

MEMORANDUM

October 2, 1997

RECEIVED

OCT 02 1997

2:45
FPSC - Records/Reporting

TO: DIVISION OF RECORDS AND REPORTING

FROM: DIVISION OF LEGAL SERVICES (PELLEGRINI) *EMB*

RE: DOCKET NO. 950814-TL - REQUEST FOR APPROVAL OF TARIFF
FILING PROPOSING CELLULAR SERVICE FOR DOG ISLAND BY ST.
JOSEPH TELEPHONE & TELEGRAPH COMPANY (T-95-404 FILED
6/26/95)

PSC-97-1196-FOF-TL

Attached is an NOTICE OF PROPOSED AGENCY ACTION ORDER DENYING
TARIFF AND APPROVING TELECOMMUNICATIONS SERVICE PROPOSAL, to be
issued in the above referenced docket. (Number of pages in Order
- 11)

Please issue this Order today. Thank you.

CJP/clp
Attachment
cc: Division of Communications
I: 950814ol.cjp

see 1 + 9

*dated 2/0
Quintal*

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Request for approval of
tariff filing proposing cellular
service for Dog Island by St.
Joseph Telephone & Telegraph
Company (T-95-404 filed 6/26/95)

DOCKET NO. 950814-TL
ORDER NO. PSC-97-1196-FOF-TL
ISSUED: October 2, 1997

The following Commissioners participated in the disposition of
this matter:

JULIA L. JOHNSON, Chairman
J. TERRY DEASON
SUSAN F. CLARK
DIANE K. KIESLING
JOE GARCIA

NOTICE OF PROPOSED AGENCY ACTION
ORDER DENYING TARIFF AND
APPROVING TELECOMMUNICATIONS SERVICE PROPOSAL

BY THE COMMISSION:

NOTICE IS HEREBY GIVEN by the Florida Public Service
Commission that the action discussed herein is preliminary in
nature and will become final unless a person whose interests are
substantially affected files a petition for a formal proceeding,
pursuant to Rule 25-22.029, Florida Administrative Code.

BACKGROUND

About eleven years ago, a group of property owners on Dog
Island requested telephone service from St. Joseph Telephone &
Telegraph Company (St. Joseph). Although Dog Island is in St.
Joseph's service territory, the company did not provide service to
the area or report the service requests as required by Rule 25-
4.0185(1), Florida Administrative Code. Providing service to the
island then presented, and still presents, many unusual conditions.
Cable facilities would have to traverse four miles underwater from
the company's Carrabelle office to the island. Dog Island as a
"coastal barrier island" is environmentally sensitive. Island
property owners feel strongly about protecting the natural beauty

DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

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of the island. The island is vulnerable to severe storms in the Gulf of Mexico. Access to the island is limited to transportation by water or air.

Upon becoming aware in 1993 that 50 island residents had requested phone service (the island had water and power services), our staff requested that St. Joseph provide service to the island. On December 13, 1994, the company petitioned for a declaratory statement concerning the provision of telephone service to Dog Island. In Order No. PSC-95-0375-FOF-TL, issued March 15, 1995, we concluded that the petition lacked sufficient information to issue a declaratory statement. In June 1995, St. Joseph filed a proposed tariff to provide local service by reselling cellular telephone service. We approved it on an experimental basis in Order No. PSC-95-1178-FOF-TL, issued September 20, 1995.

There are currently 96 residential and two business subscribers on Dog Island. It is reasonable to expect that 125 access lines will be in service in five years. St. Joseph expects the number to gradually increase to a maximum of 180 subscribers. Two new luxury homes were added in 1996 to the 125 dwellings on the island. There is also an eight-unit hotel, yacht club, a landing strip for airplanes, and a volunteer fire department on the island. The island is seven miles long and is subdivided into 410 parcels for private use, many of which are owned by the Dog Island Conservation District and will remain undeveloped. The rest of the island is dedicated as a wilderness preserve.

Because of Hurricane Opal, the company was unable to install the cellular link equipment until November 1995. The service is provided through a billing arrangement between the company and 360° Communications, in which St. Joseph pays a usage rate for each Dog Island subscriber number.

At our October 29, 1996, agenda conference, we deferred action on our staff's recommendation regarding permanent service to the island. We directed the company and our staff to further study how best to provide service to the island. In December 1996, St. Joseph hired Engineering Associates (EA) of Atlanta, Georgia, to perform a comprehensive study.

EA presented its study report on August 1, 1997. It evaluated ten schemes to provide service to the island. Two of these would place submarine cable to the island; two would use microwave facilities; and six would use wireless services. EA recommended an

Advanced Fibre Communications (AFC) Spread Spectrum Radio (SSR) system (UMC System 1000A) to the island, and copper distribution and Digital Loop Carrier (DLC) on the island. In an August 1, 1997, letter transmitting the EA report, St. Joseph proposed the adoption of EA's recommendation as the least costly viable scheme.

Upon consideration, we conclude that the company's experimental tariff shall not be made permanent and that the company's current proposal to provide service to Dog Island by means of AFC's SSR service shall be approved for the reasons set forth below.

THE ALTERNATIVES FOR SERVICE TO DOG ISLAND

Company's Statutory Responsibility

St. Joseph is required to provide telecommunications service throughout its service territory that is not discriminatory. Section 364.08(1), Florida Statutes, states that:

A telecommunications company may not . . . extend to any person . . . the benefit of any . . . facility not regularly and uniformly extended to all persons under like circumstances for like or substantially similar service.

The Commission is required to direct a telecommunications company to extend its facilities in order to provide adequate service in a case where such extension is reasonable and the company has failed to act. Section 364.15, Florida Statutes, states that:

Whenever the Commission finds, on its own motion or upon complaint . . . that any additions or extensions should reasonably be made to any telecommunications facility . . . in order to secure adequate service or facilities for telephone service, the commission shall make and serve an order directing that such . . . additions, or extensions be made

In addition, under both state and federal concepts of universal service, St. Joseph is charged with providing

telecommunications services to Dog Island residents within a reasonable time of a service request. Section 364.025(1) Florida Statutes, provides that:

For a period of 4 years after January 1, 1996, each local exchange telecommunications company shall be required to furnish basic local exchange telecommunications service within a reasonable time period to any person requesting such service within the company's service territory.

47 U.S.C. § 254(b)(3), Telecommunications Act of 1996, provides that:

Consumers in all regions of the Nation, including . . . those in rural, insular, and high cost areas, should have access to telecommunications and information services . . . that are reasonably compared to services provided in urban areas

Experimental Tariff

As we have noted above, on September 20, 1995, we approved St. Joseph's tariff to provide cellular service to Dog Island as an experiment. In response to a staff data request in March 1996, the company, on July 31, 1996, provided traffic usage data, cellular air time costs, and equipment costs from March through June 1996. Based on this information, our staff calculated the costs to provide that service. Cellular service costs include a fixed component for equipment, estimated at \$562 per subscriber, and a variable component for air time, estimated at \$620 per subscriber per year. St. Joseph estimates the costs to provide SSR service to the island and distribution cables on the island at \$264,451. This amount is the fixed component. Little or no variable cost is expected. In analyzing these data, we find that, after a two to three year break-even point, the cost of providing cellular service exceeds the cost of providing SSR service. Thus, we conclude that the experimental tariff provides telephone service that is not cost effective except in the short term.

Our staff has evaluated the signal quality of the present service and visited several sites on the island. For cellular phones, the signal is generally strong, and the phone units are of

high quality, but the service provided does not compare favorably with land-line telephone service. For example, the phones on Dog Island have a strong background hiss. Some customers have lost their connections during conversations and have had to redial. In January 1997, 95 Dog Island residents signed a petition alleging that their cellular service was poor and giving their support to the installation of submarine fiber cable to the island. Several subscribers complained individually of the service quality. On testing five lines at the fire station and two residences on February 25, 1997, our staff encountered unsatisfactory noise levels and fluctuations on three of the lines and, additionally, an interfering pulse every 11.5 seconds that eclipsed signal and voice communications and an unsatisfactory noise impulse count on one line. Standard telephone equipment (CPE) for use in other parts of the home is not compatible with cellular phones. Facsimile services and Internet access, available over regular telephone lines within the rest of the Carrabelle exchange, are unreliable. Cellular phones also lack the security and privacy of regular land-line phones. Thus, we conclude that the experimental tariff provides service that is not of adequate quality.

We find that Dog Island subscribers are in like circumstances with the rest of St. Joseph subscribers. Therefore, we conclude that St. Joseph must provide Dog Island customers a service that is equal in quality to the service provided to all of its other subscribers. We are unable to conclude, however, that St. Joseph's current cellular service to Dog Island subscribers is equal to the service provided other St. Joseph subscribers. We find the present service to Dog Island to be in violation of Section 364.08(1), Florida Statutes. Therefore, we decline to make the experimental tariff permanent.

Alternatives Considered and Discarded

Two of the service schemes St. Joseph considered involve installing submarine fiber cable to the island with copper or fiber distribution cables on the island. EA expressed reservations, however, about the installation of submarine cable to the island. It noted a significant environmental concern with the crossing. It stated that a marine survey of submerged vegetation and obstacles would be required to determine the exact route. It also noted that armored cable would be required and that it should be buried at a depth of 10 feet due to the characteristics of the sea floor and the boat traffic in St. George Sound. We too are concerned with

these environmental pressures, and note that with SSR service they are avoided.

Two other schemes involve installing microwave facilities to the island with copper or fiber distribution cables on the island. These require the construction of an antenna tower on the island that would be vulnerable to high winds and, possibly, shoreline erosion.

The other six schemes considered by the company involve wireless options from various vendors. EA expressed concerns with all of these except the AFC scheme. These concerns included the FCC's permit requirements for licensed cellular frequencies; a need to construct a base station at each residence as well as a wireline backhaul facility; and limited capacity.

With one exception, the AFC SSR scheme is the least costly of all of the schemes considered. The cost estimates provided by the company for these schemes are summarized as follows:

Submarine cable; copper distribution	\$750,635
Submarine cable; fiber distribution	\$878,604
Microwave; copper distribution	\$458,156
Microwave; fiber distribution	\$586,405
Wireless-Nortel	\$750,000-850,000
Wireless-Ericsson	\$781,685
Wireless-Astronet	\$400,000
Wireless-Optaphone	\$229,471
Wireless-AFC (SSR)	\$264,451

The Optaphone wireless scheme, although less costly than the AFC SSR scheme, is not viable because of limited capacity and a need to clear and re-license currently occupied frequencies.

Personal Communications Service (PSC) was also considered, but no presently licensed company has a plan to serve Dog Island.

Spread Spectrum Radio Service

We hereby approve St. Joseph's proposal to provide SSR service to Dog Island as the permanent solution to the problems with the present service. We do so in reliance upon the provisions of Sections 364.15 and 364.08(1), Florida Statutes. As we concluded above, current cellular service is inadequate and inferior to the service the company provides to its subscribers in the rest of its service territory. The company and its engineering consultant both recommend SSR service as the best available service to the island.

The company proposes to install AFC's SSR service to the main (eastern) portion of the island as well as to the western portion of the island. The company also proposes to install copper distribution cables and DLC on the island. The distribution cables would be buried on the larger, eastern side of the island where most of the subscribers are located, and aerial drops would be placed on existing power poles on the western side of the island to serve less than ten subscribers. This distribution plan mitigates many environmental concerns, because it does not call for buried cable across two westerly washover areas and because it allows for the installation of smaller distribution cables, resulting in less environmental disturbance to the island.

The proposed AFC SSR system will look like wireline service to Dog Island subscribers. It is a wireless system that operates in license-free ISM (Industrial-Scientific-Medical) spectral frequency bands, 2.4 and 5.7 Gigahertz (Ghz), as allocated by the FCC. FCC certification is required. FCC licensing and permission to use certain frequencies, however, are not required. Spread spectrum means that the signals are spread over a range of frequencies during transmission and reception. SSR was first developed by the military to deter jamming and eavesdropping by spreading the radio signal across a wide bandwidth; thus, it is expected to provide security and privacy equal to regular land-line phones.

AFC's proposed system for serving Dog Island will send SSR over a four-mile, line-of-sight link, at 5.7 Ghz from a local exchange terminal (LET) at the Carrabelle tower to a remote subscriber terminal (RST) near an existing power pole on the east side of the island. Radio signals of 2.4 Ghz will then travel, in series, to two RSTs across the washover zones to the west side of

the island. The RSTs will be collocated with the DLC equipment in standard DLC cabinets. The copper distribution will run from the RSTs to each subscriber. The proposed radio system is digital, and should support all central office features. The SSR system will provide two E1 signals (30 channels each) that will generate 240 telephone lines (125 64Kbs channels) beyond the RSTs and DLC equipment.

St. Joseph has several AFC DLC systems in use in the Carrabelle exchange. The Dog Island DLC system would provide the same voice, facsimile, data, and ISDN services that can be provided by the Carrabelle DLC systems. This means that the Dog Island service should equal the service provided to other St. Joseph subscribers, satisfying our and Dog Island subscriber concerns about the current inequality in service.

We understand that spread spectrum technology is being used satisfactorily across the United States, and that the FCC is approving certifications in about 45 days from receipt of an application. AFC is a new entrant in the field, having installed its first SSR system at Sanctorum, Mexico, for TelMex of Mexico, in March of this year. It serves 240 telephones over a 15 kilometer, line-of-sight distance. Laboratory testing of the AFC system is nearing completion. AFC anticipates that the SSR system will perform satisfactorily for Dog Island because of the robustness of its signal and the short line-of-sight distance (four miles from St. Joseph's Carrabelle exchange to Dog Island). AFC also expects that these factors and its on-site adjustments of the power output and receiver levels will allow the system to overcome concerns about the adverse effects of Gulf weather disturbances.

St. Joseph's timetable for providing AFC's SSR service to Dog Island is 250 days from approval by the Dog Island Conservation District to service provisioning. St. Joseph states that it has already requested approval from the Dog Island Conservation District for the required construction. We find that St. Joseph's proposal deals effectively with environmental concerns for the sea bed and the island itself. We conclude, therefore, that the proposed SSR system with copper distribution and DLC will provide adequate, nondiscriminatory telephone service as required by Sections 364.15 and 364.08(1), Florida Statutes.

We require that the company provide the proposed service within one year from the date of this Order. Until the proposed service is available on the island, St. Joseph shall continue to

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provide service under the present experimental tariff. St. Joseph shall report quarterly to our staff on its efforts to gain Dog Island Conservation District approval for construction and on the completion status of the items on its timetable for provisioning service. The company shall provide staff with the name of an official contact for the Dog Island Conservation District. We shall require our staff to conduct an evaluation 120 to 180 days after this service is provisioned to St. Joseph subscribers to determine whether the service being provided is satisfactory.

Based on the foregoing, it is, therefore,

ORDERED by the Florida Public Service Commission that the experimental tariff of St. Joseph Telephone & Telegraph Company to provide cellular telephone service to Dog Island shall not be made permanent. It is further

ORDERED that experimental tariff of St. Joseph Telephone & Telegraph Company to provide cellular telephone service to Dog Island shall remain in effect until service by means of Advanced Fibre Communications' Spread Spectrum Radio Service has been provisioned. It is further

ORDERED that St. Joseph Telephone & Telegraph Company's proposal to provide telephone service to Dog Island by means of Advanced Fibre Communications' Spread Spectrum Radio Service, as more fully described in the body of this Order, is approved. It is further

ORDERED that St. Joseph Telephone & Telegraph Company shall provide telephone service to Dog Island by means of Advanced Fibre Communications' Spread Spectrum Radio Service within one year of the issuance of this Order. It is further

ORDERED that St. Joseph shall report quarterly to staff on its efforts to gain Dog Island Conservation District approval for construction and the status of the service provisioning schedule. The company shall provide staff with the name of an official contact for the Dog Island Conservation District. It is further

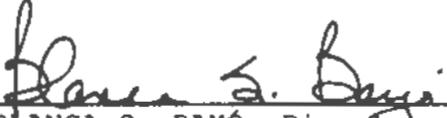
ORDERED that staff shall conduct an evaluation 120 to 180 days after service by means of Advanced Fibre Communications' Spread Spectrum Radio Service has been provisioned to St. Joseph Telephone and Telegraph Company's Dog Island subscribers to determine whether the service being provided is satisfactory. It is further

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ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective unless an appropriate petition, in the form provided by Rule 25-22.036, Florida Administrative Code, is received by the Director, Division of Records and Reporting, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings or Judicial Review" attached hereto. It is further

ORDERED that in the event this Order becomes final, this Docket shall not be closed until telephone service to Dog Island by means of Advanced Fibre Communications' Spread Spectrum Radio Service has been provisioned and verified.

By ORDER of the Florida Public Service Commission this 2nd day of October, 1997.



BLANCA S. BAYO, Director
Division of Records and Reporting

(S E A L)

CJP

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

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Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature and will not become effective or final, except as provided by Rule 25-22.029, Florida Administrative Code. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, as provided by Rule 25-22.029(4), Florida Administrative Code, in the form provided by Rule 25-22.036(7)(a) and (f), Florida Administrative Code. This petition must be received by the Director, Division of Records and Reporting, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on October 23, 1997.

In the absence of such a petition, this order shall become effective on the day subsequent to the above date as provided by Rule 25-22.029(6), Florida Administrative Code.

Any objection or protest filed in this docket before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

If this order becomes final and effective on the date described above, any party substantially affected may request judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or by the First District Court of Appeal in the case of a water or wastewater utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days of the effective date of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.