

ORIGINAL

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)	
)	
Advanced Television Systems)	MM Docket No. 87-268
and Their Impact Upon the)	
Existing Television)	
Broadcast Service)	

**SUPPLEMENT TO PETITION FOR PARTIAL RECONSIDERATION OF THE
SIXTH REPORT AND ORDER**

Viacom Inc. ("Viacom") respectfully submits this Supplement to Petition for Partial Reconsideration of the *Sixth Report and Order*, FCC 97-115 (released April 21, 1997), in the above-captioned proceeding. In the *Sixth Report and Order*, the Commission set forth a Table of Allotments for digital television service ("DTV"), including, among other things, effective radiated power (ERP) assignments for every DTV station in the country. Under the new DTV rules adopted in that Order, guidance for evaluating various aspects of the Table—including the service area of a DTV station¹ and the interference to DTV and NTSC stations from a Table modification²— was to be provided by OET Bulletin No. 69. However, that Bulletin was not released in conjunction with the release of the *Sixth Report and Order*.

On June 13, 1997, after engaging in a technical study of the Table of Allotments without benefit of the guidance of OET Bulletin No. 69, Viacom filed a Petition for Partial Reconsideration of the *Sixth Report and Order*. As the ultimate licensee of 11 commercial television stations, 10 of which are UHF, Viacom requested in its Petition that the Commission ameliorate the unfair disparity in power level assignments between VHF stations assigned DTV channels in the UHF band ("V-to-U" stations) and UHF stations assigned DTV channels in the

¹ See Section 73.622(e), 47 C.F.R. §73.622(e).

² Section 73.623(c), 47 C.F.R. §73.623(c).

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UHF band ("U-to-U" stations). In so doing, Viacom specified the particularly egregious power disadvantages suffered by its UHF stations in Atlanta and Detroit vis-à-vis the V-to-U stations in those markets and proposed a procedure for maximization of power levels for UHF stations.

Almost three weeks later, on July 2, 1997, the Commission released OET Bulletin No. 69. Released concurrently with the Bulletin was an *Order*, DA-1377, providing parties who had submitted petitions for reconsideration requesting modification of their DTV allotments additional time —until August 22, 1997— to file supplemental presentations relating to those requests.

Since the release of OET Bulletin No. 69 and accompanying *Order*, Viacom has conducted further technical studies, within the parameters established in the Bulletin, of the DTV allotments of each of its television stations. The results of those studies are attached as Exhibit A. Except for power assignments, Viacom requests no specific modification of its stations' DTV allotments at this time. Nevertheless, Viacom submits the results of its tests with respect to each of its stations to preserve its rights and to place the Commission on notice that several of Viacom's 11 DTV stations are short-spaced with either another DTV or an NTSC station or a channel proposed for reallocation to land mobile use.

Additionally, with the release of OET Bulletin No. 69, Viacom was able to more accurately study the ability of U-to-U stations to maximize their power within the confines of the Table allotments. In its *Opposition to Petitions for Reconsideration*, Viacom proposed an "Immediate Intermediate Maximization" plan, which would permit all UHF stations (including V-to-U stations) assigned low power levels to immediately modify their allotments so as to increase their power to 250 kW.³ This plan, if implemented, would effectively raise the Table's "floor" from 50 kW to 250 kW.

With the interference guidance of OET Bulletin No. 69, Viacom commissioned its consulting engineers Hammett & Edison to run the Commission's Table with a power-level floor of 250 kW in order to determine the feasibility of Immediate Intermediate Maximization.

³ See *Opposition of Viacom* at 7-10.

Detailed engineering studies indicate that for the 3,190 NTSC and DTV stations across the 48 contiguous states, raising the power of the 964 UHF DTV stations to 250 kW would result in calculated interference on average of 0.19% of the existing Grade B population. This level of interference would allow many stations the opportunity to improve service by as much as 7 dB within their principal communities. Further, raising the power-level floor to 250 kW would result in 93% of all 3,190 NTSC and DTV stations experiencing only 1% or less increased interference. And only 3.7% of all stations would experience between 1% and 2% increased interference, while only 2.3% of all stations would experience between 2% and 5% increased interference. (Interestingly, approximately 3.1% of all NTSC and DTV stations will actually experience a reduction of at least 1% from the Commission-adopted levels of interference.) Viacom respectfully submits that this minimal level of interference, balanced against the ability of U-to-U stations to better compete within their Grade A contours with increased power levels, warrants Commission adoption of the Immediate Intermediate Maximization plan, as proposed by Viacom in its Opposition.

In light of the foregoing, Viacom requests that the Commission reconsider its determinations in the *Sixth Report and Order* to the extent set forth in Viacom's Petition for Partial Reconsideration, its Opposition and this Supplement to Petition for Partial Reconsideration.

Respectfully submitted,

VIACOM INC.



By: Edward Schor
Anne Lucey
1515 Broadway
New York, NY 10036

August 22, 1997

**Viacom Inc.
New York, New York**

**Engineering Exhibit
in Support of Supplemental
Comments to
Petition for Reconsideration**

August 21, 1997

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HE **HAMMETT & EDISON, INC.**
CONSULTING ENGINEERS
SAN FRANCISCO

Viacom Inc. • New York, New York

Statement of Dane E. Ericksen, Consulting Engineer

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by the Viacom Inc. ("Viacom") to review the allocation conditions for the DTV channels assigned to the eleven stations owned and operated by Viacom .

WUPA, N69/D43, Atlanta, Georgia

TV Station WUPA, NTSC Channel 69, DTV Channel 43, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
WHSB	D44	Monroe, GA	Long	35.7 km	<32.2 km
WATC	N57	Atlanta, GA	Long	34.6	<24.1

The WUPA NTSC facilities have an omnidirectional peak visual effective radiated power ("ERP") of 2,630 kW. The Sixth R&O assigned WUPA a DTV power of 50 kW.

WSBK-TV, N38/D39, Boston, Massachusetts

Station WSBK-TV, NTSC Channel 38, DTV Channel 39, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
Allocation	N34	New Bedford, MA	Short	77.8 km	80.5 km
WSBE-TV	N36	Providence, RI	Short	59.2	80.5
WEDY	D39	New Haven, CT	Short	177.2	196.3
WWLA	D39	Lewiston, ME	Short	186.7	196.3
WHRC	N46	Norwell, MA	Long	34.4	<24.1

The WSBK-TV NTSC facilities have an omnidirectional peak visual ERP of 2,340 kW. The Sixth R&O assigned WSBK-TV a DTV power of 67.7 kW.

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WDCA, N20/D35, Washington, DC

TV Station WDCA, NTSC Channel 20, DTV Channel 35, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
WRLH-TV	N35	Richmond, VA	Short	170.0 km	217.3 km
WYBE	D35	Philadelphia, PA	Short	200.1	217.3
Land Mobile	35	Washington, DC	Short	11.1	250
Land Mobile	36	Washington, DC	Short	11.1	176

The WDCA NTSC facilities have an omnidirectional peak visual ERP of 3,980 kW. The Sixth R&O assigned WDCA a DTV power of 222 kW.

WKBD, N50/D14, Detroit, Michigan

TV Station WKBD, NTSC Channel 50, DTV Channel 14, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
WCMU-TV	N14	Mount Pleasant, MI	Short	169.8 km	196.3 km
Allocation	N14	Exeter, ON, Canada	Short	177.9	217.3 [†]
WFUM	N28	Flint, MI	Long	47.8	<24.1
Land Mobile	14	Cleveland, OH	Short	172.9	276

The WKBD NTSC facilities have an omnidirectional peak visual ERP of 2,340 kW. The Sixth R&O assigned WKBD a DTV power of 50 kW.

KTXA, N21/D18, Ft. Worth, Texas

TV Station KTXA, NTSC Channel 21, DTV Channel 18, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
Allocation	N18	Sulphur Springs, TX	Short	141.5 km	244.6 km
KLSB-TV	D18	Nacogdoches, TX	Short	193.1	223.7
KJTL	N18	Wichita Falls, TX	Short	242.4	223.7
KUVN	N23	Garland, TX	Long	43.5	<24.1
Land Mobile	17	Dallas, TX	Short	27.3	176

The KTXA NTSC facilities have a directional peak visual ERP of 4,900 kW. The Sixth R&O assigned WTXA a DTV power of 211 kW.

[†] U.S. domestic NTSC-to-DTV spacing requirement presumed



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KTXH, N20/D19, Houston, Texas

TV Station KTXH, NTSC Channel 20, DTV Channel 19, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
KVCT	N19	Victoria, TX	Short	166.5 km	244.6 km
KLSB-TV	N19	Nacogdoches, TX	Short	215.3	244.6
KLTJ	N22	Galveston, TX	Long	40.6	<24.1

The KTXH NTSC facilities have a directional peak visual ERP of 5,000 kW. The Sixth R&O assigned KTXH a DTV power of 229 kW.

WBFS-TV, N33/D32, Miami, Florida

Station WBFS-TV, NTSC Channel 33 DTV Channel 32, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
WFLX	N29	West Palm Beach, FL	Short	67.7 km	96.6 km
WCTD	N35	Miami, FL	Long	32.9	<24.1

The WBFS-TV NTSC facilities have a directional peak visual ERP of 5,000 kW. The Sixth R&O assigned WBFS-TV a DTV power of 193 kW.

WVIT, N30/D35, New Britain, Connecticut

TV Station WVIT, NTSC Channel 30 DTV Channel 35, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
WTXX	N20	Waterbury, CT	Long	25.6 km	<24.1 km
Allocation	N28	Providence-New Bedford, RI	Short	75.7	80.5
WTWS	D34	New London, CT	Short	61.5	88.5
Allocation	N35	North Adams, MA	Short	113.1	217.3
WNDS	D35	Derry, NH	Short	165.3	196.3
WGGB-TV	N40	Springfield, MA	Short	62.0	80.5
WHA1-TV	N43	Bridgeport, CT	Long	44.3	<24.1
WEDW	N49	Bridgeport, CAT	Short	55.4	80.5
Land Mobile	34	New York, NY	Short	143.5	176

The WVIT NTSC facilities have a directional peak visual ERP of 3,090 kW. The Sixth R&O assigned WVIT a DTV power of 128 kW.



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WPSG, N57/D32, Philadelphia, Pennsylvania

TV Station WPSG, NTSC Channel 57 DTV Channel 32, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
WTGI-TV	D31	Wilmington, DE	Long	38.5 km	<32.2 km
WSWB-TV	D32	Scranton, PA	Short	160.5	196.3
WHMM	N32	Washington, DC	Short	200.2	217.3
WLVT-TV	N39	Allentown, PA	Short	60.9	80.5
Land Mobile	32	Philadelphia, PA	Short	12.1	250

The WPSG NTSC facilities have a directional peak visual ERP of 5,000 kW. The Sixth R&O assigned WPSG a DTV power of 104 kW.

WTOG, N44/D59, St. Petersburg, Florida

TV Station WTOG, NTSC Channel 44 DTV Channel 59, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
Allocation	N59	Stuart, FL	Short	210.6 km	244.6 km
WBSV-TV	N62	Venice, FL	Short	81.6	96.6
WFCT	N66	Bradenton, FL	Long	46.7	<24.1

The WTOG NTSC facilities have an omnidirectional peak visual ERP of 5,000 kW. The Sixth R&O assigned WTOG a DTV power of 261 kW.

KSTW, N11/D36, Tacoma, Washington

TV Station KSTW, NTSC Channel 11 DTV Channel 36, has the following short-spaced stations:

<u>Call</u>	<u>Channel</u>	<u>Location</u>	<u>Short/Long</u>	<u>Distance</u>	<u>Required</u>
KBCT-TV	N28	Tacoma, WA	Long	40.5 km	<24.1 km
Allocation	N36	Chilliwak, BC, Canada	Short	174.5	244.6 [†]
KBEH	N51	Bellevue, WA	Long	28.0	<24.1

The KSTW NTSC facilities have an omnidirectional peak visual ERP of 316 kW. The Sixth R&O assigned KSTW a DTV power of 740 kW.

Conflicting Land Mobile Allocations Presumed Deleted

The new Section 73.623(e) of the FCC Rules, provided in Appendix E to the Sixth R&O, does not reflect the short-spaced Land Mobile allocations to the Viacom stations at Washington DC, Detroit, Ft. Worth, New Britain, and Philadelphia, and it is assumed that these previously

[†] U.S. domestic NTSC-to-DTV spacing requirement presumed.

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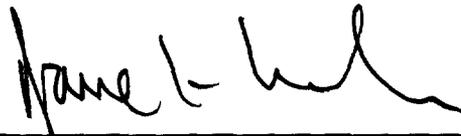
proposed Land Mobile reallocations have now been superseded by the mutually exclusive DTV allocations adopted in the Sixth R&O.

Conflicting Vacant UHF Allotments Presumed Deleted

The FCC database continues to show several vacant UHF NTSC allotments and, in some cases, one or more pending applications that would not meet spacing requirements to the DTV channels assigned to the Viacom stations listed above. It is again assumed that these vacant and mutually exclusive UHF NTSC allotments, and pending applications for those vacant channels that requested a waiver of the DTV Freeze Order, will now be superseded and eventually deleted from the Commission's database.

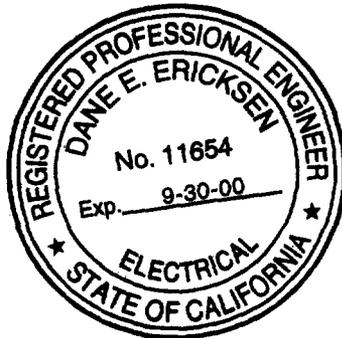
Canadian Allocations

No negotiated DTV-to-NTSC spacing requirements have yet been published with respect to protection of Canadian NTSC stations or allotments by U.S. DTV stations. U.S. domestic DTV-to-NTSC spacing requirements have been presumed for the purpose of this analysis.



Dane E. Ericksen, P.E.

August 21, 1997



Affidavit

State of California
County of Sonoma | ss:

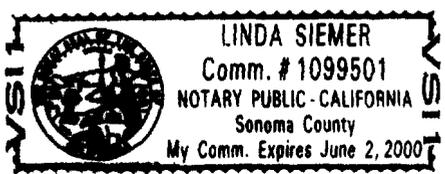
Dane E. Ericksen, being first duly sworn upon oath, deposes and says:

1. That he is a qualified Registered Professional Engineer, holds California Registration No. E-11654, which expthe is employed by the firm of Hammett & Edison, Inc., Consulting Engineers, with offices located near the city of San Francisco, California,
2. That he graduated from California State University, Chico, in 1970, with a Bachelor of Science Degree in Electrical Engineering, was an employee of the Field Operations Bureau of the Federal Communications Commission from 1970 to 1982, with specialization in the areas of FM and television broadcast stations and cable television systems, and has been associated with the firm of Hammett & Edison, Inc., since October 1982,
3. That the firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by the Viacom Inc. ("Viacom") to review the allocation conditions for the DTV channels assigned to the eleven Viacom owned and operated stations,
4. That such engineering work has been carried out by him or under his direction and that the results thereof are attached hereto and form a part of this affidavit, and
5. That the foregoing statement and the report regarding the aforementioned engineering work are true and correct of his own knowledge except such statements made therein on information and belief and, as to such statements, he believes them to be true.



Dane E. Ericksen, P.E.

Subscribed and sworn to before me this 21st day of August, 1997





Linda Siemer