Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Closed Captioning Requirements for	)	
Digital Television Receivers	)	ET Docket No. 99-254
	)	
	)	

REPLY COMMENTS OF VITAC CORPORATION

November 16, 1999

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VITAC CORPORATION
101 Hillpointe Drive
Canonsburg, PA 15317-9503
724-514-4000

Jeffrey M. Hutchins
Executive Vice President, Planning & Development

Gary D. Robson
Chief Technology Strategist

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1. INTRODUCTION

VITAC is pleased to provide these Reply Comments to respond to comments filed in regard to the FCC's Notice of Proposed Rulemaking ("the Notice") adopted on July 14, 1999.

2. EIA-708 IS NOT A RECENT DOCUMENT

General Instruments (“GI”) in its Section II, reacts to the NPRM as if EIA-708 were a specification recently devised and foisted on an unsuspecting industry. GI states on page 10 that EIA-708 “is an extremely inefficient way to provide consumers such advanced captioning capabilities.” Yet the standing subcommittee within EIA that developed EIA-708 – the Television Data Systems Subcommittee (TDSS) – began its deliberations for digital TV closed captioning in 1993, and GI was among the companies represented in those deliberations. At no point during the past six years did GI or any other company raise issues related to DVS-157 or raise any objection to the development of EIA-708’s transmission or display protocols.

3. EIA-708 FUNCTIONALITY CANNOT BE ACHIEVED VIA EIA-608 DATA PROTOCOLS

General Instruments on page 4 states that “adoption of the EIA-708-A standard is not necessary to allow consumers to customize the display of the captions and that such advanced

captioning functionality can be achieved in much more efficient ways using the well-established EIA-608 standard." VITAC rejects this statement categorically. In order to achieve many of the more desirable features designed into EIA-708, certain parameters must be included with the caption data and the basic intentions of the captioner must be expressed in the data. Neither of these needs can be met using EIA-608. That older standard is based on the original closed captioning specification devised by the Public Broadcasting Service during the 1970's long before most of today's graphical interfaces and protocols were envisioned. EIA-608 does not contain provisions for indicating the screen area over which captions may be made to grow, nor the direction in which such growth can and should occur. Both of these parameters are mandatory if one is to create a "caption volume control" that would allow captions to grow and shrink and still maintain their spatial relationship to on-screen speakers. EIA-608 captions are non-symbolic, such that the caption placement data represent absolute screen coordinates rather than relative values. Thus, it is impossible to tell from the caption data alone whether the captioner intended two rows to be centered relative to each other or to be justified in some other fashion. Without this intentional information, it is not possible to render EIA-608 captions graphically in a manner faithful to the effort of the captioner. The resulting captions would likely suffer in readability due to misalignment, poor spatial relationships to on-screen speakers, unintentional and unnecessary obscuring of important picture information, degraded word wrapping on occasions when resizing mandates, and many other factors.

4. PROGRAMMERS CAN BE READY TODAY TO SUPPORT EIA-708

GI on page 9 states that "using EIA-708-A would mean that all programmers' encoders would have to be significantly upgraded or replaced so… the captions [can be] initially encoded for transmission. This is a very expensive proposition… [that] would run well into the tens of millions of dollars." GI continues that "programmers would incur additional costs of

approximately $5,000 per service for computer servers which generate the 708 captions and interface with the encoder."

Again, VITAC categorically rejects these assertions. There is simply no evidence to support them, and ample evidence to refute them. Programmers are already today encoding closed captions in DTV signals using the EIA-708 specifications. They do so one of two ways, neither of which involves the kinds of costs GI asserts. First, they can work with a captioning service provider who has the ability to generate EIA-708 data streams. These systems are generally in the early stages of development and not broadly available, but the cost for their development is being borne by the captioners, not the programmers. Second, they can use a "black box" device to transcode automatically, and at no operating cost, captions created in the EIA-608 format into EIA-708 format. These devices are readily available from encoder manufacturers at very low cost. For example, EEG Enterprises, the Long Island-based firm that has been the leading maker of captioning encoders since 1980, sells their TE-500 transcoder for $2290.

This ability to generate EIA-708 captions by creating data using EIA-608-compliant software also means that the concerns expressed in comments by Media Captioning Services ("MCS") are inaccurate. MCS states on page 3 that "the overwhelming majority of realtime captioners in the marketplace… will soon find themselves without an upgrade path to meet the EIA-708 captioning standard" because the leading captioning-software developer (as stated on page 2) "is not likely to make available a windows-based captioning system, compliant with EIA-708 for some time, if ever." The availability of transcoders means that MCS and any other captioning service provider can easily and cheaply create EIA-708 captions regardless of the software they use to produce the caption text. In other words, caption service providers can simultaneously produce EIA-608 and EIA-708 captioning with *no changes at all* to their existing software products.

There is no technical or financial barrier preventing any captioning service provider from offering EIA-708 captioning services today, and we can reasonably expect native DTV

captioning software products within the proposed one-year transition period. Therefore, we find no basis for MCS' claim on page 4 that there is "technological imperialism from two or three monopoly caption companies." (How can a monopoly exist if there are "two or three" such companies?) VITAC, other caption companies, and software vendors have chosen to put up the money to develop superior captioning systems to meet the needs of programmers. That MCS has not made that investment is not cause for the FCC to delay implementation of EIA-708 as recommended by MCS on page 4. We reject MCS' statement that "digitally formatted caption information… will, in fact, impose a defacto (sic) standard that only a few captioning companies… can respond to" and that for the FCC to "do otherwise" than delay EIA-708 "will have a negative impact on programming choices for consumers due to the anti-competitive impact on the industry." To delay EIA-708 for this reason would be a grave mistake that would have the effect of killing the opportunity for caption viewers to benefit from the improvements promised by DTV.

5. EIA-708 CAPTIONING WILL NOT AUTOMATICALLY BE MORE EXPENSIVE

The National Cable Television Association ("NCTA") on page 3 states that "imposing additional costs through more expensive captioning obligations may well retard the development of additional digital programming by raising the costs of providing that programming." VITAC completely understands NCTA's concern. Indeed, if DTV captioning were to be significantly more costly than NTSC captioning, it might have just such an effect. However, we can assure both the NCTA and the FCC that we foresee nothing in EIA-708 that will require us to spend more time or money in creating high-quality DTV captions than we now spend in the same effort for NTSC. Due to the presence of EIA-608 transcoding ability (see Section 4 above), market forces will likely keep captioning costs from rising significantly. Any captioning company that does not find an economical way to produce captions that take advantage of EIA-708's many sophisticated features will find itself losing business to companies that rely on the less-fanciful

EIA-608 captions merely transcoded to EIA-708 format. Making more sophisticated and user-friendly features available by adopting EIA-708 as the standard for digital TV captioning will not mean that all those features are used all the time. It also will not automatically and by itself increase the expense of creating captions or the cost of the service to programmers. Accordingly, we see no need, and believe it would be inappropriate in this rule-making, for the Commission, as requested by Home Box Office on page 5, to "reaffirm its commitment to forego any qualitative judgments as to how captioning should be done."

6. DTV SET-TOP BOXES MUST PRESERVE DATA FOR ANALOG RECEIVERS

VITAC created a wrong impression among some readers of our own comments on page 4, Section 3 (E), in regard to the proposed performance of DTV converter boxes used with analog receivers. We quoted the Notice's proposal in ¶12, and said that we "strongly agree." Our agreement was with that portion of the proposal that analog caption information should be passed "directly to the receiver in a form recognizable by the receiver's built-in caption decoder." We also agreed with the portion of that paragraph that concluded that the Commission has the "authority to require closed captioning capability in the devices." We emphatically do not agree that such devices may decode that data, create a caption display, and then not pass that data on to the analog receiver. We mistook the "decode" process of the proposal to mean "extract EIA-608 data from the EIA-708 data stream." Other readers of our comments thought we meant that data need not be preserved beyond the set-top box. That was not our intention, as witness our next sentence that states that "if these set-top boxes [do not] place [Line 21 data] on Line 21 of the generated NTSC video, people who cannot afford to replace their television sets may find themselves without captioning."

Rather, we support wholeheartedly the four-point proposal of Thomson Consumer Electronics ("TCE") on page 10. Their reasonable proposal will ensure that all consumers of DTV services will be provided full access to captions in any format.

7. CONCLUSION

VITAC hopes that the Commission will revise its NPRM proposals in as minimal a way as necessary to accommodate a smooth transition to DTV closed captioning. We look forward to the final rule-making, and thank the Commissioners for their careful deliberations.

Respectfully submitted,

Jeffrey M. Hutchins
Executive Vice President, Planning & Development

Gary D. Robson,
Chief Technology Strategist

VITAC
101 Hillpointe Drive
Canonsburg, PA 15317
(724) 514-4000