

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
DIGITAL COMPANION CHANNEL APPLICATION
LOW POWER STATION KZCO-LP
FACILITY ID 168782
DENVER, COLORADO
CH 17 8.8 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in response to the FCC Public Notice (Public Notice) dated March 22, 2007 and entitled "LPTV and TV Translator Digital Companion Channel Applications Non-Mutually Exclusive Proposals (Auction No. 85)" (DA 07-1342). Specifically, this technical exhibit was prepared in support of a complete FCC Form 346 as required by the Public Notice for KZCO-LP's proposed digital companion channel operation on channel 17 at Denver, Colorado (FCC File No. BSFDTL-20060630CZO, Facility ID 168782). It is proposed to operate on digital channel 17 using an Andrew ALP16L2-HSW directional antenna. The maximum directional ERP will be 8.8 kW and the antenna radiation center height above mean sea level will be 2369 meters. The transmitter will employ a "stringent" out-of-channel emission mask to control adjacent channel interference.

Figure 1 depicts the 74 dBu for the licensed analog and herein proposed 51 dBu contours for KZCO-LP. As indicated, the proposed 51 dBu fully encompasses the licensed 74 dBu contour.

Response to Paragraph 5 - Antenna Registration

The antenna will be mounted at the 16.4 meter level on an existing tower having an overall height above ground level of 31 meters. Tower registration is not required based on the TOWAIR program. Figure 3 provides the TOWAIR program results.

Response to Paragraph 13 - Interference

A study has been conducted using the provisions of

Section 74.793 and the OET Bulletin 69 interference model.¹ The results indicate that the proposed operation is predicted to cause prohibited interference to Channel 16 application at Denver, Colorado (Syncom Media Group, BSFDTL-20060630CUC) and to Channel 18 application at Denver, Colorado (Syncom Media Group, BSFDTL-20060630CUD). However, the licensee of these stations have consented to receive this interference pursuant to the settlement period provided by the commission. Figure 4 is the statement provided by Syncom Media Group to accept the proposed interference. The proposed operation is also predicted to cause prohibited interference to DTV station KMGH-DT on channel 17 at Denver, Colorado, however KMGH-DT is also owned by McGraw-Hill Broadcasting and agrees to accept the predicted interference. It is noted that the proposed low power digital operation will not commence operation until KMGH-DT ceases operation on channel 17 and operates on its certified post transition channel (7). With the exception of the above mentioned stations, the proposed operation will not create prohibited interference to stations in the Land Mobile Radio Service (LMRS) or other existing, authorized or proposed NTSC or DTV full-power, LPTV, TV translator or Class A stations.

Response to Paragraph 14 - Environmental Protection Act

The applicant, in coordination with the other occupants of the transmitter site, shall conduct radio frequency (RF) power density measurements throughout the transmitter site area to confirm compliance with the FCC specified guidelines for human exposure to RF energy. Therefore, the proposal complies with Section 1.1307(b) of the FCC rules regarding human exposure to RF energy.²

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, an agreement will be in effect in the event that workers or other authorized personnel enter the

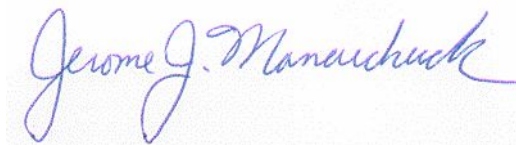
¹The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 1 km was employed. An Sun based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

² See FCC Office of Engineering and Technology Bulletin No. 56 for background on non-ionizing RF energy of the type discussed here. Internet web reference: http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf

restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

Finally, it is noted that this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already has been provided to the FCC by the tower owner.

If there are any questions concerning the technical portion of this application, please contact the office of the undersigned. In addition, it appears that the proposal is otherwise excluded from environmental processing as it complies with all the criteria for such an exclusion in Section 1.1306.

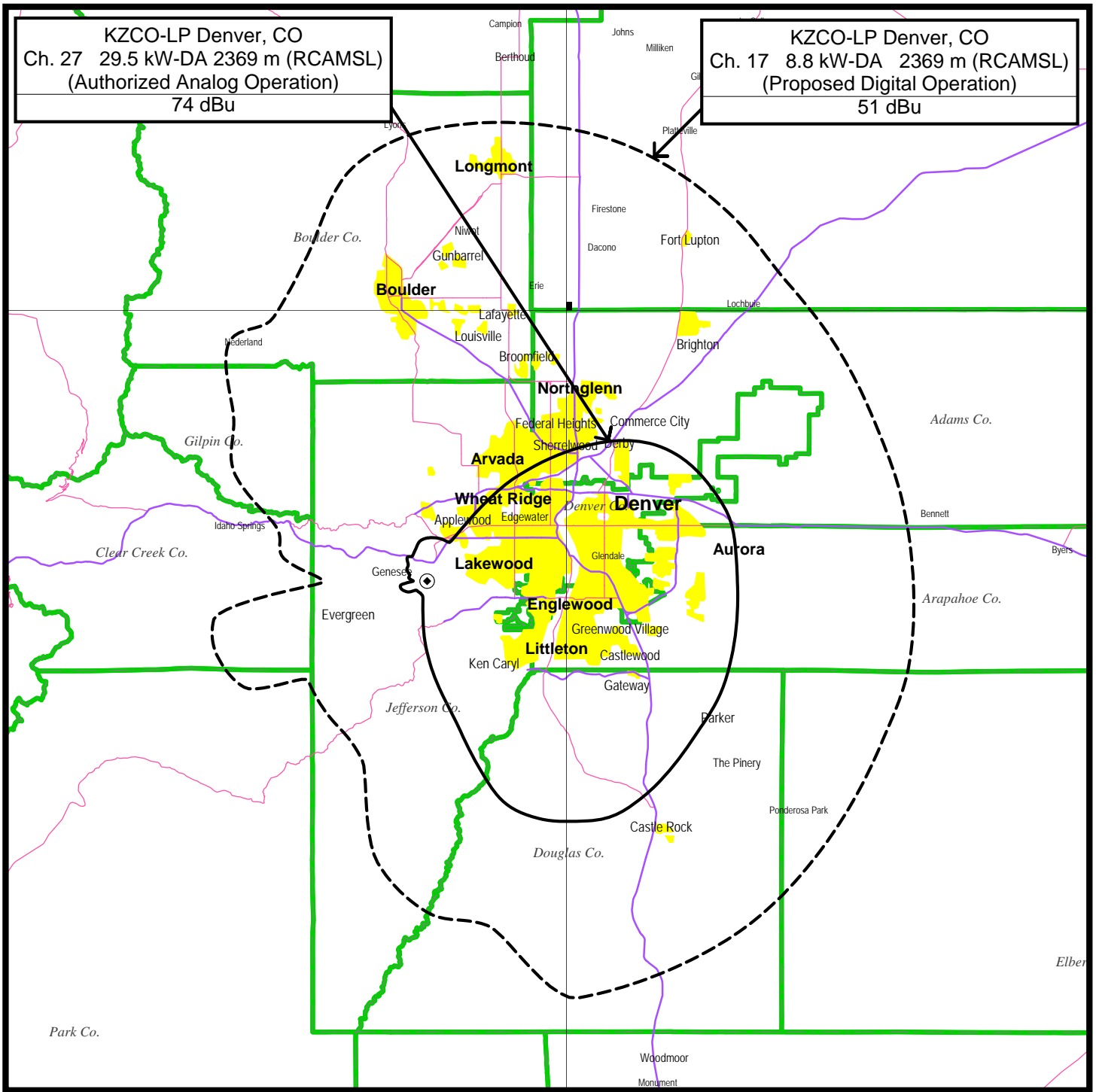


Jerome J. Manarchuck

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May 8, 2007

Figure 1



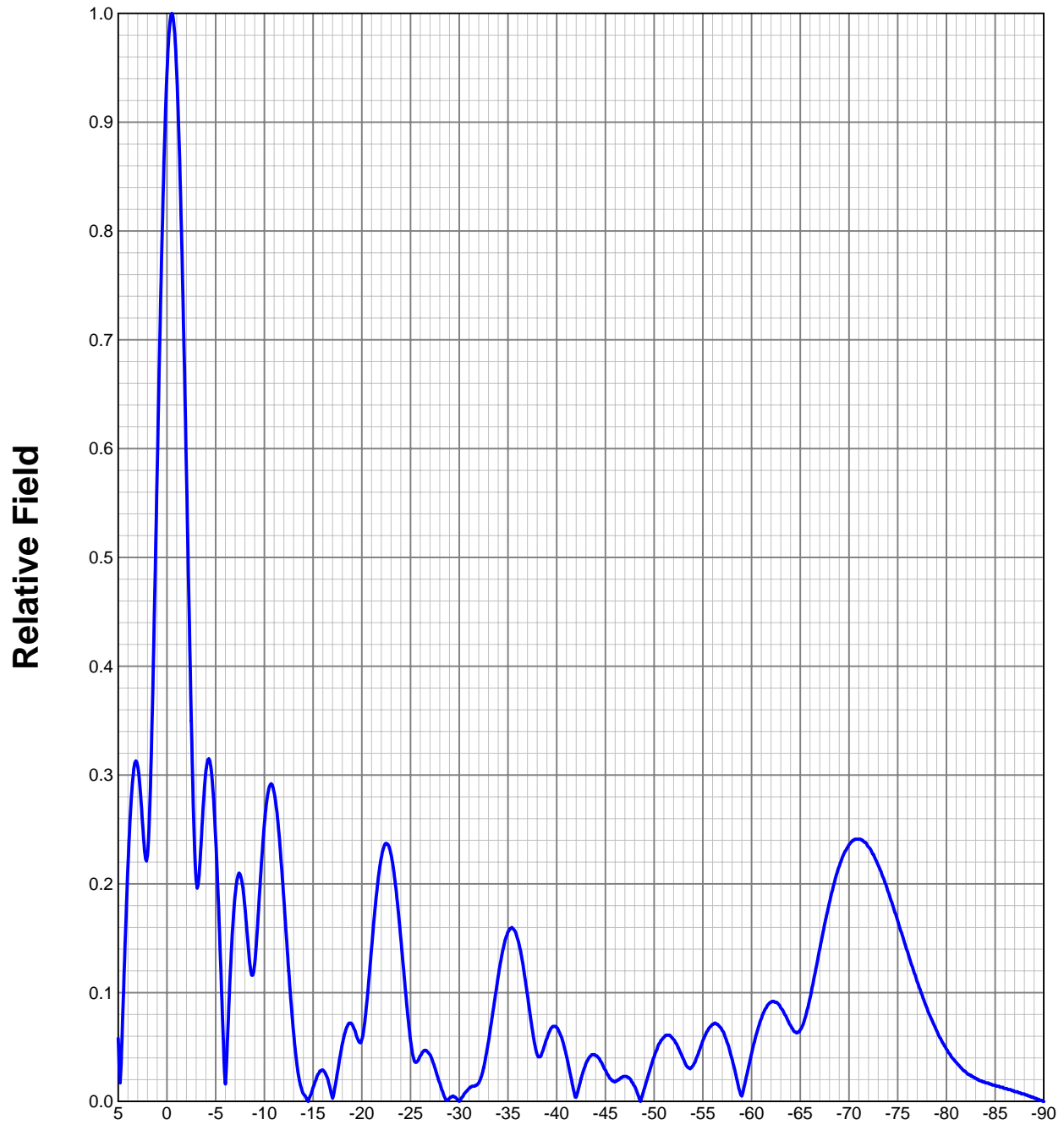
FCC PREDICTED COVERAGE CONTOURS

KZCO-LP DIGITAL COMPANION
DENVER, COLORADO
CH 17 8.8 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

ELEVATION PATTERN

Type:	ALP16L2		Channel:	32
Directivity:	Numeric	dBd	Location:	
Main Lobe:	16.59	12.20	Beam Tilt:	-0.50
Horizontal:	14.82	11.71	Polarization:	Horizontal



TABULATED DATA FOR ELEVATION PATTERN

Type: ALP16L2

PolarizationHorizontal

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
5.00	0.058	-24.73	-6.75	0.160	-15.92	-27.00	0.043	-27.33	-50.50
4.75	0.026	-31.70	-7.00	0.190	-14.42	-27.50	0.031	-30.17	-51.00
4.50	0.089	-21.01	-7.25	0.206	-13.72	-28.00	0.017	-35.39	-51.50
4.25	0.156	-16.14	-7.50	0.209	-13.60	-28.50	0.004	-47.96	-52.00
4.00	0.217	-13.27	-7.75	0.199	-14.02	-29.00	0.003	-50.46	-52.50
3.75	0.265	-11.55	-8.00	0.179	-14.94	-29.50	0.004	-47.96	-53.00
3.50	0.297	-10.54	-8.25	0.152	-16.33	-30.00	0.000	-40.00	-53.50
3.25	0.312	-10.12	-8.50	0.127	-17.92	-30.50	0.007	-43.10	-54.00
3.00	0.308	-10.23	-8.75	0.116	-18.71	-31.00	0.012	-38.42	-54.50
2.75	0.287	-10.84	-9.00	0.126	-17.99	-31.50	0.014	-37.08	-55.00
2.50	0.255	-11.87	-9.25	0.155	-16.19	-32.00	0.017	-35.39	-55.50
2.25	0.227	-12.88	-9.50	0.191	-14.38	-32.50	0.031	-30.17	-56.00
2.00	0.226	-12.92	-9.75	0.226	-12.94	-33.00	0.055	-25.19	-56.50
1.75	0.274	-11.24	-10.00	0.255	-11.87	-33.50	0.085	-21.41	-57.00
1.50	0.359	-8.90	-10.50	0.289	-10.78	-34.00	0.115	-18.79	-57.50
1.25	0.467	-6.62	-11.00	0.284	-10.93	-34.50	0.140	-17.08	-58.00
1.00	0.580	-4.73	-11.50	0.246	-12.18	-35.00	0.156	-16.14	-58.50
0.75	0.693	-3.19	-12.00	0.186	-14.61	-35.50	0.159	-15.97	-59.00
0.50	0.794	-2.00	-12.50	0.120	-18.42	-36.00	0.149	-16.54	-59.50
0.25	0.880	-1.11	-13.00	0.063	-24.01	-36.50	0.128	-17.86	-60.00
0.00	0.945	-0.49	-13.50	0.024	-32.40	-37.00	0.098	-20.18	-60.50
-0.25	0.986	-0.13	-14.00	0.007	-43.10	-37.50	0.066	-23.61	-61.00
-0.50	1.000	0.00	-14.50	0.000	-40.00	-38.00	0.043	-27.33	-61.50
-0.75	0.986	-0.12	-15.00	0.013	-37.72	-38.50	0.045	-26.94	-62.00
-1.00	0.946	-0.48	-15.50	0.025	-32.04	-39.00	0.058	-24.73	-62.50
-1.25	0.881	-1.10	-16.00	0.029	-30.75	-39.50	0.068	-23.35	-63.00
-1.50	0.796	-1.98	-16.50	0.021	-33.56	-40.00	0.068	-23.35	-63.50
-1.75	0.693	-3.19	-17.00	0.003	-50.46	-40.50	0.059	-24.58	-64.00
-2.00	0.579	-4.75	-17.50	0.027	-31.37	-41.00	0.042	-27.54	-64.50
-2.25	0.462	-6.71	-18.00	0.053	-25.51	-41.50	0.021	-33.56	-65.00
-2.50	0.350	-9.12	-18.50	0.069	-23.22	-42.00	0.004	-47.96	-65.50
-2.75	0.258	-11.78	-19.00	0.071	-22.97	-42.50	0.021	-33.56	-66.00
-3.00	0.203	-13.85	-19.50	0.059	-24.58	-43.00	0.035	-29.12	-66.50
-3.25	0.204	-13.83	-20.00	0.057	-24.88	-43.50	0.042	-27.54	-67.00
-3.50	0.236	-12.54	-20.50	0.090	-20.92	-44.00	0.042	-27.54	-67.50
-3.75	0.275	-11.21	-21.00	0.141	-17.02	-44.50	0.037	-28.64	-68.00
-4.00	0.304	-10.34	-21.50	0.190	-14.42	-45.00	0.029	-30.75	-68.50
-4.25	0.315	-10.05	-22.00	0.224	-13.00	-45.50	0.021	-33.56	-69.00
-4.50	0.308	-10.23	-22.50	0.237	-12.51	-46.00	0.018	-34.89	-69.50
-4.75	0.282	-10.98	-23.00	0.227	-12.88	-46.50	0.021	-33.56	-70.00
-5.00	0.242	-12.32	-23.50	0.196	-14.15	-47.00	0.023	-32.77	-70.50
-5.25	0.190	-14.45	-24.00	0.150	-16.48	-47.50	0.021	-33.56	-71.00
-5.50	0.129	-17.79	-24.50	0.100	-20.00	-48.00	0.014	-37.08	-71.50
-5.75	0.065	-23.74	-25.00	0.056	-25.04	-48.50	0.002	-53.98	-72.00
-6.00	0.016	-35.92	-25.50	0.036	-28.87	-49.00	0.012	-38.42	-72.50
-6.25	0.065	-23.74	-26.00	0.042	-27.54	-49.50	0.027	-31.37	-73.00
-6.50	0.118	-18.56	-26.50	0.047	-26.56	-50.00	0.041	-27.74	-73.50

TOWAIR Determination Results

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

Your Specifications

NAD83 Coordinates

Latitude	39-40-24.0 north
Longitude	105-13-05.0 west

Measurements (Meters)

Overall Structure Height (AGL)	31
Support Structure Height (AGL)	30
Site Elevation (AMSL)	2353

Structure Type

TOWER - Free standing or Guyed Structure used for Communications Purposes

[Tower Construction Notification](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

Note: Notification does NOT replace [Section 106 Consultation](#).

CLOSE WINDOW

EXHIBIT IN SUPPORT OF SYNCOM MEDIA GROUP
APPLICATION BSFDTL-20060630CUD, CHANNEL 18, DENVER, CO

The subject application is in mutually exclusive group MX091 because it is predicted to receive interference from application BSFDTL-20060630CZO, Channel 17, McGraw-Hill Broadcasting Company, Inc. It is not predicted to cause interference to the McGraw-Hill application. Also it is not predicted to either cause interference to or receive interference from the third application in this MX group, BSFDTL-20060630CUC, Channel 16, Syncom Media Group.

Syncom Media Group hereby states that it is willing to accept the incoming interference from BSFDT-20060630CZO in the interest of being considered a "singleton" application.

Every companion digital application which can be granted is a step in the furtherance of the FCC's policy of transitioning all broadcast TV to digital operation. Accordingly it is in the public interest for this application to be granted.

This request is a unilateral action on the part of Syncom which hereby states that no consideration has been paid to or received from McGraw -Hill in connection with this request for its application to be considered a "singleton". There is no oral or written agreement between the parties.

This application was filed by Syncom Media solely for the purpose of furthering its broadcast interests by providing a companion digital channel for KHDT-LP



J. Christopher Blair
President