. 1, in time for a Federal Aviation Administration flight check scheduled for Nov. 8, project manager Pete Mann said.

The contract calls for Ajax to be done with construction no later than Nov. 30, so FedEx can have full use of the **runway** when package volumes jump after Thanksgiving, airport vice president of operations John Greaud said.

Greaud said the project had to be carefully sequenced "because of the number of crossings. Every FedEx jet has to cross that **runway**. It's also a tighter time frame."

Mann said, "Not a lot of airports in the country have done what **Memphis** has done in the last 15 years. They've built a new (airfield), and it's all in concrete. They've got a product here where all the runways will last for a good many years."

When 9-27 is completed, the airport will have four concrete runways built within about a dozen years.

Greaud said a concrete runway's service life depends on how heavily it's used, but airport officials expect theirs to last at least 25 years and possibly 40 to 50 years.

The runway's identifying numbers are abbreviated compass headings: 90 degrees (east) and 270 degrees (west).

In Detroit, Mann said, Ajax this summer began a comparable **runway** project that will take two years to complete.

"This is definitely one of our largest jobs and quickest-paced jobs."

He said credit belongs to the Airport Authority, for which big projects are old hat, and to Ajax's primary subcontractors: APAC-Tennessee, for the runway's asphalt shoulders and soil cement base; Hypower Inc., electrical work; and Kamminga and Roodvoets Inc., earth moving.

A mild summer didn't hurt. "The weather this year hasn't been too bad for paving. We were planning on doing a lot of night-time paving, and we didn't do so much."

Ajax and subcontractors deployed as many as 250 workers at a time.

The job started with milling and removal of 207,000 tons of asphalt, plus unknown tonnage of old concrete base from beneath the **runway** surface.

Ajax set up production plants in a staging area at the west end of the **runway** to mix concrete, crush old concrete and mix soil cement that's part of a new base.

Subsurface layers consist of 20 inches of soil cement, topped by 8 inches of cement-treated base and 4 inches of porous asphalt, plus a network of drainage pipes.

On top went a 20-inch-thick layer of concrete, 150 feet wide, applied in 25-foot-wide strips by a slow-moving paving machine. The concrete plant churned out up to 400 cubic yards an hour as it was fed crushed stone from Missouri, sand from Mississippi and fly ash from Eastern Kentucky.

Mann said the paving operation this week was about 600 feet away from the west end of the 8,946-foot-long runway. About 125,000 cubic yards of concrete had been poured.

The project also corrected a "profile deficiency" in the old runway, Greaud said.

"It had a dip in it in a place where it didn't belong. We had to raise the runway."

A 1,500-foot section toward the eastern end has been raised about 3 feet, he said.

As paving winds down, the contractor will push ahead with electrical work and airfield painting.

FedEx spokesman Jim McCluskey said, "Everything is going based on plan. They're going to meet their target dates for opening for us, in time for our peak shipping season. To my knowledge, everything concerning the project has gone smoothly."

Greaud said in addition to Ajax's \$48 million contract, there are two incentives for timely completion: \$1 million for the runway to be fully functional for the FAA flight check, and another \$1.5 million to meet the Nov. 30 target.

"It's going to be tight, but we don't have a concern at this point about being able to meet that date," Greaud said.

-- Wayne Risher: 529-2874

Runway 9-27

Oldest and only east-west layout of four runways at Memphis International Airport

Nearly \$50 million reconstruction replacing asphalt surface with longer-lasting concrete and eliminating a "profile deficiency," or dip, toward the east end

8,946 feet long by 150 feet wide, with 25-foot asphalt shoulders

Completion scheduled for Nov. 30

Owned by Memphis-Shelby County Airport Authority, memphisairport.org

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