

STATE OF MISSOURI
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

FILED

MAY 11 2000

Missouri Public
Service Commission

In the Matter of the Petition of the North)
American Numbering Plan Administrator, on)
Behalf of the Missouri Telecommunications) Case No. TO-2000-374
Industry, for Approval of NPA Relief Plan for)
the 314 and 816 Area Codes)

DIRECT TESTIMONY OF SANDRA L. TOKAREK
ON BEHALF OF NEUSTAR, INC.

Filed May 10, 2000

**Pre-filed Direct Testimony of Sandra L. Tokarek
on Behalf of NeuStar, Inc.**

1 Q. Please state your name and business address.

2 A. My name is Sandra L. Tokarek. My business address is:

3 NeuStar, Inc.

4 1120 Vermont Ave N.W., Suite 550

5 Washington, DC 20005

6

7 Q. With whom are you employed, and in what capacity?

8 A. I have been employed by NeuStar, Inc. ("NeuStar") as Senior Numbering Plan

9 Area ("NPA") Relief Planner for the Central Region of the North American

10 Numbering Plan since April 1, 1998. NeuStar is the North American Numbering

11 Plan Administrator ("NANPA"). The NANPA and other numbering functions

12 were transferred from Lockheed Martin IMS to NeuStar on November 30, 1999.

13 As a Senior NPA Relief Planner, I supervise a team of NPA relief planners.

14 Together, we are responsible for initiating NPA relief planning in NPAs within

15 the Central Region of the United States in sufficient time to prevent the exhaust of

16 numbering resources. My responsibilities include monitoring central office

17 ("CO") code utilization trends and collecting other information in order to project

18 NPA exhaust, notifying the industry and appropriate regulatory bodies of the need

19 for NPA relief planning, and conducting relief planning meetings with the

20 telecommunications industry. Once the industry has agreed to recommend a relief

21 plan, I prepare and forward the industry's recommendations to the appropriate

22 regulatory agency, then provide notification of agency approved relief plans to the

1 industry in accordance with the NPA Code Relief Planning & Notification
2 Guidelines (INC 97-0404-016, November 8, 1999) ("NPA Relief Planning
3 Guidelines").
4

5 Q. Please describe your educational background and professional experience in the
6 telecommunications industry.

7 A. I have a Bachelor of Science Degree in Business from Gannon University in Erie,
8 Pennsylvania.
9

10 I have been employed in the telecommunications industry for more than eight
11 years. Prior to joining NANPA, I was employed by AT&T. During my
12 employment with AT&T, I held positions in the Government Affairs and
13 Corporate Communications departments. I was responsible for interdepartmental
14 management of NPA relief activities for AT&T from 1995 to 1998, including the
15 implementation of NPA relief in three states.
16

17 Q. Have you ever appeared as a witness before the Missouri Public Service
18 Commission ("Commission") before ?

19 A. No.
20

1 Q. What is the purpose of your testimony?

2 A. I offer this testimony pursuant to the NPA Relief Planning Guidelines and to
3 explain NANPA's role in the relief process for the 314 and 816 NPAs.
4

5 Q. Please describe NANPA's role in this proceeding.

6 A. NANPA is the neutral third party administrator of the NANP. The 1999 Central
7 Office Code Utilization Survey ("COCUS") projections for CO codes indicated
8 that that 314 and 816 NPAs would exhaust during the second quarter of 2000 and
9 the second quarter of 2001, respectively. To allow sufficient time to prepare for
10 NPA relief before the exhaust of the 314 and 816 NPAs, NANPA notified the
11 industry and the Commission on September 28, 1999 that relief planning needed
12 to be addressed. On November 9, 1999, NANPA facilitated an industry meeting
13 in Kansas City, Missouri to present NPA relief alternatives to the industry and
14 ultimately to allow industry members to come to consensus on a relief plan or
15 plans to be presented to the Commission. A copy of the meeting minutes is
16 included in Exhibit A.
17

18 Prior to the November 9 meeting, NANPA prepared and distributed an Initial
19 Planning Document ("IPD") for each of the 314 and 816 NPAs. The IPD for the
20 314 NPA described four relief alternatives. The IPD for the 816 NPA described
21 three alternatives. Two additional alternatives for the 816 NPA were proposed by
22 Industry members during the November 9 meeting and were subsequently added

1 the IPD. The IPDs contained maps and estimated lives for each of the relief
2 alternatives. The IPDs are included in Exhibit A.

3
4 The four relief alternatives described in the 314 IPD are an all services distributed
5 overlay – referred to as Alternative #1 in the IPD, two versions of a geographic
6 split – referred to as Alternatives #2 and #4, and a “retroactive” all services
7 overlay – referred to as Alternative #3. The retroactive overlay alternative
8 proposes to extend the boundary of the existing 636 NPA so that it would overlay
9 the 314 NPA. At the November 9 meeting, the industry participants discussed
10 each of the four relief alternatives extensively and reached consensus to
11 recommend Alternative #3, the retroactive NPA overlay, as the preferred means of
12 relief for the 314 NPA. In addition to the retroactive overlay, the Industry reached
13 consensus to recommend, as a second phase of relief, the implementation of a
14 subsequent all-services distributed overlay to encompass the area within the 314
15 and 636 NPAs. The Industry recommended that the second phase of relief begin
16 approximately two years after the implementation of the retroactive overlay.

17
18 The five relief alternatives described in the 816 IPD are an all services distributed
19 overlay – referred to as Alternative #1 in the IPD, three versions of a geographic
20 split – referred to as Alternatives #2, #3 and #4, and a concentrated growth
21 overlay – referred to as Alternative #5. The concentrated growth overlay
22 alternative proposes to overlay a relief NPA over portions of the existing 816

1 NPA. At the November 9 meeting, the industry participants discussed each of the
2 five relief alternatives extensively and reached consensus to recommend
3 Alternative #1, the all services distributed overlay, as the preferred means of relief
4 for the 816 NPA.

5
6 On December 17, 1999, NANPA filed a petition with the Commission on behalf
7 of the industry requesting approval of the industry's recommended relief plans. A
8 copy of the petition, including attachments, is attached as Exhibit A.

9
10 Q. Which companies comprise the industry to which you refer?

11 A. The industry consists of those current and prospective telecommunications
12 carriers operating in, or considering operations in, the 314 and 816 NPAs. A list
13 of the attendees at the November 9, 1999 meeting is included in Exhibit A.

14
15 Q. Do you have any changes or additions you would like to make to the petition?

16 A. Yes. On January 18, 2000, NANPA released an update of the 1999 COCUS and
17 NPA Exhaust Analysis. This update adjusts NPA exhaust projections based upon
18 the implementation of the new 636 NPA as relief for the 314 NPA, individual
19 company requests for large blocks of CO codes, and other factors. The January
20 18, 2000 update indicates that the 314 NPA will exhaust during the third quarter
21 of 2001 – approximately one year later than projected in the 1999 COCUS. The
22 January 18, 2000 update indicates that the 816 is projected to exhaust during the

1 fourth quarter of 2001 – approximately two quarters later than the projected
2 exhaust date set forth in the 1999 COCUS.

3
4 Q. Please describe the four alternative plans of relief set forth in the 314 IPD.

5 A. Alternative #1 consists of an all services distributed overlay, in which a new NPA
6 would be assigned to the same geographic area as the existing 314 NPA. Existing
7 customers would retain their current telephone numbers and dial ten digits for
8 local calls. CO codes in the new overlay NPA would be assigned to
9 telecommunications service providers upon request no sooner than sixty-six days
10 prior to the effective date of the new area code. The remaining CO codes in the
11 314 NPA would continue to be available until it exhausts.

12
13 Alternative #2 consists of a single geographic split which divides the 314 NPA
14 into two NPAs with the combined central St. Louis rate center and surrounding
15 rate centers on one side of the boundary and the Creve Coeur, Kirkwood,
16 Sappington, Mehlville and Oakville rate centers on the other side. Seven digit
17 local dialing is maintained within the NPA but ten-digit local dialing is required
18 for calls placed between NPAs in the same extended local calling area.

19
20 Alternative #3, the retroactive overlay, proposes to extend the boundary of the
21 existing 636 NPA so that it would overlay the 314 NPA and 636 CO codes would
22 be assigned in the 314 NPA as needed. As a second phase of relief, an all services

1 distributed overlay would be implemented over the 314/636 NPAs approximately
2 two years after the implementation of the extension of the 636 NPA over the 314
3 NPA.

4
5 Alternative #4 consists of a single geographic split separating the St. Louis rate
6 center from the rest of the NPA.

7
8 Q. What are the projected lives, or the time until further relief is required, for each of
9 the alternatives set forth in the 314 IPD?

10 A. The projected life of Alternative #1, the all services distributed overlay, is 6.3
11 years. The projected lives for the NPAs proposed in Alternative #2, a geographic
12 split, are 2.4 and 16.4 years. The projected lives for Alternative #4, a geographic
13 split, are 11.4 to 3.4 years. The projected life of Alternative #3, the retroactive
14 overlay, is 4.4 years. The projected lives are based upon a straight line projection
15 of growth.

16
17 Q. Please describe the five alternative plans of relief set forth in the 816 IPD.

18 A. Alternative #1 consists of an all services distributed overlay, in which a new NPA
19 would be assigned to the same geographic area as the existing 816 NPA. Existing
20 customers would retain their current telephone numbers and dial ten digits for
21 local calls. CO codes in the new overlay NPA would be assigned to
22 telecommunications service providers upon request no sooner than sixty-six days

1 prior to the effective date of the new area code. The remaining CO codes in the
2 816 NPA would continue to be available until it is exhausted of its supply of CO
3 codes.

4
5 Alternative #2 consists of a single geographic split which divides the 816 NPA
6 into two NPAs separating the Kansas City Metropolitan Calling Area and the
7 Adrian rate center from the rest of the 816 NPA rate centers.

8
9 Alternative #3 consists of a single geographic split separating the inner Kansas
10 City Metropolitan Calling Area rate centers of Kansas City, Independence,
11 Parkville, and Raytown from the rest of the 816 NPA rate centers.

12
13 Alternative #4 consists of a single geographic split separating the Kansas City
14 Metropolitan Calling Area rate centers of Kansas City, Independence, Parkville,
15 Raytown, Belton, Liberty, Lees Summitt and Blue Springs from the rest of the
16 816 NPA rate centers.

17
18 For all of the geographic split alternatives, seven digit local dialing is maintained
19 within the NPA but ten-digit local dialing is required for calls placed between
20 NPAs in the same extended local calling area.

21

1 Alternative #5, the concentrated growth overlay, proposes to place an overlay
2 NPA over the Kansas City Metropolitan Calling Area rate centers of Kansas City,
3 Independence, Parkville, Raytown, Belton, Liberty, Lees Summitt and Blue
4 Springs. Existing customers would retain their current telephone numbers but
5 customers located within the concentrated overlay would be required to dial ten
6 digits for local calls. Customers located outside of the concentrated overlay
7 would retain seven digit dialing within the 816 area code but would be required to
8 dial ten-digits for calls placed between NPAs in the same extended local calling
9 area.

10
11 Q: What are the projected lives, or the time until further relief is required, for each of
12 the alternatives set forth in the 816 IPD?

13 A. The projected life of Alternative #1, the all services distributed overlay, is 6.7
14 years. The projected lives for the NPAs proposed in Alternative #2, a geographic
15 split, are 1.1 and 94 years. The projected lives for Alternative #3, a geographic
16 split, are 6.3 and 7.1 years. The projected lives of Alternative #4, another
17 geographic split, are 3.1 and 15.4 years. The projected lives of the NPAs
18 proposed in Alternative #5, a concentrated growth overlay, are 6.7 and 2.9 years.
19 The projected lives are based upon a straight line projection of growth.

20

1 Q. Is the 314 NPA in jeopardy?

2 A. Yes. NANPA declares an NPA to be in jeopardy when the forecasted or actual
3 demand for CO codes in an NPA will exceed the known supply during the
4 planning/implementation interval for relief. Upon the declaration of jeopardy,
5 NANPA immediately invokes interim jeopardy procedures, which provide for the
6 assignment of three CO codes per month. These interim procedures continue in
7 effect until the industry agrees on the terms of final jeopardy procedures. The
8 industry convened by conference call on May 3, 2000 and arrived at final
9 jeopardy procedures through a consensus process. The final procedures allow for
10 the assignment of a maximum of eight CO codes per month so that the available
11 CO codes for the 314 NPA will be extended until the third quarter of 2001. If
12 fewer than a total of eight CO codes are requested during a month, the remainder
13 will be added to the number of CO codes available for the following month.

14

15 Q. Is the 816 NPA currently in jeopardy?

16 A. No, the 816 NPA is not in jeopardy.

17

18 Q. Does this conclude your testimony?

19 A. Yes it does, thank you.

EXHIBIT A

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Mr. Dale Hardy Roberts
Secretary and Chief Regulatory Law Judge
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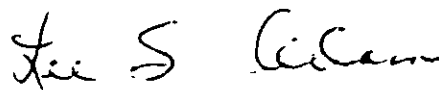
Re: 314/816 NPA Relief Petition

Dear Mr. Roberts:

Enclosed for filing are an original and fourteen copies of the petition of NeuStar, Inc., as the North American Numbering Plan Administrator, on behalf of the Missouri telecommunications industry, requesting approval of relief plans for the 314 and 816 area codes. Please date-stamp the enclosed return copy as received and return it in the attached self-addressed stamped envelope.

If you have any questions regarding this matter, please contact the undersigned.

Respectfully submitted,



Lee S. Adams
Counsel for NeuStar, Inc.

Enclosure

cc: Michael Dandino, Office of Public Counsel

**Before the
MISSOURI PUBLIC SERVICE COMMISSION
Jefferson City, Missouri 65102**

NANPA, on behalf of the Missouri
Telecommunications Industry,

Petition for Approval of NPA Relief Plan
for the 314 and 816 Area Codes

Docket No. _____

**PETITION OF THE
NORTH AMERICAN NUMBERING PLAN ADMINISTRATOR
ON BEHALF OF THE MISSOURI TELECOMMUNICATIONS INDUSTRY**

The North American Numbering Plan Administrator NeuStar, Inc. (formerly Lockheed Martin IMS)¹ ("NANPA"), in its role as the neutral third party NPA Relief Planner for Missouri under the North American Numbering Plan and acting on behalf of the Missouri telecommunications industry ("Industry"),² hereby petitions the Missouri Public Service Commission ("Commission") for approval of a "retroactive" all services overlay relief plan for the 314 Numbering Plan Area ("NPA"), *i.e.*, extending the current 636 NPA to encompass the existing 314 NPA followed by the implementation of a second overlay of a

¹ The North American Numbering Plan administration and other numbering functions have been transferred from Lockheed Martin IMS to NeuStar, Inc. The Federal Communications Commission approved the transfer on November 17, 1999. *Request of Lockheed Martin Corporation and Warburg, Pincus & Co. for Review of the Transfer of the Lockheed Martin Communications Industry Services Business*, Order, FCC 99-346 (Nov. 17, 1999). The transaction closed on November 30, 1999.

² The Industry is composed of current and prospective telecommunications carriers operating in, or considering operations within, the state of Missouri.

new NPA, and a single all services overlay relief plan for the 816 NPA,³ both of which were developed through Industry consensus.⁴ The Industry requests that the Commission approve the Industry's recommended schedule for the implementation of the relief plans no later than March 1, 2000. The Industry recommends that the permissive dialing period for the 314 retroactive overlay begin on June 3, 2000 and mandatory dialing begin December 2, 2000. Implementation for the subsequent 314 relief NPA overlay should begin no sooner than December 7, 2002. The Industry recommends that the permissive dialing period for the 816 overlay begin on August 5, 2000 and mandatory dialing begin February 3, 2001. In support of this Petition, NANPA submits the following:

I. BACKGROUND

To allow sufficient time to prepare for NPA relief to prevent number exhaust, NANPA notified the Industry members and the Commission in a letter dated September 28, 1999 that NPA relief planning must be addressed. The Industry met on November 9, 1999 in Kansas City, Missouri to discuss relief alternatives.⁵ Pursuant to the NPA Relief Guidelines,

³ As the neutral third party administrator, NANPA has no independent view regarding the relief option selected by the Industry.

⁴ In order to plan for the introduction of new area codes, NANPA and the Industry utilized the NPA Code Relief Planning and Notification Guidelines (INC 97-0404-016 Aug. 30, 1999) ("NPA Relief Guidelines"). The NPA Relief Guidelines assist NANPA, the industry and regulatory authorities within a particular geographic NPA in the planning and execution of relief efforts. The NPA Relief Guidelines can be accessed on the ATIS web site located at <<http://www.atis.org/atis/clc/inc/incdocs.htm>>.

⁵ Minutes of the meeting, including a list of attendees, are attached as Exhibit A.

NANPA presented Initial Planning Documents ("IPD") at the meeting.⁶ The IPDs suggested four relief alternatives for the 314 NPA and three alternatives for the 816 NPA. Two additional alternatives for the 816 NPA were proposed by Industry members during the meeting and were subsequently added to the 816 IPD. The information furnished by NANPA to the participants during the meeting included geographical maps of the 314 and 816 NPAs, a description of each relief alternative, including dialing requirements and the projected life in years of each relief alternative.

At the meeting, the participants discussed the attributes of the various alternatives for each NPA. For the 314 NPA, the Industry discussed four alternatives: an all services distributed overlay – referred to as Alternative #1 in the IPD; two versions of a geographic split – Alternatives #2, and #4; and a retroactive overlay – Alternative #3. The two geographic split alternatives differed as to where the dividing boundary was placed. The Industry eliminated from consideration Alternatives #2 and #4 for several reasons: 1) the lives of each resulting NPA were unbalanced; 2) the NPA dividing boundary would split local calling areas; 3) the resulting mixture of seven-digit and ten-digit local dialing would cause customer confusion;⁷ and 4) the immediate implementation of a new NPA would not provide sufficient time for 911 and E911 systems to be upgraded to accept the new NPA.

⁶ A copy of the 314 IPD is attached as Attachment #2 of Exhibit A and a copy of the 816 IPD is attached as Attachment #3 of Exhibit A.

⁷ Local calls placed within an NPA would remain seven digits. Local calls placed across NPA boundaries would require ten-digit dialing.

Similarly, the Industry eliminated Alternative #1, the all-services distributed overlay, because it would not provide sufficient time for the upgrading of 911 and E911 systems.

The Industry reached consensus to recommend Alternative #3, the retroactive overlay, to the Commission. In addition to the retroactive overlay, the Industry reached consensus to recommend, as a second phase of relief, the implementation of a subsequent all-services distributed overlay to encompass the area within the 314 and 636 NPAs. Breaking the 314 NPA relief implementation into two separate phases will allow the 911 and E911 systems agencies time to upgrade their systems to accept a new NPA.⁸

At the November 9 meeting, the Industry discussed five relief alternatives for the 816 NPA: Alternative #1, an all services distributed overlay; Alternatives #2, #3 and #4, three versions of a geographic split; and Alternative #5, a concentrated growth overlay. The three geographic split alternatives differed as to where the dividing boundary line was placed. The concentrated growth overlay alternative proposes to overlay a relief NPA over portions of the existing 816 NPA. The Industry reached consensus to eliminate the geographic split alternatives – Alternatives #2, #3 and #4 – for several reasons. In general, the Industry noted that all three geographic split alternatives would make subsequent relief efforts difficult due

⁸ Earlier this year, the 636 NPA was created as the result of a geographic split of the 314 NPA. St. Louis area 911 and E911 systems currently include the 636 NPA as one of the four NPAs they currently support. The introduction of a fifth NPA will necessitate time consuming upgrades of the 911 and E911 systems. Due to technical constraints, the current 911 systems in St. Louis are at their capacity of four NPAs (314, 636, 573 and 618). Adding a fifth NPA in the area will necessitate time consuming upgrades of the 911 systems. As such, the Industry requests that the Commission order the 636 NPA to be extended to overlay the 314 NPA in order to provide immediate relief without endangering the St. Louis area 911 and E911 operations.

to the small size of the NPAs. In addition, the Industry reached consensus to eliminate Alternative #2 because the lives of each resulting NPA were unbalanced and the projected life of one of the resulting NPAs was extremely short, requiring subsequent relief planning to begin immediately. The Industry eliminated from consideration Alternatives #3 and #4 because the proposed NPA boundary lines would split local calling areas causing a confusing mixture of seven and ten-digit dialing for local calls. Alternative #5, the concentrated growth overlay, was eliminated for multiple reasons: 1) the alternative provides insufficient relief for areas outside of the concentrated overlay; and 2) it would require two separate implementation periods, including separate customer education plans, one prior to the implementation of the concentrated overlay and another when the overlay is expanded to provide further relief for the 816 NPA. In addition, all of these alternatives were rejected because they would not provide sufficient time to upgrade 911 and E911 systems.⁹

The Industry reached consensus to recommend Alternative #1, an all services distributed overlay, to the Commission for the following reasons: 1) it would disrupt customers only once; 2) it would not require customers to change their telephone numbers; 3) subsequent relief implementation is easier in an area that previously has undergone relief in the form of an overlay; 4) the distributed overlay provides maximum relief for the 816 NPA; 5) customer education is simpler; and 6) the distributed overlay alternative provides the longest preparation time for 911 and E911 agencies to upgrade their systems.

⁹ As with the St. Louis 911 systems, the 911 systems in Kansas City are also at their capacity of four NPAs (816, 913, 660 and 785). Adding a fifth NPA in the area will necessitate time consuming upgrades of the 911 systems.

II. DESCRIPTION OF THE PROPOSED RELIEF PLANS FOR THE 314 AND THE 816 NPAs

The retroactive overlay alternative for the 314 NPA would extend the existing 636 NPA to overlay the same geographic area covered by the existing 314 NPA. Approximately two years after the implementation of the 636 NPA overlay, a new NPA all-services distributed overlay would be implemented to relieve both the 314 and 636 NPAs. This will provide a date certain by which 911 and E911 systems will have to be upgraded to handle the fifth NPA. All three NPAs would cover the same geographic area. The recommended all services distributed overlay alternative for the 816 NPA would overlay a new area code over the same geographic area covered by the existing 816 NPA. All existing customers in the 314, 636 and 816 NPAs would retain their current ten digit telephone numbers. Consistent with current Federal Communications Commission regulations, both relief plans would require ten-digit local dialing both within and across NPA boundaries of the existing NPAs and the relief NPAs.¹⁰ The Industry recommends that the permissive dialing period¹¹ for the 314 retroactive overlay begin on June 3, 2000 and mandatory dialing¹² begin December 2, 2000. Implementation for the subsequent new relief NPA overlay should begin no sooner than December 7, 2002. The Industry recommends that the permissive dialing period for the 816 overlay begin on August 5, 2000 and mandatory dialing begin February 3, 2001.

¹⁰ 47 C.F.R. § 52.19(c)(3)(ii).

¹¹ During the permissive dialing period, customers can dial either seven or ten digits for local calls.

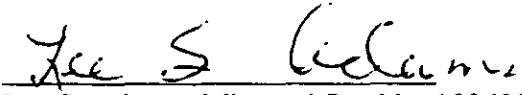
¹² Beginning on the mandatory dialing date, customers must dial ten digits to place local calls both within their NPA and into the relief NPA.

Adhering to the proposed timeframe will avoid the denial or delay of service to telecommunications providers' customers due to the unavailability of central office codes.

III. CONCLUSION

For the foregoing reasons, NANPA, on behalf of the Industry, respectfully requests the Commission approve the Industry's recommended relief plans and schedules for the 314 and 816 NPAs no later than March 1, 2000.

Respectfully submitted,


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Counsel for NeuStar, Inc.
North American Numbering Plan Administrator

December 16, 1999

**Minutes
Relief Planning for the Missouri 314 and 816 NPAs
Kansas City
November 9, 1999**

ATTENDANCE

A list of meeting attendees is in Attachment #1.

WELCOME AND INTRODUCTIONS

Mr. Ben Childers, Lockheed Martin NANPA Senior NPA Relief Planner, introduced himself and Ms. Linda Hymans, NANPA NPA Relief Planner and attendees introduced themselves. Mr. Childers outlined the objectives of the meeting. A brief discussion took place about whether or not number conservation measures (such as number pooling) would delay the need for any relief and whether it was taken into account in the relief plan alternatives. Mr. Childers explained that number conservation measures have not been explicitly taken into account when determining initial relief alternatives presented in the Initial Planning Document, but that these could be investigated further by the industry should it desire.

Missouri Public Service Commission staff explained that they were attending the meeting to keep current with the relief efforts and would not participate in the consensus process.

REVIEW INDUSTRY GUIDELINES

Mr. Childers stated that the ATIS (Alliance for Telecommunications Solutions) approved industry consensus process will be followed. He explained the consensus process and how consensus is determined. He also reviewed various sections of the NPA Code Relief Planning and Notification Guidelines (INC 97-0404-016 Issued 4/4/97). This document may be downloaded from the ATIS web site (www.atis.org/atis/clc/inc/incdocs.htm).

NANPA TRANSITION UPDATE

Mr. Childers gave a brief overview of the events since Lockheed Martin IMS was selected as the NANPA, and highlights of the CO Code Administration and NPA Relief Planning. Effective March 31, 1999, Lockheed Martin NANPA became responsible for all NPA relief planning activities.

314 NPA

INITIAL PLANNING DOCUMENT

Mr. Childers reviewed the Initial Planning Document (IPD) model and the IPD and there was ample discussion. The IPD, see attachment #2, includes four alternatives: one all services overlay, a retroactive overlay and two single splits.

DISCUSSION OF RELIEF ALTERNATIVES**ALTERNATIVE #1: All-service distributed overlay**

ALTERNATIVE #2: Single Split. Includes St. Louis rate center and the consolidated rate centers.

ALTERNATIVE #3: Retroactive overlay. Current 636 NPA extended to encompass the existing 314 NPA. Participants noted that this type of alternative has been implemented in Dallas and Houston with minimal disruption. The effect of adding a new NPA to the overlay was discussed.

ALTERNATIVE #4: Single Split. Split St. Louis rate center from the rest of the NPA. Rate center consolidation does not include St. Louis so no rate centers will be split with this alternative. The possibility of the Wireless companies rehomeing their switches, in effect, maintaining their current 100 codes in the subsequent 314 area, was discussed. The effect would be to make the projected life of the split more balanced.

The participants proposed no additional alternatives.

The possible effect of the pending rate center consolidation on the alternatives' life projections were discussed using the October LERG data on competitive LEC companies codes and their locations in the effected rate centers. Each CLEC had not opened an NXX code per rate center. While the participants considered that there likely would not be any returned codes due to the consolidation, the future demand in codes might be curtailed. It was discussed that if 10 CLECs entered the 314 and previously would have asked for codes in half the Rate Centers (RCs) to be consolidated, that perhaps 35 codes could be saved due to this consolidation. This is approximately 3 months demand.

There was a discussion on possible ways to predict CLEC entry, including applications granted or in process at the MoPSC and possible looking at co-location applications. It was acknowledged that predicting new entrants is difficult, but that a general feel of the possible savings in codes was likely measured in the 3 month range. Facility based CLECs can't serve customers in rate centers without an NXX code.

Mr. Childers presented the NPA relief alternatives from the IPD and explained the assumptions used in the model. He explained that the IPD alternatives are determined using NANPA projections based on the available 1999 Central Office Code Utilization Study (COCUS) which itself uses historical NXX assignment data, the expected exhaust of the NPA and a potential competitive growth factor. It was determined that the COCUS explicit competitive LEC entry growth factor for the 314 NPA is currently zero, possibly meaning that the market had experienced its initial CLEC entry. The expected life of the various possible alternative relief plans for the 314 NPA assumes 123 code per year demand and a 2Q 2001 exhaust date. Changes to demand or exhaust projection affect the life of the relief alternatives. As the 314 has been in jeopardy (8 codes a month) for almost a year, it is not clear if there is pent up demand that will surface after jeopardy expires.

The impact of relief on 911 and E911 systems were reviewed. St. Louis 9-1-1 Public Service Answering Points (PSAPs) have to be upgraded for all relief alternatives except the retroactive overlay. If a retroactive overlay were implemented, a subsequent NPA when added later will require 9-1-1 entities to upgrade PSAPs to accommodate 5 NPAs. There are about 25-30 PSAPs in St. Louis. Every community that has a PSAP will have to upgrade their equipment to accommodate adding a new NPA to the St. Louis area.

ELIMINATION OF RELIEF ALTERNATIVES

Consensus was reached to eliminate Alternative #2 for the following reasons

- Unbalanced projected life
- Short lives
- Splits a mandatory local calling scope
- Confusion resulting from a mixture of 7 and 10-digit local dialing
- 9-1-1 impacts due to new NPA being added immediately

Consensus was reached to eliminate Alternative #4:

- Unbalanced projected life
- Splits a mandatory local calling scope
- Confusion resulting from a mixture of 7 and 10-digit local dialing
- 9-1-1 impacts due to new NPA being added immediately

Consensus was reached to eliminate Alternative #1:

- Adds new NPA immediately causing 9-1-1 concerns.

RECOMMENDED RELIEF ALTERNATIVE

Consensus was reached to recommend Alternative #3, a retroactive overlay utilizing the 636 NPA.

Reasons for proposing a retroactive overlay are:

- No additional NPA at this time will delay 9-1-1 changes necessary to accommodate five NPAs.
- Past MoPSC action – there was discussion that this alternative might be preferred for subsequent relief.
- Alarms companies don't have to undo anything they have done for the current 314/636 split.

The industry reached consensus to also recommend, as a second phase of the relief, a subsequent all-services distributed overlay so that 9-1-1 agencies take action on necessary system changes.

DIALING PLAN:

10 digit local dialing. Does not require 1+ (only for long-distance).

IMPLEMENTATION SCHEDULE

The industry reached consensus on the following implementation plan:

314 Jeopardy extends through February 2000 (code assignments in the new NPA begin in December). An aggressive implementation schedule is advisable because industry prefers to avoid entering jeopardy again, which would limit competitive entry and NXX codes for existing carriers, which would adversely impact community economic growth. Industry reached consensus on the following implementation schedule.

	RETROACTIVE OVERLAY	SUBSEQUENT OVERLAY
PERMISSIVE	6/03/2000	
MANDATORY	12/02/2000	Expected No Sooner Than 12/07/2002

This implementation schedule is only for this relief alternative and not applicable to any other type of relief.

JEOPARDY PLAN

The current jeopardy plan was discussed and it was believed that it should expire as planned. Mr. Childers stated that code administration would monitor the code demand, as always, and act accordingly should the need arise to implement a jeopardy in the future.

816 NPA

ALTERNATIVE #1: All-service distributed overlay

ALTERNATIVE #2: Single Split. Includes Kansas City Metropolitan Calling Area (MCA) plus the Adrian rate center.

ALTERNATIVE #3: Single Split. Includes the inner tier MCA rate centers Kansas City, Independence, Parkville and Raytown.

Mr. Childers presented the NPA relief alternatives in the IPD (see Attachment #3) and explained the assumptions used in the model. The 816 NPA assumptions 115 code per year demand - 2Q 2001 exhaust. Changes to demand or exhaust projection affect the life of the relief alternatives. Currently there is a 4 code per month jeopardy allocation.

The participants presented a new alternative, Alternative #4; a single split includes Kansas City principal zone - MCA tiers 1 and 2. Mr. Childers calculated the lives of this alternative to be 3.1 years for Area A (the Kansas City side) and 15.4 years for Area B.

The participants presented a new alternative, Alternative #5. Alternative #5 is a concentrated growth overlay utilizing the same geographic boundary as Alternative #4. Projected demand for the outside, non-concentrated portion (Side B) is 17 NXX codes per year. The expected life of the non-concentrated portion would be determined by the available codes at relief. Assuming relief in one year from now, if 50 codes were available, the expected life of Side B would be 50/17, or about 2.9 years. Due to the unknown pent up demand from the current jeopardy allocation in the 816 metropolitan area, it was unclear how many codes might be available at

relief, so the life of the non-concentrated overlay Side B was unclear. The life of the whole plan, the concentrated overlay expanded when necessary to encompass the entire 816 NPA would be the same as the full services distributed overlay.

9-1-1 Public Service Answering Points (PSAPs) have to be upgraded for all relief alternatives because there are already 4 NPAs being served and any additional NPA would require an upgrade.

ELIMINATION OF RELIEF ALTERNATIVES

Consensus was first reached to eliminate Alternative #2 for the following reasons

- Unbalanced projected life
- Have to start next relief planning immediately
- Difficulties determining subsequent relief
- Compressed schedule to implement 9-1-1 upgrades

Consensus was reached to eliminate Alternative #3 and Alternative #4 for the following reasons:

- Splits a local calling scope
- Confusion about mixed 7 and 10-digit local dialing
- Difficulties determining subsequent relief
- Compressed schedule to implement 9-1-1 upgrades

Consensus was reached to eliminate Alternative #5 for the following reasons:

- Short relief for outside areas
- Compressed schedule to implement 9-1-1 upgrades
- Customer education twice, at inception and when the overlay is expanded
- Implementation issues due to two changes
- Disrupts customers twice

RECOMMENDED RELIEF ALTERNATIVE

Consensus was reached to recommend Alternative #1; an all services distributed overlay. Reasons for proposing an overlay are:

- Only disrupts customer once
- No number changes
- Subsequent relief easier
- Maximum utilization of the NPA
- Longest time for 9-1-1 to make upgrades.
- Simpler customer education

DIALING PLAN:

10 digit local dialing. Does not require 1+ (only for long-distance).

IMPLEMENTATION SCHEDULE

The industry reached consensus on the following implementation plan:

816 Jeopardy runs out in February 2000 (code assignments in the new NPA begin in December). This aggressive schedule is because the industry prefers to avoid entering jeopardy again limiting competitive entry and codes for existing carriers limiting economic growth. Industry reached consensus on the following implementation schedule:

PERMISSIVE	8/5/2000
MANDATORY	2/3/2001

This implementation schedule is only applicable to this relief alternative and not any other types of relief.

JEOPARDY PLAN

The current jeopardy plan was discussed and it was believed that it should expire as planned. Mr. Childers stated that code administration would monitor the code demand, as always, and act accordingly should the need arise to implement a jeopardy in the future.

MEDIA INTERFACE

Mr. Childers discussed the NANPA media interface, Rebecca Barnhart, and explained how industry members may want to direct media questions relating to 314 and 816 NPA Relief to Ms. Barnhart to avoid any confusion. Ms. Barnhart can be reached at 202-533-2643.

SUBMISSION TO THE MISSOURI PUBLIC SERVICE COMMISSION

The industry reached consensus that NANPA should forward the results of the 314 and 816 NPA relief meeting to the MoPSC.

APPROVAL OF MINUTES

It was the consensus of the industry that the draft minutes and recommendation will be distributed for review by November 23, 1999 and that a conference call will take place on Wednesday, December 1, 1999, at 10AM Central to review and approve the documents. The dial in number is 612-337-9884 [Access Code 0324*] (30 ports for 2 hours).

**Relief Planning for the
Missouri 314 and 816 NPAs
Kansas City
November 9, 1999**

ATTENDEES

NAME	COMPANY
Sara Buyak	Missouri Public Service Commission
Anthony Clark	Missouri Public Service Commission
Walt Cecil	Missouri Public Service Commission
Don Edwards	Sprint
Don Gehringer	Aerial Communications
Ray Grieg	Sprint PCS
Michelene Taylor	Southwestern Bell
Clayton Nash	Southwestern Bell
David Frame	Frontier
Craig Unruh	Southwestern Bell
Russell Neis	Aerial Communications
Stephanie Bower	Aerial Communications
Karen Cosner	Southwestern Bell
Leon Harden	Southwestern Bell
William Adair	Southwestern Bell
Cully Dale	Primary Network
Ben Childers	NANPA
Linda Hymans	NANPA

Initial Planning Document

For Relief of the Missouri 314 NPA

Prepared by:

Ben D. Childers

NPA Relief Planner

North American Numbering Plan Administration

Ronald R. Conners, Director

James N. Deak, Regional Director – NPA Relief Planning

October 12, 1999

(With additional analysis and alternatives added 11/9/99)

314 NPA Relief Alternatives

Alternative #1 – All Service Overlay

A new area code is introduced over the entire area of the current 314 NPA – a fully distributed overlay. Customers would keep their current telephone numbers; however, ten-digit local dialing would be required. Codes in the overlay NPA will be assigned upon request with the effective date of the new area code. At exhaust of the 314 NPA all code assignments will be in the overlay area code.

Expected life – **6.3 years**

Alternative #2 – Single Split

Split plans require ten-digit local dialing between NPAs in the same extended local calling area. Within an NPA, seven-digit local dialing would be maintained.

Area A: a split along the combined central St. Louis Rate Center and the Rate Centers of Riverview, Ferguson, Overland, Ladue, Webster Groves, Spanish Lake, Florissant and Bridgeton.

Area B: the balance of the 314 NPA – Creve Coeur, Kirkwood, Sappington, Mehlville and Oakville.

Area A NPA (557 NXXs) (2.4 years)	St. Louis	Riverview	Ferguson	Overland
	Ladue	Bridgeton	Florissant	Webster Groves

Area B NPA (213 NXXs) (16.4 years)	Creve Coeur	Kirkwood	Sappington
	Mehlville	Oakville	

Projected life: **A side = 2.4 years**
B side = 16.4 years

Additional assumption:

If it is assumed the Type II A wireless will re-home their switches to remain in the 314 (assumed to be the St. Louis RC side), then the projected life of the A side will be reduced to 1.6 years and the B side increased to 24.6 years.

Alternative #3 – Retroactive Overlay

The current 636 NPA would be extended to encompass the existing 314 NPA and 636 NXX codes would be assigned in the 314 NPA as needed.

Expected life of the 636 and 314 NPA – **4.4 years**

If an additional NPA was added as a full service distributed overlay over the now combined 636/314, it would be expected to add an additional about 5.8 years, for a total of about 10.2 years relief.

Alternative #4 – Single Split

Split plans require ten-digit local dialing between NPAs in the same extended local calling area. Within an NPA, seven-digit local dialing would be maintained.

Area A: a split along the central St. Louis Rate Center.

Area B: the balance of the 314 NPA – Riverview, Furgeson, Overland, Ladue, Bridgeton, Florissant, Webster Groves, Creve Coeur, Kirkwood, Sappington, Mehlville and Oakville.

Area A NPA St. Louis
(272 NXXs)
(11.4 years)

Area B NPA	Creve Coeur	Kirkwood	Sappington	Webster Groves
(498 NXXs)	Mehlville	Oakville	Ladue	Bridgeton
(3.4 years)				

Projected life: **A = 11.4 years**
B = 3.4 years

Additional assumption:

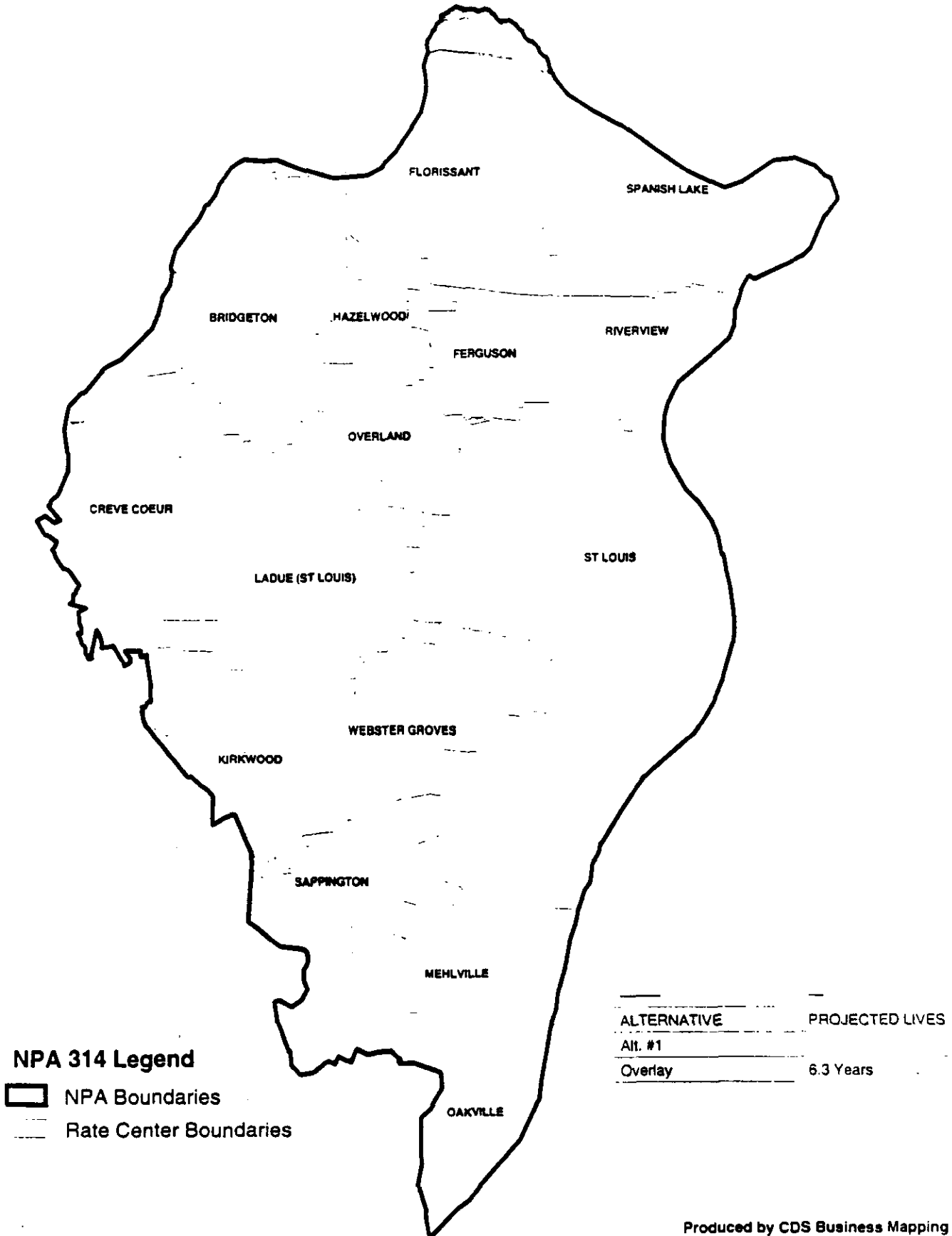
If it is assumed the Type II A wireless will re-home their switch toes remain in the 314 (assumed to be the St. Louis principle RC), then the projected life of the A side will be reduced to 5.3 years and the B side increased to 7.3 years.

NPA 314 Rate Center Map

LOCKHEED MARTIN

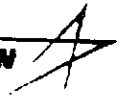


Geographic Overlay
Alternative #1

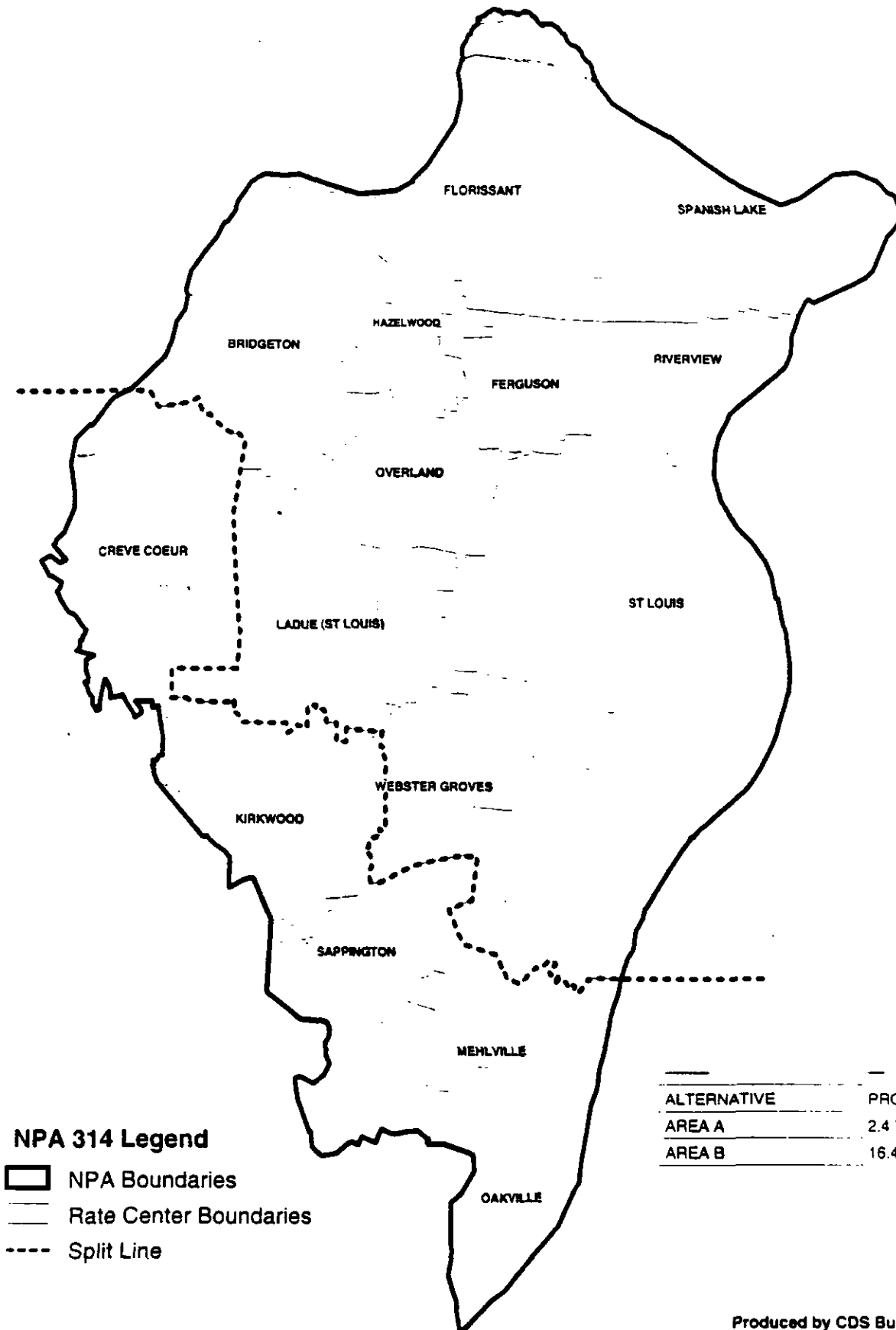


NPA 314 Rate Center Map

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Alternative #2



NPA 314 Legend

- NPA Boundaries
- Rate Center Boundaries
- Split Line

ALTERNATIVE	PROJECTED LIVES
AREA A	2.4 Years
AREA B	16.4 Years

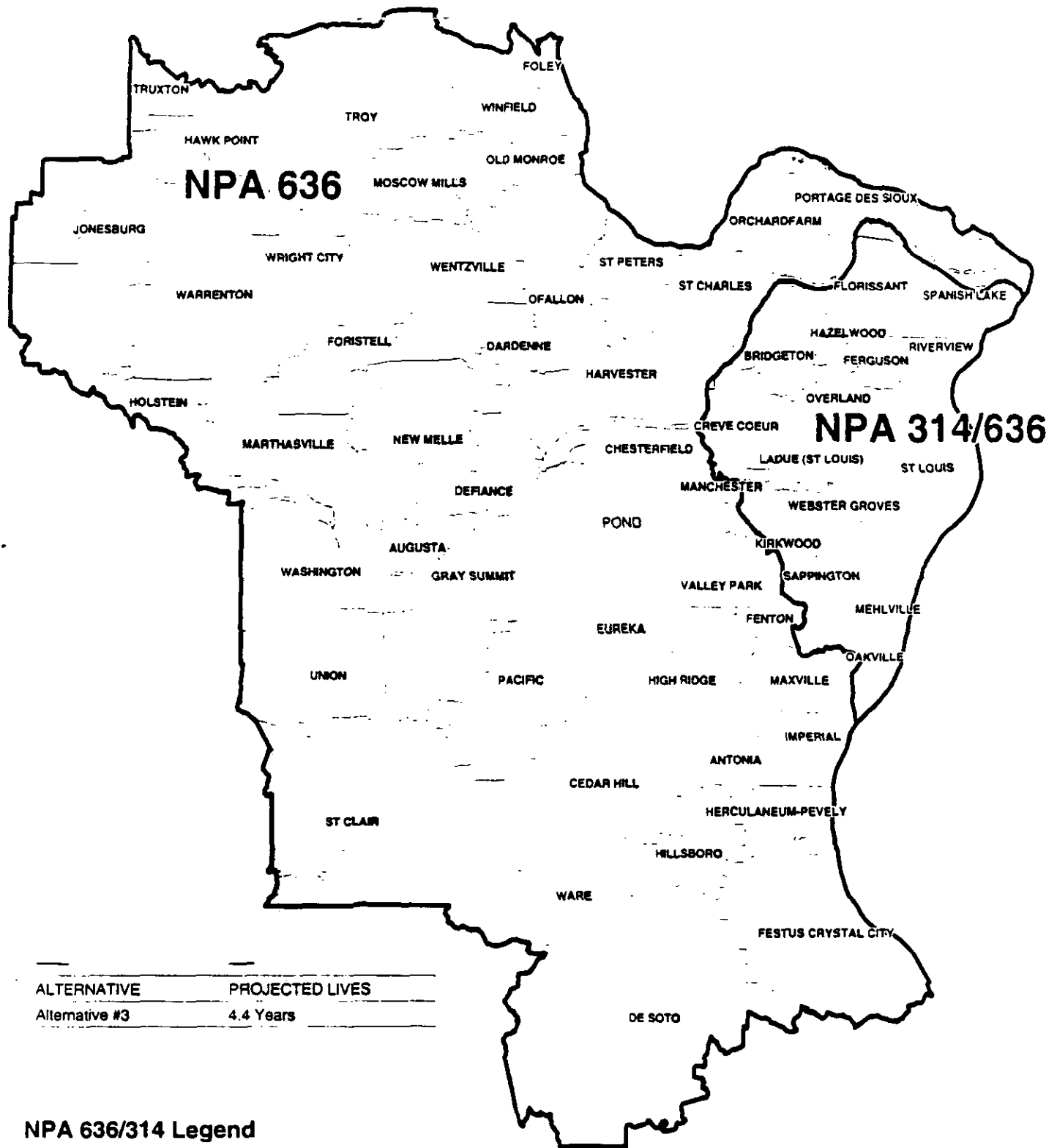
NPA 636/314 Rate Center Map

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ALTERNATIVE #3

314 Retroactive Overlay with 636



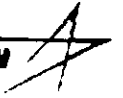
ALTERNATIVE	PROJECTED LIVES
Alternative #3	4.4 Years

NPA 636/314 Legend

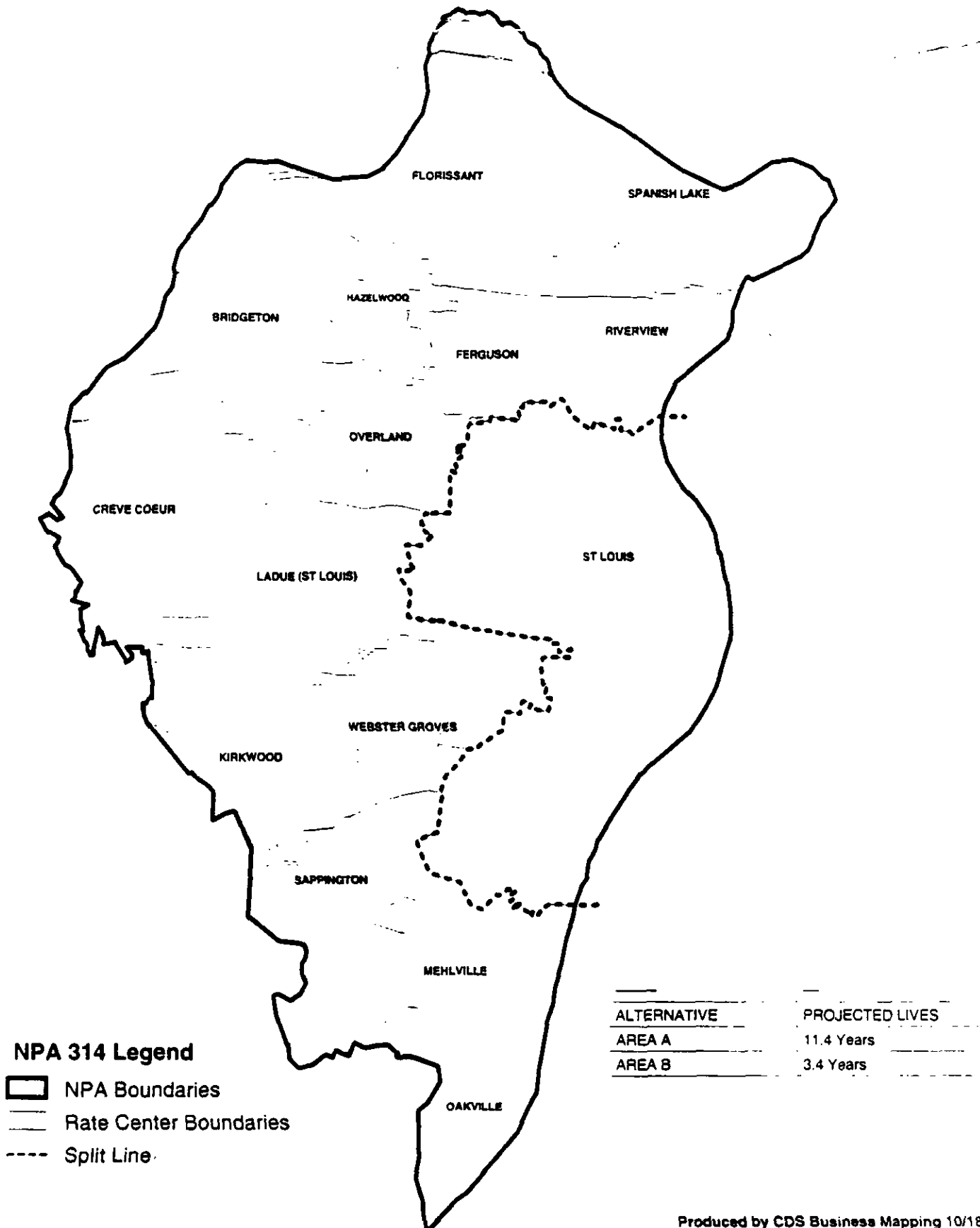
- NPA Boundaries
- Rate Center Boundaries

Single Geographic Split
St. Louis Principle Zone Only

LOCKHEED MARTIN



Alternative #4



Initial Planning Document

For Relief of the Missouri 816 NPA

Prepared by:

Ben D. Childers

NPA Relief Planner

North American Numbering Plan Administration

Ronald R. Conners, Director

James N. Deak, Regional Director – NPA Relief Planning

October 12, 1999

(With additional analysis and alternatives added 11/9/99)

816 NPA Relief Alternatives

Alternative #1 – All Service Overlay

A new area code is introduced over the entire area of the current 816 NPA – a fully distributed overlay. Customers would keep their current telephone numbers; however, ten-digit local dialing would be required. Codes in the overlay NPA will be assigned upon request with the effective date of the new area code. At exhaust of the 816 NPA all code assignments will be in the overlay area code.

Expected life – 6.7 years

Alternative #2 – Single Split

Split plans require ten-digit local dialing between NPAs in the same extended local calling area. Within an NPA, seven-digit local dialing would be maintained.

Area A: a split along the Kansas City Metropolitan Calling Area (MCA) plus the single rate center of Adrian in the south.

Area B: the balance of the 816 NPA – St. Joseph and the northern section of 816.

Area A NPA (660 NXXs) (1.1 years)	Kansas City	Blue Springs	Odessa	Drexel
	Weston	Plattsburg	Richmond	Liberty
Area B NPA (65 NXXs) (94 years)	St. Joseph	Maysville	Kingston	Glower
	Rushville			

Alternative #3 – Single Split

Area A: a split to include the inner MCA rate centers of Kansas City, Independence, Parkville and Raytown.

Area B: the balance of the 816 NPA.

Area A NPA (388 NXXs) (6.3 years)	Kansas City	Raytown	Independence	
	Parkville			
Area B NPA (382 NXXs)	St. Joseph	Odessa	Kingston	Glower
	Blue Springs	Liberty	Buckner	

(7.1 years)

Alternative #4 – Single Split

Area A: a split to include the tier 1 and 2 MCA rate centers, including Kansas City, Independence, Parkville, Raytown, Liberty, Blue Springs, Lees Summit and Belton.

Area B: the balance of the 816 NPA.

Area A NPA (522 NXXs) (3.1 years)	Kansas City	Raytown	Independence	Lees Summit
	Parkville	Belton	Liberty	Blue Springs

Area B NPA (248 NXXs) (15.4 years)	St. Joseph Hamilton	Odessa Maysville	Kingston Buckner	Glomer
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Alternative #5 – Concentrated Overlay

Area A: a concentrated overlay of the tier 1 and 2 MCA rate centers, including Kansas City, Independence, Parkville, Raytown, Liberty, Blue Springs, Lees Summit and Belton.

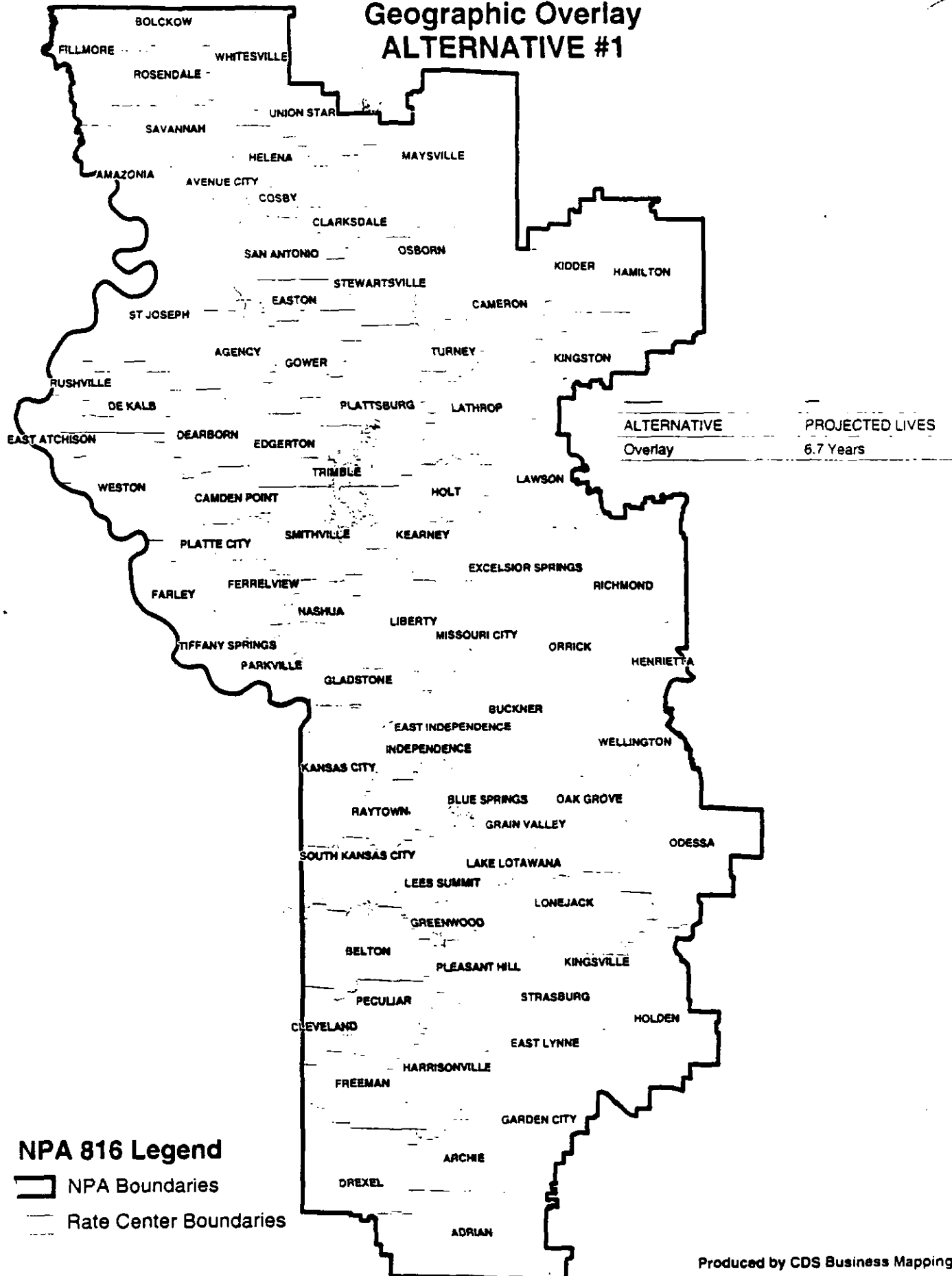
Area B: the balance of the 816 NPA.

Area A NPA (522 NXXs) (6.7 years)	Kansas City	Raytown	Independence	Lees Summit
	Parkville	Belton	Liberty	Blue Springs

Area B NPA (248 NXXs) (2.9 years)	St. Joseph Hamilton	Odessa Maysville	Kingston Buckner	Glomer
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NPA 816 Rate Center Map

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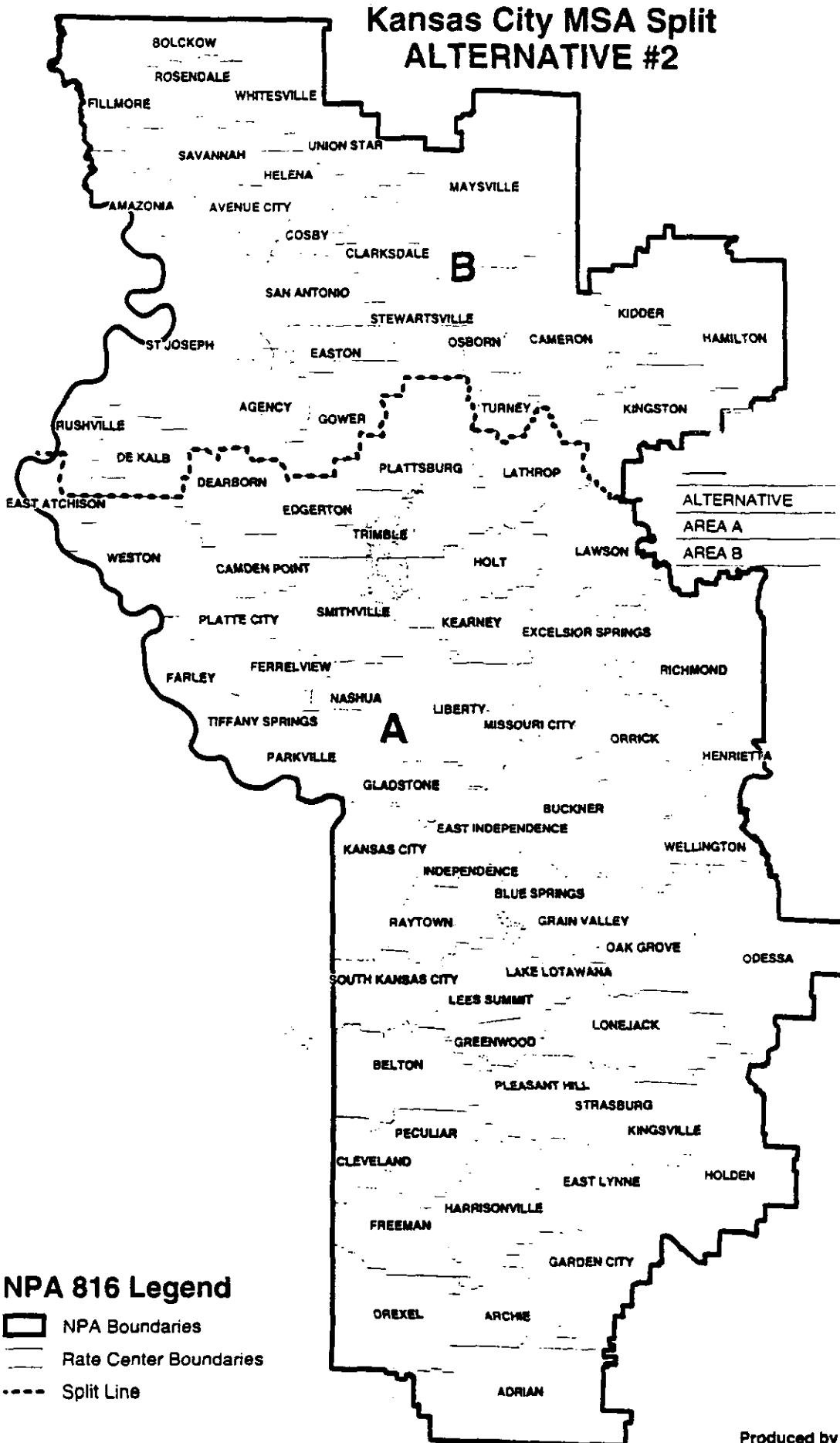
Geographic Overlay
ALTERNATIVE #1

NPA 816 Legend

- NPA Boundaries
- Rate Center Boundaries

NPA 816 Rate Center Map

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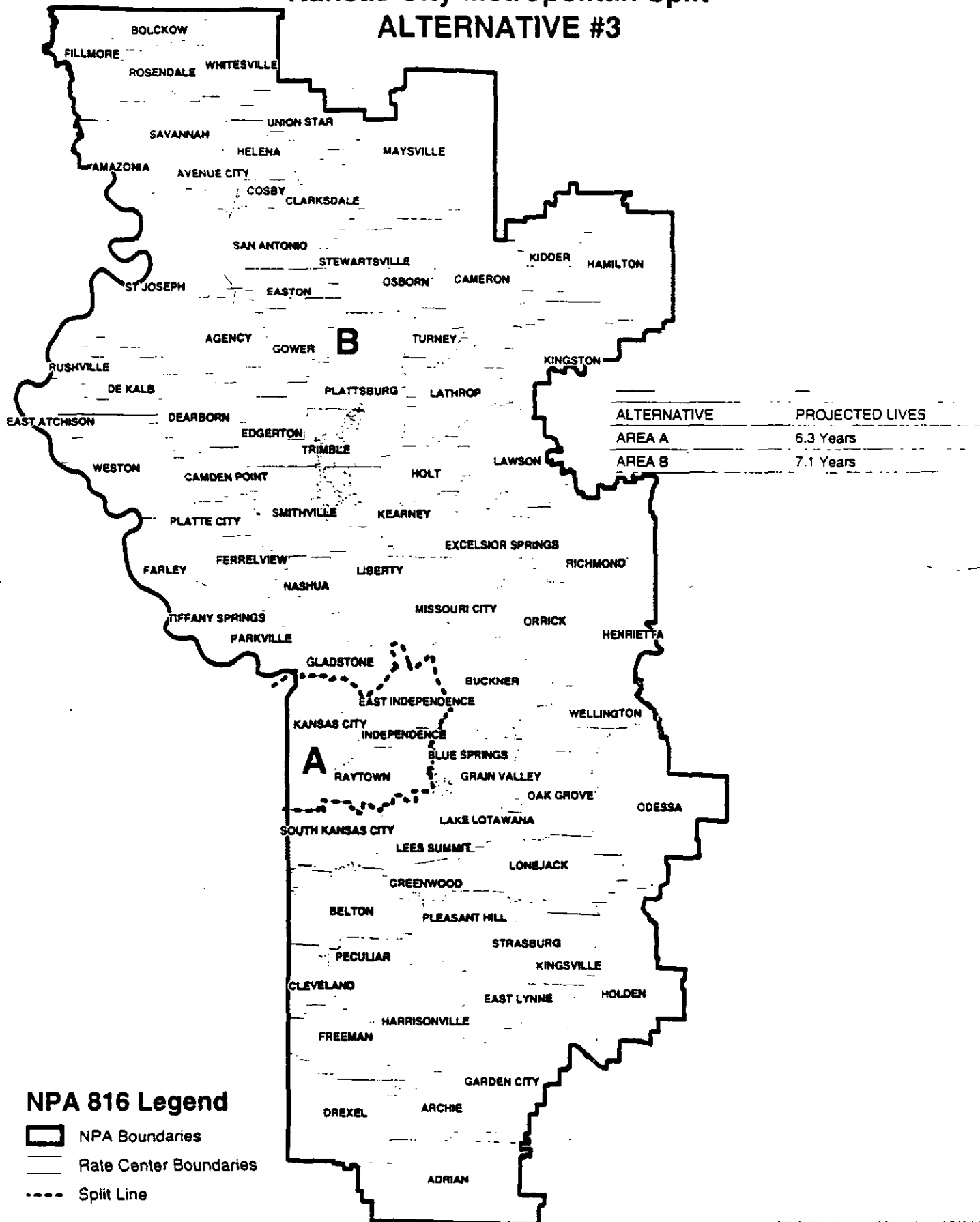


ALTERNATIVE	PROJECTED LIVES
AREA A	1.1 Years
AREA B	94.0 Years

NPA 816 Rate Center Map

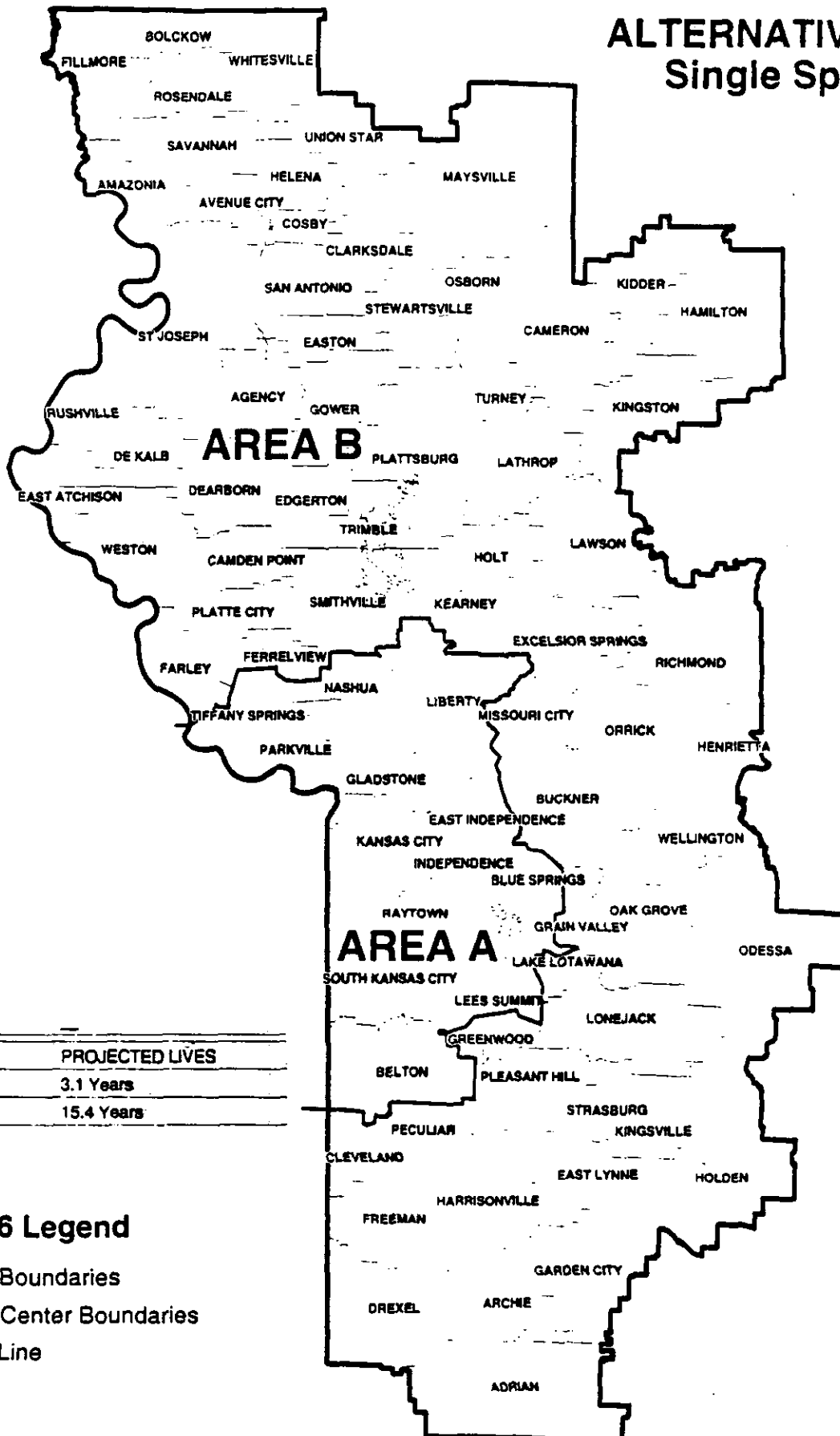
LOCKHEED MARTIN

Kansas City Metropolitan Split ALTERNATIVE #3



NPA 816 Rate Center Map

LOCKHEED MARTIN

ALTERNATIVE # 4
Single Split

ALTERNATIVE #4	PROJECTED LIVES
AREA "A"	3.1 Years
AREA "B"	15.4 Years

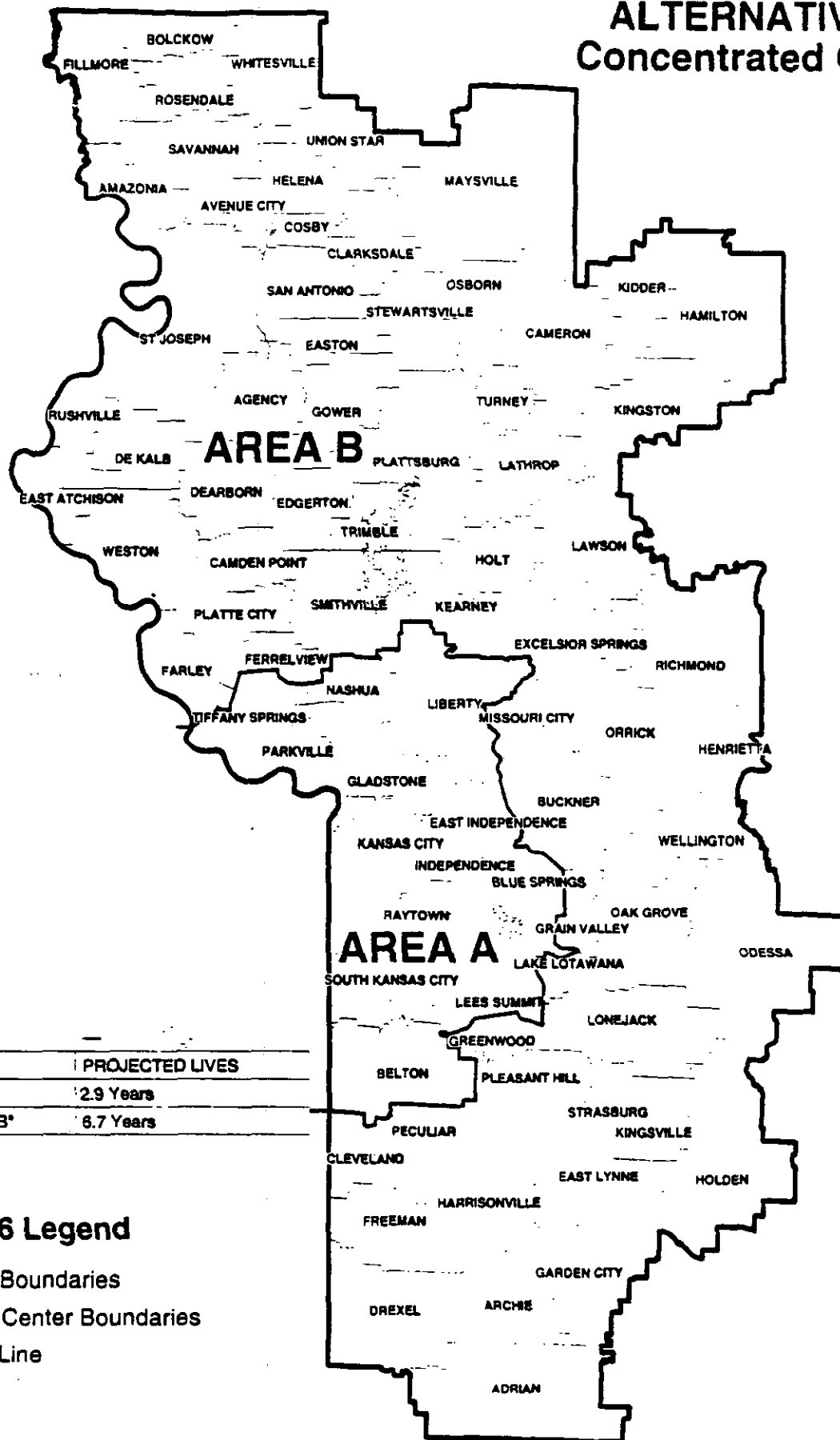
NPA 816 Legend

- NPA Boundaries
- Rate Center Boundaries
- Split Line

NPA 816 Rate Center Map

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ALTERNATIVE # 5
Concentrated Overlay



ALTERNATIVE #5	PROJECTED LIVES
AREA "A"	2.9 Years
COMBINED "A" & "B"	6.7 Years

NPA 816 Legend

- NPA Boundaries
- Rate Center Boundaries
- Split Line

CERTIFICATE OF SERVICE

I, James S. Bucholz, do hereby certify that the foregoing Pre-filed Direct Testimony was served by first class mail, on this 9th day of May, 2000, on the following:

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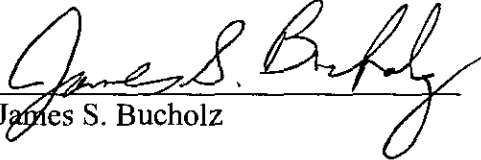
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