comsearch
an ANDREW company



# Satellite Earth Station Engineering Services

**Comsearch has a proven track record of managing large scale engineering projects—completing them on time and within budget. You can rest assured that with Comsearch you will have the most experienced team of seasoned professionals working for you. Our reputation within the industry rides on your full satisfaction. Our experience—both domestically and internationally—includes the C, Ku, MSS and Ka-band earth stations.**

## Program Management

Program management is critical to the success of any project. Don't get bogged down with orchestrating all of the nitty-gritty details, let Comsearch help you take the worry out of your wireless network build-out through:

- Project Planning, Oversight and Scheduling
- Personnel Management
- Cost Management
- Risk Management
- Quality Management

## Interference Analysis and Radiation Hazard Studies

Our detailed interference analysis combines computer-generated models, technical calculations and path profiling to predict potential interference and to determine the feasibility and suitability of your site operations. Comsearch will:

- Evaluate potential interference associated with the earth station
- Report on site feasibility and recommend steps for site clearance
- Evaluate the complete satellite geostationary orbital arc for the entire frequency spectrum
- Analyze the earth station, local terrestrial systems and the surrounding terrain to assure the most accurate results possible
- Perform quick analysis and coordination for temporary satellite uplinks
- Perform radiation hazard calculations in compliance with FCC guidelines and ANSI standards

## On-site Radio Frequency Interference (RFI) Measurements

Comsearch offers an entire range of field services necessary to evaluate RFI at specific locations. We will collect test data, complete the analysis and compile

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reports for:

- The microwave environment
- The signal levels at the proposed sites
- The suitability of the site to operate as an earth station facility
- Identify and quantify potential interference due to spurious and harmonic emissions
- Measure and determine the interference potential from radar, ultra-wideband (UWB) systems and 802.11 devices
- Recommend mitigation techniques for interference conditions measured

## Frequency Coordination

Upon successful completion of the interference analysis, Comsearch will circulate the operational characteristics of the proposed system to the appropriate licensees. We will receive and respond to any objections pertaining to the proposed system and prepare the supplemental showing.

## FCC Licensing

Following the frequency coordination process, Comsearch will prepare and submit the FCC license application Form 312 for each new location. The application will contain:

- All data and technical information required by the FCC for license/registration of satellite earth station antennas
- Radiation hazard assessments for transmitting antennas
- FCC license waivers where required

## Frequency Protection Services

Comsearch's protection service reviews, analyzes and responds to other carriers' coordination notices and filings,and protects proposed, applied and licensed frequencies from interference. We research systems and clearances and answer technical or procedural questions.

## Why Comsearch?

We have the experience! Comsearch has performed mostof the earth station coordinations in the industry including nearly all transmit-receive, DBS, MSS, and Ka-band analyses and coordinations. Our engineers have the measurement and field survey experience necessary to develop and interpret data when clearing difficult interference cases. Comsearch's Earth Station Services department remains unsurpassed in the industry—giving you peace of mind knowing that your engineering project is in the best hands.

For more information on Comsearch and our Satellite Earth Station Engineering services, please contact us at 800.318.1234 or visit our web site at comsearch.com.



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