ONSITE ENGINEER

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

DEFINITION

To oversee the technical quality of the CCCSAT satellite uplink site and corresponding receive sites, television production, transmission, operations and reception systems; to ensure technical compliance with all FCC licenses and regulations; to work effectively with outside engineering consultants in the installation, repair and maintenance of transmission equipment; and to perform a variety of technical and administrative tasks relative to assigned area of responsibility.

SUPERVISION RECEIVED AND EXERCISED

This position receives direction from the Project Director.

ESSENTIAL FUNCTION STATEMENTS

Essential duties and other important responsibilities/duties may include, but are not limited to, the following:

1. Oversee the technical quality of the CCCSAT satellite uplink site and corresponding receive sites, television production, transmission, operations and reception systems; ensure technical compliance with all FCC licenses and regulations.

2. Assist with the development, specification and evaluation of hardware architectures and signal processing algorithms for digital satellite modems and related equipment.

3. Perform systems level analyses; design television systems; recommend and coordinate the purchase, installation, maintenance and repair of equipment.

4. Work with outside engineering consultants to install, repair and maintain ITFS and FM television microwave transmission equipment and a variety of broadcast quality television production, post-production, digital television and master control equipment.

5. Maintain current knowledge of technical developments in television engineering and changes in the CCCSAT program as needed.

6. Assist with development interface control and system level requirements documents.

7. Provide recommendations to the Project Director regarding selection of technical personnel and outside contractors.

8. Perform related duties and responsibilities as required.
QUALIFICATIONS

Knowledge of:

• Installation, operation and maintenance of sophisticated ITFS and microwave transmission equipment.
• Operation of various television production, post-production and master control equipment including digital television equipment.
• Principles and practices of systems engineering including satellite communications, algorithm development/digital communications hardware design and/or broadband terrestrial networking and routing.
• Safety practices related to the operation and maintenance of electronic and mechanical equipment in the studio, field and transmission sites.
• Methods and techniques of television system and equipment design and modification.
• FCC rules and regulations pertaining to satellite, ITFS and cable broadcast standards and technical operations.

Ability to:

• Oversee the technical quality of the CCCSAT satellite uplink site and corresponding receiving sites.
• Ensure technical compliance with all FCC licenses and regulations.
• Perform systems level analyses, design television systems, select appropriate equipment and implement modifications.
• Prepare equipment specifications and recommend the purchase, installation, maintenance and repair of equipment.
• Work effectively with outside engineering consultants to install, repair and maintain television microwave transmission equipment.
• Diagnose and repair malfunctions of electronic and mechanical equipment.
• Interpret and apply federal, state and local policies, laws and regulations.
• Communicate clearly and concisely, both orally and in writing.
• Establish and maintain effective working relationships with those contacted in the course of work.

EXPERIENCE AND EDUCATION/TRAINING GUIDELINES:

Any combination of experience and education/training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be the following:

Experience:

Two years of increasingly responsible systems engineering experience including system level experience in satellite communications.

Education/Training:

Equivalent to a Bachelor’s degree from an accredited college or university with major coursework in systems engineering or a related field.
WORKING CONDITIONS

Environmental Conditions:
Office environment; exposure to radiant and electrical energy; work with machinery.

Physical Conditions:
Essential functions may require maintaining physical condition necessary for walking, standing or sitting for prolonged periods of time; heavy, moderate or light lifting; operating motorized equipment.