THE NEWSLETTER FOR THE SUTRO TOWER NEIGHBORHOOD | JULY 2018

Way Up There, Workers Keep Sutro Tower Safe and Sound

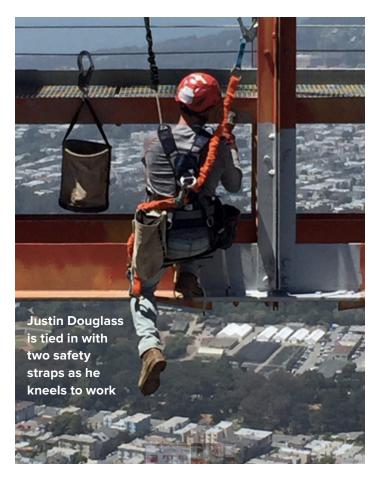
efore starting to grind away a spot of corrosion 750 feet up Sutro Tower, Justin Douglass carefully planned his footing and snapped in two tethers attached to his safety harness, so that one would still be in place whenever he moved the other.

"No free-climbing here," said Douglass, who has worked on towers from Florida to Alaska for the past 11 years. "Sutro Tower stresses safety first. I never take a step or put my hand anywhere without paying attention, and I never rush."

Douglass and other tower experts are spending the summer performing the maintenance work that keeps Sutro Tower structurally secure.

Each year, independent outside engineers inspect the tower to identify any potential maintenance needs resulting from the tower's exposure to wind, sun and moisture. This summer and fall, workers from Best Endeavors Inc. of San Rafael, under the supervision of Sutro Tower Inc. management, are addressing identified areas of need, taking before-and-after photos to verify that each instance of corrosion is being corrected. The repairs then are confirmed by an independent quality assurance team.

Workers concentrate on one of Sutro Tower's three legs and horizontal facings each year for routine maintenance, thus covering the entire tower every three years before starting



over. Workers also perform other specific repairs noted in the annual engineering inspection. Most work involves replacing bolts that are nearing the end of their useful life, or scraping away rust and covering the scraped areas with high-quality epoxy paint. Sutro Tower's 2018 maintenance is

SEE SUTRO TOWER WORKERS ON PAGE 2

IN THIS ISSUE

- 2 Outside Experts to Review Plan for New Antennas
- 3 Sutro Raven's Photobomb Goes Viral
- 3 More Pollination for Local Gardeners
- 4 New Lighting Plan for Sutro Tower

Sutro Tower Workers

FROM PAGE 1

mainly, but not exclusively, on the West leg and North face.

A recent report by the U.S. Geological Survey noted a potential risk during an extreme earthquake for 40 modern San Francisco high-rises built with welded steel moment frames. Sutro Tower was not on the USGS list: it has a braced frame built by bolting its steel sections together. Ongoing maintenance that insures the integrity of the bolts is critical to the soundness of the tower.

So what's it like to do the work? "Actually, I was petrified of the heights when I started," said Douglass, who was a high school wrestler growing up in Maryland and an ordinance specialist in the Navy. "But I've always had high attention to detail, whether in



sports or in the military, it was instilled in me. I follow all the regulations 100% and put my trust in my gear, and I'm totally safe. It's something I pride myself in."

For one week in August, workers will climb up the tower's highest antennas to inspect and maintain the television transmission equipment. The antennas are shut off while this work is being

done; during that week the stations broadcast via auxiliary antennas lower on the tower.

To minimize the noise impact on neighbors, tower workers use quieter tools as much as possible and use their louder heavy-duty air tools only when absolutely necessary in order to meet maintenance requirements.

"You know how in real estate, it's location location? Here it's safety safety," said Sutro Tower chief operating officer Eric Dausman. "Safety of the workers, safety of the community, and safety of the tower."

A report of all Sutro Tower maintenance work is submitted each year to the San Francisco Department of Building Inspection and posted online at http://sutrotower. com/safety-and-maintenance/ safety-reports/



Sutro Passes Fire Inspection

Fire Inspector Warren K. Der (right), from the San Francisco Fire Department's Bureau of Fire Prevention, gave Sutro Tower a clean bill of health after the annual inspection of the facilities this spring. Among other things, Der checked mechanical rooms, generators, wiring, emergency equipment, control rooms, storage areas, and accessibility.

Outside Experts to Review Plan for New Antennas

peer review committee of independent engineers has been named to assess the structural impact of 10 new or replacement broadcast antennas needed on Sutro Tower so Bay Area television stations can meet new Federal Communications Commission requirements.

The FCC is transferring 30% of the radio frequencies set aside for TV broadcasts to wireless companies, so stations must "repack" their transmission signals within a smaller portion of the frequency spectrum, requiring new antennas. The reinforcement work to support this will be reviewed by the committee of engineers and submitted to the Department of Building Inspection as part of the submittal of the permit application to the San Francisco Planning Department for approval.

After several months, the San Francisco Department of Building Inspection

approved a list of structural engineers and geotechnical experts eligible to participate as members of the peer review committee. The three selected for the work at Sutro Tower are Andrew Whittaker of the University of Buffalo, John Egan of Danville, and Brian McDonald of Exponent Failure Analysis Associates in Menlo Park, whose inclusion was requested by the community liaisons of the three neighborhood associations nearest to Sutro Tower. According to Ronald Hamburger of Simpson Gumpertz & Heger, Sutro's engineer of record, the panel's scope of work is to "provide independent peer review of our nonlinear seismic analysis and the resulting design of installing the new and replacement antennas, and any concurrent structural safety improvements." The panel's assessment is expected in September.

Sutro Tower Raven's **Photobomb Gets Millions** of Clicks

n inquisitive raven became an internet sensation earlier this year after peering into the Sutro Tower weather camera in the middle of a television newscast — and the video went viral.

"The clip was seen on YouTube 2,192,278 times," said Channel 2 meteorologist Mark Tamayo, who was

delivering his forecast when the photobombing bird landed on the camera and stuck its beak onto the lens. "On my Twitter account it had 33,000 re-tweets and 88,000 likes. And on KTVU's Facebook

page, it had 6.2 million views."

The camera is mounted on Sutro Tower 590 feet high and is usually



pointed toward the Golden Gate Bridge. Its feed is shared by several TV stations for use during weather reports on their newscasts. "I may need a little more time for this weather segment,

> because we have a little visitor," Tamayo ad libbed on-air when the bird joined in.

A week later, as the bird's fame spread around the globe, Tamayo and a photog-

rapher went up the tower to report on the phenomenon. He mixed in an interview with ornithologist Ted

Robertson of Condor Country Consulting, who explained why this bird would be attracted to the camera. "A raven is so intelligent it's also very curious," Robertson said. Birds, particularly ravens, are fixtures at the tower.

"My forecasts may occasionally be pretty straightforward and dry. I would like to thank this raven for flooding the segment with personality and laughs," said Tamayo, a meteorologist for 19 years. "This moment was seen in many parts of the world, all due to my curious new best friend." The clip is https://www.youtube.com/ watch?v=2Yb_VA4L3YU

More Pollination for Local Gardeners

lanet Bee Foundation has added a third hive box to its setup at the base of Sutro Tower, meaning more honey bees will be pollinating neighborhood fruit trees and flowers this year — good news for gardens within three miles of the tower. Bill Tomaszewski, Planet Bee's president and master beekeeper, replaced a hive that died last year (left) with a new queen and 10,000 worker bees, cleaned a healthy hive (right) and installed a new hive (center) with a new queen and 10,000 worker bees. Earlier, staffers from the foundation harvested 60 pounds of honey from last year's hives.

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New Lighting Plan for Sutro Tower

ince the Air Commerce Act of 1926, federal authorities have established marking and lighting requirements for obstructions deemed a hazard to navigable airspace, including communications towers and high-rises. Sutro Tower's historic flashing lights and red-and-white color scheme was mandated by the Federal Aviation Administration at the time the tower was built.

The FAA has since adopted new standards to increase conspicuity of these structures. In compliance with the latest standards, the FAA approved a lighting replacement plan last year for Sutro Tower which will allow us to replace troublesome 20-year-old strobe lights with new LED technology.

Twelve high-intensity lights will be replaced, including the three at the top of the highest antennas. Pilots and other viewers will not see any difference compared to existing lights; the new ones will be the same in direction and intensity. In addition, 12 steady burning red lights -- which have been known to confuse birds during migration – will be removed.

The lighting project includes installation of new conduit and wiring inside the three legs of the tower, so a building permit application will be submitted to the San Francisco Department of Building Inspection for electrical review.

Sutro Tower, Inc. 1 La Avanzada St. San Francisco, CA 94131



Questions? Visit www.sutrotower.com/ for-our-neighbors/, or contact Sutro Tower Chief Operating Officer Eric Dausman at 415-681-8850 or info@sutrotower.com.

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Supporting the **Neighborhood**

utro Tower Inc. is the major sponsor for get-togethers and parties hosted by the Midtown Terrace, Twin Peaks and Forest Knolls neighborhood associations — most recently, the 2nd annual block party on Forest Knolls Drive just above the Clarendon School playground.

Sutro's donation helped pay for the taco and empanada stands, bounce house, face painting table, fortune teller, and other attractions at the afternoon party. These, along with a fire engine from Station 20, drew an estimated 200 children and adults on a windy Sunday in May.

Other sponsored events include the potluck for neighbors and their dogs at Sutro Reservoir during spring/summer, the annual holiday party in December, and the Midtown Terrace block party



Visitors leaving the Sutro Tower table with their souvenirs

in the fall. Besides enjoying the parties' food and activities, people coming to these events can leave with Sutro Tower souvenirs such as pens, keychain flashlights, pet bowls and frisbees. Plus cookies and tree ornaments at the holiday party.