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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

January 10, 2001

VIA HAND DELIVERY
Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
445 12th Street, SW, Room TW-A325
Washington, D.C. 20554

Re: **PETROLEUM COMMUNICATIONS, INC.**
Ex Parte Presentation
Gulf of Mexico Cellular Rule Making Proceeding
WT Docket 97-112; CC Docket 90-6

Dear Ms. Salas:

On January 8, 2001, John W. Payne, President of Petroleum Communications, Inc. ("PetroCom"), accompanied by Jay Lazrus, Esq., James Keller, and undersigned counsel of the law firm Myers Lazrus Technology Law Group which represents PetroCom, met with Thomas R. Sugrue, Chief of the Wireless Telecommunications Bureau, and the following members of the Bureau's staff to discuss the above-referenced proceeding: James D. Schlichting, Deputy Chief; David Furth, Senior Legal Advisor; Paul D'Ari, Chief, Policy and Rules Branch, Commercial Wireless Division; and Michael Ferrante, Wireless Telecommunications Bureau. The meeting was also attended by Bachow/Coastel L.L.C. ("Bachow/Coastel") which was represented by its Managing Director, Jay D. Seid and Steven J. Hamrick, Esq. of the law firm Fleischman and Walsh, L.L.P.; as well as United States Cellular Corporation which was represented by Peter M. Connolly, Esq. of the law firm Holland & Knight LLP. At the meeting, PetroCom circulated material including two maps, one depicting the coverage of its A-side cellular network in the Gulf of Mexico, and a similar map that included a depiction of coverage from transmitter sites on land operated pursuant to co-location agreements reached with land carriers (including U.S. Cellular) under the existing rules. Coastel also circulated materials. Copies of the materials circulated by PetroCom and Coastel are attached.

Please contact the undersigned should any questions arise regarding this matter.

Very truly yours,

Richard S. Myers

Attachments
cc (w/o att.): Thomas J. Sugrue
James D. Schlichting
David Furth
Paul D'Ari
Michael Ferrante

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Gulf of Mexico Cellular Rule Making Proceeding (WT Docket 97-112/CC Docket 90-6)
Ex Parte Presentation Of Petroleum Communications, Inc.
January 8, 2001

I. PetroCom Coverage Maps

II. Land Carriers' Proposal

III. PetroCom/US Cellular Joint Proposal

IV. Coastel Proposal

V. Conclusion

Attachments: Summary Of Evidence Submitted By Land Carriers
Gulf of Mexico A-Side / B-Side Comparison
1998 Dennis Study
The 10-mile "neutral" zone analysis

Gulf of Mexico Cellular Rule Making Proceeding (WT Docket 97-112/CC Docket 90-6)
Ex Parte Presentation Of Petroleum Communications, Inc.
January 8, 2001

I. PetroCom Coverage Maps

A. **Fully built-out infrastructure**. PetroCom has fully built-out infrastructure providing service on the western side of the Gulf. PetroCom's network provides coverage to hundreds of oil and gas platforms located in the proposed Coastal Zone. Taking CGSA away from Gulf carriers by creating a "move it you lose it" Coastal Zone or a "neutral" zone will have an unfair impact on the Gulf carriers, fail to satisfy the Court's remand, and require just compensation to the Gulf carriers.

B. **Seamless coverage with agreements with land-based carriers.** Under the existing rules, PetroCom has reached numerous co-location and extension agreements with land carriers along the coast. Service to the public is not an issue. There is no record to support a major change to the existing licensing rules. Those rules work – they create an incentive for reaching such agreements. This incentive will be eliminated by a "move it you lose it" or "neutral" zone.

Gulf of Mexico Cellular Rule Making Proceeding (WT Docket 97-112/CC Docket 90-6)
Ex Parte Presentation Of Petroleum Communications, Inc.
January 8, 2001

II. Land Carriers Proposal (Neutral Zone)

A. The record evidence falls far short of supporting the land carriers' claims that the current rules have resulted in poor coverage to land based customers (Attachment 1).

B. A-side carriers have succeeded in reaching co-location and extension agreements, just as carriers routinely do for adjacent land markets. There is no reason to treat the Gulf of Mexico differently (Attachment 2).

C. The 1998 Dennis Study, based on actual field data, shows that land carriers actually capture Gulf carrier traffic, not vice versa. Study quote: "All of the above referenced data demonstrate that GTE is the 'best server', i.e. the carrier with the greatest signal strength, for as much as 20 kilometers off the Texas shoreline." Land carriers have never disputed the Dennis Study. (Attachment 3).

D. A simple engineering analysis shows that the proposed 10-mile "neutral" zone is a ploy to allow land carriers to place transmitters as close to the shoreline as possible in order to take service territory from the Gulf carriers. This territory grab is an unprecedented invitation for trouble (Attachment 4).

E. In addition to not satisfying the Court's remand, the proposed "neutral" zone will create three new litigation headaches for the FCC: (1) violation of the Section 316 hearing requirement for modifying individual licenses; (2) violation of the APA's bar to retroactive rule making; and (3) violation of the constitutional prohibition against takings without just compensation.

III. PetroCom/US Cellular Joint Proposal (Equalize Signal Strength)

Giving other carriers the benefit of the doubt that rule changes are needed, PetroCom and US Cellular fashioned a joint proposal permitting land and Gulf carriers to equalize signal strengths at the boundary on a notification basis without prior consent. The other land carriers rejected the joint proposal out-of-hand. The Joint Proposal provides:

(1) Land and Gulf carriers may operate with service area boundary (SAB) contours at the coastline boundary as calculated by the Section 22.911(a)(1) formula for land-based systems.

(2) A carrier may operate at a higher effective radiated power (ERP) than that resulting from the 22.911(a)(1) formula based on measurement data showing that actual signal strengths are unequal at the boundary, in order to achieve equal signal strengths. This process would involve a notification to the FCC of a minor change. Unless the carrier obtains the written consent of the other carrier, the notification must include "before and after" measurement data (obtained by a firm appearing on a list issued by the FCC) showing that the increase in ERP has equalized signal strengths at the boundary. The measurement data would be obtained using a testing procedure based on industry standards requiring the testing firm to use a single device to receive the signal from both the land and Gulf carrier, the antennas receiving the land and gulf signals to be placed at the same height, and the measuring device not to be shielded or obstructed. Based on the measurement data, the testing firm would determine the maximum ERP at which the carrier may operate to achieve equal signal strengths at the boundary. SAB contour extensions resulting from the 22.911(a)(1) formula would be permitted without the consent of the other carrier if necessary to equalize signal strengths at the boundary, but such extensions would not be included as part of the carrier's CGSA. However, such extensions would require the consent of the other carrier if the extending carrier wished to operate with a signal strength at the boundary which is greater than that of the other carrier.

(3) The current coastline boundary is retained, with changes described below, but geographic coordinates are published

that clearly depict that boundary.

III. PetroCom/US Cellular Joint Proposal (Equalize Signal Strength) (continued)

(4) The coastline boundary is extended 10 miles seaward on the Florida side of the Gulf, thus increasing the service area boundary of land-based systems there. The coastline would remain at its current boundary on the western side of the Gulf from Texas to Alabama.

(5) Neither a land carrier nor a Gulf carrier could place a transmitter on the other side of the coastline boundary without the other carrier's consent.

(6) The Gulf carrier's protected CGSA is the area seaward from the coastline boundary and is not defined as actual SAB contours. After five years from the date of adoption of the new rules, a land carrier could serve an area of a Gulf carrier's CGSA from a site on the landward side of the coastline without consent from the Gulf carrier if the latter is not serving that area. However, a Gulf carrier could begin serving that area within its CGSA under the guidelines stated in item 2 above, thus "reclaiming" the unserved area. In this reclamation scenario, if a Gulf carrier could not generate equal signal strength at the coastline boundary, the land carrier would be required to reduce ERP but not below what is required to provide a sufficiently strong signal (-100 dbm) at the boundary so it can continue to serve land-based customers, regardless of whether any reduced signal strength still remains higher than that of the Gulf carrier exercising reclamation rights.

(7) Land and Gulf carriers must cooperate and negotiate extension agreements in good faith.

(8) Pending, grantable non-mutually exclusive Phase II applications for service in coastal waters should be granted.

IV. Coastel Proposal (Interim Operating Authority)

Under this proposal, a land carrier whose market lies adjacent to the GMSA would be granted, without any Gulf carrier's consent or approval, blanket interim operating authority (IOA) to extend the land carrier's SAB contours as calculated by Section 22.911(a)(1) into any area of the GMSA not covered by then existing SAB contours of the Gulf carrier as calculated by Section 22.911(a)(2). Such IOA would be in effect until such time the Gulf carrier begins service to the same area with a SAB contour calculated by Section 22.911(a)(2), at which time the land carrier would have to eliminate any extension into the Gulf carrier's SAB contour. A land carrier could convert all or any portion of its IOA to permanent authority, only with the consent of the Gulf carrier (for example, in the form of an assignment of a partitioned license).

V. Conclusion

A. The FCC's Decision Should Meet The Following Criteria

1. ***Compliance with Court remand.*** The FCC's decision should comply with Court's remand. The concept of a "move it you lose it" or "neutral" zone that takes CGSA away from Gulf carriers without compensation therefore should be abandoned.

2. ***Achieve The Other Goals of The Rule Making.*** The Commission's decision should achieve the other stated goals of the rule making, i.e., reducing conflict and ensuring high quality seamless service to the public. This is best done by fine tuning the existing rules.

3. ***Account for differences between western and eastern sides of the Gulf.*** If there is to be any major change to the rules, it should be limited to the eastern side where offshore platforms are not permitted, unlike the western side where the Gulf carriers have a fully built out infrastructure.

4. ***Narrowly tailored rule changes that do not create new problems.*** Rule changes should be narrowly tailored so as to not create new litigation problems for the agency.

B. The Joint Proposal and the Coastel Proposal are the only proposals that satisfy these criteria.

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ATTACHMENT 1
RECORD EVIDENCE OF POOR CELLULAR COVERAGE IN GULF OF MEXICO
Submitted By Land Carriers In FCC Rule Making Proceeding (WT Docket No. 97-112; CC Docket No. 90-6)

The table below: (1) summarizes the claims made by land carriers in the rule making proceeding that the current rules have resulted in poor cellular coverage along coastal areas in the Gulf of Mexico; (2) describes the real world evidence put forth to support such claims; and (3) provides citations to the rule making record. The table shows that there is, at best, scant evidence of any coverage problem, especially with respect to A-side systems and the Western side of the Gulf.

Claim	Real World Evidence For Claim	Citation
BellSouth Corporation (A-side): neither land nor Gulf carriers can provide adequate service to coastal areas; Gulf carriers have mostly elected not to serve such areas	None; refers only to the Section 22.911(d) consent rule and a statement made over 10 years ago by PetroCom; no distinction between Florida and Western sides	Comments, July 2, 1997, p. 3, 7
BellSouth Corporation (A-side): boaters traveling within the proposed Coastal Zone are likely to live within adjacent land areas and would be forced to subscribe to two carriers to avoid roaming charges; many beach areas are unable to receive adequate service due to the consent rule and superior propagation of radio signals over water	None	Reply comments, August 4, 1997, pp. 3-4; p. 5
BellSouth Corporation (A-side): BellSouth has difficulty serving beaches, highways, and communities along the shoreline beach	None	Further comments, May 15, 2000, p. 1

Claim	Real World Evidence For Claim	Citation
Southwestern Bell Mobile Systems, Inc. (B-side and A-side): SBMS first contends that RSA builders were forced to set artificially low power levels to minimize the skip of radio signals across water, and second that the result was insufficient power levels to serve land customers who have their calls set up on powered-up sites of Gulf carriers	Engineers' statements do not support first contention; further, these statements are not based on empirical real world data, but on prediction tools and hypothetical sites (e.g., engineer at Ex. 1 states land customers *may* be setting up calls on a foreign cell site based on a *proposal* for a Gulf carrier to put sites on piers along the coastline); customer complaints described in Ex. 1 deal with dialing 7 digits versus 10 digits for roaming service	Comments, June 2, 1997, pp. 3-4; Ex. 1
SBC Wireless, Inc. (B-side): SBC has struggled with difficulty to engineer reliable service on the coast, especially in heavily trafficked beach and recreation areas, and with the problem of land customers being captured by Gulf carriers	None, except cites to prior comments above	Supplemental comments, May 15, 2000, p. 2-3
360 Communications (B-side): land carriers are precluded from serving busy beachfront areas	Engineer's statement and five B-side customer letters from 1994 and 1996 deal only with B-side on Florida side; none concern A-side or Western side; no example of any attempt to obtain consent for extension	Comments, July 2, 1997, pp. 3-5; Attachments A & B
360 Communications (B-side): current regulatory scheme prevents land carriers from creating any new extensions into water and from effectively serving beachfront areas; this prohibition on extensions with Gulf carriers' reliance on platforms has effectively precluded reliable service to well-traveled coastal waters, particularly along the Florida coast customers are clamoring for better service	None; no examples; no discussion of coverage on Western side; no distinction between A-side and B-side; cited comments of other parties provide no such information	Reply Comments, August 4, 1997, p. 2-3

Claim	Evidence For Claim	Citation
GTE Service Corporation (B-side): due to 32 dbu contour engineering and high rise buildings, beach customers and those in buildings often cannot get service; not uncommon for Gulf carrier's signal to be dominant on the beach, resulting in high roamer charges; extension consent from Gulf carriers is difficult to obtain; customers in waters adjacent to shore are most likely live within land market abutting Gulf and they do not want to subscribe to two carriers or pay roaming charges	None (no distinction between Florida and Western sides, or A-side and B-side)	Comments, July 2, 1997, p. 4 & n. 3, p. 6
GTE Service Corporation (B-side): there are serious beach coverage concerns; in Texas, current rules cause customers to complain of dropped calls or weak signals, or to set up calls on the Gulf network so that GTE has had to educate consumers to set phones to "home only" while on or near the beach	Audit of 321 trouble tickets for Florida markets shows 73 reported troubles on beaches or near Gulf waters which included static and noisy reception problems; this audit was conducted for Florida only; no cited evidence to support Texas claims; footnote 10 recognizes problem is with B-side, not A-side	Comments, August 4, 1997, pp. 4-6; Ex. A
GTE Service Corporation (B-side): poor portable coverage on the beach due to FCC rules; 32 dBu contours do not provide adequate signal strength; in Texas, Gulf carriers' signals on beach dominates land carriers' signals in many places; no cellular service provided by Gulf carriers off coast of Florida southeast of Panhandle	Only evidence is GTE's own prediction model; no real world data	Ex parte, October 16, 1997

Claim	Evidence For Claim	Citation
GTE Service Corporation, Bell South (B-side): poor portable beach coverage; unauthorized subscriber capture; absence of cellular service off Florida coast	Three customer letters all related to coverage (not capture), all involve B-side, two letters ('95 & '96) involve South Padre Island, TX customers; one letter ('97) involves Hernando Beach, FL customer; no mention of A-side	Ex parte, November 17, 1997
GTE Service Corporation (B-side): discusses position as in earlier comments	Material focuses on B-side sites in Mobile, Alabama market (Dauphin Island, Gulf Shores Beach); nothing indicates problem with A-side or markets other than Mobile, Alabama	Ex parte, March 6, 1998
GTE Service Corporation, SBC Corporation (B-side); Vanguard Cellular (A-side): these parties have shown that the presence of a strong signal emanating from the Gulf carriers at the shoreline inteferes with land-based cellular providers' ability to provide reliable coverage on Gulf beaches, and results in customers on land roaming onto Gulf-based carriers' systems	None; no citation to any record evidence	Ex parte, March 18, 1998, p. 3
GTE Service Corporation (B-side): GTE has received an increase amount of customer complaints served by Mobile, Alabama sites resulting from application of Sections 22.911(d) and 22.912	Quoted statements from five Mobile customers; a letter from another customer regarding the turn off of a cell site; all of these complaints arise from GTE-Coastel dispute and involve coverage issues; none relate to A-side or markets other than Mobile, Alabama	Ex parte, May 2, 2000
GTE Service Corporation (B-side): Current and proposed rules severely limit carriers' ability to provide reliable service along beachfront and other areas abutting Gulf; coverage gaps eliminate ability of customers to reach 911 service; land carriers' signal is weakest at beachfront, resulting in no service, dropped calls, or expensive roaming charges	Customer feedback in form of handwritten notes compiled by GTE retail store employees; all supposedly relate to lack of service due to the pull back of cell sites in the Mobile, Alabama market; none relate to A-side or any other market	Supplemental Comments, May 15, 2000, pp. 3-8

Claim	Real World Evidence For Claim	Citation
AT&T (A-side): land carriers (i.e., not Gulf carriers) already provide seamless coverage in proposed Coastal Zone which therefore should be incorporated into adjacent land carriers' markets and not established separately	Engineer's statement and newspaper article only address Florida side	Comments, July 2, 1997, pp. 4-6; Ex. 3, 4
AT&T (A-side): land-based licensees would already provide adequate service to Gulf coastal waters if not for regulatory uncertainty regarding their rights to extend into the Gulf and GMSA carrier opposition to such extensions	None; simply cites initial comments of BellSouth, 360 Communications and Southwestern Bell	Reply Comments, August 4, 1997, p. 8 and n. 28
AT&T (A-side): there are difficulties serving subscribers along the shoreline in certain markets; concerns about interference and subscriber capture are heightened near the Gulf because of excessive roaming rates charged by Gulf carriers	Cites previous statement from engineer in July 2, 1997 comments dealing only with Florida side; statement from AT&T manager asserts that "AT&T has received numerous complaints from its customers as a result of coverage loss and excessive roaming rates charged by the Gulf carriers (both PetroCom and Coastel)." No details given regarding area of coverage loss or extent of complaints.	Further Reply Comments, May 30, 2000, pp.1-2,Ex. 1
Radiofone (A-side): Radiofone is unable to provide the public adequate service along certain portions of its service area near the coastline; land carriers unable to improve service to the substantial segment of subscribers near the shoreline	None	Comments, June 2, 1997, p. 2, 9

Claim	Real World Evidence For Claim	Citation
MobileTel, Inc. (B-side): existing Gulf carriers could not provide reliable coverage in coastal waters from widely dispersed sites; in fact it is their failure to completely serve areas in question that led to the need for rule revision	None (no distinction between Florida and Western sides, or A-side and B-side)	Comments, July 2, 1997, p. 4
MobileTel, Inc. (B-side): there are difficulties serving subscribers along the shoreline because of the current prohibition against any extensions by land carriers into the CGSA of Gulf carriers; concerns about interference and subscriber capture are heightened by excessive roaming rates charged by Gulf carriers	No explanation or evidence cited of "difficulties"; declaration from MobileTel manager (Ex. 1) describes roaming charges paid by agreement with Gulf carriers and "numerous" customer complaints without any supporting documentation or details	Further Reply Comments, May 30, 2000, p. 1; Ex. 1
Alltel Communications (B-side): there is difficulty extending service off Florida due to inability to freely place even de minimis contour extensions into the Gulf under existing rules	No example given; only refers to Florida	Comments, June 2, 1997, p. 2

Claim	Evidence For Claim	Citation
Alltel Communications (B-side): Gulf carriers actively seek shoreline traffic, price their services higher, the impact on land carriers and subscribers is untenable; service degradation problems are a matter of record; land carriers' inability to deploy reliable service undermines the availability and reliability of 911 service	Cites previous comments of (Alltel, GTE, 360) that provide no support or deal only with B-side Florida issue; no evidence of any problem with A-side on Western side; only evidence cited relates to GTE/Coastel dispute concerning Mobile, Alabama; no support for claim regarding 911 service	Further comments, May 15, 2000, pp 5-8; 12-13
Alltel Corporation; BellSouth Corporation; SBC Wireless Inc.; Telepak, Inc. (B-side): reliable, ubiquitous land-based service in coastal areas is jeopardized under the current regulatory regime	Cites previous comments of other parties; nothing new to support claim; factual discussion focuses entirely on GTE/Coastel dispute concerning Mobile, Alabama	Joint Reply Comments, May 30, 2000, p. 2, n. 5
Alltel Corporation; AT&T Wireless; MobileTel; BellSouth Corporation; Verizon (GTE); SBC Wireless; Telepak (B-side): service to land areas is currently compromised, adversely affecting service reliability and public safety; microcells are inefficient, requiring numerous installations and would be ineffective for service purposes without SAB overlap into Gulf	Engineer's technical report is based entirely on a theoretical model (Appendix A) with no measured real world data; only example concerns Mobile, Alabama (Appendix B)	Ex Parte, July 6, 2000, handouts & Appendix A and B
Alltel Corporation; AT&T Wireless; MobileTel; BellSouth Corporation; Verizon (GTE); SBC Wireless; Telepak (B-side): There is a "documented and vital need" for improvements to land-based service	None	Ex Parte, December 8, 200 (second page of handout)

Claim	Evidence For Claim	Citation
Texas RSA 20B2 Limited Partnership (B-side): many areas remain unserved not due to technical limitations, but because of legal disputes and regulatory uncertainty; example: Texas RSA LP prohibited from serving much of Matagorda Island because Gulf licensee was unwilling to allow inadvertent extension; neither licensee can serve remaining portions of the island which lacks complete service because Texas RSA LP must shield its antenna located on the Island – this scenario is doubtless repeated up and down the coastline	None; no engineering statement or documentation	Comments, June 2, 1997, p. 8 Reply Comments, August 4, 1997, p. 4
GTE Service Corporation / Texas RSA 20B2 Limited Partnership (B-side): current rules don't permit land carriers to provide reliable service along GOM shoreline; GTE Texas subscribers face high roamer rates as a result of capture by the B-side Gulf carrier; E-911 calls placed from Galveston Island are set up on B-side Gulf carrier's system and routed to Coast Guard rather than to land-based PSAP	Statements quoted from other land carriers' prior comments (Alltel, BellSouth, SBC); reference to complaints arising from pull-back of GTE's cells at Mobile, AL; copy of one customer's bill shows $744 in roamer charges for 233 minutes; statement from GTE engineer shows "several test 911 calls" placed from a single island location on a single day; this test was limited to 3 calls made from phone set on analog mode with no demonstration of any adverse result from routing call through the Coast Guard to the land-based PSAP; no evidence related to A-side	Supplemental Reply Comments, May 30, 2000, pp. 3-12; Ex. A & B

Claim	Evidence For Claim	Citation
Dobson Cellular Systems, Inc. (A-side): current rules have significantly restricted its ability to provide reliable service to land-based Gulf coast customers	None; example cited in footnote 3 actually shows current rules have worked to create an agreement that accommodate Dobson's coverage requirements; example is typical in cases of land-to-land market boundaries and is resolved in the same way	Reply Comments, May 30, 2000, p. 2; n. 3
Centennial Cellular Corporation (A-side): many land carriers have facilities in place that could provide coverage of Coastal Zone but have been prevented from doing so by nonconsenting Gulf carriers; if Gulf licensees retain the right to serve coastal regions, existing patchwork of coverage will continue and will be exacerbated due to constant movement of oil rigs; Commission has received informal complaints about roaming charges	None; no engineering statement; no documentation of complaints in general or Gulf-related complaints in particular (other comments cited either lack such documentation or do not refer to complaints at all)	Reply Comments, August 4, 1997, p. 4-6
Centennial Cellular Corp. (A-side): under current rules, contour-edge service is not adequate for beachfront hotels and typical beach environments and is ineffective at reaching portable, hand-held devices, particularly when the consumer operates the device inside a building	Only cites current rules, without evidence of an actual coverage problem	Reply Comments, May 30, 2000, p. 3, & n. 5
Centennial Cellular Corp. (A-side): because of current rules, land carriers cannot generate enough signal strength to reliably serve beachfront	None	Ex parte, July 10, 2000, p. 2

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ATTACHMENT 2: A-Side / B-Side Comparison In The Gulf of Mexico (Western Side)

Land carriers fail to explain why the existing rules that require adjacent carriers to reach extension agreements do not work in the Gulf. The table below provides examples showing that A-side carriers in the Gulf have reached agreements *in the same markets* where B-side carriers claim the rules do not work. If the rules work for A-side carriers, then why not for B-side carriers?

Market (Western Side Of Gulf)	**B-Side**	**A-Side**
Corpus Christi, Brownsville-Harligen, Texas 19, Texas 20	**Southwestern Bell Mobile Systems, Inc. (now SBC)** alleges it is unable to have extensions into the Gulf and that power levels are too low to serve land customers (June 2, 1997 comments, pp. 1-2)	**PetroCom and US Cellular** have co-location agreements for the Corpus Christi and Texas 20 markets (US Cellular is also the Texas 19 licensee) **NOTE:** SBC's June 2, 1997 comments support the concept of negotiated agreements among carriers (pages 5-6, and Ex. 1, pp. 5-6)
Texas 20	**Texas RSA 20B2 Limited Partnership** alleges it cannot serve Matagorda Island (June 2, 1997 comments, p. 8; August 4, 1997 comments, p. 3)	**PetroCom and US Cellular** havean extension agreement for the Texas 20 market
Galveston	**GTE Service Corporation** alleges that test results show capture interference caused by Coastel (May 30, 2000 comments, pp. 8-9)	**PetroCom and Galveston Cellular** have co-location agreement for the Galveston market **NOTE:** Dennis Study shows GTE is best server up 20 kilometers offshore

A-SIDE AGREEMENTS FOR MARKETS ADJACENT TO GULF OF MEXICO (WESTERN SIDE)		
Parties to Agreement	**Market**	**Year of Agreement**
PetroCom/Houston Cellular*/Galveston Cellular* *Included AT&T as a partner	Houston, Galveston (4 co-location sites)	1996
PetroCom/US Cellular	Corpus Christi (1 co-location site)	1996
PetroCom/Centennial	Beaumont-Port-Arthur, LA-5 (3 co-location sites)	1997
PetroCom/Dobson Cellular	TX 16 (extension agreement)	1998
PetroCom/US Cellular	TX 20 (extension agreement)	2000

"GTE notes that the parties most concerned about the beach coverage issue are all B-side cellular carriers. This phenomenon is attributable to the fact that Coastel/Bachow, the B-side Gulf carrier, has been generally unwilling to negotiate reasonable extension agreements with land-based carriers...The A-side Gulf carrier, PetroCom, on the other hand has more freely allowed extensions into the Gulf, particularly in Florida where no oil platforms exist." GTE, Reply Comments, August 4, 1997, p. 6, n. 10.

"GTE...has not contacted or even attempted to negotiate a contour extension agreement with Bachow/Coastel. In fact, GTE withdrew its own contour extension agreement after Bachow/Coastel agreed to it." Bachow/Coastel, Reply Comments, May 30, 2000, p. ii.

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Attachment 3

ENGINEERING REPORT

CELLULAR SIGNAL STRENGTH MEASUREMENTS ALONG THE TEXAS GULF COAST

TOM L. DENNIS, P.E.

Recognizing that the GTE ex parte presentation made to the FCC on November 18, 1997 was based on computer models that were not verified by actual field data, it was decided that actual measurements along the Gulf Coast, particularly in the area depicted in the GTE Exhibit II, should be undertaken and documented.

BACKGROUND INFORMATION:

Prior data had previously been collected in the Gulf of Mexico in order to prepare a response to the Further Notice of Proposed Rulemaking, CC Document No. 90-6 (released October 1991). In addition, measurements had been made from a test site at the Flagship Hotel in Galveston, Texas in support of a cell site application at this location. More recently, additional engineering data had been collected and included in the Coastel reply comments to WT Docket 97-112/CC.

All of the above referenced data demonstrate that GTE is "best server", i.e. the carrier with the greatest signal strength, for as much as 20 kilometers off the Texas shoreline and presently averages about 15 kilometers offshore. This is shown in the coverage plot prepared by GTE in 1995 and included as Exhibit II to this report.

Prior data collected from the test site at the Flagship Hotel also showed that it would not be possible to install a cell site at this location which would be stronger than GTE in the Gulf. The Flagship test site was operated at 100 watts ERP and beamed into the Gulf. Exhibit I shows that the GTE Galveston cell site was always best server, regardless of how far one was offshore. This was due to the height advantage of the GTE site (200 feet); a height not available at the Flagship Hotel nor generally available on an offshore platform.

This test site did, however, disclose the feasibility of co-located sites. Even with the GTE site being about 2 kilometers away, GTE was best server at the ramp leading to the Flagship Hotel.

1998 TEST DATA:

A fully instrumented test drive was undertaken from High Island, Texas along the Bolivar Peninsula, which was the area GTE showed in Exhibit II of their ex parte presentation. GTE claimed that their Exhibit II showed that "In Texas, the Gulf Carriers' signal on the beach dominates the Land-Based Carriers' signal in many places". Exhibit III shows the general location of this part of the Texas coast.

Equipment and Procedure:

A light truck was utilized to carry the test equipment which had the following characteristics:

Two magnet-mount cellular antennas on the roof; each antenna has 3dB gain. Line loss was 3dB, therefore the effective antenna gain was 0 dBd. Antenna center of radiation was at 6 feet AGL.

A two-channel calibrated Wireless Measurement System manufactured by Grayson Electronics Company, serial no. AS4765.

A roof-mounted GPS antenna.

A Toshiba lap-top computer, with SpectrumTracker software, which operated the scanning measurement receivers and recorded all data to disk.

The scan program was set up as follows:

1. Receiver 1 scanned all "A" side control channels.
2. Receiver 2 scanned all "B" side control channels.
3. Each channel was sampled 120 times in a one-second period and the maximum, minimum, and average signal level, in dBm, was recorded to disk. This was repeated four more times before skipping to the next channel.
4. The GPS coordinates were recorded to disk every 10 seconds.

The average speed was maintained near the local limits throughout the drive test. The beach road, Texas highway 87, was followed except through Galveston. In Galveston, the route driven was along Seawall Boulevard which is adjacent to the beach.

After completing the drive from High Island to the end of the Bolivar Peninsula, which was the extent of the data that GTE presented in their Exhibit II, the drive was extended to include the ferry crossing to Galveston Island, the beach-front drive through Galveston and continuing along highway 87 to near Freeport, Texas.

Data reduction procedure:

The data recorded on disk was processed to display, in graphical format, amplitude (signal strength in dBm) on the vertical axis and the distance from Freeport, Texas on the horizontal axis. The average of each one-second sample of 120 readings was the value which was plotted, provided it exceeded a signal level of -115 dBm.

RESULTS:

"B" SIDE (Coastel and GTE)

The three channels operated by Coastel at offshore platforms in this area were plotted in green (HI-116 @ 880.44 MHz; HI-A20 @ 880.23 MHz and GA-255 at 880.11 MHz). All other channels were plotted in red. An examination of the results, Exhibit IV, shows the following:

1. The level of a shore cell-site signaling channel never drops below -88 dBm on this entire drive.
2. The level of a Coastel signal never exceeds -90 dBm on this run.
3. The closest that a Coastel signal gets to equaling a land-carriers signal is -10 dB (at 22 kilometers from Freeport). This is only one-tenth of the receive signal power of the land-carriers' signal at this location.
4. The green line at the left of the graph (-78 dBm at 5 km) is actually a land station re-use of the Coastel control channel at HI-116, which is about 150 km away from this location.

5. The tall green peak below the GTE Jamaica Beach station signal does not actually exist. This is interference recorded due to the extremely strong GTE signal. The test equipment is not able to reject the GTE signal only a few channels removed.

"A" Side (Petrocom and Houston Cellular)

Petrocom operates three offshore channels along this portion of the coastline and has co-location agreements with Houston Cellular on four additional sites.

An examination of the "A" side map, Exhibit V, shows that Petrocom is apparently the best server in one small area on the west side of Galveston. The data has not been fully reduced to determine which location, and which channel, is indicated by the green curve which seems to become best server for a short distance. This also appears to be due to interference to the test equipment caused by the three extremely strong stations in this same vicinity. In any event, the coverage from the sites which are co-located with Houston Cellular are negotiated contracts which take into account the signal levels which presently exist in the Galveston area.

Further examination of the results, Exhibit V, shows the following:

1. The level of the land carrier's signaling channels never drops below -90 dBm.
2. The land carrier has at least one signaling channel which exceeds -80 dBm for all but 12 km of this 113 km test drive.
3. The green Petrocom signal levels which appear to exceed -90 dBm are believed to be due to test equipment overload by the extremely strong (-40 dBm) signals of the land carrier. Further analysis will be undertaken to prove this point.

SUMMARY:

There is no indication that Coastel could ever capture any cellular customers operating either mobiles or portables along the beach areas.

The only place where Petrocom becomes the apparent best server is in an area which is operated under a negotiated contract with Houston Cellular.