

BEFORE THE
Federal Communications Commission
WASHINGTON, DC 20554

In the Matter of)	
)	
Amendment of Part 2 of the)	ET Docket No. 00-258
Commission's Rules to Allocate)	
Spectrum Below 3 GHz for Mobile)	
and Fixed Services to Support the)	
Introduction of New Advanced)	
Wireless Services, including Third)	
Generation Wireless Systems)	
)	
Amendment of Section 2.106 of the)	ET Docket No. 95-18
Commission's Rules to Allocate)	
Spectrum at 2 GHz for Use by the)	
Mobile Satellite Services)	
)	
The Establishment of Policies and)	IB Docket No. 99-81
Service Rules for the Mobile-Satellite)	
Service in the 2 GHz Band)	

To: The Commission

COMMENTS
OF THE
AMERICAN PETROLEUM INSTITUTE

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SUMMARY

These Comments address the Commission's proposals regarding the potential reallocation of a portion of the 2.1 GHz band for advanced wireless services. Many member companies of the American Petroleum Institute ("API") rely on Fixed Service ("FS") systems operating in the 2.1 GHz spectrum band to provide critical monitoring and control functions in support of their petroleum and natural gas operations. As a result, API repeatedly has sought to ensure that the reallocation of this spectrum band for new services will not result in harmful interference to or otherwise disrupt incumbent FS licensee operations and that there is a fair process for relocating incumbents to alternative spectrum.

In the event that the Commission proceeds with the contemplated reallocation of spectrum in the 2.1 GHz band for advanced wireless services, API urges the Commission to ensure that appropriate standards for assessing potential interference to incumbent FS licensees are developed by industry consensus and subject to public approval. As in the past, the obligation of a new licensee to relocate an incumbent system should be triggered by a demonstration of potential, rather than actual, interference.

API also urges the Commission not to further dilute the relocation policies and procedures presently in place for the 2.1 GHz band. Such policies and procedures properly include a two-year period for mandatory negotiations and a requirement that the first new licensee to seek relocation of an incumbent relocate both links in a paired FS frequency assignment. Various protections previously provided to incumbents already

have been whittled away in an effort to smooth the way for the deployment of new systems. Any further policy shifts in favor of new licensees simply cannot be justified.

Finally, API asks the Commission to proceed with the resolution of issues presently pending on reconsideration, such as whether incumbents should be able to obtain compensation for self-relocation and whether incumbent license assignments and transfers of control should be granted with continued primary status. In the absence of prompt resolution, incumbents will remain in a state of limbo that hampers their ability to meet future operational needs and engage in normal corporate transactions.

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The American Petroleum Institute ("API"), by its attorneys and pursuant to Section 1.415 of the Rules and Regulations of the Federal Communications Commission ("Commission"), respectfully submits the following Comments in response to the

Commission's *Further Notice of Proposed Rulemaking* ("*Further Notice*")¹ in the above-captioned proceedings.² The *Further Notice* considers, among other things, the reallocation of some Mobile Satellite Service ("MSS") spectrum in the 2.1 GHz band for new advanced wireless services, including third generation ("3G") wireless systems.

I. PRELIMINARY STATEMENT

1. API is a national trade association representing approximately 350 companies involved in all phases of the petroleum and natural gas industries, including the exploration, production, refining, marketing and transportation of petroleum, petroleum products and natural gas. The API Telecommunications Committee is one of the standing committees of the organization's Information Systems Committee. The Telecommunications Committee evaluates and develops responses to state and federal proposals affecting telecommunications facilities used in the oil and gas industries.

2. API's Telecommunications Committee is supported and sustained by licensees that are authorized by the Commission to operate, among other telecommunications facilities, point-to-point and point-to-multipoint systems in the Fixed Microwave Service ("FS") that is governed by Part 101 of the Commission's Rules and Regulations. These telecommunications facilities -- which include many systems in the

¹ 66 Fed. Reg. 47618 (Sept. 13, 2001).

² By order released on October 4, 2001 (DA 01-2313), the Commission extended the comment deadline in this matter from October 11, 2001 to October 19, 2001.

2.1 GHz band -- are used to support the search for and production of petroleum and natural gas. Such systems also are utilized to ensure the safe pipeline transmission of natural gas, crude oil and refined petroleum products, and for the processing and refining of these energy sources, as well as for their ultimate delivery to industrial, commercial and residential customers. The facilities licensed to API's members are therefore essential to the provision of our nation's energy sources.

3. More specifically, API's members utilize private FS systems to serve a variety of vital point-to-point and point-to-multipoint telecommunications requirements, including communications between remote oil and gas exploration and production sites, for supervisory control and data acquisition ("SCADA") systems, to communicate with refineries, and to extend circuits to remote pipeline pump and compressor stations. The oil and gas industries were among the pioneers in the development of private microwave, utilizing their systems to monitor and operate petroleum and natural gas pipelines.

4. The API Telecommunications Committee participated in the Commission's earliest rule making proceeding that addressed private microwave use of the spectrum; and, it has continued to be an active participant in every subsequent major proceeding affecting the FS. Accordingly, API has been actively involved in each phase of the Commission's ongoing proceeding in ET Docket No. 95-18, which entails the reallocation of spectrum in the 2.1 GHz band for the MSS and the adoption of relocation and reimbursement provisions for those FS licensees and other incumbents required to vacate their assignments.

II. COMMENTS

5. In its *Further Notice*, the Commission explores additional frequency bands for advanced wireless services, including 3G and future generation wireless systems. Among the bands potentially targeted for reallocation are the 1990-2025 MHz and 2165-2200 MHz bands, a portion of which recently was reallocated from the FS to the MSS. In these Comments, API takes no position on whether some of the 2.1 GHz band MSS spectrum should be *re*-reallocated for advanced wireless services. Instead, these Comments respond to the Commission's inquiry as to whether a new advanced wireless services or "3G" allocation in this spectrum band would require any changes to the Commission's existing rules governing the relocation of FS licensees from the 2165-2200 MHz band. (See *Further Notice* at ¶ 32). As further discussed below, API does not advocate any substantial changes to relocation policies other than those already addressed in a pending petition for reconsideration, but it does urge the Commission not to further erode the relocation and reimbursement rights that already have been granted to FS licensees that will be forced to vacate their spectrum assignments in the 2.1 GHz band.

A. **New Interference Standards for Purposes of Triggering Relocation Obligations May Need to be Developed and Approved**

6. The *Further Notice* does not address what interference standards would be used to assess whether proposed 3G or other advanced wireless systems in the 2.1 GHz band would present a risk of interference to incumbent FS systems, thereby triggering an obligation to relocate the incumbent. In other contexts, the applicable standards have been developed by impacted industry groups and presented to the public for approval

through the notice and comment process. For example, the criteria set forth in Telecommunications Industry Association (“TIA”) Technical Service Bulletin 86 (“TSB-86”) have been approved for purposes of analyzing MSS to FS interference in the 2.1 GHz band, while TIA’s TSB10-F is the applicable standard for assessing interference by Personal Communications Services (“PCS”) licensees to FS licensees in the 1850-1990 MHz band.

7. Should a portion of the 2.1 GHz band be reallocated for advanced wireless services, it is likely that new interference standards would need to be developed for purposes of FS relocation that take into consideration the particular technical characteristics and operating parameters of the new services to be deployed. As in prior instances, it is critical here that all impacted industries (including FS licensee industries or organizations) be provided an opportunity to participate in the development of the appropriate interference criteria and that any standards ultimately adopted are subject to public approval. Particularly given the important safety functions served by private FS systems employed by critical infrastructure industry companies such as API members, under no circumstances should the Commission allow any advanced wireless systems to be deployed in the 2.1 GHz band until the applicable interference standard has been adopted. Similarly, API asks the Commission to confirm that, as in the past, the obligation to relocate an incumbent FS licensee should be triggered by a demonstration of potential interference under the applicable technical standard, rather than by a showing that any actual interference has occurred.

B. The Commission Should Reaffirm that New Licensees in the 2.1 GHz Band Must Relocate Both Links in a Paired FS Frequency Assignment

8. The 2.1 GHz band FS systems operated by API member companies and other private licensees typically consist of paired frequency assignments, with one transmitter operating in the 2130-2150 MHz band and the other operating in the 2180-2200 MHz band. As the Commission is aware, the former band segment has been redesignated for auction pursuant to the Balanced Budget Act of 1997 (possibly to be used for advanced wireless systems), while the latter segment has been reallocated for MSS downlink spectrum and, pursuant to the *Further Notice*, may subsequently be further reallocated, in part, for advanced wireless systems. Moreover, given the Commission's recent proposals to permit ancillary terrestrial operations by MSS licensees,³ it is quite conceivable that 2.1 GHz band FS licensees ultimately will be subject to potential relocation by advanced wireless services, MSS satellite operations *and* MSS terrestrial operations. With the possible deployment of such a variety of new services in the 2.1 GHz band, it is particularly important for the Commission to ensure that FS relocations do not occur in a piecemeal manner that risks disruption to the important safety-related operations of many FS licensees.

9. In its *Further Notice*, the Commission properly observes the following with respect to the relocation rules presently in place for the 2.1 GHz band: “[b]ecause it

³ See In the Matter of Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2/4 GHz Band, Notice of Proposed Rulemaking (“NPRM”), IB Docket No. 01-185, 66 Fed. Reg. 47621 (Sept. 13, 2001).

is usually necessary to relocate both links of a two-way FS microwave system, when a new MSS or other licensee relocates a pair of FS links in these bands, a subsequent new licensee who benefits from a prior relocation will reimburse the initial new entrant who paid for relocation of paired channels.” (*Further Notice* at ¶ 34). API fully supports this policy and urges the Commission to reconfirm its applicability should a portion of the 2.1 GHz band be reallocated for advanced wireless services.

10. The need to relocate both links of a two-way FS microwave system has been borne out time and again by the experience of FS relocations from the 1850-1990 MHz band to make way for PCS licensees, and such a need can be expected to be present in the 2.1 GHz band as well. FS spectrum in the 6 GHz band typically has been selected as the most appropriate available spectrum for the relocation of incumbent FS systems in the lower and upper 2 GHz bands. It is highly impractical, however, to use, for example, a 2.1 GHz band transmit frequency paired with a 6 GHz band receive frequency, as those frequencies are so far removed from one another that separate antennas and transmission lines would be required. Transmitters operating at 6 GHz cannot use 2.1 GHz feedhorns and coaxial cable, and 2.1 GHz transmitters cannot use 6 GHz feedhorns and waveguide. Under these circumstances, the only sensible and cost-effective approach is to relocate both links of an implicated microwave path at one time. Accordingly, the first new licensee to require relocation of a particular FS incumbent system in the 2.1 GHz band -- regardless of the nature of the services that the new licensee is seeking to deploy -- should be expected to bear initial responsibility for relocating both halves of any paired

frequency assignments that are involved.

C. Each FS Licensee that Must Relocate Should be Afforded a Full Two-Year Period for Mandatory Negotiations

11. The existing rules for the relocation of incumbent non-public safety FS licensees from the 2.1 GHz band establish a two-year period for mandatory negotiations between the incumbent and the new licensee. (See 47 C.F.R. § 101.69(d)(1)). The Commission inquires in its *Further Notice* whether the length of the negotiation period should be changed in the event that a portion of the 2.1 GHz band is reallocated for advanced wireless services. (*Further Notice* at ¶ 34).

12. API does not believe that there is a need to alter the length of the negotiation period. However, API strongly urges the Commission to clarify its rules to ensure that each incumbent that will be required to relocate -- whether due to the deployment of advanced wireless services or MSS (including ancillary MSS terrestrial operations) -- receives a *bona fide* two-year period during which to negotiate a relocation agreement. Under existing relocation rules, the mandatory negotiation period will begin when the new licensee (presumed to be an MSS provider at the time the rules were adopted) informs the FS licensee, in writing, of its desire to negotiate. (47 C.F.R. § 101.73(d)). It is unclear from this rule whether the Commission contemplates that all entities would be subject to the same two-year period, triggered by the first new licensee to contact an incumbent, or whether staggered negotiation periods could occur based upon when each new licensee notifies each incumbent.

13. To protect incumbent interests, API urges the Commission to establish “rolling” negotiations whereby each incumbent is entitled to its own two-year negotiation period triggered by the commencement of actual negotiations. In light of the variety of new services likely to be deployed in the 2.1 GHz band -- with some licenses already having been granted (*i.e.*, MSS) and others to be assigned by one or more auctions that may not be held for some time to come -- it is probable that a single, fixed two-year negotiation period would elapse and “involuntary” relocations would be triggered before many incumbents even are approached by a new licensee seeking to initiate relocation negotiations. Such a result not only would be unfair to incumbents, but also would likely require the Commission’s involvement, in many instances, in disputes over whether incumbents have been provided with “comparable facilities” under the Commission’s rules for involuntary relocations. The establishment of rolling negotiations, by contrast, would provide each incumbent with a meaningful period of time during which to negotiate for the relocation of its critical FS facilities and would be unlikely to necessitate the Commission’s involvement except in unusual cases.⁴ API also notes that

⁴ API previously has urged the Commission to formally announce the commencement of a unified mandatory negotiation period through the issuance of a Public Notice and to require MSS licensees to provide notice within 90 days to those FS incumbents that they intend to relocate. *See Joint Petition for Clarification and Reconsideration*, filed by the Fixed Wireless Communications Coalition, the Critical Infrastructure Communications Coalition, API, the Association of American Railroads, the Association of Public Safety Communications Officials International, Inc., and the Untied Telecom Council, ET Docket No. 95-18 (Sept. 6, 2000), at pp. 7-9. While API continues to believe that such an approach would be preferable to the adoption of a single, static mandatory negotiation period that could elapse without even the provision of notice to some incumbents, API does not believe that any approach involving the imposition of a single negotiation period for all implicated parties would be practical in an environment where MSS licensees are

such rolling negotiations have been employed successfully with respect to the relocation of FS incumbents by PCS licensees. (See 47 C.F.R. §§ 101.69(b) and 101.73(a)).

D. Existing Relocation Policies Should Not Be Weakened

14. The relocation rules currently in place with respect to FS licensees in the 2.1 GHz band already are a weakened version of the rules governing the relocation of FS incumbents from the 1850-1990 MHz band to make way for PCS licensees -- *i.e.*, the 2.1 GHz band rules provide incumbents with fewer rights and protections than do the PCS relocation rules.⁵ For instance, while the PCS relocation rules entail (with respect to non-public safety licensees) a one-year period for voluntary negotiations and a one-year period for mandatory negotiations, the Commission has adopted a single, two-year mandatory negotiation period (with no voluntary negotiation period) for non-public safety FS licensees in the 2.1 GHz band. (See 47 C.F.R. §§ 101.69(c) and (d)). Further, under the PCS relocation rules, the criteria for “comparable facilities” -- *i.e.*, equivalent throughput, reliability and operating costs -- are applicable only to involuntary relocations; for the 2.1 GHz band, by contrast, the Commission reduced the bargaining power of FS incumbents by including the comparable facilities criteria in the mandatory negotiation rules to serve as a target or goal for the negotiations. (See 47 C.F.R.

deploying different types of services (MSS and terrestrial) over a possibly protracted period of time and where advanced wireless services licensees may be present in both segments of the 2.1 GHz FS band.

⁵ In fact, the existing rules with respect to PCS relocations are themselves a weakened version of the rules originally adopted by the Commission to govern such relocations, as various incumbent rights were eroded on reconsideration. See ET Docket No. 92-9; WT

§ 101.73(d)). The Commission also has declined to grant to involuntarily relocated 2.1 GHz band FS incumbents the right (available to PCS-band incumbents) to return to their former frequencies if they find, within 12 months of relocation, that the replacement equipment fails to meet the comparability standard. (See 47 C.F.R. § 101.75(d)).

15. API has not challenged on reconsideration any of the aforementioned erosions to incumbents' relocation rights. In this regard, API recognizes that such rule changes may have been deemed necessary by the Commission to foster a rapid and efficient transition to new services. At the same time, API implores the Commission not to use this rule making proceeding or the new "companion" proceeding impacting MSS (IB Docket No. 01-185) as an opportunity to further chip away at relocation rights, as there clearly would be no justification for doing so. It appears that the 2.1 GHz band ultimately will be used for a wide variety of new services, including mobile satellite services, terrestrial services and advanced wireless services. In an environment of such intensive and varied spectrum use, it is particularly critical that the important private internal systems of FS incumbents are protected from harmful interference until appropriate replacement facilities are provided and that no disruptions of service are experienced. Any further weakening of relocation rules and policies would undermine these goals and shift unfairly the balance of rights and interests in favor of new licensees, at the expense of critical infrastructure industries and other traditional FS licensees in the 2.1 GHz band.

E. The Commission Should Address the Issues and Concerns Raised in the Pending “Joint Petition” Filed by API and Others

16. As referenced in footnote 4, on September 6, 2000, API and several other parties filed a *Joint Petition for Clarification and Reconsideration* (hereinafter, “*Joint Petition*”) of various aspects of the Commission’s *Second Report and Order* in ET Docket No. 95-18. Among other things, this pleading, which remains pending at the Commission, urges the agency to: (1) clarify that an MSS licensee is obligated to relocate an incumbent whenever the MSS licensee would receive interference from, as well as cause interference to, the incumbent’s operations (or else forfeit its rights to subsequently request an involuntary relocation); (2) clarify that the ten-year relocation “sunset” period commences with the initiation of relocation negotiations between MSS and FS licensees; (3) confirm that voluntarily self-relocating incumbents in the 2.1 GHz band may obtain reimbursement through the cost-sharing plan; and (4) clarify that license assignments and transfers of control involving incumbent licenses will not result in a loss of primary status. Each of these issues is of continuing relevance to FS incumbents and should be resolved consistent with the views expressed in the *Joint Petition*, with respect to both MSS licensees and advanced wireless services licensees (should the Commission move forward with such an allocation in the 2.1 GHz band).

17. It is API’s understanding that the Commission is delaying consideration of the *Joint Petition* and like pleadings pending resolution of the issues raised in the *Further Notice* in the instant proceeding and the *NPRM* in IB Docket No. 01-185. With respect to at least some of the issues pending on reconsideration, however, API submits

that there is no reason to delay their resolution and, moreover, that some incumbents may suffer irrevocable harm as a result of such delay. The right to self-relocation is one such issue. (See *Joint Petition* at pp. 9-11). As the 2.1 GHz band has undergone reallocation and now potential *re*-reallocation, FS incumbents have faced continuing and, at this time, heightened uncertainty regarding when, if ever, their systems will need to be relocated (and by whom). The right to self-relocation (as was granted to similarly situated FS incumbents in the 1850-1990 MHz band) would enable 2.1 GHz FS incumbents to clear their spectrum quickly on their own without forfeiting relocation rights. The Commission's decision whether to grant such self-relocation rights should in no way depend on the nature of the new services that will be occupying the 2.1 GHz band.

18. Another issue that API believes merits prompt attention is whether incumbents may undergo license assignments or transfers of control without forfeiting their primary status and, correspondingly, their relocation rights. (See *Joint Petition* at pp. 11-18). Like the issue of self-relocation, this issue impacts the current expectations and behavior of incumbent licensees, and its resolution should not turn on the Commission's decisions regarding the various proposals in the *Further Notice* and *NPRM*. Accordingly, API urges the Commission to move forward in resolving these and other issues that are contributing to incumbent uncertainty in the 2.1 GHz band. API also requests that, at the very least, the Commission address all pending issues on reconsideration either prior to or together with the issues raised in the *Further Notice* and *NPRM*, rather than at a later date.

III. CONCLUSION

19. In the event that a portion of the 2.1 GHz band is reallocated for advanced wireless services, API believes that new technical criteria may need to be developed to assess potential interference to FS licensees and that no new systems should be deployed until the applicable criteria have been approved and applied. API also urges the Commission to confirm that, in order to avoid disruption to incumbent systems, new licensees are required to relocate both links in a paired FS frequency assignment. With respect to relocation negotiations, API supports the adoption of a “rolling” two-year mandatory negotiation period, which would begin for each incumbent upon the receipt of notice from the new licensee of its intent to negotiate. Finally, API cautions the Commission against the adoption of new rules that further weaken incumbents’ relocation rights, and it asks the Commission to move forward in addressing issues that are pending on reconsideration, including the right of incumbents to self-relocate their systems and to undergo license assignments or transfers of control without forfeiting primary status.

WHEREFORE, THE PREMISES CONSIDERED, the American Petroleum Institute respectfully submits the foregoing Comments and urges the Federal Communications Commission to act in a manner consistent with the views expressed herein.

Respectfully submitted,

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