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

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

92-305

In the Matter of	)	
	)	
Amendment of the Rules Relating to	)	
Permissible Uses of the Vertical	)	MM Docket No. 92-305
Blanking Interval of Broadcast	)	
Television Signals	)	

FCC MAIL ROOM

Reply Comments of
The WGBH Educational Foundation
Boston, Massachusetts

12 March 1993

The WGBH Educational Foundation ("WGBH") renews its support for the above-captioned Notice of Proposed Rule Making ("Notice") to authorize use of line 21, field two, for closed captioning. As the world's oldest provider of television captioning, WGBH well understands the importance of increasing the data bandwidth available to this valuable service. Accordingly, we are pleased to present these reply comments.

1. Text Mode should not be a protected service on field two.

WGBH believes that no modifications to the Commission's Notice are warranted. In particular, there is no need to place any restrictions upon broadcasters' use of the field-two bandwidth remaining after the needs of captioning have been met. In its comments, the National Captioning Institute ("NCI") suggests that Text Mode services should have priority over Extended Data Services ("EDS") on field two, and this suggestion is apparently echoed in the comments of the Association for Maximum Service Television, Inc. The Commission has already disposed of this issue in its Report and Order adopted 12 April 1991 (at ¶ 38), wherein it ruled that inclusion of Text Mode capability in receivers will be at the individual manufacturer's option. It would be inconsistent for the Commission now to rule that Text Mode constitutes a protected service.

NCI's suggestion, if implemented, would enable a Text Mode provider upstream of the broadcaster to usurp all available bandwidth and, in effect, shut down the

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broadcaster's EDS. If EDS becomes vulnerable to such a capricious shutdown, viewers (and thus broadcasters) will lose interest in the service, and manufacturers will then have little incentive to provide field-two capability. NCI's plan, in short, could result in the loss of field two, not only for EDS users but for Text Mode services and captioning as well. The Commission's stated intention to double the bandwidth available to captioning would then have been thwarted.

We invite the Commission's attention to the work being done by the Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG") to produce recommended practices for field-two services. The major caption service providers (including NCI) have been participating closely in this process. Guidelines for the use of field two have achieved broad industry support; these guidelines not only provide for the absolute priority of the captioning service but also allocate sufficient bandwidth to other users, including providers of both Text Mode and EDS. We assure the Commission that it can rely upon EIA/CEG to continue and complete this public-spirited process, and that the outcome will be a set of guidelines which provide fair access to all users.

NCI suggests that some Text Mode services might be program related (such as instructional materials) and should thus have protected status. While program-related text is a splendid idea, we know of no implementation of it at this time. All Text Mode services now on the air contain information completely unrelated to the underlying program. Moreover, no method has been defined which would permit a field-two EDS inserter to determine which Text Mode services are program related and which are not. If NCI or another party were to begin producing program-related Text Mode services, there most likely is sufficient unused bandwidth on field one to accommodate them. There is simply no need to lay claim upon newly-opened bandwidth for services which are only hypothetical anyway.

The Commission has wisely refrained from regulating these issues any further than required to satisfy the laudable goals of the TV Decoder Circuitry Act. We urge the Commission to continue allowing broadcasters the maximum possible latitude in deciding how to use the data-carrying resources of line 21. Everyone agrees that captioning should have priority in both fields. Beyond that, it would be a mistake for the Commission to usurp decisions which are properly the domain of broadcasters.

2. Broadcasters should be given the opportunity to develop good practice in the handling of caption data.

In their comments, NCI raises the important issue of caption-data synchronization. A current-generation Text Mode inserter introduces a one-frame delay in caption data. We understand that a typical EDS inserter for use on field two will likely introduce a two-frame delay. Worse, certain video-compression systems can introduce a delay of up to four frames. As such delays accumulate in the transmission chain, a situation could arise wherein the caption data are out of sync with the program by a quarter of a second or more. Viewers expect the audio to be in sync with the video, and they should expect the same of the captions.

Many (but by no means all) caption service providers carefully synchronize captions to the video to assure the highest aesthetic quality as well as clarity of meaning. Data delays occasioned by Text Mode and EDS inserters and video compression systems must be kept to an absolute minimum if this high caption quality is to be preserved. We pledge to work closely with broadcasters and equipment providers to this end, and we are hopeful that problems can be avoided without any need for the Commission to intervene.

We suggest that NCI's concerns be carefully noted by all parties. But we also suggest that the broadcast industry be given a reasonable opportunity to resolve this issue outside of the regulatory environment. As the industry comes to regard captioning as a vital part of the broadcast signal, these sorts of problems (including the loss and/or garbling of caption data) will most likely be resolved as a matter of good broadcasting practice. If not, WGBH will be first in line to petition the Commission for a new Rule Making in this matter.

3. New definitions are not required.

Upon reviewing comments filed in response to this Notice, WGBH continues to find no reason to change existing definitions. NCI's suggestion that Text Mode be defined as information to be displayed "in real time" should be rejected. Throughout the history of closed captioning, Text Mode services have always been delayed as necessary to allow captioning to be displayed in a timely manner. In the case of some agriculture-related Text Mode services, the data are designed to be stored upon receipt for use hours later. There is nothing "real time" about Text Mode, nor has there ever been.

4. Any interactions between line 21 and line 22 have been or are being resolved.

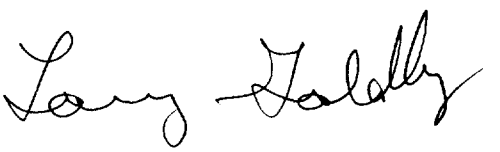
The comments of the A.C. Nielsen Company are authoritative in this regard. The Nielsen Company has offered to all receiver manufacturers its assistance in resolving any difficulties in differentiating between the data streams on lines 21 and 22.

5. Slight alterations to the code table used on field two have been accepted by all parties.

In its comments, EEG Enterprises notes that some early decoder designs did not anticipate that the captioning code table would be altered for use on field two. This is unfortunately true, and it may penalize companies whose designs were substantially complete when EIA/CEG decided to make these alterations. But the alterations will have the salutary long-term effect of enabling decoders to detect field reversal, an all-too-common problem in television broadcasting. While the widespread availability of field-two capability may be slightly delayed as a result, it will have been worth the wait.

In light of the above, WGBH renews its support for the earliest possible adoption of the Proposed Rule Making.

Respectfully submitted,



Larry Goldberg, Director
Media Access Research and Development Office
WGBH Educational Foundation
125 Western Avenue
Boston, Massachusetts 02134
617-492-2777

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