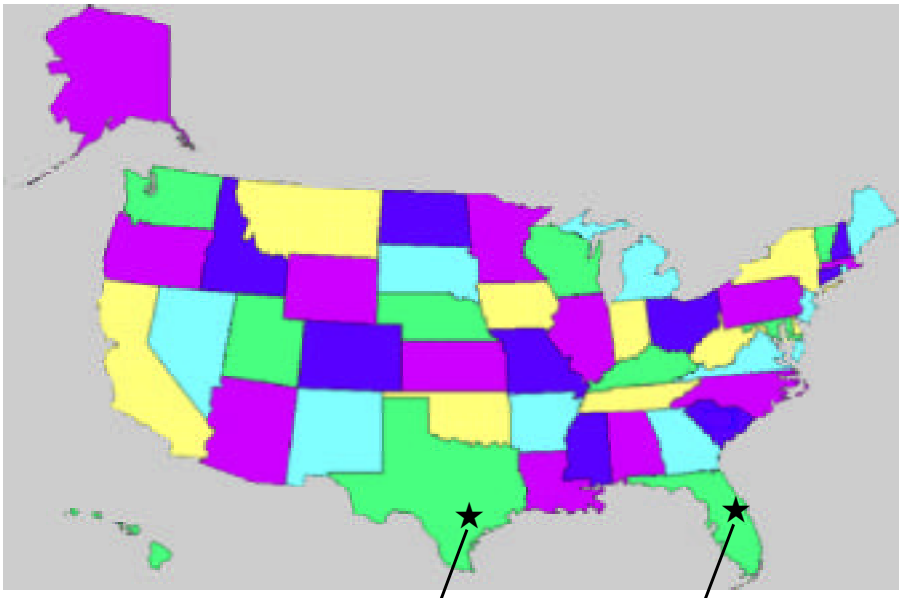
Mission Control Center

The Mission Control Center at NASA's Johnson Space Center in Houston, Texas, is responsible for monitoring all of the U.S. missions that have carried astronauts into space.

This map shows the location of the Space Shuttle's launch pad in Florida, and the Mission Control Center, in Texas.



The people stationed at consoles in the Mission Control Center are called "flight controllers." They work as a team to make sure that the Shuttle is performing properly.

Data streams from the Shuttle into the Mission Control Center. The flight controllers look at the data and monitor the health and functioning of everything from the Shuttle computers to the astronauts themselves.

The flight controllers are led by the "Flight Director," who is in charge of everything in Mission Control. He or she coordinates the efforts of the flight controllers as they work together to make the Shuttle flight a success.

Each flight controller has specific responsibilities. For example, one is responsible for the Shuttle's computers, one monitors the health of the astronauts, one oversees the Shuttle's electrical system, one monitors the amount of air and water on the Shuttle, one is responsible for the experiments (like EarthKAM), and one keeps track of the Shuttle's orbit.

One member of the flight control team is assigned to talk to the astronauts. That person, who is also an astronaut, is called the CAPCOM (for "capsule communicator"). This is the only person allowed to talk directly to the astronauts aboard the Space Shuttle.

Relevance of the Mission Control Center to EarthKAM. **The Mission Control Center is both a link in the EarthKAM chain (all commands to the Shuttle, including EarthKAM commands, go through Mission Control) and a model for other EarthKAM operations.**

Here's how EarthKAM photo requests reach the Shuttle:

1. **Flight Certified middle schools send their photo requests to EarthKAM Mission Operations Center at UCSD.**
2. **The EarthKAM Mission Operations Center at UCSD processes the requests and sends them to Mission Control.**
3. **Mission Control uplinks the photo requests to the Shuttle.**
4. **Students' photos are taken 200 miles above the Earth by the EarthKAM camera.**

How the images become available:

5. **The images are sent from the Shuttle to Mission Control.**
6. **Mission Control sends the images to the EarthKAM Datasystem located at UCSD.**
7. **EarthKAM posts the images on the World Wide Web.**
8. **Images are used in the classroom.**

MISSION CONTROL

The Mission Control Center in Houston stresses the importance of discipline, individual responsibility, and teamwork; those are also important lessons for the students of EarthKAM.

NASA

EarthKAM