# **News Feature: Uperations**

# For the hundreds trapped on the roof and balconies of the flaming MGM Grand, helicopters now have a simple meaning—life.

T WAS THE BIGGEST and most dramatic high-rise fire rescue operation in U.S. history.

A hastily assembled armada of helicopters -both civilian and military - snatched more than 300 people from the roof and balconies of the burning and smoke-filled MGM Grand Hotel in Las Vegas last Nov. 21. Observers called it a "miracle."

Professional pilots called it a considered risk that paid off.

And those whose lives were saved that day called it heroic.

The disastrous blaze, which earned the dubious distinction of being the second worst hotel fire in the United States, killed 84 persons and injured 706. But Las Vegas authorities credit the quick and daring actions of helicopter pilots and crewmen for keeping the toll from surpassing the 1946 Winecoff Hotel blaze in Atlanta that claimed 119 lives.

Although first civilian and then military pilots again and again braved the deadly smoke and flames around the 26-story luxury hotel, much of what the helicopters did and the key roles they played have not been widely publicized, lost in the controversy over how the fire started and spread.

In all, approximately 30 helicopters, nine of them from the U.S. Air Force Tactical Air Command, responded to the urgent calls for helicopters to help evacuate those trapped in the 2.076-room hotel

#### From all corners

From as far as Rialto, Calif., 160 air miles away, the San Bernardino County Sheriff's Department dispatched a Bell 204 and two Hughes 500Cs. The Loma Linda Medical Center-also from Rialto-sent its two Medevac S-55Ts and medics. Other helicopters with medical personnel responded from neighboring Arizona.

Not all arrived in time to participate in the rescue effort and other emergency operations. Nevertheless they came and stood by at either a temporary heliport set up in the MGM Grand parking lot or at nearby McCarran International Airport, ready to fly whatever mission they might be called upon to do. At one point, there were seven helicopters in the air over the hotel and 17 poised in the park-

ing lot waiting to fly.

The first helicopter to arrive at the MGM Grand, only minutes after the fire was discovered at 7:15 a.m., was the Las Vegas Metropolitan Police Department's Hughes 500C flown by Sgt. Harry Christopher and carrying Officer Tom Mildren, his observer. The two had just a short time before flown cover on a narcotics raid. They flew toward the MGM Grand, which at that hour had 8,000 guests, visitors, and employees inside, after they saw a small column of smoke.

"I thought it was a trash fire." Christopher said, "so we headed that way. From where we were to the MGM, it couldn't have taken us four minutes but during that time the small column of smoke grew to a huge one."

Up to the roof

Christopher started an orbit of the hotel

and told Mildren that if people started coming out on the roof, they would begin to evacuate them immediately. On his second pass, Mildren spotted people fleeing through the growing smoke out a stairwell door onto the south wing's roof. Other hotel guests began smashing room windows or struggling out onto balconies to try to get some fresh air in a sometimes vain attempt to escape the fire's deadly fumes.

Black smoke, thick and acrid, poured out windows, vents, and doorways, making it nearly impossible by this time to see the roof and the people trapped there. Despite the situation, Christopher maneuvered the 500 down onto the top of the hotel, where the rotor wash temporarily cleared away much of the smoke, enabling him to see and at the same time providing a little fresher air for those awaiting rescue.

"When we got on the roof," Christopher

Officer Tom Mildren Las Vegas Police



said, "the people just charged the helicopter. At that point there were only a dozen people and they all tried to get in the helicopter."

Mildren jumped out of the aircraft to load the terror-stricken fire victims into the helicopter. After putting four in the back compartment, he was about to climb back in when Christopher told him to stay on the roof. The pilot needed the observer to keep back the growing number of hotel guests and to oversee the loading.

#### Left to die?

"It was frightening situation to see it," Christopher told Rotor & Wing International. "When I landed with that first load and started back up. I thought maybe I really had condemned Tom to die.

"It was terrible looking up on that roof. With one helicopter, I couldn't have gotten them all off in time. I was thinking they'll be consumed before I can get them down. There's too many. And that's why I kept calling for helicopters . . . . I knew people were dving.



Sgt. Harry Christopher Las Vegas Police

The first to answer Christopher's call for helicopters, which was relayed through the police dispatcher, was Valley Hospital's Flight for Life Alouette III piloted by Paul Kinsey, who received the call at 7:31. Kinsey grabbed two flight nurses and dropped them off at the front of the now furiously burning hotel, then took off to join Christopher in the desperate rooftop evacuation.

"I made my first landing beside Harry and got mobbed by a bunch of people . . . sey said. "They were pretty panicky. They were crowding on the aircraft, pulling at each other, trying to crowd two and three through the door at one time in that little Alouette.'

Meanwhile, Mildren, the only police officer who would be on that smoke-filled roof throughout that initial evacuation of approximately 200 people by civilian and police helicopters, had his hands more than full trying to control the terrified crowd.

#### Panic reigns

"They were basically scared to death and it seemed like a lot of them didn't understand English and that created a problem," Mildren said. "I just had to yell at them and physically push them back.

(Continued on Page 102)

He said the soot-covered people, many still in nightclothes, some only in sheets and most covering their faces with towels or cloths to breathe, had to be pushed back to clear an area for the incoming helicopters and then pushed back again so they could take off. While trying to control the crowd, the officer also had to load the helicopters and lock the doors.

"I ran into a lot of problems trying to break couples up," Mildren said. "If they were the fourth person, they would get in and the fifth person wouldn't . . . . If it happened to be a husband and wife and they were hanging on to each other, it was kind of hard to separate them but I had to.

"In one case, I had to separate an elderly lady from her husband. He was the fourth one in and she was the fifth. She was very frightened . . . and I sort of carried her back with me. She was just frantic and kept yelling, 'He's [the helicopter] not coming back, he's not coming back.'

"This real big man... stepped in between us and looked at her and said, 'Lady, they'll be back to pick him [meaning the observer] up,' and she sort of calmed down."

#### Call for volunteers

As the crowd continued to grow, Mildren asked for volunteers to step forward to help him but nearly a half-hour passed before two men offered to do so. With their aid, however, the observer eventually managed to bring some semblance of order. He set up the evacuees in two lines and set first priority for airlift to the remaining women.

As Mildren struggled on the roof to control

the frightened victims and load aircraft, more helicopters joined the rescue. Ray Poss, director of operations for Silver State Helicopter Inc., at the North Las Vegas Air Terminal, was the next to arrive with a Bell 206B JetRanger II. He was followed by Officer Steve Foster in the Police Department's other helicopter, a Hughes 300C that could load only one person at a time; an EG&G Corp. Hughes 500C from McCarran with Chief Pilot M. V. Wingrove, who dropped off mechanic Ernie McKinney on the roof to load; and Action JetRanger Helicopters Bell Jet-Ranger III, also from McCarran, with owner Mel Larson (vice president of marketing for the Circus Circus Hotel), who did the loading while Chief Pilot Dennis Mack handled the controls.

Flying the course

The helicopters fell into a racetrack pattern, taking about two minutes to go from the ground to the roof and back down to the parking lot, where police officers rushed the victims to nearby medical stations that had been set up. Some were taken to an emergency evacuation center at the Las Vegas Convention Center.

Poss said there was no turbulence problem from the fire to hinder the flying but there was the very real fear that each trip might be the last.

"It looked like actually the roof was going to ignite, which had us concerned," he said. "So it was a spooky experience. It was like the next time you go up there, there might not be anything there. So it was kind of 'keep your hand on the collective and be ready to get out of there.""

Christopher in his 500 took charge of the air operations. To facilitate communications among the various helicopters with their different radio equipment, the McCarran tower turned over an approach control frequency to the rescue aircraft.

Strangely, after the civilian and police helicopters cleared the roof of the initial flood of approximately 200 people who had struggled through hot, smoke-filled corridors to reach it, the flow stopped for a while. With the roof temporarily clear, Mildren rejoined Christopher in the helicopter and they began to orbit the hotel, using the 500's PA system to urge people trapped on the upper floors to go to the roof for evacuation.

"They just motioned back to us," Mildren said, "that it was too hot to get out and too smoky."

#### Advice by bullhorn

So instead, Christopher said, they used the PA to try to calm down the people frantically waving to them for help from broken windows and balconies. The sergeant said when they spotted someone who looked hysterical, they would fly up beside their room and try to assure them that it was just smoke and that help was on the way. They did not say this to guests trapped on the side of the hotel where they could see flames, though.

"It did calm them down," Christopher said. "It was unbelievable . . . . They would give us the OK sign and then they would point out . . . the people that needed more help than they did."

(Continued on Page 104)

**OmniDirectional** 



Helicopter pilots are expected to be up to any task.

It goes with the territory.

When you think helicopter, you think of unique capabilities. Vertical flight, and the ability to maneuver in all directions, with winds from any quarter.

As our symbol portrays—helicopters are omnidirectional machines; and their pilots constantly have to think in terms of omnidirectional flight. And they are often asked to achieve these tasks under adverse conditions: hot days, high winds, marginal weather, max



gross weight, high altitude, rooftops, confined areas...

That's when you need our airspeed system. The only full-range Omnidirectional Airspeed Display System. Pacer OADS. It reports airspeed, from zero on up, even faster than your helicopter can fly. And throughout 360 degrees, whether you are maneuvering in still air, or hovering in high winds. It can also provide V<sub>ne</sub>, OAT and density altitude. See us at HAA—Booth 1251.

When you spec your next helicopter, include the Pacer OADS.

**Applications Engineering** 1755 S.Jefferson Davis Highway

Arlington, VA 22202 (703) 920-8300



#### Manufacturing

87 Second Ave. Northwest Industrial Park Burlington, MA 01803 (617) 272-5995

\* All the while, more helicopters were arriving on the scene to assist. Nellis Air Force Base, just on the outskirts of Las Vegas, had been notified shortly after 7:30 a.m. and dispatched its three UH-1N Twin Hueys (military versions of the Bell 212) from Detachment 1 of the 57th Fighter Weapons Wing at Indian Springs Air Force Auxiliary Field, about 40 miles away.

In addition, three Twin Hueys from the 20th Special Operations Squadron, 1st Special Operations Wing, Hurlburt Field, Fla., and three Sikorsky CH-3E Sea Kings, dubbed Jolly Green Giants, from the 302nd Special Operations Squadron, a reserve unit from Luke Air Force Base near Phoenix, were sent, too. Through good fortune, the Florida and

Arizona helicopters happened to be at Nellis participating in a Red Flag combat exercise.

#### The military arrives . . .

The first of the military helicopters arrived shortly after 8 o'clock, about the time the lull in the rooftop evacuation occurred. About the same time, a second EG&G helicopter, a Messerschmitt-Boelkow-Blohm BO-105 piloted by R. A. Ingalls, reached the hotel, followed by two from Bauer Helicopters in Boulder City, 25 miles away. Bauer sent a JetRanger III flown by Chief Pilot Jene Oates and an FH-1100 piloted by Doc Holliday.

The fire still raged out of control on the first two floors but the top of the \$105-mil-

lion hotel was clear of most of the fire victims, except for the few who periodically managed to make their way through the heat and choking smoke for almost immediate helicopter rescue. Thus the air operation began to shift to include more support tasks.

Both civilian and military ships began taking firefighters to the roof for the first time since the blaze had broken out. The sheriff's Jeep Posse rescue team also was airlifted up to see what it could do.

Maj. Larry Doege of the 57th Fighter Weapons Wing, who commanded the first Indian Springs Hueys to arrive, said, "We probably took 75 firemen to the top and unloaded them on the roof. The firemen, with

(Continued on Page 106)



EG&G's MBB B-105 flies toward the MGM Grand to assure the people who are stranded on the balconies that help is on the way.



While deadly smoke looms from the Las Vegas hotel, a civil Jet-Ranger, left, returns to the rooftop to rescue more fire victims.



masks and air packs, were going through the upper floors and helping people up the stairs to the roof and we brought the people down."

The Air Force reported that Doege's unit brought down 57 fire victims. A second contingent of three Hueys, commanded by Maj. Warren Hubbard of the Florida unit, was credited with 36 more.

#### A rush for air

In the midst of this life-and-death shuttle, the firemen groping through hallways to reach trapped guests began running out of air for their breathing units. A call was put out for more compressed-air bottles and Larson and Mack in their Action JetRangers Bell 206B responded. The pair flew to the Las Vegas City Hall and brought back eight air packs.

Afterwards, the Action helicopter and In-

galls in the EG&G BO-105 were called on to fly engineers from the hotel to different locations on the massive building, where the employees opened ventilating systems to let more of the smoke out and tried to pry open doors.

"The smoke was almost like tear gas," Ingalls said. "It made your eyes start watering and there was a feeling of closeness in the chest.... We went to the west wing, where the fire was directly below, and it was so hot there that the engineers could not even attempt to get close to the door."

A USAF CH-3E joined the operation, lowering a firefighter on a hoist to open ventilators in areas where it would be difficult to land.

As the blaze continued, the shortage of compressed air continued to hamper the efforts of firemen. A supply was found at a

IFR Precision Simulators offer the maximum in testing capabilities. The single unit concept...a light weight, easy-to-use simulator performs multiple tests and read-outs without multiple boxes and "octopus" type hook ups. IFR's advanced engineering utilizes solid-state components and miniaturization to produce

ramp and bench simulators that provide extremely accurate tests, reduce down-time

We take pride in the fact that our cus-

and eliminate expensive and time con-

power-generating station 50 miles away in Glendale. Oates and Holliday in the two Bauer helicopters took off for the plant.

Oates managed to cram 12 kits, all the power plant had on hand, into the JetRanger and headed back to the hotel. More kits were available at Overton, a small town 30 miles from the plant, so Holliday continued on with the FH-1100 to pick up the additional supply.

#### Calming down

Back at the hotel, about two hours after the blaze erupted, the confusion started to settle. With the large military ships now on the scene, some of the civilian aircraft were able to depart. There were more than enough helicopters at the MGM Grand by then to handle the shuttling of rescuers, equipment and victims on rooftop flights but it appeared that nothing could be done for those still trapped on balconies on the top three floors.

It was on the 19th through 25th floors of the 26-story structure where most of the deaths occurred—caused by the toxic smoke gases—not from flames. The actual blaze never got beyond the second floor.

"I was awed by the masses of people out on the balconies and the people who had busted the glass on the floors beneath the balconies and were throwing furniture out," Poss of Silver State said. "People were collapsing on balconies, and I assumed these people were dying. Then I found out later, yes, they had. You don't see things like that in a lifetime very often, and I don't care to ever see it again."

(Continued on Page 108)



Air Force Hueys rescued many by shuttling them from the hotel's roof to a parking lot.

There's a reason
IFR Precision Simulators
are preferred
around the world...

# tomer's list includes many of the major airlines and avionics manufacturers, avionics service facilities and the general-aviation industry. IFR makes Precision Simulators for people who want the best.

on the bench or on-ramp



RD-300 Weather Radar Test Set



ATC-1200Y3
Transponder/DME Test Set



suming flight testing.

VOR/LOC/COMM/MKR & G/S Test Set with COMM-760 (atop) NAV-750 Accessory



NAV-401L MKR/NAV/COMM (Ramp and Bench Test Set)

ATC-600A Transponder/D Test Set (Ram



FM/AM-1000S Communication Service Monitor



10200 West York Street Wichita, Kansas 67215 U.S.A. 316/522-4981 TWX 910-741-6952

#### IFR FACTORY AUTHORIZED DISTRIBUTORS:

- Avionics Associates, Inc., Joliet, Illinois; Spring House, Pennsylvania Dallas Avionics, Inc., Ft. Washington, Pennsylvania
- Edmo, Inc., Burbank, California Hutton & Company, Dallas, Texas; Atlanta, Georgia
- INTERNATIONAL DISTRIBUTORS AND SERVICE CENTERS: 

  CANADA: Navair Limited, Toronto International Airport, Malton Postal Station, Mississauga, Ontario

  UNITED KINGDOM & EUROPE: FieldTech Ltd., Heathrow Airport London, Hounslow, Middlesex TW6 3AF
- FRANCE & BELGIUM: Radio Equipements-Antares S.A., Aerodrome de Toussus-le-Noble, 78530 Buc France ■ FAR EAST: Trio-Kenwood Corporation, Avionics Division, 6-17, Aobadai 3-Chome, Meguro-ku, Tokyo 153 Japan
  - (Circle No. 67 on Reader Inquiry Card)

Christopher and Mildren, who were orbiting the hotel, looking for problems, reported people were scrawling messages on windows such as "help," "pregnant" and "diabetic." The pair spotted one man sprawled on his back on a balcony, with an arm and a leg sticking out over the edge and a shoe dangling from his toe. Christopher hovered the 500 in such a way as to blow fresh air on the smoke victim but he never moved.

"The thing that really got to me," Christopher said, "were all the people standing and screaming and crying on those balconies and I couldn't do anything. They were just putting their hands out begging me to do something. I just felt like a heel. But when we got those big Jolly Green Giants in there, then there was a way of getting them and I felt a little better."

Capt. Dave Ellis was one of the pilots in the first CH-3E to test the daring balcony rescue technique that, in all, would hoist 15 people to safety that morning. Making the operation extremely difficult was an overhang above the balconies that prevented the jungle penetrator the helicopter carried from being lowered close to the trapped people.

#### On the hoist

After Christopher selected the first balcony for the rescue test, Ellis' ship moved in abeam of the building with its rotor blades extending over the building, 15 feet above the roof, putting half the rotor disc in ground effect.

Master Sgt. William Reynolds worked out a plan to tie a rope to the penetrator and

then toss it to the people on the balcony after he was lowered as close as possible to them. Riding the penetrator down 50 feet, the flight engineer tossed the rope, was pulled in five feet to the building, and clambered onto the balcony. Once there, he strapped in one person at a time to be hauled up.

Complicating the situation further was that the fact that the second flight engineer operating the hoist, Master Sgt. James W. Connett, could not see Reynolds once the helicopter moved in close to the overhang to get the penetrator as near to the balcony as possible. To see Reynolds' signal to hoist away, Connett had to let out some slack so the helicopter could ease out away from the building and then have the CH-3E move in close again to winch up a victim. Lowering the empty penetrator so the next person could be brought up required Connett to start it swinging so Reynolds could grab it.

After Reynolds proved the balcony rescue could be done, he and Connett switched places on the next one. The other two CH-3Es followed suit on the balcony rescues, each of the three taking a different wing and then landing on the ground to deliver the rescued people.

#### Seeing-eye helicopter

Because of the difficulties in seeing and the need to maneuver so close to the building, Christopher in the police helicopter had a second aircraft hover behind each of the CH-3Es to provide guidance if needed. Christopher and Foster in the police helicopters, the Action 206B, and the Hueys took turns

behind the Jolly Green Giants in the balcony

As the firefighters finally got the upper hand on the deadly blaze and the toxic smoke abated, the people trapped on the balconies and the rooms below were led to safety.

The Jolly Greens, no longer needed for balcony rescues, returned to Nellis. There they filled in on the Red Flag exercise for the Hueys that remained at the hotel throughout most of the afternoon, taking over from the civilian helicopters that had been released by then.

The UH-1Ns continued to take men and equipment to the roof, bringing down on return flights victims on stretchers, exhausted firefighters, guests who had been found safe, and those who had been found dead.

Estimates of those saved by helicopters were widely reported as being upwards of 1,000 but the pilots involved in the rescue put the number at closer to 300.

The last helicopter to leave the scene that evening was the one that had been the first one there—Christopher's. It was dark when he left but the brightly lighted hotels and casinos on the Las Vegas Strip and the emergency lighting for the rescuers still searching the charred and smoky interior of the oncemagnificent hotel seemed to mask some of the destruction that had occurred.

What the lights could not mask was the death and horror of that day. But it could have been worse—much worse—if it had not also been the day that the helicopters came to the rescue.

By J. J. Barber

# **Helicopter Avionics from Astronautics**

World's Largest Manufacturer of Flight Directors
See us at HAA Show Booth 951

# **FLIGHT DIRECTOR SYSTEMS**



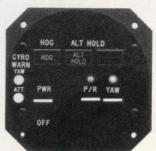
Check these features:

■ 2 Cue

■ Coupled/Uncoupled

■ 3 Cue

# **3-AXIS AUTOPILOT**



Low Cost

IFR Capability

■ Selected by Hughes for the 500-D

■ Hands Off Hover Capability

SKYPHONES

communications as low as \$595.00

Air-to-ground telephone

#### Check these features:

Attitude Hold

Altitude Hold

■ Heading Hold
■ Heading Select

■ Automatic/Manual Trim



# Astronautics Corporation of America

Aircraft Instruments • Autopilots • Skyphones • Electronic Displays • Data Terminals
P. O. Box 523, 901 S. First Street, Milwaukee, WI 53201 414/671-5500 TWX 910-262-3153
2416 Amsler St., Torrance, CA 90505 213/326-8921

1 World Trade Center, Ste 3853, NYC, NY 10048 212/962-0820 Astronautics GmbH; ACA Ltd.

27-55