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To: Recipients of North American Numbering Plan (NANP) Information.		
Entitled Companies Unrestricted		
From: R. R. Conners, Director - North American Numbering Plan Administration		

Abstract

This document is a status report to the industry on Numbering Plan Area (NPA) codes.

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This document is a status report to the industry on Numbering Plan Area (NPA) codes. Included are:

- An alphabetical and numerical listing of all NPA codes
- Area code maps of World Zone 1
- A list of NPA code assignments since 1984
- A list of NPAs scheduled to be split in 1993 and 1994
- A list of NPAs expected to exhaust in the near future

The area code maps in the attached report may be reproduced for publication provided that the following statement appears on the copy:

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NPA CODE STATUS REPORT

12/31/92

In 1992 North American Numbering Plan administration (NANPA) assigned the last remaining traditional geographic NPA codes. Additional codes will not be available until interchangeable NPA codes are introduced beginning in 1995. It is thus critical for code administrators and the entire telecommunications industry to cooperate in conserving central office codes over the next two years to insure that early exhaust does not occur.

Traditional geographic NPA codes are three digit numbers in the format N0/1X, where N is any digit 2-9, 0/1 is either 0 or 1, and X is any digit 0-9. The N0/1X format provides a maximum of $8 \times 2 \times 10 = 160$ combinations.

Not all of the codes in N0/1X format are used as geographic NPA codes. Sixteen are used for other purposes:

	Format:	Number of Combinations:
Service Access Codes (SACs)	N00	8
Service Codes	N11	8

Thus a maximum of $160 - 16 = 144$ codes remain for use as geographic NPA codes.

At the beginning of 1992, two traditional geographic NPA codes remained unassigned: 810 and 910. During the year NANPA reached agreement with the Canadian telecommunications industry and regulators to swap SAC 600 for 610, which was in use in Canada for TWX, making an additional traditional code available. During 1992 all three codes were assigned for geographic use: 810 to Michigan for relief of the 313 NPA, 910 to North Carolina for relief of the 919 NPA, and 610 to Philadelphia for relief of the 215 NPA.

Additional NPA codes will become available January 1, 1995 with the introduction of interchangeable NPA codes, the culmination of a relief plan that the industry has been working towards for almost thirty years. Interchangeable NPA codes are in the format NXX, where N and X are as defined above. The introduction of interchangeable NPA codes removes the restriction that the middle digit of an NPA must be 0 or 1, resulting in the addition of 640 new codes. A working group of the Industry Carriers Compatibility Forum (ICCF) is developing guidelines for the assignment of these codes, and will determine which of the newly added codes will be available for geographic use.

Dialogue over the last several years indicates that the industry cannot be prepared for interchangeable NPA codes before January 1, 1995. This leaves a period of vulnerability during which no additional traditional codes are available for relief. The period of vulnerability extends beyond January 1, 1995. The reason is that when an NPA is split, there is a permissive period during which numbers that are changing as a result of the split (or are created during the permissive period) may be dialed with either the old or the new NPA code. The permissive period varies for each split, but is typically nine months to a year in length. The split date must be set early enough that the NPA does not exhaust before the end of the permissive period. Thus an NPA may split using a new interchangeable NPA code on January 1, 1995, but the old NPA code must not exhaust

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before the end of the permissive period. For planning purposes NANPA assumes that any NPA projected to exhaust before January 1, 1996 may be jeopardy.

It is important to note that other NPAs may be in jeopardy as well. An explanation requires some background in the central office code administration. Originally, central office codes were in the format NNX, where N and X are as defined above. This format provides a maximum of $8 \times 8 \times 10 = 640$ codes. As the number of assigned central office codes in an NPA approaches 640, local exchange carriers serving the NPA are required to take an intermediate relief step prior to applying to NANPA for assignment of a new NPA code. That step is to introduce interchangeable central office codes, which expands the format of central office codes to allow use of the NPA codes as central office codes. The reader will recall that NPA codes are in the format N0/1X. It is not difficult to see that introducing interchangeable central office codes changes the format of central office codes to NXX, thus providing a maximum of $8 \times 10 \times 10 = 800$ codes. In practice, however, N11 codes are not used as central office codes, so the maximum number of codes that can be assigned is 792.

More than 30 NPAs have already introduced interchangeable central office codes. The process is similar to the introduction of interchangeable NPA codes in that switch upgrades and dialing plan changes are often required. The effects of introducing interchangeable central office codes are local to the NPA. WZ1-wide coordination is not required as it is for the introduction of interchangeable NPA codes in 1995. Many NPAs approaching exhaust at the 640 central office code assignment level have planned to introduce interchangeable central office codes in conjunction with the introduction of interchangeable NPA codes on January 1, 1995. Early exhaust of these NPAs may also cause significant problems if the conversion to interchangeable central office codes cannot be accelerated.

To identify the NPAs nearing exhaust, NANPA surveys central office code administrators each year to determine a projected exhaust date for each NPA at both the 640 and 792 code assignment levels. The survey is called the Central Office Code Utilization Survey (COCUS). Results of the 1992 COCUS indicate that all NPAs projected to exhaust at the 792 assignment level prior to January 1, 1996 already have new NPA codes assigned. Those familiar with the limitations of COCUS, however, understand that these results do not provide absolute assurance that some of the NPAs projected to exhaust soon after January 1, 1996 may not exhaust early. COCUS predictions do not include, for example, codes required for new services not now planned and codes for new market entrants such as competitive access providers. Further, the effects of the central office code assignment guidelines currently under development are yet unknown.

NANPA has indicated that unassigned N00 or N11 codes will be used as geographic NPA codes during this period if necessary. NANPA and much of the industry agree, however, that the assignment of these codes for geographic use would result in massive user confusion, and that such assignments will be made only as a last resort. The burden is on the code administrators in each NPA and on the industry as a whole to take steps as required to conserve central office codes during this period of vulnerability.

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NPA CODE ASSIGNMENTS SINCE 1984

NPA RELIEF DATE	ORIGINAL NPA	NEW NPA
01/07/84	213	818
09/01/84	212	718
03/05/88	303	719
04/16/88	305	407
07/16/88	617	508
11/11/89	312	708
11/01/90	201	908
11/04/90	214	903
09/02/91	415	510
10/06/91	301	410
11/02/91	213	310
01/01/92	212, 718	917*
05/03/92	404	706
07/01/92	212#	718#

NPA SPLITS IN PROGRESS OR PLANNED

STATE / PROVINCE	NPA CODE	NEW NPA CODE	SPLIT DATE	END OF PERMISSIVE PERIOD
Texas	512	210	11/01/92	05/02/93
California	714	909	11/14/92	08/14/93
Ontario	416	905	10/04/93	03/26/94
North Carolina	919	910	11/14/93	02/13/94
Michigan	313	810	12/01/93	08/10/94
Pennsylvania	215	610	01/08/94	01/07/95

* NPA 917 is an overlay to NPA 212 and 718

Bronx , New York moved from 212 NPA to 718 NPA

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NPAs PROJECTED TO EXHAUST (640 NNX CODES) PRIOR TO 1996

STATE / PROVINCE	NPA CODE	PROJECTED 640 EXHAUST DATE
Texas	817	1993 3Q
Tennessee	615	1993 4Q
Oregon	503	1993 4Q
Caribbean	809	1994 1Q
South Carolina	803	1994 2Q
British Columbia	604	1994 3Q
Alberta	403	1995 1Q
California	619	1995 1Q
Ohio	216	1995 1Q
Missouri	314	1995 2Q
Wisconsin	414	1995 3Q
Indiana	317	1995 3Q
Connecticut	203	1995 4Q
Colorado	303	1995 4Q

NPAs PROJECTED TO EXHAUST (792 NXX CODES) PRIOR TO 2003

STATE / PROVINCE	NPA CODE	PROJECTED 792 EXHAUST DATE
Alabama	205	1996 1Q
Texas	214	1996 1Q
Georgia	404*	1996 1Q
Texas	713	1996 2Q
Texas	817	1996 3Q
Arizona	602	1996 3Q
Illinois	708	1997 1Q
Florida	813	1997 1Q
Oregon	503	1997 2Q
Washington	206	1997 2Q
Virginia	703	1999 1Q
California	310	1999 2Q
Caribbean	809	1999 4Q
California	619	2000 1Q
Br.Columbia	604	2000 3Q
Indiana	317	2000 3Q
Tennessee	615	2001 1Q
Minnesota	612	2001 2Q
Wisconsin	414	2001 2Q
Ohio	513	2001 3Q
Connecticut	203	2002 1Q
Florida	904	2002 2Q
Colorado	303	2002 3Q
Florida	305	2002 3Q
South Carolina	803	2002 4Q

* 38 communities were moved back into the 404 NPA from the 706 NPA resulting in the new projected exhaust date for 404 NPA

NUMBERING PLAN AREA CODES
IN NUMERICAL ORDER
(as of November 1992)

AREA CODE	STATE/PROVINCE OR OTHER SPECIAL USE	AREA CODE	STATE/PROVINCE OR OTHER SPECIAL USE	AREA CODE	STATE/PROVINCE OR OTHER SPECIAL USE
201	New Jersey	416	Ontario	709	Newfoundland
202	Dist. of Columbia	417	Missouri	710	U.S. Government
203	Connecticut	418	Quebec	712	Iowa
204	Manitoba	419	Ohio	713	Texas
205	Alabama	501	Arkansas	714	California
206	Washington	502	Kentucky	715	Wisconsin
207	Maine	503	Oregon	716	New York
208	Idaho	504	Louisiana	717	Pennsylvania
209	California	505	New Mexico	718	New York
210	Texas	506	New Brunswick	719	Colorado
212	New York	507	Minnesota	800	800 Service
213	California	508	Massachusetts	801	Utah
214	Texas	509	Washington	802	Vermont
215	Pennsylvania	510	California	803	South Carolina
216	Ohio	512	Texas	804	Virginia
217	Illinois	513	Ohio	805	California
218	Minnesota	514	Quebec	806	Texas
219	Indiana	515	Iowa	807	Ontario
301	Maryland	516	New York	808	Hawaii
302	Delaware	517	Michigan	809	Caribbean Islands
303	Colorado	518	New York	810	Michigan
304	West Virginia	519	Ontario	812	Indiana
305	Florida	600 *	Canada (TWX)	813	Florida
306	Saskatchewan	601	Mississippi	814	Pennsylvania
307	Wyoming	602	Arizona	815	Illinois
308	Nebraska	603	New Hampshire	816	Missouri
309	Illinois	604	British Columbia	817	Texas
310	California	605	South Dakota	818	California
312	Illinois	606	Kentucky	819	Quebec
313	Michigan	607	New York	900	900 Service
314	Missouri	608	Wisconsin	901	Tennessee
315	New York	609	New Jersey	902	Nova Scotia
316	Kansas	610 *	Pennsylvania	903	Texas
317	Indiana	612	Minnesota	904	Florida
318	Louisiana	613	Ontario	905	Ontario
319	Iowa	614	Ohio	906	Michigan
401	Rhode Island	615	Tennessee	907	Alaska
402	Nebraska	616	Michigan	908	New Jersey
403	Alberta	617	Massachusetts	909	California
404	Georgia	618	Illinois	910	North Carolina
405	Oklahoma	619	California	912	Georgia
406	Montana	700	IC Services	913	Kansas
407	Florida	701	North Dakota	914	New York
408	California	702	Nevada	915	Texas
409	Texas	703	Virginia	916	California
410	Maryland	704	North Carolina	917	New York
412	Pennsylvania	705	Ontario	918	Oklahoma
413	Massachusetts	706	Georgia	919	North Carolina
414	Wisconsin	707	California		
415	California	708	Illinois		

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The 600 SAC was exchanged for 610. The 610 NPA was then reassigned to Pennsylvania for relief of the 215 NPA.

NUMBERING PLAN AREA CODES
IN ALPHABETICAL ORDER
(as of November 1992)

<u>STATE/PROVINCE OR OTHER SPECIAL USE</u>	<u>AREA CODE</u>	<u>STATE/PROVINCE OR OTHER SPECIAL USE</u>	<u>AREA CODE</u>	<u>STATE/PROVINCE OR OTHER SPECIAL USE</u>	<u>AREA CODE</u>
800 Service	800	Kansas	316	Ohio	216
900 Service	900	Kansas	913	Ohio	419
Alabama	205	Kentucky	502	Ohio	513
Alaska	907	Kentucky	606	Ohio	614
Alberta	403	Louisiana	318	Oklahoma	405
Arizona	602	Louisiana	504	Oklahoma	918
Arkansas	501	Maine	207	Ontario	416
Caribbean Islands	809	Manitoba	204	Ontario	519
British Columbia	604	Maryland	301	Ontario	613
California	209	Maryland	410	Ontario	705
California	213	Massachusetts	413	Ontario	807
California	310	Massachusetts	508	Ontario	905
California	408	Massachusetts	617	Oregon	503
California	415	Michigan	313	Pennsylvania	215
California	510	Michigan	517	Pennsylvania	412
California	619	Michigan	616	Pennsylvania	610 *
California	707	Michigan	810	Pennsylvania	717
California	714	Michigan	906	Pennsylvania	814
California	805	Minnesota	218	Quebec	418
California	818	Minnesota	507	Quebec	514
California	909	Minnesota	612	Quebec	819
California	916	Mississippi	601	Rhode Island	401
Canada (TWX)	600 *	Missouri	314	Saskatchewan	306
Colorado	303	Missouri	417	South Carolina	803
Colorado	719	Missouri	816	South Dakota	605
Connecticut	203	Montana	406	Tennessee	615
Delaware	302	Nebraska	308	Tennessee	901
Dist. of Columbia	202	Nebraska	402	Texas	210
Florida	305	Nevada	702	Texas	214
Florida	407	New Brunswick	506	Texas	409
Florida	813	New Hampshire	603	Texas	512
Florida	904	New Jersey	201	Texas	713
Georgia	404	New Jersey	609	Texas	806
Georgia	706	New Jersey	908	Texas	817
Georgia	912	New Mexico	505	Texas	903
Hawaii	808	New York	212	Texas	915
IC Services	700	New York	315	U.S. Government	710
Idaho	208	New York	516	Utah	801
Illinois	217	New York	518	Vermont	802
Illinois	309	New York	607	Virginia	703
Illinois	312	New York	716	Virginia	804
Illinois	618	New York	718	Washington	206
Illinois	708	New York	914	Washington	509
Illinois	815	New York	917	West Virginia	304
Indiana	219	Newfoundland	709	Wisconsin	414
Indiana	317	North Carolina	704	Wisconsin	608
Indiana	812	North Carolina	910	Wisconsin	715
Iowa	319	North Carolina	919	Wyoming	307
Iowa	515	North Dakota	701		
Iowa	712	Nova Scotia	902		

The 600 SAC was exchanged for 610. The 610 NPA was then reassigned to Pennsylvania for relief of the 215 NPA.

NUMBERING PLAN AREAS WITH CODES

Supplement A-Detailed Map of Canada And Alaska



LEGEND

..... NPA Boundary

NOTE:

In multi-area states or provinces, a city has been shown in each NPA to assist in identifying the general location of the NPA.

905 NPA Ontario Effective October 4, 1993

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