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FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of ) GEN Docket No. 90-314  
) ET Docket No. 92-100  
)  
) RM-7410, RM-7175, RM-7617,  
) RM-7618, RM-7760, RM-7782,  
Amendment of the Commission's ) RM-7860, RM-7977, RM-7978,  
Rules to Establish New Personal ) RM-7979, RM-7980  
Communications Services )  
) PP-35 Through PP-40, PP-79  
) through PP-85

REPLY COMMENTS OF IN-FLIGHT PHONE CORPORATION

In its initial comments, In-Flight urged the Commission to (1) accept applications to provide narrowband PCS service on a nationwide basis in appropriate circumstances; (2) ensure that applicants proposing service requiring up to 500 kHz for base station operations are eligible to file license applications in appropriate circumstances; (3) select narrowband licensees through lotteries designed specifically to discourage speculators from filing license applications; and (4) refrain from classifying as a common carrier service any narrowband service which does not meet the traditional definition of a common carrier service.

There is nothing in the initial comments of any party which should cause the Commission to reject any of In-Flight's four proposals. In fact, a large number of commenters make proposals which are fully consistent with In-Flight's four recommendations.

While there is broad support for In-Flight's four proposals, the company in this Reply analyzes in detail, in light of the comments of others, its proposals to (1) permit the filing of an application for a nationwide narrowband license and (2) allow certain narrowband services to operate on 500 kHz of spectrum. On

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the basis of this analysis, In-Flight asks the Commission to implement the broad regulatory principles which In-Flight espoused in its initial comments on these two matters by adopting the following specific regulatory policies in its narrowband PCS rules:

1. An applicant should be allowed to apply for a nationwide narrowband PCS license but only if it is clear from the face of the application that the proposed service cannot be provided economically or technically on a regional basis.
2. The Commission should either (a) create one or more 500 kHz channel blocks for the provision of narrowband PCS service or (b) give any applicant who employs frequency reuse the right to apply for a license as long as the location of each base station in the applicant's system is specified in the application and operates within a bandwidth that is equal to or less than the bandwidth that composes a channel block.

Each of these recommendations is discussed separately below.<sup>1/</sup>

I. The FCC Should Accept an Application To Provide Nationwide Narrowband PCS Service, but It Should Do So Only If It Is Clear from the Face of the Application that the Proposed Service Cannot Economically or Technically be Provided on a Regional Basis

Expressing a commitment to adopt narrowband PCS rules that facilitate the development of a wide range of innovative services at low cost, the Commission sought comments about the extent to which it should limit the geographic area served by narrowband

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<sup>1/</sup>In this Reply, In-Flight analyzes the comments of others on the issues of nationwide licensing and the amount of spectrum that should be awarded only for those commenters whose proposals on these issues dealt specifically with narrowband PCS services because the factors that must be balanced in deciding the size of broadband PCS license areas and the amount of spectrum to assign to broadband licensees obviously are different than the factors relevant to deciding these issues for narrowband licenses.

licensees. Without expressing a preference, the agency asked for advice on whether it should grant only regional licenses, only nationwide licenses, or a combination of both regional and nationwide licenses.

The FCC can facilitate innovation at low cost to consumers by issuing most narrowband PCS licenses to serve large regional areas rather than the entire nation because extensive use of regional licensing plainly is more likely than the extensive use of nationwide licensing to produce the competition necessary to guarantee low consumer costs, and the comments filed with the agency demonstrate clearly that most narrowband PCS services can operate efficiently on a large regional basis. In fact, nearly all commenters admitted that the services they are developing or envision could operate efficiently under a regional license as long as the region is large enough to encompass 20 to 33 percent of the geographic area of the continental United States.<sup>2/</sup>

While the FCC should rely primarily on regional licensing in light of the comments filed by interested parties, it should accept an application for nationwide license if the application demonstrates plainly on its face that the particular PCS service

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<sup>2/</sup>See Dial Page at 7-8, Kleiner Perkins at 1; Arch Commun. at 7-8; Motorola at 22; Telocator at 10-13; Pactel Paging at 11-15; PageNet at 9-12; and Freeman at 13. PageMart urged the Commission to issue only nationwide licenses rather than regional licenses if the regions are small but did not oppose regional licenses if each region constitutes 20-33 percent of the country's land mass. The only other party urging the FCC to issue only nationwide licenses, Mtel, states that its recommendation is based entirely on what it describes as "preliminary" results of the "first phase" of a consumer focus group and telephone survey. Mtel at 13-14. This is hardly the sort of evidence upon which the FCC should base such an important decision.

proposed by the applicant cannot economically or technically be offered on a regional basis; applications for nationwide license which fail to make the necessary showing should be denied with prejudice.

Accepting an application for a nationwide license in the narrow circumstance described above is consistent with the agency's expressed objectives. First, accepting such application will not undermine the Commission's desire to promote low cost narrowband services by maximizing the number of licensees since the vast majority of narrowband services can be licensed on a regional basis as indicated above. Second, accepting a nationwide application will further the FCC's commitment to facilitate diverse narrowband PCS services because the agency already has ruled that the provision of nine channels of audio programming to airline passengers as proposed by In-Flight -- undeniably an innovative mobile service -- cannot be provided regionally. It is possible that some other innovative narrowband PCS service cannot be provided on a regional basis as well.<sup>3/</sup>

Accepting an application for a nationwide license only when the applicant proves that its service cannot be provided on a

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<sup>3/</sup>Everyone who expressed a view explicitly endorsed the FCC's proposal to promote innovation by defining PCS in a way that permits the provision of any mobile service other than broadcasting, but the specific PCS services contemplated by each of these commenters, other than In-Flight, are predictable in that they are simply improved paging or messaging services about which there has been broad discussion and analysis for several years. In-Flight also has an equitable right to utilize the proposed narrowband PCS bands to serve airline passengers because the agency earlier had indicated specifically that most of this spectrum could be used to provide mobile services to airline passengers. See 900 MHz Reserve Band Allocs., 2 FCC Rcd. 1825, 1838-40 (1986), recon. denied 2 FCC Rcd. 6830, 6832-33 (1987).

regional basis also is preferable to giving applicants an unrestricted right to seek either a nationwide or regional license because the latter approach almost certainly would lead to massive speculation by license applicants. For example, with a right to choose freely between applying for a regional or nationwide license many (perhaps most) of the numerous companies desiring licenses to provide paging services undoubtedly would seek nationwide licenses solely because nationwide licenses would be more valuable than regional licenses.<sup>4/</sup>

Accepting an application for nationwide license in the narrow circumstance described above also is consistent with the comments filed in this proceeding because several commenters explicitly supported the grant of both nationwide and regional narrowband licenses,<sup>5/</sup> and only two commenters<sup>6/</sup> opposed issuance of any nationwide narrowband licenses but offered wholly inadequate justifications. Dial Page opposed the issuance of any nationwide narrowband license but offered no reason for doing so.<sup>6/</sup> Arch Communications also opposed any nationwide licenses, but its two reasons for doing so are without merit. According to Arch, the first reason why the FCC should not award any nationwide license is

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<sup>4/</sup>Five narrowband proponents asked the FCC to award both regional and nationwide licenses in appropriate circumstances, but none of them specified the circumstances under which applicants should be permitted to file for nationwide licenses. PageNet 14-16, Metrocall at 10, 25-26; Freeman Engin. at 13; Kleiner Perkins at 1; and Telocator at 10-13. In-Flight's proposal should be acceptable to these commenters.

<sup>5/</sup>Id.

<sup>6/</sup> Dial Page at 7-8.

that doing so could "potentially" reduce competition,<sup>7/</sup> but such theoretical speculation is hardly a valid justification for refusing to grant any nationwide license. Arch also opposed the issuance of any nationwide license on the ground that regional licensees would be at a competitive disadvantage.<sup>8/</sup> In fact, the issuance of a nationwide license only to an applicant who proposes a specific service that cannot be offered on a regional basis prevents the very unfair competition about which Arch claimed to fear.<sup>9/</sup>

II. The FCC Either Should Create One or More 500 kHz Channel Blocks or Give an Applicant Who Employs Frequency Reuse the Right to Apply for a License as Long as It Identifies the Location of Each Base Station in Its System and Each Base Station Operates Within a Bandwidth that is Equal to or Less than the Bandwidth Composing a Channel Block

The FCC also sought recommendations on how much spectrum it should assign to individual narrowband licensees because it recognized that its decision on this matter will affect its commitment to facilitate innovation at low cost just as its decision about the size of the geographic area which licensees may serve will affect its ability to achieve this objective. The Commission concluded tentatively that it should allow each narrowband PCS applicant to apply for a license to operate on an

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<sup>7/</sup> Arch Commun. at 8.

<sup>8/</sup> Id.

<sup>9/</sup> PacTel Paging noted that applicants desiring to provide paging services should be precluded from filing applications for nationwide license since paging services can be provided technically and economically on a regional basis. PacTel Paging at 11-15. However, Pactel Paging did not oppose the award of a nationwide license to provide a service that cannot be provided on a regional basis.

amount of spectrum that most closely accommodates the applicant's needs, and it stated its intention to create channel blocks of different sizes and invited comments on the most appropriate sizes.

The Commission may want to establish channel blocks of 50 kHz, 100 kHz, and 150 kHz in width for base station operations since the comments showed substantial demand for channel blocks of these sizes to accommodate the various services that have been developed by commenters,<sup>10/</sup> but the agency also should establish at least one channel block of 500 kHz in order to accommodate a service requiring more than 150 kHz of bandwidth for base station operations throughout its service area.

The creation of a 500 kHz channel block is consistent with the Commission's expressed objective to facilitate innovation at low cost. First, creating a 500 kHz channel block will not undermine the agency's desire to promote low cost narrowband services by

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<sup>10/</sup> PageMart at 7-10 (proposing grant of licenses to operate base stations on 200 kHz and on narrower bandwidths); Dial Page at 6 (proposing grant of licenses to operate base stations on bandwidths not to exceed 50 kHz); Mtel at 8-9 (implicitly proposing grant of licenses to operate base stations on bandwidths not to exceed 50 kHz); Arch Communications at 6-7 (proposing grant of licenses to operate base stations on 100 kHz and 50 kHz channels); Metriplex at 12 (proposing grant of licenses to operate base stations on 50 kHz channels); Motorola at 20 (proposing grant of licenses to operate base stations on 150 kHz and 50 kHz channels); Telocater at 9 (proposing grant of licenses to operate base stations on 50 kHz and 25 kHz channels); PacTel Paging at 20-24 (proposing grant of licenses to permit base stations to operate on 100 kHz, 50 kHz, and 25 kHz channels); PageNet at 12-16 (proposing grant of licenses to operate base stations on channels ranging in size from 25 kHz to 200 kHz); Matsushita at 6 (proposing grant of licenses to operate base stations on 50 kHz channels and channels as large as 150 kHz where a demonstrated need is shown); BellSouth at 26 (proposing grant of licenses to operate base stations on 50 kHz channels); and Freeman Engin. at 4-8,10 (proposing grant of licenses to operate base stations on 100 kHz channels as well as smaller channel blocks.

maximizing the number of licensees since it still should be possible for the Commission to issue from 15-25 regional PCS licenses in each service area depending on the exact bandwidths on which other licensees are allowed to operate. Moreover, failure to create a 500 kHz channel block would frustrate service innovation because, although the majority of narrowband commenters asked the FCC to limit base station operations to blocks of 150 kHz or less, all of these commenters proposed to use their licenses to provide various types of paging or messaging service. Only In-Flight, among all those who commented on the agency's proposed narrowband rules, has proposed a truly innovative narrowband service.<sup>11/</sup>

If the Commission decides not to establish at least one 500 kHz channel block despite the clear justification for doing so, it still should accommodate a service that requires up to 500 kHz of spectrum due to the use of frequency reuse schemes, and it can do so by giving an applicant proposing such service the right to apply for a license as long as each of the applicant's base stations operates on an amount of spectrum no larger than the amount of spectrum allocated to a channel block. An applicant wishing to take advantage of this option would be required as part of its application to identify each of its base station sites along with the amount of spectrum required at each site; if this application is selected for grant, the FCC would authorize the licensee to operate transmitters only at the sites identified in the application, and each transmitter would be limited to operating on the specific amount of spectrum requested in the application.

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<sup>11/</sup> See n. 3, supra.

There are several good reasons for the FCC to adopt this proposal. First, the proposal will facilitate the Commission's desire to maximize the number of narrowband licenses it grants because the proposal will allow the agency to issue the identical number of licenses it could issue in the absence of adopting this proposal. Moreover, adoption of this proposal will facilitate innovation by permitting the filing of license applications for one or more innovative services that otherwise would not qualify for licensing. Finally, adoption of this proposal will promote technically efficient use of the spectrum because a narrowband PCS licensee employing frequency reuse which operates each transmitter within the bandwidth specified for a single channel block is no less spectrum-efficient than a simulcast system operating on a channel block of the same size, and it is substantially more spectrum-efficient than a frequency reuse system whose base stations operate on significantly less bandwidth than the channel block they occupy.<sup>12/</sup>

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<sup>12/</sup>The narrowband service proposed by In-Flight, while requiring the use of more spectrum than narrowband services proposed by other commenters, will preclude other licensees from using the same spectrum to a far lesser extent than the narrowband services of other narrowband licensees for two reasons. First, although In-Flight's service requires 500 kHz nationwide, most In-Flight base stations will operate on 81.3 kHz, leaving nearly 419 kHz from this 500 kHz block available for licensing to other narrowband licensees serving the same area. Second, while other PCS licensees would be unable technically to use the 81.3 kHz occupied by an In-Flight base station within a specified distance of the In-Flight base station, this restriction will not preclude another narrowband licensee from using the same 81.3 KHz in many urbanized areas where the demand for narrowband services is greatest because In-Flight will co-locate its PCS base stations with ground stations it uses to provide its existing air-ground service; these ground stations are located near airports, and many of them are substantially more than 100 miles from any large urban  
(continued...)

CONCLUSION

The Commission should incorporate the two regulatory policies described above in the rules it adopts to govern the new narrowband PCS service.

Respectfully submitted,

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<sup>12/</sup>(...continued)  
area (e.g., Winslow, Ariz., Blythe, Calif.; Hayden, Colo.; Blackfoot, Idaho; Kewanee, Ill.; Garden City, Kan.; Sault Ste. Marie, Mich.; Meridian, Miss.; Miles City, Montana; Grand Island, Neb.; Dickinson, N. Dakota; Woodward, Okla.; Pendleton, Ore.; Aberdeen, S. Dakota; Monahams, Texas; Delta, Utah; and Riverton, Wyo). Moreover, even airports which serve large urban areas often are many miles from the core city. By contrast, since the target markets of most other PCS licensees are the core cities in highly urbanized areas, most of their base stations will be located in densely populated areas thus precluding any other licensee from using the same channel block to serve the same market.

CERTIFICATE OF SERVICE

I certify that a copy of the attached "Reply Comments of In-Flight Phone Corporation" was mailed by first class mail to each of the following on January 8, 1993:

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