RESPONSE TO ITEM 4(a)

Selection of Frequencies

Palmer Communications Incorporated ("Palmer") seeks to establish a PCN experimental system. These experiments are to be performed by modifying various pieces of existing telecommunication equipment. Eventually, new equipment acquisitions will be undertaken.

Palmer intends to conduct its experiments using various frequency bands, including 902-928 MHz, 941-948 MHz, 1850-1990, 2400-2483.5 MHz and 5725-5850 MHz. Palmer's tests will utilize the 900 MHz frequencies and the Part 15 frequencies, as well as the 2 GHz and 5 GHz bands and the 1850-1990 frequency band. The latter is presently allocated for fixed microwave service and presently there is no protected frequency band for PCN use in this country. Palmer has selected different frequency ranges to determine the amount of available bandwidth required for a PCS network with minimal interference.

Most importantly, Palmer will use the Cable Television Relay Service ("CARS") for which it is already licensed, as well as frequencies in the bands authorized for use by spread spectrum devices under Part 15 of the Commission's rules. Palmer's testing of spread spectrum techniques will help determine whether the wireless frequency communications services can share various frequency ranges with existing users on those bands. These tests

will also help to determine the characteristics and compatibility of using spread spectrum technologies on various frequency ranges in conjunction with coaxial cable and fiber optic wire transmission. This information will enable the Commission to decide which frequencies to authorize for large scale testing of PCN systems involving a cable interface.

Palmer will select the proper frequencies after conducting its tests. Field demonstration tests may then be conducted in one or more of these bands. Before any field demonstration tests are conducted, however, preliminary tests will be done to determine that the tests will not create harmful interference with other users of the frequency, on authorized and coordinated microwave facilities or base stations located within 75 miles radius of the tests sites. Palmer will undertake continuing efforts to cooperate with all the authorized facilities operating within the authorized frequency band to avoid harmful interference. By monitoring to prevent interference problems, Palmer will insure that the low power transmissions it is using do not interfere with the higher power links in these bands.

Justification

The proposed program of experimentation will greatly increase the state of the art of PCN development by using an innovative approach. Palmer's tests will provide reliable benchmarking for future PCN networks. Palmer is uniquely qualified for this experimental program because of its accumulated knowledge and experience in telecommunications. Palmer has long been involved in telecommunications. Through its

affiliates and subsidiaries, Palmer holds Public Mobile Service authorizations, Private Land Mobile Service authorizations, Domestic Facilities authorizations, Broadcast facility authorizations and CARS authorizations. Palmer is a leader in the provision of broadcast, cable and cellular service. Palmer has years of experience in virtually all areas of telecommunications. Through its experience and resources, Palmer is able to fully explore the interface of PCS and cable.

Palmer submits that it is essential that an experimental program such as the one proposed be conducted to collect operational data and develop and explore the viability of new telecommunications services.

RESPONSE TO ITEMS 4(e) AND 4(g)

Item 4(e)

Various emissions and modulations will be used in the several phases of this experiment. The emissions and type of modulation will depend on each phase of the experiment, and optimum usage of spectrum with minimum interference. Most of the modulations are digital (PSK, CPFSK, QAM, direct sequence pseudo noise) and a variety of multiple access techniques (TDM, TDMA, FDMA, CDMA, Frequency Hopping) are planned. A limited use of analog FM is also planned.

The bandwidth occupied will be no greater than that required for the modulation scheme being used at that time.

Item 4(q)

Applicant will select the proper frequency bands within the market to avoid harmful interference to the authorized and coordinated microwave facilities with base stations located within 75 miles radius of the applicant base stations. Moreover, applicant will monitor experimental facilities very closely to avoid harmful interference.

RESPONSE TO ITEM 5(b) and 5(d)

Palmer Communications Incorporated ("Palmer") proposes to conduct an experiment in conjunction with its cable system. Palmer proposes to integrate its cable facilities with PCS to create an advanced low cost communications service. Palmer proposes to co-locate PCS facilities with its cable distribution plants and evaluate the transmission ability of the cable plants, both fiber optic and coaxial cable to determine the feasibility of the provision of PCS to create a wireless communications system. Palmer will locate transmitters and/or transmitting facilities within a 75 mile radius of the proposed test sites.

Response to Item 6

The system components include up to:

Subscriber Terminals To Be Determined

Microcell Network To Be Determined

Cable Subscriber Interface To Be Determined

Units

The antenna for any microcells that may be constructed and operated would be located inside buildings or, if outside, at a height not to exceed six meters above the existing structure. Subscriber Terminals would be located inside buildings or at street level. All tests will be performed within a 75 mile of the center of the test area designated in Item 5 of this application.

EXHIBIT 5

RESPONSE TO ITEM 10

A. <u>Background and Eliqibility</u>.

Palmer Communications Incorporated ("Palmer") is a communications company based in Fort Myers, Florida. Palmer is involved in many facets of telecommunications. Specifically, Palmer is a leading provider of broadcast, cable television, private radio, and common carrier services including paging and cellular radiotelephone services. Palmer has cable franchises throughout Florida and California. Palmer holds cable franchises in Florida for the City of Naples; Collier County; Marco Island; the City of Sanibel; Lee County; and the City of Everglades. In addition, Palmer holds cable franchises in California for Banning; Cathedral City; Rancho Mirage; Palm Desert; Indian Wells; La Quinta; Indio; Coachella; and the eastern one-half of Riverside; Beaumont; and Palm Springs.

By the subject application, Palmer proposes to conduct Personal Communications Services ("PCS") in the markets where it holds an interest in a cable franchise. The experience of Palmer's personnel in the above described communications areas places Palmer in a unique position to test new services and provide the Commission with hard data concerning Palmer's proposed experimental program.

As a current Commission licensee and provider of telecommunication services, Palmer is committed to the facilitation of advanced technologies and systems. Palmer has the technical background, the financial resources, and the practical experience to conduct the subject experiment.

C. <u>Experiment Objectives</u>.

Palmer seeks to evaluate the feasibility of, and the operational framework of, a PCS system integrated with its existing cable system. Palmer's ultimate goal is to create a seamless communications system at low cost by utilizing existing technology. Palmer's experiments will address the technical problems of a PCS system as well as the marketing concerns of consumer demand and affordability. Palmer believes that cable offers an low cost link to the provision of PCS service that will create an economically viable and technically feasible system of wireless communications to its subscribers.

D. Research Program.

Palmer's application requests experimental licensing for PCN capability to provide critical information concerning system level issues, such as location capability and affiliation algorithms.

For purposes of this application, Palmer's definition of "PCN" is:

Nationwide omnibus wireless voice communications to small, low price subscriber terminals.

"Small" and "low price" implies small batteries and low power. Low power in turn implies microcells, but it is vital that a total PCN system include more than microcells and innovative transmission techniques — it must encompass all of the infrastructure to support omnibus services on a nationwide (possibly global) basis.

E. Objectives.

Palmer intends to explore the following issues: (1) customer usage; (2) design of service and facilities to meet customer needs; (3) customer demand to support spectrum allocation and the accompanying investment; (4) technical cost of the provision of service compared to acceptable consumer price levels; and (5) market characteristics that support PCN service.

Palmer will strive to obtain the necessary information through research and experimentation to develop an effective local nationwide and possibly global PCN network for the provision of a wide variety of subscribers services.

Palmer's technical objectives include, but are not limited to, the following items:

- To implement and experimentally prove the concept of a PCN test bed using existing cable systems as a means of providing ubiquitous data, video and other communications services to existing cable subscribers who will interconnect with the system by means of low cost terminal equipment and/or adapters connected to their present television sets.
- To collect experimental design data on specific system operating parameters such as subscriber usage of the new services, system compatibility, costs of design and construction of conversion architecture and the number of services that can be made available on a two-way interactive basis using this architecture.
- 3. To experimentally determine logical synergies among existing telecommunications options that might interface with a cable system.
- 4. To develop innovative subscriber equipment for PCN applications by working with manufacturers to modify existing equipment

and/or by developing new equipment for this advanced telecommunications application.

- 5. To experiment with the use of radio port configurations for atomizing performance and service offerings and to test the deployment possibilities of various enhanced services.
- 6. To provide critical information regarding the system level issues, such as Location Capabilities and Affiliation Algorithms.

Palmer intends to assess and quantify PCN demand. In the assessment of PCN demand, Palmer's tests will be designed to identify the characteristics of potential subscribers. Measurements of test market penetration levels will be obtained first by identifying and soliciting businesses to use PCN. Palmer's experiment will focus on a group of existing subscribers

F. Assessing the Economics.

In addition to the marketing and technical objectives described above, the proposed experimentation will provide vital data on the economic feasibility of PCN services at market responsive rates and demand levels deduced from the subject test market efforts.

G. The Palmer Experiment.

Because of Palmer's experience in the cable industry, Palmer is able to explore the interface between cable and PCN. Palmer believes that cable offers a low cost means of interconnection necessary to create a wireless communications system. Palmer's test will focus upon the feasibility of providing wireless communications service through its existing cable television distribution plants, both coaxial cable and fiber optic cable.

These tests will determine the microcell designs that will be integrated into Palmer's coaxial cable and fiber optic plant to form a wireless communications network. With its established cable systems, and interconnection capability, Palmer believes it can potentially deliver a wide range of PCS services with only modest electrical modifications and mechanical alterations to its existing system. Palmer believes this design will permit voice and data communications, as well as video images, to be delivered to subscribers.

Palmer will conduct its experiment in three phases. Phase I of Palmer's experiment will commence with propagation tests. These tests will determine the number and range of the microcells that must be built to deliver PCS subscribers. The number of microcells needed to construct the system will vary depending on the results of the initial propagation tests and the differing topographical features and terrain conditions of each market. Palmer will determine the maximum effective distance that can be covered by a PCN base station. Measurements will be made to determine the coverage both inside and outside of buildings. These tests will be conducted in office buildings, apartment buildings, shopping malls, and multi and single family dwellings. The results will determine the suitability of co-locating the PCS sites with typical cable distribution equipment microcell locations.

Phase II of the experiment will test the technical aspects of linking these microcells to the cable distribution trunk

lines. Such a conversion will entail the testing of small microcells that relay the signal to and from the subscriber to interconnection points in the cable system. Various configurations of microcells and distribution trunk lines will be tested and deployed on an experimental basis.

The interactive capabilities of the system will be explored using fixed transmitters that receive signals from a subscriber and convert the signal for carriage by the cable trunk. Other fixed transmitters will be tested to determine their ability to retransmit a signal originating with the subscriber to a central receiving antenna or a central receiving site.

Palmer will test the interconnection of these microcell systems by establishing interconnection to the public switched telephone network. Such interconnection will establish a wireless environment.

Phase III will involve the actual deployment of system equipment to test the delivery of PCSs. Palmer will provide a test group of subscribers with the necessary equipment. These potential PCS customers will determine the utilization, use pattern, and overall reaction to the service.

H. Summary.

Palmer proposes to experiment with its cable facilities as a means to provide PCS. Palmer's results will provide the Commission with vital information concerning market information such as the cost and demand of such a service, and the technical feasibility of such a system interfaced with cable.

Palmer believes its experiments will successfully prove the feasibility of a cable/PCS system and create an advanced wireless communications system. Palmer offers its telecommunications expertise in the design of cable systems to the development of PCS.

RESPONSE TO ITEM 14

Palmer Communications Incorporated requests a waiver of Section 5.153 of the Commission's Rules. This Rule requires that each class of station in the experimental services transmit its assigned call sign. Compliance with this requirement is not feasible due to the technical configuration of the experimental systems proposed herein and the operating characteristics of available and planned equipment. Because transmissions will be digital, transmission of an analog call sign would require modification of hardware, and also disrupt system operation. Palmer thus submits that the public interest would favor a waiver of Section 5.153 of the Commission's Rules in this instance.

Exhibit 7

Ownership

Palmer Communications Incorporated is a Delaware corporation. Its principal place of business is 12800 University Drive, Suite 500, Fort Myers, Florida 33907. The names and addresses of the officers and directors of Palmer Communications Incorporated are set forth below.

Name and Address

William J. Ryan 8111 Bay Colongy Drive Apt. 801 Naples, FL 33963

Robert G. Engelhardt 11430 Mahogany Run Fort Myers, FL 33913

M. Wayne Wisehart 15348 Fiddlesticks Blvd. Fort Myers, FL 33912

Bonnie J. McCloskey 1682 Red Mountain Road Aspen, Colorado 81612

Jenny W. Sutton 4080 Cutlass Lane Naples, FL 33940

Robert W. Harter 3930 Grand Avenue Suite 302 Des Moines, Iowa 50312

Richard Braunstein 4310 42nd Street, N.W. Washington, D.C. 20016

Richard Bittner RR 1, Box 171A Bettendorf, Iowa 52722 President/Chief Executive Officer/Director

Executive Vice President/ Secretary/Director

Vice President/Treasurer/ Chief Financial Officer/ Director

Vice President/Director/ Trustee

Vice President/Director/ Trustee

Director/Trustee

Director/Trustee

Director

Stockholders of Palmer Communications Incorporated with a 5% or greater interest, along with their respective interests are:

Bonnie J. McCloskey McCloskey Enterprises P.O. Box 784600 Aspen, CO 81612 13.6838%

Jenny W. Sutton Sutton Companies 400 5th Avenue South, Unit 301 Naples, FL 33940 13.6838%

Trustees of the Bonnie J. McCloskey Trust U/T/A David D. Palmer c/o Davenport Bank & Trust Company 203 W. 3rd Davenport, IA 52805 24.22108%

Trustees of the Vickie A. Miller Trust U/T/A David D. Palmer c/o Davenport Bank & Trust Company 203 W. 3rd Davenport, IA 52805 24.22108*

Trustees of the Jenny W. Sutton Trust U/T/A David D. Palmer c/o Davenport Bank & Trust Company 203 W. 3rd Davenport, IA 52805 24.22108%