

Exhibit 13 – Statement A
NATURE OF THE PROPOSAL
ALLOCATION AND ENVIRONMENTAL CONSIDERATIONS
prepared for
Hawaii Public Television Foundation
New-LD Mauna Loa, Hawaii
Ch. 19 (Digital) 1.0 kW (MAX-DA)
Facility ID 181318

Hawaii Public Television Foundation (“HPTF”) is submitting the instant application as an amendment to its pending application for a new digital Low Power Television Translator station on Channel 51 at Mauna Loa, Hawaii (see BNPDTT-20090825BWD). This filing is in response to the FCC’s August 2011 Public Notice¹ of the sixty day filing window for pending Channel 51 applicants to request an alternate channel assignment. The proposed Channel 19 facility would operate from near the top of Mauna Loa volcano, with an effective radiated power (“ERP”) of 1.0 kW, horizontal polarization, and a directional antenna oriented to 70 degrees True.

The proposed antenna is a Scala PRTV that would be side-mounted on an existing unregistered tower. **Exhibit 13 – Figure 1** depicts the 51 dB μ contour of the proposed digital service contour. A mechanical beam tilt of three degrees below the horizontal is specified on the 70-degree azimuth in order to assure a good signal at the significantly lower island coastline.

Allocation Considerations

The instant proposal complies with the Commission’s interference protection requirements toward all NTSC, DTV, television translator, LPTV, and Class A stations. A detailed interference study was conducted in accordance with the terrain dependent Longley-Rice point-to-point propagation model, per the Commission’s Office of Engineering and Technology Bulletin 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”)². The interference study examined the change in interference as experienced by nearby pertinent stations that would result from the proposed facility.

¹ Public Notice, General Freeze on the Filing and Processing of Applications for Channel 51 Effective Immediately and Sixty (60) Day Amendment Window For Pending Channel 51 Low Power Television, TV Translator and Class A Applications, Released August 22, 2011, DA 11-1428.

² The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. **A cell size of 1 km was employed.** Comparisons of various results of this computer program (run on a Sun processor) to the Commission’s implementation of OET-69 show excellent correlation.

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The results, summarized in **Exhibit 13 - Table I**, show that any new interference does not exceed the Commission's interference limits (0.5 percent to full service and Class A stations, and 2.0 percent to secondary stations). Accordingly, the instant proposal complies with §74.793 regarding interference protection to analog and digital television, low power television, television translator, and Class A television facilities.

Based on data extracted from the FCC's CDBS database, no AM broadcast stations are located within 3.2 km (2 miles) of the proposed site. The nearest FCC monitoring station is at Waipahu, Hawaii at a distance of 331.4 km from the proposed site. This exceeds by a great margin the minimum distance specified in §73.1030(c)(3)(iv) that would suggest consideration of the monitoring station.

It is thus believed that the facility proposed herein will satisfy all of the pertinent Commission Rules and Policies now in effect regarding allocation matters for a television translator facility.

Environmental Considerations

The proposed Scala model PRTV directional antenna will be side-mounted on an existing unregistered antenna support structure. The overall height of the support structure is 18 meters. The proposed ERP is 1.0 kilowatts with an antenna radiation center height above ground of 8.2 meters.

The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. Since the proposed overall height of 18 meters passes the FCC's TOWAIR program, and there are no known airports within 15 km of the proposed site, it is believed that an aeronautical study is not necessary. Thus no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

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Human Exposure to Radiofrequency Radiation

In keeping with §1.1307(b) of the Commission's Rules, the proposed operation has been evaluated for human exposure to radiofrequency energy using the procedures outlined by the Federal Communications Commission in FCC OET Bulletin 65 ("OET-65"). OET-65 describes a means of determining whether a proposed facility exceeds the radiofrequency exposure guidelines specified in §1.1310 of the Commission's Rules. Under present Commission policy, a facility may be presumed to comply with the limits in §1.1310 of the Commission's Rules if it satisfies the exposure criteria set forth in OET-65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines.

According to elevation pattern data provided by the antenna manufacturer, the Scala PRTV antenna has a relative field of 10 percent or less from 15 to 90 degrees below the horizontal plane (i.e.: below the antenna) on Channel 19. Thus, a value of 10 percent relative field is used for this calculation. The "uncontrolled/general population" limit specified in §1.1310 for television Channel 19 (center frequency of 503 MHz) is 335.3 $\mu\text{W}/\text{cm}^2$.

OET-65's formula for television transmitting antennas is based on the NTSC transmission standards, where the average power is normally much less than the peak power. For the DTV facility in the instant proposal, the ERP figure herein refers to the average power level. The formula used for calculating DTV signal density in this analysis is essentially the same as equation (10) in OET-65:

$$S = (33.4098) (F^2) (ERP) / D^2$$

Where:

S	=	power density in microwatts/cm ²
ERP	=	total (average) ERP in Watts
F	=	relative field factor
D	=	distance in meters

Using this formula and the above assumptions, the proposed facility would contribute a maximum power density of 8.7 $\mu\text{W}/\text{cm}^2$ at two meters above ground, or 2.6 percent of the general population/uncontrolled MPE limit. At ground level locations away from the base of the tower, the calculated RF power density is lower, due to the increasing distance from the transmitting antenna.

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Thus, the proposed facility complies with §1.1307(b) of the Commission's Rules regarding exposure to radiofrequency radiation.

§1.1307(b)(3) states that facilities are categorically excluded from responsibility for taking any corrective action in the areas where their contribution is less than five percent. Since the instant situation meets the five percent exclusion test at all ground level areas, the impact of other facilities using this site may be considered independently. Accordingly, it is believed that the impact of the proposed operation should not be considered to be a factor at or near ground level as defined under §1.1307(b).

Safety of Tower Workers and the General Public

As demonstrated herein, excessive levels of RF energy attributable to the proposal will not be caused at publicly accessible areas at ground level near the antenna supporting structure. Consequently, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Nevertheless, appropriate RF exposure warning signs will continue to be posted and access will be restricted by fencing and other appropriate means.

With respect to worker safety, it is believed that based on the preceding analysis, excessive exposure would not occur in areas at ground level. A site exposure policy is employed protecting maintenance workers from excessive exposure when work must be performed on the structure or in areas where high RF levels may be present. Such protective measures include, but are not limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines would otherwise be exceeded. *HPTF* will coordinate with other licensees utilizing this site. On-site RF exposure measurements may also be undertaken to establish the bounds of safe working areas.

Conclusion

Based on the preceding, it is believed that the instant proposal meets all Commission Rules and policies and may also be categorically excluded from environmental processing under §1.1306.

**EXHIBIT 13 - FIGURE 1
PROPOSED COVERAGE CONTOURS**

prepared August 2011 for
Hawaii Public Television Foundation
New-LD Mauna Loa, Hawaii
Ch. 19 (Digital) 1.0 kW (MAX-DA)

Cavell, Mertz & Associates, Inc.
Manassas, Virginia

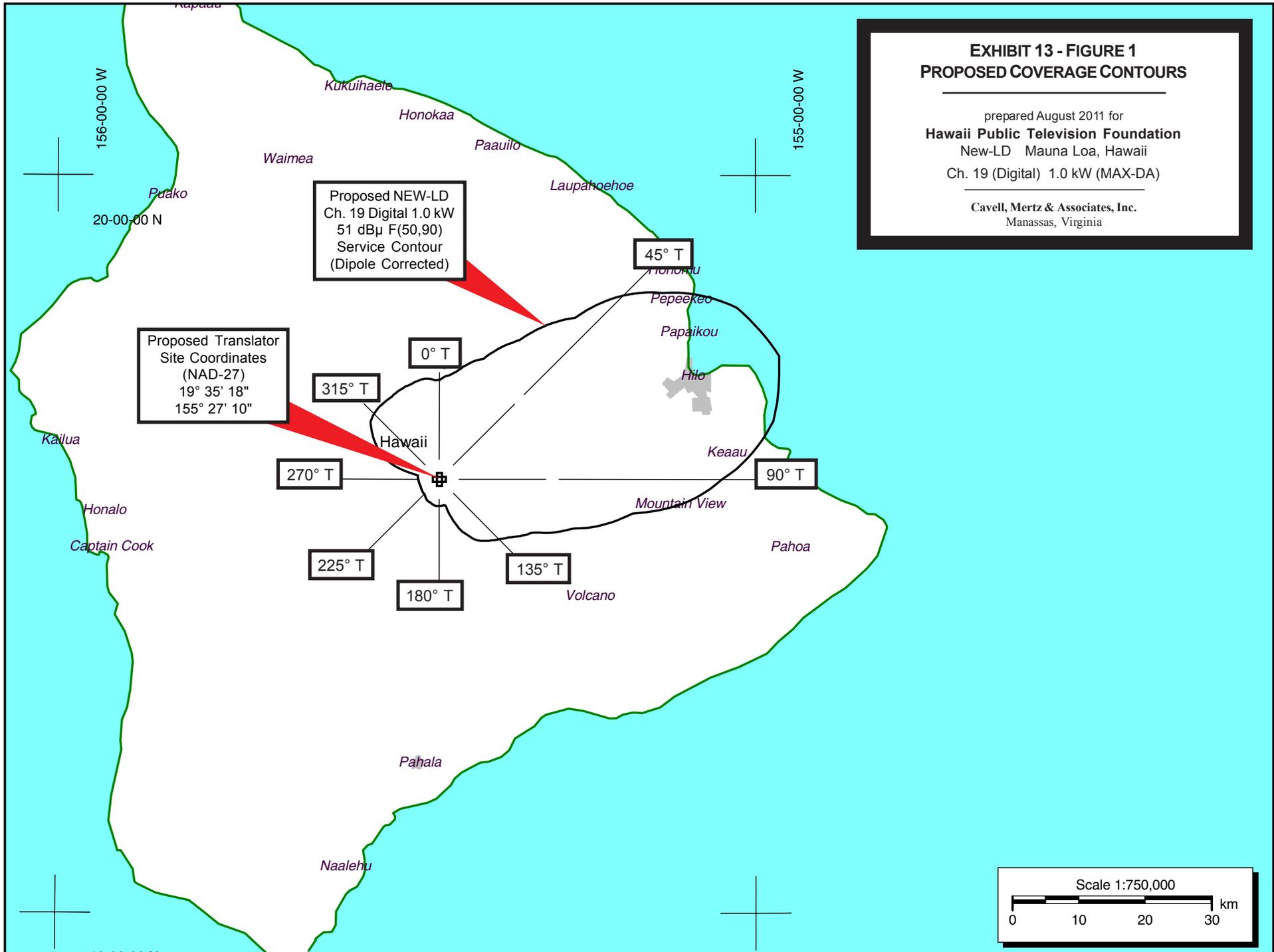


Exhibit 13 - Table I
INTERFERENCE STUDY RESULTS

prepared for

Hawaii Public Television Foundation

New-LD Mauna Loa, HI

Facility Id: 181318

Ch. 19 1 kW (MAX-DA)

<u>Channel</u>	<u>Affected Station</u>	<u>City, State</u>	<u>File Number</u>	<u>Calculated Baseline (2000 Census)</u>	<u>Interference Population without Proposal (2000 Census)</u>	<u>Interference Population with Proposal (2000 Census)</u>	<u>New Interference</u>	
							<u>Population</u>	<u>Percentage</u>
18	K63DZ	Kailua Kona, HI	BDISDTT-20110831ABO			---	No Interference	---
18	KDWL-LD	Wailuku, HI	BDCCDTL-20061026AFR			---	No Interference	---
19	KIKU	Honolulu, HI	BPCDT-20080619ACT			---	No Interference	---
19	KIKU	Honolulu, HI	BLCDT-20030813AAU			---	No Interference	---
19	K19FV	Kula, HI	BLTTL-20070621AQZ			---	No Interference	---
19	K19FV	Kula, HI	BPTTL-20090824AMI			---	No Interference	---
26	K26HL	Holualoa, HI	BLTTL-20070122AJM			---	No Interference	---
26	K26HL	Holualoa, HI	BPTTL-20090825ABB			---	No Interference	---