

Facts About UCSF Medical Center at Mission Bay: UCSF BENIOFF CHILDREN'S HOSPITAL SAN FRANCISCO HELIPAD



To mitigate the noise impact on UCSF's residential neighbors, the helipad will be atop the Gateway Medical Building at 4th and 16th Streets, at the opposite end of UCSF Benioff Children's Hospital San Francisco.



NEED FOR HELIPAD

- UCSF Benioff Children's Hospital San Francisco provides a vast array of expert care – from routine immunizations to the most advanced treatments for serious, life-threatening childhood diseases. This expertise is available to the children of San Francisco, California and beyond.
- Rapid access to this specialized level of care is vital when a child is critically ill, a baby is born with a devastating birth defect, or a pregnant woman or her child (still in the womb) is in danger due to a serious illness or condition.
- Community hospitals are not able to provide the level of resources and number of pediatric specialists available at UCSF Benioff Children's Hospital San Francisco.
- The helipad at Mission Bay will provide more immediate access for the most critical of these children. Speeding the UCSF transport team to a remote hospital and airlifting patients to UCSF will save many lives.
- In addition, the helipad will also benefit other patients at the hospital, even though they may not need to use it themselves. Having this valuable resource, which is standard at many hospitals outside of San Francisco, will help attract and retain top-notch medical students, residents, physicians and staff. This expertise benefits all patients who come to the hospital by any means of transport.

USE OF HELICOPTER TRANSPORT

- Helicopter access to UCSF Benioff Children's Hospital San Francisco will be limited to the most critical and life-threatening situations.
- Examples of patients who would require helicopter transport include:
 - A newborn with a life-threatening heart defect that requires immediate surgery to survive.
 - A child with septic shock and organ failure who may die within hours.
 - A pregnant woman with severe preeclampsia threatening her life and the life of her baby.
- Helicopter transport will require a physician's approval before the helicopter is dispatched.
- All patients with less serious conditions will be transported by ground ambulance or, for longer distances, by airplane ambulance.

SAFETY

- The safety of our patients, transport teams and community members is UCSF's top priority.
- The UCSF Benioff Children's Hospital San Francisco transport program has an excellent safety record.
- Because UCSF is not a trauma center, UCSF is able to consider distance, weather and patient condition before determining the best mode of transport: airplane, helicopter or ground.
- UCSF plans to define pre-established safety criteria, such as which weather conditions must exist in order to take off or land at UCSF, with contracted medical helicopter transport companies.
- The primary flight path to UCSF Medical Center at Mission Bay is almost entirely over the bay.
- Statistics from UCSF Medical Center at Mission Bay Environmental Impact Report: Out of 8 million medical helicopter flights in the United States from 1991 to 2007, none have caused deaths or serious injuries to persons not on the helicopter. Recent medical helicopter accidents in the United States through December 2010 have not resulted in deaths to persons not on the helicopter.



A helicopter flight test was conducted in partnership with the Mission Bay community in October 2007.

HELIPAD SITE PLANNING PRINCIPLES

Helipad site planning for the UCSF hospital complex site is guided by a number of objectives, including the desire to minimize impacts on the community and to comply with Federal Aviation Administration (FAA) requirements. UCSF has sought to minimize the impact of helicopter flights on nearby residences by:

- Developing flight paths that are over San Francisco Bay to the extent possible.
- In response to community feedback, changing the proposed location of the helipad by moving it as far north as possible on the proposed hospital buildings.
- Placing the elevator shaft to the south of the landing pad to deflect sound away from the Dogpatch neighborhood.

ALTERNATIVE HELIPAD LOCATIONS

UCSF is locating the helipad on the hospital site. Locating the helipad off-site would require transporting patients from the helipad to the hospital via ambulance, which would delay potentially lifesaving medical treatments. Ground transport also adds additional risk to patients due to extra maneuvering and additional transfers of patients and intensive care equipment from the helicopter into the ambulance, then out of the ambulance again.

PROPOSED FLIGHT PATHS

Proposed flight paths are described below, and on the map. Given wind conditions in the area, the vast majority of flights would use the primary arrival and departure route and the alternative departure routes, with flights arriving from and departing over San Francisco Bay:

- There will be no arrivals from or departures to the south toward Dogpatch neighborhood residences.
- Primary arrival and departure route – helicopter arrives from the east and departs to the east over the Bay.
- Alternative departure routes – helicopter arrives from the east and departs to the north before turning east; or helicopter arrives from the east and departs to the west before turning north and then east.

- Secondary arrival and departure route – helicopter arrives from the east and departs to the west; used only in unusual circumstances when wind patterns require departure to the west.



ESTIMATED TRANSPORTS PER DAY

The UCSF Medical Center at Mission Bay Environmental Impact Report (EIR), certified by the UC Board of Regents in September 2008, analyzed a hospital helipad at the project site. The EIR analysis assumed 1.4 transports on an average day; and three transports on a busy day (a transport involves a landing and a takeoff, and is therefore two flights). Projected transports are as follows:

Projected Annual Transports: 500 per year

Projected Monthly Transports: 40 per month

Projected Daily Transports: 1.4 per day

These projections are well within the average for other children's hospitals that are not trauma centers, and include neonatal, pediatric and maternal patients.

HELICOPTER DAILY AVERAGE ARRIVAL TIMES

7 a.m. to 3 p.m. 0.58 per day (42%)

3 p.m. to 11 p.m. 0.55 per day (40%)

11 p.m. to 7 a.m. 0.25 per day (18%)

As indicated in the average times above, most flights are expected to take place between 7 a.m. and 11 p.m., but other flights may be necessary based on urgent patient needs. California Public Utilities Code 21662.4 exempts "emergency aircraft flights for medical purposes" from laws restricting arrival and departure times.

HELICOPTER NOISE

- Conditions affecting noise: angle of descent, wind direction, cloud cover.

- Estimated flight time from shoreline to pad (including landing): 1-2 minutes.
- Estimated descent-to-landing and ascent-to-departure time – 30 seconds.
- Engine run time on helipad dependent on helicopter type, but in general:
 - 30 seconds to 2 minutes after landing.
 - 30 seconds to 2 minutes before takeoff.
 - Engines off for the remainder of pad time.
- Hovering, which can be one of the noisiest helicopter flight activities, is not part of a routine helipad landing.

The UCSF Medical Center at Mission Bay EIR included analysis of helicopter noise relative to two key metrics:

- Community noise equivalent level (CNEL), which considers a 24-hour time period. Analysis using CNEL determined helicopter noise impacts to be less than significant: The area of potential impact is entirely contained on the hospital site and the UCSF research campus.
- Single event noise exposure level (SENEL), which relates to a single event such as helicopter arrival or departure. Analysis using SENEL determined helicopter noise impacts to be significant due to the potential awakening of about 10% of residents within a 95-decibel noise contour, which extends about one block south of the project site to 18th Street, generally between 3rd and Indiana Streets.

The EIR identified a number of mitigation measures to reduce noise impacts, including continuing to work with the community to develop a residential sound reduction program. This community process took place in late 2008 and early 2009, yielding the Residential Sound Reduction Program for Helicopter Operations (RSRP), which was developed in response to community feedback. Please see [RSRP Community Process Summary \[PDF\]](#) for more information on the program.

COMMUNITY INVOLVEMENT

- UCSF has conducted a number of community meetings to answer neighbors' questions about the helipad.
- Medical transport staff, pilots and helicopter noise consultants have participated in meetings with neighbors to answer questions and to discuss how other communities are managing their relationships with hospital helipads.
- Helicopter flight test: In response to a request by Mission Bay neighbors, UCSF conducted a helicopter flight test on October 21, 2007, and gathered noise measurement data from seven different locations. The data were used to inform the EIR for the UCSF Medical Center at Mission Bay.
- UCSF worked with neighbors to develop a [Residential Sound Reduction Program for Helicopter Operations](#)

A HELICOPTER WILL NOT BE USED FOR

- Trauma scene transport (e.g., victims of a car accident).
- Routine transport of stable patients.
- Transport of patients from UCSF to other facilities.
- Transport of staff, administrators or other non-patient-related travel.

DISASTER RESPONSE

An established helipad and protocols for its use in a disaster will benefit San Francisco and the greater Bay Area. These plans would be a vital part of the disaster response plan for UCSF Benioff Children's Hospital San Francisco, as well as for the City and County of San Francisco.

APPROVALS

- The Regents of the University of California approved the UCSF Medical Center at Mission Bay project's design, budget and EIR in September 2008.
- UCSF obtained an FAA airspace determination in December 2008 to ensure that the proposed flight paths are clear of obstructions and to meet dimensional requirements, prior to requesting approval by Caltrans.
- The UC Office of the President approved helipad operations and the RSRP in April 2009.
- During its July 28, 2009 meeting, the San Francisco Board of Supervisors unanimously approved a resolution allowing helipad operations at UCSF Medical Center at Mission Bay.
- On November 24, 2009, the California Department of Transportation (Caltrans) aeronautics division issued a Heliport Site Approval Permit authorizing construction of the helipad at UCSF Medical Center at Mission Bay.
- On September 18, 2013, the California Department of Transportation aeronautics division issued a Heliport Site Approval Permit authorizing operation of the helipad at UCSF Medical Center at Mission Bay.