

Satellite Quick Facts			
Total number of operating satellites: 958			
LEO: 471	MEO: 63	Elliptical: 35	GEO: 389
United States: 441	Russia: 99	China: 67	
Total number of U.S. Satellites: 441			
Civil: 6	Commercial: 201	Government: 121	Military: 113

*includes launches through 11-1-10*

## Explanation of Satellite Quick Facts

Abbreviations:

LEO: Low Earth Orbits

MEO: Medium Earth Orbits

GEO: Geosynchronous Orbits

The United States, Russia, and China are the three countries with the most satellites owned outright. For the purposes of this chart, satellites that are owned by more than one country are counted as belonging to the primary owner. These three countries between them own about two-thirds of the active satellites. Who owns the other third? A number of other countries and partnerships own between 10-20 satellites, but at least 115 countries in total own a satellite or a share in one. See Analysis Question #1 below.

The following are some frequently asked questions that can be answered using the data in the UCS Satellite Database.

## Analysis Question #1

### How many countries own satellites or a share in one?

At least 115. Since commercial satellites may have investors from many countries, both private and government, they are ambiguous for this purpose, and they are counted as belonging to the owner's country. This number, then, should be considered a lower bound.

Countries that own a satellite outright or in a partnership of three or fewer

1. Algeria
2. Argentina
3. Australia
4. Belgium

5. Brazil
6. Canada
7. China (PR)
8. Czech Republic
9. Denmark
10. Egypt
11. Germany
12. Greece
13. France
14. India
15. Indonesia
16. Iran
17. Israel
18. Italy
19. Japan
20. Kazakhstan
21. Luxembourg
22. Malaysia
23. Mexico
24. Morocco
25. Netherlands
26. Nigeria
27. Norway
28. Pakistan
29. Portugal
30. Russia
31. Philippines
32. Saudi Arabia
33. Singapore
34. South Korea
35. Spain
36. Sweden
37. Taiwan
38. Thailand
39. Turkey
40. United Arab Emirates
41. United Kingdom
42. USA
43. Venezuela
44. Vietnam

European Space Agency (ESA) countries not included in lists above

1. Austria (via ESA)
2. Finland (via ESA)
3. Ireland (via ESA)
4. Switzerland (via ESA)

Regional African Satellite Communications Organization (RASCOM) countries not included in lists above

1. Angola
2. Benin
3. Burkina Faso
4. Burundi
5. Cameroon
6. Cape Verde
7. Chad
8. Comoros
9. Congo
10. DR Congo
11. Djibouti
12. Eritrea
13. Ethiopia
14. Gabon
15. Gambia
16. Ghana
17. Guinea
18. Guinea-Bissau
19. Ivory Coast
20. Kenya
21. Liberia
22. Libya
23. Malawi
24. Mali
25. Mauritania
26. Mauritius
27. Mozambique
28. Niger
29. Republic of Central Africa
30. Senegal
31. Sierra Leone
32. South Africa
33. Sudan
34. Swaziland
35. Tanzania
36. Tunisia
37. Togo
38. Uganda
39. Zambia
40. Zimbabwe

Arab Satellite Communications (ASCO) countries not included in lists above  
(The countries of the Arab League)

1. Lebanon
2. Oman
3. Somalia
4. United Arab Emirates
5. Bahrain
6. Iraq
7. Libya
8. Palestine
9. Yemen
10. Comoros
11. Jordan
12. Mauritania
13. Qatar
14. Syria
15. Djibouti
16. Kuwait
17. Tunisia

North Atlantic Treaty Organization (NATO) countries not included in lists above

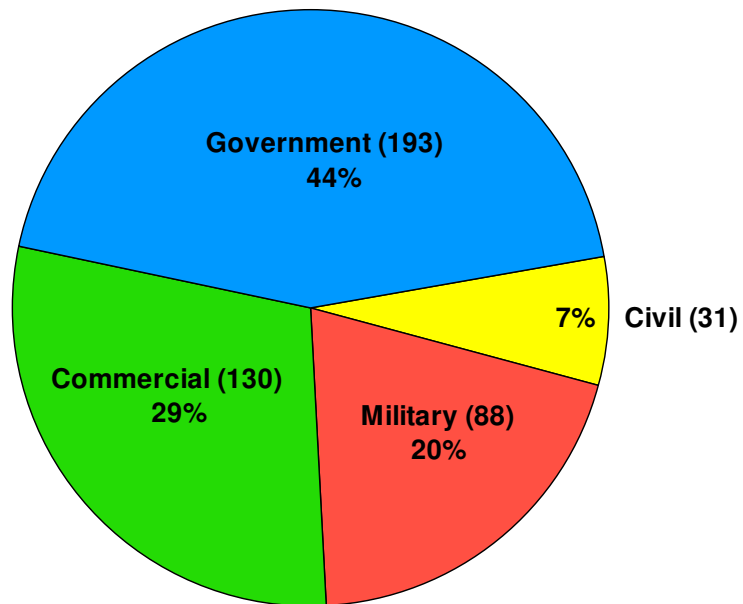
1. Bulgaria
2. Estonia
3. Hungary
4. Iceland
5. Latvia
6. Lithuania
7. Poland
8. Romania
9. Slovakia
10. Slovenia

## **Analysis Question #2**

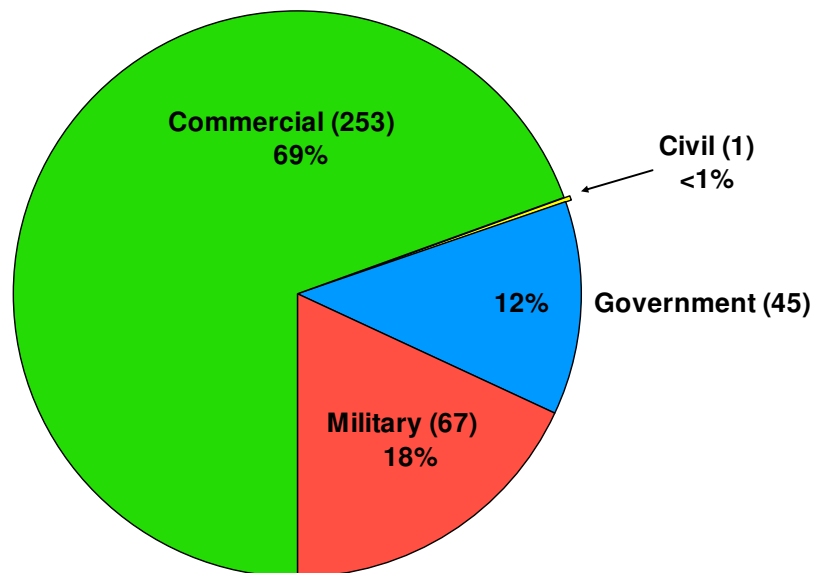
Where are commercial satellites and what do they do?

The following charts show the relative investment of different sectors (government, military, commercial, civil) in low-earth orbit and in geostationary orbit.

### Types of Satellites in Low Earth Orbit



### Types of Satellites in Geosynchronous Orbit



There are twice as many commercial satellites in GEO as there are in LEO. In LEO, the government is the largest investor, but commercial investors own two-thirds of GEO satellites.

What are these commercial satellites doing out there? Nearly all of them (about 94%) are used for communications. Four percent are Earth Observation/Remote Sensing satellites (like GeoEye), two percent are Technology Development, and one percent are Navigation Demonstration (the prototype satellites for the European Galileo system).

### **Analysis Question #3**

Where are the communications satellites?

Over sixty percent of communications satellites are in geostationary orbits. While over 30 countries have GEO communications satellites, 40% of them are owned by the United States. In LEO, the United States owns 80% of the communications satellites.