

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPECIAL TEMPORARY AUTHORITY

Applicant Name

Name of Lockheed
Applicant: Martin

Address

Attention: Claude Wells

Street Address:

P.O. Box:

City:

State:

Zip Code:

Country:

E-Mail Address:

Best Contact

Give the following information of person who can best handle inquiries pertaining to this application:

Last Name: Wells

First Name: Claude

Title:

Phone Number:

Explanation

Please explain in the area below why an STA is necessary:

A Special Temporary Authority is requested because the intended usage of the experimental satellite terminal will not exceed 6 months and will more likely be limited to 30 days. This STA is for a demonstration to the US Government customer.

Purpose of Operation

Please explain
the purpose of
operation:

The purpose of the operation is to act as the fixed hub for the demonstration of the performance of a mobile Ku-band antenna system mounted on a vehicle. This STA is for the part of the system that has a fixed 2.4m Ku-band antenna that acts as the hub to which the mobile antenna communicates via a commercial Ku-band satellite. A 2.4m Ku-band antenna will be used at the demonstration site in Sunnyvale, CA, and this STA is for obtaining an FCC license for that unit. The proposed mobile Ku-band system is being demonstrated to the US Government agencies as a proposed solution to their data communication needs in the field. Grant of this application would allow Lockheed Martin to continue

the development and demonstration of such Ku-band systems required by the DoD and that can be used by the U.S. military for command, control communications, computers and intelligence surveillance and reconnaissance (C4ISR) data communications, as well as other US Govt agencies, such as DHS.

Information

Callsign:

Class of Station: Temporary-Fixed Earth Station

Nature of Service: Experimental

Location of proposed operation

Operation Start Date: Mid-March 2007, no later than March 20, 2007

Operation End Date: Currently April 20, 2007, no later than 6 months after Mid-March 2007

Manufacturer

List below transmitting equipment to be installed (if experimental, so state) if additional rows are required, please submit equipment list as an exhibit:

Manufacturer	Model Number	No. Of Units	Experimental
General Dynamics Vertex RSI	2.4m SF	1	Yes

Certification

Neither the applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. The applicant hereby waives any claim to the use of any particular frequency or electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.) The applicant acknowledges that all statements made in this application and attached exhibits are considered material representations, and that all the exhibits part hereof and are incorporated herein as if set out in full in this application; undersigned certifies that all statements in this application are true, complete and correct to the best of his/her knowledge and belief and are made in good faith. Applicant certifies that construction of the station would NOT be an action which is likely to have a significant environmental effect. See the Commission's Rules, 47 CFR1.1301-1.1319.

Signature of Applicant (Authorized person filing form): Claude Wells

Title of Applicant (if any):

Date:

[For each individual unit, we need the following information (if it doesn't apply leave blank):

Station Location

City	State	Latitude	Longitude	Mobile	Radius of Operation
Sunnyvale	CA	37° 24' 55.20" North	122° 2' 7.01" West	n/a (fixed)	n/a (fixed)

Datum: NAD 27

Is a directional antenna (other than radar) used? Yes

Exhibit submitted?: Yes (Radiation Hazard Analysis, Link Budget for Tx, Terminal Data Sheet)

(a) Width of beam in degrees at the half-power point: 0.60

(b) Orientation in horizontal plane: 126.84 (for SES Americom AMC-9 satellite located at 83W)

(c) Orientation in vertical plane: 30.6 (for SES Americom AMC-9 located at 83W)

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? No

(a) Overall height above ground to tip of antenna in meters: 3.17

(b) Elevation of ground at antenna site above mean sea level in meters: 48.89

(c) Distance to nearest aircraft landing area in kilometers: 12.9 (San Jose Airport)

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: n/a

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance ()	Emission Designator	Modulating Signal
New	14.0 to 14.5 GHz	Temporary-Fixed Earth Station	1.90W/49.65 dBW ERP	Peak		5M73G1D	1024K BPSK, spread by x2

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance ()	Emission Designator	Modulating Signal
New	14.0 to 14.5 GHz	Temporary-Fixed Earth Station	1.77W/49.35 dBW ERP	Peak		5M73G1D	2048K BPSK, no spreading
