Commission's recently adopted DTV digital broadcast standard. Advancements in digital technology are progressing rapidly and competition in the video programming market has dramatically intensified. "Competitors in the video programming market, such as DBS, cable, and wireless cable, have aggressively pursued the potential of digital technology."[98] Because the decoder interface is not designed to efficiently communicate with these services, it threatens the Commission's goal "to ensure robust competition in the video market that will bring more choices at less cost to American consumers."[99]

While the Commission, through its DTV standard, seeks to facilitate the "digital revolution," the decoder interface would require consumers to purchase new analog televisions and VCRs. These investments will have to be made on the heels of the Commission's recent adoption of a transmission standard for digital television. Thus, these new analog IS-105 compatible consumer products will quickly become obsolete with the introduction of digital televisions in the next few years. As the Washington Post recently reported regarding the new DTV decision, "[a]bout all that is certain is that the 250 million televisions now in use nationwide won't be up to the job. They will have to be replaced or outfitted with special converter boxes that industry executives said will cost from $50 to $200."[100]

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[98] *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, Fifth Report and Order, FCC 96-207, MM Docket No. 87-268 (released April 21, 1997) at ¶ 13/89 ("Fifth Report and Order")

[99] Fifth Report and Order at ¶ 5.

[100] *TV's Wave of the Future Takes On A Digital Look*, The Washington Post, April 28, 1997. Moreover, the FCC recognizes that the "viability of digital broadcast television will require millions of Americans to purchase digital television equipment." Fifth Report and Order at ¶ 3.

Thus, within the next eight years consumers will have to invest in digital CPE, *i.e.*, either receivers, descrambling boxes, TVs and/or VCRs. Given the relatively long life cycle for televisions and VCRs, many of which remain in use for approximately ten years or more, the decoder interface would cause a dead weight welfare loss for American consumers. Requiring consumers to invest in two generations of CPE—analog compatible with the decoder interface and then digital—within such a short time span will lead to massive wasted investment that would clearly threaten the transition to digital television and digital scrambiling.

V. THE COMMISSION SHOULD MOVE FORWARD AGGRESSIVELY INTO THE DIGITAL ERA BY LIMITING ITS COMMERCIAL AVAILABILITY REGULATIONS TO DIGITAL CPE

The Commission has commenced and should continue to pursue a "full steam ahead" approach towards digital technology. The recently adopted DTV standard evidences the Commission's commitment to such a strategy. The Commission's DTV rules are designed to ensure a "smooth transition to digital television for broadcasters and viewers."[101] Explaining the virtues of this approach, the Commission found that "[d]igital technology holds great promise. It allows delivery of brilliant, high-definition, multiple digital-quality programs, and ancillary and supplementary services such as data transfer."[102] Indeed, the Commission's overriding goal in the DTV proceeding was to encourage "an expeditious and orderly transition to digital

[101] Fifth Report and Order at ¶ 2.
[102] *Id.* at ¶ 3.

technology that will allow the public to receive the benefits of digital television while taking account of consumer investment in NTSC television sets."[103]

Ironically, these same pro-digital sentiments were echoed by the primary proponents of the decoder interface. The consumer electronics industry, the principal proponent of the analog decoder interface, has also been a strong advocate for the immediate embrace of digital technology. For example, Zenith stated its support for expeditious adoption of regulations supporting DTV "so that the implementation of digital broadcast television can proceed in earnest."[104] In addition, Phillips Electronics urged the Commission to ensure "a successful and speedy transition to DTV."[105] EIA itself was a proponent of "the most rapid possible transition to digital television."[106] The Commission should hold these parties to their "digital commitment" in this proceeding.

In a digital environment, an interface standard is not necessary to ensure the commercial availability of navigation devices. Rather, existing market-based solutions are available to assist the Commission in ensuring the commercial availability of navigation devices. For example, if the Commission determines that the best approach is to unbundle security and feature access functions, security functions can be provided through an external security module. In the digital domain, all security-related and descrambling functions can be extracted from the set-top box and encoded on a software storage medium, such as a "SmartCard" or PC Card (formerly known as

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[103] *Id.* at ¶ 4.
[104] Zenith Reply Comments, MM Docket No. 87-268, at 1 (January 24, 1997).
[105] Phillips Reply Comments, MM Docket No. 87-268, at 1 (January 24, 1997).
[106] EIA Comments, MM Docket No. 87-268, at 2 (December 6, 1996).

"PCMCIA").[107] The feature access functions can remain in the navigation device. Under this architecture, the cable system operator is able to maintain exclusive control over signal security (the SmartCard) and unaffiliated vendors can develop and market the navigation device housing the feature access functions. This architecture would permit the Commission to rely on its "preferred option" of allowing the marketplace and private standard-setting bodies—such as ANSI—"the task of developing the necessary interface standards." [108] In this way, the Commission need only adopt a conduct or performance rule requiring commercial availability of navigation devices.

In fact, digital architecture provides far greater signal protection than the converter box, because encryption can be tailored and upgraded without requiring a new box. If the signal is pirated, the cable system operator merely has to replace the SmartCard or PC Card. The navigation device is not compromised and can remain intact. Circuit City also recognizes that "[s]ecurity against theft of signal is actually improved, in this implementation, compared to security fixed in the box."[109]

This technology is already being used to thwart piracy of satellite signals. For example, the *de facto* standard for consumer descramblers in satellite systems is General Instrument's VIDEOCIPHER. The latest generation of this descrambling system VC-II-RS (renewable security) includes a slot for a "SmartCard," as do the equipment systems sold commercially for DirecTV, USSB and other DBS programming services. If hackers

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[107] A SmartCard is approximately the same size as a credit card with an embedded silicon chip. SmartCards are used in different electronic media such as "palmtop" and "penpad" computers, pocket communicators and Personal Digital Assistants. PC Cards, which essentially are small computer hard disks, are often used in laptop computers for data storage, modem communications and the like.

[108] *See* NPRM at ¶ 73.

[109] Circuit City Comments, CS Docket No. 95-184 at 9.

break the secured signal stream, the MVPD can distribute upgraded SmartCards with newly secured and unpenetrated signals.

In this environment, the FCC need only require use of generally accepted industry standards for the physical interface between the security module and the navigation device. This solution will allow for navigation devices to be made commercially available by vendors unaffiliated with cable system operators. The unaffiliated vendor can produce the descrambling box (including all the feature access functions) and the cable system operator maintains control over the "SmartCard" or other software module to ensure the integrity of their signal streams. That this approach to commercial availability is consistent with the congressional scheme is demonstrated by the fact that to illustrate their legislative arguments, proponents of Section 629 prominently displayed and relied on SmartCards as "props" during the legislative debate on the these very provisions.

This solution also has the elegance of consistency with the Commission's 1994 First Report and Order in the cable equipment compatibility proceeding, in which it declined to adopt digital standards for cable. The Commission appreciated the "need to proceed with caution in this area and to ensure that our processes and regulations do not unnecessarily impair the development of new cable technologies."[110] Citing the complexity of the technical issues at hand and the rapid changes involved in digital technology, the Commission rejected digital cable compatibility standards.[111] By

[110] *Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992*, First Report and Order, ET Docket No. 93-7, 9 FCC Rcd No. 10, ¶ 143 (released May 4, 1994) ("First Report and Order").

[111] First Report and Order at ¶ 144.

confining its commercial availability inquiry to digital CPE, the Commission can therefore harmonize its decisions in these two rulemakings.

In light of the Commission's commitment to a rapid transition to a digital television environment, however, adoption of the decoder interface at this time would be a clear technological step backward. All of the Commission's recent actions send definite signals of embracing the move to digital technology. The IS-105 standard would only slow this growth. The decoder interface was designed under the auspices of solving certain feature problems outlined in the 1992 Cable Act. However, even in the analog environment, market and technological developments have surpassed the IS-105 standard. Products (like "VCR Plus+") are now available that enable consumers to use the picture-in-picture and tape and record functions of their TVs with conventional analog set-top boxes, without replacing their TVs and VCRs as the decoder interface would require. As noted above, manufacturers of cable set-top boxes have since 1995 made arrangements for third-party licensing of their descrambling technology. In addition, other solutions for broadband analog descrambling are now available for cable systems, from several manufacturers, that meet all the requirements of the 1992 Cable Act without requiring any navigation device or set-top box. Thus, the decoder interface is a response to problem that no longer exists.

CONCLUSION

Echelon urges the Commission to refrain from imposing any technical standards for commercial availability of navigation devices. The marketplace has already developed digital products and standards that will MVPDs to protect their signal integrity while permitting competing vendors to manufacture and sell navigation devices at

retail. Any interface standards must come from the marketplace, which is better equipped to keep pace with the rapidly evolving technology and will encourage, rather than stifle, innovation and product development. Government interference at this point will only disrupt and retard the Commission's sound policy to encourage the development and investment in digital video technology.

Respectfully submitted,

By: _____

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Dated: May 16, 1997

ATTACHMENT A

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Receipt

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JUL 25 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

July 25, 1996

VIA MESSENGER

William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: ET Docket No. 93-7— Joint Petition for Further Reconsideration by Apple Computer, Inc., Detroit Edison Co., Echelon Corporation, Global Village Communication, Inc., Kleiner Perkins Caufield & Byers, Novell, Inc., Stratacom, Inc., and Sun Microsytems, Inc.

Dear Mr. Caton:

Echelon Corporation ("Echelon"), one of the parties to the May 28, 1996 Joint Petition for Further Reconsideration ("Joint Petition") in the captioned proceeding, is filing this *ex parte* submission in order to correct the record in light of the misinformation supplied by several parties in opposition to the Joint Petition.

The Consumer Electronics Manufacturers Association ("CEMA"), the National Cable Television Association ("NCTA") and Circuit City Stores, Inc. ("Circuit City"), each of which filed Oppositions to the Joint Petition on July 5, 1996, have failed to inform the Commission of certain key facts, misstated others and fashioned contrived legal positions in order to avoid Commission or public scrutiny of their actions in implementing cable television equipment compatibility. Contrary to their misleading presentations and tortured interpretation of the Telecommunications Act of 1996, both the facts and law are clear on this matter. The Commission has an obligation to rework its cable compatibility standards under the far narrower parameters of the 1996 Act. The standard supported by the opponents cannot satisfy the criteria of the 1996 Act, and therefore cannot be adopted by the Commission.

Accordingly, **the Commission should immediately issue a Public Notice** (a) clarifying that it has not adopted the so-called "Decoder Interface" standard and that the provisions of Section 301(f) of the 1996 Act will be applied to any standard submitted by the Cable Consumer Electronics Compatibility Advisory Group ("C3AG"), and (b) soliciting comment from all potentially affected industries on the appropriate means of achieving cable equipment compatibility within the constraints of Section 301(f) of the 1996 Act

1. Identity of the Joint Petitioners

As an initial matter, both CEMA and NCTA refer to the Joint Petition as the "Echelon" petition. Echelon strongly objects to this mischaracterication. The fact is that **Echelon was only one of eight parties to the Joint Petition** (and similarly is just one of 23 parties to the Joint

Reply, filed July 18), which include some of this nation's largest and most well-known computer, energy and high-technology companies.[1] Furthermore, CEMA's opposition was filed not by the association itself, but rather by "[t]he television and video cassette recorder manufacturers" members of CEMA (*see* CEMA Opposition at 1), whose identities are not disclosed. As there are only six significant manufacturers of TVs and VCRs worldwide today, it is clear that CEMA's description of the Joint Petition was intended to convey the misimpression that an industry association opposes the claims of a single company, when in fact the opposite is far closer to the truth.

2. Status of the "Decoder Interface"

The Oppositions all claim that the Joint Petition is "premature" because the so-called "Decoder Interface" standard for cable equipment compatibility is not yet finalized. CEMA Opposition at ii; NCTA Opposition at 5-6; Circuit City Opposition at 19, 22. This is inaccurate. The Decoder Interface standard, known as "IS-105," has existed for some time as a set of two related standards documents (IS-105.1 and IS-105.2). The first of these, covering physical architecture and components, has been completed and balloted (*i.e.,* distributed for approval) to the members of the CEMA/NCTA Joint Engineering Committee ("JEC"); the second, covering communications specifications, will be balloted after testing is completed in Fall 1996. To say that "a significant amount of work needs to be done," CEMA Opposition at 4, and that debate on the Decoder Interface is "impossible . . . in the absence of a concrete standard," *id.,* is false. Standards bodies are continually revising and amending standards, so that awaiting "finalization" of a standard is impractical and unrealistic. Moreover, if the Decoder Interface is sufficiently complete that it can be tested by the JEC, then it is also complete enough for FCC evaluation of the legality of its scope and functionality. In short, **there is a concrete IS-105 specification that the Commission can and should examine now in order to assure that the JEC, and its parent organization, C3AG, are proceeding in compliance with the restrictions imposed by Section 301(f) of the Telecommunications Act of 1996.**

Indeed, the Commission's representations to Congress require just this sort of FCC oversight of the C3AG process. In responding to questions posed by the House Telecommunications Subcommittee this Spring, Chairman Hundt assured Congress that "[w]e are working with the developers of the Decoder Interface to ensure that any further technical regulations we may adopt will fully comply with Section 301(f) of the 1996 Act." *Responses to Questions of the House Subcommittee on Telecommunications and Finance on Reform of the Federal Communications Commission,* March 27-28, 1996, at 7-8. Yet C3AG has received no instructions from the FCC in ET Docket No. 93-7 and the Commission has not asked the C3AG to report either on its progress on the Decoder Interface or what steps the C3AG believes are necessary to comply

[1] The parties to the Joint Petition were: Apple Computer, Inc., Detroit Edison Company, Echelon Corporation, Global Village Communication, Inc., Kleiner Perkins Caufield & Byers, Novell, Inc., Stratacom, Inc., and Sun Microsystems, Inc. Stratacom has recently been acquired by Cisco Systems, Inc., which was a party to the Joint Reply. Other additional parties joining the Joint Reply were: American Innovations, Ltd., Central & South West Communications, Inc., Enernet Corporation, EUA Cogenix Corp. d/b/a EUA Day, Intel Corporation, IntelliNet, Inc., Leviton Manufacturing Co., Inc., LightMedia Interactive Corp., Netscape Communications Corp., Pensar Corporation, Silverthorn Group, Inc., Solution Enterprises, Inc., Venrock Associates, Wisconsin Public Service Corp., and WISVEST Corporation.

with Section 301(f). **The FCC's inaction directly contradicts its earlier assurances to Congress.**

CEMA and NCTA have been especially negligent in claiming that consideration of the effect of Section 301(f) on the scope and functionality of the Decoder Interface is "premature," because the JEC has been clamoring for just such a determination. Attached as Exhibit A is March 27, 1996 memo from the co-chairs of the JEC asking for "immediate guidance" from the C3AG on "[w]hether the scope of the specification is unnecessarily complex for the required functionality . . . in light of the Telecommunications Act of 1996." An identical request was made by the JEC co-chairs on June 24, 1996 (attached as Exhibit B). C3AG has refused to answer these inquiries and has not responded to the JEC memoranda. **Thus, CEMA and NCTA, whose leading members co-chair the C3AG, are asking that the Commission not decide the same issue its own JEC agrees with the Joint Petition needs to be "immediately" addressed and resolved.**

As a legal matter, the Oppositions are sadly mistaken in claiming that consideration of the Decoder Interface is premature—

- First, the Commission addressed the scope and functionality of the Decoder Interface in the 1993 NPRM, 1994 First Report and Order and April 1996 Memorandum Opinion and Order in this proceeding. All of these decisions included determinations of what a standard should accomplish and how it should relate to non-cable services, such as DBS and MMDS. There is no more reason now to hold off deciding on the lawful scope of a Commission standard than there was previously in this docket.

- Second, the Conference Committee report on Section 301(f) of the 1996 Act directed the Commission to "promptly complete its pending rulemaking on cable equipment compatibility." *Joint Explanatory Statement of the Committee on Conference,* H. Rep. No. 104-458, 104th Cong., 2d Sess. 170-71 (1996)("Conference Report"). **This proceeding cannot be promptly completed if the Commission permits the C3AG to continue to ignore requests from its own standards personnel for guidance on how to implement Section 301(f) and, simultaneously, oppose efforts to have the FCC exercise authority over the cable compatibility standards process.**

- Third, the original 18-month deadline for Commission completion of cable compatibility under Section 17 of the 1992 Cable Act (Section 624A of the Communications Act) expired in May 1994; in its May 1994 First Report and Order the Commission gave the C3AG 90 days to submit a final Decoder Interface standard. 9 FCC Rcd 1981 ¶ 3 (1994). Unfortunately, the Commission did not enforce this time deadline, nor did it take action when the C3AG committed, but failed, to "report to the FCC on the status" of its standards activities by December 31, 1994. Cable-Consumer Electronics Compatibility Advisory Group Proposal for the Decoder Interface Standard, ET Docket No. 93-7, at 1 (filed Aug. 15, 1994).

Thus, there is **ample precedent and legal authority for prompt Commission consideration of the legality and scope of the Decoder Interface**, and none at all for additional Commission delay in this matter. In fact, Commission action on this matter is long overdue.

3. Legality of the "Decoder Interface"

CEMA and NCTA claim that the Joint Petition "failed to explain why the Decoder Interface is inconsistent with the requirements of" Section 301(f). CEMA Opposition at ii; NCTA Opposition at 9. As noted in the Joint Reply, that is not and cannot be a condition precedent to the relief requested in the Joint Petition—Commission reconsideration of the scope and functionality of the Decoder Interface and a public notice-and-comment proceeding whereby all potentially affected industries can participate in development of a neutral cable compatibility standard.

Nonetheless, Echelon strongly objects to the implication of CEMA and NCTA that there has been a failure of proof on the legality of the Decoder Interface. **Echelon has submitted numerous *ex parte* filings in this docket, covering nearly two years, which provide details on the many ways in which the Decoder Interface exceeds even the original scope of Commission authority under Section 624A.** In the inside wiring proceeding, CSD Docket No. 95-184, Echelon also submitted reply comments on April 17, 1996, that address in detail the reasons why the Decoder Interface is unlawful under Section 301(f).

The Decoder Interface, as described in the Commission's First Report and Order and the April 1996 *Reconsideration Order,* and as recently balloted by the JEC, violates Section 301(f) in a number of ways. These include:

- The Decoder Interface utilizes a protocol for communication between the descrambling modules and TV/VCR, known as "CEBus," or Consumer Electronic Bus. **Inclusion of the CEBus protocol—only one of many technologies competing in the new home automation marketplace—violates Section 301(f) because it will "affect" home automation products and because the Commission must "maximize open competition in the market for all . . . . protocols and other product and service options" unrelated to cable descrambling.**[2]

- The Decoder Interface has been designed to meet the Commission's earlier suggestion that a cable compatibility standard should be forward-compatible with future developments, such as near video-on-demand, and with non-cable technologies such as DBS and wireless cable. *See* 9 FCC Rcd. 1989 ¶ 42. This contravenes the requirements of Section 624A(c)(2)(B), as amended by

[2] The is no question that the Decoder Interface incorporates CEBus (IS-60) or that home automation communications are unrelated to cable descrambling. As CEMA's predecessor reported to the Commission in 1994, "[t]he Decoder Interface message protocol is defined by EIA IS-60. IS-60 is a home automation standard developed over a period of eight years and designed to support the present and future needs of a wide spectrum of consumer products." Proposal of the Consumer Electronics Group of the Electronics Industries Association for a Decoder Interface Standard, ET Docket No. 93-7, at 8 (filed Aug. 15, 1994).

Section 301(f), that any Commission standard "not affect" functions other than the specific "watch and record" and related incompatibilities on which FCC action is authorized. **Thus, because its scope reflects a design to encompass all descrambling applications for non-cable media, the Decoder Interface is inconsistent with Section 301(f).**

- The Decoder Interface standard restructures the interface between the cable converter and the TV in order to eliminate cable set-top boxes, incorporating much of that functionality (including the tuner) in the television, and replacing it with a so-called "set back" module. **There is nothing in Section 624A that authorizes the Commission to adopt a compatibility standard that eliminates the set-top box, and doing so would exceed Section 301(f)'s finding that the FCC should achieve compatibility with "narrow technical standards."** Indeed, because the Decoder Interface will require two descrambling set-back modules for a consumer to achieve the compatibility directed by the 1992 Cable Act, the only rationale for the set-back architecture itself is the "efficiency" of having the descrambler share the TV's tuner. While product design efficiency is a key consideration for manufacturers and the marketplace, it is not a valid consideration for Commission action under Section 301(f).

- The Decoder Interface utilizes a new 26-pin connector for connection of TVs, VCRs, descrambling modules and so-called "feature modules" (described in IS-105 as providing functionalities other than descrambling). The 26-pin IS-105 connector violates Section 301(f) because it would, by definition, affect "features and product options [of] telecommunications interface equipment" other than cable converters. Under the amended Section 624A, the Commission does not have the power to require that consumer electronics equipment, or cable converters, utilize a mandatory connector unless that is a narrow technical standard and is required to achieve cable equipment compatibility. The record in this proceeding is clear that there are far narrower and practical alternatives to the physical interface that fully meet the requirements of cable equipment compatibility under Section 624A. **Because the 26-pin Decoder Interface connector supports functionalities completely unrelated to cable descrambling and is not necessary to achieve equipment compatibility, it cannot be adopted by the Commission.**

- Many of the technical features of the Decoder Interface standard—including data transmission rate, inter-device communications, and others—are inconsistent with the needs of other industries that will play a major role in the emerging video marketplace. These include the computer industry, where "PC-TV" is rapidly becoming a realistic option for consumers. **The Decoder Interface's discriminatory treatment of computer video functionalities makes the TV a bottleneck "gateway" to the consumer, thus contravening**

Section 301(f)'s mandate that the Commission "not affect" unrelated markets such as "computer network services."[3]

All of these are areas in which the Decoder Interface standard has not changed materially since initially submitted by the C3AG in August 1994, and are substantiated by Echelon's prior filings in this docket. They are also the very features of the Decoder Interface that Rep. Anna Eshoo, author of Section 301(f), indicated during the Congressional debate on the Telecommunications Act of 1996 were the reasons for amendment of the Commission's cable equipment compatibility authority:

> [T]he agency has taken our 1992 Cable Act—the source of the Commission's power to assure compatibility between televisions, VCR's, and cable systems—and gone far beyond what appropriate public policy requires or its statutory authority permits. The Commission's 1994 proposal for a decoder interface would make the television set the gateway to the burgeoning information superhighway, relegating the computer, and all other home appliances, to second-tier status. It also would include one specific home automation protocol—called CEBus, or Consumer Electronic BUS—as the mechanism by which all cable-ready TV's and set-top boxes would communicate. My amendment prevents these consequences.
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> * * *
>
> Under Section 301(f), the FCC is required to maximize competition and private standards, not the role of Government regulation. It is required to let the market resolve standards issues for emerging technologies—like satellite broadcasting, video-on-demand and home automation—and to keep its cable compatibility standards narrowly tailored to solve only the specific problems the 1992 Act asked the FCC to handle. **The decoder interface, with its artificial bottleneck for the television and its unnecessary impact on home automation, is far from the only approach to solving those limited problems. The Commission must rework its compatibility proposal.** It should also seek input from the computer, home automation and other potentially affected industries, not just the cable television and consumer electronics industries.

142 Cong. Rec. H1160 (daily ed. Feb. 1, 1996)(emphasis supplied).

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[3] As Bell Atlantic advised the Commission more than a year ago, the Decoder Interface artificially positions the TV set as the "gatekeeper" to the integrated, broadband "information superhighway" of the future. Bell Atlantic Ex Parte Presentation, ET Docket No. 93-7, Slide 7 (May 31, 1995). The Commission has also recognized this problem. "[W]e also appreciate that [the Decoder Interface] could constitute a gateway that constrains the development of new technologies. Moreover, the potential for such a constraining effect is substantially greater in the current period, where there is rapid development of new communications technologies and services that are distinctly different from those available in the past." *First Report and Order*, 9 FCC Rcd. at 1987.

4. Interpretation of the Telecommunications Act of 1996

All of the oppositions take the position that the Commission is empowered under the 1996 Act to adopt the Decoder Interface. CEMA and Circuit City also argue that the Commission can ignore Section 301(f) by adopting the Decoder Interface pursuant to the provisions of Section 304, which requires the Commission to ensure the "commercial availability" of set-top boxes and other "navigation devices." These strained constructions of the 1996 Act are without merit.

CEMA claims that Section 301(f) "does not 'require' the Commission to adopt 'narrow technical standards.'" CEMA Opposition at 6. Yet Section 624(a)(4), added by Section 301(f), plainly represents a Congressional mandate that the Commission do just that. First, contrary to CEMA's suggestion, *id.* at 6, the Commission is not at liberty to disregard the express finding of Congress that cable compatibility can be achieved with narrow technical standards. Second, **as the House Commerce Committee report stated, Section 301(f) "directs the Commission to set only minimal standards to assure compatibility."** H. Rep. No. 104-204, 104th Cong., 1st Sess. 111 (1995). Congress plainly intended, by adding the finding in Section 624(a)(4), that the Commission's authority for cable equipment compatibility be limited to the adoption of only narrow technical standards.

CEMA also claims that the remarks of Rep. Eshoo should be disregarded because they were not made on the House floor and because floor statements "should be accorded very little weight." CEMA Opposition at 12 n.44. Even if CEMA were correct that the Commission (or the courts) can disregard the intent of the sponsor of a specific amendment to an ongoing FCC rulemaking—which is an extraordinary congressional action—Rep. Eshoo's remarks were echoed on the Senate floor by Sens. Ford. (142 Cong. Rec. S704-705 (daily ed. Feb. 1, 1996)) and Feinstein (142 Cong. Rec. S715 (daily ed. Feb. 1, 1996). Furthermore, the Conference Committee report cautions, in language strikingly similar to Rep. Eshoo's remarks, that Section 301(f) is designed to avoid "the risk that premature or overbroad Government standards may interfere in the market-driven process of standardization in technology intensive markets." Conference Report at 170-71. Therefore, **in applying Section 301(f), the Commission must be guided by the author's intention, corroborated by the Conference Committe report, to limit the scope of the Commission's cable compatibility rules in order to preserve competition and the "market-driven process of standardization."**

Both CEMA and NCTA argue that Section 301(f) is not a barrier to adoption of the Decoder Interface because the standard's separation of descrambling from "non-security" functions complies with Section 301(f)'s commands. CEMA Opposition at 7-8; NCTA Opposition at 8. This argument is completely disingenuous. The Decoder Interface is not designed to maximize marketplace competition for equipment—and the "market-driven process of standardization"—but rather to enforce a single standard that all consumer electronics equipment will have to meet to be labeled "cable ready." As just one example, while the standard establishes a "set-back" architecture, it precludes a market-based test for whether consumers prefer a set-back or set-top approach to cable compatible products. Furthermore, because IS-105 defines the interface for non-security services, it limits technological rivalry for the interface itself and constrains competition for non-descrambling services to those that are compatible with the IS-105 architecture and functionality. To truly "maximize competition" for all product features unrelated to cable descrambling, the Commission must limit any standard to resolving only the specific incompatibilities identified in Section 624(c)(1)(B). **None of the opponents**

has claimed, or can legitimately argue, that the Decoder Interface standard is limited only to the specific Section 624(c)(1)(B) cable equipment compatibility problems. Without such a showing, the Decoder Interface fails to meet Section 301(f)'s requirements.

CEMA's new claims in this regard contradict its vehement opposition to Section 301(f) during the legislative process. In fact, CEMA was a vocal opponent of Section 301(f), complaining in the *Washington Post* that the provision "stops the FCC from creating a free and open compatibility between TV sets and cable."[4] CEMA's counsel opined in *Legal Times* that "because the language of [Section 301(f)] is vague at best, it is impossible to predict with precision what effect it would have."[5] And as CEMA itself admits in the April/May 1996 edition of *CE Network News,* its monthly publication, because Section 301(f) "remains intact as passed by the House Commerce Committee . . . **[t]he provision has a potentially chilling—if not deadly—effect on the current Decoder Interface negotiations to allow for compatibility among TVs, VCRs, and cable systems."**[6]

Both CEMA and Circuit City argue that the Commission can adopt the Decoder Interface pursuant to Section 304 of the Act, citing language in the House Commerce Committee report which states that Section 304 is not "limit[ed] or circumscribe[d]" by Section 301(f). CEMA Opposition at 12; Circuit City Opposition 19. These arguments are ill-conceived, for several reasons.

First, both CEMA and Circuit City presuppose that Section 304 requires the Commission to set technical standards. Yet there is no express standards-setting authority in Section 304. As Chairman Hundt reassured the House Commerce Committee last Spring in connection with commercial availability:

> [N]o decisions have been made with respect to whether any governmental standards are necessary, much less what type of standards may be required. In this regard, the Commission is fully aware of the amendments to Section 624A of the Communications Act, addressing cable compatibility, and the directive therein that the objectives of Section 624A be "assured with narrow technical standards that mandate a minimum degree of common design and operation."

Responses to Questions of the House Subcommittee on Telecommunications and Finance on Reform of the Federal Communications Commission, March 27-28, 1996, at 7.

Second, neither CEMA nor Circuit City can argue that Commission adoption of the Decoder Interface is required for assuring commercial availability of set-top boxes. Indeed, CEMA concedes that the Decoder Interface would, at most, "facilitate achievement of this goal," CEMA Opposition at 11, and proposed a far narrower "descrambling only" interface in February

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[4] *See* Exhibit C.

[5] Matthew J. McCoy, "Getting Cable-Ready: Telecom Bills Would Stop FCC Standard That Consumers Need," *Legal Times,* Nov. 27, 1995, at 23.

[6] *See* Exhibit D(emphasis supplied).

1995.[7] Circuit City, for its part, affirmatively argues that a variety of different approaches are possible for achieving commercial availability, including "a version of the full draft IS-105 standard, a 'descrambler-only' subset of IS-105, or some new 'descrambler-only' interface." Circuit City Opposition at iv. Yet Circuit City never explains why an FCC mandate is necessary, over and above the voluntary consensus of the industries comprising the JEC. The fact is, moreover, that as Circuit City concedes, a standard limited to descrambling (and thus consistent with Section 301(f)) is a practical way of implementing Section 304.

Third, the Decoder Interface has been proposed to the Commission by the C3AG—as part of the Commission's cable compatibility inquiry in this docket. It is folly to pretend that a standard proposed for one purpose can be adopted by the Commission for a purportedly different purpose in order to avoid congressional limitations on an agency's power. And there is simply no precedent in proper statutory interpretation to conclude that one section of a statute, which dictates a change in an ongoing FCC proceeding, can be ignored by the agency by adopting the same proposed regulations under the authority of another section of the same law. This sort of "old wine in new bottles" improperly exalts form over substance.

In attempting to use Section 304 as a "backdoor" to avoid the impact of Section 301(f) on the Decoder Interface standard, the opponents ultimately ask the FCC to frustrate the intent of Congress. The Act's provisions on "commercial availability" were defeated overwhelmingly in the Senate, where Sens. Pressler, Ford and other all spoke out against the possibility of Commission-mandated technical standards for cable set-top boxes. 141 Cong. Rec. S7993, S7997 (remarks of Sen. Pressler), S7995 (remarks of Sen. Helms), S8000 (remarks of Sen. Ford) (daily ed. June 8, 1995). The House bill's provisions were accepted by the Conference Committee only with significant modifications, which do not include any express language overriding Section 301(f), and without any Conference Committee endorsement of the House Report language so heavily relied upon by Circuit City and CEMA. Thus, **there is a clear congressional intent to require a narrowed scope for any Commission cable compatibility regulations, and absolutely none at all indicating that the Conference Committee anticipated undoing in Section 304 what it had done in Section 301(f).**

Indeed, the Conference Committee report warns specifically that "[t]he conferees intend that the Commission avoid actions which could have the effect of freezing or chilling the development of new technologies and services." Conference Report at 181. This is the same policy articulated by the Conference Committee in adopting Section 301(f). This link between the two provisions—demonstrating that Congress viewed them as complementary, not conflicting—is made clear in the following colloquy from the Senate debate on the 1996 Act:[8]

> Mr. FAIRCLOTH. The competitive availability of navigation devices provision, section 304, instructs the FCC to consult with appropriate voluntary industry standards setting organizations for the purpose of promulgating a regulation. Given that the FCC is not a standards setting organization, do you agree that this legislation does not authorize the FCC to set a standard for interactive video equipment?

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[7] *See* Statement of the Consumer Electronics Group of the Electronics Industries Association Regarding the Decoder Interface, ET Docket No. 93-7 (filed Feb. 3, 1995).

[8] 142 Cong. Rec. S700 (daily ed. Feb. 1, 1996).

> Mr. BURNS. I agree. Moreover, FCC involvement in the emerging digital market could have the effect of freezing or chilling that market. If private groups are able to develop sufficient standards on their own, there is no need to the FCC to intervene. One such example of this is the so-called Eshoo amendment, which leaves the development of "features, functions, protocols, and other product and service options" for analog cable equipment to the private sector.

In other words, both Section 304 and Section 301(f) embody the same preference for voluntary, private industry standards, and both seek to prevent premature or overbroad government standards from chilling technological development in the rapidly evolving communications equipment marketplace. The opponents have not met, and cannot meet, their burden of showing that in reconciling the two bills, the Conference Committee silently authorized the Commission to do indirectly in Section 304 what it is precluded from doing under Section 301(f).

Finally, while all of the oppositions contend that the Commission has the power to adopt the Decoder Interface, none of them has argued that it is good policy for the Commission to do so. In fact, as NCTA has made clear in its opposition to Commission adoption of a standard for advanced television ("ATV"), the policies supporting Section 301(f) are necessary and appropriate to avoid impeding competition and technological innovation.

> [A] government-mandated standard, although appealing in a short-term way, is the wrong way to go. . . . **While a government-imposed, well-defined standard may guarantee certainty, it will freeze technology in a rapidly changing industry and unnecessarily define commercial development of the technology.** Moreover, when the marketplace settles down, standards, if necessary, will be set voluntarily and without government intervention. The recommendation reached by the Advisory Group itself demonstrates that an industry-wide voluntary consensus may develop, while permitting innovation and consumer choice to coexist.
>
> * * *
>
> In sum, NCTA believes that the government should not set the limits of technological development. **Even where advised by industry representatives, the government should not substitute its judgment for that of the marketplace**. It would be a grave mistake to define a standard based on today's view of optimal technology.

Comments of NCTA, MM Docket No. 87-268 at 2, 5 (filed July 11, 1996)(emphasis supplied). These are the same arguments Echelon has made to the Commission, to the C3AG and to NCTA for two years in connection with cable equipment compatibility. That they are the right policies is something NCTA, CEMA and Circuit City all conveniently ignore when they discuss the Decoder Interface.

CONCLUSION

The Commission should grant the Joint Petition for Further Reconsideration and immediately issue a Public Notice (a) clarifying that it has not adopted the so-called "Decoder Interface" standard and that the provisions of Section 301(f) of the 1996 Act will be applied to any standard submitted by C3AG, and (b) soliciting comment from all potentially affected industries on the appropriate means of achieving cable equipment compatibility within the constraints of Section 301(f) of the 1996 Act

Pursuant to Section 1.1206 of the Commission's Rules, two copies this letter are enclosed for filing. Please contact me should you have any questions in regard to this matter.

Sincerely,

Glenn B. Manishin

GBM:hs
Enclosures
cc: John T. Nakahata
Mark A. Corbitt
Bruce A. Franca
R. Alan Stillwell
William H. Johnson
Ronald Parver
Counsel for NCTA, CEMA,
General Instrument and Circuit City

EXHIBIT A

Consumer Electronics Manufacturers Association
A sector of the Electronic Industries Association
2500 Wilson Boulevard ■ Arlington, Virginia 22201-3834 USA
Tel 703/907-7600 ■ Fax 703/907-7601

To:	Walter Ciciora,	Co-chair C^3AG
	Edward Milbourn,	Co-chair C^3AG
From:	Richard Kirsche,	Co-chair EIA/NCTA JEC
	William Miller,	Co-chair EIA/NCTA JEC
Date:	March 27, 1996	

SUBJECT: UNRESOLVED POLICY ISSUES, DECODER INTERFACE

As you know, the EIA/NCTA Joint Engineering Committee's Decoder Interface Subcommittee has been continuing to attempt a consensus on specifications for a Decoder Interface (IS-105). Balloting was held in mid-1995, resulting in requests for many revisions of both a technical and policy nature. To address these issues, the Decoder Interface Subcommittee created two Resolution Task Forces, RTF-1 for hardware issues and RTF-2 for control issues. While the task forces have been largely successful in resolving technical matters, there remain two unresolved policy issues which we feel are beyond the scope of the Joint Engineering Committee:

A) Provision of "IR Passthrough" for direct consumer-to-Decoder communications.

B) Whether the scope of the specification is unnecessarily complex for the required functionality.

The Joint Engineering Committee hereby requests immediate guidance from the Advisory Group in resolving these remaining policy issues, including any changes necessary in light of the Telecommunications Act of 1996.

Attachments:

Reports from the Resolution Task Forces
Latest Draft of IS-105
Independent submittal from Echelon Corporation.

EXHIBIT B

TO: Cable/Consumer Electronics Cable Compatibility Advisory Group (C^3AG)

FROM: Richard Kirsche, Co-Chair, EIA/NCTA Joint Engineering Committee (JEC)
William Miller, Co-Chair, EIA/NCTA Joint Engineering Committee (JEC)

DATE: 24 June 1996

SUBJECT: Status, EIA/NCTA Joint Engineering Committee Activities

This report briefly summarizes the status of activities of the JEC, its Subcommittees and Working Groups.

JEC Digital Standards Working Group (DSWG)

Some technical work of this group is similar to work now being undertaken by other groups such as the Society of Cable and Telecommunications Engineers (SCTE), which has recently been certified as an ANSI standards organization. The C^3AG has been requested to address the future scope and charter of the DSWG.

JEC National Renewable Security Subcommittee (NRSS)

Balloting of latest draft standard resulted in 9 Yes, 7 No and 2 Abstentions. A Resolution Task Force is attempting to harmonize differing positions.

JEC Decoder Interface Subcommittee (DIS)

The Decoder Interface Standard, IS-105, is nearing completion, with most technical issues either having been, or being resolved. However, two policy issues, identified in the JEC's March 27 letter to the C^3AG, remain unresolved:

A) Provision of "IR Passthrough" for direct "Consumer-to Decoder" communication

B) Whether the scope of the specification is unnecessarily complex for the required functionality

The C^3AG's guidance was requested in resolving these issues, consistent with the Telecommunications Act of 1996.

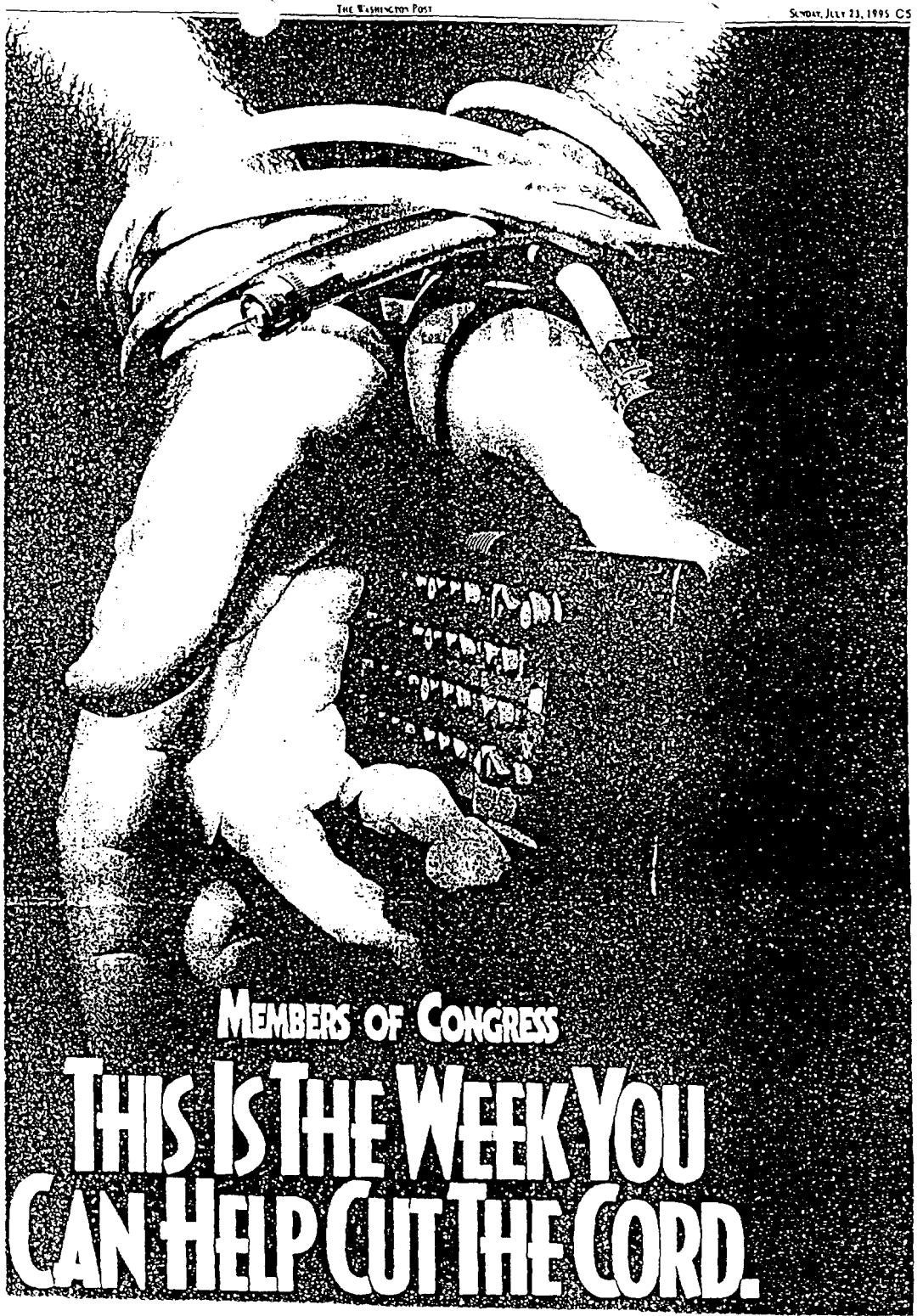
EIA/NCTA Joint Engineering Committee

The Cable/CE RF Interface Subcommittee (IS-23) has been reactivated and directed to harmonize IS-23 with FCC Part 15 Rules, develop a test procedure, develop standards for signal levels in sub-lowband and standards for tuner egress in sub-lowband.

Cable Channelization Standard IS-132 was again sent out for ballot, which was to be completed by June 10.

The EIA Television Data Subcommittee (R-4.3) has submitted a proposal to the Joint Engineering Committee for Automatic Cable Installation (ACI). The JEC is planning to vote on its adoption at its next meeting, June 26.

EXHIBIT C



MEMBERS OF CONGRESS

THIS IS THE WEEK YOU CAN HELP CUT THE CORD.

What a drag.

A consumer buys a new TV, invests in a VCR. Subscribes to cable television. Then realizes that her cable system is making it impossible for all that great technology to work together.

Members of Congress, please vote "NO" on the provision to the Telecommunications Act that is make sure TV sets are forever disabled by the cable monopoly.

THE SCRAMBLE TO UNSCRAMBLE CABLE TV

Many cable systems scramble all signals, even local broadcasts. Some assist subscribers who company provide a converter to descramble their signals—only one channel at a time.

Result? Consumers can't tape one channel while watching another. They can't tape two consecutive programs on different channels. Those special picture within a picture sets won't work.

NOW IS THE TIME TO BE PLUGGED IN

Members of Congress, in the [illegible] days, you will vote on a [illegible] to undo protections against these types of abuses by the cable television industry. Three years ago, Congress passed legislation to require that cable system signals be compatible with TV and VCR features. The bill passed easily.

But it's about to be undone. Congresswoman Eshoo (D-Ca.) wants to make sure that a company in her district can sell a patented system. She sponsored a provision to the Telecommunications Act which stops the FCC from creating a free and open competition between TV sets and cable. The cable industry is abandoning consumers and supporting this bill so more boxes will have to be installed.

THE ESHOO PROVISION WOULD:

- Add up to 20% to the cost of a TV set
- Promote incompatibility between TVs, VCRs and Cable.

DON'T LET CABLE CONTROL TVS

If you believe it's time to require cable systems to allow consumers to use their TVs, their VCRs and their remotes, IT'S TIME TO VOTE AGAINST THE ESHOO PROVISION.

DON'T LET CABLE DISABLE

[illegible] Consumer Electronics Association, [illegible] and VCR Manufacturers / Home Recording Rights Coalition, [illegible] National Association of Broadcasters, [illegible] Association, North American Retail Dealers Association, Professional Audio Video Retailers Association.

For more information call [illegible]