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COMMUNICATIONS

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

In the Matter of

Amendment of the Commission's Rules  
to Establish a New Radio Service

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RM-8499

**Comments Filed in Response to a  
Petition for Rule Making**

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## SUMMARY

Tandy Corporation (Tandy) filed a Petition for Rule Making, RM-8499 (Petition), to create an unregulated, unlicensed Family Radio Service (FRS) sharing spectrum currently allocated to the General Mobile Radio Service (GMRS, 47 CFR Part 95A).

Creation of the FRS would significantly disrupt and impair both current GMRS operations and the future GMRS mobile information infrastructure.

In prior proceedings, the Commission considered and rejected the concepts proposed for the FRS. There is *nothing* new or novel in the Petition.

Extensive experience in spectrum sharing between licensed and unlicensed personal radio services proves the infeasibility of the FRS as proposed. FRS would hinder evolution toward and implementation of “GMRS Refarming” with more spectrum-efficient technologies.

FRS would exacerbate interference and enforcement problems in the GMRS. It would deprive GMRS licensees of spectrum for genuinely innovative networks and systems. In turn, GMRS’ desirability for user and vendor investment would decrease, jeopardizing the prospects for improved technologies with a concomitant effect on jobs.

The Personal Radio Steering Group, Inc. (PRSG) respectfully recommends that the Petition be **DENIED**.

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## I. BACKGROUND OF THE COMMENTER.

The Personal Radio Steering Group, Inc. (PRSG) is an all-volunteer, not-for-profit corporation established in 1980 by licensees in the General Mobile Radio Service (GMRS, FCC Part 95A) to provide services to and to serve as an advocate for the GMRS personal-use community. The PRSG is the continuation of the GMRS Task Area of the Congressionally-chartered FCC Personal Use Radio Advisory Committee (PURAC, 1976-1978).

The PRSG has written and distributed more than 300 publications on GMRS licensing, technology and operating practices. PRSG's flagship publication, the GMRS National Repeater Guide, lists each of the more than 3,000 GMRS repeaters, their sponsors, technical characteristics and detailed coverage information. About to go into its tenth edition, the Guide has become the essential reference to this cooperative, nonprofit communications network for licensed private individuals. PRSG also works closely with major land mobile equipment manufacturers to disseminate instructional materials for radio purchasers.

The PRSG tracks all GMRS applications and grants. We provide 24-hour on-line access to the national GMRS licensing database of over 35,000 stations, in support of the FCC requirement that all system licensees must cooperate in the selection and use of channels.<sup>1/</sup> PRSG regularly answers questions about GMRS licensing and usage over the Internet, the world's largest computer network.

## II. THE GMRS HAS RECENTLY EXPERIENCED EXPLOSIVE GROWTH.

Within the past four years, the rate of licensing in the GMRS has dramatically increased. The rate of increase itself also continues to grow, with more license applications filed just in the past twelve months than in the prior three years combined.

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<sup>1/</sup> 47 CFR 95.7(a).

Marketing by Tandy and other manufacturers is a major reason for this increase. Traditionally, GMRS radios were available only through local two-way communications vendors. However, advertising through widely distributed publications and through local outlets of consumer electronic stores has broadened public exposure to this service.

About 18 months ago, Radio Shack introduced its first GMRS radio, a handheld unit that communicated solely on two of the low-power GMRS interstitial frequencies. Accompanying each of these radios was a business reply postcard for the PRSG, through which we offered to help purchasers in completing their GMRS license applications.

In the past eighteen months, the PRSG has received postcard requests from more than 3,000 purchasers of the Radio Shack GMRS radio. In reviewing copies of GMRS applications, we have identified nearly another 1,000 persons who probably purchased these Radio Shack units.

The licensing instructions that accompany the Radio Shack GMRS radio contain certain data elements in a sample. GMRS applications that closely follow this sample can be readily distinguished from other applications. From our count of postcard receipts, telephone inquiries and analysis of license applications, we estimate that at least eight to ten thousand of these Radio Shack GMRS radios have been sold, making this model by far the most widely used GMRS radio in the history of this service.

Our analysis of the Radio Shack GMRS purchasers and new licensees forms part of the basis for our positions which follow.

### III. TANDY'S CLAIM THAT THE INTERSTITIAL CHANNELS ARE UNDERUTILIZED IS NOT SUPPORTED BY THE RECORD.

In light of our experience in reviewing GMRS applications and in responding to inquiries from purchasers of Radio Shack GMRS transceivers, Tandy's claim that the GMRS interstitial frequencies are "underutilized" is totally unsupported.<sup>2/</sup> Growth in use of these channels has been very dramatic.

If Tandy's statement was based on monitoring of the interstitials, it would have to be tempered by a realization that operations on the GMRS interstitial frequencies are limited in power and (especially) antenna height. Even the most diligent monitoring effort would normally hear much more activity on the 462 MHz GMRS "primary" channels, because advantageously situated mobile relay (repeater) stations can frequently be heard for 20 to 40 miles distance. Reception of lawfully operated GMRS stations on the 462 MHz interstitial frequencies would not normally be possible for more than a mile or two.

### IV. THE COMMISSION ALREADY HAS FOUND THAT MIXING LICENSED AND UNLICENSED OPERATIONS IS UNWORKABLE.

The Commission experienced great difficulties when unlicensed transceivers shared the same 27 MHz channels as the then-licensed Citizens Band Radio Service. In the *Notice of Proposed Rule Making* in Docket 20119, the Commission noted<sup>3/</sup>:

"This shared use of the same frequencies has resulted in the following problems:

"(a) *Confusion as to which devices require licenses.* Both the users and the manufacturers of the devices experience this difficulty.

"(b) *Enforcement problems for the Commission.* The use of the same band of frequencies for both Part 15 and Part 95 operation makes it extremely difficult to identify and differentiate between permitted and prohibited operations.

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<sup>2/</sup> Petition, page 7.

<sup>3/</sup> 47 FCC 2d, pp. 1122 at 3. *Emphasis added.*

“(c) *Interference to licensed services.* In many areas, Part 15 devices have been found to be the source of interference to licensed operations under Part 95.”

In the *Report and Order* that concluded Docket 20119, the FCC noted<sup>4/</sup>:

“C.B. Operators and Walkie-Talkie Manufacturers, in general, support the proposed rulemaking stating that there will be a reduction of interference to licensed stations in the Citizen’s Band Radio Service resulting from the elimination of ‘walkie talkies’ that now operate without a license under Part 15. Also, they contend that the *confusion as to which devices must be licensed* would be eliminated with the enactment of these rules.”

The operation of similar services, one licensed but the other unlicensed, both employing otherwise identical voice modulation and narrow band FM emissions on the same channels would produce intractable enforcement problems and confusion about the appropriate licensing requirements.

V. TANDY’S COMPARISON OF FRS TO  
CODELESS AMATEUR LICENSE IS INAPPOSITE.

Tandy asserts<sup>5/</sup>:

“In much the same way as the ‘codeless’ license was conceived as a way to participate at the entry level in the Amateur Radio Service [citation omitted], FRS will provide users with exposure to the additional features and capabilities of GMRS. Some FRS users will choose to upgrade to that more powerful, licensed service.”

The codeless entry level into Amateur Radio is through means of rigorously administered operator examinations and licensing, whereas FRS would be completely unlicensed. The Amateur Radio Service lost no accountability, user-education, compliance and enforcement benefits of licensing when it initiated a codeless license class.

FRS, however, would gain none of these material benefits. Unlike “codeless” radio amateurs, FRS users could not easily be identified or held accountable for rule compliance. Nor

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<sup>4/</sup> 47 FCC 2d, pp. 1135 at 4. *Emphasis* added. Notably, Tandy was one of the CB “walkie talkie” manufacturers that participated in this Docket.

<sup>5/</sup> Petition, page 8.

would they receive a tangible federal instrument subject to suspension or revocation, regardless of any FCC ability to “revoke” the user’s operating authority by rule.

Instead of “benefiting” GMRS<sup>6/</sup>, unlicensed FRS owners would likely resist GMRS fees, rules, application procedures, operating norms and station identification requirements. This could prove especially true if FRS develops illicit services or activities not found in GMRS as discussed below.

No nexus exists between the successful codeless examination and licensing of Amateur Radio, and an unlicensed consumer product. Tandy’s description above of GMRS as a “more powerful” service also is misleading.

## VI. DIFFERENTIATING MERELY BY POWER IS INSUFFICIENT TO DISTINGUISH BETWEEN RADIO SERVICES.

Unlicensed FRS transmitters would be permitted output power of one-half watt. Tandy portrays FRS transmitters as clearly distinguishable from GMRS transmitters because of the difference in power level.<sup>7/</sup>

Most GMRS handheld transmitters have an output power only in the 1 to 3 watt range. The Radio Shack GMRS transceiver, for instance, has a maximum transmitter power of one watt. The effective radiated power (assuming a “rubber duckie” type of antenna, with its typical minimum 3 to 6 dB loss) of typical GMRS handheld radios is therefore only in the 250 milliwatt (6 dB below 1 watt) to 1.5 watt (3 dB below 3 watts) ERP range. From a practical and operational standpoint, this level is virtually indistinguishable from that proposed for the FRS.

The power differential between licensed CB transmitters under Part 95 and the unlicensed transmitters under Part 15, when those units were previously permitted to operate in the 27 MHz band, was 50:1 (5 watts input versus 100 milliwatts input). As discussed extensively in the *Notice*

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<sup>6/</sup> Petition, page 8.

<sup>7/</sup> Petition, page 2.

of *Proposed Rule Making* and the *Report and Order* in FCC Docket 20119, that power level differentiation was inadequate to distinguish clearly the two services.

Yet Tandy now claims that two transmitters with a power differential considerably less than 50:1 *would* be clearly distinguishable from each other. This claim is simply not credible.

## VII. THE GMRS HAS A HISTORY OF ABUSE BY COMMERCIAL AND INDUSTRIAL USERS.

As far back as 1977, when there were fewer than 6,000 operational licensees in the GMRS, the Commission felt compelled to warn business and industrial users of this radio service<sup>8/</sup> that they must share the available GMRS channels with personal users.

The FCC was well aware of the incompatibility of personal/family and commercial use of the same shared spectrum, a fact of which it again took ample official notice in the record of PR Docket 87-265.

Over time, usurpation of the limited GMRS spectrum by commercial and industrial users eligible in other private land mobile radio services became worse, leading finally the FCC to limit eligibility for obtaining a new or modified license in this *personal* service *only* to individual persons. Only members of a licensee's immediate family residing in the same household were subsequently permitted to operate under the authority of a license issued to an individual person.<sup>9/</sup>

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<sup>8/</sup> Public Notice: "FCC Issues Reminder To All Business Users in the General Mobile Radio Service," June 15, 1977. This is included as Attachment A to these Comments.

<sup>9/</sup> *Report and Order*, FCC Docket 87-265, paragraphs 7 through 21.

**VIII. SALE OF RADIO SHACK GMRS RADIOS TO COMMERCIAL AND INDUSTRIAL PURCHASERS HAS CREATED A SIGNIFICANT INFLUX OF INELIGIBLE USERS.**

The licensing instructions that accompany the Radio Shack GMRS radio state specifically that only individual persons are eligible to license in the GMRS. This statement and others about the personal and family nature of GMRS communications notwithstanding, at least one-fourth of the inquiries for licensing assistance from purchasers of these radios appear (based on the name and mailing address provided) to have come from commercial or industrial entities. (Radio Shack offers no comparable UHF-FM handheld transceiver on Part 90 frequencies. Commercial and industrial users attracted to the low price of the Radio Shack GMRS radio have no comparable alternative from which to choose.)

A review of GMRS applications reveals a similar level of apparent commercial and industrial intent, based on such considerations as the name or mailing address of the applicant, the description of the intended use, the number of mobile units being requested, and other responses on the GMRS application.

PRSG monitoring suggests that records solely of license applications and requests for licensing assistance do not reveal the full extent of the growth of the GMRS. Our ample field experience shows that many purchasers of GMRS radios, including (based on the channels of operation) the Radio Shack GMRS radio specifically, are failing to license properly or at all.

In its Petition, Tandy completely fails to show how the proposed FRS would control and reverse this trend to increasing commercial and industrial use of the limited GMRS spectrum. Merely calling this the "Family Radio Service" cannot be expected to have any significant deterrent effect on improper commercial and industrial use.

**IX. THE PURPOSE OF LICENSING OF RADIO TRANSMITTERS IS TO RESTRICT USERS AND USES.**

Recently the FCC has imposed “user fees” on licensees in its many radio services, the purpose of which is to generate the funds for the FCC’s own administrative operation. Before the imposition of these fees, the *sole purpose* of the licensing process was to restrict eligibility to use certain radio spectrum only to certain classes of eligible parties, and only for certain types of eligible use.

The FCC de-licensed the Citizens Band Radio Service for a variety of reasons, but the fundamental one was that the licensing process served no useful function. A CB license conveyed no franchise for operation on any particular or exclusive channel, and no restriction existed on the eligibility of who could operate on CB frequencies.

The situation in the spectrum allocated to the GMRS is quite different. The FCC *has* found that a restriction is necessary on who is eligible to operate on these channels, so as to protect the communications opportunities for those (individual persons) who are *not* eligible to operate in other commercial and industrial (Part 90) radio services.

Licensing is the *only* available means by which the Commission can accomplish this goal. De-licensing a portion of the GMRS spectrum (which is in essence what the Petition requests) removes the only means of restricting eligibility and access available to the Commission.

**X. TANDY’S REFERENCE TO OTHER COUNTRIES’ SERVICES IS INAPPOSITE.**

Tandy argues<sup>10/</sup> that the absence of an FRS-type of communications alternative for the public promotes the “eclipse” of the United States by:

“...Japan and other countries whose citizens have already started to enjoy the many benefits of FRS-like radio services.”

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<sup>10/</sup> Petition, page 4.

Tandy's assertions that the United States needs an FRS-type of service based on Tandy's own STA experience with transceivers designed for operation in the Japanese "Personal Communicator" service (actually the 420/440 MHz "Specified Low Power Radio System" or JSLPRS) is misleading. JSLPRS radios perform in a manner not at all similar to what Tandy has requested for the FRS. In particular:

- The JSLPRS has 19 paired channels (1 for control, 18 for communications) for speech and data use, another 9 paired channels solely for speech.
- The JSLPRS has 12 non-paired channels (1 for control, 11 for communications) for speech and data use, another 9 paired channels solely for speech.
- The JSLPRS is limited to *10 milliwatts* in power, and employs 3 KHz FM modulation for voice communications.
- Channel spacing in the JSLPRS is 25 KHz.
- JSLPRS does not appear to be placed on channels already allocated to licensed users, nor to channels in between licensed users.

By contrast, Tandy's FRS proposal would employ 50 times as much power, and uses a greater deviation (5 KHz) and only half the channel separation (12.5 KHz from existing GMRS primary frequencies). FRS is hardly an equivalent service; the quality, the efficiency, and the technical and regulatory characteristics of JSLPRS do not transfer to FRS.

## **XI. TANDY'S CLAIM OF FRS NON-INTERFERENCE WITH GMRS IS SPURIOUS.**

The half-watt FRS radio would be nearly equivalent to most current GMRS handheld radios operating on the same interstitial channels. Radios of this capability are widely used on the GMRS primary channels as well.

Tandy's request that FRS radios be permitted to communicate through the nationwide network of emergency and traveler-assistance repeater stations on a primary channel transparently shows the equivalence of FRS and many current GMRS handheld transceivers.

Tandy's supposed demonstration of non-interference while operating at Walt Disney World (WDW) is highly misleading.<sup>11/</sup> GMRS personal licensees have complained of the WDW GMRS operations for years. There are few examples better than WDW of the abuse of GMRS by commercial and industrial entities eligible in other services.

WDW currently operates on five of the eight GMRS primary channels, using a licensing ruse of multiple entities and holding companies. WDW operates in substantial violation of many FCC rules, including requirements about station identification and pre-transmission monitoring.

The "closed receiver" operation of the WDW units results in their virtually total ignorance of other co-channel or adjacent-channel communications. As a result, the WDW GMRS operations deny access to this service by legitimate licensees in the area, some of whom are families visiting the park.

Thus, WDW units would have been completely unaware of any interference, even had the Tandy STA units been on the very same channel, unless Tandy happened to employ the identical receiver muting codes.

Tandy's claim that the FRS transmitter would operate solely on a "secondary" basis to licensed GMRS operations is similarly suspect. It is unbelievable that multitudes of FRS users would cease operating (even if they could be identified and notified) merely because they cause interference to licensed GMRS stations on the same or adjacent channels. The FCC is very familiar with the problems that such supposedly "secondary" operation can cause.<sup>12/</sup>

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<sup>11/</sup> Petition, page 6.

<sup>12/</sup> At paragraph 6 of the *NPRM* in FCC Docket 20119, the FCC stated: "Another problem caused by the shared use of the 27 MHz band is the interference produced by the essentially unregulated Part 15 devices to the operations of the regulated Class D stations. Part 15 was intended to provide a maximum freedom of operation with a minimum of regulation. To achieve this result while at the same time protecting the licensed services from harmful interference, Part 15 sets out a basic requirement that a device operating under these regulations must accept such interference as it may receive and may not cause harmful interference to the operation of any licensed radio station. However, our experience has been that this regulation is more frequently breached than it is observed."

Moreover, the creation of an unregulated FRS would inevitably encourage the development of a wide aftermarket of range-extending and power-increasing devices. A half-watt transmitter coupled to an advantageously-sited antenna could cause interference to adjacent- and co-channel communications over dozens of miles. Power amplifiers for this band are readily available, and are entirely legal and desirable for the operation of many licensed radio services. Amplifiers could not realistically be prohibited, such as the FCC did for similar devices operated in the 27 MHz band.

## XII. USE OF THE 467 MHZ GMRS INTERSTITIAL FREQUENCIES WOULD DISRUPT GMRS REPEATER OPERATIONS.

In numerous other rulemaking actions and considerations, the Commission is fully aware that a 12.5 KHz channel separation between communications employing conventional FM emissions with 5 KHz deviation is inadequate. Interference *can* and *will* occur.

In the *Report and Order* in FCC Docket 87-265, the Commission recognized that repeater input communications needed special protections. All use of the GMRS 467 MHz frequencies *other than* for repeater input and control were prohibited. The FRS proposal would be a step backwards, opening up allegedly unused spectrum for uses that would harm existing GMRS operations. The Commission must not relax the protections now afforded to the repeater input frequencies by permitting non-repeater communications on the close-spaced adjacent interstitial frequencies.

The 467 MHz GMRS interstitial frequencies are not being “warehoused” as Tandy mischaracterizes.<sup>13/</sup> Instead, they are held in reserve by the Commission for stated reasons well accepted in the GMRS community, and after careful deliberation and public comment.

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<sup>13/</sup> Petition, at footnote 12. In modern radiocommunication practice, “warehousing” refers to licensees obtaining authorizations for more spectrum than is necessary, typically to limit competition.

Tandy's criticism of "warehousing" these frequencies is particularly inappropriate given the scope and status of the Commission's "Refarming" docket.<sup>14/</sup> Although aimed principally at the Part 90 services, the GMRS will likely integrate innovations and equipment developed out of Refarming, especially digital voice technologies. Yet the Commission has acknowledged the nature of the delay in Refarming.<sup>15/</sup>

Instead of preserving the GMRS 467 MHz interstitial frequencies for benefits that could emerge from Refarming, Tandy would prematurely consume them with an antiquated technology (narrow band FM, 5 KHz deviation), in a portion of the UHF spectrum highly prized for land mobile communications, and for uses that would most certainly cause interference to existing licensees.

### **XIII. THE FRS IS NOT INNOVATIVE.**

Tandy anticipates that FRS units will be available with features such as "private channel" calling via CTCSS (Continuous Tone Controlled Squelched System).<sup>16/</sup>

Of course, CTCSS hardly represents "state-of-the-art"<sup>17/</sup> technology. The GMRS has completely exhausted CTCSS as a means for "private channel calling." The service experiences bitter conflicts over CTCSS tones even among well-established, licensed systems. The 1960s-era CTCSS technology is wholly inadequate for "calling" purposes.

Even Tandy's use of the term "private channel calling" in connection with CTCSS is disturbing. The term connotes ownership of a "private channel," an exemption of the requirement

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<sup>14/</sup> PR Docket 92-235, released November 6, 1992.

<sup>15/</sup> "For a number of reasons, particularly the complexity of the issues involved in this huge proceeding, we have been unable to act as quickly as we had hoped. Although this project is still very much a high priority and is expected to be completed by the end of this summer, we are concerned that the decisions we make be ones that appropriately satisfy our public interest obligations." From the Public Notice, "Status of Refarming of Private Land Mobile Bands Below 512 MHz," PR Docket No. 92-235, April 18, 1994.

<sup>16/</sup> Petition, page 6.

<sup>17/</sup> Petition, at Summary.

for pre-transmission monitoring. CTCSS conveys no such privilege. Unlicensed FRS purchasers are likely to honor this fundamental element of operator discipline mainly in the breach.

Tandy suggests that “More advanced FRS units may include such features as programmable tone-coded ID numbers that can be used to access individuals or groups of users.”<sup>18/</sup>

Given CTCSS’ proven shortcomings, PRSG has proclaimed the need for selective calling in the GMRS for years.<sup>19/</sup> We have presented this concept to domestic and foreign manufacturers at the CEO and product-development levels, and we have publicized it through our own Personal Radio Exchange newsletter and industry trade publications.<sup>20/</sup>

Manufacturers told us only that they might consider this feature in “advanced” models that never appeared on the market.

Tandy’s suggestion that “advanced FRS units may include such features” can be dismissed as similar “vaporware.” It is too vague a promise of “innovation”<sup>21/</sup> to justify placement of the unlicensed FRS in the GMRS band. Tandy’s actual agenda is to obtain valuable spectrum so it may sell radios using conventional, if miniaturized, “throwback” FM technology without the expense of licensing.<sup>22/</sup>

Without mandatory safeguards, inconsiderate users will easily exploit the FRS. Besides usurpation by commercial users eligible in other services and interference to licensed GMRS

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<sup>18/</sup> Petition, page 6.

<sup>19/</sup> See, for example, *Comments* of PRSG, Gen. Docket 86-337, January 20, 1987.

<sup>20/</sup> “A well-known need in GMRS is for a flexible and effective selective-calling system that could become a nationwide standard, especially one that integrates repeater and mobile/portable use. ‘This service will have a very high number of individual licensees with a low number of units per licensee,’ pioneer GMRS repeater operator Randall Knowles explains. ‘There is thus a serious capacity problem with the conventional subaudible tone system. We need some new technology that offers greater flexibility and a much greater number of code combinations.’” Excerpted from “GMRS And The Rise Of The Personal User,” Mobile Communications Business Magazine, January 1989.

<sup>21/</sup> Petition, page 4.

<sup>22/</sup> Tandy would be better advised to pursue genuine innovation, for example in the foundering CB Radio Service through digital modulation pursuant to the revision of 47 CFR 95.627(d). Such “CB Refarming” could facilitate deletion of the ban on data communication (47 C.F.R. 95.627(e)). It could expedite the reallocation to the CBRS of the 27.54-28.00 MHz band that NTIA has reserved since the 1980s for CB expansion, possibly leading to an FRS in this portion of the spectrum.

repeaters, we anticipate telephone autopatch, music broadcasting, obscenity, 24-hour emissions and power-amplified chaos among the abuses to infect unlicensed FRS.<sup>23/</sup>

GMRS and FRS would not be the only services affected. For instance, within less than 300 kHz of the proposed FRS frequencies are some very sensitive hospital-and-ambulance dispatch and telemetry communications. Placement of an unregulated FRS, with its potential for abuse, would very likely lead to interference with medically critical communications.

Interstitial repeaters are especially likely to become a popular illegal FRS service. At least one already operates in Tandy's corporate backyard, apparently undiscovered by Tandy's allegedly "extensive field tests in the Dallas-Ft. Worth, Texas metropolitan area."<sup>24/</sup> This interstitial repeater renders the frequency unavailable to legitimate GMRS licensees. Our efforts to identify the repeater operator, a remodeling business, were met with jamming and catcalls.<sup>25/</sup>

Withholding interstitial half-duplex capability from FRS radios would have to be an absolute requirement in any type-acceptance rules for the service. Yet the use of two inexpensive simplex FRS radios together would permit repeater operation by the mobile user.

Tandy has not explained how it intends to prevent these results. Perhaps it expects enthusiastic FCC enforcement. Commission enforcement efforts, however, would receive no financial support from FRS. Unlike GMRS licensees, unlicensed FRS purchasers would pay no regulatory fees. FRS would quickly be abandoned at the bottom of Commission enforcement priorities.

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<sup>23/</sup> "[I]f a personal radio service attracts the interest of large numbers of the public, the service is likely to evolve in accordance with the popular will, notwithstanding initial regulatory intentions or ongoing dictates." From "Alternatives for Improved Personal Communications," FCC Office of Plans and Policy Working Paper Series No. 20, August 1986, p. 51.

<sup>24/</sup> Petition, page 6.

<sup>25/</sup> We transmitted only on the legal, 462 MHz side of the interstitial pair.

**IXV. COMPLAINTS ABOUT THE GMRS “675 CHANNEL” NEEDING TO BE MORE READILY ACCESSIBLE ARE WITHOUT MERIT.**

In the *Report and Order* in Docket 87-265, the FCC conferred a special status to the GMRS “675 channel” (the paired channel 462.675/467.675 MHz.) Personal licensees not otherwise authorized by their licenses to operate on that channel pair are permitted to do so under the rules, but only from their mobile units, and only for the purposes of seeking or rendering assistance to a traveler, or for communications pertain to the immediate safety of life or property.<sup>26/</sup>

Tandy misunderstands how this growing nationwide communications capability can be used. The “675 channel” is not reserved *exclusively* for emergency and traveler-assistance communications. Nearly all of the repeater stations licensed and operating on this GMRS channel pair are also used for non-emergency and non-assistance communications by persons who are also licensed for operation on these frequencies.

Tandy complains “that not all repeater systems on the emergency frequencies are open,”<sup>27/</sup> although the Petition fails to describe what it means as being “open.”

The PRSG has extensively encouraged and unofficially coordinated the development of this nationwide network of 675 repeaters. Most employ some form of CTCSS (subaudible tone) access and control, to comply with the requirements of the FCC Rules. In many areas, overlapping coverage of repeaters on this single channel requires the kind of control that CTCSS provides.

PRSG’s GMRS National Repeater Guide lists more than 3,000 repeaters nationally, including nearly a thousand on the 675 channel alone. The licensees and users of many of these stations have voluntarily provided information about the CTCSS tones (if any) that are in local use.

Tandy’s description of these 675 repeaters as “not being open” reflects Tandy’s own misunderstanding of the GMRS. The vast majority of these stations *do* require the use of the appropriate CTCSS code to be accessible. The PRSG recommends that a particular CTCSS code

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<sup>26/</sup> 47 CFR 95.29(e).

<sup>27/</sup> Petition, page 8.

be used, where its use will not cause interference with stations with overlapping coverage. With the wide availability of information (including CTCSS usage) about GMRS repeaters on the 675 channel, Tandy's characterizing these stations as "not being open" is a serious misrepresentation (or at least, a serious misunderstanding) of the facts.

To require that all GMRS 675 repeaters be entirely "open" to users of an unregulated radio service (such as proposed for the FRS) would drive many current 675 repeater licensees to change to a different channel. A mass exodus of repeaters from the 675 channel would be contrary to the intent of having this as a common emergency channel, and would be entirely contrary to the public interest.

**XV. TANDY'S ASSERTION THAT THE FRS IS NEEDED FOR PUBLIC-SAFETY AND PUBLIC-SERVICE OPERATION IS UNFOUNDED.**

PRSG principals were responsible for the first public-service team use of GMRS, and for the design and proliferation of GMRS systems on the 675 channel for emergency and traveler-assistance purposes.

In comments filed in the *Notice of Proposed Rule Making* in PR Docket 87-265, several public-safety groups and even the Secretary of REACT International supported the elimination of licensing eligibility for non-personal licensees, including *specifically* the elimination of licensing eligibility for public-safety and public-service groups.

This support was based on a broad acceptance of the imperative to maintain a licensing structure in the GMRS, and the difficulty (based on extensive field experience) of trying to verify the qualifications of alleged public-service or public-safety applicants. Several commenters in this important Docket also discussed the abuses that characterized allegedly public-service use of the various licensed radio services.

Is personal licensing an “inconvenience” for public-service organizations? Perhaps. Personal licensing is an inconvenience even for purely *personal* use. For those with considerable experience in public-service and public-safety communications, a *far greater inconvenience* and *detriment* would be attempting to conduct sensitive and valuable public-service communications on a completely unlicensed, unregulated and uncontrollable radio service. Many established public-service organizations currently involved in GMRS would very much *not* want to see the GMRS revert to the problems that existed before licensing eligibility was limited.

Tandy fails to consider other alternatives available to address the perceived communications needs of public-service organizations. For instance, nowhere does the petition discuss the possibility of improving or redesigning *existing* unlicensed radio capabilities, for instance at 27 MHz, 49 MHz, or in the various spectrum alternatives for the new Personal Communications Services (PCS).

## **XVI. ALTERNATIVE UHF SPECTRUM IS AVAILABLE FOR THE FRS.**

Tandy could deploy the FRS in the 902 or 2400 MHz “ISM” or “consumer” bands available to unlicensed devices. Part 15 permits transmitter power as high as one watt for spread-spectrum devices.<sup>28/</sup>

Unlicensed Part 15 products are widely marketed by Tandy and others. A Part 15 FRS transceiver could deliver the features and power level that Tandy desires at consumer price points, especially with today’s OEM Part 15 spread-spectrum modules and Tandy’s purchasing, overseas manufacturing and distribution economies.

Alternatively, Tandy could deploy the FRS in the unlicensed spectrum of the Personal Communications Services at 1910-1930 MHz.<sup>29/</sup> The Commission not only allocated 20 MHz to

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<sup>28/</sup> 47 CFR 15.247.

<sup>29/</sup> Part.15, Subpart D.

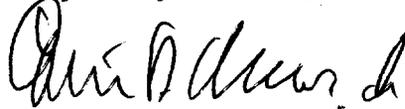
unlicensed PCS devices, it committed to examine even more spectrum allocations to these devices.<sup>30/</sup>

The unlicensed PCS allocation culminated years of industry and Commission study of the role and future of unlicensed communications. The Commission should direct Tandy to pursue the PCS opportunities it has so recently provided.

## CONCLUSION

For the reasons stated herein, PRSG respectfully requests that the Commission deny the Petition for Rule Making (RM-8499) filed by Tandy Corporation.

Respectfully submitted,



Corwin D. Moore, Jr.

Administrative Coordinator

Personal Radio Steering Group, Inc.

August 25, 1994

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<sup>30/</sup> News Release, Gen. Docket 90-314: "FCC Adopts Modifications to PCS Band Plan; Creates Significant Benefits for Consumers and Businesses," June 9, 1994.

## ATTACHMENT A

# PUBLIC NOTICE

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June 15, 1977 - S

### FCC Issues Reminder To All Business Users in the General Mobile Radio Service

The FCC reminds all business users in the General Mobile Radio Service (GMRS) that this radio service (GMRS) is one of the Personal Radio Services. It is intended to provide private, short distance radiocommunication service to the general public. Individuals (over 18 years of age), corporations, associations, clubs, public service groups and governmental entities (local, city, county, and state) are eligible to hold GMRS radio station licenses.

Charles A. Higginbotham, Chief of the Safety and Special Radio Services Bureau, said all GMRS licensees are required to cooperate in the selection and use of GMRS frequencies. GMRS frequencies must be used on a shared, cooperative basis among all properly licensed stations.

The Commission has noted a trend in increased personal use in the GMRS. Concurrent with this trend the FCC has observed problems in some areas where both business and personal users attempt to share the same GMRS frequency. All GMRS licensees are required to monitor their frequencies before transmitting to avoid causing interference. Business and local governmental licensees who find it undesirable to share with personal-use licensees in the GMRS are encouraged to consider whether their radio communication needs may best be met in one of the other land mobile radio services. These include the Public Safety, Land Transportation or Industrial Radio Services.

- FCC -

Certificate of Service

RECEIVED

AUG 25 1994

I, Corwin D. Moore, Jr., hereby certify that on this 25th day of August 1994 I caused a copy of the attached Comments Filed in Response to a Petition for Rule Making of the Personal Radio Steering Group, Inc. to be mailed by first class United States Postage to the following:

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