ANNUAL REPORT

NANPA
North American Numbering Plan Administration

January 1 - December 31, 2000

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All,

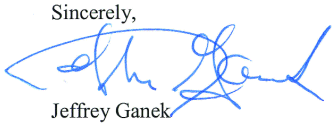
It is with great pleasure that NeuStar, Inc., submits the 2000 North American Numbering Plan Administration (NANPA) Annual Report. This third annual report covers NANPA activities from January 1 – December 31, 2000.

In this year's report, we have chosen to focus in detail on the various numbering resources that we administer. In a sense, this report is a snapshot of the state of the North American Numbering Plan at the end of the year 2000. We hope that you will find this report both interesting and useful. The data included in this report comes from the NANPA web site, www.nanpa.com, where you can always find the latest updated information.

As we at NeuStar begin our fourth year as NANPA, let me reiterate that NeuStar is committed to providing high-quality, neutral third-party clearinghouse services to the telecommunications industry. I promise you that we will work hard to maintain the trust you have placed in us.

We understand the critical nature of the service that NANPA provides to the telecommunications industry. Please do not hesitate to contact any of the NeuStar staff, including me, with comments, suggestions, observations, or concerns. Thank you for the opportunity to serve as NANPA.

Sincerely,



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1947 1984 1997 1998 1999 2000

THE NORTH AMERICAN NUMBERING PLAN

NANPA and It's History

AT&T conceived the North American Numbering Plan (NANP) in 1947 to standardize telephone numbering and to simplify dialing of long distance calls, in the process creating area codes[1]. AT&T realized that centralized administration of the shared numbering resources such as area codes would be necessary, and retained that responsibility until divestiture. In 1984, the functions of NANP Administration, usually referred to as NANPA, moved to Bellcore under the Plan of Reorganization. On October 9, 1997, the Federal Communications Commission (FCC), acting on a recommendation from the North American Numbering Council (NANC), named the Communications Industry Services (CIS) division of Lockheed Martin IMS to serve as NANPA for a five-year period that began on February 21, 1998. On December 1, 1999, CIS became an independent company called NeuStar, Inc.

The NANP is an integrated numbering plan and currently serves the needs of 19 North American countries that share its resources.

NANP resources are not generally pre-allocated to participating countries; instead the participating countries, working through NANPA, share the resources cooperatively. This approach has been successful for more than 50 years, and the nations involved have successfully and efficiently resolved any differences in the best interests of all participants.

Regulators within each of the countries participating in the NANP have plenary authority over numbering and have named local administrators to oversee the resources they use.

NeuStar, as NANPA, is the local administrator for the U.S. and its territories. In Canada, Science Applications International Corp. (SAIC) Canada has been selected as the Canadian Numbering Administrator. In other countries participating in the NANP,regulators have either assumed this function, or have delegated the responsibility to a dominant carrier.

The division of responsibilities between NANPA and the local administrators is clear-cut.

NANPA oversees numbering resources that must be shared by all NANP-participating countries. NANPA, in its overall coordinating role, consults with and provides assistance to regulators and administrators in all countries participating in the NANP in order to assist them as needed, to promote cooperation among the participants, and to ensure that numbering resources are used in the best interests of all participants. The local administrators request numbering resources from NANPA, who serves as custodian of the shared pool, and administer these resources once assigned. NANPA serves as a consultant to the local administrators and regulators as needed. The costs of administering the shared resource pool are shared by all countries participating in the NANP, in proportion to population.

NANPA operates under regulatory directives and industry-consensus guidelines.

The full scope of NANPA's responsibilities is delineated in the FCC's rules and in the North American Numbering Plan (NANP) Administration Requirements Document, dated February 20, 1997, which can be downloaded from the FCC Common Carrier Bureau web site, www.fcc.gov/ccb. The NANPA Oversight Working Group (NOWG), a subgroup of the NANC, provides continuous oversight to NANPA on behalf of the NANC and evaluates NANPA's performance each year.

[1] The formal term is "numbering plan area (NPA) code." In this document we use the terms "area code" and "NPA code" interchangeably.

How NANPA is Funded

NANPA work is performed on a fixed-price basis, with upward adjustment possible if workload exceeds certain predefined limits. Base payment amounts are determined according to the pricing included in the Lockheed Martin CIS NANPA bid. During the third year of NeuStar's tenure as NANPA, which began officially in February, 2000, monthly payments are approximately $398,000. Funds are collected by NBANC, a corporation established for this purpose, which then distributes monthly payments to NANPA.

NANPA costs associated with administering resources shared by all NANP participants are allocated to participating countries in proportion to population. Thus, Canada, Bermuda, and the Caribbean islands participating in the NANP pay only their share of the costs of the NANPA services they require. Regulators in each participating country determine how to recover these costs. In the U.S., which pays most of the cost, NANPA is funded by the telecommunications industry under an arrangement specified in FCC rules. Carriers pay in proportion to their gross revenues, less payments to other carriers.

NANPA is entitled to earn additional revenue by providing "enterprise services" to the industry. One such service, inputting to rating and routing databases, is mandatory. Details of this service, including earnings, can be found later in this report. ■

THE NANPA ORGANIZATION

Ron Conners is the director of NANPA. Ron reports to Greg Roberts, NeuStar's Vice President of Numbering Services.

NANPA consists of three functional areas:

- Code Administration serves as the steward for the numbering resources that NANPA administers. Sandy Tokarek is the regional director for Code Administration.
- Relief Planning helps the industry and regulators to develop and implement NPA relief plans. Jim Deak is the regional director for Relief Planning.
- NRUF collects and processes utilization and forecast data and uses that data to project the exhaust of individual NPAs and the NANP as a whole. Beth Sprague manages the NRUF effort.

Separate reports for each functional area will be found later in this annual report.

NANPA is supported by NeuStar's infrastructure in traditional areas distinct from numbering. Some examples:

- NeuStar's media relations department coordinates inquiries from the press. In 2000, the department, working in cooperation with relief planners and code administrators, handled more than 650 media interviews and issued nine press releases. In addition, they publish the "NANPA Numbering News," a bimonthly newsletter for the industry and regulators.
- NeuStar's technical support and program management departments oversee the development and maintenance of the NANPA code administration system described later in this report, as well as the engineering and day-to-day maintenance of the network.
- NeuStar's quality assurance department monitors and evaluates NANPA productivity and quality measurements.

Certain NeuStar employees are critical to NANPA's operation.

- John Manning serves as product manager for NANPA, and represents NANPA at the NANC and the FCC.
- Cathy Handley works with the industry to ensure that NANPA is meeting its needs. She also serves as NANPA's liaison to the numbering work in International Telecommunications Union (ITU) Study Group 2.
- Brent Struthers and his regulatory group assist NANPA to communicate with and be responsive to the needs of state commissions.

In addition, several outside companies meet our specialized needs.

- Geographic Data Technology supplies the maps used in relief planning meetings and included on the NANPA web site, www.nanpa.com.
- Planet Access, an In Sage Company, maintains www.nanpa.com. ■


Vertical Service
800 855-XXXX
CO 500
ANI II555-XXXX
NPA
900 NXX
N11
NPA 456 NXX
CICs

CODE ADMINISTRATION

Overview

Contact: Sandy Tokarek, 925-363-8701

Code administration is located in Concord, California and Washington, DC. Administration includes receiving and processing applications for assignment, making and recording assignments, reclaiming resources no longer needed, and keeping the industry informed as the supply approaches exhaust. The scope of code administration includes the following numbering resources:

- Numbering plan area (NPA) codes (area codes)
- Central office codes
- International inbound NPA 456 NXX codes
- PCS/N00 codes (500)
- 900 NXX codes
- N11 codes
- 800 855-XXXX line numbers
- 555-XXXX line numbers
- Carrier identification codes (CICs)
- Vertical service codes
- ANI II digits (Automatic Number Identification Information Integers)
- Non-dialable toll points

Subsequent sections of this report discuss each of these resources in more detail.

Resource Report — NPA Codes

Contact: Ron Conners, 202-533-2650

Numbering Plan Area (NPA) codes, often called "area codes," are the first three digits of the 10-digit NANP telephone number. NPA codes are in NXX format, where N is any digit 2-9 and X is any digit 0-9. Most NPA codes designate specific geographic areas; for example, the island of Manhattan or the state of South Dakota. NPA codes used in this manner are called geographic codes. Some NPA codes designate services (for example, toll-free calling) rather than geographic areas. Normally, NPA codes ending in a repeating digit (for example, 800, 422, 577), called "easily recognizable codes," are used to identify services.

There are currently 276 geographic NPA codes in service in the area served by the NANP. 20 NPA codes are in service in Canada, 239 in the U.S., and the remaining 17 in Bermuda and the Caribbean islands participating in the NANP. For many years, Bermuda and the Caribbean shared the 809 NPA, but after 1995, each of the islands acquired its own NPA code. The Dominican Republic has retained 809 for its exclusive use.

Attachments 1 and 2 to this annual report are tables of NPA codes currently in service sorted by location and by number.

2000 Activities

NANPA received 30 requests for NPA code assignments in 2000, resulting in 28 new assignments and two denials. Table 1 lists the assignments made. 25 of the codes assigned were for geographic use, 2 in Canada and 23 in the U.S. Three codes, 844, 833, and 822, were designated for future use as toll-free codes. The denials resulted from relief plans not in conformance with the assignment guidelines.

14 new NPA codes were introduced[2] in 2000, as shown in Table 2. 13 were for geographic use and one (866) was for use as a toll free code. An additional toll-free code, 855, was originally scheduled to be introduced during 2000, but has been delayed.

[2] "Introduced" means that the new codes have been activated in the Public Switched Telephone Network, and that calls can be successfully routed to numbers in these codes.

TABLE 1—NPA CODES ASSIGNED IN 2000		
NPA	**Country**	**Assigned**
434	U.S.	12/14/00
754	U.S.	11/20/00
563	U.S.	11/20/00
386	U.S.	11/9/00
975	U.S.	11/1/00
283	U.S.	10/31/00
557	U.S.	10/30/00
251	U.S.	10/3/00
620	U.S.	9/14/00
985	U.S.	9/13/00
731	U.S.	8/17/00
778	CANADA	8/17/00
289	CANADA	8/17/00
567	U.S.	7/14/00
939	U.S.	5/31/00
774	U.S.	5/3/00
385	U.S.	5/3/00
351	U.S.	5/3/00
339	U.S.	5/3/00
857	U.S.	5/3/00
835	U.S.	4/25/00
445	U.S.	4/25/00
737	U.S.	4/25/00
641	U.S.	2/25/00
822	(Future Toll-Free Code)	2/23/00
833	(Future Toll-Free Code)	2/23/00
844	(Future Toll-Free Code)	2/23/00
682	U.S.	1/22/00

TABLE 2—NPA CODES INTRODUCED IN 2000		
NPA	**Location**	**Date Introduced**
234	Ohio	10/30/00
682	Texas	10/7/00
971	Oregon	10/1/00
478	Georgia	8/1/00
229	Georgia	8/1/00
866	(Toll-Free Code)	7/29/00
641	Iowa	7/9/00
845	New York	6/5/00
859	Kentucky	4/1/00
571	Virginia	3/1/00
952	Minnesota	2/27/00
763	Minnesota	2/27/00
979	Texas	2/19/00
936	Texas	2/19/00

Overlays

NANPA receives many questions about overlays, a relatively new concept. In an overlay, two or more NPA codes serve the same geographic area[3]. Table 3 lists the overlays in service as of 1/1/01. The term "overlay complex" is used to describe the list of NPA codes included in the overlay. In the table, NPA codes scheduled but not yet introduced are enclosed in parentheses.

Table 4 shows new overlay complexes to be introduced, including two in Canada. In keeping with the convention introduced in Table 3, new overlay NPA codes not yet introduced are shown in parentheses. Table 4 does not include proposed overlays in California and Michigan, all of which are currently suspended. Introduction dates have yet to be determined for some of the overlays in Table 4 and, in such cases, the planned introduction date is left blank. Where the planned introduction date reads "pending," the state commission is monitoring the supply of available numbers closely, and will determine an exact introduction date in time to preclude exhaust.

[3] Note that NANPA takes no position on the relative merits of splits versus overlays. The choice of a relief option is made locally, not by NANPA.

TABLE 3—OVERLAYS IN EFFECT 1/1/01		
State	**General Area**	**Overlay Complex**
Colorado	Denver	303-720
Florida	Miami	305-786
	Orlando	407-321
Georgia	Atlanta	404-770-678
Maryland	Eastern Maryland	410-443-(667)
	Western Maryland	301-240-(227)
New York	New York City	212-646-917
	New York City	718-347-917
Ohio	Cleveland	330-234
Oregon	Portland	503-571
Pennsylvania	Philadelphia	215-267-(445)
	Philadelphia	610-484-(835)
Texas	Dallas	214-469-972
	Fort Worth	817-682
	Houston	713-281-832

TABLE 4—OVERLAYS NOT YET INTRODUCED			
State/Province	**General Area**	**Overlay Complex**	**Planned Introduction Date**
British Columbia	Vancouver	604-(778)	11/3/01
Connecticut		203-(475)	Pending
		860-(959)	Pending
Florida		954-(754)	
Illinois	Chicago	312-773-(872)	Pending
	Suburban Chicago	630-(331)	Pending
	Suburban Chicago	708-(464)	Pending
	Suburban Chicago	847-(224)	Pending
Massachusetts		508-(774)	5/2/01
	Boston	617-(857)	5/2/01
		781-(339)	5/2/01
		978-(351)	5/2/01
Missouri	St. Louis	314-(557)	
	Kansas City	816-(975)	
North Carolina	Charlotte	704-(980)	4/1/01
Ohio	Cincinnati	513-(283)	
		419-(567)	
Ontario	Toronto	905-(289)	6/9/01
Pennsylvania	Pittsburgh	412-(878)	8/17/01
Puerto Rico		787-(939)	8/1/01
Texas	Austin	512-(737)	11/10/01
Washington	Western Washington	206-360-253-425-(564)	10/20/01

NPA Code Inventory

One of NANPA's responsibilities is to monitor the supply of NPA codes. The inventory below provides a complete accounting for all NPA codes as of 1/1/01. The inventory is updated quarterly and presented to the Industry Numbering Committee for their consideration. NPA codes are in NXX format, where N is any digit 2-9 and X is any digit 0-9, yielding 8*10*10 = 800 combinations.

Of the 800 combinations, 116 are not assignable or have been set aside by the Industry Numbering Committee for special purposes. These codes are listed in Table 5.

Subtracting 116 from 800 leaves 684 assignable codes. Of the 684 assignable codes, 344 have been assigned. 289 of these assigned codes are in service as of the date of this report. Of the 289 codes in service, 276 are geographic and 13 are non-geographic. The remaining 55 assigned codes are awaiting implementation. These codes are listed in Table 6.

As noted in Table 6, state commissions have suspended a significant number of relief activities. Of the 684 assignable codes, 340 are currently unassigned. Of these codes, 49 are easily recognizable codes (ERCs) currently allocated for non-geographic use, and 291 are general purpose codes.

Of the 49 unassigned ERCs, 12 are reserved[4], leaving 37 available. Of the 291 unassigned general purpose codes, 238 are reserved, leaving 53 available. These 238 codes are reserved for use in geographic NPAs expected to exhaust within the next 20 years.

The number of available general purpose codes, currently 53, has remained relatively stable over the last several years due to adjustments made by NANPA in the reservations. If and when the number decreases, the Industry Numbering Committee will need to identify an alternate source for geographic NPA codes. One such possibility would be to designate some of the ERCs for geographic use.

[4] These include 5 codes reserved for Personal Communications Service expansion (533, 544, 566, 577, and 588) and 6 of the codes reserved for Canada (622, 633, 644, 655, 677, 688). Canada has also reserved 699, which is counted as an expansion code.

TABLE 5—UNASSIGNABLE NPA CODES

NPA Codes	Explanation
211, 311, 911	The 8 N11 codes, administered by the FCC in the U.S. and the CRTC in Canada, are used for special purposes. The state of these codes is described in a separate resource report below.
N9X	These 80 codes are reserved for use during the time when the NANP will be expanded.
37X and 96X	These two blocks of 10 codes each have been set aside by the Industry Numbering Committee for future uses that may require sequentially numbered codes.
555 and 950	These codes are not used as NPA codes to avoid conflict with the corresponding special-use central office codes.
883-5, 887	Set aside for additional paid toll-free codes.
886 and 889	Used for non-dialable toll points.

TABLE 6—ASSIGNED NPA CODES AWAITING IMPLEMENTATION		
NPA	**Location**	**Status**
224	Illinois	Pending
251	Alabama	Scheduled
278	Michigan	Suspended
283	Ohio	Scheduled
289	Ontario	Scheduled
331	Illinois	Pending
339	Massachusetts	Scheduled
341	California	Suspended
351	Massachusetts	Scheduled
369	California	Suspended
385	Utah	Scheduled
386	Florida	Scheduled
424	California	Pending
434	Virginia	Scheduled
442	California	Suspended
445	Pennsylvania	Scheduled
464	Illinois	Pending
475	Connecticut	Pending
557	Missouri	Scheduled
563	Iowa	Scheduled
564	Washington	Scheduled
567	Ohio	Scheduled
586	Michigan	Scheduled
620	Kansas	Scheduled
627	California	Suspended
628	California	Suspended
647	Ontario	Scheduled
657	California	Suspended
669	California	Suspended
679	Michigan	Suspended
731	Tennessee	Scheduled
737	Texas	Scheduled
747	California	Suspended
752	California	Suspended
754	Florida	Scheduled
764	California	Suspended
774	Massachusetts	Scheduled
778	British Columbia	Scheduled
822	(toll free)	To Be Scheduled
833	(toll free)	To Be Scheduled
835	Pennsylvania	Scheduled
844	(toll free)	To Be Scheduled
855	(toll free)	To Be Scheduled
857	Massachusetts	Scheduled
872	Illinois	Pending
878	Pennsylvania	Scheduled
935	California	Suspended
939	Puerto Rico	Scheduled
947	Michigan	Suspended
951	California	Suspended
959	Connecticut	Pending
975	Missouri	Scheduled
980	North Carolina	Scheduled
985	Louisiana	Scheduled
989	Michigan	Scheduled

Press Releases and Planning Letters

NANPA announces new area codes to the public and the industry at large through press releases and planning letters, all of which can be found at www.nanpa.com. NANPA issued nine press releases and 47 planning letters in 2000.

NANPA, or occasionally the state commission, issues a press release shortly after an NPA code is assigned. The press release provides a high-level overview of the new code and how it will be used. In the last year, however, NANPA has made a conscious effort to include as much information as possible in the press release in order to inform the public as early as possible.

Planning letters, issued once the introduction of a new NPA code has begun and details are known, provide more complete and definitive information. Planning letters follow a standard format and include:

- The identity of the NPA code and the purpose for which it will be used, normally a split or overlay.
- A reference to the state commission order directing the introduction of the new NPA code.
- The date and time when the new code will be in service.
- Permissive dialing dates and arrangements.
- The dialing plan for the new NPA.
- Test numbers to verify network connectivity.
- A map of the new NPA.
- For NPAs introduced through a split, lists of central office codes moving to the new NPA.

Dialing Plans

Each NPA has a basic dialing plan, which indicates the dialing pattern to be used for various types of calls originating in that NPA. Normally, dialing patterns are provided for five categories of calls:

1. Home NPA Local Calls —Local calls originating and terminating in the same NPA.
2. Home NPA Toll Calls — Toll calls originating and terminating in the same NPA.
3. Foreign NPA Local Calls — Local calls terminating in another NPA.
4. Foreign NPA Toll Calls —Toll calls terminating in another NPA.
5. Operator Assisted Calls —Credit card, third party, and other operator assisted calls.

Dialing plans for the U.S. will be found in Attachment 3 to this annual report.

Canada has adopted a standard dialing plan for all provinces. In the U.S., however, dialing plans vary from state to state, from NPA to NPA, and even from one service provider to another. Some dialing patterns are almost standard. For example, home NPA local calls are almost always dialed as seven digits, except in overlay areas where the FCC requires 10 digit dialing. Similarly, foreign NPA toll calls are almost always dialed as 1 + 10 digits. The dialing pattern for home NPA toll calls depends primarily on whether or not the prefix “1”is used as a toll indicator. In states where this is the case, home NPA toll calls are dialed as 1 + 10 digits. Elsewhere, home NPA toll calls are dialed as seven digits, or as 10 digits in an overlay. Foreign NPA local calls, where they exist, would normally be dialed as 10 digits in areas where the prefix “1” is used as a toll indicator, and as 1 + 10 digits elsewhere. In some areas, however, state commissions have ordered seven-digit dialing of foreign NPA calls. Such specialized dialing arrangements are not shown in Attachment 3.

Resource Report—Central Office Codes

Contact: Sandy Tokarek, 925-363-8701

Central office codes, also known as prefixes, exchanges, or NXX codes, are digits 4-6 of the 10-digit NANP telephone number. The following discussion covers central office codes within geographic NPA codes. Central office codes within non-geographic area codes such as 500 are discussed later in this report. Service providers get numbers for their customers by applying for and receiving central office code assignments, each with 10,000 associated numbers, in the areas they serve.

As previously stated, NANPA administers central office codes in the U.S. and its territories. The Canadian Numbering Administer performs the function in Canada. In Bermuda and the Caribbean, regulators are taking an increasingly active role in central office code administration as competition takes hold in these countries.

NANPA central office code administration, based in Concord, California tracks more than 100,000 previously assigned central office codes in the U.S. and its territories and, in 2000, processed more than 50,000 requests for additional assignments or changes to existing assignments. In the process, NANPA works closely with Telcordia Technologies' Traffic Routing Administration to ensure that new assignments and changes to existing assignments are published to the industry.

The process of applying for a central office code assignment is specified in detail in guidelines developed by the industry. The latest version of these guidelines can be downloaded from the ATIS web site, at http://www.atis.org/atis/clc/inc/incdocs.htm.

In simplified terms, the code application process works as follows: The applicant submits an application (called a "Part 1") to NANPA, who then has 10 working days to process the application and inform the applicant (using a "Part 3") of the disposition of the application. If an assignment is made, the assignee enters rating and routing information (using a "Part 2"). The assignee then has six months after the named effective date to put the assigned code in service. The assignee is then required to notify NANPA, using a "Part 4," that the process is complete. Otherwise, NANPA will begin procedures to reclaim the code.

Among regulators, number conservation has been a major theme in 2000. The FCC's Number Resource Optimization (NRO) Order, effective in July, 2000, established additional criteria for the assignment of both initial and growth central office codes in the U.S. and its territories. In addition, the NRO Order delegated control over reclamation of central office codes to the state commissions.

Central Office Code Activity

NANPA Code Administration processed a total of 50,458 central office code applications in 2000. Overall, the number of applications for central office codes increased by approximately 8,000 in 2000, compared with 1999. Table 7 shows the total number of central office code requests by month, and categorizes the request according to the disposition of the below requests. The categories are defined and explained below Table 7.

TABLE 7—CENTRAL OFFICE CODE ACTIVITY 2000												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Assignments	1276	1649	1627	1333	1356	1437	1328	1112	1057	1453	942	840
Changes	849	1221	1393	1073	1259	1212	1214	1456	1045	1173	1071	992
Suspensions	187	271	317	404	217	597	464	435	470	470	606	570
Denials	247	208	162	207	189	274	713	848	617	669	387	316
Cancelled	49	28	93	66	51	86	113	70	53	121	92	59
Disconnects	179	227	369	291	437	195	253	283	282	393	360	393
Reservations	0	19	2	5	4	0	1	0	2	0	0	0
Lottery Denial	507	506	475	545	430	482	474	317	357	360	304	225
Lottery Priority	78	111	95	159	184	203	185	112	165	109	72	214
Total	**3372**	**4240**	**4533**	**4083**	**4127**	**4486**	**4745**	**4633**	**4048**	**4748**	**3834**	**3609**

The rows in the table should be interpreted as follows:

- Assignments: The number of applications that resulted in the assignment of a new central office code.
- Change: The number of applications that notified NANPA of a change to an existing central office code assignment.
- Suspensions: The number of applications that were suspended, which occurs if required data is incorrect or missing from the application. Applications that are suspended may result in new applications if and when applicants correct errors and resubmit.
- Denials: The number of applications that were denied because the criteria set by the assignment guidelines were not met. Applications that are denied may result in new applications.
- Cancelled: The number of applications that were cancelled or withdrawn by the applicants during processing.
- Disconnects: The number of applications reporting the return of a previously assigned central office code.
- Reservations: The number of applications requesting reservation of a particular central office code for future use under the terms allowed by the assignment guidelines.
- Lottery Denial: The number of applications denied because the service provider was not selected in the lottery.
- Lottery Priority: The number of applications held pending a future lottery and assigned a priority number for use in the lottery.
- Total: The sum of the above categories, equal to the total number of applications processed.

Central Office Code Administration Quality Measurements

The following three measurements track central office code administration quality:

1. The percentage of submitted central office code applications processed within 10 business days. In June, NANPA also began tracking the "average days late" for applications that are not completed in ten working days.
2. The percentage of central office code assignments not resulting in a conflict. Code conflicts, and steps being taken to avoid them, are discussed later in this annual report.
3. The percentage of phone calls returned no later than the end of the next business day.

Table 8 summarizes our performance. It is clear from these results that central office codeadministration quality goals are being met consistently. Two anomalies in the chart above, however, call for comment. In May, approximately 20 code conflicts occurred when a table was inadvertently overwritten in the code administration system. In November, five applications were misplaced during a change in personnel. Each month quality results are analyzed and corrective measures are introduced as needed.

Although the metrics described above are an objective indicator of the quality of NANPA's work, they do not take customer satisfaction into account. In order to determine how code applicants felt about NANPA's work, during the fourth quarter of 2000 code applicants received a brief optional survey along with each Part 3, or batch of Part 3s.

Below is a short summary of the results prepared by NeuStar Quality Assurance.

Respondents were requested to rate their satisfaction with the code administration on a scale of 1–5, with 5 indicating "very satisfied." There were 305 responses from at least 92 companies (on some responses, the company was impossible to identify). That is roughly 2.5% of all applications processed in 4Q00. 76 responses were received in Oct, 165 in Nov, and 64 in Dec. Overall, 96.1% of respondents were "satisfied" or better with CO Code Administration services, while 3.9% were "less than satisfied" or "dissatisfied." 70% of respondents rated the service a perfect 5.0 in all categories. Approximately 37% of respondents provided comments. All respondents provided either an NPA or a state so the responses can be sorted by region and some can be tied to an administrator. Positive comments frequently single out one or more administrators for praise. The most frequent suggestions for improvement include:

- Consistency across regions and states.
- Streamlined application process for multiple codes, including submission of just one set of legal documents.
- Clear communication of industry and FCC guidelines and requirements.

TABLE 8—1999 INDUSTRY PERFORMANCE MEASUREMENTS SUMMARY

Measurements	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Central office code applications processed within 10 days	99.8%	99.8%	99.9%	99.8%	99.9%	99.9%	99.9%	100%	100%	100%	99.8%	100%
Average days late for applications not processed within 10 days	Na	Na	Na	Na	Na	1.0	1.3	0	0	0	10.4	0
Central office codes assigned without conflict	99.9%	99.9%	100%	99.9%	98.4%	100%	99.9%	99.7%	99.6%	99.9%	100%	100%
Phone calls returned by end of next business day	100%	99.9%	100%	100%	100%	99.8%	100%	100%	99.9%	100%	100%	99.7%

To ensure that NANPA's quality measurements are accurate, NeuStar's quality assurance group performed an internal audit of central office code administration measurement practices in December 2000. No significant problems were found. The results of the audit will be shared in detail with NOWG during the 2000 performance evaluation.

Challenges in 2000

Central office code administration faced a number of challenges in 2000.

The FCC's NRO Order—The FCC's NRO order changed the central office code application process, both for initial and growth codes. For initial codes, the FCC now requires that each applicant submit evidence of service readiness and carrier certification, and the applicant must also have submitted a forecast for the area in which a code is requested. To implement these new requirements, NANPA worked with carriers to determine exactly what documents were sufficient to demonstrate readiness. An INC working group, co-chaired by NANPA, developed a document that will assist carriers who apply for codes in complying with the FCC's new requirements.

For growth codes, the FCC now requires strict conformance with the requirement that no new assignments will be made unless the carrier can demonstrate that all of its numbering resources in a rate center will exhaust within six months. Previously, the assignment guidelines allowed carriers to bypass this requirement for a valid technical reason; for example, installation of a new switch. Carriers seeking exceptions to this rule must now petition the FCC directly. Further, with the FCC's Second Report and Order released in late December 2000, carriers will be required to reach certain utilization levels as well as the months to exhaust criteria in order to receive additional growth code resources.

Managing Jeopardies—Central office code administration becomes more complex as the supply of available central office codes within an NPA nears exhaust. If and when the supply of codes in a particular NPA is at risk of exhausting before a new area code or other relief techniques can be introduced, the code administrator declares "jeopardy" in that NPA. After jeopardy is declared, interim jeopardy procedures protect the remaining supply of codes until the industry, with the assistance of Code Administration and Relief Planning, can develop final jeopardy procedures. These procedures specify how many codes can be assigned each month and identify the lottery or other means of determining who gets the available codes each month. Once determined, jeopardy procedures are posted to the NANPA web site, www.nanpa.com. At the end of 2000, there were 68 NPAs in jeopardy, out of a total of 239 geographic NPAs in service in the U.S. and its territories.

Reclamation—When a central office code is assigned, the assignee establishes an effective date. The assignment guidelines require that the code be in service no later than six months after the effective date. The assignee confirms that the code is in service by filing a Part 4 form with NANPA. NANPA tracks code assignments, and if the Part 4 form is not received within the six-month period, the code is delinquent. Prior to the NRO order, NANPA submitted lists of delinquent codes to the INC, which made the decision on whether or not delinquent central office codes would be reclaimed or whether the assignee would be granted an extension.

The NRO order delegated reclamation authority to the states, if they wished to exercise it, and 28 states have opted to do so. For codes assigned for use in the remaining states, the FCC will control reclamation.

To implement these new requirements, NANPA has established a separate reclamation group within code administration. This group has contacted all of the participating states and established a process by which NANPA will work with each to manage reclamation. A similar process has been negotiated with the FCC. Details of these processes are included on the NANPA web site at www.nanpa.com.

Reclamation quality measurements have been revised to reflect the new process, and results will be reported monthly.

The Code Administration System (CAS)—In its proposal to become NANPA, NeuStar, then Lockheed Martin IMS, committed to develop an advanced technology software system to support code administration. We refer to this system as the code administration system (CAS). The first component, an Oracle database, would store all assignment information. The second component, a workflow management system, would assist in managing the applications and other activities that make up administration. CAS will offer all of the features described in the original NANPA proposal, including the ability for an applicant to complete and submit forms through the world wide web.

Because no commercially available system with the required capabilities was readily available at the time, NANPA built an interim system to record assignment data. Although based on current technology, the interim system has nevertheless supported processing more than four times the anticipated volume of code requests within the required 10-day window.

The original intent was to develop CAS by acquiring and enhancing a commercially available system. NANPA acquired and installed an existing ORACLE-based system for that purpose. By mid-1999, however, when it was clear that the number of central office code applications would be much larger than anticipated, it became necessary to reevaluate our plans. Because the acquired system was not readily scalable to meet functional or performance goals, the decision was made to develop CAS from scratch.

The original development schedule called for CAS to be in production by September, 2000, but development complexities extended the date. At this writing, CAS has been developed and functionally tested, and stress testing is in progress. Deployment is expected in early 2001. Although NANPA is eager to deploy CAS, it will not be done until it is certain that its introduction will not adversely affect central office code productivity and quality. Until CAS is deployed, NANPA will continue to use the interim system.

Reports—As indicated in the 1999 annual report, the volume of reports requested was so large that NANPA added a full-time "reports manager." During 2000, NANPA's reports manager produced over 140 ad-hoc reports, covering approximately 442 NPAs. In addition, the reports manager prepared and distributed scheduled reports on a bi-weekly, monthly, and quarterly basis. Nearly half of these reports were for regulatory or quasi-regulatory bodies—FCC, state commissions, consumer groups. The remaining reports were generated to assist in the relief planning process.

Improving Operations

The 1999 performance review conducted by NOWG gave NANPA some useful areas for improvement. Additional areas are included in our 1999 annual report. These areas are discussed below.

Consistency—NANPA's central office code administrators are divided into three groups, each supervised by a senior code administrator. Each group processes applications from a different region of the U.S.—eastern, central, and western. It is a challenge to ensure that all of these administrators are absolutely consistent in applying the guidelines and rules in processing central office code applications.

To meet this challenge, a new senior code administrator position was established. The incumbent is developing common methods and procedures for central office code administration. The incumbent reviews issues arising in any of the three regions; for example, in areas where the guidelines may be ambiguous, and assists in the ultimate resolution of these issues. In addition, the central office code administrators attend technical training sessions aimed at increasing their knowledge and awareness of technical issues related to numbering.

Code Conflicts—There are many areas in the U.S. where seven-digit dialing is allowed across area code boundaries. This practice complicates choosing new central office codes to assign in these areas. The administrator must ensure that any code chosen is not assigned in the:

- Home area code,
- Foreign area code to which seven-digit dialing is permitted, and
- Local calling area for any of the codes within the restricted area of the foreign area code.

If these conditions are not met, a code conflict results.

When NANPA assigns a code in conflict, local exchange carriers typically find translation problems when they attempt to activate the new code. If the problem is not found and quickly corrected, substantial problems can occur; for instance, if customers have already been assigned numbers within the conflicting code. Arguably, code conflicts represent the most difficult challenge and the largest risk in code administration.

Concerned about the impact of the seven-digit cross boundary dialing on number utilization, some state commissions have been eliminating the practice, but hundreds of cases still remain in the U.S.

Our assignment software will identify these conditions and prevent code conflicts, provided all of the relevant information has been included in its data tables and the data included is complete and correct. In 2000, NANPA obtained and installed a commercial database that would assist us in determining the areas where seven-digit dialing across area code boundaries exists.

Training—Technical training for code administrators has been mentioned previously. In addition, other training opportunities have been provided:

- *Achieving Extraordinary Customer Relations*, taught by Achieve Global, was repeated in November of 2000 for the benefit of code administrators who had not yet taken the class.
- Senior code administration personnel attended the American Management Association's *Successfully Managing People*. This course helped administrators to identify and work with different management styles and to negotiate practical solutions to work-related problems.

Resource Report—500

Contact: Nancy Fears, 202-533-2653

Since the mid-1990s, NANPA has assigned 500-NXX codes to carriers intending to provide personal communications service to customers. Note that 500 numbers are not portable; the NXX identifies the service provider. According to the assignment guidelines, which may be downloaded from the ATIS web site, http://www.atis.org/atis/clc/inc/incdocs.htm, personal communications service is defined as:

> … a set of capabilities that allows some combination of personal mobility, terminal mobility, and service profile management. It enables each personal communication service user to participate in a user-defined set of subscribed services, and to initiate and/or receive calls on the basis of some combination of a personal number, terminal number, and a service profile across multiple networks at any terminal, fixed or mobile, irrespective of geographic location. Service is limited only by terminal and network capabilities and restrictions imposed by the personal communication service provider.

In 2000, NANPA assigned 174 new NXX codes, and 109 codes were returned or reclaimed. As of 1/1/01, 522 codes were assigned. Table 9 shows detailed assignment and reclamation information. In September, recognizing that the resource was approaching exhaust, NANPA, in its role as steward of the resource, undertook an audit of all 500-NXX assignees. The audit found that a large number of assigned codes were associated with services that

TABLE 9—500 NXX ACTIVITY IN 2000		
Month	Assigned	Reclaimed or Returned
January	0	0
February	40	0
March	0	0
April	13	1
May	6	3
June	3	5
July	2	1
August	45	1
September	8	3
October	36	0
November	0	9
December	21	86
Total	**174**	**109**

of the resource, undertook an audit of all 500-NXX assignees. The audit found that a large number of assigned codes were associated with services that had been withdrawn. Many of these codes have since been returned voluntarily. The audit also found a large number of codes that have been activated in switches, but the associated service is not yet available and there are no customers. NANPA will seek regulatory guidance as to how to treat these assignments. During the audit, NANPA obtained updated trouble reporting information for use by the Network Interconnection Interoperability Forum (NIIF).

In November, reflecting continuing concern about the exhaust of the resource, NANPA informed the INC that the projected exhaust date for the 500 resource, based on demand in 2000, is February, 2002. In response, INC has begun discussion of a possible follow-on NPA code to relieve the 500 NPA. All changes to NANPA's 500 PCS assignment database (updates/assignments/reclamations) were reported throughout the year to Traffic Routing Administration at Telcordia for entry into the LERG.

Resource Report—900

Contact: Nancy Fears, 202-533-2653

900 numbers were first introduced in 1971 for the delivery of information services for which customers pay a premium. 900 numbers are not portable; the prefix identifies the service provider. Demand for additional 900-NXX codes in recent years has been minimal, and no new 900-NXX codes were assigned in 2000.

In June, 2000 NANPA instituted a comprehensive review of all 900-NXX assignments; and, by year end, 136 codes were reclaimed or voluntarily returned. Table 10 summarizes the reclamations/returns. This review has continued into 2001 in an effort to receive "in-service" certification forms from all remaining assignees.

This comprehensive review has also enabled NANPA to obtain current trouble reporting contact information from each assignee, and to forward this information to NIIF.

All updates/reclamations in this resource were reported to Traffic Routing Administration at Telcordia for the appropriate changes in the LERG.

Resource Report—N11 Codes

Contact: Ron Conners, 202-533-2650

The N11 codes (211, 311, … 911) are the only three-digit numbers recognized in the NANP. As such, they have been much in demand.

Originally, NANPA was to be the administrator for the N11 codes; but, in the U.S., that responsibility was subsequently assumed by the FCC.

The FCC assigned the last two generally available codes, 211 and 511, in 2000 for specific uses within the U.S. Details may be found in the Third Report and Order and Order on Reconsideration, CC Docket No. 92-105, adopted July 21, 2000, and released July 31, 2000. The order may be downloaded from the FCC web site, www.fcc.gov.

Current N11 uses and assignments in the U.S. and Canada are shown in Table 11.

TABLE 10—900-NXX ACTIVITY IN 2000

Month	Assigned	Reclaimed/Returned
January	0	0
February	0	0
March	0	0
April	0	0
May	0	2
June	0	0
July	0	32
August	0	27
September	0	20
October	0	20
November	0	4
December	0	31
Total	**0**	**136**

TABLE 11—N11 USAGE/ASSIGNMENTS	
N11 Code	**Description**
211	Community information and referral services (U.S.)
311	Non-emergency police and other governmental services (U.S.)
411	Local directory assistance (traditional use)
511	Traffic and transportation information (U.S.); reserved (Canada)
611	Repair service (traditional use)
711	Telecommunications Relay Service (TRS)
811	Business office (traditional use)
911	Emergency services

Resource Report—555 Line Numbers

Contact: Nancy Fears, 202-533-2653

The intended use for 555 line numbers includes the provisioning of information services but may grow to include a broad range of existing and future services as well. Assignment of 555 line numbers began in August, 1994. NANPA assigns these numbers according to industry-developed assignment guidelines that may be found on the ATIS web site at http://www.atis.org/atis/clc/inc/incdocs.htm.

2,626 555 line numbers were assigned during 2000, more than one-third of the total resource. Table 12 summarizes activity in 2000.

In August, 2000, NANPA advised the INC that 70% of the total assignable numbers of this resource had been assigned and provided a projected exhaust based on the rate of assignment. As a result of this report to INC and pursuant to the 555 assignment guidelines, special conservation measures were invoked, and, effective immediately, new 555 line number assignments were limited to one line number per entity per application.

In early 1999, NANPA informed the INC that unless INC directed otherwise, NANPA intended to begin reclamation of 555 line number assignments. This liaison from NANPA was discussed at INC 43 (May 1999), and INC determined that NANPA should not yet begin reclamation of 555 line number assignments. The issue of 555 reclamation is scheduled to be discussed again by INC in April, 2001.

Resource Report—Carrier Identification Codes (CICs)

Contact: Nancy Fears, 202-533-2653

Carrier identification codes (CICs) are four-digit codes used to route and bill telephone traffic. Normally, a carrier acquires a CIC assignment by purchasing access from an access provider. The access provider will apply to NANPA (or in Canada to the Canadian Numbering Administrator) for a CIC assignment on behalf of the access purchaser. Specific industry-consensus guidelines for the administration of CICs may be found on the ATIS website, http://www.atis.org/atis/clc/inc/incdocs.htm. In the U.S., the FCC has issued several CIC-related directives that override the guidelines, as will be discussed later.

The two most common varieties of access are known as Feature Group B (FG B) and Feature Group D (FG D)—a separate pool of CICs serves each. Currently, switches in North America are programmed to recognize CICs in three ranges: 0/1XXX, 5XXX, and 6XXX, where X is any digit 0-9. When the supply of available CICs within these ranges exhausts, the INC will authorize opening other ranges.

TABLE 12—555 LINE NUMBER ACTIVITY IN 2000		
Month	Assigned	Reclaimed/Returned
January	0	0
February	0	0
March	341	0
April	343	0
May	141	0
June	302	0
July	526	0
August	940	14
September	7	0
October	16	0
November	6	0
December	4	4
Total	2626	18

Pursuant to the CIC assignment guidelines, local exchange carriers providing FG B and/or FG D service, particularly local exchange carriers (LECS) with more than 30 CICs in service, are encouraged to submit semi-annual access/usage reports to NANPA for analysis.

The timeliness of receipt and the accuracy of information supplied to NANPA in LEC semi-annual access/usage reports are vital. Information contained in these reports serves as the sole basis for NANPA's reclamation of unused CICs in an ongoing effort to avoid exhaust of this resource and to extend the longevity of the ranges of four-digit FGD CICs currently available for assignment to applicants.

If access for a CIC assignment is not reported by any facilities-based LEC providing a semi-annual report to NANPA, NANPA begins reclamation procedures. A certified letter is sent to the assignee of record advising that direct trunk access must be established with a facilities-based LEC within 60 days from the date of the letter; or, alternatively, the assignee of record must have the access provider supply NANPA with verification that direct trunk access was previously established (this allows a reporting error to be detected before reclamation of a CIC is finalized). At the end of the 60-day period, if the appropriate information as to direct trunk access has not been provided, the reclamation of the CIC is finalized.

In some cases, NANPA's certified reclamation letter may be returned as "undeliverable" by the Post Office. In these cases, NANPA advises INC of the inability to contact the assignee, that no direct trunk access is being reported, and that the CIC will be made available for reassignment following the six-month idle period, unless the INC advises otherwise within 30 days.

FG D CIC Activity—Monthly FG D CIC assignments, denials, and reclamations, with yearly totals, are shown in Table 13. Based on the assignment information from year 2000, FG D CICs were assigned at the average rate of 24.9 codes per month.

The supply of FG D CICs available for assignment in 2001 is as follows. Approximately 600 FG D CICs in the 6XXX range are available. In addition,

TABLE 13—FGD CIC ACTIVITY IN 2000			
Month	**Assigned**	**Reclaimed/ Returned Codes**	**Applications Denied**
January	25	5	4
February	22	4	3
March	41	18	1
April	17	4	2
May	28	7	2
June	31	16	4
July	22	16	4
August	29	14	1
September	24	5	3
October	26	17	2
November	21	13	3
December	13	7	3
Total	**299**	**126**	**32**

20 reclaimed FG D CICs in the 5XXX range will become available during 2001 and may be reassigned. Note that the FCC has directed NANPA not to assign for U.S. usage any 0XXX range FG D CICs that may become available. Using the average monthly assignment rate from 2000, it is projected that the remaining assignable codes in the 5XXX and 6XXX ranges will exhaust in 20.9 months (October 2002).

Although the CIC assignment guidelines allow an entity[5] to request assignment of up to six FG D CICs, the FCC has limited the number to two in the U.S. Should the FCC withdraw its imposed limit, exhaust will occur much sooner than October, 2002. Additionally, NANPA anticipates that if the assignable limit per entity is increased, it will be necessary to immediately open other ranges of thousands blocks of CICs for assignment.

FG B CIC Activity—Monthly FG B CIC assignments, denials, and reclamations, with yearly totals, are shown in Table 14. FG B CICs are currently being assigned in the 0/1XXX and 5XXX ranges with a limit of five FG B CICs per entity. In 2000, a total of 17 FGB CICs were assigned (an average assignment rate of 1.4 codes per month). There is no concern relating to the exhaust of the FGB CIC resource based on this rate of assignment.

Maintaining accurate entity assignee and contact information continues to be a challenge for NANPA due to the volume of mergers/acquisitions/bankruptcies that are occurring in the telecom industry. Obtaining documentation and verification of these activities is often difficult, but crucial to the integrity of information contained in the CIC assignment databases.

In a continuing effort to ensure the integrity of data contained in NANPA's CIC assignment database, NANPA and the Common Language Group at Telcordia shares information on a regular basis relating to mergers/acquisitions of telecommunications

[5] The FCCassignment guidelines define "entity" as "a firm or group of firms under common ownership or control."

TABLE 14—FG B CIC ACTIVITY IN 2000			
Month	Assigned	Reclaimed/ Returned Codes	Applications Denied
January	0	1	0
February	2	1	0
March	2	0	0
April	0	0	0
May	3	0	0
June	3	4	0
July	0	5	0
August	1	6	0
September	2	13	0
October	3	18	0
November	1	2	0
December	0	8	0
Total	17	58	0

carriers. The Common Language Group maintains the CLONES database, which contains Access Customer Name Abbreviation (ACNA) assignment information. NANPA's CIC assignment database also contains ACNA information as an additional identifier for each entity's code assignments.

Resource Report—456-NXX Codes

Contact: Ron Conners, 202-533-2650

The purpose of NPA 456 and its associated NXXs is to enable the routing of inbound international calls for carrier-specific services, particular to that service provider's network, to and between countries served by the NANP. NANPA assigns 456-NXX codes to carriers under industry-developed guidelines that may be found on the ATIS web site at www.atis.org/atis/clc/inc/incdocs.htm. The guidelines are titled *International Inbound NPA (Int/NPA/NXX) Assignment Guidelines.*

No additional 456-NXX assignments were requested or made during 2000. A complete list of 456-NXX assignments may be found on the NANPA web site, www.nanpa.com.

Resource Report—800-855 Numbers

Contact Ron Conners, 202-533-2650

800-855 numbers are used only for the purpose of accessing public services on the Public Switched Telephone Network (PSTN) intended for the deaf, hard of hearing, or speech impaired. NANPA assigns these numbers in accordance with industry-developed guidelines that may be found on the ATIS web site atwww.atis.org/atis/clc/inc/incdocs.htm.

In 2000, NANPA received one assignment request, for which an assignment was made. A complete list of 800-855 number assignments may be found on the NANPA web site, www.nanpa.com.

Automatic Number Identification "II" Digits

Contact Ron Conners, 202-533-2650

Automatic Number Identification (ANI) "II" digits are digit pairs sent with the originating telephone number. The digit pair identifies the type of originating station; e.g., plain old telephone service (POTS) or hotel/motel.

Requests for the assignment of ANI II digits are referred to the INC for consideration. If INC approves the request, NANPA makes the assignment. A complete list of ANI II assignments may be found on the NANPA web site, www.nanpa.com.

No direction was received from the INC during 2000 to make additional ANI II digit assignments.

Non-Dialable Toll Points

Contact Ron Conners, 202-533-2650

Non-dialable toll points are central office codes assigned to individual stations, which typically are located in extremely remote areas where standard telephone service is not available. Even though these arrangements require the assignment of an entire CO code to support only a few stations, they are necessary to support call rating to these remote locations.

Assignment of codes for non-dialable toll points are constrained to the 886 and 889 NPAs, and a list of current assignments is maintained in the LERG. There are no formal guidelines for the assignment of these codes, and NANPA is not involved in these assignments.

The resolution to INC issue 073, reached on 6/7/96, was that within five years (June, 2001) all non-dialable toll points will migrate from both the 886 and 889 NPAs. NANPA has contacted the largest holders of non-dialable toll points, and they have confirmed their intent to conform to this agreement.

Vertical Service Codes

Contact Ron Conners, 202-533-2650

Vertical Service Codes (VSCs) are customer-dialed codes in the *XX or *2XX dialing format for touch tone and the 11XX or 112XX dialing format for rotary phones. They are used to provide customer access to features and services (e.g. call forwarding, automatic callback, etc.) provided by network service providers such as local exchange carriers, interexchange carriers or commercial mobile radio service (CMRS) providers.

NANPA assigns VSCs in accordance with industry-developed guidelines that may be found on the ATIS web site at www.atis.org/atis/clc/inc/incdocs.htm.

No new VSCs were requested or assigned in 2000. A complete listing of assigned VSCs is available on the NANPA web site, www.nanpa.com. ■


IPDs
Public Hearings
Implementation Meetings
DDS
Conference Calls
Planning Letters
Recommendations

RELIEF PLANNING

Overview

Contact: Jim Deak, 973-539-8331

Relief Planning is the well-defined process that precedes the introduction of new geographic area codes. The relief planning process, described in more detail below, is based on industry-developed guidelines, which may be found at the ATIS web site, www.atis.org/atis/clc/inc/incdocs.htm.

Each year, NANPA projects the exhaust of each NPA in the U.S. and its territories, using the results of carrier-submitted forecasts. The Canadian Numbering Administrator performs a similar function in Canada. At least 36 months before the anticipated exhaust of an NPA in the U.S. or its territories, one of NANPA's relief planners begins a new relief project by notifying the local industry and state commission and convening volunteers to identify viable methods of providing relief. Using input from this meeting, the relief planner prepares an initial planning document (IPD) that outlines several alternative relief plans and distributes the IPD for formal consideration by the industry.

The industry then meets one or more times until either an option is selected or the relief planners determine that the group cannot reach consensus. In California, prior to submitting a relief plan for approval, NANPA must also conduct local jurisdiction and public meetings to review the alternative plans. The relief planner then submits the selected plan, or, if the industry has not been able to reach consensus, all of the proposed plans in a petition to the state commission for approval. The state commissions review the proposed plan thoroughly, and often hold public hearings and invite public comment. When that happens, the relief planner must be an active participant, and is often called upon to testify. After the state commission has approved a plan, which may not be one of the plans submitted by the industry, NANPA requests assignment of one or more area codes to implement the plan, and convenes and facilitates the first industry implementation meeting. At this and subsequent implementation meetings, led by a facilitator chosen by the industry, the carriers develop detailed plans for the implementation of the new area code according to the plan approved by the state commission. Based on information determined in the early implementation meetings, the relief planner publishes a planning letter on the NANPA web site. The planning letter announces the schedule for relief and the identity of the new area code.

NANPA's relief planners also work closely with central office code administration. Relief planners schedule and facilitate jeopardy conference calls, and are deeply involved in decisions affecting the disposition of central office codes prior to, during, and immediately after relief.

As in previous years, NANPA's relief planners were busy. In 2000, they began 37 new relief projects in 25 states. They facilitated 52 face-to-face meetings and 153 conference calls. They prepared and filed 43 relief plan recommendations with state commissions. They supported state commissions by participating (and often testifying) in 95 state-sponsored public meetings, regulatory hearings, local jurisdiction meetings, and technical workshops. To keep the industry informed, they issued 568 notifications using DDS, the electronic distribution system established in 1999 and improved in 2000. To satisfy the needs of the press, relief planners, in cooperation with NeuStar's media relations department, participated in 650 interviews and issued nine press releases.

Relief Planning Quality Measurements

Each month, NANPA measures the timely completion of a series of relief planning activities such as the timely notification of initial industry meeting, distribution of meeting minutes, etc. Table 15 lists the results. Overall, in 2000, NANPA completed 98.7 % of the 387 tracked activities on schedule.

TABLE 15—RELIEF PLANNING PERFORMANCE RESULTS IN 2000			
Performance Measurement	**Events**	**Events Completed On Time**	**Percent Completed On Time**
Distributed initial industry meeting notice within 6 weeks of meeting date	33	33	100%
Distributed IPD within 4 weeks of meeting date	35	35	100%
Distributed meeting minutes/filing review on time	142	139	97.9%
Held minutes review as specified by industry	65	65	100%
Filed industry recommendation with regulators by industry-specified date	43	43	100%
Requested relief NPA assignment within 1 week after regulatory approval of relief plan	25	25	100%
Issued press release within 2 weeks after relief NPA code assignment	9	8	88.9%
Published notice of implementation meeting within 3 weeks after NPA code assignment	18	18	100%
Held jeopardy meeting within 4 weeks after jeopardy declaration	17	16	94.1%
Total	**387**	**382**	**98.7%**

Customer Survey Feedback

Participants at face-to-face meetings were asked to complete a questionnaire on the performance of NANPA at the meeting using ratings from a scale of 5 for "strongly agree" to 1 for "strongly disagree" to statements such as "NANPA conducted the meeting impartially?" NANPA received more than 800 survey responses, many of which included suggestions for improving the meetings. In general, the results showed a high level of satisfaction with NANPA's performance in the planning and conduct of the meetings. Table 16 shows the annual average score for each of the questions asked on the survey form.

In 2000, NANPA introduced a conference call survey process to measure the quality of conference calls with meeting participants requested to rate NANPA's performance in nine areas such as timely notification, sound quality, facilitation skills, meeting preparation, impartiality, overall satisfaction with NANPA performance, etc. Initial surveys were conducted on 18 conference calls (jeopardy, minutes review, regulatory filing review, imlementation) between September 21, 2000 and October 31, 2000 with generally good participation on the surveys and high marks for NANPA's conduct of the meetings. For example, of 171 participants on the conference calls, 49% (83) responded to the survey and rated overall performance at an average of 4.7 out of a maximum of 5.0. Comments received included suggestions for improving the content of materials provided such as NXX lists, providing additional information such as initial and growth codes, following the agenda more closely, etc.

TABLE 16—RELIEF PLANNING CUSTOMER SURVEY RESULTS	
Customer Survey Question	**Average Annual Survey Response**
NANPA was courteous and professional?	4.8
Participant had an opportunity to express opinions?	4.8
Received adequate meeting notice?	4.7
NANPA was well prepared for the meeting?	4.7
NANPA was an effective facilitator?	4.7
NANPA conducted the meeting impartially?	4.7
Overall satisfaction with the conduct of the meeting?	4.7
NANPA provided timely information distribution?	4.6
NANPA had a detailed knowledge of the NPA?	4.6
Easily able to obtain documents from DDS?	4.5
NANPA presented well-developed relief alternatives?	4.5
NANPA provided satisfactory responses to questions & concerns?	4.5
Provided satisfactory information about code assignment history & status?	4.4

Challenges In 2000

A number of issues that arose during 2000 have challenged relief planners, for example:

- As the states began to exercise their delegated authority for number conservation, many scheduled relief activities have been suspended or delayed. These relief plans may need to be revisited and/or revised as state commissions examine and implement number conservation measures.
- In one state, NANPA was required to submit an industry relief plan to the FCC for approval, instead of to the state commission. This required special coordination with the FCC.
- NANPA's interpretation of the ATIS consensus process was questioned, and an examination of this issue was submitted to the NOWG for its review. The result may change the way relief planning meetings are conducted.

Improving Operations

In response to feedback received from the industry, NANPA's relief planners, have improved the process. Specifically:

- In order to improve the consistency of the way in which relief planning activities are conducted nationwide, NANPA published a Relief Planners' Handbook. It includes standards for the conduct of meetings; contents and formats of relief planning documents, including initial planning documents, regulatory filings, press releases, and planning letters; and descriptions of and thresh olds for performance measurements. The handbook also serves as a training vehicle for new relief planners. Included in the handbook is a description of the NANPA-developed relief planning model used to calculate the lifetimes associated with various relief alternatives. The model is now used consistently across the country. It is easy to use, and allows relief alternatives proposed at industry meetings to be evaluated in real time.

- In response to continuing questions about the consensus process, relief planners prepared an expanded description and explanation of how the ATIS consensus process is applied in relief planning meetings. This description was modified near the end of 2000 to reflect changes made by ATIS's Carrier Liaison Committee.
- In order to maintain close coordination, relief planning and code administration meet weekly by conference call to discuss important issues of mutual interest.
- In response to suggestions from users, NANPA enhanced DDS to provide 1) downloadable lists of subscribers by state in a fax cover sheet format and 2) an enhanced search capability for archived documents.
- To make relief planners more effective, NANPA provided training in meeting facilitation, preparation of legal filings, and working with the media.
- In addition, to help state regulators understand NANPA, relief planners participated in seven briefings for state regulatory staff members. ■

NRUF > COCUS

NUMBER RESOURCES UTILIZATION/FORECASTING (NRUF)

Contact: Beth Sprague, 202-533-2654

For many years prior to the FCC's NRO First Report and Order, the Central Office Code Utilization Survey (COCUS) was the industry tool for predicting NPA and NANP exhaust. Each year, carriers submitted their projected needs for central office codes for the next five years. NANPA then summarized the results and used them to project the exhaust of individual NPAs and the NANP as a whole.

In 1999, NANPA enhanced COCUS to incorporate actual past growth trends as well as an assessment of the state of competition in each NPA. The additional data provided an improved basis for forecasting. In spite of these improvements, however, COCUS data often proved unsatisfactory, primarily because participation in COCUS was voluntary and many carriers chose not to participate.

In response, the FCC, in the NRO First Report and Order, completely changed the reporting process for the year 2000 and beyond. The new process is called Number Resource Utilization/Forecasting (NRUF) and includes:

- A new multi-part form (Form 502), requiring service providers to submit detailed utilization and forecast data
- Increased data collection frequency – twice a year versus once for COCUS
- Enhanced data collection mechanisms – data is collected via spreadsheets, electronic file transfer, and facsimile
- Mandatory reporting by service providers—companies failing to report are denied additional numbering resources
- State commission and Pooling Administrator access to disaggregated NRUF data
- Heightened reporting enforcement as required by the FCC Order.

NANPA assisted the FCC in the design of the NRUF form, and quickly built a system to accept and process completed forms. For the first NRUF reporting cycle, NANPA received more than 3,900 submissions. In doing so, NANPA worked with service providers to address any errors or other issues concerning their submissions. NANPA also provided NRUF data to the states and the FCC for their use, including the development of standard reports to assist in the analysis of the information. Based upon experience with the first NRUF report cycle, NANPA proposed several enhancements to Form 502 to help reduce the quantity of errors and assist carriers in completing the form. This included conducting an NRUF seminar in December and the creation of a NRUF Job Aid. ■


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Mandatory Enterprise Service

Contact: Cecilia Louie, 925-363-8710

NANPA is permitted, with FCC approval, to offer enterprise services, which are for-fee services over and above NANPA's basic responsibilities. One of these enterprise services is mandatory, and requires NANPA, upon completion of a business arrangement with a service provider, to enter data for newly assigned codes into Telcordia Technologies' routing and rating databases. The industry uses these databases to configure the network for the proper routing and rating of calls, and if the necessary information is not input, calls cannot be routed to newly assigned codes.

NANPA is not the only provider of this service. Code assignees may input their own data or select an agent to enter their data. The Local Exchange Routing Guide currently lists 18 different companies who provide this service.

Each provider of this data entry service is identified by a number, called the Administrative Operating Company Number (AOCN). Over time, the company providing the data input service has come to be called the service provider's AOCN.

Each code assignee is expected to pay a share of the cost in proportion to the number of records it has in the databases, which is a function of the number of central office codes assigned. To simplify its internal operation, Telcordia bills each code assignee's AOCN for these costs, and expects each AOCN to pass the charges on to its customers. New central office code assignees often do not realize that having their data entered into Telcordia's databases is just as important as obtaining a code assignment. For that reason, space is devoted to this topic on the NANPA web site, explaining what a code assignee must do to select an AOCN and describing NANPA's charges for the service.

Quality Measurements

NANPA's objective is to complete data entry within five business days of receiving a request. Table 17 illustrates our performance in meeting that objective.

2000 Financial Results

The number of service providers requesting NANPA as their AOCN and the corresponding billing amounts have increased. NANPA currently provides AOCN service for 324 service providers, up from 270 cited in last year's report.

Although companies providing AOCN services typically do not make their fees public, NANPA's fees for this service are explained in detail on our web site, www.nanpa.com. The fee to enter or change data associated with a central office code assignment is $56.00 as of February 20, 2001.

Billed amounts for NANPA's AOCN service are shown in Table 18. In the months of March and May, these amounts reflect both data entry fees as well as pass-through charges from Telcordia.

TABLE 17—PERCENTAGE OF AOCN REQUESTS ENTERED WITHIN 5 BUSINESS DAYS

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
100	100	100	100	100	100	99.5	99.9	99.9	100	100	100

TABLE 18—2000 MANDATORY ENTERPRISE SERVICE BILLING (DOLLARS)

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
29,138	37,609	536,948	76,833	242,904	49,768	36,977	48,837	60,089	42,286	60,570	23,527

NANPA Web Site

The NANPA web site, www.nanpa.com, continues to be the primary source of numbering information for both the industry and the public. Information previously only available from proprietary products or at significant cost is now available at no charge. All assignments made by NANPA are accessible through the site, except for certain information that industry deems to be proprietary. The site is updated as often as necessary to remain current; for example, central office code assignment data is updated weekly. In 2000, NANPA focused on timely updates to assignment information as well as the timely availability of planning letters, which announce area code splits and overlays. For those who asked to be notified when significant numbering events occur, NANPA established an electronic mailing list that now has more than 600 subscribers. In addition, the web site provides the latest information on rapidly changing topics critical to numbering. Examples include NRUF, reclamation, and requirements imposed on central office code applications by the FCC's NRO order.

One of the most valuable aspects of the site is the ability for anyone to submit questions about numbering and get answers. 50-100 such questions are submitted every day. Before the NANPA web site existed, few people knew where to find this information. Questioners range from high school students working on class projects to number administrators from other countries seeking information about the structure of the NANP. Hot topics for the general public include:

- The proliferation of new area codes – why did it happen and what is being done to stop it?
- Difficulty in determining one's local calling area. In many places, that information is no longer in telephone directories.
- Wide variances in dialing plans from state to state and place to place.
- Updating databases containing telephone numbers to reflect area code splits.
- Correlating area codes and central office codes with zip codes.
- Various complaints about telephone service.
- Suggested ways to "fix" the numbering plan.

While time consuming, responding to these questions is a valuable service for the general public.

INC Participation

NOWG has encouraged NANPA to participate actively in INC and to submit issues. NANPA has responded. In addition to attending INC meetings and providing subject matter experts when needed, NANPA submitted eight new issues and a total of 46 contributions to INC, more than any other \entity. NANPA's contributions are summarized in Table 19. Issue numbers in bold were introduced by NANPA. Contribution numbers in italics indicate joint contributions. Contributions associated with issues that were subsequently withdrawn are not included in the table.

Support for NANP Countries Other Than The U.S.

The NANP is unique among the world's numbering plan in that it serves 19 separate countries. One of NANPA's most important roles is to coordinate the use of numbering resources that must be shared equitably by all of the participating countries. Area codes are, of course, the primary shared resource, but there are others. For example, Canada, where competition is well along, uses carrier identification codes extensively, and Bermuda and Jamaica are beginning to use them. Canada also provides 500 and 900 service, and shares the supply of 500-NXX and 900-NXX codes. NANPA works closely with the local administrators during the resource request and assignment process. Normally, the local administrator receives the requests, ensures that local regulatory requirements are met, and forwards the requests to NANPA. NANPA ensures that industry requirements are met and assigns the resources.

TABLE 19—NANPA INC CONTRIBUTIONS IN 2000		
Issue	**Title**	**NANPA Contribution(s)**
152	Modifications to NPA code relief planning and notification guidelines	NPA-133, 147-148
192	Expedites for central office code activation	CO/NXX-139
195	Central office code final jeopardy procedures	CO/NXX-131, 169
208	Modifications to 555-XXXX assignment guidelines *Suggested resolution resolved the issue.*	
210	Reconsideration of NPA allocations and NPA guidelines	NPA-130, 142
217	Development of industry guidelines for new hybrid central office utilization and forecast survey	CO/NXX-85
229	Audit procedures for COCAG	Audit-014, 015
242	NANC directive to modify the central office code assignment guidelines to be consistent with the FCC NRO Order	CO/NXX-110, 116a-d, CO/NXX-120
249	Procedures for assigning central office codes to individuals under FCC 00-104	CO/NXX-162
252	NANPAIs role in reclamation per FCC 00-104	CO/NXX-142, 142r
255	Guyana application to the NANP	NPA-141
256	Central office code rationing emergency relief process	CO/NXX-154, 156
257	Open central office code guidelines and NRUF reporting guidelines questions relative to the FCC NRO Order	CO/NXX-132, 137, 138, 144
263	Procedures should be added to the NPA code relief planning and notification guidelines for modifications to industry agreements	NPA-144
265	Initial code applications —acceptable forms of certification and readiness under FCC 00-104 (brought on behalf of the Initial code taskforce)	CO/NXX-167
267	Section 8.3.1 information change revision under FCC 00-104, CC Docket 99-200	CO/NXX-163
271	Information change for rate center consolidation	CO/NXX-165
272	Add appendices A-D to the NPA code relief planning and notification guidelines	Contribution expected at INC 56
274	Amendment to the 555 assignment guidelines to address death or bankruptcy of assignee	NPA-150
275	Notification of SP merger/acquisition	
280	Remove jeopardy 6 months growth projection from MTE per NRO Order	DMM-74
291	Audit procedures for CIC assignment guidelines	CIC-003

On request, NANPA will assist regulators in NANP countries in organizing their local number administration services. For example, NANPA is working with Indotel, the regulator in the Dominican Republic, to build their central office code administration capability. At the moment, Indotel receives, reviews, and approves central office code requests from carriers in the Dominican Republic, and NANPA makes the assignments and maintains the assignment records. NANPA's role in central office code administration in the Dominican Republic will transition completely to Indotel during 2001.

NANPA cooperates with regulators and numbering groups in the NANP countries. In Canada, this includes the Canadian Numbering Administrator, the Canadian Radio-television and Telecommunications Commission and the Canadian Steering

Committee on Numbering. NANPA has also provided assistance to the regulators in Jamaica, and to a new organization charged with assisting the regulators in five Eastern Caribbean islands.

NANPA also serves as contact for other countries wishing to join the NANP. During 2000, NANPA worked with Guyana and the Netherlands Antilles to assist them in determining whether or not to apply for participation in the NANP, and, in the case of Guyana, helping them to understand and work through the application process.

Support to The FCC, State Commissions, and The NANC

2000 was a busy year for regulatory action regarding number administration and optimization. As a result, NANPA has met regularly with the FCC, state commissions, and the NANC in support of their need for numbering information.

With both the FCC's First and Second Report and Order on Number Resource Optimization, NANPA has communicated regularly with the FCC to ensure a full and complete understanding of these Orders and other FCC directives. NANPA has kept the Commission informed on the progress of NANPA's implementation of new or modified processes and procedures resulting from the Orders and their impact on numbering resources. This includes informing the FCC on administration changes implemented in the states. NANPA has also provided the Commission information on the status of the various numbering resources administered by NANPA.

NANPA's interaction with state commissions increased in 2000, due primarily to the number of states granted delegated authority by the FCC. NANPA worked cooperatively with the states to address numbering issues and implement state directives concerning number assignment and administration. One excellent example of this cooperation and coordination was the development of a set of reclamation guidelines across the country. NANPA led an effort with the states to define a uniform reclamation management process to facilitate the expanding role of state commissions in the reclamation process. Out of this cooperative effort came the reclamation guidelines that are now posted on the NANPA website and are used uniformly by all states having opted into the reclamation process.

Similar to the reclamation process, NANPA has worked with the states to standardize a number of data reports that will be available to state commissions. An initial set of standard reports was included with the NRUF data collected by NANPA in the second half of 2000 and provided to state commissions. In addition, NANPA is set to begin publishing other standard reports concerning central office codes. NANPA expects closure on this issue with the states in early 2001.

Meanwhile, along with the data posted to its website, NANPA has continued to provide ad hoc data reports for all state commissions. During the year 2000, NANPA responded to 65 such requests for data.

NANPA continued to provide monthly reports to the NANC on numbering activity. These re-ports have included updates on NPA and CO code assignments, NPA and NANP exhaust projections, state-specific modifications to CO administration processes, reclamation activities and other numbering-related topics. NANPA used these reports to increase NANC awareness and assist in NANC decision-making processes. In addition, to facilitate information sharing among the NANC members and the industry, NANPA developed and managed a web page for the NANC Chair for posting NANC documentation. ■

1a 1b 2 3 4

Attachment 1a—Geographic NPA Codes in Service as of January 1, 2001 (by Location)

Geographic Codes In Service As of 1/1/01	
NPA	Location
205	Alabama
256	Alabama
334	Alabama
907	Alaska
403	Alberta
780	Alberta
264	Anguilla
268	Antigua and Barbuda
480	Arizona
520	Arizona
602	Arizona
623	Arizona
501	Arkansas
870	Arkansas
242	Bahamas
246	Barbados
441	Bermuda
250	British Columbia
604	British Columbia
284	British Virgin Is.
209	California
213	California
310	California
323	California
408	California
415	California
510	California
530	California
559	California
562	California
619	California
626	California
650	California
661	California
707	California
714	California
760	California

Geographic Codes in Service As of 1/1/01	
NPA	Location
805	California
818	California
831	California
858	California
909	California
916	California
925	California
949	California
345	Cayman Islands
670	CNMI
303	Colorado
719	Colorado
720	Colorado
970	Colorado
203	Connecticut
860	Connecticut
302	Delaware
202	District of Columbia
767	Dominica
809	Dominican Republic
305	Florida
321	Florida
352	Florida
407	Florida
561	Florida
727	Florida
786	Florida
813	Florida
850	Florida
863	Florida
904	Florida
941	Florida
954	Florida
229	Georgia
404	Georgia
478	Georgia
678	Georgia

Geographic Codes in Service As of 1/1/01	
NPA	Location
706	Georgia
770	Georgia
912	Georgia
473	Grenada
671	Guam
808	Hawaii
208	Idaho
217	Illinois
309	Illinois
312	Illinois
618	Illinois
630	Illinois
708	Illinois
773	Illinois
815	Illinois
847	Illinois
219	Indiana
317	Indiana
765	Indiana
812	Indiana
319	Iowa
515	Iowa
641	Iowa
712	Iowa
876	Jamaica
316	Kansas
785	Kansas
913	Kansas
270	Kentucky
502	Kentucky
606	Kentucky
859	Kentucky
225	Louisiana
318	Louisiana
337	Louisiana
504	Louisiana
207	Maine

Geographic Codes in Service As of 1/1/01	
NPA	Location
204	Manitoba
240	Maryland
301	Maryland
410	Maryland
443	Maryland
413	Massachusetts
508	Massachusetts
617	Massachusetts
781	Massachusetts
978	Massachusetts
231	Michigan
248	Michigan
313	Michigan
517	Michigan
616	Michigan
734	Michigan
810	Michigan
906	Michigan
218	Minnesota
320	Minnesota
507	Minnesota
612	Minnesota
651	Minnesota
763	Minnesota
952	Minnesota
228	Mississippi
601	Mississippi
662	Mississippi
314	Missouri
417	Missouri
573	Missouri
636	Missouri
660	Missouri
816	Missouri
406	Montana
664	Montserrat
308	Nebraska
402	Nebraska
702	Nevada
775	Nevada

Geographic Codes in Service As of 1/1/01	
NPA	Location
506	New Brunswick
603	New Hampshire
201	New Jersey
609	New Jersey
732	New Jersey
856	New Jersey
908	New Jersey
973	New Jersey
505	New Mexico
212	New York
315	New York
347	New York
516	New York
518	New York
607	New York
631	New York
646	New York
716	New York
718	New York
845	New York
914	New York
917	New York
709	Newfoundland
252	North Carolina
336	North Carolina
704	North Carolina
828	North Carolina
910	North Carolina
919	North Carolina
701	North Dakota
902	Nova Scotia
216	Ohio
234	Ohio
330	Ohio
419	Ohio
440	Ohio
513	Ohio
614	Ohio
740	Ohio
937	Ohio

Geographic Codes in Service As of 1/1/01	
NPA	Location
405	Oklahoma
580	Oklahoma
918	Oklahoma
416	Ontario
519	Ontario
613	Ontario
705	Ontario
807	Ontario
905	Ontario
503	Oregon
541	Oregon
971	Oregon
215	Pennsylvania
267	Pennsylvania
412	Pennsylvania
484	Pennsylvania
570	Pennsylvania
610	Pennsylvania
717	Pennsylvania
724	Pennsylvania
814	Pennsylvania
787	Puerto Rico
418	Quebec
450	Quebec
514	Quebec
819	Quebec
401	Rhode Island
306	Saskatchewan
803	South Carolina
843	South Carolina
864	South Carolina
605	South Dakota
869	St. Kitts & Nevis
758	St. Lucia
784	St. Vincent & Grenadines
423	Tennessee
615	Tennessee
865	Tennessee
901	Tennessee

Geographic Codes In Service As of 1/1/01	
NPA	Location
931	Tennessee
210	Texas
214	Texas
254	Texas
281	Texas
361	Texas
409	Texas
469	Texas
512	Texas
682	Texas
713	Texas
806	Texas
817	Texas
830	Texas
832	Texas
903	Texas

Geographic Codes In Service As of 1/1/01	
NPA	Location
915	Texas
936	Texas
940	Texas
956	Texas
972	Texas
979	Texas
868	Trinidad and Tobago
649	Turks & Caicos Islands
340	U.S. Virgin Islands
435	Utah
801	Utah
802	Vermont
540	Virginia
571	Virginia
703	Virginia
757	Virginia

Geographic Codes in Service As of 1/1/01	
NPA	Location
804	Virginia
206	Washington
253	Washington
360	Washington
425	Washington
509	Washington
304	West Virginia
262	Wisconsin
414	Wisconsin
608	Wisconsin
715	Wisconsin
920	Wisconsin
307	Wyoming
867	Yukon & NW Territories

Attachment 1b—Geographic NPA Codes in Service as of January 1, 2001 (by Number)

Geographic Codes in Service As of 1/1/01	
NPA	Location
201	New Jersey
202	District of Columbia
203	Connecticut
204	Manitoba
205	Alabama
206	Washington
207	Maine
208	Idaho
209	California
210	Texas
212	New York
213	California
214	Texas
215	Pennsylvania
216	Ohio
217	Illinois
218	Minnesota
219	Indiana
225	Louisiana
228	Mississippi
229	Georgia
231	Michigan
234	Ohio
240	Maryland
242	Bahamas
246	Barbados
248	Michigan
250	British Columbia
252	North Carolina
253	Washington
254	Texas
256	Alabama
262	Wisconsin
264	Anguilla
267	Pennsylvania

Geographic Codes in Service As of 1/1/01	
NPA	Location
268	Antigua and Barbuda
270	Kentucky
281	Texas
284	British Virgin Is.
301	Maryland
302	Delaware
303	Colorado
304	West Virginia
305	Florida
306	Saskatchewan
307	Wyoming
308	Nebraska
309	Illinois
310	California
312	Illinois
313	Michigan
314	Missouri
315	New York
316	Kansas
317	Indiana
318	Louisiana
319	Iowa
320	Minnesota
321	Florida
323	California
330	Ohio
334	Alabama
336	North Carolina
337	Louisiana
340	U.S. Virgin Islands
345	Cayman Islands
347	New York
352	Florida
360	Washington
361	Texas

Geographic Codes in Service As of 1/1/01	
NPA	Location
401	Rhode Island
402	Nebraska
403	Alberta
404	Georgia
405	Oklahoma
406	Montana
407	Florida
408	California
409	Texas
410	Maryland
412	Pennsylvania
413	Massachusetts
414	Wisconsin
415	California
416	Ontario
417	Missouri
418	Quebec
419	Ohio
423	Tennessee
425	Washington
435	Utah
440	Ohio
441	Bermuda
443	Maryland
450	Quebec
469	Texas
473	Grenada
478	Georgia
480	Arizona
484	Pennsylvania
501	Arkansas
502	Kentucky
503	Oregon
504	Louisiana
505	New Mexico

Geographic Codes In Service As of 1/1/01	
NPA	Location
506	New Brunswick
507	Minnesota
508	Massachusetts
509	Washington
510	California
512	Texas
513	Ohio
514	Quebec
515	Iowa
516	New York
517	Michigan
518	New York
519	Ontario
520	Arizona
530	California
540	Virginia
541	Oregon
559	California
561	Florida
562	California
570	Pennsylvania
571	Virginia
573	Missouri
580	Oklahoma
601	Misaissippi
602	Arizona
603	New Hampshire
604	British Columbia
605	South Dakota
606	Kentucky
607	New York
608	Wisconsin
609	New Jersey
610	Pennsylvania
612	Minnesota
613	Ontario
614	Ohio
615	Tennessee
616	Michigan
617	Massachusetts

Geographic Codes In Service As of 1/1/01	
NPA	Location
618	Illinois
619	California
623	Arizona
626	California
630	Illinois
631	New York
636	Missouri
641	Iowa
646	New York
649	Turks & Caicos Islands
650	California
651	Minnesota
660	Missouri
661	California
662	Mississippi
664	Montserrat
670	CNMI
671	Guam
678	Georgia
682	Texas
701	North Dakota
702	Nevada
703	Virginia
704	North Carolina
705	Ontario
706	Georgia
707	California
708	Illinois
709	Newfoundland
712	Iowa
713	Texas
714	California
715	Wisconsin
716	New York
717	Pennsylvania
718	New York
719	Colorado
720	Colorado
724	Pennsylvania
727	Florida

Geographic Codes in Service As of 1/1/01	
NPA	Location
732	New Jersey
734	Michigan
740	Ohio
757	Virginia
758	St. Lucia
760	California
763	Minnesota
765	Indiana
767	Dominica
770	Georgia
773	Illinois
775	Nevada
780	Alberta
781	Massachusetts
784	St. Vincent & Grenadines
785	Kansas
786	Florida
787	Puerto Rico
801	Utah
802	Vermont
803	South Carolina
804	Virginia
805	California
806	Texas
807	Ontario
808	Hawaii
809	Dominican Republic
810	Michigan
812	Indiana
813	Florida
814	Pennsylvania
815	Illinois
816	Missouri
817	Texas
818	California
819	Quebec
828	North Carolina
830	Texas
831	California

Geographic Codes in Service As of 1/1/01	
NPA	Location
832	Texas
843	South Carolina
845	New York
847	Illinois
850	Florida
856	New Jersey
858	California
859	Kentucky
860	Connecticut
863	Florida
864	South Carolina
865	Tennessee
867	Yukon & NW Terr.
868	Trinidad and Tobago
869	St. Kitts & Nevis
870	Arkansas
876	Jamaica
901	Tennessee
902	Nova Scotia
903	Texas

Geographic Codes In Service As of 1/1/01	
NPA	Location
904	Florida
905	Ontario
906	Michigan
907	Alaska
908	New Jersey
909	California
910	North Carolina
912	Georgia
913	Kansas
914	New York
915	Texas
916	California
917	New York
918	Oklahoma
919	North Carolina
920	Wisconsin
925	California
931	Tennessee
936	Texas
937	Ohio

Geographic Codes In Service As of 1/1/01	
NPA	Location
940	Texas
941	Florida
949	California
952	Minnesota
954	Florida
956	Texas
970	Colorado
971	Oregon
972	Texas
973	New Jersey
978	Massachusetts
979	Texas

Attachment 2—Non-Geographic NPA Codes in Service as of January 1, 2001 (by Number)

NANPA receives many questions about NPA codes 456, 700 and 880-2. NPA code 456 allows callers to select a carrier for international calls terminating in a NANP country. Carriers implement this service by activating 456 numbers in each country of origin.

NPA code 700 was assigned in 1983 on the eve of competition for use by all interexchange carriers. Each carrier has the use of all 7.92 million numbers in the 700 NPA. When a call is made to a 700 number, the local exchange carrier passes the call to the caller's interexchange carrier, selected either through presubscription or override. Note that 700 numbers, unlike other NANP numbers, may terminate in different ways, depending on how the interexchange carrier has allocated the numbers.

NPA codes 880-2 are used for "paid toll-free service." This service permits callers in other NANP countries to call toll-free numbers in the U.S. by dialing 880 in place of 800, 881 in place of 888, or 882 in place of 877. By dialing these codes the caller agrees to pay for the international leg of the call, i.e., from the origin to the U.S. point of entry, and the called party pays for the domestic U.S. portion of the call. Although originally intended for calls from the Caribbean to the U.S., paid toll-free service may be established between any of the NANP countries.

The Industry Numbering Committee has allocated only three codes for paid toll-free service. Currently there are no codes corresponding to 866 or the toll-free codes to follow (855, 844, 833, and 822). Paid toll-free service is intended to be temporary, and should be phased out no later than 2004.

NON—Geographic NPA CODES IN SERVICE AS OF 1/1/01	
NPA	**Service**
456	Inbound International
500	Personal Communication Service
600	Canadian Services
700	Interexchange Carrier Services
710	U.S. Government
800	Toll-Free
866	Toll-Free
877	Toll-Free
880	Paid Toll-Free Service
881	Paid Toll-Free Service
882	Paid Toll-Free Service
888	Toll-Free
900	Premium Services

Attachment 3—Dialing Plans

DIALING PLANS FOR U.S. NPAs					
NPA	Location	Home NPA Local Calls	Home NPA Toll Calls	Foreign NPA Local Calls	Foreign NPA Toll Calls
201	New Jersey	7D	7D	1+10D	1+10D
202	District of Columbia	7D	NA	10D	1+10D
203	Connecticut	7D	1+10D	10D	1+10D
205	Alabama	7D	1+10D	7D	1+10D
206	Washington	7D	1+10D	10D	1+10D
207	Maine	7D	1+10D	1+10D	1+10D
208	Idaho	7D	1+10D	7D	1+10D
209	California	7D	7D	1+10D	1+10D
210	Texas	7D	1+10D	10D	1+10D
212	New York	7D	7D	1+10D	1+10D
213	California	7D	7D	1+10D	1+10D
214	Texas	10D	1+10D	10D	1+10D
215	Pennsylvania	10D	10D	10D	1+10D

DIALING PLANS FOR U.S. NPAs					
NPA	Location	Home NPA Local Calls	Home NPA Toll Calls	Foreign NPA Local Calls	Foreign NPA Toll Calls
216	Ohio	7D	1+10D	1+10D	1+10D
217	Illinois	7D	1+10D	1+10D	1+10D
218	Minnesota	7D	1+10D	7D	1+10D
219	Indiana	7D	1+10D	7D	1+10D
225	Louisiana	7D	1+10D	1+10D	1+10D
228	Mississippi	7D	1+10D	1+10D	I+10D
229	Georgia	7D	1+10D	10D	1+10D
231	Michigan	7D	1+10D	1+10D	1+10D
234	Ohio	10D	1+10D	1+10D	1+10D
240	Maryland	10D	1+10D	10D	1+10D
248	Michigan	7D	1+10D	1+10D	1+10D
252	North Carolina	7D	1+10D	10D	1+10D
253	Washington	7D	1+10D	10D	1+10D
254	Texas	7D	1+10D	10D	1+10D
256	Alabama	7D	1+10D	7D	1+10D
262	Wisconsin	7D	1+10D	1+10D	1+10D
267	Pennsylvania	10D	10D	10D	1+10D
270	Kentucky	7D	1+10D	7D	1+10D
281	Texas	10D	1+10D	10D	1+10D
301	Maryland	10D	1+10D	10D	1+10D
302	Delaware	7D	1+10D	10D	1+10D
303	Colorado	10D	1+10D	10D	1+10D
304	West Virginia	7D	1+10D	1+10D	1+10D
305	Florida	10D	1+10D	10D	1+10D
307	Wyoming	7D	1+10D	7D	1+10D
308	Nebraska	7D	1+10D	7D	1+10D
309	Illinois	7D	1+10D	1+10D	1+10D
310	California	7D	7D	1+10D	1+10D
312	Illinois	7D	1+10D	1+10D	1+10D
313	Michigan	7D	1+10D	1+10D	1+10D
314	Missouri	7D	10D	1+10D	1+10D
315	New York	7D	7D	1+10D	1+10D
316	Kansas	7D	1+10D	10D	1+10D
317	Indiana	7D	1+10D	7D	1+10D
318	Louisiana	7D	1+10D	1+10D	1+10D
319	Iowa	7D	1+10D	7D	1+10D
320	Minnesota	7D	1+10D	7D	1+10D
321	Florida	10D	1+10D	10D	1+10D
323	California	7D	7D	1+10D	1+10D
330	Ohio	10D	1+10D	1+10D	1+10D

DIALING PLANS FOR U.S. NPAs					
NPA	Location	Home NPA Local Calls	Home NPA Toll Calls	Foreign NPA Local Calls	Foreign NPA Toll Calls
334	Alabama	7D	1+10D	7D	1+10D
336	North Carolina	7D	1+10D	10D	1+10D
337	Louisiana	7D	1+10D	1+10D	1+10D
340	U.S. Virgin Islands	7D	1+10D	NA	1+10D
347	New York	7D	7D	1+10D	1+10D
352	Florida	7D	1+10D	10D	1+10D
360	Washington	7D	1+10D	10D	1+10D
361	Texas	7D	1+10D	10D	1+10D
401	Rhode Island	7D	7D	1+10D	1+10D
402	Nebraska	7D	1+10D	7D	1+10D
404	Georgia	10D	1+10D	10D	1+10D
405	Oklahoma	7D	10D	7D	1+10D
406	Montana	7D	1+10D	7D	1+10D
407	Florida	10D	1+10D	10D	1+10D
408	California	7D	7D	1+10D	1+10D
409	Texas	7D	1+10D	10D	1+10D
410	Maryland	10D	1+10D	10D	1+10D
412	Pennsylvania	7D	7D	1+10D	1+10D
413	Massachusetts	7D	1+10D	10D	1+10D
414	Wisconsin	7D	1+10D	1+10D	1+10D
415	California	7D	7D	1+10D	1+10D
417	Missouri	7D	10D	1+10D	1+10D
419	Ohio	10D	1+10D	10D	1+10D
423	Tennessee	7D	1+10D	7D	1+10D
425	Washington	7D	1+10D	10D	1+10D
435	Utah	7D	10D	7D	1+10D
440	Ohio	7D	1+10D	1+10D	1+10D
443	Maryland	10D	1+10D	10D	1+10D
469	Texas	10D	1+10D	10D	1+10D
478	Georgia	7D	1+10D	10D	1+10D
480	Arizona	7D	1+10D	10D	1+10D
484	Pennsylvania	10D	10D	10D	1+10D
501	Arkansas	7D	1+10D	7D	1+10D
502	Kentucky	7D	1+10D	7D	1+10D
503	Oregon	10D	1+10D	10D	1+10D
504	Louisiana	7D	1+10D	10D	1+10D
505	New Mexico	7D	10D	7D	1+10D
507	Minnesota	7D	1+10D	7D	1+10D
508	Massachusetts	7D	1+10D	10D	1+10D
509	Washington	7D	1+10D	7D	1+10D

DIALING PLANS FOR U.S. NPAs					
NPA	Location	Home NPA Local Calls	Home NPA Toll Calls	Foreign NPA Local Calls	Foreign NPA Toll Calls
510	California	7D	7D	1+10D	1+10D
512	Texas	7D	1+10D	10D	1+10D
513	Ohio	7D	1+10D	1+10D	1+10D
515	Iowa	7D	1+10D	10D	1+10D
516	New York	7D	7D	1+10D	1+10D
517	Michigan	7D	1+10D	1+10D	1+10D
518	New York	7D	7D	1+10D	1+10D
520	Arizona	7D	10D	7D	1+10D
530	California	7D	7D	1+10D	1+10D
540	Virginia	7D	1+10D	1+10D	1+10D
541	Oregon	7D	10D	7D	1+10D
559	California	7D	7D	1+10D	1+10D
561	Florida	7D	1+10D	10D	1+10D
562	California	7D	7D	1+10D	1+10D
570	Pennsylvania	7D	7D	1+10D	1+10D
571	Virginia	10D	1+10D	1+10D	1+10D
573	Missouri	7D	10D	1+10D	1+10D
580	Oklahoma	7D	10D	7D	1+10D
601	Mississippi	7D	1+10D	1+10D	1+10D
602	Arizona	7D	1+10D	10D	1+10D
603	New Hampshire	7D	7D	1+10D	1+10D
605	South Dakota	7D	1+10D	7D	1+10D
606	Kentucky	7D	1+10D	7D	1+10D
607	New York	7D	7D	1+10D	1+10D
608	Wisconsin	7D	1+10D	1+10D	1+10D
609	New Jersey	7D	7D	1+10D	1+10D
610	Pennsylvania	10D	10D	10D	1+10D
612	Minnesota	7D	1+10D	10D	1+10D
614	Ohio	7D	1+10D	1+10D	1+10D
615	Tennessee	7D	1+10D	7D	1+10D
616	Michigan	7D	1+10D	1+10D	1+10D
617	Massachusetts	7D	1+10D	10D	1+10D
618	Illinois	7D	1+10D	1+10D	1+10D
619	California	7D	7D	1+10D	1+10D
623	Arizona	7D	1+10D	10D	1+10D
626	California	7D	7D	1+10D	1+10D
630	Illinois	7D	1+10D	1+10D	1+10D
631	New York	7D	7D	1+10D	1+10D
636	Missouri	7D	10D	1+10D	1+10D
641	Iowa	7D	1+10D	10D	1+10D

DIALING PLANS FOR U.S. NPAs					
NPA	Location	Home NPA Local Calls	Home NPA Toll Calls	Foreign NPA Local Calls	Foreign NPA Toll Calls
646	New York	7D	7D	1+10D	1+10D
650	California	7D	7D	1+10D	1+10D
651	Minnesota	7D	1+10D	10D	1+10D
660	Missouri	7D	10D	1+10D	1+10D
661	California	7D	7D	1+10D	1+10D
662	Mississippi	7D	1+10D	1+10D	1+10D
670	CNMI	7D	1+10D	NA	1+10D
671	Guam	7D	1+10D	NA	1+10D
678	Georgia	10D	1+10D	10D	1+10D
682	Texas	10D	1+10D	10D	1+10D
701	North Dakota	7D	1+10D	7D	1+10D
702	Nevada	7D	1+10D	1+10D	1+10D
703	Virginia	10D	1+10D	1+10D	1+10D
704	North Carolina	7D	1+10D	7D	1+10D
706	Georgia	7D	1+10D	10D	1+10D
707	California	7D	7D	1+10D	1+10D
708	Illinois	7D	1+10D	1+10D	1+10D
712	Iowa	7D	1+10D	7D	1+10D
713	Texas	10D	1+10D	10D	1+10D
714	California	7D	7D	1+10D	1+10D
715	Wisconsin	7D	1+10D	1+10D	1+10D
716	New York	7D	7D	1+10D	1+10D
717	Pennsylvania	7D	7D	1+10D	1+10D
718	New York	7D	7D	1+10D	1+10D
719	Colorado	7D	1+10D	10D	1+10D
720	Colorado	10D	1+10D	10D	1+10D
724	Pennsylvania	7D	7D	1+10D	1+10D
727	Florida	7D	1+10D	10D	1+10D
732	New Jersey	7D	7D	1+10D	1+10D
734	Michigan	7D	1+10D	1+10D	1+10D
740	Ohio	7D	1+10D	1+10D	1+10D
757	Virginia	7D	1+10D	1+10D	1+10D
760	California	7D	7D	1+10D	1+10D
763	Minnesota	7D	1+10D	10D	1+10D
765	Indiana	7D	1+10D	7D	1+10D
770	Georgia	10D	1+10D	10D	1+10D
773	Illinois	7D	1+10D	1+10D	1+10D
775	Nevada	7D	1+10D	1+10D	1+10D
781	Massachusetts	7D	1+10D	10D	1+10D
785	Kansas	7D	10D	7D	1+10D

DIALING PLANS FOR U.S. NPAs					
NPA	Location	Home NPA Local Calls	Home NPA Toll Calls	Foreign NPA Local Calls	Foreign NPA Toll Calls
786	Florida	10D	1+10D	10D	1+10D
787	Puerto Rico	7D	1+10D	NA	1+10D
801	Utah	7D	1+10D	10D	1+10D
802	Vermont	7D	1+10D	1+10D	1+10D
803	South Carolina	7D	1+10D	1+10D	1+10D
804	Virginia	7D	1+10D	1+10D	1+10D
805	California	7D	7D	1+10D	1+10D
806	Texas	7D	1+10D	10D	1+10D
808	Hawaii	7D	1+10D	NA	1+10D
810	Michigan	7D	1+10D	1+10D	1+10D
812	Indiana	7D	1+10D	7D	1+10D
813	Florida	7D	1+10D	10D	1+10D
814	Pennsylvania	7D	7D	1+10D	1+10D
815	Illinois	7D	1+10D	1+10D	1+10D
816	Missouri	7D	10D	1+10D	1+10D
817	Texas	10D	1+10D	10D	1+10D
818	California	7D	7D	1+10D	1+10D
828	North Carolina	7D	1+10D	10D	1+10D
830	Texas	7D	1+10D	10D	1+10D
831	California	7D	7D	1+10D	1+10D
832	Texas	10D	1+10D	10D	1+10D
843	South Carolina	7D	1+10D	1+10D	1+10D
845	New York	7D	7D	1+10D	1+10D
847	Illinois	10D	1+10D	1+10D	1+10D
850	Florida	7D	1+10D	10D	1+10D
856	New Jersey	7D	7D	1+10D	1+10D
858	California	7D	7D	1+10D	1+10D
859	Kentucky	7D	1+10D	7D	1+10D
860	Connecticut	7D	1+10D	10D	1+10D
863	Florida	7D	1+10D	10D	1+10D
864	South Carolina	7D	1+10D	1+10D	1+10D
865	Tennessee	7D	1+10D	7D	1+10D
870	Arkansas	7D	1+10D	7D	1+10D
901	Tennessee	7D	1+10D	7D	1+10D
903	Texas	7D	1+10D	10D	1+10D
904	Florida	7D	1+10D	10D	1+10D
906	Michigan	7D	1+10D	1+10D	1+10D
907	Alaska	7D	1+10D	1+10D	1+10D
908	New Jersey	7D	7D	1+10D	1+10D
909	California	7D	7D	1+10D	1+10D

DIALING PLANS FOR U.S. NPAs					
NPA	Location	Home NPA Local Calls	Home NPA Toll Calls	Foreign NPA Local Calls	Foreign NPA Toll Calls
910	North Carolina	7D	1+10D	10D	1+10D
912	Georgia	7D	1+10D	10D	1+10D
913	Kansas	7D	10D	7D	1+10D
914	New York	7D	7D	1+10D	1+10D
915	Texas	7D	1+10D	10D	1+10D
916	California	7D	7D	1+10D	1+10D
917	New York	7D	7D	1+10D	1+10D
918	Oklahoma	7D	10D	7D	1+10D
919	North Carolina	7D	1+10D	10D	1+10D
920	Wisconsin	7D	1+10D	1+10D	1+10D
925	California	7D	7D	1+10D	1+10D
931	Tennessee	7D	1+10D	7D	1+10D
936	Texas	7D	1+10D	10D	1+10D
937	Ohio	7D	1+10D	1+10D	1+10D
940	Texas	7D	1+10D	10D	1+10D
941	Florida	7D	1+10D	10D	1+10D
949	California	7D	7D	1+10D	1+10D
952	Minnesota	7D	1+10D	10D	1+10D
954	Florida	7D	1+10D	10D	1+10D
956	Texas	7D	1+10D	10D	1+10D
970	Colorado	7D	1+10D	7D	1+10D
971	Oregon	10D	1+10D	10D	1+10D
972	Texas	10D	1+10D	10D	1+10D
973	New Jersey	7D	7D	1+10D	1+10D
978	Massachusetts	7D	1+10D	10D	1+10D
979	Texas	7D	1+10D	10D	1+10D

Attachment 4—NPA Exhaust Projection

NPA exhaust projections contained herein may change based on demand for numbering resources and will be modified or revised by the NANPA as new data becomes available and are analyzed. This analysis is taken from the original May, 2000 report and modified to reflect revisions issued through 1/15/01. The analysis is sorted by projected exhaust date.

* Code Data used for study as of 4/1/00.
** R = Relief date based upon rationing amount.
*** Capped = Overlaid NPA where the supply of NXX codes is exhausted. Codes are assigned if they become available.

2000 COCUS AND NPA EXHAUST ANALYSIS*								
Locality	-	NPA	2000 Projected Exhaust		1999 Projected Exhaust		+/-	Notes
Massachusetts	R	508	2000	2Q	2002	1Q	2	NPA exhausted
Texas	R	817	2000	3Q	2000	4Q	0	
Illinois		630	2000	4Q	2000	3Q	0	Pooling implemented 8/99
New Jersey	R	732	2000	4Q	2001	1Q	1	
Illinois		847	2000	4Q	2000	3Q	0	Pooling implemented 6/98; Forecast for 847 only
Georgia	R	678/770	2001	1Q	2000	4Q	-1	NPA 770 is capped**
Utah	R	801	2001	1Q	2001	1Q	0	
New Jersey	R	973	2001	1Q	2001	2Q	0	
Michigan	R	248	2001	2Q	2001	4Q	0	
Missouri	R	314	2001	2Q	2001	3Q	0	
Nebraska		402	2001	2Q	2000	4Q	-1	
Illinois		708	2001	2Q	2001	1Q	0	Pooling implemented 4/00
Michigan	R	810	2001	2Q	2000	4Q	-1	Relief planning suspended
New York		917	2001	2Q	2002	1Q	1	NPA 917 is capped. Codes are assigned if they become available Pooling planned for 8/01
Connecticut	R	203	2001	3Q	2001	2Q	0	
Washington		509	2001	3Q	2002	2Q	1	
New York		516	2001	3Q	2001	1Q	0	Pooling planned for 7/00
Michigan	R	517	2001	3Q	2004	3Q	3	Relief suspended
Arizona		520	2001	3Q	2001	3Q	0	
Massachusetts	R	781	2001	3Q	2001	3Q	0	
Puerto Rico	R	787	2001	3Q	2004	3Q	3	2.7X incr. in code growth rate
New York		914	2001	3Q	2000	1Q	-1	Impact of new relief code; Pooling planned for 4/01
Pennsylvania		215/267	2001	4Q	2003	1Q	2	NPA 215 is capped
Florida	R	305-A	2001	4Q	2001	3Q	0	Florida Keys only
California	R	310	2001	4Q	2000	3Q	-1	Pooling implemented 3/00; Relief planning suspended
Kansas		316	2001	4Q	2002	3Q	1	
Iowa		319	2001	4Q	2002	3Q	1	
Maryland	R	410/443	2001	4Q	2000	4Q	-1	NPA 410 is capped. Rationing effective 7/00
California		562	2001	4Q	2001	3Q	0	
New Hampshire	R	603	2001	4Q	2001	4Q	0	Pooling planned for 5/00
New Jersey		609	2001	4Q	2002	3Q	1	
Michigan	R	616	2001	4Q	2001	2Q	0	
Pennsylvania		724	2001	4Q	2002	1Q	1	
Tennessee	R	901	2001	4Q	2002	1Q	1	

2000 COCUS AND NPA EXHAUST ANALYSIS*								
Locality	-	NPA	2000 Projected Exhaust		1999 Projected Exhaust		+/-	Notes
North Carolina		919	2001	4Q	2002	2Q	1	
Massachusetts	R	978	2001	4Q	2001	4Q	0	
New Jersey	R	201	2002	1Q	2001	4Q	-1	
Texas		214/469/972	2002	1Q	2001	4Q	-1	
West Virginia		304	2002	1Q	2004	3Q	2	
Michigan		313	2002	1Q	2001	3Q	-1	
New York		315	2002	1Q	2001	1Q	-1	Pooling planned for 2/01
Ohio		419	2002	1Q	2001	3Q	-1	
Louisiana	R	504	2002	1Q	2001	3Q	-1	
Pennsylvania		570	2002	1Q	2002	1Q	0	
Michigan		734	2002	1Q	2001	2Q	1	Reflects return of codes and decreased monthly demand
Missouri		816	2002	1Q	2001	4Q	-1	
Connecticut	R	860	2002	1Q	2001	3Q	0	Reflects estimated impact of pooling implementation
Florida	R	904	2002	1Q	2002	2Q	0	
Canada		905	2002	1Q			NA	
Maryland		301/240	2002	2Q	2002	1Q	0	NPA 301 is capped
Illinois		312	2002	2Q	2002	1Q	0	Pooling implemented 6/99
Alabama		334	2002	2Q	2002	3Q	0	
Washington		425	2002	2Q	2002	3Q	0	
Tennessee		615	2002	2Q	2002	4Q	0	
Massachusetts	R	617	2002	2Q	2001	2Q	-1	NPA is exhausted
New York	R	718	2002	2Q	2001	4Q	-1	Pooling planned 4/00
Virginia		757	2002	2Q	2002	1Q	0	
Virginia	R	804	2002	2Q	2001	3Q	-1	
Illinois		815	2002	2Q	2003	2Q	1	
Maine		207	2002	3Q	2002	2Q	0	Pooling planned for 6/00
Indiana		317	2002	3Q	2002	2Q	0	
Rhode Island		401	2002	3Q	2001	1Q	-1	
Oklahoma		405	2002	3Q	2002	3Q	0	
Pennsylvania	R	412	2002	3Q	2002	1Q	0	
California	R	415	2002	3Q	2001	4Q	-1	Relief planning suspended; pooling planned for 7/00
Virginia	R	540	2002	3Q	2002	1Q	0	
Florida	R	561	2002	3Q	2002	4Q	0	
Pennsylvania	R	610/484	2002	3Q	2001	4Q	-1	
Ohio		614	2002	3Q	2002	2Q	0	
New York		631	2002	3Q	2004	2Q	2	Pooling planned for 6/01
Texas		713/281/832	2002	3Q	2002	3Q	0	
California	R	714	2002	3Q	2002	1Q	0	Relief planning suspended; pooling planned for 9/00
Illinois		773	2002	3Q	2002	1Q	0	Pooling implemented 10/99
New Jersey		856	2002	3Q	2002	3Q	0	

2000 COCUS AND NPA EXHAUST ANALYSIS*

Locality	-	NPA	2000 Projected Exhaust		1999 Projected Exhaust		+/-	Notes
Oklahoma		918	2002	3Q	2002	1Q	0	
Florida	R	954	2002	3Q	2002	3Q	0	
Wisconsin		262	2002	4Q	2005	2Q	3	
North Carolina		336	2002	4Q	2003	1Q	1	
Massachusetts		413	2002	4Q	2002	3Q	0	Reflects returned codes in mid-2000
Arkansas		501	2002	4Q	2002	4Q	0	
New Mexico	R	505	2002	4Q	2002	3Q	0	
Oregon	R	541	2002	4Q	2002	4Q	0	
Georgia		706	2002	4Q	2003	1Q	1	
Texas		903	2002	4Q	2002	2Q	0	
New Jersey		908	2002	4Q	2003	1Q	1	
California	R	909	2002	4Q	2002	4Q	0	Relief planning suspended; Pooling planned for 12/00
Texas		915	2002	4Q	2003	1Q	1	
Washington		206	2003	1Q	2002	2Q	-1	
Idaho		208	2003	1Q	2004	4Q	1	
Indiana	R	219	2003	1Q	2001	4Q	-2	
Kentucky		502	2003	1Q	2004	1Q	1	
Ohio	R	513	2003	1Q	2001	3Q	2	Decrease in average monthly demand
New York	R	516	2003	1Q	2002	3Q	-1	Pooling planned for 6/00
Mississippi		601	2003	1Q	2004	3Q	1	
Florida		941	2003	1Q	2002	4Q	-1	
Alabama		205	2003	2Q	2002	4Q	-1	
New York		212/646	2003	2Q	2002	2Q	-1	NPA 212 is capped; pooling planned for 4/01 in NPA 212 and 8/01 for NPA 646
Illinois		217	2003	2Q	2003	2Q	0	
Alabama		256	2003	2Q	2004	3Q	1	
California	R	650	2003	2Q	2002	3Q	-1	Relief planning suspended
New York		718/347	2003	2Q	2002	3Q	-1	NPA 718 is capped, pooling planned for 4/01 in NPA 347 and 8/01 for NPA 718
South Carolina		803	2003	2Q	2005	1Q	2	
South Carolina		843	2003	2Q	2003	1Q	0	
California	R	510	2003	3Q	2002	4Q	-1	Relief planning suspended
California	R	916	2003	3Q	2002	1Q	-1	
Delaware		302	2003	4Q	2004	3Q	1	
California	R	323	2003	4Q	2002	3Q	-1	
Florida		407/321	2003	4Q	2004	1Q	0	Increased average monthly demand
Texas	R	512	2003	4Q	2004	1Q	1	Pooling planned for 7/00
Kentucky		606	2003	4Q	2000	4Q	-3	Impact of new relief NPA
Pennsylvania		717	2003	4Q	2001	2Q	-2	
California	R	805	2003	4Q	2002	3Q	-1	
California	R	818	2003	4Q	2002	3Q	-1	
Wisconsin		920	2003	4Q	2004	1Q	0	Increase in average monthly demand
Ohio		937	2003	4Q	2004	4Q	1	
Washington		253	2004	1Q	2004	1Q	0	

2000 COCUS AND NPA EXHAUST ANALYSIS*

Locality	*	NPA	2000 Projected Exhaust		1999 Projected Exhaust		+/-	Notes
Mississippi		662	2004	1Q	2008	1Q	4	2X increase in code growth rate
Ohio		216	2004	2Q	2006	2Q	2	
Kentucky		270	2004	2Q	2005	3Q	2	
Georgia		404	2004	2Q	2004	1Q	0	
California	R	408	2004	2Q	2003	1Q	-1	Relief planning suspended
Tennessee		423	2004	2Q	2004	1Q	0	
Ohio		440	2004	2Q	2003	3Q	-1	
Minnesota		507	2004	2Q	2008	1Q	0	Reflects increase in average monthly demand
Canada		514	2004	2Q			NA	Relief will be req. in 4Q 2002 or 1Q 2003
California	R	760	2004	2Q	2002	4Q	-2	Rationing introduced
Indiana		765	2004	2Q	2002	4Q	-2	
Washington D.C.		202	2004	3Q	2004	2Q	0	
California	R	209	2004	3Q	2003	2Q	-1	
Colorado		303/720	2004	3Q	2003	3Q	-1	Decrease in average monthly demand
Florida		305/786	2004	3Q	2003	2Q	-1	
Oregon		503A	2004	3Q	2002	2Q	2	Coastal Counties only Decrease in average monthly demand
Canada		604	2004	3Q			NA	
Illinois		618	2004	3Q	2003	1Q	-1	
Wisconsin		715	2004	3Q	2004	4Q	0	
Pennsylvania		814	2004	3Q	2010	4Q	6	1.7X increase in code growth rate
Florida		850	2004	3Q	2004	2Q	0	
California	R	925	2004	3Q	2001	4Q	-3	
Louisiana		318	2004	4Q	2004	3Q	0	
California	R	530	2004	4Q	2002	4Q	-2	
Minnesota		612	2004	4Q	2009	1Q	5	1.8X increase in code growth rate
California		619	2004	4Q	2004	4Q	0	
North Carolina		252	2005	1Q	2007	3Q	2	
Montana		406	2005	1Q	2004	1Q	-1	Reflects decrease in average monthly demand
Missouri		417	2005	1Q	2005	1Q	0	
California	R	559	2005	1Q	2003	1Q	-2	
New York		607	2005	1Q	2006	3Q	1	Pooling planned for 6/01
Canada		613	2005	1Q			NA	
California	R	626	2005	1Q	2003	1Q	-2	
California	R	707	2005	1Q	2001	3Q	-4	Rationing introduced
Minnesota		763	2005	1Q			NA	New NPA
Indiana		812	2005	1Q	2003	3Q	-2	
North Carolina		910	2005	1Q	2003	4Q	-2	
Texas		210	2005	2Q	2004	1Q	-1	
California		661	2005	2Q	2003	3Q	-2	Decrease in average monthly demand.
Florida		727	2005		2009	3Q	4	Reflects increased average monthly demand
Michigan		231	2005	3Q	2003	1Q	-2	

2000 COCUS AND NPA EXHAUST ANALYSIS*

Locality	-	NPA	2000 Projected Exhaust		1999 Projected Exhaust		+/-	Notes
Texas		409	2005	3Q	2007	1Q	2	
South Carolina		864	2005	3Q	2005	2Q	0	
Florida		321-A	2005	4Q	2005	4Q	0	Brevard County only
Missouri		573	2005	4Q	2004	4Q	-1	
Wisconsin		606	2005	4Q	2009	2Q	4	1.7X Incr. in code growth rate
California		858	2005	4Q	2003	4Q	-2	Decreased average monthly demand
Kentucky		859	2005	4Q			NA	New NPA
Texas		936	2005	4Q			NA	New NPA
Texas		979	2005	4Q			NA	New NPA
Louisiana		337	2006	1Q	2005	2Q	0	
Canada		519	2006	1Q			NA	
Arizona		602	2006	1Q	2003	2Q	-3	Decreased monthly demand
Virginia		703/571	2006	1Q	2005	4Q	-1	
Canada		819	2006	1Q			NA	
North Carolina		828	2006	1Q	2011	4Q	5	Reflects increase in average monthly demand
California	R	949	2006	1Q	2002	4Q	-4	Decrease in code growth rate
California		213	2006	2Q	2002	3Q	-4	Decreased average monthly demand
Wisconsin		414	2006	2Q	2006	1Q	0	
Nevada		702	2006	2Q	2004	2Q	-2	Decrease in code growth rate
Kansas		785	2006	2Q	2007	2Q	1	
Hawaii		808	2006	2Q	2007	2Q	1	
Tennessee		865	2006	2Q	2005	4Q	-1	
Minnesota		952	2006	2Q			NA	New NPA
Oregon		503/971	2006	3Q	2007	2Q	1	
South Dakota		605	2006	3Q	2007	4Q	1	Reduction in available codes
Arkansas		870	2006	3Q	2016	4Q	10	1.4X Inc. in code growth rate
Alaska		907	2006	3Q	2006	1Q	0	
Texas		361	2006	4Q	2006	3Q	0	
Oklahoma		580	2006	4Q	2006	4Q	0	
Ohio		740	2006	4Q	2004	4Q	-2	
Nevada		775	2006	4Q	2003	1Q	-3	
Florida		813	2006	4Q	2006	4Q	0	
Vermont		802	2007	1Q	2011	1Q	4	Spike caused by single request for 98 codes
Texas		830	2007	1Q	2008	3Q	1	
Texas		956	2007	1Q	2007	1Q	0	
North Dakota		701	2007	2Q	2006	4Q	-2	Increase in available codes
Florida		863	2007	3Q	2009	3Q	-1	
Texas		940	2007	3Q	2012	1Q	5	1.7X incr. in code growth rate
California		442	2007	4Q			NA	New NPA
California		831	2007	4Q	2005	2Q	2	Decreased average monthly demand
Florida		352	2008	1Q	2008	1Q	0	

2000 COCUS AND NPA EXHAUST ANALYSIS*

Locality	-	NPA	2000 Projected Exhaust		1999 Projected Exhaust		+/-	Notes
Iowa	R	515	2006	1Q	2001	3Q	-7	Reflects reduction in monthly CO code demand resulting from additional COCUS input and analyses
Missouri		636	2006	1Q	2004	3Q	-4	Decrease in growth code rate
Colorado		970	2006	1Q	2007	4Q	-1	
Arizona		480	2006	2Q	2004	4Q	-3	Decreased monthly demand
North Carolina		704/980	2006	2Q	2001	3Q	-7	Impact of new relief NPA
Georgia		912	2006	3Q	2002	1Q	-6	Impact of new relief code
Kansas		913	2006	3Q	2006	1Q	-2	
Iowa		641	2006	4Q			NA	New NPA
Minnesota		651	2006	4Q	2006	4Q	0	
Canada		416/647	2009	1Q			NA	Overlay NPA 647 planned for March 2001; NPA 416 exhausting 3/01
Minnesota		218	2009	2Q	2013	1Q	4	1.4X incr. in code growth rate
New York		845	2009	2Q			NA	New NPA; pooling planned for 4/01
Tennessee		931	2009	2Q	2008	4Q	-1	
Ohio		330/234	2009	3Q	2001	2Q	-8	Introduction of relief NPA
Canada		403	2009	3Q			NA	
Colorado		719	2009	3Q	2009	4Q	0	Decreased average monthly demand
Louisiana		225	2009	4Q	2010	1Q	1	
Canada		250	2009	4Q			NA	
Illinois		309	2010	1Q	2010	1Q	0	
Washington	R	360	2010	2Q	2000	4Q	-10	Introduction of relief NPA
California		627	2010	2Q			NA	New NPA
Iowa		712	2010	2Q	2010	2Q	0	
Arizona		623	2010	3Q	2010	2Q	0	
Canada		418	2011	4Q			NA	
California		935	2012	2Q			NA	New NPA
Wyoming		307	2012	3Q	2012	3Q	0	
Canada		780	2012	3Q			NA	
California		369	2012	4Q			NA	New NPA
Utah		435	2012	4Q	2017	1Q	5	1.4X increase in code growth rate
Texas		806	2013	1Q	2010	1Q	3	
Michigan		906	2013	4Q	2013	4Q	0	
Canada		902	2015	3Q			NA	
Canada		204	2015	4Q			NA	
Mississippi		228	2015	4Q	2035	4Q	20	2.3X incr. in code growth rate
Canada		306	2016	1Q			NA	
Illinois		847/224	2016	2Q	2018	1Q	0	Pooling implemented 6/98
Texas		254	2017	2Q	2017	1Q	0	
Georgia		229	2019	2Q			NA	New NPA
Missouri		660	2020	1Q	2019	4Q	-1	
Canada		705	2020	3Q			NA	
Canada		450	2020	4Q			NA	
Canada		506	2021	2Q			NA	

2000 COCUS AND NPA EXHAUST ANALYSIS*								
Locality	-	NPA	2000 Projected Exhaust		1999 Projected Exhaust		+/-	Notes
Canada		709	2021	3Q			NA	
Georgia		478	2022	2Q			NA	New NPA
Minnesota		320	2023	4Q	2018	4Q	-5	Decrease in code growth rate
Nebraska		308	2032	1Q	2032	4Q	0	
U.S. Virgin Islands		340	2148	4Q	NA		NA	
Guam		671	2173	4Q	2173	4Q	0	
CNMI		670	2307	2Q	2307	1Q	0	
Canada		807					NA	807 is not projected to exhaust before 2021
Canada		867					NA	867 is not projected to exhaust in 2021

Attachment 5—Where to Find Numbering Information

Virtually all of the key numbering documents are available on the world wide web. Here are some of the most useful official sites.

www.nanpa.com

Nanpa.com is the official NANPA web site. Its contents include:

- Assignment listings for NANP numbering resources, including area codes, carrier identification codes, N11 codes, vertical service codes.
- Relief planning information for the U.S. and its territories, including a status chart, planning letters, and press releases.
- Central office code assignment information for the U.S. and its territories.
- Contact information for numbering resources.
- Jeopardy procedures.
- Information for NRUF submissions.
- U.S. area code maps.

www.cnac.ca

cnac.ca is the Canadian Numbering Administrator's site. It is the master reference for Canadian number assignment information and includes Canada-unique information similar to that provided by nanpa.com.

www.fcc.gov

Two sections of the FCC's web site are of particular interest:

1. www.fcc.gov/ccb is the home page of the Common Carrier Bureau. Here you will find orders related to numbering topics, including the NRO orders.
2. www.fcc.gov/ccb/Nanc/ is the home page for the North American Numbering Council (NANC), a federal advisory committee of the FCC that provides analysis and recommendations to the FCC on numbering issues. Here you will find their charter, meeting minutes, and membership lists.
3. www.nanc-chair.org is the home page for the Chair of the NANC. At this site, you can find presentations and reports provided to the NANC on issues currently being addressed by the Council.

www.crtc.gc.ca

This is the site for the Canadian Radio-television and Telecommunications Commission, the Canadian equivalent of the FCC.

www.atis.org

This is the Alliance for Telecommunications Industry Solutions site. It has several sections of interest for numbering.

www.atis.org/atis/clc/inc/inchom.htm is the home page of the Industry Numbering Committee. It lists the various subgroups active within INC, and provides access to their meeting records and contributions. Here you will find links to:

1. INC documents, where you can find all of the assignment guidelines for numbering resources.

2. INC working documents, where you will find documentation on, for example, what alternatives the industry is considering when we run out of 10-digit telephone numbers.

www.trainfo.com

This is the home page for Telcordia Traffic Routing Administration. Here you can download the NPA NXX Activity Guide (NNAG), an invaluable document for those who administer PBXs and other customer premise equipment.

www.itu.int

This is the home page of the International Telecommunications Union in Geneva, the group that sets international standards for telephone numbers. Although much of the information on the site is available to ITU members only, some documents are available to all, including a recent list of assigned country codes.

www.naruc.org

This is the home page of the National Association of Regulatory Utility Commissioners. NARUC and its committees frequently take positions on numbering issues. At this site you can find links to all of the state commissions' web sites. ■


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