

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

In the Matter of	)	
	)	
Amendment of Part 97 of the Commission’s Amateur Radio Service Rules to Permit Greater Flexibility in Data Communications	)	WT Docket No. 16-239
	)	
Petition for Rulemaking Filed by Amateur Radio Station Licensee Ron Kolarik (K0IDT)	)	RM-11831
	)	
Petition for Rulemaking Filed by the American Radio Relay League, Inc. (ARRL)	)	RM-11828
	)	
Petition for Rulemaking Filed by the American Radio Relay League, Inc. (ARRL)	)	RM-11759
	)	
Petition for Rulemaking Filed by the American Radio Relay League, Inc. (ARRL)	)	RM-11708
	)	

**RESPONSE TO NEW YORK UNIVERSITY PETITION FOR DECLARATORY RULING**

Radio Relay International hereby recommends dismissal of New York University’s Petition for Declaratory Ruling in reference to the above matter based on its lack of merit. In order to support this claim, we intend to deconstruct the New York University (hereafter “NYU”) petition by pointing out several fallacious and inappropriate claims. We will also attempt to place current Amateur Radio Service digital methods in their appropriate context from the standpoint of historical antecedents, the regulatory purpose of the Amateur Radio Service, and by defining the role of digital modes in advancing the public interest.

In their opening remarks, NYU implies that certain digital methods are “effectively encrypted or encoded.” This claim is inherently false. The digital modes in question, while compressed, are

not encrypted. While many modern data modes are compressed as a method to improve efficiency on communications circuits in which signal-to-noise ratios are less than optimum, all digital modes currently in use on Amateur Radio Service frequencies can be readily decoded using off-the-shelf consumer devices such as a laptop computer and sound card. This has been proven in actual practice. For example, in one case, a Radio Relay International registered radio operator wrote his own software over a period of just a few days to decode advanced PACTOR communications. He is neither a professional engineering nor professional software expert, but is, instead, a medical doctor and active radio amateur.

NYU also implies that illegal activity is occurring on Amateur Radio Service frequencies as facilitated by networks utilizing digital methods. For example, the petitioner states that “certain amateur licensees have violated Section 97.113 (a)(3) by relying on an interpretation that contravenes two bedrock principles – openness and transparency.” Accusations of illegal activity should not be made lightly, yet NYU provides little, if any evidence of a pattern of violations in their submissions. Even if a few abuses have occurred, these would likely be classified statistical outliers and not representative of digital network users, the vast majority of whom have been proven to be reliable and respectful of the rules.

NYU also accuses unnamed licensees of “skirting...requirements.” Again; this statement is designed to imply that violations are occurring. Who are these “certain amateur licensees?” Is there any record of these “certain amateur licensees” having been subject to disciplinary action within the administrative law process? What complaints are on file with the Commission from neutral third parties? What investigations, if any, have been performed by monitoring stations or FCC field office personnel?

NYU's choice of language should also be troubling to the Commission. The petitioner seeks to infuse its language with a variety of implications that appear questionable. For example, NYU attempts to argue that advancements in digital communications methods might lead to "violation of *many other* amateur rules [emphasis is that of NYU]." Such blatant manipulations are troubling and point to significant concerns about the transparency and forthrightness of the petitioner's filing. Simply put; *NYU owes the Commission data and facts so that a ruling that serves the public interest can be made. Rationalizations and inferences are insufficient.*

NYU attempts to equate "encryption" and "dynamic compression." Yet, few would argue with the statement that *encryption is designed to obfuscate communications in such a manner that content cannot be understood (decrypted) by unauthorized parties.* On the other hand, compression methods as typically applied in the high frequency spectrum exist solely for the purpose of improving throughput on data circuits of less than optimum signal-to-noise ratios. The mixing of terminology by NYU amounts to little more than the classical fallacy of false equivalence.

NYU associates terms such as "encoding" and "encryption" in a manner that implies interchangeability. Yet again; encoding does NOT equate with obfuscation nor does it equate with nefarious purposes. Examples of encoding have been commonplace during the entire existence of the Amateur Radio Service, from its first legal inception with the passage of the Radio Act of 1912 through the present. For example:

1. The radiotelegraph code (International Morse) has been widely used on Amateur Radio Service frequencies for over a century. Furthermore, overlays of specialized abbreviations, Q-codes, QN-signals, Z-codes, ARL codes and Phillips Code methods

have also been regularly applied as an overlay by operators seeking to improve the efficiency of Morse circuits for nearly a century. Today, the majority of radio amateurs cannot copy the radiotelegraph code and therefore have no practical way to monitor this specialized method of communications.

2. Radioteletype communications (“RTTY” or “RATT”) using the five-level baudot code has been commonplace in the Amateur Radio Service since the late 1940s. This specialized method of encoding, combined with frequency shift keying methods at 45, 50 or 75 baud cannot be decoded using a typical communications receiver or transceiver without additional equipment, yet, it has been ruled legal in the Amateur Radio Service for over 70-years because the designed intent of the encoding process is NOT to obfuscate communications but rather to facilitate communications.
3. Slow-scan television (SSTV) has been used on high frequency amateur circuits for many years. This mode requires specialized equipment and techniques that are rarely available to the average radio amateur, yet the mode has been authorized by the Commission for well over 50 years.

In its many filings, NYU has argued that advanced digital modes are problematic because specialized modems are typically used to encode and decode digital transmissions. However, the requirement for specialized equipment is certainly not new. As alluded to above, for many years, expensive, bulky mechanical teleprinters were required to transmit and receive radioteletype communications. Likewise, slow-scan television mode required extremely expensive, specialized equipment to monitor on-air communications. The reasonable person will quickly note that

PACTOR-equipped modems and computer sound card interfaces are ubiquitous and inexpensive compared to the teleprinter or SSTV equipment of the past.

### **Self-policing and monitoring:**

NYU also claims that dynamic compression techniques limit self-policing of the Amateur Radio Service. They also state that “the actual efficiencies gained [by dynamic compression] do not outweigh the costs associated with eliminating effective self-policing of the amateur bands.” Yet, they fail to make their case. No statistically significant data demonstrating hinderance to self-policing is provided. No references to Commission investigations are provided. No administrative law rulings are referenced. NYU even fails to provide even anecdotal evidence.

In fact, many of the operators that utilize the digital methods in question are perhaps some of the most responsible, well-regulated operators in the Amateur Radio Service. They are not only quite capable of self-policing; they have a proven track record of responsible conduct. Most users of modern digital modes such as PACTOR, WINMOR, VARA and NBEMS are volunteers affiliated with local, state and Federal emergency management programs. A sizeable percentage, if not a significant majority of these operators, have received training from local, state and Federal emergency management and public safety agencies and many of these volunteers are subject to background investigation. NYU’s fallacious arguments serve only to sully the reputation of these dedicated volunteers.

### **The Petition is Regressive**

In reality; the NYU petition can only be described as regressive. The Amateur Radio Service is predicated on experimentation and advancing the radio art and therefore requires considerable

flexibility and a liberal interpretation of the rules in question. The strict interpretation demanded by NYU could eliminate both current and future digital communications innovations based on unsupported claims of rule violations that are neither statistically significant nor predicated on case law, documented Commission actions or public interest complaints.

In our opinion, the Commission stands at a crossroads. The Commission can condemn the Amateur Radio Service to future obsolescence based on the poorly constructed arguments of New York University, or the Commission can interpret the issue within the basis and purpose of the Amateur Radio Service. We believe the Commission has the expertise and wisdom to identify the reality that abuses of the referenced digital modes and networks are de minimis based on the data and facts at hand.

### **The Petition is Not in the Public Interest**

The Amateur Radio Service Rules specifically define one of its several purposes as being that of emergency communications in time of need. Numerous emergency management agencies and relief agencies rely extensively on the Amateur Radio Service for supplemental disaster telecommunications services during hurricanes, earthquakes and terrorist attacks. Digital networks supporting emergency management agencies and relief organizations at the local, state and Federal level rely extensively on digital methods utilizing dynamic compression. Attempts to limit or disable these networks will have a deleterious impact on these emergency communications programs, which is contrary to the public interest.

Furthermore, claims by NYU that relative throughput speeds are irrelevant are likewise inherently false. Those with expertise in disaster telecommunications theory and practice will

readily assert that circuit capacity is a critical factor in the maintenance of timely command, control and communications functions in time of emergency. While it may be true that circuit capacity is not a critical issue during routine operations, dynamic compression is a significant benefit when higher levels of circuit capacity are required in time of emergency. Few reasonable emergency management or defense experts would argue with the assertion that maintaining access to more efficient baud rates or throughput on digital networks is a significant advantage under disaster conditions.

### **Lack of Standing**

While perhaps a sensitive topic, we feel it is nonetheless important for the Commission to consider New York University's standing in this issue. NYU is not a licensee in the Amateur Radio Service. While the general public has a broad interest in all regulated communications services, one must consider the highly activist nature of NYU within the context of WT Docket 16-239, RM-11831, RM-11828, RM-11759 and RM-11708.

NYU seems unusually concerned with the status of digital networks within the Amateur Radio Service, but the petitioner fails to explain the basis of its interest. NYU also fails to make a statistical or even anecdotal case showing how the continued use of advanced digital modes have harmed or diminished the university as an institution.

The Commission undoubtedly must consider standing in these issues and must therefore seek to understand the foundational purpose for New York University's interest in these issues. A failure to identify this purpose is an excellent indicator that NYU and NYU Wireless may lack standing in this matter.

## **Conflict of Interest**

It is also recommended that the Commission view this petition and other filings from NYU from the standpoint of conflict of interest. NYU and “New York University Wireless” are closely connected with the commercial telecommunications industry both in terms of financial support and on-going advocacy. Yet, the Amateur Radio Service is charted as a non-commercial, voluntary radio service in which pecuniary interest plays no role.

While no evidence of a hidden agenda is present, nor are any accusations of a hidden agenda being made, one must nonetheless express some level of discomfort at the obvious position of NYU as a “conduit” of influence between commercial telecommunications common carrier interests and a voluntary, non-profit radio service designed by regulators to be isolated from commercial interference.

Based on the history of New York University and its principle’s involvement in the creation of two other, similar advocacy organizations at other universities, it seems quite reasonable that New York University cannot totally isolate its fiduciary responsibilities to its commercial telecommunications partners from the nonprofit nature of the Amateur Radio Service, even if their intentions are honorable.

## **Summary**

In summary, New York University simply fails to make its case. It applies logical fallacies and makes unsubstantiated claims in an effort to limit or arrest technological evolution in the Amateur Radio Service; **a radio service specifically designed to encourage innovation and the evolution of technology through experimentation**. Furthermore, the granting of their petition would be harmful to the public interest, due to its potentially deleterious impacts on the



ability of the Amateur Radio Service to provide reliable disaster telecommunications services to the public and served agencies. Lastly, an inherent conflict of interest, even if unintentional, exists between the commercial interests of New York University and the non-profit, voluntary nature of the Amateur Radio Service as intended by regulation.

Based on its significant lack of merit, we respectfully request that the Commission deny the petition for declaratory ruling.

Respectfully submitted,

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