

Federal Communications Commission Washington, D.C. 20554	Approved by OMB 3060-0506 (June 2002)	FOR FCC USE ONLY
<b>FCC 302-FM</b>		
<b>APPLICATION FOR FM BROADCAST STATION LICENSE</b>		FOR COMMISSION USE ONLY FILE NO. <b>BXLED - 20111128FBA</b>
Read INSTRUCTIONS Before Filling Out Form		

**Section I - General Information**

1.	Legal Name of the Applicant SANTA MONICA COMMUNITY COLLEGE DISTRICT		
	Mailing Address 1900 PICO BLVD.		
	City SANTA MONICA	State or Country (if foreign address) CA	ZIP Code 90405 - 1628
	Telephone Number (include area code) 3104505183	E-Mail Address (if available)	
	FCC Registration Number: 0008615551	Call Sign KCRU	Facility Identifier 59085
2.	Contact Representative (if other than Applicant) LEWIS J. PAPER, ESQ.		Firm or Company Name DICKSTEIN SHAPIRO LLP
	Telephone Number (include area code) 2024202265	E-Mail Address (if available) PAPERL@DICKSTEINSHAPIRO.COM	
3.	If this application has been submitted without a fee, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114): <input type="radio"/> Governmental Entity <input checked="" type="radio"/> Noncommercial Educational Licensee/Permittee <input type="radio"/> Other <input type="radio"/> N/A (Fee Required)		
4.	Facility Information:		
	a. <input type="radio"/> Commercial	<input checked="" type="radio"/> Noncommercial	
	b. <input checked="" type="radio"/> Directional	<input type="radio"/> Nondirectional	
	c. Community of License:		
	City: OXNARD	State: CA	
5.	<b>Program Test Authority:</b>		
	<input checked="" type="radio"/> Requesting program test authority.		
	<input type="radio"/> Station operating pursuant to automatic program test authority (47 C.F.R. Section 73.1620(a)(1)).		
6.	<b>Purpose of Application:</b>		
	<input checked="" type="radio"/> Cover construction permit (list most recent construction permit file number -- starts with the prefix BPH, BNPH, BMPH, BPED, BMPED, or BMPED):	BMXPED-20110203AAR	
	<input type="radio"/> Modify an authorized license (list license file number -- starts with the prefix BLH, BMLH, BLED, or BMLED):	-	
	<input type="radio"/> Amend a pending application If an amendment, <b>submit as an Exhibit</b> a listing by Section and Question Number the portions of the pending application that are being revised.		[Exhibit 1]

**NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.**

**Section II - Legal and Financial**

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1.	<b>Certification.</b> Applicant certifies that it has answered each question in this application based on its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets.	<input checked="" type="radio"/> Yes <input type="radio"/> No
2.	Licensee/Permittee certifies that all terms, conditions, and obligations set forth in the underlying construction permit have been fully met.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 2]
3.	Licensee/Permittee certifies that, apart from changes already reported, no cause or circumstance has arisen since the grant of the underlying construction permit which would result in any statement or representation contained in the construction permit application to be now incorrect.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 3]
4.	<b>Character Issues.</b> Applicant certifies that neither licensee/permittee nor any party to the application has or has had any interest in, or connection with:  a. any broadcast application in any proceeding where character issues were left unresolved or were resolved adversely against the applicant or party to the application; or b. any pending broadcast application in which character issues have been raised.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 4]
5.	<b>Adverse Findings.</b> Applicant certifies that, with respect to the applicant and any party to the application, no adverse finding has been made, nor has an adverse final action been taken related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 5]
6.	<b>Anti-Drug Abuse Act Certification.</b> Applicant certifies that neither licensee/permittee nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.	<input checked="" type="radio"/> Yes <input type="radio"/> No

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing RANDAL LAWSON	Typed or Printed Title of Person Signing EXECUTIVE VICE PRESIDENT
Signature	Date 11/28/2011

**SECTION III - PREPARER'S CERTIFICATION**

I certify that I have prepared Section III (Engineering data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name JOHN J. DAVIS	Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature	Date 11/27/2011	
Mailing Address PO BOX 128		
City SIERRA MADRE	State or Country (if foreign address) CA	Zip Code 91025 - 0128
Telephone Number (include area code) 6263556909	E-Mail Address (if available) JOHNJDAVIS@ROADRUNNER.COM	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

<b>Section III - Engineering</b>			
<b>TECHNICAL SPECIFICATIONS</b>			
Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.			
<b>TECH BOX</b>			
1.	Channel: 206		
2.	a. Effective Radiated Power:	0.85 kW(H) 0.85 kW(V)	
	b. Maximum Effective Radiated Power: (Beam-Tilt Antenna ONLY) <input checked="" type="checkbox"/> Not Applicable	kW(H) kW(V)	
3.	Transmitter Power Output: 0.252 kW		
4.	Antenna Data		
	Manufacturer	Model	Number of Sections
	SCA	CA5-FM/CP/RM	1
			Spacing Between Sections (wavelength)
			0
<b>NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.</b>			
<b>CERTIFICATION</b>			
<b>All applicants must complete this section.</b>			
5.	<b>Main Studio Location.</b> The main studio location complies with 47 C.F.R. Section 73.1125.	<input type="radio"/> Yes <input checked="" type="radio"/> No See Explanation in [Exhibit 6]	
6.	<b>Transmitter Power Output.</b> The operating transmitter power output produces the authorized effective radiated power.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 7]	
<b>APPLICATIONS FILED TO COVER A CONSTRUCTION PERMIT.</b>			
Only applicants filing this application to cover a construction permit must complete the following section.			
<b>NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.</b>			
7.	<b>Constructed Facility .</b> The facility was constructed as authorized in the underlying construction permit or complies with 47 C.F.R. Section 73.1690.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 8]	
8.	<b>Special Operating Conditions.</b> The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 9]	
	<b>An exhibit may be required.</b> Review the underlying construction permit.	[Exhibit 10]	
<b>APPLICATIONS FILED PURSUANT TO 47 C.F.R. SECTIONS 73.1675(c) or 73.1690(c).</b>			
Only applicants filing this application pursuant to 47 C.F.R. Sections 73.1675(c) or 73.1690(c) must complete the following section.			
9.	<b>Changing transmitter power output.</b> Is this application being filed to authorize a change in transmitter power output caused by the replacement of omnidirectional antenna with another omnidirectional antenna or an alteration of the transmission line system? See 47 C.F.R. Sections 73.1690(c)(1) and (c)(10).	<input type="radio"/> Yes <input type="radio"/> No	
10.	<b>Increasing effective radiated power.</b> Is this application being filed to authorize an increase in ERP for a station operating in the nonreserved band (Channels 221-300)? See 47 C.F.R. Sections 73.1690	<input type="radio"/> Yes <input type="radio"/> No	

(c)(4), (c)(5) and (c)(7).		
If "Yes" to the above, the applicant certifies the following:		
a. <b>Spacing Requirements.</b> The increase in ERP was authorized pursuant to MM Docket 88-375 (Class A stations) OR the facility complies with the spacing requirements of 47 C.F.R. Section 73.207.	<input type="radio"/> Yes <input type="radio"/> No	See Explanation in [Exhibit 11]
b. <b>International Coordination.</b> The transmitter site is greater than 320 km from the Canadian or Mexican borders OR coordination for the station's international class is complete.	<input type="radio"/> Yes <input type="radio"/> No	See Explanation in [Exhibit 12]
c. <b>Interference.</b> The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied OR are not applicable.	<input type="radio"/> Yes <input type="radio"/> No	See Explanation in [Exhibit 13]
<b>Exhibit required.</b> If the proposed facility must be notified to the entities set forth in 47 C.F.R. Section 73.1030, the applicant must provide a copy of the written approval for the ERP increase from the affected entity.		[Exhibit 14]
d. <b>Multiple Ownership Showing.</b> The increase in ERP will not require the consideration of a multiple ownership showing pursuant to 47 C.F.R. Section 73.3555.	<input type="radio"/> Yes <input type="radio"/> No	See Explanation in [Exhibit 15]
e. <b>Environmental Protection Act.</b> The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an <b>Exhibit is required.</b>	<input type="radio"/> Yes <input type="radio"/> No	See Explanation in [Exhibit 16]
By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.		
11. <b>Increasing vertically polarized effective radiated power.</b> Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(4) to authorize an increase in the vertically polarized ERP for a station operating in the reserved band (Channels 200-220)?	<input type="radio"/> Yes <input type="radio"/> No	
If "Yes" to the above, the applicant certifies the following:		
a. <b>TV Channel 6 Protection Requirements.</b> The facility complies with the spacing requirements of 47 C.F.R. Section 73.525(a)(1).	<input type="radio"/> Yes <input type="radio"/> No	See Explanation in [Exhibit 17]
b. <b>Environmental Protection Act.</b> The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1 306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an <b>Exhibit is required.</b>	<input type="radio"/> Yes <input type="radio"/> No	See Explanation in [Exhibit 18]
By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.		
12. <b>Decreasing effective radiated power (non-reserved channel).</b> Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(8) to authorize a decrease in the ERP for a station operating in the nonreserved band (Channels 221-300)?	<input type="radio"/> Yes <input type="radio"/> No	
If "Yes" to the above, the applicant certifies the following:		
a. <b>Community Coverage .</b> The proposed facility complies with the community coverage	<input type="radio"/> Yes <input type="radio"/> No	

	<p>requirements of 47 C.F.R. Section 73.315 where the distance to the 3.16 mV/m contour is predicted using the standard prediction method in 47 C.F.R. Section 73.313.</p>	<p>See Explanation in [Exhibit 19]</p>
	<p>b. <b>Auxiliary Facilities.</b> The authorized or pending auxiliary facilities for this station comply with 47 C.F.R. Section 73.1675(a).</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 20]</p>
	<p>c. <b>Multiple Ownership Showing.</b> The decrease in ERP is not requested or required to establish compliance with 47 C.F.R. Section 73.3555.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 21]</p>
<p>13.</p>	<p><b>Decreasing effective radiated power (reserved channel).</b> Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(8) to authorize a decrease in the ERP for a station operating in the reserved band (Channels 200-220)?</p> <p>If "Yes" to the above, the applicant certifies the following:</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
	<p>a. <b>Community Coverage .</b> The proposed facility complies with the community coverage requirements of 47 C.F.R. Section 73.1690(c)(8)(i) where the distance to the 1 mV/m contour is predicted using the standard prediction method in 47 C.F.R. Section 73.313.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 22]</p>
	<p>b. <b>Auxiliary Facilities.</b> The authorized or pending auxiliary facilities for this station comply with 47 C.F.R. Section 73.1675(a).</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 23]</p>
<p>14.</p>	<p><b>Replacing a directional antenna.</b> Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(2) to replace a directional antenna with another directional antenna?</p> <p>If "Yes" to the above, the applicant certifies the following:</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
	<p>a. <b>Measurement of Directional Antenna.</b> The composite measured pattern and measurement procedures comply with 47 C.F.R. Section 73.1690(c)(2). <b>Exhibit required.</b></p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 24]</p> <p>[Exhibit 25]</p>
	<p>b. <b>Installation of Directional Antenna.</b> The installation of the directional antenna complies with 47 C.F.R. Section 73.1690(c)(2). <b>Exhibit required.</b></p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 26]</p> <p>[Exhibit 27]</p>
<p>15.</p>	<p><b>Deleting contour protection status.</b> Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(6) to delete contour protection status (47 C.F.R. Section 73.215) for a station operating in the nonreserved band (Channels 221-300)?</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
	<p>If "Yes" to the above, the applicant certifies that the facility complies with the spacing requirements of 47 C.F.R. Section 73.207.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 28]</p>
<p>16.</p>	<p><b>Use a formerly licensed main facility as an auxiliary facility.</b> Is this application being filed pursuant to 47 C.F.R. Section 73.1675(c)(1) to request authorization to use a formerly licensed main facility as an auxiliary facility and/or change the ERP of the proposed auxiliary facility?</p> <p>If "Yes" to the above, the applicant certifies the following:</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
	<p>a. <b>Auxiliary antenna service area.</b> The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a).</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in</p>

		[Exhibit 29]
	<p>b. <b>Environmental Protection Act.</b> The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1 306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an <b>Exhibit is required.</b></p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 30]</p>
	<p>By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.</p>	
17.	<p><b>Change the license status.</b> Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(9) to change the license status from commercial to noncommercial or from noncommercial to commercial?</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
	<p>If "Yes" to the above, submit an exhibit providing full particulars. For applications changing license status from commercial to noncommercial, include Section II of FCC Form 340 as an exhibit to this application.</p>	[Exhibit 31]
<p><b>PREPARERS CERIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.</b></p>		

**Exhibits**

**Exhibit 6**

**Description:** MAIN STUDIO WAIVER

SEE ATTACHED APRIL 23, 1983, MAIN STUDIO WAIVER LETTER FROM LARRY D. EADS, CHIEF, AUDIO SERVICES DIVISION, MASS MEDIA BUREAU

**Attachment 6**

Description
<a href="#">MAIN STUDIO WAIVER</a>

**Exhibit 7**

**Description:** TRANSMITTER POWER OUTPUT DETERMINATION

SEE TABLE 1: TRANSMITTER POWER OUTPUT DETERMINATION

**Attachment 7**

Description
<a href="#">TABLE 1 - TRANSMITTER POWER OUTPUT DETERMINATION</a>

**Exhibit 9**

**Description:** ENGINEERING STATEMENT

SEE ATTACHED 'ENGINEERING STATEMENT'

**Attachment 9**

Description
<a href="#">ENGINEERING STATEMENT</a>

[Figure 1 - 60 dBu Contours](#)

[Attachment A - Antenna Proof of Performance](#)

[Attachment B - Affidavit of Land Surveyor](#)

[Attachment C - Antenna Location Certification](#)

[Attachment D - RFR Compliance Certification](#)

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332W

FCC MAIL SECTION

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

APR 27 3 49 PM '93

APR 23 1993

IN REPLY REFER TO:  
1800B3-MFW

DISPATCHED BY

Charles M. Firestone, Esq.  
Suite 700  
1250 Connecticut Avenue, N.W.  
Washington, D.C. 20036

In re: KCRU-FM, Oxnard, California  
Santa Monica Community District  
Request for Waiver of Section  
73.1125

Dear Mr. Firestone:

This letter refers to the request, filed on August 5, 1992 and amended on November 20, 1992, for waiver of the Commission's main studio rule, 47 C.F.R. § 73.1125. Specifically, KCRU-FM permittee Santa Monica Community District "SMCD") proposes to operate KCRU-FM as a satellite of its station KCRW-FM, Santa Monica, California.

In support of the waiver request, SMCD indicates that, as a noncommercial educational FM station financially dependent on listener contributions and charitable grants, it is not able to justify operating a separate studio within the KCRU-FM principal community contour. However, SMCD indicates that KCRU will adequately cover the needs and interests of the Oxnard area, because: (i) KCRW-FM's programming includes "regular public network fare, original radio drama, cultural programming, and other highly regarded locally originated programming, much of which will address the needs and interests of the new station's listeners," waiver request, at 2; (ii) the mix of programming will include programming of specific interest to Oxnard residents, such as broadcast of Oxnard City Council meetings; and (iii) other local programs can be originated at the KCRW-FM studio, approximately one hour away from the KCRU-FM principal community contour. SMCD indicates that it will maintain its public file at the Oxnard Public Library, and states that grant of a waiver would better enable it to provide cultural and educational fare than if it needed to incur the expenses of operating a studio in Oxnard.

On November 20, 1992, at the request of the FM Branch staff, SMCD (through counsel) filed an amendment to its waiver request. The permittee indicated that it would "conduct periodic telephone surveys" of the Oxnard service area in order to insure that it is apprised of the needs and interests of Oxnard residents.

A "satellite" station has been defined by the Commission as one "operating on a channel specified in the rules, but one which usually originates no local programming....It rebroadcasts the programming of the parent station." Multiple Ownership Rules, 3 RR 2d 1554, 1562 (1964). In the past, the Commission has recognized the economic benefits of centralized operations for noncommercial educational stations, such as the one proposed here. See



Memorandum Opinion and Order in MM Docket 86-406, 3 FCC Rcd 5024, 5027 (1988). Because of the limited funding available to those stations, we have granted waivers to state and regional public television and radio networks to operate "satellite" stations that do not necessarily meet the main studio requirements. See Nebraska Educational Television Commission, 4 RR 2d 771 (1956), and Sound of Life, Inc., 4 FCC 2d 8273 (1989). However, these stations have not been permitted to ignore local service obligations. See Georgia State Board of Education, 70 FCC 2d 948 (1979). The Commission has never "indicated, directly or indirectly, that licenses were granted to state educational networks for the purpose of providing statewide service and not local service." Id., at 956. Waivers generally have been granted "only upon a showing that the local community would be served. . . [and] such stations will be subject to the local/toll-free telephone requirements." 3 FCC Rcd at 5027. See also 47 C.F.R. §73.1125(c).

We find that the waiver request, as amended, provides barely sufficient information to satisfy the primary obligation of a "satellite" station, which is to serve the problems, needs, and interests of the community to which it is licensed irrespective of whether or not the station will maintain a studio in compliance with Section 73.1125. The promise to conduct regular telephone surveys of Oxnard residents is an excellent beginning; however, the only firm commitment to broadcast programming of direct concern to Oxnard residents is to broadcast Oxnard City Council meetings. This alone is not sufficient. Notwithstanding this concern, we believe that, on balance, grant of a waiver of Section 73.1125, with certain conditions, will serve the public interest in providing a new noncommercial educational broadcast voice to Oxnard.

Accordingly, the request for waiver of 47 C.F.R. § 73.1125, to operate station KCRU-FM as a satellite of station KCRW-FM, Santa Monica, California, IS GRANTED subject to the following conditions:

1. That the permittee install a toll-free telephone line from Oxnard to the KCRW-FM studio in Santa Monica, in compliance with 47 C.F.R. § 73.1125(c);
2. That the permittee conduct regular (we suggest quarterly) interviews, wither in person or via telephone, with Oxnard community leaders and residents and maintain the results of those meetings in the KCRU-FM public inspection file, in accordance with 47 C.F.R. § 73.3527(a) (7); and
3. That the permittee periodically provide programming of specific interest to the people of the Oxnard area in addition to broadcasts of Oxnard City Council meetings.

This action is taken pursuant to 47 C.F.R. § 0.283.

Sincerely,

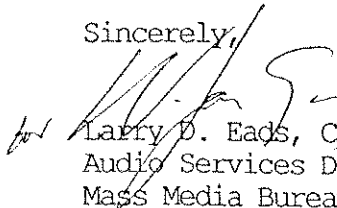
  
Larry D. Eads, Chief  
Audio Services Division  
Mass Media Bureau

TABLE 1

KCRU - OXNARD CA

TRANSMITTER POWER OUTPUT DETERMINATION

DESCRIPTION	POWER (kW)	POWER (dBk)
ERP	0.85 kW	-0.706 dBk
ANT. GAIN	3.707	5.690 dB
ANT. INPUT	0.229 kW	-6.396 dBk
LINE INSERTION LOSS - 7/8" LDF5-50A - 110 FT.	91.01%	0.41 dB
TRANSMITTER TPO	0.252 kW	-5.99 dBk

## ENGINEERING STATEMENT

1. Coverage Contours: The directional transmitting antenna is a Kathrein-Scala circularly polarized Yagi antenna, Model CA5-FM/CP/RM, with an azimuth heading of 300 degrees True. The principal minima are 80 & 160 degrees True. The attached Figure 1 shows both the 60 dBu coverage contour using the antenna manufacturer's published azimuth pattern as filed in the Construction Permit, and the 60 dBu contour using the composite antenna pattern data measured by Shively Labs. It can be seen that the measured antenna pattern produces a 60 dBu contour that is totally contained within the Construction Permit 60 dBu contour.

2. Special Operating Conditions: The construction permit imposes certain special operating conditions or restrictions, which are discussed below:

A. Compliance with Special Operating Conditions #1 & #4: Attachment A is an affidavit from Shively Labs, detailing the establishing of the horizontal, vertical, and composite azimuth antenna patterns. These patterns demonstrate that they are contained within the limiting pattern of the Construction Permit.

B. Compliance with Special Operating Condition #2: Attachment B is an affidavit from James P. Fallon, Licensed Land Surveyor in the State of California, certifying that the antenna azimuth heading is at 300 degrees True.

C. Compliance with Special Operating Conditions #3 & 6: Attachment C is an affidavit from Tom King, an expert in the field of FM broadcast antenna installations, certifying that the antenna was installed according to the antenna manufacturer's instructions at the location specified in the construction permit.

D. Compliance with Special Operating Condition #5: Request for Program Test Authority is dealt with in Question #5 of this application where Program Test Authority is specifically requested.

E. Compliance with Special Operating Condition #6: Attachment D is an affidavit from Tom King, an expert in the field of FM broadcast antenna installations, certifying that the installation complies with the requirements of FCC OET Bulletin 65 with respect to radio frequency radiation (RFR).

F. Compliance with Special Operating Condition #8: Santa Monica Community District, in coordination with other users of the site, has developed a plan where power will be reduced, or cease operation as necessary, to protect persons having access to the site, tower or antenna(s) from RFR fields in excess of FCC guidelines.

3. Santa Monica Community College District believes that it has complied with all aspects of the Special Conditions specified in the Construction Permit.

**KCRU CP**  
BMXPED20110203AAR  
Latitude: 34-06-47 N  
Longitude: 119-03-34 W  
ERP: 0.85 kW  
Channel: 206  
Frequency: 89.1 MHz  
AMSL Height: 414.0 m  
Elevation: 390.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

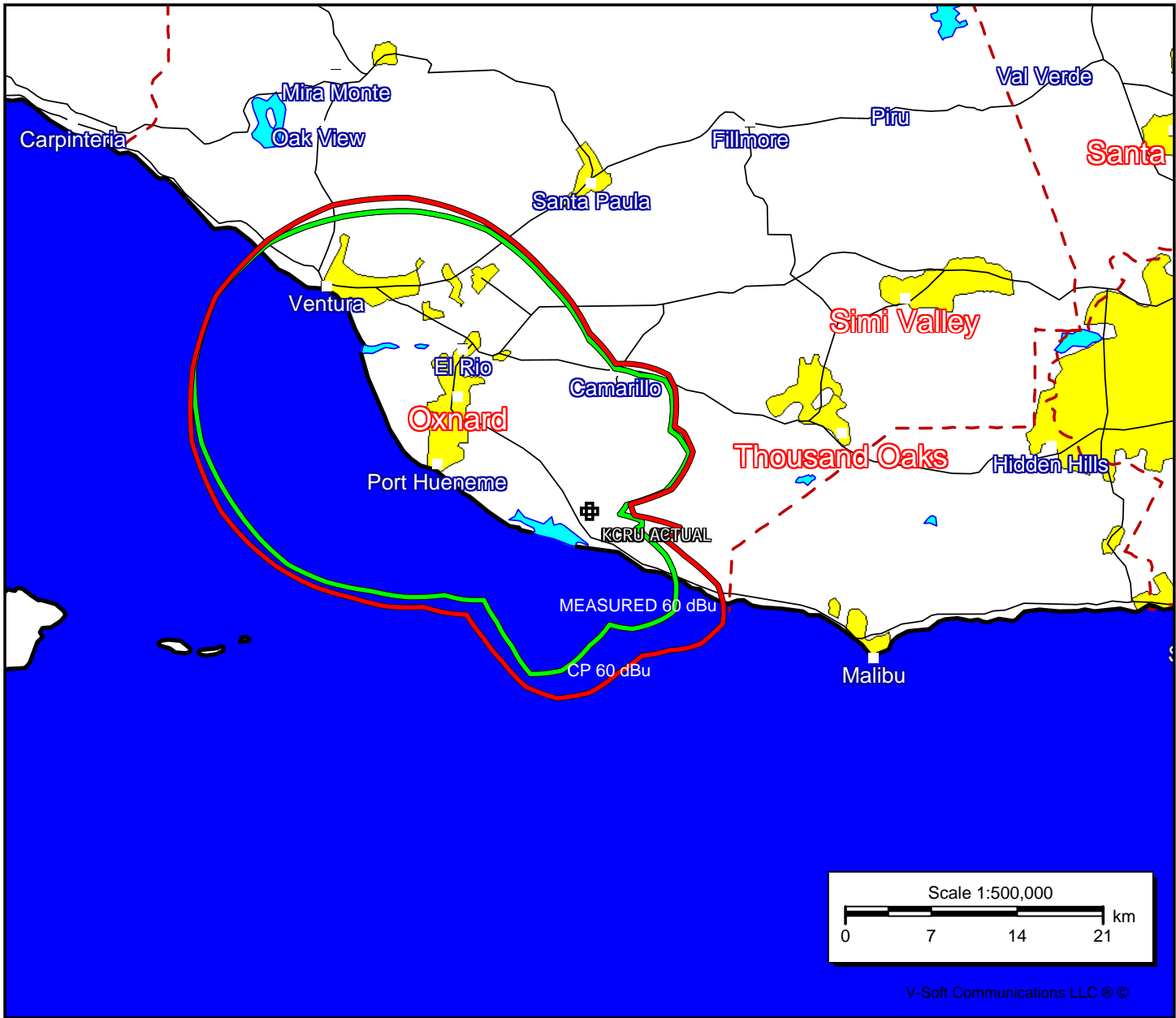


FIGURE 1

**S.O. 29551**  
**Report of Test SCALA CA-5**  
**For**  
**SANTA MONICA COMMUNITY COLLEGE DISTRICT**  
**KCRU 89.1 MHz OXNARD, CA.**

**OBJECTIVE:**

The objective of this test was to demonstrate the directional characteristics of a Scala CA-5 to meet the needs of KCRU and to comply with the requirements of the FCC construction permit, file number BMXPED-20110203AAR. This test characterizes only the radiation characteristics of the antenna when mounted on the tower as described. It does not represent or imply any guarantee of specific coverage which can be influenced by factors beyond the scope of this test.

**RESULTS:**

The following Figures are the results of the measurements from our pattern range:

- Figure 1A - Measured Azimuth Pattern with the FCC Composite
- Figure 1B - Measured Composite Azimuth Pattern with the FCC Composite
- Figure 1C - Tabulation of the Horizontal Polarization for the Measured Azimuth Pattern
- Figure 1D - Tabulation of the Vertical Polarization for the Measured Azimuth Pattern
- Figure 1E - Tabulation of the Measured Composite Azimuth Pattern
- Figure 1F - Tabulation of the FCC Composite

The calculated elevation pattern of the antenna is shown in Figure 3.

Construction permit file number BMXPED-20110203AAR indicates that the Horizontal radiation component shall not exceed .85 kW at any azimuth and is restricted to the following values at the azimuths specified:

80 Degrees T: 0.013 kW

160 Degrees T: 0.013 kW

From Figure 1A, the maximum radiation of the Horizontal component occurs at 300 Degrees. At the restricted azimuth of 80 Degrees T the Horizontal component is 20 dB down from the maximum of .85 kW, or 0.009 kW and at the restricted azimuth of 160 Degrees T the vertical component is 21.51 dB down from the maximum of 0.085 kW, or 0.006 kW.

The R.M.S. of the Horizontal component is 0.396. The total Horizontal power gain is 3.707. The R.M.S. of the Vertical component is 0.375. The total Vertical power gain is 2.666. See Figure 4 for calculations. The R.M.S. of the FCC composite pattern is 0.433. The R.M.S. of the measured composite pattern is 0.407. Eighty-five percent (85%) of the original authorized FCC composite pattern is 0.368. Therefore this pattern complies with the FCC requirement of 73.316(c) (2) (ix) (A).

#### **METHOD OF DIRECTIONALIZATION:**

One bay of the Scala CA-5 yagi was mounted on a tower of precise scale to the Rohn tower at the KCRU site. The spacing of the antenna to the tower was varied to achieve the horizontal and vertical patterns shown in Figure 1A. See Figure 2 for mechanical details.

#### **METHOD OF MEASUREMENT:**

As allowed by the construction permit, file number BMXPED-20110203AAR, a single level of the Scala CA-5 was set up on the Shively Labs scale model antenna pattern measuring range. A scale of 4.5:1 was used.

#### **SUPERVISION:**

Mr. Surette was graduated from Lowell Technological Institute, Lowell, Massachusetts in 1973 with the degree of Bachelor of Science in Electrical Engineering. He has been directly involved with design and development of broadcast antennas, filter systems and RF transmission components since 1974. As an RF Engineer for six years with the original Shively Labs in Raymond, ME and for a short period of time with Dielectric Communications. He is currently an Associate Member of the AFCCE and a Senior Member of IEEE.

Test Report Scala CA-5

KCRU

Page Three

He has authored a chapter on filters and combining systems for the latest edition of the CRC Electronics Handbook and for the 9<sup>th</sup> and 10<sup>th</sup> Editions of the NAB Handbook.

**EQUIPMENT:**

The scale model pattern range consists of a wooden rotating pedestal equipped with a position indicator. The scale model bay is placed on the top of this pedestal and is used in the transmission mode at approximately 20 feet above ground level. The receiving corner reflector is spaced 50 feet away from the rotating pedestal at the same level above ground as the transmitting model. The transmitting and receiving signals are carried to a control building by means of RG-9/U double shielded coax cable.

The control building is equipped with:

Hewlett Packard Model 8753 Network Analyzer

PC Based Controller

Hewlett Packard 7550A Graphics Plotter

All testing is carried out in strict accordance with approved procedures under our ISO9001:2008.

**TEST PROCEDURES:**

The receiving antenna system is mounted so that the horizontal and vertical azimuth patterns are measured independently. The network analyzer was set to 400.95 MHz Calibrated pads are used to check the linearity of the measuring system. For example, 6 dB padding yields a scale reading of 50 from an unpadding reading of 100 in voltage. From the recorded patterns, the R.M.S. values are calculated and recorded as shown in Figure 1A.

Respectfully submitted by:

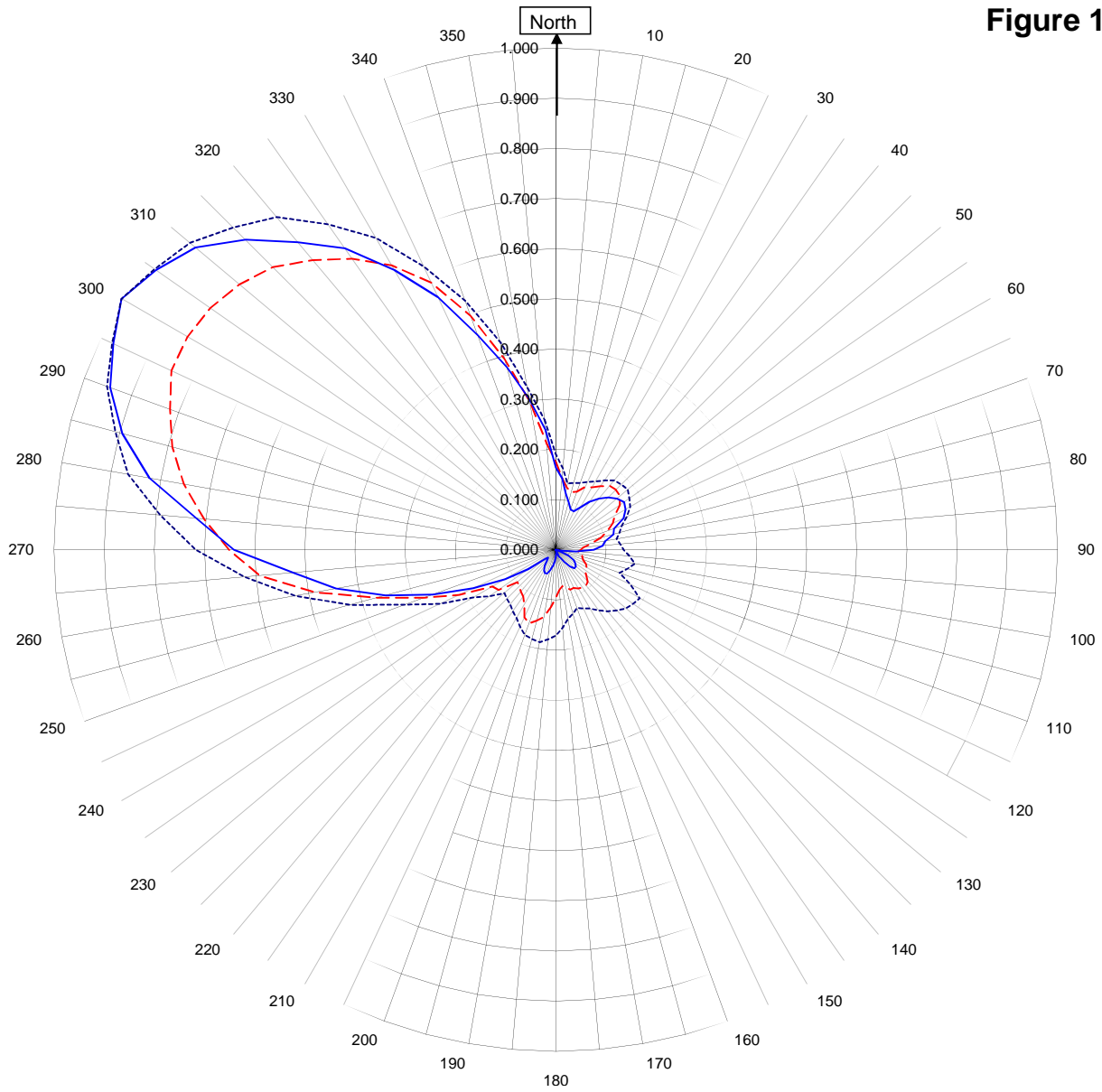


Robert A. Surette  
Director of Sales Engineering  
S/O 29551  
November 16, 2011

# Shively Labs

Shively Labs, a division of Howell Laboratories, Inc. Bridgton, ME (207)647-3327

Figure 1A



## KCRU OXNARD, CA.

29551

November 16, 2011

— Horizontal RMS	0.396
- - - Vertical RMS	0.375
— H/V Composite RMS	0.406
..... FCC Composite RMS	0.433

Frequency	89.1 / 400.95 mHz
Plot	Relative Field
Scale	4.5 : 1
	See Figure 2 for Mechanical Details

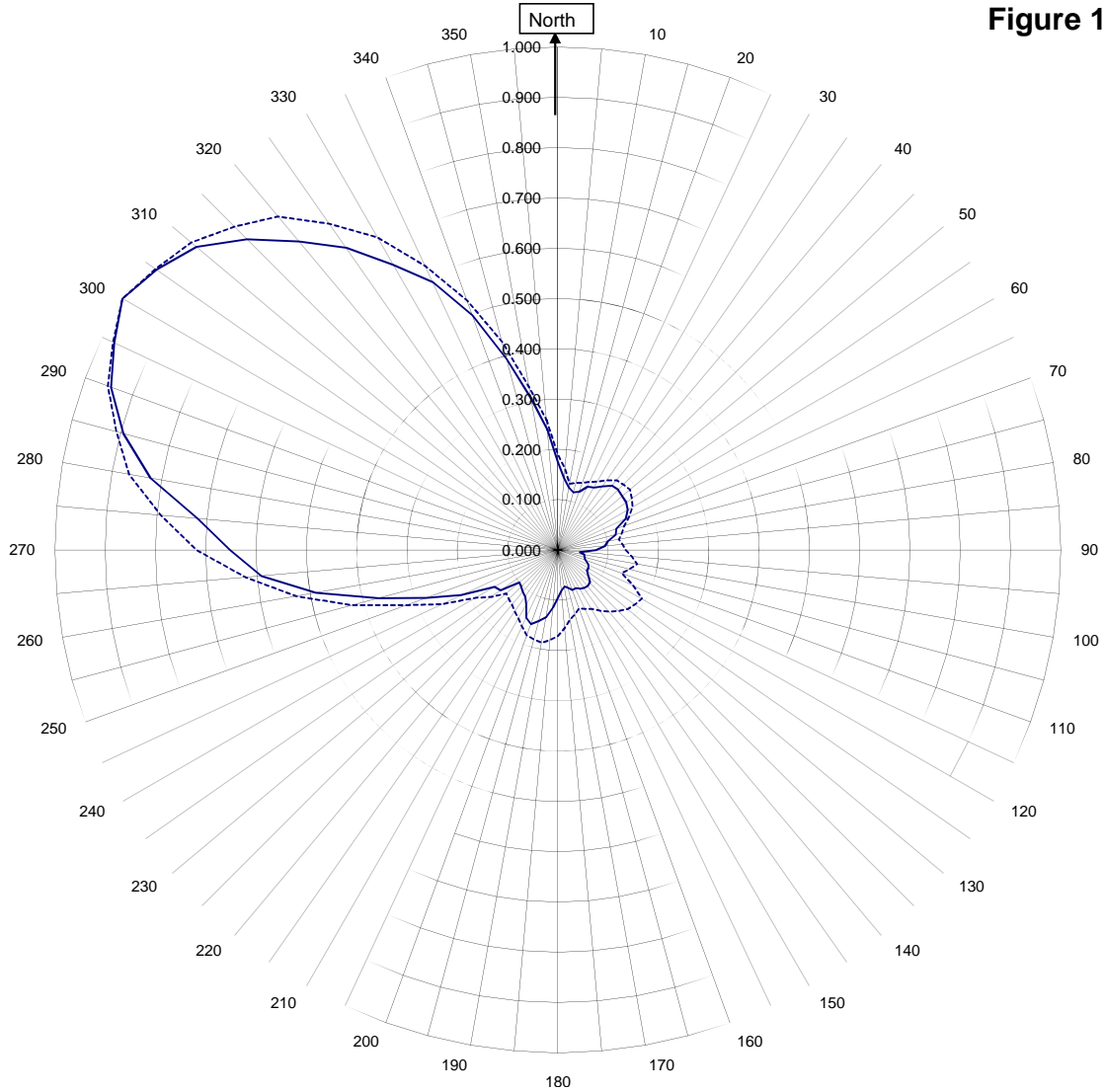
Antenna Model	SCALA CA-5
Pattern Type	Directional Azimuth



# Shively Labs

Shively Labs, a division of Howell Laboratories, Inc. Bridgton, ME (207)647-3327

**Figure 1B**



## KCRU OXNARD, CA.

29551

November 16, 2011

—————H/V Composite RMS	0.406
.....FCC Composite RMS	0.433

Frequency	89.1 / 400.95 MHz
Plot	Relative Field
Scale	4.5 : 1
See Figure 2 for Mechanical Details	

Antenna Model	SCALA CA-5
Pattern Type	Directional H/V Composite

Figure 1C

Tabulation of Horizontal Azimuth Pattern  
KCRU OXNARD, CA.

Azimuth	Rel Field	Azimuth	Rel Field
0	0.164	180	0.012
10	0.114	190	0.033
20	0.086	200	0.050
30	0.097	210	0.047
40	0.133	220	0.028
45	0.148	225	0.022
50	0.159	230	0.027
60	0.160	240	0.117
70	0.124	250	0.261
80	0.100	260	0.445
90	0.075	270	0.642
100	0.009	280	0.823
110	0.005	290	0.946
120	0.041	300	1.000
130	0.052	310	0.938
135	0.052	315	0.874
140	0.044	320	0.801
150	0.019	330	0.644
160	0.006	340	0.455
170	0.002	350	0.305

Figure 1D

Tabulation of Vertical Azimuth Pattern  
KCRU OXNARD, CA.

Azimuth	Rel Field	Azimuth	Rel Field
0	0.175	180	0.095
10	0.126	190	0.136
20	0.124	200	0.156
30	0.144	210	0.126
40	0.167	220	0.109
45	0.169	225	0.104
50	0.167	230	0.100
60	0.136	240	0.146
70	0.109	250	0.279
80	0.072	260	0.489
90	0.050	270	0.652
100	0.054	280	0.753
110	0.058	290	0.818
120	0.070	300	0.848
130	0.079	310	0.823
135	0.090	315	0.797
140	0.093	320	0.754
150	0.089	330	0.655
160	0.084	340	0.496
170	0.073	350	0.301

Figure 1E

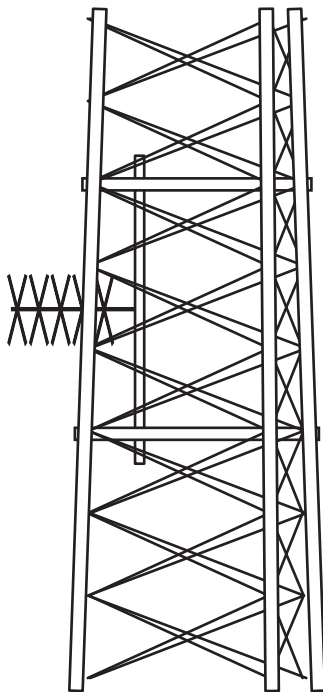
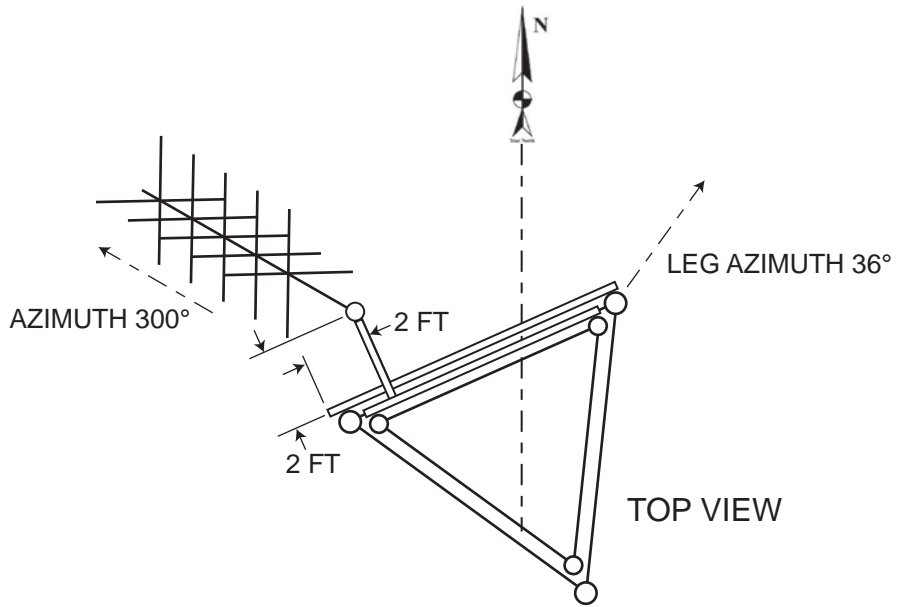
Tabulation of Composite Azimuth Pattern  
KCRU OXNARD, CA.

Azimuth	Rel Field	Azimuth	Rel Field
0	0.175	180	0.095
10	0.126	190	0.136
20	0.124	200	0.156
30	0.144	210	0.126
40	0.167	220	0.109
45	0.169	225	0.104
50	0.167	230	0.100
60	0.160	240	0.146
70	0.124	250	0.279
80	0.100	260	0.489
90	0.075	270	0.652
100	0.054	280	0.823
110	0.058	290	0.946
120	0.070	300	1.000
130	0.079	310	0.938
135	0.090	315	0.874
140	0.093	320	0.801
150	0.089	330	0.655
160	0.084	340	0.496
170	0.073	350	0.305

Figure 1F

Tabulation of FCC Directional Composite  
KCRU OXNARD, CA.

Azimuth	Rel Field	Azimuth	Rel Field
0	0.190	180	0.171
10	0.134	190	0.187
20	0.142	200	0.181
30	0.157	210	0.157
40	0.181	220	0.142
50	0.187	230	0.134
60	0.171	240	0.190
70	0.140	250	0.320
80	0.123	260	0.528
90	0.135	270	0.718
100	0.160	280	0.866
110	0.135	290	0.952
120	0.193	300	1.000
130	0.182	310	0.952
140	0.160	320	0.866
150	0.135	330	0.718
160	0.123	340	0.528
170	0.140	350	0.329



**ELEVATION VIEW**

The designs, constructions, arrangements, disclosures, and devices shown or described in the proposals, drawings, or sketches bearing this legend are the property of Howell Laboratories, Inc./Shively Labs and are submitted in confidence with the understanding that such designs, constructions, arrangements, disclosures, and devices shall not be utilized in whole or in part by any person, firm, or corporation, or disclosed to anyone other than the submittee, without the prior written permission of Howell Laboratories, Inc.

<b>SHIVELY LABS</b>			
DIV. HOWELL LABS		BRIDGTON, MAINE USA	
FIGURE 2, SCALA CA5 YAGI, KCRU, 89.1 MHz SANTA MONICA, CA			
SIZE <b>A</b>	CODE IDENT. NO. <b>26750</b>	DRAWING NO. <b>AGF111115-002</b>	REV -
SCALE NONE	S/O 29551	SHEET 1 OF 1	

Antenna Mfg.: Shively Labs

Date: 11/16/2011

Antenna Type: Scala CA-5

Station: KCRU

Beam Tilt 0

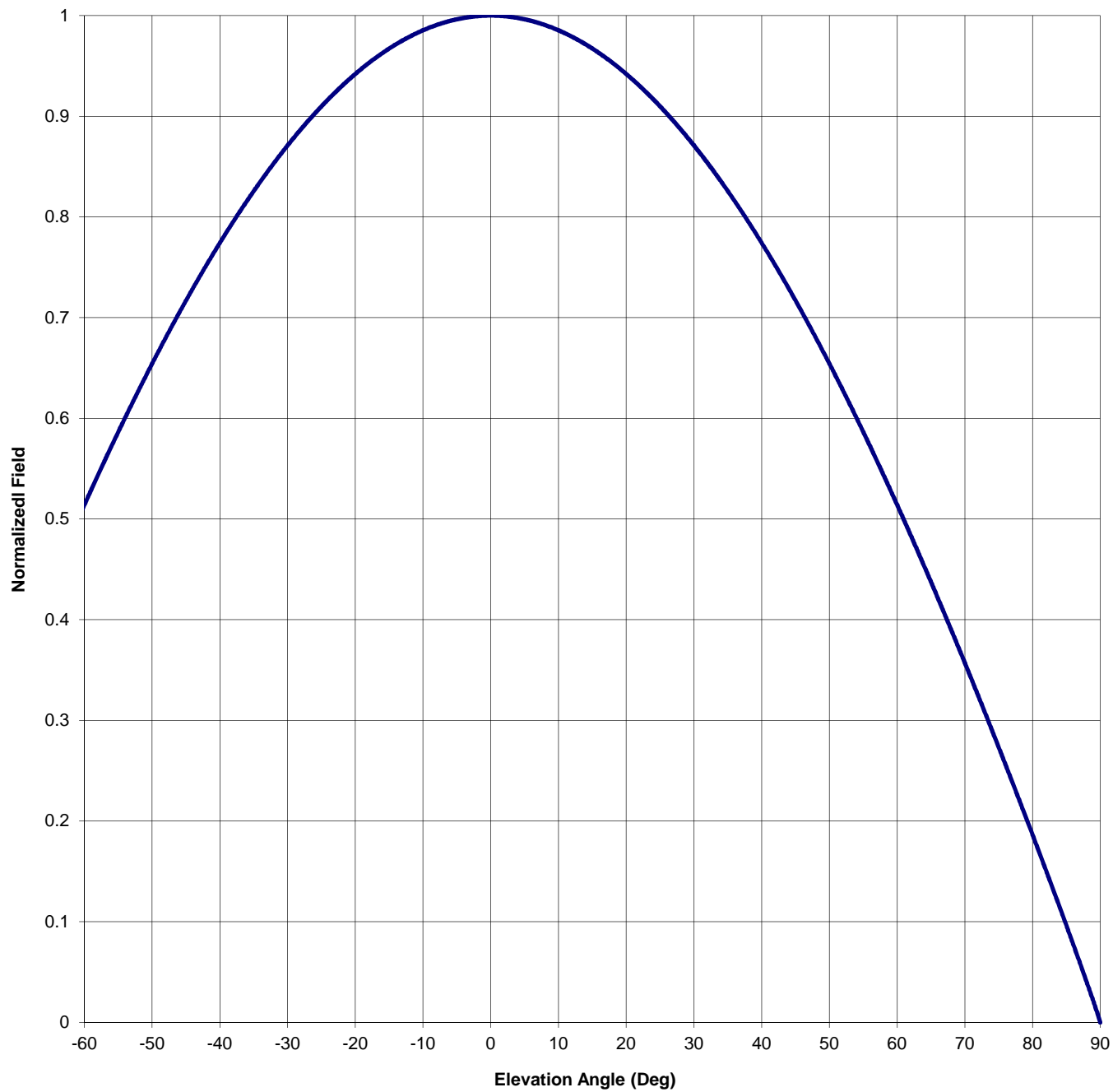
Frequency: 89.1

Gain (Max) 3.707 5.690 dB

Channel #: 206

Gain (Horizon) 3.707 5.690 dB

Figure: Figure 3



Antenna Mfg.: Shively Labs

Date: 11/16/2011

Antenna Type: Scala CA-5

Station: KCRU

Beam Tilt 0

Frequency: 89.1

Gain (Max) 3.707

5.690 dB

Channel #: 206

Gain (Horizon) 3.707

5.690 dB

Figure: Figure 3

Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field
-90	0.000	-44	0.729	0	1.000	46	0.705
-89	0.021	-43	0.741	1	1.000	47	0.693
-88	0.040	-42	0.752	2	0.999	48	0.680
-87	0.059	-41	0.763	3	0.999	49	0.667
-86	0.078	-40	0.774	4	0.998	50	0.654
-85	0.096	-39	0.785	5	0.996	51	0.641
-84	0.114	-38	0.796	6	0.995	52	0.628
-83	0.133	-37	0.806	7	0.993	53	0.614
-82	0.151	-36	0.816	8	0.991	54	0.600
-81	0.168	-35	0.826	9	0.988	55	0.586
-80	0.186	-34	0.835	10	0.985	56	0.572
-79	0.204	-33	0.845	11	0.982	57	0.558
-78	0.221	-32	0.854	12	0.979	58	0.544
-77	0.239	-31	0.862	13	0.975	59	0.529
-76	0.256	-30	0.871	14	0.971	60	0.514
-75	0.273	-29	0.879	15	0.967	61	0.499
-74	0.290	-28	0.887	16	0.963	62	0.484
-73	0.307	-27	0.895	17	0.958	63	0.469
-72	0.324	-26	0.903	18	0.953	64	0.453
-71	0.341	-25	0.910	19	0.948	65	0.437
-70	0.357	-24	0.917	20	0.942	66	0.422
-69	0.373	-23	0.924	21	0.936	67	0.406
-68	0.390	-22	0.930	22	0.930	68	0.390
-67	0.406	-21	0.936	23	0.924	69	0.373
-66	0.422	-20	0.942	24	0.917	70	0.357
-65	0.437	-19	0.948	25	0.910	71	0.341
-64	0.453	-18	0.953	26	0.903	72	0.324
-63	0.469	-17	0.958	27	0.895	73	0.307
-62	0.484	-16	0.963	28	0.887	74	0.290
-61	0.499	-15	0.967	29	0.879	75	0.273
-60	0.514	-14	0.971	30	0.871	76	0.256
-59	0.529	-13	0.975	31	0.862	77	0.239
-58	0.544	-12	0.979	32	0.854	78	0.221
-57	0.558	-11	0.982	33	0.845	79	0.204
-56	0.572	-10	0.985	34	0.835	80	0.186
-55	0.586	-9	0.988	35	0.826	81	0.168
-54	0.600	-8	0.991	36	0.816	82	0.151
-53	0.614	-7	0.993	37	0.806	83	0.133
-52	0.628	-6	0.995	38	0.796	84	0.114
-51	0.641	-5	0.996	39	0.785	85	0.096
-50	0.654	-4	0.998	40	0.774	86	0.078
-49	0.667	-3	0.999	41	0.763	87	0.059
-48	0.680	-2	0.999	42	0.752	88	0.040
-47	0.693	-1	1.000	43	0.741	89	0.021
-46	0.705	0	1.000	44	0.729	90	0.000
-45	0.717			45	0.717		



VALIDATION OF TOTAL POWER GAIN CALCULATION

KCRU OXNARD, CA.

MODEL SCALA CA-5

Elevation Gain of Antenna 0.55

Horizontal RMS value divided by the Vertical RMS value equals the Horiz. - Vert. Ratio

H RMS 0.39595 V RMS 0.37467 H/V Ratio 1.057

Elevation Gain of Horizontal Component 0.581

Elevation Gain of Vertical Component 0.520

Horizontal Azimuth Gain equals  $1/(\text{RMS})^2$ . 6.379

Vertical Azimuth Gain equals  $1/(\text{RMS}/\text{Max Vert})^2$ . 5.123

Max. Vertical 0.848

**\*Total Horizontal Power Gain is the Elevation Gain Times the Azimuth Gain**

Total Horizontal Power Gain = 3.707

**\*Total Vertical Power Gain is the Elevation Gain Times the Azimuth Gain**

Total Vertical Power Gain = 2.666

=====

ERP divided by Horizontal Power Gain equals Antenna Input Power

0.85 kW ERP Divided by H Gain 3.707 equals 0.229 kW H Antenna Input Power

Antenna Input Power times Vertical Power Gain equals Vertical ERP

0.229 kW Times V Gain 2.666 equals 0.611 kW V ERP

Maximum Value of the Vertical Component squared times the Maximum ERP equals the Vertical ERP

$(0.848)^2$  Times 0.85 Equals 0.611 kW Vertical ERP

NOTE: Calculating the ERP of the Vertical Component by two methods validates the total power gain calculations



# Penfield & Smith

1327 Del Norte Road, Ste 200  
Camarillo, CA 93010

tel 805-981-0706  
fax 805-981-0251

[www.penfieldsmith.com](http://www.penfieldsmith.com)

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Transportation Planning

Structural Engineering

Water Resources  
Engineering

GIS

W.O. 15824.02

November 14, 2011

Subject: **KCRU Broadcast Tower  
Geodetic Azimuth Certification  
Laguna Peak, Ventura County, CA**

I, James P. Fallon a Professional Land Surveyor, do hereby certify that the directional antenna mounted on November 1, 2011 on the KCRU broadcast tower located near Laguna Peak in Ventura County, California, is pointed at the listed geodetic azimuth within a tolerance of 00°10'00" of arc. This geodetic azimuth and position were computed on the North American Datum of 1927 (NAD27).

Tower Location (at base of antenna arm – P&S point 8030):

Latitude: N 34° 06' 45.57489"

Longitude: W 119° 03' 34.07077"

Geodetic Azimuth: 300°



11/23/2011

I, Tom King, certify that the Auxillary Antenna for KCRU, as specified in BXPED-20081120ACU as modified by BMXPED-20110203AAR, was installed per the instructions of Bob Surette of Shively at the azimuth specified and verified by Penfield and Smith, Surveyors at a height AGL of 80'.

There are no other antennas at the same level on the tower which would perturb the pattern.

Tom King

## ENGINEERING CERTIFICATION

TOM KING deposes and says:

1. That he is Owner of Tom King Communications, radio engineering consultant.
2. That Tom King Communications has offices at 3744 Gregory Way #5 Santa Barbara, California 93105 Telephone (805) 896-4900
3. That he has submitted many applications to the Federal Communications Commission for broadcast construction permits and licenses.
4. That his experience in broadcast engineering is a matter of record and he has spent over 20 years in the field of radio engineering.
5. That the attached engineering exhibit(s) were prepared by him. That he believes that the facts stated therein to be both true and accurate.
6. That he has performed field work on AM, FM and TV broadcast transmitting systems throughout this country and around the world. That he continues to provide technical consulting services on a daily basis to broadcasters.
7. That he declares under penalty of perjury the foregoing is true and correct.

Executed on: 23 November 2011  
*commission*

Signed: Tom King, *signature on file with the*

**RADIOFREQUENCY ELECTROMAGNETIC FIELD STUDIES**

**AT**

**KCRU**

**MULTI – USER SITE**

**November 2011**

**BY:**

**Tom King Communications**

**SANTA BARBARA CA.**

**805-896-4900**

## ENGINEERING STATEMENT OF TOM KING

This engineering statement was prepared on behalf of Santa Monica Community College , licensee of FM station KCRU, Channel 208, Oxnard, California.

### LOCATION-

On November 23, 2011 Radiofrequency Electromagnetic Field measurements were made by myself, Tom King, at and around the KCRU transmitting antenna located near Laguna Peak, south of Oxnard, CA.

### FINDINGS-

Observations were made using a Narda Model 8718 with Isotropic Conformal Electric Field Probe Model 8742D. All observed readings were below the Maximum Permissible Exposure to Public Standard as defined in FCC OET Bulletin 65 (appendix A) in areas where the General Public would have access.

### CONCLUSIONS –

This facility does not contribute more than 5% of the total emission limits for a facility of its type.

## ENGINEERING CERTIFICATION

TOM KING deposes and says:

1. That he is Owner of Tom King Communications, radio engineering consultant.
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7. That he declares under penalty of perjury the foregoing is true and correct.

Executed on: 23 November 2011

Signed: Tom King, *signature on file with the commission*