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Douglas B. Evans, General Counsel
Dotcast, Inc.
1808 N. Shoreline Boulevard
Mountain View, CA 94043

Margaret L. Tobey, Esq.
Morrison & Foerster LLP
2000 Pennsylvania Avenue, N.W., Suite 5500
Washington, D.C. 20006

John C. Quale, Esq. and Linda G. Morrison, Esq.
Skadden, Arps, Slate, Meagher & Flom, LLP
1440 New York Avenue, N.W.
Washington, D.C. 20005

Barry A. Friedman, Esq.
Thompson Hine LLP
1920 N Street, N.W.
Washington, D.C. 20036

Re: Application of Dotcast, Inc.
for Approval of System for
Insertion of Non-Video Data
Pursuant to Section 73.682

Comments of Fox Television Stations, Inc.

Informal Objection of Metropolitan Area
Networks, Inc.

Dear Counselors:

By application dated November 1, 2001, as supplemented on November 21, 2001, December 21, 2001, and February 12, 2002, (collectively, the "Application") Dotcast, Inc. ("Dotcast") requests advanced approval pursuant to Section 73.682(a)(24)(iii) of the Commission's rules for broadcast television licensees to use its proposed system of inserting digital data into standard NTSC TV broadcasts, which it refers to as "dNTSC™."¹ Based on the information before us, and for the reasons discussed below,

¹ Public Notice of Dotcast's request was given on March 1, 2002 (DA-02-472A1).

we conditionally approve the Dotcast dNTSC system described in the Application, as it pertains to the insertion of non-video data into the active portion of the NTSC signal, and hereby authorize its use for this purpose by NTSC television licensees without further Commission consent.²

Description of the Dotcast dNTSC Technology. As described in the Application, Dotcast has developed a digital content distribution system that uses the television broadcast infrastructure. The dNTSC system adds a radio-frequency-based data subcarrier onto NTSC television transmissions at the output of the transmitter's exciter. According to Dotcast, "the dNTSC system uses a data signal that is comprised of a quadrature-amplitude-modulated carrier (QAM) that modulates a double-sideband, suppressed-carrier signal that is in approximate and dynamic quadrature with the visual carrier."³ The data subcarrier in the visual signal is placed at +/- 851.990 kHz around the visual carrier; the data sidebands have a bandwidth of 766.578 kHz; the lower boundary the spectrum occupied by the data is at -1235.28 kHz below the visual carrier,⁴ and the data signal injection level is "no more than 20 db down average visual data subcarrier power level relative to peak of sync" (and can be set from 20-34 db down).⁵ The data rate in the visual carrier is approximately 4.29 megabits per second ("Mb/s"). The dNTSC system also encodes data in the aural carrier of the NTSC signal, at a rate of 1.43 Mb/s, by negative amplitude modulation of the FM aural carrier; the modulation depth does not exceed 20%.⁶

Requirements for System Approval. Section 73.682(a)(24)(iii) sets forth the criteria for advance approval of insertion of non-video information into the active portion of the NTSC visual signal: (1) Use of the system by a television broadcast station shall not result in the significant degradation of any portion of the station's visual, aural, or program-related data signals; (2) The width of the 6 MHz channel may not be increased; (3) The transmitted signal must not exceed the emission limits in Section 73.687(e); and (4) Interference to the reception of co-channel or adjacent channel stations must not increase over that resulting from the transmission of programming without inserted data.

² The rules previously prohibited licensees from inserting ancillary data in the video portion of their broadcast signals without prior authorization. In June 1996, however, the Commission amended its rules to establish a basis for approving such ancillary transmission systems so that licensees may deploy the systems without further authorization. *See Report and Order* in MM Docket No. 99-42, 11 FCC Rcd 7799 (1996) (amending Sections 73.646 and 73.682 of the rules to permit the transmission of visual telecommunications services by inserting non-video data in the active video portion of the NTSC signal) (the "*Digital Data R&O*"). In the *Digital Data R&O*, the Commission authorized specific systems proposed by Yes! Entertainment Corporation, A.C. Nielsen, Digideck, Inc. and WavePhore, Inc. Thereafter, pursuant to the newly amended rules, Microsoft Corporation's ancillary Horizontal Overscan Data Insertion transmission system was approved for use by television licensees without further Commission consent. *See* letter from Roy. J. Stewart, Chief, Mass Media Bureau to Stanley M. Gorinson and Jack Krumholtz (Oct. 24, 1996).

³ Application at 4.

⁴ Letter from Margaret L. Tobey, counsel for Dotcast, to Marlene H. Dortch, Secretary, FCC (Apr. 19, 2002). By Public Notice, DA 02-771 (rel. Apr. 5, 2002), the Application was determined to be governed by "permit-but-disclose" *ex parte* procedures applicable to nonrestricted proceedings.

⁵ Application at 7.

⁶ *Id.* at 5.

The dNTSC aural data signal is of a “subsidiary nature in the baseband of the aural carrier” and, as such, its use does not require Commission approval.⁷

Applicant’s Showing of Compliance with System Approval Requirements. In its Application, Dotcast presents a system assessment, test results, and other information to demonstrate that use of the dNTSC system would satisfy the above requirements.

1. Host NTSC TV signal degradation. Dotcast commissioned the Advanced Television Technology Center (“ATTC”) to conduct objective and subjective laboratory tests of the impact of dNTSC on television video and audio quality, including stereo and second audio programming (SAP) channels.⁸ The ATTC examined the impact of dNTSC on a variety of television receivers and under differing signal reception conditions. The test results showed that the dNTSC system did not significantly reduce the television signal-to-noise ratio, nor did it significantly degrade the television picture or sound quality.⁹ Second, the Application references the results of subjective aural impairment tests performed by the National Datacast, Inc., a subsidiary of PBS Enterprises, Inc. These tests concluded that “virtually no impairments were heard using the program materials tested on the main, stereo and SAP audio channels.”¹⁰ Finally, Dotcast notes its experimental operations with dNTSC and, in particular, the positive results of the testing done by television station KOMO-TV, Seattle, WA.¹¹

2. Television channel width and out-of-channel emissions. Section 73.687(e) requires that “all emissions removed in frequency in excess of 3 MHz above or below the respective channel edge shall be attenuated no less than 60 dB below the visual transmitted power.” Levels of spurious emissions were determined for the KOMO-TV signal with the insertion of dNTSC visual and aural data.¹² The ATTC study also examined the spectral occupancy of the NTSC signal waveform, including a comparison of spectrum plots of an NTSC signal with and without dNTSC data signals and for

⁷ TV broadcast stations may transmit, for several purposes and without further authorization from the Commission, subcarriers and signals within the aural baseband; these purposes include subsidiary communications services. 47 C.F.R. § 73.665. The portion of the Dotcast dNTSC system involving the TV aural carrier, therefore, does not require Commission approval for use by television licensees, given the subsidiary nature of the data signals. *See also* 47 C.F.R. § 73.667.

⁸ The reports prepared by the ATTC were submitted by Dotcast as part of the record in this proceeding. *See* Application at Appendices C and D and Supplement No. 3 (Feb. 12, 2002).

⁹ For instance, with regard to video impairments the ATTC concluded as follows: “The results of the subjective tests show that, for various signal conditions and rating of quality by non-expert observers, no statistically significant impairment in the video picture was caused by the presence of dNTSC.” Appendix D of Application at 15.

¹⁰ Supplement No. 3 to the Application. Letter from David E. Boroughs, Director of Engineering & Planning, PBS National Datacast, to Robert Bromery, Office of Engineering and Technology, FCC (Jan. 29, 2002); *see also* Letter to the Commission from Jacqueline Weiss, Chief Executive Office, National Datacast, Inc. (Oct. 29, 2001).

¹¹ Richard J. Warsinske, Senior Vice President and General Manager of KOMO, reported that there “is no discernible impairment to KOMO’s signal caused by the presence of Dotcast’s datastream” and that “KOMO has not received any complaints from consumers regarding their television reception that might have been caused by the Dotcast datastream.” *See* Supplement to Application (Nov. 21, 2001) (Letter from Richard J. Warsinske (Nov. 13, 2001)).

¹² *Id.* at 11-13.

different data rate configurations.¹³ Both the KOMO-TV and ATTC studies indicate that the dNTSC system will neither increase the 6 MHz channel width, nor result in impermissible out-of-channel emission levels.

3. Increased co-channel or adjacent channel interference. In seeking to demonstrate that the dNTSC system will not increase the potential for interference, the Application focuses primarily on an assessment of the technology; particularly, that the data signal adds less than 1% energy to a transmitted broadcast signal and causes no measurable out-of-band emissions.¹⁴ Dotcast also describes system features that can be activated to adjust or disable the transmission of the data signal, when necessary, including a safety bypass operated at the TV transmitter or master control room. It also references the experimental low power operation of its technology over an extended period in two discrete urban settings, and the operation of the dNTSC system on Station KOMO-TV, Seattle, Washington, pursuant to Special Temporary Authority issued to KOMO-TV's licensee, Fisher Broadcasting Company. The Application includes a letter from KOMO-TV, noting that it had "not received any complaints from consumers regarding their television reception that might have been caused by the Dotcast datastream."¹⁵

Submissions by other parties with respect to the Dotcast application.

Metropolitan Area Networks, Inc. ("MAN"). On March 22, 2002, MAN filed an informal objection to Dotcast's application.¹⁶ MAN argues that Dotcast's proposed service will have a detrimental impact on the broadcasters' transition to digital television ("DTV"), in part because Dotcast's system encourages the continued use of an analog broadcast service. MAN asserts that public will grow accustomed to the NTSC service, and consequently, the public and broadcasters' desire for DTV will diminish. In addition, MAN argues that Dotcast's system is a closed, proprietary system. MAN states that Dotcast's system is inaccessible to third parties and that it lacks common standards that could be used by other entities.¹⁷

In response to MAN, Dotcast argues that its technology will facilitate, rather than hinder, the transition to DTV. According to Dotcast, approval of an NTSC-based data transmission system cannot alter the digital transition schedule mandated by Congress and implemented by the Commission. Dotcast asserts that its "Dotcast Digital Network" is a dual-moded system that can insert data into both an ATSC and NTSC television transmission. Dotcast states that as the broadcasters transition to digital transmissions, the services made possible by Dotcast's technology, *i.e.*, movies, music on demand,

¹³ Appendix D of Application at 11-12.

¹⁴ Application at 2; *see also* Letter from Margaret L. Tobey, counsel to Dotcast, to Marlene H. Dortch, Secretary, FCC (Apr. 19, 2002) (the dNTSC signal "adds less than 0.25% additional energy, has no carrier, and consists entirely of Gaussian-like noise, thus contributing no coherent interference").

¹⁵ See Supplement to Application (Nov. 21, 2001).

¹⁶ An informal objection is not subject to many of the requirements of a formal petition to deny, but still must contain specific factual allegations sufficient to warrant the relief requested. *Area Christian Television, Inc.*, 60 R.R.2d 862, 864 (1986); *Canton 67, Ltd.*, 7 FCC Rcd 736, 738 (1992)(*citing Astroline Communications Co. v. FCC*, 857 F.2d 1556 (D.C.Cir. 1988)).

¹⁷ MAN's Informal Objection at 2-4.

broadband Internet services, and distance learning, will be transmitted via an ATSC signal in a process that will be “invisible to the end user.” Dotcast contends that its system actually facilitates the transition to DTV by creating a viable market for digital broadband entertainment and information services in advance of full implementation of nationwide DTV services.

Moreover, Dotcast states that its system creates a new revenue stream for its broadcast partners, including public television stations. Dotcast notes that many PBS stations will rely on Dotcast’s system to help finance the required DTV conversion. Dotcast also argues that MAN’s assertion that Dotcast’s system “is a closed, proprietary system” is irrelevant because the Commission in the *Digital Data R&O* explicitly envisioned that proponents of data insertion systems would have a proprietary interest in those systems. Finally, Dotcast contends that MAN, like Dotcast, is in the business of providing wireless broadband service and that the filing of its objection is intended to stall the roll-out of Dotcast’s service.¹⁸

We conclude that MAN’s Informal Objection is without merit and that there are no substantial and material questions of fact warranting further inquiry. First, we reject MAN’s argument that implementation of Dotcast’s system will hinder the DTV transition. The *Digital Data R&O* addressed the impact of ancillary digital data systems on the transition to DTV, if any, and found that the introduction of services such as Dotcast’s would not negatively impact the DTV transition. The Commission stated:

We see no potential negative impact on the introduction of Digital Television technology that would affect this decision at this time. Broadcasters could gain a level of experience with the business of digital data transmission that could help them in a world in which they transmit exclusively using digital technology. In addition, the revenue earned by the stations could help provide them with funds to develop and implement digital television facilities.¹⁹

Although the *Digital Data R&O* was adopted six years ago, the conclusion that the use of technology like Dotcast’s will not negatively impact the transition to DTV remains valid. As Dotcast observes, the digital transition and analog recovery schedule has been mandated by Congress and our conditional approval of dNTSC does not alter that schedule.²⁰ Moreover, we are persuaded that grant of Dotcast’s application might create a new revenue stream for broadcast licensees, particularly noncommercial television licensees, which could use the additional funds to expedite their conversion to DTV.²¹

¹⁸ Dotcast’s Opposition to Informal Objection at 2-7.

¹⁹ *Digital Data R&O* at 7802.

²⁰ 47 U.S.C. §§ 309(j)(14), 336(c).

²¹ Dotcast notes that according to a survey by SCRI International, more than 60% of U.S. television stations expect to use datacasting revenue to help pay for DTV conversion. See Dotcast’s Opposition to Information Objection at 5 n.13 (citing *Communications Daily* (Aug. 24, 2001)).

We also reject MAN's argument that Dotcast's Application should be denied to prevent the public from growing accustomed to NTSC services. Dotcast indicates in its Application that a second output on the same "Dotcaster" can inject the same or a different data stream into the ATSC transport multiplexer for data transmission application on a digital transmitter.²² Therefore, no additional technology is required for Dotcast to transmit over a DTV signal. Dotcast states that it currently is operating in dual mode from station KOMO-TV, Seattle, Washington, and that it envisions a seamless migration from analog to digital datacasting by its broadcast partners.²³ In light of the fact that Dotcast's system can insert data into both an ATSC and NTSC television transmission and Dotcast's assurance that the public's use of the system will not cease once a broadcast licensee has converted to DTV, we find that approval of Dotcast's system will not harm the transition to DTV.

Next, we reject MAN's argument that Dotcast's Application should be denied because its system is "closed" and "proprietary." The *Digital Data R&O* anticipated that proponents of systems seeking approval under Section 73.682 would have a proprietary interest in those systems. In that proceeding, the Commission stated:

Significantly, it appears that the ancillary signals from the systems considered and approved in this Order will be directed, at least initially, either to subscribers of a particular service or to viewers who have purchased special equipment to receive the signals. Even commenting parties that support standards agree that there is less need for standards in "closed system" conditions. Should more general-consumer oriented services be developed in the future, we can reexamine the issue of standards in that context.²⁴

Although four ancillary digital data systems were approved in the *Digital Data R & O*, the Commission concluded that it did not have a basis for considering a government-approved standard for digital data. Instead, the Commission provided means for approval of such ancillary systems on a case-by-case basis. In view of the potential benefits of the Dotcast technology, we do not find sufficient justification to delay its deployment in order to revisit the issue of standards for digital insertion systems. Rather, we find that market forces are sufficient to ensure procompetitive development of systems like Dotcast's dNTSC system. Accordingly, we deny MAN's informal objection.

Fox Television Stations, Inc. ("Fox"). On April 8, 2002, Fox filed comments expressing concern that Dotcast has failed to demonstrate sufficiently that the dNTSC technology would not "adversely affect co-channel or adjacent channel signals (DTV or analog) through increased interference."²⁵ According to Fox, the limited operation of the dNTSC system by KOMO does not adequately support the claim that it would operate without creating additional interference. In its comments, Fox requested that the Commission

²² Dotcast's Opposition to Informal Objection at 3 n.9.

²³ *Id.* at 3.

²⁴ *Digital Data R&O* at 7804.

²⁵ Comments of Fox Television Stations, Inc. at 1.

withhold approval of the dNTSC system until Dotcast submits laboratory tests demonstrating that additional interference would not be caused by dNTSC. Alternatively, Fox would accept a 12-month temporary authorization for use of the dNTSC system, conditioned upon demonstration of noninterference through laboratory testing within that time frame.

Dotcast responded that it has met the burden to show that the dNTSC system will not cause increased interference. In addition to the system assessment discussed above, it noted 232 hours of dNTSC operation by station KOMO. It also reiterated that broadcasters would have the ability to eliminate any interference through a permissible reduction in transmitter power or reduction of the injection level of the dNTSC signal.²⁶ Additionally, Dotcast submitted the results of interference testing developed in consultation with staff of the ATTC and conducted in its laboratory facility. This testing considered co-channel, adjacent channel, and “taboo” channel interference to analog TV reception, as well as adjacent channel interference to digital TV reception. Several observers looked for channel impairments on a range of consumer TV receivers and for various levels of undesired signals, both with and without the dNTSC data signal. According to Dotcast, this testing found that “[n]o channel interference difference was noted in the NTSC-with-dNTSC to NTSC or in NTSC-with-dNTSC to ATSC while turning on and off the dNTSC data signal.”²⁷

In its reply comments, Fox continued to contend that the Commission should not unconditionally approve use of the dNTSC system until Dotcast provides sufficient evidence that the system will not cause additional interference to co-channel or adjacent channel analog or DTV signals. It took issue with Dotcast’s interference testing in the following respects: (1) The tests were not conducted at an independent laboratory using neutral observers, (2) Dotcast’s report of the testing lacked sufficient detail to support the reliability of the test findings; *e.g.*, the quantity and quality of the receivers tested (Dotcast indicated that this information would be available upon request) and (3) Dotcast did not adequately address interference to digital television reception, testing only one interference scenario compared to 20 analog TV interference scenarios.²⁸

In an *ex parte* filing of May 13, 2002, Dotcast advised the Commission that it had contracted with the ATTC to conduct additional tests to evaluate the impact of the dNTSC system on co-channel and adjacent channel stations, both analog and digital.²⁹ In response, Fox requested that any grant of Dotcast’s Application be conditioned on its submission within 12-months of the authorization of independent laboratory test results demonstrating no increased interference from the dNTSC system.³⁰ In response, Dotcast indicated its willingness to accept such a condition provided it would not make the grant temporary in nature and that test results be submitted within 12 months of their

²⁶ Dotcast’s Response to Comments of Fox Television Stations, Inc. at 6 – 7.

²⁷ *Id.* at Technical Statement in Support of Response to Comments of Fox Television Stations, Inc.

²⁸ Reply Comments of Fox Television Stations, Inc. at 2 – 5.

²⁹ Letter from Margaret L. Tobey, counsel to Dotcast, to Marlene H. Dortch, Secretary, FCC (May 13, 2002) (“*ex parte* letter of Dotcast”).

³⁰ Letter from John C. Quale, counsel to Fox, to Marlene Dortch, Secretary, FCC (May 21, 2002) (“*ex parte* letter of Fox”).

completion.³¹ Fox countered that if the additional tests were to reveal that dNTSC causes additional interference, Commission approval should be suspended until Dotcast could demonstrate through additional testing that the system would not cause such interference.³² In response, Dotcast stated that it “would be willing to accept a grant that requires it to operate the dNTSC system at an injection level no higher than demonstrated as acceptable by the ongoing ATTC tests of the potential of Dotcast’s dNTSC system to cause increased interference to adjacent and co-channel stations.”³³ In response, Fox reiterated its position regarding suspension of approval in the event of interference, but also indicated that if the Commission were to permit continued operations at lower injection levels, it should also require the submission of the ATTC test results within four months after approval of Dotcast’s Application.³⁴ In an *ex parte* filing dated June 25, 2002, counsel for Dotcast indicates that the parties have reached agreement concerning conditions to be placed on the authorization of the dNTSC system, as outlined below.³⁵

In the *Digital Data R&O*, the Commission stated its concern regarding the potential for video data insertion systems to interfere with other television signals, and it established the basis for its approval of the sub-video systems evaluated therein:

“We emphasize that our approval of the use of these systems is based on favorable results of laboratory testing, on our expectation that they will perform in the real world essentially as predicted by the testing, and on our continued reliance on broadcasters to continue to exercise full technical control over their signals and to be responsible for operating in a manner that does not increase their station’s potential for causing interference or degrading picture quality.”³⁶

And further:

“Our decision to approve the use of this system is based on our reliance on each broadcast licensee’s ultimate responsibility for the proper technical operation of its facility, and nothing herein modifies that responsibility.... Any data insertion must be accomplished in a manner that leaves the licensee with the capability to

³¹ June 3, 2002, *ex parte* letter of Dotcast.

³² June 6, 2002, *ex parte* letter of Fox.

³³ June 12, 2002, *ex parte* letter of Dotcast, at 2.

³⁴ June 20, 2002, *ex parte* letter of Fox.

³⁵ June 25, 2002, *ex parte* letter of Dotcast.

³⁶ *Digital Data R&O* at 7803-04. The sub-video systems approved in that proceeding had been examined by the National Data Broadcasting Committee (“NDBC”), an entity formed by the National Association of Broadcasters and the Electronics Industry Association to facilitate the development of a voluntary national technical standard for high-speed data broadcasting. The NDBC evaluated the results of tests performed at the ATTC. These included measurements of co-channel and adjacent channel desired-to-undesired signal strength ratios at threshold of visibility, both with and without a data signal inserted into the NTSC waveform of the interfering signal. The Commission indicated it had reviewed the NDBC’s report, which concluded that “neither [system]... would cause any more adjacent channel interference to other services or TV stations than a normal TV transmission meeting the FCC requirements.” The subsequent approval of Microsoft’s ancillary overscan system was based on its technical similarity to one of the systems approved in the *Digital Data R&O*.

modify, reduce or eliminate the data insertion if necessary to terminate any interference caused, or to restore the quality of a degraded picture.”³⁷

On the basis of the record before us, we believe we can conditionally approve the use of the Dotcast dNTSC system “without compromising the essential integrity of the delivered NTSC television picture or permitting any other harmful effects on the television viewing public.”³⁸ We are satisfied that Dotcast has demonstrated that the dNTSC system fully complies with the requirements of Section 73.682(a)(24) in that it will: (1) not significantly degrade any portion of the host NTSC TV signal; (2) not increase the width of the 6 MHz channel; and (3) comply with the out-of-channel emission limitations of Section 73.687(e).

First, it is evident that Dotcast has designed its dNTSC system to minimize the potential for causing additional interference. The data signal adds less than 0.25% non coherent Gaussian energy to an NTSC television signal and appears to be well-placed to protect spectrally sensitive areas within the NTSC television channel, for example, the region surrounding the video color sub-carrier.

Second, the dNTSC system installation incorporates measures, including a safety by pass switch and control of data signal injection level, to ensure a broadcaster’s ability to comply with the requirement to modify or terminate data transmissions in the event interference is caused to other co-channel or adjacent channel stations.

Third, Dotcast has conducted laboratory interference testing (primarily with respect to NTSC interference), finding that the dNTSC system will not cause interference levels beyond those resulting from NTSC transmissions without the inserted data signal. No party has presented information to the contrary.

On the basis of the above, we conditionally authorize the immediate use of the dNTSC system by TV broadcasters (including low power TV stations). This authorization will enable broadcasters to realize the potential benefits of the system, provide them with an opportunity to use the system to obtain revenues that could help finance the construction of DTV facilities, and provide another platform for extending broadband services throughout the country.

We condition the authorization on the submission of the results of interference tests now being conducted by the ATTC. In particular, there is a need to obtain additional information on the potential for interference to DTV reception, for which there is little performance data on the DTV receiver population. Dotcast’s in-house interference study referenced only a single data point for DTV testing. The digital television transition now is well underway and the Commission must be reasonably certain that NTSC transmissions with inserted data signals will not impair the reception of co-channel and adjacent channel DTV signals.

³⁷ *Id.* ¶ 15.

³⁸ *Id.* ¶ 8.

The *Digital Data R&O* did not mandate a particular protocol for demonstrating compliance with the Commission's non-interference requirement of Section 73.682(a)(24)(iii). However, we concur with Fox that there is considerable merit in the use of an independent laboratory for this purpose (the earlier-approved sub-video data insertion systems were tested at the ATTC). As noted, Dotcast has arranged for ATTC testing of the dNTSC system, and that testing now is underway. Accordingly, subject to the conditions set forth below, we conclude that use of Dotcast's system of inserted digital data into standard NTSC broadcasts should be approved.³⁹

1. Dotcast will commission the Advanced Television Technology Center (ATTC) to conduct tests evaluating the impact of NTSC as the undesired signal (carrying Dotcast's dNTSC data) on (1) co-channel and upper and lower adjacent channel ATSC stations as the desired signal and (2) co-channel and upper and lower adjacent channel NTSC stations as the desired signal.⁴⁰ The results of each of these batteries of ATTC tests will be submitted to the FCC promptly upon completion, and in no event later than six (6) months from the date of this letter granting Dotcast's Application for approval of dNTSC pursuant to Section 73.682(a)(24).
2. Dotcast will operate dNTSC up to the maximum acceptable injection level that is demonstrated by the foregoing ATTC tests to not cause increased interference to adjacent or co-channel NTSC or ATSC stations, and will ensure through appropriate system controls that dNTSC will not be operated in excess of that level.
3. Pursuant to Section 73.682(a)(24)(iii) of the rules, a television broadcaster may elect to use the dNTSC system without obtaining prior authorization from the Commission. Any licensee using the system is responsible for all technical aspects of the signal, must be able to turn off the data injection as necessary to terminate interference or eliminate degradation caused by the ancillary data, and is responsible for correcting such problems or modifying or ceasing the use of the dNTSC system.⁴¹

The Dotcast dNTSC system may be used to provide broadcast, point-to-point, or point-to-multipoint services. Services that are common carrier in nature will be subject to common carrier regulation. Licensees that desire to operate in a common carrier mode must apply to the Commission for any required authorization and comply with all policies and rules applicable to the particular service, including the prohibition against controlling transmission content. However, when the ancillary service is not common


³⁹ Given that Dotcast's request presents no new issues of fact or law, the Bureau is taking this action on delegated authority. See 47 C.F.R. §§ 0.61, 0.283(b)(5).

⁴⁰ The first battery of tests (with ATSC as the desired signal) is underway at the ATTC.

⁴¹ June 25, 2002 *ex parte* letter of Dotcast.

carrier in nature, the licensee “must retain the ability to remove the ancillary data from the signal when it deems necessary.”⁴²

In sum, for the reasons set forth herein, Commission approval, as conditioned above, is given for broadcast television licensees (including those of low power TV stations) to use the Dotcast dNTSC system of inserting digital data into standard NTSC broadcasts and without the need for further Commission consent. The informal objection of Metropolitan Area Networks, Inc. to grant of Dotcast’s application is denied.

Sincerely,

W. Kenneth Ferree
Chief, Media Bureau

⁴² See *Digital Data R&O* at 7805-06.