

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

FILED/ACCEPTED

AUG 22 2011

Federal Communications Commission  
Office of the Secretary

In the Matter of	)	
	)	
Request of the University of Utah	)	ET Docket No. _____
for Waiver of 47 C.F.R. § 15.712(b)	)	
	)	
Unlicensed Operation in the TV Broadcast Bands	)	ET Docket No. 04-186
	)	
Additional Spectrum for Unlicensed Devices	)	
Below 900 MHz and in the 3 GHz Band	)	ET Docket No. 02-380

To: Marlene Dortch, Secretary  
Attn: Chief, Office of Engineering and Technology

**SUPPLEMENT TO WAIVER REQUEST**

The University of Utah respectfully submits this supplement to its April 5, 2011 request for waiver of Section 15.712(b) of the Commission's rules (the "Waiver Request"). The University of Utah submitted the Waiver Request in order to register twelve television translator receive sites in the television bands database(s) and thereby to secure protection for these sites from interference caused by the operation of unlicensed white spaces devices. In response to a request by e-mail of August 8, 2011 from the Office of Engineering and Technology ("OET"), the Waiver Request is hereby supplemented as follows:

1. The first six receive sites described in the summary spreadsheet prepared by OET and attached to its August 8, 2011 e-mail ("OET Spreadsheet") receive the signals of the TV stations being received over-the-air. For these receive sites, the signals of the received stations are received directly over the air as broadcast by the stations identified in Column N of the OET Spreadsheet and not through intermediate means such as through TV translators.
2. The remaining six receive sites described in the OET Spreadsheet historically have relied on direct over-the-air reception of the received stations identified in Column N of the OET Spreadsheet. Over the past several years, the University of Utah has constructed microwave paths to serve these receive sites. However, the University of Utah periodically has experienced technical failures of these microwave links. While the

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University of Utah has thus far been able to repair such microwave links failures promptly, it will need to rely on over-the-air reception at these sites in the event of any extended failures. Accordingly, the University of Utah seeks to maintain reception capability at these outlying translators — and thus to ensure that viewers in the translators’ service areas can continue to receive the important programming provided by non-commercial originating stations KUED and KUEN — using over-the-air reception of the KUED and KUEN signals.<sup>1</sup>

3. The channels listed in the OET Spreadsheet are accurate. For each receive site, the channel identified is the channel that the University of Utah seeks to protect in order to preserve the ability to pick up the signal of the received station.
4. There are no intermediate links between the TV stations listed in Column N of the OET Spreadsheet and the receive sites for the stations listed in Column C of the OET Spreadsheet, for the first six receive sites. As noted above, over the past several years the University of Utah has installed microwave links to serve the remaining six receive sites. However, protection of the locations and channels listed for these sites would enable the University of Utah to rely on direct over-the-air reception in the event that a microwave link fails. The microwave links are as follows:

Receive Site	Location	Received Station	Microwave Link Call Sign(s)
K40AF-D	Monticello/Blanding	K45JN-D	WPXX317* WPYJ383
K47JI-D	Monticello/Blanding	K46JK-D	WPXX317* WPYJ383
K56JG-D	Vernal	K23FT-D	WPXQ217
K35IQ-D	Vernal	K29EX	WPXQ217
K50KC-D	Washington County	K16BO-D	WPXQ396
K44JI-D	Washington County	K20GH-D	WPXQ252

\*Two-hop microwave path.

5. The call signs of the received stations listed in the OET Spreadsheet are correct. They correspond to the stations actually being received at the receive sites, or, for the second

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<sup>1</sup> In the alternative to providing a permanent waiver for the registration of these receive sites, the University of Utah would request that the FCC grant it a waiver to register K45JN-D, K46JK-D, K23FT-D, K35IQ-D, K50KC-D, and K44JI-D receive sites on an interim basis if and when there is a microwave link failure that causes the University of Utah to rely exclusively on over-the-air reception for these particular receive sites. While the University of Utah would not be able to register the receive sites in advance of a microwave link failure, it could, relying on such a waiver, ensure that the receive sites are protected during those times when over-the-air reception is the most critical.

set of six receive sites in the OET Spreadsheet, the stations for which the University of Utah wishes to preserve the ability to receive the stations' signals directly over-the-air.

6. The OET request for additional information identified two receive sites located at relatively large distances from the protected contours of the received stations (K40AF-D and K47JI-D). Historically, these sites did directly receive the signals of the received stations. The receive sites are located on two extremely high mountain peaks. Further, they use directional receive antennas. The combination of the directional receive antennas and the extremely high antenna height permitted these stations to achieve reliable reception even at great distances from the received stations' signal contours, although, as noted above, the primary means of reception today is the microwave link. The University of Utah notes that the receive antennas are physically separated from the transmit antennas in order to provide adjacent channel isolation.

As the OET Spreadsheet and the Waiver Request indicate, the receive sites are located more than 80 kilometers from the protected contours of the stations being received. The University of Utah found no inaccuracies in the OET Spreadsheet. For the reasons set forth herein and in the Waiver Request, permitting registration of these receive sites would be in the public interest and there is good cause to waive Section 15.712(b).

Respectfully submitted,

**The University of Utah**

By: \_\_\_\_\_ /s/  
Mace J. Rosenstein  
Elizabeth Canter  
Eve R. Pogoriler

Covington & Burling LLP  
1201 Pennsylvania Avenue NW  
Washington, D.C. 20004-2401  
(202) 662-6000

*Its Counsel*

August 22, 2011

cc: Aole Wilkins (OET) (by e-mail)