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**EXHIBIT #1**
ENGINEERING STATEMENT

Concerning the Application of
The University of Southern California
To Make a Minor Change
To KPSC
A Non-Commercial FM Station
Serving Palm Springs, California

BLED19891212KE

September 2002

**Channel 203A** **1.26 kW H & V**

This engineering statement supports the application filed by the University of Southern California to make a minor change to its licensed facility KPSC, a non-commercial, educational FM station serving Palm Springs, California.

The University of Southern California proposes to move the transmitter, decrease power and lower the antenna height above mean sea level. No other changes are being proposed.

Page #3 of this exhibit is a 60 dBu change area map, depicting the protected contours of the proposed station in comparison to the licensed facility.

**Exhibit #13** is a computer generated map predicting the 60 dBu coverage contour. A waiver of Section 73.1125 was previously granted under BLED19891212KE to allow operation of KPSC as a satellite facility of KUSC, Los Angeles. The applicant respectfully requests a continuation of that waiver.

A 60 dBu coverage map and distance to contour table are attached. The N.G.D.C. 30 arc second terrain database was used to calculate the height above average terrain. The area within this contour amounts to 2,569.8 square kilometers[1]. A tabular listing of the distances to contour along the pertinent radials is found on page #2.The population within the 60 dBu service contour was determined to be 307,562 people through the use of a computer program which extracts a population count based on population centroids defined by U.S. Census 2000 (PL-94-171) digital census block data.

[1] This figure was determined using numerical calculus. The distance to the one mV/m signal contour along each of 360 evenly spaced radial azimuths was squared and then the average of the sum of these distances was calculated. The resulting average radius squared was then multiplied by $\pi$ to determine the area within the contour.

**Exhibit #15** is a single channel, contour to contour, allocation study showing that interference is neither caused nor received by an FM radio station, application for facilities or construction permit. Page #2 is an explanation of the methods used to prepare this study. Pages 3-8 contain maps and FMOVER tables, depicting the relationships between the proposed facility and several pending applications for new stations in Yucca Valley. There are no I.F. relationships.

**Exhibit #18** is a channel six television protection exhibit. There is one full service Channel Six television station within the 246 kilometer cutoff distance for FM channel 203. KMOHTV operates with 100 kW ERP at a distance of 229.8 km along an azimuth of 55.1°. Page #1 is a map of the 47 dBu protected contour of KMOHTV.C and the 53.5 dBu interference contour of the proposed facility. The FM interference contour is entirely outside the TV protected contour. Pages 2-3 are distance to contour tables for both facilities.

**Exhibit #21** is an FCC minimum spacings study. The proposed location is within 320 kilometers of the U.S. border with Mexico, but there are no relationships with Mexican stations.

**Exhibit #22** shows compliance with the Commission's R.F. emission's standards.

The University of Southern California is aware of its responsibility under the rules relating to inter-modulation and objectionable blanketing interference. It will correct any such interference, at its own expense, within a period of one year from commencement of broadcasting at the proposed transmitter site. Corrections shall employ traditional means such as filters, traps and tuning adjustments.

Page #4 of this exhibit (Ex. #1) is a declaration made by the preparer, Kate Michler, attesting to her qualifications.

# KPSC Proposed 60 dBu Change Area

**KPSCNew**
Latitude: 33-52-03 N
Longitude: 116-25-59 W
ERP: 1.26 kW
Channel: 203
Frequency: 88.5 MHz
AMSL Height: 510.7 m
Elevation: 477.9 m
HAAT: 194.02 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Contour

**KPSCLic**
BLED19891212KE
Latitude: 33-52-14 N
Longitude: 116-13-39 W
ERP: 3.00 kW
Channel: 203
Frequency: 88.5 MHz
AMSL Height: 803.0 m
Elevation: 685.44 m
HAAT: 81.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

**September 10, 2002**

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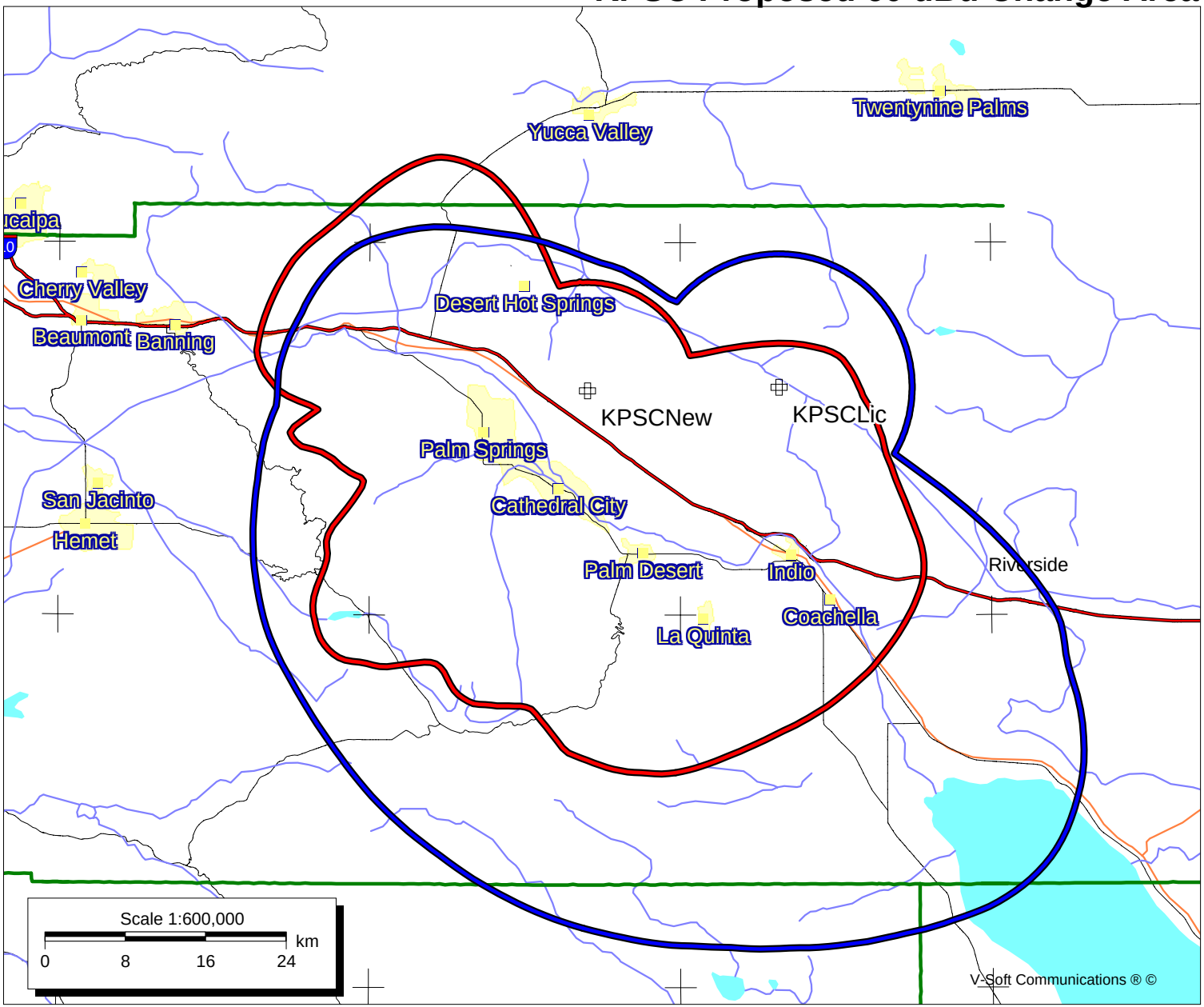
Telecommunication Consultants



**Declaration:**

I, Katherine A. Michler, have received a Bachelor of Science degree from the University of Northern Iowa, and;

That, I declare that I have received training as a technical consultant as a member of the staff of Doug Vernier Telecommunications Consultants, and;

That, I have apprenticed under Douglas Vernier for over four years, and;

That, he has been active in broadcast consulting for over 25 years, and;

That, his qualifications are a matter of record with the Federal Communications Commission, and;

That, I am an Associate Member (#20792) of the Society of Broadcast Engineers, Indianapolis, Indiana, and;

That, the consulting firm of Doug Vernier Telecommunications Consultants has been retained by the University of Southern California, Los Angeles, California;

That, I have personally prepared these engineering showings, the technical information contained in same and the facts stated within are true to my knowledge, and;

That, under penalty of perjury, I declare that the foregoing is correct.

Katherine A. Michler

Executed on September 10, 2002

Subscribed and sworn before me this 10th day of September, 2002.

JACOB L. BYERS
NOTARIAL SEAL - IOWA
6-29-06

Notary Public in and for the State of Iowa