

## List of Careers—M.A.R.S.



### **Aerospace Engineer**

Perform engineering work in designing, constructing, and testing aircraft, missiles, and spacecraft. Conduct research on aircraft design. Recommend improvements in testing equipment and techniques.

### **Aerospace Engineering and Operations Technician**

Operate, install, and maintain computer/communications systems, simulators, and other data instruments to launch, track, and evaluate air and space vehicles. May record and interpret test data.

Pilot and navigate the flight of multiengine aircraft for the transport of passengers and cargo. Obtain a certification for the type of aircraft being flown.

### **Astronomer**

Observe, research, and interpret celestial and astronomical events. Increase basic knowledge about these events and apply it to practical problems.

### **Avionics Technician**

Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles.

### **Calibration and Instrumentation Technician**

Develop, test, calibrate, operate, and repair many types of instruments. Instruments include mechanical, electromechanical, and electrohydraulic measuring and recording instruments.

### **Cartographer and Photogrammetrist**

Collect, analyze, and interpret geographic information provided by surveys, aerial photographs, and satellite data. Research, study, and prepare maps for legal, educational, and other purposes. May work with geographic information systems (GIS).

### **Chemist**

Conduct chemical analyses or experiments in laboratories for quality control or to develop new products or knowledge.

### **Computer Programmer**

Convert statements and procedures to flow charts for coding into computer language. Develop and write computer programs. May program web sites.

### **Geological Sample Technician**

Look for petroleum, gas, or mineral gas by testing geological samples. Analyze the physical and chemical properties of petroleum products to determine the quality of the material.

### **Geologist**

Study composition, structure, and history of the Earth's crust. Examine rocks, minerals, and fossil remains to study the development of the Earth. Apply knowledge of chemistry, physics, biology, and mathematics to explain geological processes. Locate mineral and petroleum deposits and underground water resources.

### **Mathematician**

Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve problems in various fields by mathematical methods.

### **Mining and Geological Engineer, Including Mining Safety Engineer**

Determine the location and plan the extraction of coal, metallic ores, nonmetallic minerals, and building materials, such as stone and gravel. Conduct surveys of deposits or undeveloped mines and plan their development. Examine deposits or mines to determine whether they can be worked at a profit. Make geological and topographical surveys.

### **Statistician**

Collect and interpret numerical data to provide useful information. Contribute to development of mathematical theory. Specialize in fields such as biostatistics, agricultural statistics, business statistics, or other fields.

### **Surveying Technician**

Adjust and operate surveying instruments. Compile notes, make sketches and enter data into computers.

### **Surveyor**

Make exact measurements and determine property boundaries. Determine the shape, elevation, or dimension of land. Use land information for engineering, mapmaking, mining, and other purposes.