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June 4, 2004

Our File No. 21654-00100-60

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

VIA HAND DELIVERY
Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Reference: Petition for Rulemaking
Jackson Hole Community Radio, Inc.
Jackson, WY (Ch. 294C2)

Dear Ms. Dortch:

Submitted herewith on behalf of Jackson Hole Community Radio, Inc., are an original and four (4) copies of a Petition for Rulemaking pursuant to MM-Docket No. 95-31 and the rules enacted thereunder.

If there are any questions, please communicate with the undersigned.

Respectfully submitted,

JACKSON HOLE COMMUNITY RADIO, INC.

By: Henry Solomon
Henry A. Solomon
Its Attorney

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JUN - 4 2004

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

In the Matter of	)	
	)	
Amendment of Section 73.202(b)	)	**MM Docket No.**
Table of Allotments	)	**RM-**
FM Broadcast Stations	)	
(Jackson, WY)	)	

To: Chief, Allocations Branch
Policy and Rules Division
Media Bureau

PETITION FOR RULEMAKING

Jackson Hole Community Radio, Inc. (JHCR) hereby submits this Petition for Rulemaking ("Petition") in the above-captioned proceeding. The Petition proposes that the Commission allocate Channel 294C1 to Jackson, Wyoming and reserve that frequency for noncommercial educational ("NCE") service. Thus, JHCR proposes to amend Section 73.202 (b) of the Commission's Rules, 47 C.F.R. § 73.202 (b) as follows:

Channel No.

City	Present	Proposed
Jackson	227C; 237C; 245C1	227C, 237C, 245C1, 294C2•

[•With a notation that the channel is reserved for NCE use.]

Discussion

1. **Background.** In the *First Report and Order in Reexamination of the Comparative Standard for Noncommercial Educational Applicants*, 15 FCC Rcd 7586 (2000), as modified by the *Second Report and Order*, 18 FCC Rcd 6691 (2003), the Commission set forth revised standards for allocating a nonreserved FM channel for exclusive NCE use. In that decision the

Commission announced relaxed standards to allocate a new FM channel as reserved if a would-be applicant for an NCE station met certain criteria. The instant Petition satisfies the criteria for allocating Channel 294C2 to Jackson, Wyoming as a channel reserved for noncommercial use. It meets the substantive requirements for allocating and reserving a channel, as set forth in the *First Report and Order*, the *Second Report and Order*, and Section 73.202 (a) of the Commission's Rules.

2. **Relative Need for New NCE Service.** The attached Engineering Statement prepared by Lohnes and Culver Broadcast Consulting Engineers demonstrates that there is a need for new NCE service at Jackson, WY. The 2000 U.S. Census Population of Jackson and surrounding area (generally known as Jackson Hole) is 8,647. Jackson is the community of license of a 3kW NCE-FM station. Operating as proposed with 10 kW ERP, Channel 294C2 would more satisfy the requirement that class-maximum facilities at the allotment reference site would provide a new first or second NCE service to 10% or more of the population in a station's service area. If Channel 294C2 is allocated and reserved for NCE use, it would provide a second NCE service to significantly more than 10% of the population within proposed station's service area. Moreover, the population that will enjoy service exceeds 2,000.[1] *See Second Report and Order*, 18 FCC Rcd at 6704 [¶ 33]. This proposal thus satisfies the "first or second service" criterion at the allotment site's reference coordinates identified in Figures 1A, *et seq.*, to the Engineering Statement.

3. **Technical Preclusion.** In addition, the Engineering Statement satisfies the technical preclusion criterion. It demonstrates that any available reserved FM channel is precluded from serving Jackson from any effective and accessible hypothetical site and from the centrally

[1] As pointed out at p. 3 of the Engineering Statement, "The anticipated 10 kW ERP of JHCR would result in the first noncommercial service to approximately 35% of its service area."

located preferred site at Snow King Mountain. More particularly, Figures 1-2 of the *Engineering Statement* demonstrate that no reserved band frequency could be used to serve Jackson with relevant Class C2 facilities from any of the reference points specified in Paragraph 35 of the *Second Report and Order*, 18 FCC Rcd at 6705. Figure 3 of the Engineering Statement confirms that Channel 294 can be allotted to Jackson consistent with Part 73's technical strictures.

Conclusion

JHCR is a noncommercial educational entity. Thus, pursuant to Section 1.401(a) of the Rules, 47 C.F.R. § 1.401(a) it is an "interested party in this proceeding. Substantively, JHCR's reservation showing satisfies the relative need and technical preclusion criteria set forth at ¶¶ 34 and 35 of the *Second Report and Order*. 18 FCC Rcd at 6704-05. Accordingly, the Commission should allocate Channel 294C2 to Jackson, Wyoming and reserve that channel for noncommercial educational use.

Respectfully submitted

JACKSON HOLE COMMUNITY RADIO, INC.

By: _____

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EXHIBIT E
ENGINEERING STATEMENT RE:
PRECLUSION OF FM EDUCATIONAL RESERVED CHANNELS IN JACKSON, WYOMING
JACKSON HOLE COMMUNITY RADIO
JACKSON, WYOMING

INDEX

FIGURES

Prepared by
Lohnes and Culver Washington, D.C.
January, 2004

EXHIBIT E
ENGINEERING STATEMENT RE;
PRECLUSION OF FM EDUCATIONAL RESERVED
CHANNELS IN JACKSON, WYOMING
JACKSON HOLE COMMUNITY RADIO
JACKSON, WYOMING

INTRODUCTION

This engineering statement is prepared on behalf of Jackson Hole Community Radio, hereafter JHCR. It presents information relating to the current preclusion of educational reserved channels in the FM radio band in support of a request for assignment of a channel in the commercial band, reserved for the educational broadcasting proposed by JHCR.

All information and material presented herein is based on current FCC Rules and policy. It also relies on guidance obtained from the FCC Rulemaking in MM Docket No. 95-31, Second Report and Order (R&O), dated March 4, 2003, titled; Reexamination of the Comparative Standard for Noncommercial Educational Applicants.

BACKGROUND

JHCR seeks to provide non-commercial community educational programming to the town of Jackson, Wyoming. There are currently no educational reserved channels available in the community and no existing broadcast operations which JHCR could use to serve the community. The FCC policy in the above reference R&O allows for the addition of educational reserved channels in the normally non-reserved commercial portion

of the FM band under certain circumstances. Those circumstances are uniquely met in Jackson Wyoming as described below.

FCC SPECTRUM ALLOCATION METHODS

In the R&O, at paragraphs 27 and beyond, the FCC sets out a new multi-faceted process designed to clear the way for additional FM educational reserved allocations. The process consists of both a new service test and a preclusion on existing reserved channels test. The new service test requires the proposed facility to provide a first or second new non-commercial service to at least 10% of the population in the proposed new service area, such population being at least 2000 persons. The preclusion test requires that the proponent demonstrate that all of the existing educational reserved channels are precluded from his use by existing operations nearby. This latter test is predicated on demonstrating preclusion at five assumed transmitter sites around the community in question. The tests in this process are answered below.

NEW SERVICE

The town of Jackson has a 2000 Census Population of 8,647 persons. Jackson and the surrounding valley area, generally referred to as Jackson Hole, is presently served by only one non-commercial operation. That station is KUWJ, channel 212, licensed to the University of Wyoming. There are several pending mutually exclusive non-commercial FM applications, several licensed commercial FM stations and one AM station serving the town. The FM transmitter site of KUWJ and all other licensed and pending FM facilities is on Snow King Mountain, the only viable transmitter site for the area. The new proposed facility of JHCR will likewise seek to use Snow King as its transmitter site. JHCR proposes to operate with an ERP of 10kW from that site with an antenna height of approximately 1100 feet AAT, thus with facilities equal to maximum Class C2. That class contour

distance is 52km (32 miles) and includes all of the town of Jackson.

The existing non-commercial station, KUWJ, operates with an ERP of 3kW at an antenna height of 1106 feet AAT. Any new FM non-commercial service, of any magnitude, will provide the second service to the community of Jackson in 100% of the proposed new service area, thereby filling the requirement of 10% of service area be a second service in a community with at least 2000 population. Any modest increase in service facilities above 3kW, from the same transmitter site, will provide a new first service to the area. The anticipated 10kW ERP of JHCR will result in the first noncommercial service to approximately 35% of its service area.

Therefore, the proposal of JHCR satisfies the new service requirements of the FCC Rules.

PRECLUSION AREA

The FCC new procedure in the above referenced R&O outlines a preclusion test designed to show that the applicant, "...cannot use another reserved channel to provide its service without causing interference...". The FCC further describes a, "...technical preclusion showing...designed to provide a reliable and efficient proxy of technical preclusion...not a conclusive test, but one that the Commission will treat as establishing a rebuttable presumption of technical preclusion."

The basis of the FCC test is a series of allocation studies on all of the reserved channels conducted at five locations, one at the proposed city of operation reference point coordinates (RP) and four others located at assumed allocation test sites at the principal points of the compass and spaced at the maximum proposed service contour distance, less one kilometer, or 51 kilometers (32 miles) from the Jackson RP. The presumption is

that any such outlying facilities might adequately serve the community, just barely providing required community service back to the town reference point. Thus, by showing that at all of the five sites a reserved channel can not be used, is sufficient to show total preclusion to the community. Such a study, assuming flat terrain coverage out to 51 kilometers, would show hypothetical preclusion in most cases, but will not provide a logical or realistic preclusion analysis in some unique cases, those with rugged terrain obstructions. The proposed JHCR service is one such case. A modification to this preclusion study is necessary to make it applicable as presented below.

One serious short coming exists in the assumption that a facility located at the full service contour radius, less one kilometer, will provide service back over the desired community. Over smooth earth, such an assumption may be valid, but over rugged terrain it is not. Section 73.315 of the FCC Rules specifically covers the FM Transmitter Location.

The hypothetical allocation preclusion method, outlined above, does provide a hypothetical worst case preclusion study over the largest possible area, but in this case it is not realistically applicable to the physical proposal. At best the usable distance along each of the cardinal radials where an assumed site may be located can only be the actual service contour distance, limited by terrain blockage, back from that site toward the desired community. Signal path obstruction to the community of service will limit the actual signal strength and signal quality at that community. Regardless of any line-of-sight obstruction along the path, The 3 to 16 kilometer average terrain, used to calculate service outward from the community reference point, may be far different than the 3 to 16 kilometer average terrain from the assumed preclusion study site back to the community.

Furthermore, the selection of arbitrary transmitter sites for a preclusion study does not take into account the actual availability of such sites. They may be in bodies of water, vast deserts, or equally unaccessible areas as National Parks. The following section

addresses these unusual service restrictions as they apply to the preclusion study.

SPECIFIC PRECLUSION LIMITS FROM JACKSON, WYOMING

Considering the general problems relating to the hypothetical preclusion study sites mentioned above, the specific observations relative to the Jackson Wyoming sites are discussed below. Generally the populous area of the town of Jackson is located in a valley surrounded first by several close in buttes and then by much larger mountains. The hypothetical site at the community reference point is very close to the only realistic site, the site presently used for FM and TV transmission located near the center of Jackson, Snow King mountain. The four outlying hypothetical sites have physical problems of access, use and service. Each hypothetical site is indicated on the map attached to this statement as Figure 1. For each hypothetical site a profile graph is drawn from the Jackson Reference Point, in the cardinal directions, out to the hypothetical allocation points, 51 kilometers (31 miles) out from the Jackson reference point. On each graph it is evident that line-of-sight service is not possible from the hypothetical sites because it is blocked by intervening terrain at distances as close as 3 to 18 miles from the Jackson Reference Point. Such obstructions are contrary to the transmission site requirements of Section 73.685 of the FCC Rules.

Each hypothetical site is discussed individually below.

NORTHERN HYPOTHETICAL SITE

The hypothetical site to the north lies in the mountains on the west side of Jackson lake. This location is in the Grand Teton National park, at an elevation of over 10,000 feet AMSL and without any access roads. The nearest road accessible location is on the east side of Jackson lake, near park roads and attractions such as the Jackson Lake Lodge, still

in the Grand Teton National Park. The park extends from this hypothetical site to the south to within a few miles of the central hypothetical site at the Jackson reference point, and the actual proposed site at Snow King. Therefore, there is no accessible or usable site at the northern hypothetical preclusion site, or at any site along the northern radial, at any significant distance out from the Snow King site. As illustrated on the profile graphs of Figure 1, line-of-sight service is blocked from transmitters sites more than approximately 20 miles from the Jackson reference point.

EASTERN HYPOTHETICAL SITE

The hypothetical site to the east is located in the Gros Ventre Mountains, in the Gros Ventre Wilderness Area, of the Bridger-Teton National Forest. The Gros Ventre Wilderness Area occupies almost all of the area between the eastern hypothetical site and the town, extending to within 2 miles of the town boundary. Construction and mechanical access is prohibited in the wilderness area. Therefore, there is no accessible or usable site at the eastern hypothetical preclusion site, or at any site along the eastern radial, at any significant distance out from the Snow King site. As illustrated on the profile graphs of Figure 1, line-of-sight service is blocked from transmitters sites more than 4 miles from the Jackson reference point.

SOUTHERN HYPOTHETICAL SITE

The hypothetical site to the south is located in the Bridder-Teton National Forest, generally in the Grays River drainage area, in an area of small valleys and mountains. Access is by way of the unimproved Grays River Road along and crossing the Grays River, at an elevation of approximately 6000 feet AGL. The hypothetical site area is in mountains of 8000 to 10000 feet elevation. No direct access from Grays River road, or any other road is available to the site area. The rugged Bridger-Teton area extends to the Town of

Jackson, eventually crossing occasional valley streams and roads approximately 10 miles south of town but without an adequate line-of-sight transmission path from any location to the town proper from this southerly direction. Therefore, there is no accessible or usable site at the southern hypothetical preclusion site, or at any site along the southern radial, at any significant distance out from the Snow King site. As illustrated on the profile graphs of Figure 1, line-of-sight service is blocked from transmitters sites more than 2 miles from the Jackson reference point.

WESTERN HYPOTHETICAL SITE

The hypothetical site to the west is located in the Swan Valley of the snake river in eastern Idaho, at an elevation of approximately 5700 feet AMSL. The valley is approximately 6 miles wide by 15 miles long, running from the northwest end of Palisades Lake and opening to the northwest toward the central Idaho valley. The path from the western hypothetical site toward Jackson, passes through the Targhee National Forest, over several mountain ranges with elevations in excess of 9000 feet AMSL. No line-of-sight transmission path exists from that site to Jackson until reaching the Teton Pass along Wyoming highway 22 approximately 10 miles west of Jackson. Teton Pass is a transmission site for several translators and two-way radio facilities which serve the western area of Jackson Hole but not the town of Jackson proper. From that area the town of Jackson is shadowed by hills such as; East Gros Ventre Butte, West Gros Ventre Butte, Boyles hill and High School hill. All elevated transmission sites between the western hypothetical site and the area just east of teton pass, lie within the Grand Targhee or the Bridger-Teton national forest areas. Therefore, there is no accessible or usable site at the western hypothetical preclusion site, or at any site along the western radial, at any significant distance out from the Snow King site. As illustrated on the profile graphs of Figure 1, line-of-sight service is blocked from transmitters sites more than 8 miles from the Jackson reference point.

OUTLYING HYPOTHETICAL SITE SUMMARY

All potential transmitter sites in the outlying hypothetical areas are unavailable and/or unaccessible and do not provide un-obstructed service to the community of interest from any significant distance. Any effective and accessible hypothetical site will lie within a few miles of the Jackson Reference Point and the centrally located preferred transmission site at Snow King mountain. This propagation condition is a unique situation for any community which lies entirely within a valley surrounded by very high mountains. The site availability is unique in that the community is surrounded by severe restrictions by land use such as national parks, wilderness areas and national forests. In order to find hypothetical sites along the four cardinal compass directions, the distance out from the Jackson Reference point must be reduced to the point of being within only a few miles of that central reference point, and hence effectively at the reference point or at the nearby antenna farm at Snow King mountain.

CENTRAL HYPOTHETICAL SITE

The central hypothetical site is located in the center of the town of Jackson, in the Jackson Hole Valley at an elevation of approximately 6200 feet AMSL. That site is surrounded by several tall hills, including the current antenna farm site on Snow King Mountain. The Snow King broadcast antenna farm lies approximately 2 miles east of the central site at the Jackson Reference Point at an elevation of approximately 8,000 feet AMSL. Several towers support existing antennas at approximately 8,150 feet AMSL.

Although this centrally located high transmitter site provides line-of-sight to most areas of the valley, and serves as the central transmitter facility for all broadcast operations in the valley, some areas are still provided fill-in service by translators in the valley. Service from Snow King to areas out side of the valley exists, but is very scattered and poor quality.

Going north to Grand Teton Park and then Yellow Stone Park, the service remains fair but spotty as the Yellowstone caldera is climbed but degrades rapidly as the caldera plateau is reached.

To the west, upon crossing Teton Pass, the service rapidly fades to become non-useable. Similarly to the South, through the snake river valley, the signal rapidly becomes non-usable due to multipath distortion and eventually signal attenuation. To the east there is no direct path that can be traversed, but traveling to the southeast, beyond the Gros Ventre Wilderness area, the signal can not be reliably received.

CENTRAL SITE PRECLUSION

The central preclusion site, situated at the Reference Point of Jackson, for all practical purposes is the same as the antenna farm at Snow King mountain. All of the local full power, commercial and educational FM radio facilities are located at Snow King.

Attached as Figure 2 is an allocation and preclusion table listing the nearby present and proposed facilities that restrict use of the FM reserved channels. The present non-commercial facility at Snow King Mountain, the minimum Jackson station facility, is class A with a maximum class service contour of 28 kilometers. Pending applications propose classes C3 and C2 with service contours of 39 and 52 kilometers respectively. The Snow King site is within 2.1 kilometers of the Jackson Reference Point.

To summarize the preclusion of FM reserved educational channels, the five channels in use and proposed at Snow King precludes every channel from 201 through 219. The use of channel 222 at Victor Idaho, with a transmitter approximately10 miles to the west, precludes channel 220. Therefore, all of the reserved channels are precluded at Snow King, and therefore effectively at the Jackson reference point.

PROPOSED CHANNEL ALLOCATION

With no educational reserved channel available at Jackson, a commercial channel that meets the allocation separation requirements will be sought. Attached as Figure 3 is an allocation study demonstrating the ability to allocate channel 294 at the selected transmitter site.

CONCLUSION

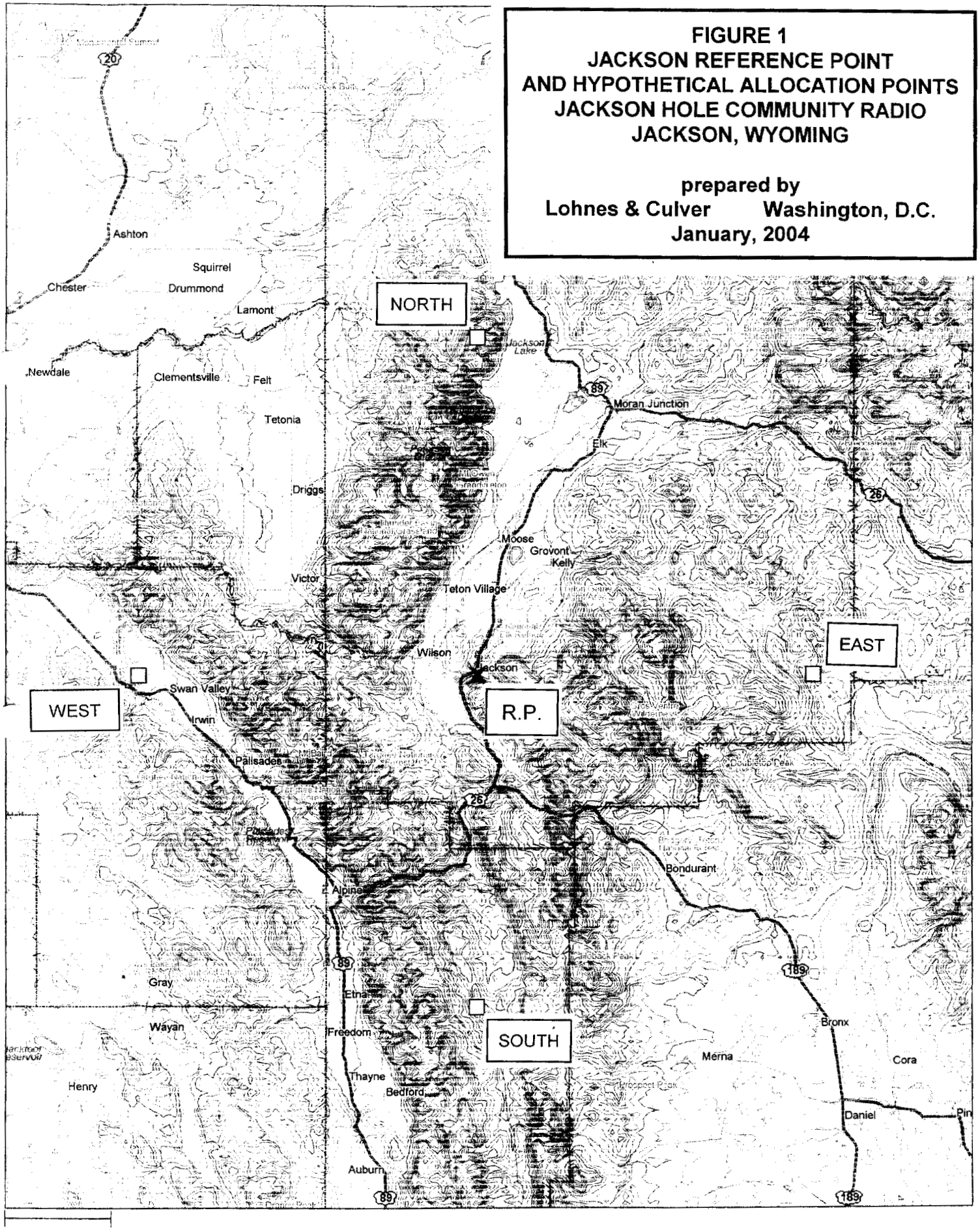
The proposal by JCR meets the policy adopted in the FCC Rulemaking in MM Docket No. 95-31, Second Report and Order (R&O), dated March 4, 2003, titled; Reexamination of the Comparative Standard for Noncommercial Educational Applicants. A channel can be assigned to Jackson and reserved for noncommercial use as outlined in the Report and Order. Channel 294 can be allotted to Jackson as shown on the allocation study attached as Figure 3.

Respectfully Submitted,
Lohnes and Culver

by _____
Robert Culver, P.E.
Md. Reg. No. 19672

FIGURE 1
JACKSON REFERENCE POINT
AND HYPOTHETICAL ALLOCATION POINTS
JACKSON HOLE COMMUNITY RADIO
JACKSON, WYOMING

prepared by
Lohnes & Culver Washington, D.C.
January, 2004



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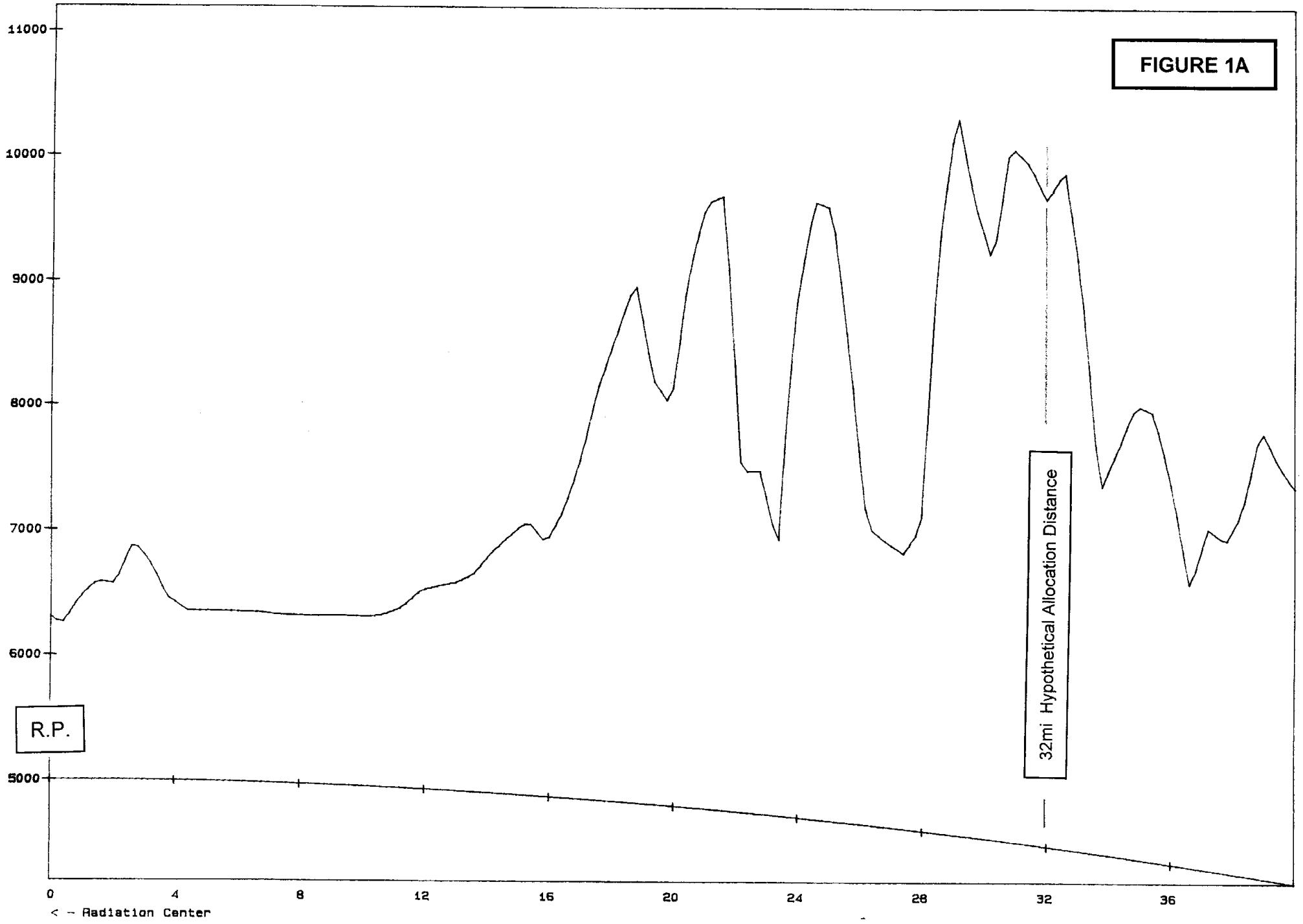

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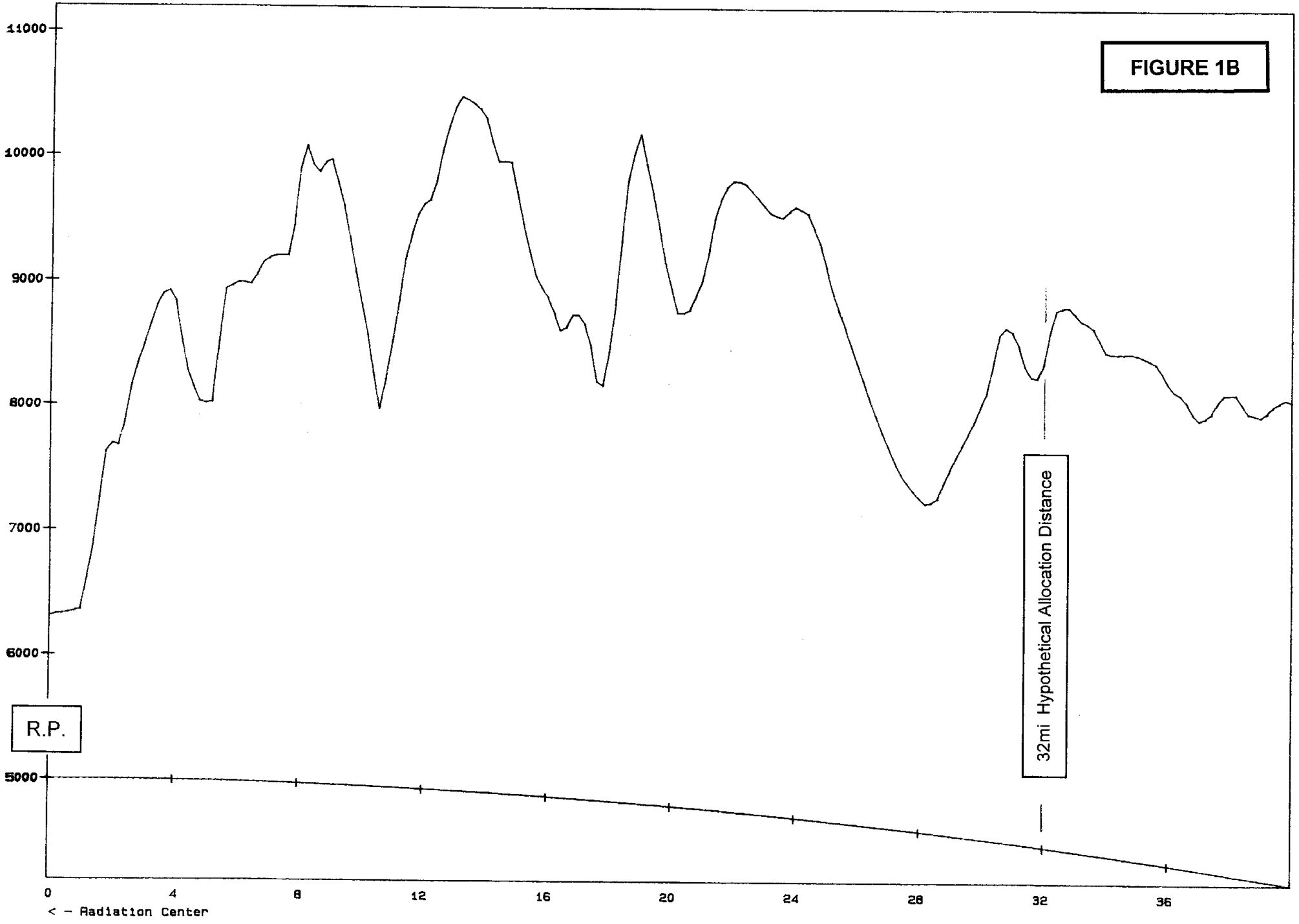

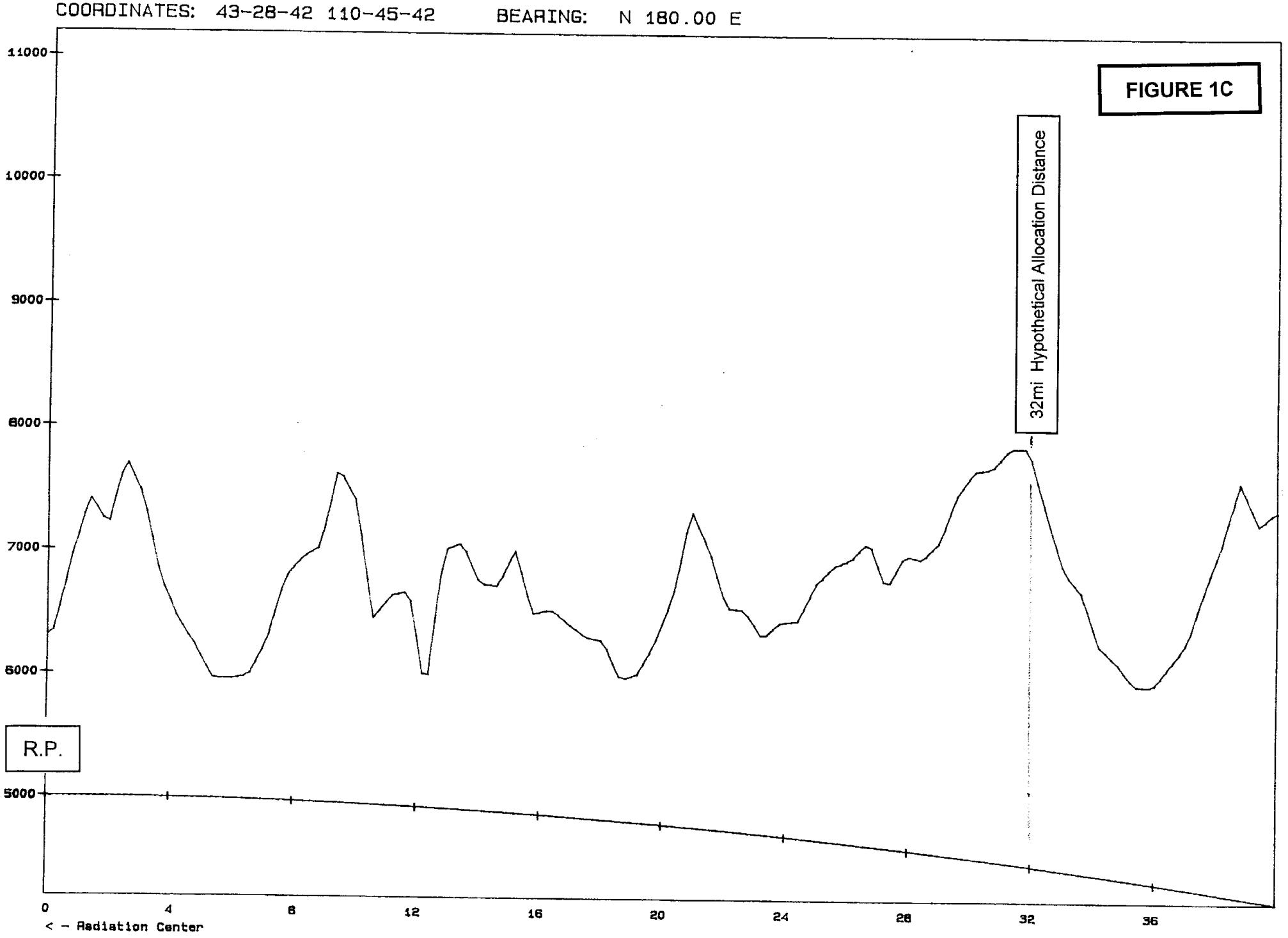
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BEARING: N 180.00 E
FIGURE 1C
32mi Hypothetical Allocation Distance
11000
10000
9000
8000
7000
6000
5000
R.P.
0
4
8
12
16
20
24
28
32
36
< - Radiation Center

COORDINATES: 43-28-42 110-45-42 BEARING: N 270.00 E

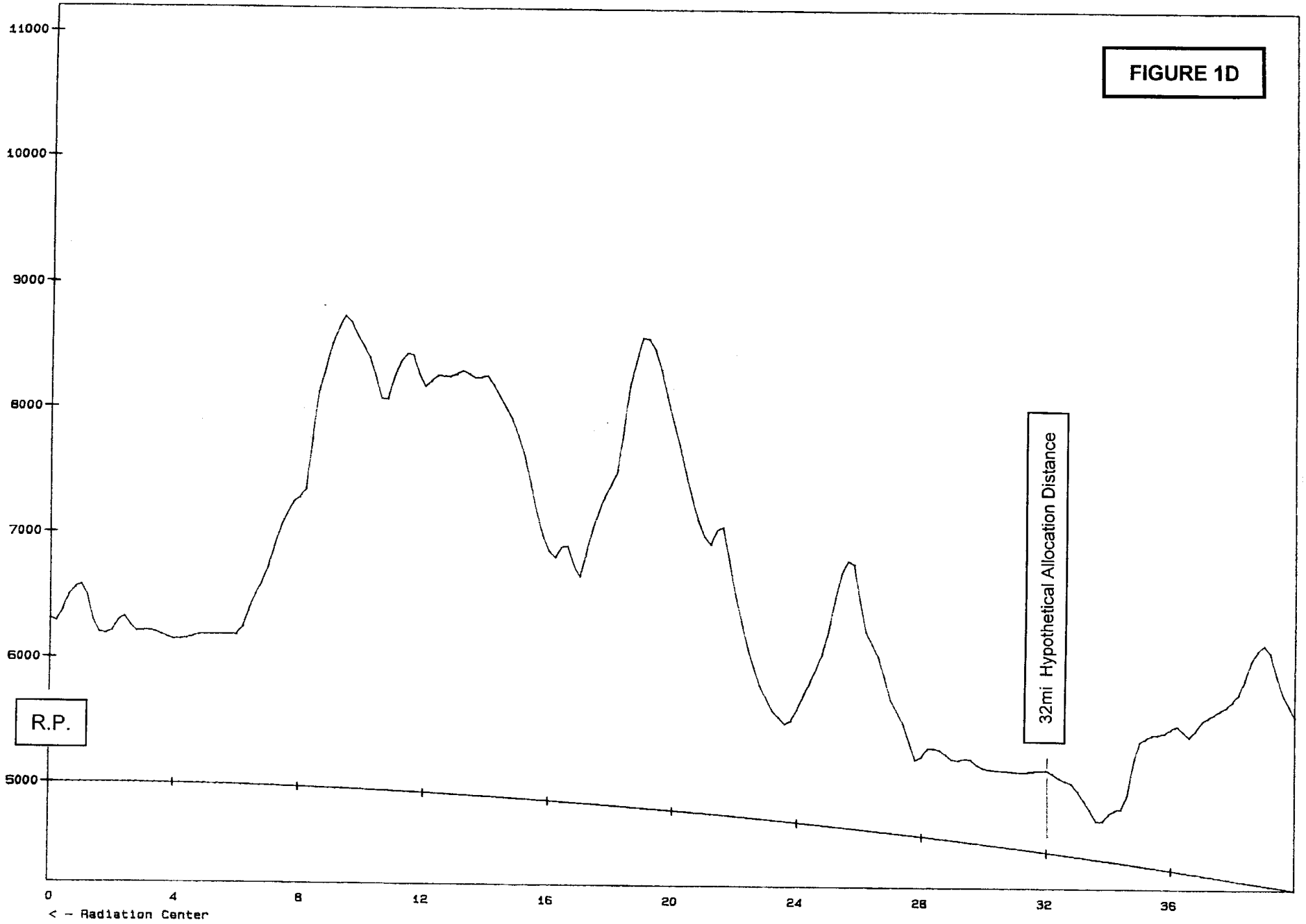

FIGURE 1D

FIGURE 2
ALLOCATION PRECLUSION STUDY
JACKSON, WYOMING REFERENCE POINT
JACKSON HOLE COMMUNITY RADIO
JACKSON, WYOMING

FM CHAN.	STATION CLASS	FCC FILE	LOCATION CITY STATE	DIST. KM.	PRECLUDING CHANNEL
201					202
202	APP-C3	19981231MI	JACKSON, WY	2.1	202
203					202/204
204	APP-A	19980618MA	JACKSON, WY	2.1	204
205					204/206
206	APP-C3	19981231MK	JACKSON, WY	2.1	206
207					206
208					206
209					206/212
210					212
211					212
212	KUWJ-C2	19921207KC	JACKSON, WY	2.1	212
213					212
214					212/216
215					216
216	APP-A	19990301MA*	JACKSON, WY	2.1	216
217					216
218					216
219					216
220					222
221					
222	APP-A	19970813MH*	VICTOR, ID.	15.7	
223					

* One of several applications.

Prepared by
Lohnes & Culver Washington, D.C.
January, 2004

FIGURE 3
ALLOTMENT STUDY
CHANNEL 294-C2
JACKSON HOLE COMMUNITY RADIO
JACKSON, WYOMING

FM CHAN.	STATION CLASS	LOCATION CITY	STATE	SEPARATION IN KM. ACTUAL	REQUIRED
240	- -	None within 85 kilometers		- -	35
241	- -	None within 85 kilometers		- -	35
291	- -	None within 155 kilometers		- -	105
292	KBJX - C1	Shelley, ID.		91	79
293	alloc - C	Superior, WY.		240	188
294	alloc - C	Hailey, ID.		279	249
295	KRAR - C	Brigham City, UT.		223	188
296	KQEO - C1	Idaho Falls, ID.		91	79
297	- -	None within 155 kilometers		- -	105

Prepared by
Lohnes & Culver Washington, D.C.
January, 2004

CERTIFICATE OF SERVICE

The undersigned, an employee of Garvey Schubert Barer, hereby certifies that the foregoing document was hand-delivered on June 4, 2004, to the following:

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Federal Communications Commission
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