# FCC Form 442 Items 4, 10, 13 and 15

SprintCom, Inc. ("SprintCom"), D and E block auction winner in the BTA markets listed in Exhibit 2, hereby requests the grant of an experimental authorization pursuant to Section 5.51(a) of the Commission's Rules, 47 C.F.R. § 5.51(a) (1995).

Public Interest. This experimental authorization will serve two major purposes, both of which are consistent with the Commission's goal of implementing competitive personal communications services ("PCS") as expeditiously and broadly as possible.

First, this experimental authorization will permit SprintCom to perform performance trials of PCS equipment in various geographic portions of the BTAs in which it has been named an auction winner to provide PCS. Such tests will be crucial to SprintCom's assessment and ultimate deployment of cutting-edge PCS equipment throughout the various BTAs, both at the initial build-out stages and as SprintCom assesses next-generation PCS equipment that it may use to provide PCS service to the public over the course of the next two years. In particular, SprintCom must conduct tests of CDMA equipment immediately in order to finalize its construction goals and ultimate service areas.

Second, the grant of this application will permit

SprintCom to effectively plan and construct its PCS system for the various BTAs. A vitally important part of the process of

planning and constructing the PCS system is a determination of the optimum location and tower height for PCS base stations. SprintCom must utilize test transmitters and other planning equipment that are not yet type accepted to accomplish this task, as described in the attached information. This process also will permit SprintCom to perform appropriate antenna and waveguide tests that may be needed to plan construction. During the planning process, SprintCom also must ascertain the potential for interference between its PCS operations and the operations of incumbent private operational fixed microwave users. This process will determine whether interference conflicts can be avoided by base-station placement or by modifying the characteristics of the microwave path through antenna, filter and/or power adjustments. This process also will determine whether the subject microwave paths should be relocated to alternative frequency bands.

Geographic Scope (Item 5(d)). To permit SprintCom to plan its PCS systems throughout the various BTAs and to test PCS equipment at diverse geographic points within the BTAs, SprintCom requests that the geographic scope of the experimental authorization sought here be consistent with the geographic scope of the BTAs.

Authorized Power and Bandwidth (Item 4). To permit SprintCom to plan its PCS systems effectively and test PCS equipment in a realistic atmosphere, SprintCom requests that the maximum output power of, and bandwidth for, its

experimental operations be consistent with the PCS-specific rules contained in Part 24 of the Commission's Rules. As required by Section 5.151(a)(2) of the Commission's Rules, SprintCom will use every precaution to ensure that transmissions under the authorizations sought here will not cause interference to operating stations. Incumbent fixed microwave users will be provided interference protection consistent with that required under Part 101 of the Commission's Rules.

Specifically in response to Items 4(B), 4(C), 4(D), 4(E), and 4(F), SprintCom will not exceed the power and antenna height limits specified at Sections 24.232, 24.236 and 24.238 of the Commission's Rules. The emission characteristics of the frequencies to be generated in connection with this authorization will be consistent with commercial PCS transmissions of voice and data communications.

License Period (Item 11(a)). SprintCom requests a license term of two years, as provided by Section 5.63 of the Commission's Rules. Should SprintCom discontinue operations under this authorization sooner than two years from the date of grant, it will forward its authorization to the Commission for cancellation pursuant to Section 5.66 of the Commission's Rules.

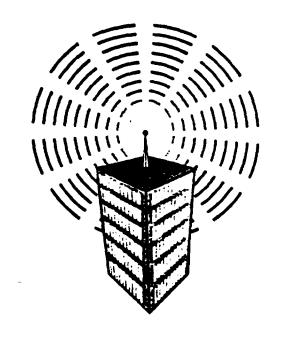
Transmitting Equipment (Item 13). SprintCom anticipates initially utilizing the MLJ, Inc. Model PCS-20 Test Transmitter and the Grayson TX-20 PCS Transmitter to

perform system planning functions. Copies of the specifications for those receivers are attached. In addition, SprintCom may utilize other types of test transmitters that become available and also may experiment with other types of PCS equipment. In all cases, the transmitting equipment to be utilized will operate within the parameters of Part 24 of the Commission's Rules.

Antenna Height (Item 15). SprintCom does not, at this time, plan to mount permanently any experimental structures under this authorization. The mainstay of its initial activities under this authorization will concern planning and related activities in which mobile and basestation test sites will be operated on a temporary basis. To the extent that SprintCom deploys experimental PCS equipment on more than a temporary basis, however, its deployment of such equipment would be consistent with the antenna height requirements of Section 24.232 of the Commission's Rules. In addition, SprintCom will comply fully with all Federal Aviation Administration rules and guidelines.

Expedited Treatment Requested. SprintCom intends to provide service to a substantial portion of the population in most of the referenced service areas before the end of 1997. This goal cannot be accomplished unless SprintCom can move quickly and efficiently in its planning and construction processes. The grant of this request will permit SprintCom to move quickly toward providing a highly demanded competitive

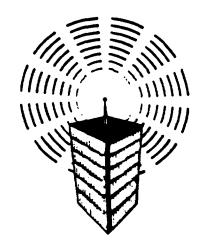
service in the referenced service areas. Because early accomplishment of these efforts is in the public interest and is necessary to the achievement of SprintCom's service goals, we respectfully request that the Commission expedite the consideration of this request.



# PCS-20 TEST TRANSMITTER USER'S GUIDE

MLJ, Inc.

Moffet, Larson & Johnson



# 6. Specifications

Tuning:

1850 - 1990 MHz, in 100 kHz steps

**Power Output:** 

20 Watts at 1 dB increments

Power Output Range:

4 to 43 dBm, in 1 dB increments

Power Output Fiatness: +/-1 dB over frequency and temperature

Modulation:

QPSK with internal pseudorandom noise, or

External I&Q

Modulation Bandwidth: 30 kHz, 200 kHz, 1.25 MHz, 5.0 MHz

**Output Freq Stability:** 

+/- 1 ppm

Output Power Flatness: +/-1 dB over frequency and temperature

**Output Phase Noise:** 

Less than -70 dBc at 1 kHz from carrier, mono-

tonic

Output Spurious Noise: Less than -60 dBc

Output Harmonic Noise: Less than -50 dBc

Output Load VSWR:

Less than 1.5:1

Load VSWR:

Damage-free operation into infinite VSWR

Power Requirements:

120 VAC or 12.8 VDC

## EXHIBIT NO. 2 FCC Form 442 Item 5(c)

MARKET NUMBER	FREQUENCY BLOCK	LOCATION
B078	D	Chicago, IL
B078	E	Chicago, IL
B155	D	Ft. Wayne, IN
B344	D	Peoria, IL
B380	D	Rockford, IL
B424	D	South Bend-Mishawaka, IN
B426	D	Springfield, IL
B109	D	Decatur-Effingham, IL
B126	D	Elkhart, IN
B071	D	Champaign-Urbana, IL
B046	D	Bloomington, IL
B039	D	Benton Harbor, MI
B243	D	La Salle-Peru-Ottawa, IL
B243	E	La Salle-Peru-Ottawa, IL
B225	D	Kankakee, IL
B225	E	Kankakee, IL
B103	D	Danville, IL
B103	E	Danville, IL
B294	D	Michigan City-La Porte, IN
B161	D	Galesburg, IL
B213	D	Jacksonville, IL
B286	D	Mattoon, IL
B074	D	Charlotte-Gastonia, NC
B174	D	Greensboro-Winston-Salem, NC

MARKET NUMBER	FREQUENCY BLOCK	LOCATION
B368	D	Raleigh-Durham, NC
B177	D	Greenville-Spartanburg, SC
B072	D	Charleston, SC
B141	D	Fayetteville-Lumberton, NC
B091	D	Columbia, SC
B020	D	Asheville-Hendersonville, NC
B016	D	Anderson, SC
B189	D	Hickory-Lenoir-Morganton, NC
B478	D	Wilmington, NC
B147	D	Florence, SC
B176	D	Greenville-Washington, NC
B165	D	Goldsboro-Kingston, NC
B382	D	Rocky Mount-Wilson, NC
B316	D	New Bern, NC
B214	D	Jacksonville, NC
B436	D	Sumter, SC
B312	D	Myrtle Beach, SC
B335	D	Orangeburg, SC
B062	D	Burlington, NC
B377	D	Roanoke Rapids, NC
B178	D	Greenwood, SC
B024	D	Atlanta, GA
B410	D	Savannah, GA
B271	D	Macon-Warner Robins, GA
B026	E	Augusta, GA
B076	D	Chattanooga, TN

MARKET NUMBER	FREQUENCY BLOCK	LOCATION
B092	E	Columbus, GA
B006	D	Albany-Tifton, GA
B160	D	Gainesville, GA
B022	D	Athens, GA
B334	D	Opelika-Auburn, AL
B384	D	Rome, GA
B102	D	Dalton, GA
B085	D	Cleveland, TN
B237	E	La Grange, GA
B440	D	Tampa-St. Petersburg-Clearwater, FL
B336	D	Orlando, FL
B408	D	Sarasota-Bradenton, FL
B239	D	Lakeland-Winter Haven, FL
B107	D	Daytona Beach, FL
B289	D	Melbourne-Titusville, FL
B326	D	Ocala, FL
B196	D	Houston, TX
B034	D	Beaumont-Port Arthur, TX
B238	D	Lake Charles, LA
B059	D	Bryan-College Station, TX
B456	D	Victoria, TX
B265	D	Lufkin-Nacagdoches, TX
B065	D	Canton-New Philadelphia, OH
B484	D	Youngstown-Warren, OH
B131	D	Erie, PA
B278	D	Mansfield, OH

MARKET NUMBER	FREQUENCY BLOCK	LOCATION
B403	D	Sandusky, OH
B416	D	Sharon, PA
B122	D	East Liverpool-Salem, OH
B021	D	Ashtabula, OH
B287	D	Meadville, PA
B081	D	Cincinnati, OH
B106	D	Dayton-Springfield, OH
B073	D	Charleston, WV
B073	E	Charleston, WV
B197	D	Huntington, WV-Ashland, KY
B197	E	Huntington, WV-Ashland, KY
B474	D	Williamson, WV-Pikeville, KY
B474	E	Williamson, WV-Pikeville, KY
B048	D	Bluefield, WV
B048	E	Bluefield, WV
B035	D	Beckley, WV
B035	Е	Beckley, WV
B359	D	Portsmouth, OH
B359	E	Portsmouth, OH
B259	D	Logan, WV
B259	Е	Logan, WV
B324	D	Norfolk-Virginia Beach- Newport News, VA
B374	D	Richmond-Petersburg, VA
B376	D	Roanoke, VA
B104	D	Danville, VA

MARKET NUMBER	FREQUENCY BLOCK	LOCATION
B266	D	Lynchburg, VA
B430	D	Staunton-Waynesboro, VA
B284	D	Martinsville, VA
B488	D	San Juan, PR
B489	E	Mayaguez-Aguadilla-Ponce, PR
B491	D	US Virgin Islands
B290	D	Memphis, TN
B210	D	Jackson, MS
B449	D	Tupelo-Corinth, MS
B211	D	Jackson, TN
B211	E	Jackson, TN
B175	D	Greenville-Greenwood, MS
B292	E	Meridian, MS
B094	D	Columbus-Starkville, MS
B120	D	Dyersburg-Union City, TN
B049	D	Blytheville, AR
B315	D	Natchez, MS
B455	D	Vicksburg, MS
B212	D	Jacksonville, FL
B439	D	Tallahassee, FL
B159	D	Gainesville, FL
B340	E	Panama City, FL
B454	D	Valdosta, GA
B467	D	Waycross, GA
B058	E	Brunswick, GA
B095	D	Columbus, OH

MARKET NUMBER	FREQUENCY BLOCK	LOCATION
B095	E	Columbus, OH
B342	D	Parkersburg, WV-Marietta, OH
B342	E	Parkersburg, WV-Marietta, OH
B487	D	Zanesville-Cambridge, OH
B487	E	Zanesville-Cambridge, OH
B023	D	Athens, OH
B023	E	Athens, OH
B080	D	Chillicothe, OH
B080	E	Chillicothe, OH
B281	D	Marion, OH
B281	E	Marion, OH
B008	D	Albuquerque, NM
B128	D	El Paso, TX
B128	E	El Paso, TX
B244	D	Las Cruces, NM
B407	D	Santa Fe, NM
B139	D	Farmington, NM-Durango, CO
B162	D_	Gallup, NM
B386	D	Roswell, NM
B068	D	Carlsbad, NM
B232	D	Knoxville, TN
B229	D_	Kingsport-Johnson City, TN
B229	E	Kingsport-Johnson City, TN
B295	D	Middlesboro-Harlan, KY
B295	E	Middlesboro-Harlan, KY
B192	E	Honolulu, HI

MARKET NUMBER	FREQUENCY BLOCK	LOCATION
B190	E	Hilo, HI
B222	E	Kahului-Wailuku-Lahaina, HI
B254	E	Lihue, HI
B014	D	Anchorage, AK
B136	D	Fairbanks, AK
B221	D	Juneau-Ketchikan, AK