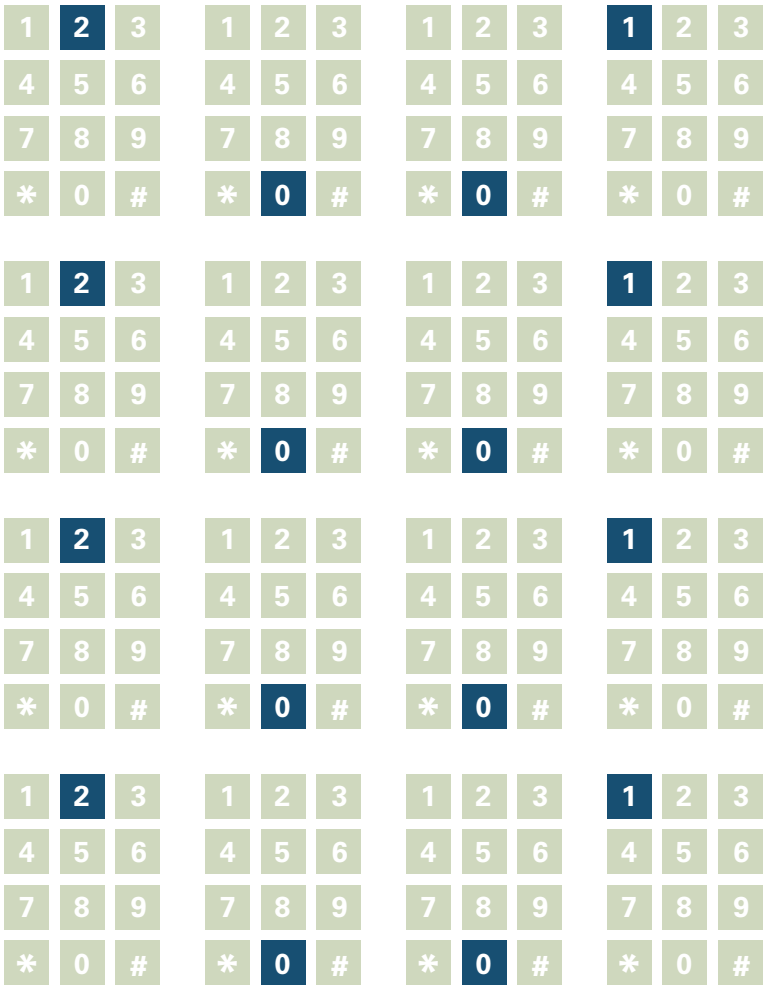
NANPA
2001 annual report



NANPA
North American Numbering Plan Administration

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All,

It is with great pleasure that NeuStar, Inc., submits the 2001 North American Numbering Plan Administration (NANPA) Annual Report. This fourth annual report covers NANPA activities from January 1 – December 31, 2001.

In this year's report, we 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 2001. We hope that you 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.

We understand the critical nature of the service that NANPA provides to the telecommunications industry. As we at NeuStar begin our fifth year as the NANPA, let me reiterate that NeuStar is committed to providing high-quality, neutral third-party administration of the NANPA. I promise you that we will work hard to maintain the trust you have placed in us.

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,

Jeffrey Ganek
Chairman and CEO
NeuStar, Inc.

Table of contents

The North American Numbering Plan 1
- History 1
- NANP administration 1
- NANPA funding 1

The NANPA organization 3

Code administration 4
- Resource report: NPA codes 4
- Resource report: Central office codes 8
- Resource report: 500-NXX codes 12
- Resource report: 900-NXX codes 13
- Resource report: N11 codes 13
- Resource report: 555 line numbers 13
- Resource report: Carrier identification codes 13
- Resource report: 456-NXX codes 15
- Resource report: 800-855 numbers 15
- Resource report: ANI II digits 15
- Resource report: Non-dialable toll points 15
- Resource report: Vertical service codes 16

Relief planning 17

NRUF 20

Other NANPA services 21
- Mandatory enterprise service 21
- NANPA's other enterprise service 21
- Web site 21
- INC participation 22
- Support for other NANP countries 22
- Support for the FCC and the states 22

Attachments 25
- 1 – NPAs by location 25
- 2 – NPAs by number 30
- 3 – Non-geographic NPAs 35
- 4 – NPA inventory 36
- 5 – Dialing plans 37
- 6 – NPA exhaust projections 45
- 7 – NANP exhaust projections 54
- 8 – Where to find numbering information 58
- 9 – NANP country contacts 59

The North American Numbering Plan

History

AT&T developed the North American Numbering Plan (NANP) in 1947 to simplify dialing of long distance calls. NANP telephone numbers are ten digits in length – a three-digit area code[1] followed by a seven-digit local number.

The NANP is an integrated numbering plan and serves the needs of 19 North American countries that share its resources. Regulators in each of the participating countries have plenary numbering authority, but share the resources cooperatively. This approach has been successful for more than fifty years.

NANP administration

AT&T administered shared numbering resources such as area codes until divestiture. In 1984, the functions of NANP Administration, called 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. On December 1, 1999, CIS became an independent company called NeuStar, Inc. NeuStar's term as NANPA will continue through November 22, 2002.

Regulators have named national administrators to oversee the numbering resources assigned by NANPA for each country's use. NeuStar is the national administrator for the United States (U.S.) and its territories. In Canada, Science Applications International Corp. (SAIC) Canada serves as the Canadian Numbering Administrator. In other countries participating in the NANP, regulators either serve as national administrator or delegate the responsibility to a dominant carrier. NANPA, in its overall coordinating role, consults with and provides assistance to regulators and national administrators to ensure that numbering resources are used in the best interests of all participants.

NANPA is not a policy-making group. In making assignment decisions, NANPA follows regulatory directives and industry-developed guidelines. NANPA's responsibilities are defined in the FCC's rules and in the North American Numbering Plan 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.

NANPA funding

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 fourth year of NeuStar's tenure as NANPA, which corresponds roughly to the period covered by this report, NeuStar received monthly payments of approximately $421,666.

NANPA costs associated with administering resources shared by all NANP participants are allocated to participating countries based on population, and then further adjusted based on NANPA services used by each country. 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.

[1] The formal term is "numbering plan area (NPA) code." In this report the terms "area code" and "NPA code" are used interchangeably.

The NANPA organization

This section of the annual report identifies NANPA senior management and lists NANPA's dependencies on other parts of the NeuStar organization. Contact information can be found on the NANPA web site, www.nanpa.com.

Ron Conners is the director of NANPA. Ron reports to Chris Walker, Vice President of Operations. NANPA consists of three functional areas:

1. Code Administration serves as the steward for the numbering resources that NANPA administers. Sandy Tokarek is the Regional Director for Code Administration.
2. Relief Planning helps the industry and regulators to develop and implement NPA relief plans. Jim Deak is the Regional Director for Relief Planning.
3. 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 NRUF.

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 addition, they publish the "NANPA 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 (CAS) described later in this report, maintenance of the NANPA web site, and 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 success.

- John Manning serves as product manager for NANPA, and represents NANPA at the NANC and the FCC.
- Cathy Handley serves as NeuStar's liaison to the numbering work in International Telecommunications Union (ITU) Study Group 2, and keeps NANPA informed as appropriate.
- Brent Struthers and his regulatory group assist NANPA to communicate with and be responsive to the needs of state commissions.
- Geographic Data Technology, a New Hampshire company not related to NeuStar, supplies area code maps for use in relief planning meetings and on the NANPA web site.

Code administration

Overview

Contact: Sandy Tokarek, 925-363-8701

Code administration is located in Concord, California and Washington, D.C. Administration includes receiving and processing applications for code 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;
- PCS/N00 codes (500-NXX);
- 900-NXX codes;
- N11 codes;
- 555-XXXX line numbers;
- Carrier identification codes (CICs);
- International inbound NPA 456-NXX codes;
- 800 855-XXXX line numbers;
- ANI II digits (Automatic Number Identification Information Integers);
- Non-dialable toll points; and
- Vertical service codes.

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.

As of December 31, 2001, 302 geographic NPA codes were in service in the area served by the NANP. Of these codes, 262 serve the U.S. and its territories, 23 serve Canada, and the remaining 17 serve Bermuda and the Caribbean islands participating in the NANP.

Some NPA codes designate services (for example, toll-free calling) rather than geographic areas. These codes are called non-geographic codes. Normally, NPA codes ending in a repeating digit (for example, 800, 422, 577), called "easily recognizable codes," are used to identify services. Currently 13 such codes are in service. No new non-geographic NPA codes were added in 2001.

Attachments 1 and 2 to this annual report are tables of geographic NPA codes currently in service, sorted by location and by number. Attachment 3 lists the non-geographic NPA codes in service.

2001 Activities

NANPA received 22 requests for NPA code assignments in 2001, resulting in 20 new assignments and two denials. The denials resulted from relief plans not in conformance with the assignment guidelines. All of the codes assigned, 1 for Canada and 19 the U.S., were for geographic use.

In 2001, 26 new NPA codes were introduced[2], 3 in Canada and 23 in the U.S., as shown in Table 1. All of the new NPA codes were geographic. Of the new NPA codes, 12 were introduced through area code splits, and 14 were introduced through full-service overlays.

As of December 31, 2001, 48 assigned NPA codes were not yet in service. These codes are listed in Table 2.

Overlays

In an overlay, two or more NPA codes serve the same geographic area. The term "overlay complex" describes the list of NPA codes included in the overlay. All of the overlays in service today are full-service overlays; that is, numbers in the overlay code(s) are not restricted to any specific service or services. Fourteen new overlays were introduced in 2001. Table 3 lists the overlay complexes in service as of December 31, 2001.

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. Key variables in determining a dialing pattern are 1) whether or not the call originates and terminates in the same NPA, 2) whether the call is a local or toll call, and 3) whether the call requires special handling (e.g., credit card, third-party billing, or operator assistance).

In the U.S., dialing plans vary from state to state and from NPA to NPA. Basic dialing plans for U.S. NPAs are listed in Attachment 5 to this annual report. Note, however, that dialing patterns within an NPA may vary according to service provider capabilities. In addition, in many areas where NPA boundaries split local interest areas, state commissions have

[2]"Introduced" or "in service" means that the new codes were activated in the Public Switched Telephone Network (PSTN), and calls can be successfully routed to numbers in these codes.

mandated seven-digit dialing across NPA boundaries and even across state lines.

Some dialing patterns are "almost" standard. Local calls originating and terminating in the same NPA are usually dialed as seven digits, omitting the area code, except in overlay NPAs where the area code must be dialed. Toll calls originating in one NPA and terminating in another are usually dialed as "1" followed by the ten-digit number. Special handling calls are always dialed as "0" followed by the ten-digit number.

Most of the variance in basic dialing plans involves toll calls originating and terminating in the same NPA (usually referred to as home NPA toll calls) and local calls originating in one NPA and terminating in another (usually referred to as foreign NPA local calls). In some states, the prefix "1" is considered to be a toll indicator. In these states, home NPA toll calls are usually dialed as "1" followed by the ten-digit number, and foreign NPA local calls are dialed using the ten-digit number without a prefix. In other states, the prefix "1" is used to indicate that a ten-digit number will follow. In those states, home NPA toll calls are dialed using just the seven-digit local number, and foreign NPA local calls are dialed as "1" followed by the ten-digit number.

Table 1 – New NPAs introduced in 2001

NPA	Location	Country	In service date	Overlay	Parent	Planning letter(s)
620	Kansas	US	2/3/2001	No	316	245
731	Tennessee	US	2/12/2001	No	901	247
985	Louisiana	US	2/12/2001	No	504	302 242
386	Florida	US	2/15/2001	No	904	260 252
647	Ontario	CANADA	3/5/2001	Yes	416	218
563	Iowa	US	3/25/2001	No	319	253
980	North Carolina	US	4/1/2001	Yes	704	258 256 229 204
989	Michigan	US	4/7/2001	No	517	251 244 226 212
339	Massachusetts	US	5/2/2001	Yes	781	234
351	Massachusetts	US	5/2/2001	Yes	978	234
857	Massachusetts	US	5/2/2001	Yes	617	234
774	Massachusetts	US	5/2/2001	Yes	508	234
434	Virginia	US	6/1/2001	No	804	257
289	Ontario	CANADA	6/9/2001	Yes	905	v. *www.cnac.ca*
251	Alabama	US	6/18/2001	No	334	254
928	Arizona	US	6/23/2001	No	520	268
754	Florida	US	8/1/2001	Yes	954	291
878	Pennsylvania	US	8/17/2001	Yes	412	281 222
276	Virginia	US	9/1/2001	No	540	285 275
939	Puerto Rico	US	9/15/2001	Yes	787	293 259 236
586	Michigan	US	9/22/2001	No	810	282 273 265 221 192
778	British Columbia	CANADA	11/3/2001	Yes	604	246
585	New York	US	11/15/2001	No	716	278 270
551	New Jersey	US	12/29/2001	Yes	201	277
848	New Jersey	US	12/29/2001	Yes	732	277
862	New Jersey	US	12/29/2001	Yes	973	277

Table 2 – Assigned NPA codes not yet in service December 31, 2001

NPA	Location	Country	Anticipated In-Service Date	Parent	Status[3]	Planning Letter(s)
224	Illinois	US	1/5/2002	847		305 157 127
227	Maryland	US		240	Pending	
239	Florida	US	3/11/2002	941		307
260	Indiana	US	1/15/2002	219		309 296
269	Michigan	US	7/13/2002	616		294
283	Ohio	US	6/29/2002	513		286 264
331	Illinois	US		630	Pending	195
341	California	US		510	Suspended	206 190
369	California	US		707	Suspended	238 210
380	Ohio	US	10/21/2002	614		297 290
385	Utah	US	3/30/2003	801		308 248 231
424	California	US		310	Pending	250 125
438	Quebec	CANADA	6/7/2003	514		315
442	California	US		760	Suspended	238 194
445	Pennsylvania	US		215	Pending	274 267 237
464	Illinois	US		708	Pending	195
470	Georgia	US		678	Pending	269
475	Connecticut	US		203	Pending	255 217
479	Arkansas	US	1/19/2002	501		302 295
557	Missouri	US		314	Suspended	303 279 261
564	Washington	US		360	Suspended	298 239 196
567	Ohio	US	1/1/2002	419		249
574	Indiana	US	1/15/2002	219		309 296
575	New Mexico	US	3/3/2002	505		292
627	California	US		707	Suspended	238 210
628	California	US		415	Suspended	206 191
657	California	US		714	Suspended	206 169
659	Alabama	US		205	Cancelled	289 284
667	Maryland	US		443	Pending	299 266
669	California	US		408	Suspended	206 149
679	Michigan	US		313	Pending	227 209
737	Texas	US		512	Suspended	276 233
747	California	US		818	Suspended	
752	California	US		909	Suspended	206 189

Table 2 – Assigned NPA Codes Not Yet In Service December 31, 2001 (Continued)

NPA	Location	Country	Anticipated in-service Date	Parent	Status[3]	Planning letter(s)
764	California	US		650	Suspended	206 193
772	Florida	US	2/11/2002	561		311
822	(toll-free code)			800		214
833	(toll-free code)			800		214
835	Pennsylvania	US		484	Pending	274 267 237
844	(toll-free code)			800		214
855	(toll-free code)			800		197
872	Illinois	US		312	Pending	195
935	California	US		619	Suspended	230 128
947	Michigan	US	6/8/2002	248		283 227 209
951	California	US		909	Suspended	215 206 189
959	Connecticut	US		860	Pending	255 217
975	Missouri	US		816	Suspended	304 280 262
984	North Carolina	US		919	Suspended	306 271

[3]"Suspended" indicates that the state commission has suspended relief. "Pending" indicates that the state commission is monitoring the supply of available numbers closely, and will determine an introduction date in time to preclude exhaust.

Table 3 – Overlay complexes Overlays introduced in 2001 in italics.

Location	Overlay complex
British Columbia	*604-778*
Colorado	303-720
Florida	305-786
Florida	407-321
Florida	*954-754*
Georgia	404-770-678
Maryland	301-240
Maryland	410-443
Massachusetts	*508-774*
Massachusetts	*617-857*
Massachusetts	*781-339*
Massachusetts	*978-351*
New Jersey	*201-551*
New Jersey	*732-848*
New Jersey	*973-862*

Location	Overlay complex
New York	212-646-917
New York	718-347
North Carolina	*704-980*
Ohio	330-234
Ontario	*416-647*
Ontario	*905-289*
Oregon	503-971
Pennsylvania	215-267
Pennsylvania	610-484
Pennsylvania	*412-724-878*
Puerto Rico	*787-939*
Texas	214-469-972
Texas	713-281-832
Texas	817-682
Virginia	703-571

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.

NANPA administers geographic central office codes in the U.S. and its territories. The Canadian Numbering Administrator 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 110,000 assigned central office codes in the U.S. and its territories and, in 2001, processed more than 47,000 requests for additional assignments or changes to existing assignments. In the process, NANPA works closely with Telcordia™ Routing Administration (TRA) to ensure that the necessary rating and routing information is available to the industry.

Service providers obtain numbers for their customers by applying for and receiving central office code assignments, each with 10,000 associated numbers, in the areas they serve.

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 Alliance for Telecommunications Industry Solutions (ATIS) web site, at http://www.atis.org/atis/clc/inc/incdocs.htm.

The multi-part code application form may be found on the ATIS web site. The applicant submits an application ("Part 1") to NANPA, who then has 10 working days to process the application and inform the applicant ("Part 3") of the disposition of the application. If an assignment is made, the assignee or its designee enters rating and routing information ("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 ("Part 4") that the process is complete. If a Part 4 is not received, NANPA, as directed by state regulators or the FCC, will begin procedures to reclaim the code.

Among regulators, number conservation has been a major theme over the last several years. In a series of orders known as the Number Resource Optimization (NRO) orders, the FCC established more stringent criteria for the assignment of initial and growth central office codes in the U.S. and its territories.

Central office code activity

Central office code assignment activity during 2001 is shown in the table below.

The rows in the table should be interpreted as follows:

Assignments—Applications that resulted in the assignment of a new central office code.

Changes—Applications that resulted in a change in the information associated with a code assignment, for example, the Operating Company Number (OCN) or switch.

Denials—Applications not meeting the criteria for assignment as prescribed by the Central Office Code Assignment Guidelines.

Cancelled —Applications cancelled or withdrawn by the applicant.

Disconnects—Applications requesting return (disconnection) of an assigned code.

Reservations—Applications requesting and receiving a code reservation.

Suspensions—Prior to August, applications containing incomplete or inconsistent data were suspended. In reality, the suspension was equivalent to a denial, and included in that category in August and after.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Assignments	959	817	1,319	754	1,358	1,024	768	734	610	836	617	602
Changes	1,414	1,922	3,660	1,541	1,757	1,589	981	1,124	937	1,008	1,133	1,337
Denials	841	1,412	1,333	839	1,392	1,087	831	787	891	763	465	468
Cancelled	104	64	89	37	73	73	73	132	38	92	70	109
Disconnects	789	361	575	334	556	430	750	363	498	398	627	377
Reservations	0	0	0	0	0	1	0	0	0	5	0	0
Suspensions	266	14	4	9	7	20	36	0	0	0	0	0
Total Processed	**4,373**	**4,590**	**6,980**	**3,514**	**5,143**	**4,224**	**3,439**	**3,140**	**2,974**	**3,102**	**2,912**	**2,893**

Central office code administration quality measurements

Central office code administration quality results for 2001 are summarized in the table below. A detailed description of the quality measurements is as follows.

The table shows three primary measurements of central office code administration work quality:

1. **Application processing**—NANPA is required to process central office code applications within ten business days. The table shows the percentage of applications processed within ten days, the number of applications exceeding the ten-day period, and, for those applications requiring more than ten days, the "average number of days late." The results in the table above show a clear improvement during the second half of 2001.
2. **Code conflicts**—In many areas of the U.S., tariffs allow non-standard dialing arrangements, typically seven-digit dialing of calls across area code boundaries. This practice limits the choice of codes that can be assigned for use in these areas. If the administrator assigns a code that will not work, a "code conflict" occurs. Code conflicts are discussed in more detail later in this report.
3. **Telephone calls**—Code administrators are required to return telephone calls no later than the end of the next business day. The table shows the percentage of telephone calls returned during the required period along with the "average days late" for calls returned outside of the required period.

The Customer Satisfaction Survey is another technique used to assess the quality of customer service provided by the code administrators. Once during each quarter, each applicant who has filed an application during that quarter is invited to fill out a survey and return it to NeuStar's quality assurance group. Note that the survey was not conducted during the fourth quarter to avoid conflict with the annual NOWG survey.

Results of the survey are shown in the table below. In all, 1,041 surveys were distributed, and NANPA received 334 responses from 121 companies. Respondents were requested to rate their satisfaction with code administration on a scale of 1-5, with 5 indicating "very satisfied."

Code Administration Customer Satisfaction Survey Results

	1Q–2001	2Q–2001	3Q–2001
Responses received	84	184	66
Survey results (Avg.)	4.82	4.45	4.66

Respondents were asked to rate NANPA on courtesy, responsiveness, knowledge of code assignment guidelines and overall service quality. Overall, 94% of respondents were "satisfied" or better with CO Code Administration services, while 6% were "less than satisfied" or "dissatisfied."

Approximately 42% of respondents provided comments. Positive comments typically identify NANPA representatives as being very helpful, courteous and efficient, and often single out individual code administrators for praise. The most frequent suggestions for improvement ask NANPA to:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Percentage of central office code applications processed in 10 days	98.7	99.5	100.0	97.0	98.6	99.5	99.7	99.9	100.0	99.9	99.9	99.8
Number of applications exceeding 10 days	52.0	23.0	0.0	93.0	71.0	18.0	10.0	3.0	0.0	1.0	1.0	4.0
Average days late for applications exceeding 10 days	6.7	11.4	0.0	1.2	1.1	1.3	2.8	1.0	0.0	6.0	7.0	2.5
Percent of central office codes assigned without code conflict	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of code conflicts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent of calls returned by end of next business day	99.9	100.0	99.9	100.0	99.6	100.0	100.0	99.9	100.0	100.0	100.0	100.0
Average days late for telephone calls returned late	1.0	0.0	3.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0

- Shorten the 10 working day response time specified in the guidelines.
- Offer training to customers and provide clear communication of industry and FCC guidelines and requirements. (NANPA already provides this information on the web site and has added a new "code-admin" electronic mailing list to distribute this type of information to code administrators.)
- Maintain interconnect agreements and certification documents on-file so that they do not have to be submitted with each application. (The FCC requires that the documentation be submitted with each application.)

NeuStar's Quality Assurance Group and NeuStar's upper management meet monthly to review quality results, explanations when objectives were not met, and corrective actions taken. The quality results are also reviewed monthly with the NOWG.

Challenges in 2001

Central office code administration faced a number of challenges in 2001.

Disconnected codes with ported numbers—One of NANPA's most difficult challenges in 2001 has been the disposition of central office codes assigned to carriers that no longer provide service or plan to discontinue service. In order to shut down service, carriers must file Part 1 disconnect requests with NANPA 66 days prior to the date on which they intend to dismantle their networks. During the 66-day period, NANPA processes the application, the disconnect notice is published in the LERG, and carriers schedule the required changes to their switches.

Local number portability has made the process more complex. Codes assigned to carriers exiting business may contain numbers that have been ported to other service providers. If this has occurred, the code cannot simply be disconnected because the disconnect would remove the default routing path, causing some calls to the ported numbers to fail. To avoid this possibility, the procedure for processing disconnect Part 1s has been modified. In the modified procedure, NANPA first requests a report from the Number Portability Administration Center (NPAC) to determine whether any numbers have been ported from the codes to be disconnected. If porting has occurred, NANPA attempts to find a new "LERG assignee" for the codes by contacting each of the carriers to which numbers have been ported. The new LERG assignee agrees to provide the default routing path.

In reality, things are seldom as simple as described above. Here are some of the complicating factors:

- Some carriers have torn down their networks without returning their assigned codes.
- Once the decision is made to discontinue service, carriers are reluctant to maintain their switches for the required 66-day period.
- Some carriers have allowed numbers to be ported from their codes after the Part 1 disconnect is filed with NANPA. If there are no ports at the time NANPA requests the report from NPAC, the code will be disconnected normally, and default routing for later ports will be lost.
- The process of finding a new LERG assignee has proved to be complex, primarily because many of the carriers contacted are reluctant to take on the responsibility, and NANPA has been unsuccessful in finding a new LERG assignee in more than half of the cases processed to date.
- The new LERG assignee must submit a Part 1 to establish a new default routing path, which in turn takes 66 days to be effective. If the disconnect occurs before the new LERG assignee effective date, default routing will be lost for the period of time between the disconnect date and the new LERG assignee effective date.

Clearly, this problem will continue to be a major issue in 2002. NANPA will continue to work the carriers and regulators to find effective ways of dealing with these problems.

The FCC's Number Resource Optimization (NRO) orders—The FCC's second NRO order, released in late December 2000 provided more detailed information on mandated changes to the central office code application process for both initial and growth codes. An INC working group, co-chaired by NANPA, developed a document to assist carriers who apply for codes in complying with the FCC's more stringent requirements. This document is posted to the NANPA web site.

Additionally, the FCC's Second Report and Order requires carriers to reach an initial 60% utilization in the codes already assigned to them before they can apply for additional growth codes. The utilization threshold will be increased by 5% on June 30, 2002, and annually thereafter, until the utilization threshold reaches 75%. Some state commissions continue to use a higher utilization threshold, permissible as long as it does not exceed the FCC's established ceiling of 75%.

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. At the end of 2001, 52 NPAs were in jeopardy. 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. Jeopardy 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. The INC approved standard interim jeopardy procedures in 2001, and standard final jeopardy procedures are currently in development.

In 2001, NANPA was requested to schedule the re-opening of 28 jeopardies to resolve imminent exhaust, despite opposition from regulators and the industry. In some cases, imminent exhaust put additional stringent requests on service providers who applied for additional resources. In the face of delegated authority, regulators asserted their authority to regulate rationing after relief of the NPA. The requested meetings were postponed.

Reclamation—When a central office code is assigned, the assignee establishes an effective date subject to certain restrictions. 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 and may be subject to reclamation. The NRO order delegated reclamation authority to the states, if they wished to exercise it, and 32 states have opted to do so. The FCC controls reclamation of delinquent codes assigned for use in other states. The NANPA web site provides detailed descriptions of the reclamation process.

To measure the effectiveness of its reclamation activities, NANPA monitors the percentage of delinquent codes on which it begins reclamation, along with the number of codes recovered each month. The data for 2001 is summarized in the table below.

The code administration system (CAS)

For many years the process of applying for Central Office code assignment required the applicant to fill out forms and mail or fax them to NANPA. All that changed on October 22, 2001, when the next generation of the NANPA Code Administration System (CAS) became available for general use.

Code applicants can now submit Part 1s, Months-to-Exhaust (MTE), and Part 4s through a secure, web-based system. CAS automatically populates fields in the forms wherever possible, simplifying data entry. CAS validates many of the fields on the forms, catching and correcting errors before the forms are submitted. CAS allows applicants to save partially completed forms as templates for later use. CAS will track submitted forms, allowing applicants to determine the status of their requests. Many service providers have responded very positively to CAS. As of the end of 2001, approximately one third of new applications were being submitted through CAS. The remaining applications were submitted through the traditional methods – fax and mail.

CAS documentation is available through the NANPA web site.

Reports

NANPA's reports manager prepared more than 71 ad-hoc reports during 2001, covering approximately 66 NPAs. In addition, the reports manager prepared and distributed scheduled reports on a bi-weekly, monthly, and quarterly basis. Most of these reports were for regulatory or quasi-regulatory bodies—FCC, state commissions, consumer advocacy groups. The remaining reports were generated to assist in the relief planning process.

Improving operations

The 2000 performance review conducted by NOWG identified areas for improvement. Additional areas were included in our 2000 annual report. These areas are discussed below.

Consistency—Each of NANPA's code administrators processes applications from different states. It is a challenge to ensure that all administrators are consistent in applying the guidelines and rules in processing central office code applications.

To meet this challenge, a methods and procedures senior code administrator position was established. Key responsibilities of this position include ongoing development and maintenance of common methods and procedures, resolving difficult issues arising in any of the states, and updating the CAS user guide on the web site.

In addition, the central office code administrators continue to 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 tariffs permit seven-digit dialing across area code boundaries. This practice complicates choosing new central office codes

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Reclamation begun on delinquent codes (%)	99.6	99.4	99.7	96.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6
Codes recovered	151	52	168	238	273	189	156	99	166	161	161	184

to assign in these areas. The administrator must ensure that any code chosen is not already assigned in the:

- Home area code, or
- The area within the foreign area code to which seven-digit dialing is permitted, or
- The 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.

If 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 in code administration.

Given the gravity of this issue, avoiding code conflicts has been one of NANPA's key objectives. Because it would be difficult for the administrators to perform the checks required manually, conflict checking has been built into the CAS system.

Resource report—500-NXX codes

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/inc-docs.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.

Assignment and reclamation activity in 2001 is shown in the table below.

In 2001, NANPA assigned 127 new 500-NXX codes, and 177 codes were returned or reclaimed. At year end, 479 500-NXX codes were assigned.

Using 500-NXX utilization data provided in the August NRUF, NANPA was successful in reclaiming or encouraging the return of 177 500-NXX codes during 2001.

On average, 10.5 500-NXXs were assigned each month in 2001. At this rate, the remaining assignable codes will exhaust in 43.3 months (mid-2005).

500 NXX activity in 2001

Month	Assigned	Reclaimed/ returned codes	Applications denied	Applications withdrawn
January	30	0	0	0
February	34	13	0	0
March	0	13	0	0
April	30	15	0	0
May	0	0	9	0
June	30	9	1	0
July	1	89	3	0
August	0	14	0	0
September	0	5	1	0
October	1	3	0	0
November	0	16	0	0
December	1	0	1	0
Total	**127**	**177**	**15**	**0**

NANPA continues to provide update/reclamation/new assignment information to TRA for inclusion in the Local Exchange Routing Guide (LERG).

NANPA also solicits trouble reporting contact information for 500-NXX assignments and forwards the information to the Network Interconnection Interoperability Forum (NIIF) as required.

Resource report—900-NXX codes

Contact: Nancy Fears, 202-533-2653

At the end of 2001, 228 900-NXX codes were assigned. Only one new code was assigned during the year.

2001 was an active year for 900-NXX reclamation. Using 900-NXX utilization data provided in the August Number Resource Utilization Forecast (NRUF), 84 900-NXX codes were reclaimed or returned.

NANPA continues to provide update/reclamation/new assignment information to TRA for appropriate changes to the LERG. NANPA also solicits trouble reporting contact information for 900-NXX assignments and forwards the information to the NIIF as required.

Resource report—N11 codes

Contact: Ron Conners, 202-533-2650

Shown in the following table, 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 the administrator for the N11 codes; but that responsibility has been assumed by the FCC in the U.S. There was no N11 assignment activity in 2001.

N11 code assignments

N11 Code	Description
211	Community information and referral services (US)
311	Non-emergency police and other governmental services (US)
411	Local directory assistance
511	Traffic and transportation information (US); reserved (Canada)
611	Repair service
711	Telecommunications relay service (TRS)
811	Business office
911	Emergency

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.

A total of 773 555 line numbers were assigned during 2001. At the end of 2001, 7,285 555 line numbers were assigned for national use, 288 were assigned for non-national use, 116 remained "in dispute," and 100 were reserved. There remain 2,210 555 line numbers available for assignment.

After review of 555 line number reclamation policy in 2001, the INC reached consensus that reclamation authority should rest with the appropriate regulatory bodies (the FCC in the U.S. and the CRTC in Canada).

Resource report—Carrier identification codes

Contact: Nancy Fears, 202-533-2653

Carrier identification codes (CICs) are four-digit codes used to route and bill telephone traffic. Normally, an entity acquires a CIC assignment by purchasing Feature Group B (FG B) or Feature Group D (FG D) access from an access provider. In the U.S., the access provider applies to NANPA for a CIC assignment on behalf of the access purchaser. In Canada, access providers apply to the Canadian Numbering Administrator, who verifies that Canadian regulatory requirements are met and forwards the application to NANPA.

Industry-consensus guidelines for the administration of CICs may be found on the ATIS website, http://www.atis.org/atis/clc/inc/incdocs.htm. The assignment guidelines encourage local exchange carriers (LECs) providing FG B and/or FG D access service, particularly LECs with more than 30 CICs programmed in their switches, to submit semi-annual CIC access/usage reports to NANPA for analysis. 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 the resource.

If no facilities-based LEC reports access for a given CIC, NANPA begins reclamation procedures. A certified letter advises the assignee of record 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 regarding direct trunk access has not been provided, the CIC is reclaimed.

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, unless INC directs otherwise, the CIC will be made available for reassignment following the six-month idle period required by the guidelines.

Maintaining accurate entity assignee and contact information continues to be a challenge for NANPA due to the volume of mergers, acquisitions, and bankruptcies that are occurring in the telecommunications 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 share information on a regular basis relating to mergers and acquisitions of telecommunications 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.

FG D CIC activity

Monthly FG D assignments, denials, and reclamations during 2001 are shown in the following table.

In 2001, there was a change to CIC assignment policy in the U.S. In August, the FCC eliminated the provision constraining CICs to the 0XXX, 5XXX and 6XXX ranges, thus opening the other ranges for assignment. The FCC directive limiting entities to two CICs remains in place.

At the end of 2001, 7,536 FG D CICs remain available for assignment. The average assignment rate in 2001 was 18.9 codes per month. At this rate, assuming that the limit of two CICs per entity remains in place in the U.S., the supply of FG D CICs will exhaust in 398.7 months (33 years).

FG B CIC activity

Monthly FG B CIC assignments, denials, and reclamations, with yearly totals, are shown in the table on the following page.

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 2001, a total of 3 FGB CICs were assigned (an average assignment rate of 0.21 codes per month). There is no concern relating to the exhaust of the FG B CIC resource based on this rate of assignment.

FG D CIC activity in 2001

Month	Assigned	Reclaimed/ returned codes	Applications denied	Applications withdrawn
January	26	6	2	0
February	17	19	9	1
March	20	9	2	3
April	12	15	5	2
May	27	27	3	2
June	15	18	3	1
July	17	12	2	2
August	22	10	5	4
September	33	16	14	3
October	17	16	3	1
November	21	14	2	1
December	9	39	3	0
Total	**236**	**201**	**53**	**20**

FGB CIC activity in 2001

Month	Assigned	Reclaimed/ returned codes	Applications denied	Applications withdrawn
January	1	4	0	0
February	0	6	0	0
March	0	5	1	0
April	0	5	0	0
May	1	5	0	0
June	0	3	0	0
July	0	1	0	0
August	0	6	0	0
September	0	2	0	0
October	1	12	0	0
November	0	3	0	0
December	0	9	0	0
Total	**3**	**61**	**1**	**0**

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 during 2001. 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 at www.atis.org/atis/clc/inc/incdocs.htm.

No 800-855 number assignments were made in 2001.

Resource report—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 the 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 2001 to make additional ANI II digit assignments.

Resource report—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 Terminating Point Master published by TRA. 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 would 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. At the end of 2001, the number of remaining non-dialable toll points has decreased substantially, but some remain. NANPA will continue to work this issue through the INC.

Resource report—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 assigned in 2001. A complete listing of assigned VSCs is available on the NANPA web site, www.nanpa.com.

Relief planning

Overview

Contact: Jim Deak, 973-539-8331

Relief planning precedes the introduction of new geographic area codes. The relief planning process is described in detail in the document NPA Code Relief and Notification Guidelines, INC97-0404-016, which can be found at www.atis.org/atis/clc/inc/incdocs.htm.

NANPA plays a key role in relief planning. At least 36 months before the anticipated exhaust of an NPA in the U.S. or its territories, NANPA's relief planners notify the local industry and state commission and convene a preliminary meeting to discuss local dialing arrangements, communities of interest, and other pertinent issues to identify viable methods of relief. Using input from this meeting, relief planners prepare and distribute an initial planning document (IPD) for consideration that outlines several alternative relief plans. The industry then meets, with NANPA as facilitator, to consider the options presented in the IPD and any others that may be proposed. NANPA next prepares a petition describing the options considered and highlighting the recommended option if the industry has reached consensus to do so. The relief planner submits the petition, on behalf of the industry, to the state commission for approval.[4]

The state commission reviews the proposed plan and often holds public hearings and invites 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 options considered 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, carriers develop detailed plans for the implementation of the new area code according to the plan approved by the state commission. Using decisions made at the early implementation meetings, the relief planner prepares a planning letter and publishes it on the NANPA web site. The planning letter announces the method of relief selected, the identity of the new area code, the schedule for relief, the new dialing plan, the test number for the new area code, and, in the case of a split, a list of the prefixes moving to the new area code and those remaining in the area code that is receiving relief.

NANPA's relief planners work closely with central office code administration. Relief planners schedule and facilitate jeopardy conference calls, and are deeply involved in decisions about the timing of relief activities involving central office codes.

In 2001, NANPA started 11 new relief planning projects in 8 states, down significantly from the 37 new projects started in 2000. The decrease reflects a number of factors, including positive impacts of number optimization measures ordered by the FCC and the states, a reduction in demand for numbering resources by the service providers, and the return of a significant number of numbering resources. In 2001, NANPA relief planners facilitated 19 face-to-face meetings and 112 conference calls, and filed 12 relief petitions with state commissions. They supported state commissions by participating (and often testifying) in 30 state-sponsored public meetings, regulatory hearings, and technical workshops. To keep the industry informed, NANPA issued 330 notifications using the Document Distribution Service (DDS), the electronic distribution

[4] In California, prior to submitting a relief plan for approval, NANPA also coordinates local jurisdiction and public meetings to review the alternative plans.

Performance measurement	Events in 2001	Completed on time	Percent completed on time
Distributed initial industry meeting notice within 6 weeks of meeting date	11	11	100%
Distributed IPD within 4 weeks of meeting date	10	10	100%
Distributed meeting minutes/filing on time	84	83	98.8%
Held minutes review as specified by industry	42	42	100%
Filed industry recommendation on time	12	12	100%
Requested relief NPA assignment within 1 week after regulatory approval of relief plan	20	20	100%
Issued press release within 2 weeks after relief NPA code assignment	7	7	100%
Held implementation meeting 45 days after NPA code assignment	20	19	95.0%
Held jeopardy meeting within 30 calendar days of jeopardy declaration	4	4	100%
Posted planning letter on NANPA web site 3 weeks after implementation meeting	18	16	88.9%
Posted planning letter on NANPA website 10 business days after regulatory order	20	19	95.0%
Totals:	**248**	**243**	**98.0%**

system established in 1999. NANPA published 57 planning letters describing the details of new area code relief projects and other relief-related state regulatory orders.

Relief planning quality measurements

The guidelines prescribe time limitations for the completion of some of NANPA's relief planning activities. To quantify the timeliness of its relief planning work, NANPA has established objectives for the completion of many additional activities, as shown in the previous table on page 17. The objectives were modified in 2001 to reflect changes to the guidelines. For example, NANPA now measures performance for several new criteria, i.e., posting planning letters on the web within 3 weeks after the initial industry implementation meeting, and posting a planning letter within 10 business days following a regulatory order that significantly changes the conditions of an area code relief project. Overall, in 2001, NANPA completed 98.0% of the 248 tracked activities on schedule, compared to 98.7% for the year 2000.

Customer survey feedback

Participants at face-to-face meetings were asked to evaluate NANPA's performance by completing a survey containing the statements shown in the table below. Participants indicated their opinion using a 5-point scale, with 5 indicating "strongly agree" and 1 indicating "strongly disagree." More than 250 participants responded, and many included suggestions for improving the meetings, such as "provide more timely notifications, stick closely to the agenda, provide copies of presentation materials as handouts, try to get more independent telcos to attend, and schedule more meetings as conference calls instead." Positive comments included high quality of facilitation, an excellent job of moderating, and being well prepared and professional.

Question	Avg. annual survey response
Participant had an opportunity to express opinions?	4.87
NANPA conducted the meeting impartially?	4.79
Overall satisfaction with the conduct of the meeting?	4.70
Received adequate meeting notice?	4.69
NANPA was an effective facilitator?	4.67
Explained relief alternatives effectively?	4.65
NANPA provided satisfactory responses to questions & concerns?	4.63
Presented industry with well-developed & reasonable relief alternatives?	4.58
Participant could easily obtain documents from DDS?	4.58
Provided satisfactory information about code assignment history & status?	4.51

In 2001, NANPA conducted surveys to measure the quality of conference calls, where most of the industry's issues are discussed and resolved. During a one-month sampling period in each quarter, meeting participants were requested to rate NANPA's performance in nine areas such as timely notification, sound quality, facilitation skills, and meeting preparation. A total of 40 conference calls were surveyed, covering topics such as jeopardy, minutes review, regulatory filing review, and implementation meetings. Of 555 participants on the conference calls, 40% (225) responded to the survey and rated NANPA's overall performance at an average of 4.85 out of a maximum of 5.00. The table below summarizes detailed results. Comments received included suggestions for improving the information provided at the meetings, e.g., in implementation meetings providing permissive and mandatory dates early in the call, standardizing of procedures for all areas in jeopardy, keeping the meeting on track, paying more attention to encouraging new participants to the process, and making sure all documents, particularly maps, are included in the distribution beforehand. Many positive comments were received about the way NANPA conducted the meetings, particularly cited were effective facilitation skills and conducting the meetings impartially.

Question	Overall average
No difficulty dialing in?	4.87
Had opportunity to express opinions?	4.87
NANPA provided adequate meeting notice?	4.84
Overall satisfaction with call?	4.83
NANPA conducted the call impartially?	4.82
NANPA was well prepared?	4.82
NANPA was an effective facilitator on the call?	4.79
Conference call facilities were satisfactory?	4.68
Information provided was sufficient?	4.60

Improving the relief planning process

In response to feedback received from the industry and on its own initiative, NANPA's relief planners have made the following improvements in the relief planning process:

- In response to the need expressed by the industry for greater consistency in the application of relief planning procedures, NANPA produced a relief planner's handbook. The handbook documents standard procedures and creates a much higher level of consistency in relief planning across the U.S. The handbook covers many steps in the process of relief planning; e.g., the content and format of the initial industry meeting notice, the content and format of IPDs, the use of the standard spreadsheet model for calculating exhaust of relief alternatives.
- To make DDS more useful to customers, several new features were added. A new "general" category identifies material that is applicable to all states; for example, new NRUF procedures and forms. Another added feature is an enhancement that makes it easier to search for and find documents, including those just uploaded to the web.
- A "pre-planning" conference call now precedes preparation of each IPD, allowing those with useful local knowledge to contribute to the development of more realistic relief options. Rate center lists are now distributed much earlier in the relief planning process, providing the industry and regulators more time to study this information prior to relief planning meetings.
- Procedures for applying the consensus process now include recent changes made by the ATIS Carrier Liaison Committee, particularly those related to industry interest group considerations when determining if consensus has been achieved.
- NANPA relief planners now use a national database to identify local 7-digit dialing calling scopes to reduce the likelihood of suggesting relief alternatives that would split communities of interest.
- Many relief activities are now keyed to specific events rather than dates; for example a new area code may be introduced just in time before the old area code exhausts. To track the status of these special projects, NANPA's relief planners developed a process to identify and review project status regularly to make sure that all regulatory and industry conditions are met.

Number Resource Utilization and Forecast

Contact: Beth Sprague, 202-533-2654

Overview

As a result of the FCC's NRO Order in 2000, NANPA was required to develop a new process for collecting, storing, and maintaining data to replace the COCUS model used previously. This process, called the Number Resource Utilization/Forecast (NRUF) Reporting, included the creation of a new form for reporting utilization and forecast data, increased data collection frequency, and, as a result, increased quantity of data and enhanced data collection mechanisms—data is to be collected via spreadsheets, electronic file transfer, and facsimile. Further, it required access to disaggregated NRUF data by state PUCs and the Pooling Administrator and heightened reporting enforcement, including power to withhold numbering resources from carriers that fail to file utilization and forecast reports

As required by the FCC, NANPA developed both the new forms for submitting data and a prototype NRUF system to process the data. The system collects, sorts, and stores NRUF data submitted by service providers. Data may be submitted as e-mail attachments (i.e., Excel spreadsheets) or through electronic file transfer (EFT). In 2001, NANPA continued to enhance the NRUF system capabilities and functionality. This work included enhancing the NRUF database with improved error detection capabilities, new internal reports that assist NANPA in identifying submissions with potentially inconsistent or anomalous data, and additional reports to help state commissions in their analysis of the utilization data provided by service providers. NANPA conducted training sessions with interested state commission staff on how to interpret tables, queries, and reports included in the NRUF database as well as how to modify existing queries and/or create new ones. Finally, NANPA accepted utilization and forecast data for the 500 NPA and 900 NPA. To do so, NANPA provided helpful tools to assist service providers in submitting this data as well as enhancing the NRUF database system to accept this information. Between September 2000 and December 2001, NANPA processed more than 10,000 NRUF submissions.

The NRUF system also generates NPA or statewide reports for use by state public service commissions, with appropriate confidentiality protections in place, of disaggregated service provider-specific NRUF data for those carriers operating in their respective states. In addition, the NRUF system provides status information to allow NANPA to determine whether the required NRUF form is on file for the OCN listed on any CO code application.

2001 NRUF exhaust forecasts

One of the primary uses for NRUF data is to support forecasts of the exhaust date for each NPA as well as the exhaust date for the entire NANP. Detailed projections may be found in Attachments 6 and 7 to this annual report.

In 2001, NANPA made significant changes to the algorithms used to project exhaust, enabling the calculations to take advantage of the new data available through NRUF and to incorporate the effects of state-mandated number pooling. For forecasting purposes, NANPA grouped the NPAs into three primary categories: 1) NPAs without pooling, 2) NPAs in pooling prior to December 31, 2000 and 3) NPAs with pooling ordered to start after December 31, 2000. Each category required a different growth and exhaust model.

For NPAs without pooling, the algorithm used was similar to the one used in previous years. The forecast was based on forecast data submitted by service providers, observed central office code demand over the past three years, the number of service providers and expansion of footprint over the same time period, and recent NPA relief activity and CO code rationing.

For NPAs in pooling prior to December 31, 2000, the algorithm used mostly was the same one used for non-pooling NPAs. The most significant difference was the incorporation of forecast and block inventory information from the Pooling Administrator (PA). In addition, NANPA accounted for codes that have been set aside for pooling.

For NPAs with pooling start dates after December 31, 2000, participating service providers were not required to forecast their code requirements separate from non-pooling service providers. Therefore, even if the PA was able to provide a forecast, it could not be used because it was not known what portion of the forecasted demand it replaced. As a result, a different approach was needed.

The new approach to projecting NPA exhaust was based on observations about central office code demand during the pooling trials. When pooling is first introduced, assignments of new central office codes to wireline service providers fall off significantly because most service providers find enough numbers in their own inventories or by requesting donated blocks. As the donated blocks are consumed in popular rate centers, the demand for central office codes for wireline service providers rises, eventually tapering off at a level below the demand observed prior to pooling. NANPA used the following model, based on data from the pooling trials, to reflect the impact of wireline pooling on NXX demand. In the first year after pooling begins, the demand for codes falls to 30% of the central office code demand without pooling (assuming that central office code assignments are not rationed). In the second year after pooling starts, wireline demand rises to 40% of pre-pooling demand. Finally, in the third and subsequent years after pooling starts, the wireline demand for central office codes levels off at 50% of pre-pooling demand.

2002 NRUF

In 2002, NANPA will again be modifying its algorithms to incorporate the national rollout of number pooling, which will begin in March 2002. NANPA will use the most recent scheduling information in order to incorporate the effects of number pooling on CO code demand for those NPAs identified in the FCC schedule.

Other NANPA services

Mandatory enterprise service

Contact: Heidi Wayman, 925-363-8709

NANPA is permitted, with FCC approval, to offer enterprise services, which are for-fee services over and above NANPA's basic responsibilities. NANPA offers two enterprise services. The first 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 TRA's 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.

Providers of this data entry service are identified by numbers, called the Administrative Operating Company Numbers (AOCNs). Over time, the company providing the data input service has come to be called the service provider's "AOCN."

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 lists many different companies who provide this service. NANPA currently provides AOCN service for 353 service providers.

Companies providing AOCN services charge their customers for data entered. 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 was $56.00 during most of 2001 and will rise to $58.66 on February 20, 2002.

In addition to the data entry charges, TRA requires that each service provider pay a share of TRA's cost to maintain its rating and routing databases. Charges vary in proportion to the number of records each code assignee has in the databases, which is a function of the number of central office codes assigned. TRA bills each code assignee's AOCN for these costs, and expects each AOCN to pass the charges on to its customers.

Quality measurements

NANPA's objective is to complete data entry within five business days of receiving a request, and performance in meeting that objective during 2001 is shown in the table at the bottom of the page.

Financial results

In 2001, Ernst & Young audited NANPA's statements of revenues and direct expenditures of the AOCN Enterprise Service for the years ended November 30, 1998, 1999, and 2000. This audit was conducted in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits in Government Auditing Standards. The statements of revenues and direct expenditures were prepared for the purpose of complying with the requirements of the Third Report & Order (FCC Docket No. 92-237).

A summary of the revenues and direct expenditures is provided in the following table.

AOCN revenues and direct expenditures

	1998	1999	2000	2001*
Revenues	$35,594	$635,953	$1,257,175	$836,119
Direct expenditures	$81,664	$380,550	$866,486	$625,765

*Results from 2001 are unaudited estimates.

NANPA's other enterprise service

Contact: Beth Sprague, 202-533-2654

NANPA's second approved enterprise service involves entry of NRUF data. NANP numbering resource holders in the U.S. and its territories are required to submit NRUF data twice each year. Normally, respondents submit data through e-mail or by FTP. For a fee, NANPA will accept and input data submitted by mail or by fax. To date, no code holders have used this service and no funds have been expended to provide it.

NANPA web site

Contact: Ron Conners, 202-533-2650

The NANPA web site, www.nanpa.com, continues to be the primary public source of numbering information. 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 the industry deems to be proprietary. Critical data, such as central office code assignment data and CIC assignments, is updated weekly. Other data is updated as often as necessary to remain current.

Substantial improvements to the site were made during 2001:

- A search capability was added, enabling a site visitor to enter an area code number and retrieve key information about the area code; e.g., the location served or service provided, the actual or projected in-service date, and the dialing plan.
- Area code reports are now generated on demand from a common database, ensuring consistency. The database is updated whenever an area code status change occurs.

Percent of AOCN inputs entered within five days in 2001

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
100.0	99.5	100.0	100.0	100.0	100.0	99.8	99.8	99.8	100.0	99.8	100.0

- The central office code assignment listings, always one of the most popular features of the web site, were expanded to include versions in Excel and Access formats to provide for flexibility in using the data.
- Monthly central office code assignment activity reports were added, allowing state commissions and the industry to track status closely.
- Tutorial information about the NRO order and its impact was added.
- DDS was enhanced to incorporate non-state-specific documents and distribution.
- A Part 3 disconnect report was added.
- A new mailing list, code-admin, has been added for code administrators.
- The results of the unavailable central office code study, conducted by NANPA and the industry, have been posted to the site.

One of the most valuable aspects of the site is the ability for anyone to submit questions about numbering and get answers, and many 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.

Responding to these questions is a valuable service for the general public.

INC participation

Contact: Beth Sprague, 202-533-2653

NANPA continued to participate actively in the INC during 2001, introducing 13 new issues, and 26 contributions, as shown in the following tables. In addition, NANPA served as Document Management and Maintenance Workshop co-chair.

Support for NANP countries other than the U.S.

The NANP is unique among the world's numbering plans in that it serves 19 independent countries. One of NANPA's most important roles is to coordinate the assignment 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, and Bermuda, Jamaica, and the Dominican Republic are beginning to use them. Canada also provides 500 and 900 services, and shares the supply of 500-NXX and 900-NXX codes. NANPA works closely with the national administrators during the resource request and assignment process. Normally, the national administrator receives the requests, ensures that the country's regulatory requirements are met, and forwards the requests to NANPA. NANPA verifies that industry requirements are met and assigns the resources.

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. During 2001, NANPA provided assistance to ECTEL, a cooperative regulatory initiative among five nations in the Eastern Caribbean. Assistance included several days of training in numbering issues in addition to a week of intensive on-site training for their administrators in Concord, California.

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. In prior years, NANPA has provided assistance to the regulators in Jamaica.

NANPA also serves as contact for other countries wishing to join the NANP. During 2001, NANPA cooperated with representatives of the U.S. Territory of American Samoa, who have a pending request to join the NANP.

Support to the FCC, state commissions, and the NANC

In 2001, there was much regulatory action regarding number administration and optimization. As a result, NANPA continued to meet regularly with the FCC, state commissions, and the NANC in support of their need for numbering information.

With the implementation of the FCC's First and Second Report and Order on Number Resource Optimization, NANPA has continued to communicate regularly with the

FCC to ensure a full and complete understanding of these orders and other FCC directives. NANPA has kept the FCC 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. NANPA has identified specific issues that require FCC review and direction and provided alternative solutions for consideration by the FCC. This includes the development of an interim process to handle returned codes with ported telephone numbers and enhancements to the NRUF Form 502 in preparation for service providers' reporting on 500 NPA and 900 NPA resources. NANPA has also provided the FCC information on the status of the various numbering resources administered by NANPA.

NANPA worked cooperatively with state commissions and assisted them in addressing numbering issues. Reclamation processes developed in cooperation with the states have been effective in identifying and returning codes that have not been placed in service in accordance with industry guidelines. NANPA also developed and published a variety of standard central office code reports. These reports provide weekly and monthly information on code assignment activity and are available in different formats on the NANPA web site. NANPA implemented a process to notify state commissions when a code assignment has been made by NANPA. NANPA also enhanced the NRUF data tables, queries and reports provided to the states and conducted a training session to assist states in using the NRUF database.

NANPA INC issues introduced in 2001 and supporting contributions

Issue number	Supporting contribution number	Issue/contribution title
275		Notification of SP Merger/Acquisition
	CO/NXX-179	Notification of SP Merger/Acquisition
288		Requested Modification to the 555 Assignment Guidelines Regarding Merger/Acquisition of Assignee
	NPA-155	Section 6.5 Revision—Merger/Acquisition
289		Requested Modification to the PCS N00 NXX Assignment Guidelines Regarding Definition of "in service"
	NPA-156	Change to Glossary term "in service" in PCS N00 NXX Assignment Guidelines
293		Expedite request process
	CO/NXX-174	Expedite text change
	CO/NXX-203	Code Applicant requesting expedite acts as own AOCN
94		Acceptable forms of Signature on the Part 1
	CO/NXX-173R	Signature of Code Applicant
295		Change to Selection Process of Code Holder
	CO/NXX-187	Code Holder Selection
	CO/NXX-208	Change to Selection Process
	CO/NXX-218	Request for Further Information on CO Code LERG Assignee Exit Procedures Prior to Final Closure
299		Updates to COCAG Part 1, Part 3, Section 4.1, and Section 7.0
	DMM-077	Updates to Part 1 and Part 3 of COCAG
300		NPA Request from non-NANP participant
	NPA-165	Revise Sections 10.3.3. through 10.3.3.5 of the NPA Allocation Plan and Assignment Guidelines
301		Requested Modifications to the PCS N00 NXX Assignment Guidelines
	DMM-078	Revisions and Corrections to PCS N00 NXX Assignment Guidelines
302		NRUF Reporting of PCS N00 NXX and 900 NXX
	CO/NXX-204	Update NRUF Guidelines to Include NRUF Requirement for PCS N00 NXX and 900 NXX (500 and 900 Non-Geographic NPAs)
	NPA-161	NRUF Requirement in 900 NXX Assignment Guidelines
	NPA-162	NRUF Requirement in PCS N00 Assignment Guidelines
315		NRUF Reporting of Newly Assigned Codes
	CO/NXX-194	Section 6.0 NRUF Guidelines Update
327		Update MTE in COCAG to Reflect Utilization Calculation
	CO/NXX-211	MTE Utilization Calculation to Show Numerator and Denominator
331		Undeclaring Jeopardy
	CO/NXX-222	Proposed Text - NANPA to "Undeclare" Jeopardy

NANPA provided monthly reports to the NANC on numbering activity. These reports included updates on NPA and CO code assignments, NPA and NANP exhaust projections, and updates on the collection of NRUF submissions from service providers. NANPA also provided information concerning NPA relief planning activities, interim CIC assignment procedures, efforts to make currently unassignable codes available for assignment, 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 managed a web page for the NANC Chair for posting NANC and subtending working group documentation.

NANPA 2001 contributions to other issues

Contribution number	Title—Issue—Status
CO/NXX-188	Addition of Special Use Codes—Issue 245: Special Use CO NXX Codes—Lucent issue resolved Sep 01
CO/NXX-192	CO Codes Assigned after Pooling Has Been Implemented—Issue 307: Return Part 4s to Which Administrator—NeuStar PA issue accepted April 01 and resolved Sep 01
NPA-150	Amendment to the INC 555 Assignment Guidelines to Address the Death or Bankruptcy of an Assignee—Issue 274: Amendment to the INC "555 Assignment Guidelines" to address the death or bankruptcy of an Assignee—Telecomm 555, Inc. issue resolved March 01
CO/NXX-163R	Switch ID information change MTE requirement—Issue 267: Section 6.3.1 Information Change Revision Under FCC 00-104, CC Docket 99-200—NANPA issue resolved June 01
CO/NXX-167	INC Initial Code Documentation Task Force Proposal—Issue 265: Initial Code Applications—Acceptable Forms of Certification and Facilities Readiness Under FCC 00-104—old NANPA issue resolved Sep 01
CO/NXX-175	Rate Center Consolidation Notification—Issue 271: Information Change for Rate Center Consolidation—old NANPA issue resolved Aug 01
CO/NXX-192	CO Codes assigned after pooling has been implemented—Issue 307: Return Part 4s to Which Administrator—NeuStar PA issue resolved Sep 01
CO/NXX-221	Suspend section addition to COCAG—Issue 311: NANPA Administrative Processes—CO Code Application Review (Worldcom issue introduced June 01

Attachment 1—Geographic NPAs in service 12/31/01 by location

Country	State/province/territory	NPA
Anguilla		264
Antigua and Barbuda		268
Bahamas		242
Barbados		246
Bermuda		441
British Virgin Islands		284
Canada	Alberta	403
Canada	Alberta	780
Canada	British Columbia	250
Canada	British Columbia	604
Canada	British Columbia	778
Canada	Manitoba	204
Canada	New Brunswick	506
Canada	Newfoundland	709
Canada	Nova Scotia	902
Canada	Ontario	289
Canada	Ontario	416
Canada	Ontario	519
Canada	Ontario	613
Canada	Ontario	647
Canada	Ontario	705
Canada	Ontario	807
Canada	Ontario	905
Canada	Quebec	418
Canada	Quebec	450
Canada	Quebec	514
Canada	Quebec	819
Canada	Saskatchewan	306
Canada	Yukon, NW Territories, Nunavut	867
Cayman Islands		345
Dominica		767
Dominican Republic		809
Grenada		473
Jamaica		876
Montserrat		664
St. Kitts & Nevis		869
St. Lucia		758
St. Vincent & Grenadines		784
Trinidad and Tobago		868
Turks & Caicos Islands		649
US	Alabama	205
US	Alabama	251
US	Alabama	256
US	Alabama	334
US	Alaska	907
US	Arizona	480
US	Arizona	520
US	Arizona	602
US	Arizona	623
US	Arizona	928
US	Arkansas	501
US	Arkansas	870
US	California	209
US	California	213
US	California	310
US	California	323
US	California	408
US	California	415
US	California	510
US	California	530
US	California	559
US	California	562
US	California	619
US	California	626

Country	State/province/territory	NPA
US	California	650
US	California	661
US	California	707
US	California	714
US	California	760
US	California	805
US	California	818
US	California	831
US	California	858
US	California	909
US	California	916
US	California	925
US	California	949
US	CNMI	670
US	Colorado	303
US	Colorado	719
US	Colorado	720
US	Colorado	970
US	Connecticut	203
US	Connecticut	860
US	Delaware	302
US	District of Columbia	202
US	Florida	305
US	Florida	321
US	Florida	352
US	Florida	386
US	Florida	407
US	Florida	561
US	Florida	727
US	Florida	754
US	Florida	786
US	Florida	813
US	Florida	850
US	Florida	863
US	Florida	904
US	Florida	941
US	Florida	954
US	Georgia	229
US	Georgia	404
US	Georgia	478
US	Georgia	678
US	Georgia	706
US	Georgia	770
US	Georgia	912
US	Guam	671
US	Hawaii	808
US	Idaho	208
US	Illinois	217
US	Illinois	309
US	Illinois	312
US	Illinois	618
US	Illinois	630
US	Illinois	708
US	Illinois	773
US	Illinois	815
US	Illinois	847
US	Indiana	219
US	Indiana	317
US	Indiana	765
US	Indiana	812
US	Iowa	319
US	Iowa	515
US	Iowa	563
US	Iowa	641
US	Iowa	712
US	Kansas	316
US	Kansas	620
US	Kansas	785

Country	State/province/territory	NPA
US	Kansas	913
US	Kentucky	270
US	Kentucky	502
US	Kentucky	606
US	Kentucky	859
US	Louisiana	225
US	Louisiana	318
US	Louisiana	337
US	Louisiana	504
US	Louisiana	985
US	Maine	207
US	Maryland	240
US	Maryland	301
US	Maryland	410
US	Maryland	443
US	Massachusetts	339
US	Massachusetts	351
US	Massachusetts	413
US	Massachusetts	508
US	Massachusetts	617
US	Massachusetts	774
US	Massachusetts	781
US	Massachusetts	857
US	Massachusetts	978
US	Michigan	231
US	Michigan	248
US	Michigan	313
US	Michigan	517
US	Michigan	586
US	Michigan	616
US	Michigan	734
US	Michigan	810
US	Michigan	906
US	Michigan	989
US	Minnesota	218
US	Minnesota	320
US	Minnesota	507
US	Minnesota	612
US	Minnesota	651
US	Minnesota	763
US	Minnesota	952
US	Mississippi	228
US	Mississippi	601
US	Mississippi	662
US	Missouri	314
US	Missouri	417
US	Missouri	573
US	Missouri	636
US	Missouri	660
US	Missouri	816
US	Montana	406
US	Nebraska	308
US	Nebraska	402
US	Nevada	702
US	Nevada	775
US	New Hampshire	603
US	New Jersey	201
US	New Jersey	551
US	New Jersey	609
US	New Jersey	732
US	New Jersey	848
US	New Jersey	856
US	New Jersey	862
US	New Jersey	908
US	New Jersey	973
US	New Mexico	505
US	New York	212
US	New York	315

Country	State/province/territory	NPA
US	New York	347
US	New York	516
US	New York	518
US	New York	585
US	New York	607
US	New York	631
US	New York	646
US	New York	716
US	New York	718
US	New York	845
US	New York	914
US	New York	917
US	North Carolina	252
US	North Carolina	336
US	North Carolina	704
US	North Carolina	828
US	North Carolina	910
US	North Carolina	919
US	North Carolina	980
US	North Dakota	701
US	Ohio	216
US	Ohio	234
US	Ohio	330
US	Ohio	419
US	Ohio	440
US	Ohio	513
US	Ohio	614
US	Ohio	740
US	Ohio	937
US	Oklahoma	405
US	Oklahoma	580
US	Oklahoma	918
US	Oregon	503
US	Oregon	541

Country	State/province/territory	NPA
US	Oregon	971
US	Pennsylvania	215
US	Pennsylvania	267
US	Pennsylvania	412
US	Pennsylvania	484
US	Pennsylvania	570
US	Pennsylvania	610
US	Pennsylvania	717
US	Pennsylvania	724
US	Pennsylvania	814
US	Pennsylvania	878
US	Puerto Rico	787
US	Puerto Rico	939
US	Rhode Island	401
US	South Carolina	803
US	South Carolina	843
US	South Carolina	864
US	South Dakota	605
US	Tennessee	423
US	Tennessee	615
US	Tennessee	731
US	Tennessee	865
US	Tennessee	901
US	Tennessee	931
US	Texas	210
US	Texas	214
US	Texas	254
US	Texas	281
US	Texas	361
US	Texas	409
US	Texas	469
US	Texas	512
US	Texas	682
US	Texas	713

Country	State/province/territory	NPA
US	Texas	806
US	Texas	817
US	Texas	830
US	Texas	832
US	Texas	903
US	Texas	915
US	Texas	936
US	Texas	940
US	Texas	956
US	Texas	972
US	Texas	979
US	US Virgin Islands	340
US	Utah	435
US	Utah	801
US	Vermont	802
US	Virginia	276
US	Virginia	434
US	Virginia	540
US	Virginia	571
US	Virginia	703
US	Virginia	757
US	Virginia	804
US	Washington	206
US	Washington	253
US	Washington	360
US	Washington	425
US	Washington	509
US	West Virginia	304
US	Wisconsin	262
US	Wisconsin	414
US	Wisconsin	608
US	Wisconsin	715
US	Wisconsin	920
US	Wyoming	307

Attachment 2—Geographic NPAs in service 12/31/01 by date

NPA	Country	State/Province/Territory
201	US	New Jersey
202	US	District of Columbia
203	US	Connecticut
204	Canada	Manitoba
205	US	Alabama
206	US	Washington
207	US	Maine
208	US	Idaho
209	US	California
210	US	Texas
212	US	New York
213	US	California
214	US	Texas
215	US	Pennsylvania
216	US	Ohio
217	US	Illinois
218	US	Minnesota
219	US	Indiana
225	US	Louisiana
228	US	Mississippi
229	US	Georgia
231	US	Michigan
234	US	Ohio
240	US	Maryland
242	Bahamas	
246	Barbados	
248	US	Michigan
250	Canada	British Columbia
251	US	Alabama
252	US	North Carolina
253	US	Washington
254	US	Texas

NPA	Country	State/Province/Territory
256	US	Alabama
262	US	Wisconsin
264	Anguilla	
267	US	Pennsylvania
268	Antigua and Barbuda	
270	US	Kentucky
276	US	Virginia
281	US	Texas
284	British Virgin Islands	
289	Canada	Ontario
301	US	Maryland
302	US	Delaware
303	US	Colorado
304	US	West Virginia
305	US	Florida
306	Canada	Saskatchewan
307	US	Wyoming
308	US	Nebraska
309	US	Illinois
310	US	California
312	US	Illinois
313	US	Michigan
314	US	Missouri
315	US	New York
316	US	Kansas
317	US	Indiana
318	US	Louisiana
319	US	Iowa
320	US	Minnesota
321	US	Florida
323	US	California
330	US	Ohio

NPA	Country	State/Province/Territory
334	US	Alabama
336	US	North Carolina
337	US	Louisiana
339	US	Massachusetts
340	US	US Virgin Islands
345	Cayman Islands	
347	US	New York
351	US	Massachusetts
352	US	Florida
360	US	Washington
361	US	Texas
386	US	Florida
401	US	Rhode Island
402	US	Nebraska
403	Canada	Alberta
404	US	Georgia
405	US	Oklahoma
406	US	Montana
407	US	Florida
408	US	California
409	US	Texas
410	US	Maryland
412	US	Pennsylvania
413	US	Massachusetts
414	US	Wisconsin
415	US	California
416	Canada	Ontario
417	US	Missouri
418	Canada	Quebec
419	US	Ohio
423	US	Tennessee
425	US	Washington
434	US	Virginia
435	US	Utah

NPA	Country	State/Province/Territory
440	US	Ohio
441	Bermuda	
443	US	Maryland
450	Canada	Quebec
469	US	Texas
473	Grenada	
478	US	Georgia
480	US	Arizona
484	US	Pennsylvania
501	US	Arkansas
502	US	Kentucky
503	US	Oregon
504	US	Louisiana
505	US	New Mexico
506	Canada	New Brunswick
507	US	Minnesota
508	US	Massachusetts
509	US	Washington
510	US	California
512	US	Texas
513	US	Ohio
514	Canada	Quebec
515	US	Iowa
516	US	New York
517	US	Michigan
518	US	New York
519	Canada	Ontario
520	US	Arizona
530	US	California
540	US	Virginia
541	US	Oregon
551	US	New Jersey
559	US	California
561	US	Florida

NPA	Country	State/Province/Territory
562	US	California
563	US	Iowa
570	US	Pennsylvania
571	US	Virginia
573	US	Missouri
580	US	Oklahoma
585	US	New York
586	US	Michigan
601	US	Mississippi
602	US	Arizona
603	US	New Hampshire
604	Canada	British Columbia
605	US	South Dakota
606	US	Kentucky
607	US	New York
608	US	Wisconsin
609	US	New Jersey
610	US	Pennsylvania
612	US	Minnesota
613	Canada	Ontario
614	US	Ohio
615	US	Tennessee
616	US	Michigan
617	US	Massachusetts
618	US	Illinois
619	US	California
620	US	Kansas
623	US	Arizona
626	US	California
630	US	Illinois
631	US	New York
636	US	Missouri
641	US	Iowa
646	US	New York
647	Canada	Ontario
649	Turks & Caicos Islands	
650	US	California
651	US	Minnesota
660	US	Missouri
661	US	California
662	US	Mississippi
664	Montserrat	
670	US	CNMI
671	US	Guam
678	US	Georgia
682	US	Texas
701	US	North Dakota
702	US	Nevada
703	US	Virginia
704	US	North Carolina
705	Canada	Ontario
706	US	Georgia
707	US	California
708	US	Illinois
709	Canada	Newfoundland
712	US	Iowa
713	US	Texas
714	US	California
715	US	Wisconsin
716	US	New York
717	US	Pennsylvania
718	US	New York
719	US	Colorado
720	US	Colorado
724	US	Pennsylvania
727	US	Florida
731	US	Tennessee
732	US	New Jersey

NPA	Country	State/Province/Territory
734	US	Michigan
740	US	Ohio
754	US	Florida
757	US	Virginia
758	St. Lucia	
760	US	California
763	US	Minnesota
765	US	Indiana
767	Dominica	
770	US	Georgia
773	US	Illinois
774	US	Massachusetts
775	US	Nevada
778	Canada	British Columbia
780	Canada	Alberta
781	US	Massachusetts
784	St. Vincent & Grenadines	
785	US	Kansas
786	US	Florida
787	US	Puerto Rico
801	US	Utah
802	US	Vermont
803	US	South Carolina
804	US	Virginia
805	US	California
806	US	Texas
807	Canada	Ontario
808	US	Hawaii
809	Dominican Republic	
810	US	Michigan
812	US	Indiana
813	US	Florida
814	US	Pennsylvania
815	US	Illinois
816	US	Missouri
817	US	Texas
818	US	California
819	Canada	Quebec
828	US	North Carolina
830	US	Texas
831	US	California
832	US	Texas
843	US	South Carolina
845	US	New York
847	US	Illinois
848	US	New Jersey
850	US	Florida
856	US	New Jersey
857	US	Massachusetts
858	US	California
859	US	Kentucky
860	US	Connecticut
862	US	New Jersey
863	US	Florida
864	US	South Carolina
865	US	Tennessee
867	Canada	Yukon, NW Territories, Nunavut
868	Trinidad and Tobago	
869	St. Kitts & Nevis	
870	US	Arkansas
876	Jamaica	
878	US	Pennsylvania
901	US	Tennessee
902	Canada	Nova Scotia
903	US	Texas
904	US	Florida
905	Canada	Ontario
906	US	Michigan

NPA	Country	State/Province/Territory
907	US	Alaska
908	US	New Jersey
909	US	California
910	US	North Carolina
912	US	Georgia
913	US	Kansas
914	US	New York
915	US	Texas
916	US	California
917	US	New York
918	US	Oklahoma
919	US	North Carolina
920	US	Wisconsin
925	US	California
928	US	Arizona
931	US	Tennessee
936	US	Texas

NPA	Country	State/Province/Territory
937	US	Ohio
939	US	Puerto Rico
940	US	Texas
941	US	Florida
949	US	California
952	US	Minnesota
954	US	Florida
956	US	Texas
970	US	Colorado
971	US	Oregon
972	US	Texas
973	US	New Jersey
978	US	Massachusetts
979	US	Texas
980	US	North Carolina
985	US	Louisiana
989	US	Michigan

Attachment 3—Non-geographic area codes in service

The following table lists the non-geographic NPAs in service as of December 31, 2001, along with the service for which each is used.

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

NPA codes 855, 844, 833, and 822 have been assigned for use as toll-free codes, and will be introduced as needed.

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 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, terminate in different ways, depending on how each interexchange carrier has assigned the numbers.

NPA codes 880-2 are used for "paid toll-free service." This service permits callers in one NANP country to call toll-free numbers in another NANP country by dialing 880 in place of 800, 881 in place of 888, or 882 in place of 877. 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. 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.

The Industry Numbering Committee (INC) 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.

Attachment 4—Area code inventory

The inventory below provides a complete accounting for all NPA codes.

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, 125 are not assignable or have been set aside by the Industry Numbering Committee for special purposes. These codes are listed below.

N11 (8)	Special use for abbreviated dialing.
N9X (80)	Reserved for use during the expansion of the NANP.
37X and 96X (20)	Reserved by the INC for future use where blocks of contiguous codes may be required.
555 and 950 (2)	Not used as NPA codes to avoid confusion with the use of these codes as central office codes for directory assistance and carrier access.
883, 4, 5, and 887 (4)	Set aside for potential expansion of the 880-2 series of "paid toll-free" codes.
521-9 (9)	Set aside temporarily to avoid billing conflicts with Mexican wireless callers roaming in the U.S.
886 and 889 (2)	Non-dialable toll points. (Note that these codes are being cleared and will be made available in the near future.)

Subtracting 125 from 800 leaves 675 assignable area codes. Of the 675 assignable codes, 363 have been assigned. Of the 363 assigned codes, 315 are in service and 48 are awaiting introduction. Of the 315 codes in service, 302 are geographic and 13 are non-geographic.

Of the 675 assignable area codes, 312 are currently unassigned. Of these codes, 48 are easily recognizable codes (ERCs) currently allocated for non-geographic use, and 264 are general purpose codes. Of the 264 unassigned general-purpose codes, 222 are reserved[5] for use as future geographic NPA codes, leaving 42 available, unreserved general-purpose codes. If and when this number decreases below an acceptable level, the Industry Numbering Committee will identify an alternate source for geographic NPA codes. One such possibility would be to designate some of the ERCs for geographic use.

Of the 48 unassigned ERCs, 11 are reserved[6], leaving 37 available.

[5] These codes have been designated for the relief of NPAs that NRUF predicts will exhaust in the next 20 years. Also included are 20 additional codes reserved for Canada in response to a request from the CRTC.

[6] These include five codes reserved for Personal Communications Service (500) expansion (533, 544, 566, 577, 588) and six codes reserved for Canada (622, 633, 644, 655, 677, 688). Canada has also reserved 699, which is counted as an expansion code.

Attachment 5—Dialing plans

Location	NPA	Local call to same NPA	Toll call to same NPA	Local call to another NPA	Toll call to another NPA	Overlay
Alabama	205	7D	1+10D	10D	1+10D	No
Alabama	251	7D	1+10D	10D	1+10D	No
Alabama	256	7D	1+10D	10D	1+10D	No
Alabama	334	7D	1+10D	10D	1+10D	No
Alaska	907	7D	1+10D	1+10D	1+10D	No
Arizona	480	7D	1+10D	10D	1+10D	No
Arizona	520	7D	1+10D	10D	1+10D	No
Arizona	602	7D	1+10D	10D	1+10D	No
Arizona	623	7D	1+10D	10D	1+10D	No
Arizona	928	7D	1+10D	10D	1+10D	No
Arkansas	501	7D	1+10D	10D	1+10D	No
Arkansas	870	7D	1+10D	10D	1+10D	No
California	209	7D	7D	1+10D	1+10D	No
California	213	7D	7D	1+10D	1+10D	No
California	310	7D	7D	1+10D	1+10D	No
California	323	7D	7D	1+10D	1+10D	No
California	408	7D	7D	1+10D	1+10D	No
California	415	7D	7D	1+10D	1+10D	No
California	510	7D	7D	1+10D	1+10D	No
California	530	7D	7D	1+10D	1+10D	No
California	559	7D	7D	1+10D	1+10D	No
California	562	7D	7D	1+10D	1+10D	No
California	619	7D	7D	1+10D	1+10D	No
California	626	7D	7D	1+10D	1+10D	No
California	650	7D	7D	1+10D	1+10D	No
California	661	7D	7D	1+10D	1+10D	No
California	707	7D	7D	1+10D	1+10D	No
California	714	7D	7D	1+10D	1+10D	No
California	760	7D	7D	1+10D	1+10D	No
California	805	7D	7D	1+10D	1+10D	No
California	818	7D	7D	1+10D	1+10D	No
California	831	7D	7D	1+10D	1+10D	No

Location	NPA	Local call to same NPA	Toll call to same NPA	Local call to another NPA	Toll call to another NPA	Overlay
California	858	7D	7D	1+10D	1+10D	No
California	909	7D	7D	1+10D	1+10D	No
California	916	7D	7D	1+10D	1+10D	No
California	925	7D	7D	1+10D	1+10D	No
California	949	7D	7D	1+10D	1+10D	No
CNMI	670	7D	1+10D	NA	1+10D	No
Colorado	303	10D	1+10D	10D	1+10D	Yes
Colorado	719	7D	1+10D	10D	1+10D	No
Colorado	720	10D	1+10D	10D	1+10D	Yes
Colorado	970	7D	1+10D	7D/10D	1+10D	No
Connecticut	203	7D	1+10D	10D	1+10D	No
Connecticut	860	7D	1+10D	10D	1+10D	No
Delaware	302	7D	1+10D	10D	1+10D	No
District of Columbia	202	7D	NA	10D	1+10D	No
Florida	305	10D	1+10D	10D	1+10D	Yes
Florida (Keys)	305	7D	1+10D	10D	1+10D	No
Florida	321	10D	1+10D	10D	1+10D	Yes
Florida	352	7D	1+10D	10D	1+10D	No
Florida	386	7D	1+10D	10D	1+10D	No
Florida	407	10D	1+10D	10D	1+10D	Yes
Florida	561	7D	1+10D	10D	1+10D	No
Florida	727	7D	1+10D	10D	1+10D	No
Florida	754	See Note 1	1+10D	See Note 1	1+10D	Yes
Florida	786	10D	1+10D	10D	1+10D	Yes
Florida	813	7D	1+10D	10D	1+10D	No
Florida	850	7D	1+10D	10D	1+10D	No
Florida	863	7D	1+10D	10D	1+10D	No
Florida	904	7D	1+10D	10D	1+10D	No
Florida	941	7D	1+10D	10D	1+10D	No
Florida	954	See Note 1	1+10D	See Note 1	1+10D	No
Georgia	229	7D	1+10D	10D	1+10D	No
Georgia	404	10D	1+10D	10D	1+10D	Yes
Georgia	478	7D	1+10D	10D	1+10D	No

Note 1: The dialing plan is complex. See Planning Letter 291 for details.

Location	NPA	Local call to same NPA	Toll call to same NPA	Local call to another NPA	Toll call to another NPA	Overlay
Georgia	678	10D	1+10D	10D	1+10D	Yes
Georgia	706	7D	1+10D	10D	1+10D	No
Georgia	770	10D	1+10D	10D	1+10D	Yes
Georgia	912	7D	1+10D	10D	1+10D	No
Guam	671	7D	1+10D	NA	1+10D	No
Hawaii	808	7D	1+10D	NA	1+10D	No
Idaho	208	7D	1+10D	7D	1+10D	No
Illinois	217	7D	1+10D	1+10D	1+10D	No
Illinois	224	1+10D	1+10D	1+10D	1+10D	Yes
Illinois	309	7D	1+10D	1+10D	1+10D	No
Illinois	312	7D	1+10D	1+10D	1+10D	No
Illinois	618	7D	1+10D	1+10D	1+10D	No
Illinois	630	7D	1+10D	1+10D	1+10D	No
Illinois	708	7D	1+10D	1+10D	1+10D	No
Illinois	773	7D	1+10D	1+10D	1+10D	No
Illinois	815	7D	1+10D	1+10D	1+10D	No
Illinois	847	1+10D	1+10D	1+10D	1+10D	Yes
Indiana	219	7D	1+10D	10D	1+10D	No
Indiana	317	7D	1+10D	7D	1+10D	No
Indiana	765	7D	1+10D	7D	1+10D	No
Indiana	812	7D	1+10D	7D	1+10D	No
Iowa	319	7D	1+10D	10D	1+10D	No
Iowa	515	7D	1+10D	10D	1+10D	No
Iowa	563	7D	1+10D	10D	1+10D	No
Iowa	641	7D	1+10D	10D	1+10D	No
Iowa	712	7D	1+10D	10D	1+10D	No
Kansas	316	7D	1+10D	10D	1+10D	No
Kansas	620	7D	1+10D	10D	1+10D	No
Kansas	785	7D	1+10D	10D	1+10D	No
Kansas	913	7D	1+10D	10D	1+10D	No
Kentucky	270	7D	1+10D	7D	1+10D	No
Kentucky	502	7D	1+10D	7D	1+10D	No
Kentucky	606	7D	1+10D	10D/1+10D	1+10D	No
Kentucky	859	7D	1+10D	10D/1+10D	1+10D	No

Location	NPA	Local call to same NPA	Toll call to same NPA	Local call to another NPA	Toll call to another NPA	Overlay
Louisiana	225	7D	1+10D	10D	1+10D	No
Louisiana	318	7D	1+10D	10D	1+10D	No
Louisiana	337	7D	1+10D	10D	1+10D	No
Louisiana	504	7D	1+10D	10D	1+10D	No
Louisiana	985	7D	1+10D	10D	1+10D	No
Maine	207	7D	1+10D	1+10D	1+10D	No
Maryland	240	10D	1+10D	10D	1+10D	Yes
Maryland	301	10D	1+10D	10D	1+10D	Yes
Maryland	410	10D	1+10D	10D	1+10D	Yes
Maryland	443	10D	1+10D	10D	1+10D	Yes
Massachusetts	339	10D	1+10D	10D	1+10D	Yes
Massachusetts	351	10D	1+10D	10D	1+10D	Yes
Massachusetts	413	7D	1+10D	10D	1+10D	No
Massachusetts	508	10D	1+10D	10D	1+10D	Yes
Massachusetts	617	10D	1+10D	10D	1+10D	Yes
Massachusetts	774	10D	1+10D	10D	1+10D	Yes
Massachusetts	781	10D	1+10D	10D	1+10D	Yes
Massachusetts	857	10D	1+10D	10D	1+10D	Yes
Massachusetts	978	10D	1+10D	10D	1+10D	Yes
Michigan	231	7D	1+10D	1+10D	1+10D	No
Michigan	248	7D	1+10D	1+10D	1+10D	No
Michigan	313	7D	1+10D	1+10D	1+10D	No
Michigan	517	7D	1+10D	1+10D	1+10D	No
Michigan	586	7D	1+10D	1+10D	1+10D	No
Michigan	616	7D	1+10D	1+10D	1+10D	No
Michigan	734	7D	1+10D	1+10D	1+10D	No
Michigan	810	7D	1+10D	1+10D	1+10D	No
Michigan	906	7D	1+10D	1+10D	1+10D	No
Michigan	989	7D	1+10D	1+10D	1+10D	No
Minnesota	218	7D	1+10D	7D	1+10D	No
Minnesota	320	7D	1+10D	7D	1+10D	No
Minnesota	507	7D	1+10D	7D	1+10D	No
Minnesota	612	7D	1+10D	10D	1+10D	No
Minnesota	651	7D	1+10D	10D	1+10D	No

Location	NPA	Local call to same NPA	Toll call to same NPA	Local call to another NPA	Toll call to another NPA	Overlay
Minnesota	763	7D	1+10D	10D	1+10D	No
Minnesota	952	7D	1+10D	10D	1+10D	No
Mississippi	228	7D	1+10D	1+10D	1+10D	No
Mississippi	601	7D	1+10D	1+10D	1+10D	No
Mississippi	662	7D	1+10D	1+10D	1+10D	No
Missouri	314	7D	10D	1+10D	1+10D	No
Missouri	417	7D	10D	1+10D	1+10D	No
Missouri	573	7D	10D	1+10D	1+10D	No
Missouri	636	7D	10D	1+10D	1+10D	No
Missouri	660	7D	10D	1+10D	1+10D	No
Missouri	816	7D	10D	1+10D	1+10D	No
Montana	406	7D	1+10D	7D	1+10D	No
Nebraska	308	7D	1+10D	7D	1+10D	No
Nebraska	402	7D	1+10D	7D	1+10D	No
Nevada	702	7D	1+10D	1+10D	1+10D	No
Nevada	775	7D	1+10D	1+10D	1+10D	No
New Hampshire	603	7D	7D	1+10D	1+10D	No
New Jersey	201	10D	10D	1+10D	1+10D	Yes
New Jersey	551	10D	10D	1+10D	1+10D	Yes
New Jersey	609	7D	7D	1+10D	1+10D	No
New Jersey	732	10D	10D	1+10D	1+10D	Yes
New Jersey	848	10D	10D	1+10D	1+10D	Yes
New Jersey	856	7D	7D	1+10D	1+10D	No
New Jersey	862	10D	10D	1+10D	1+10D	Yes
New Jersey	908	7D	7D	1+10D	1+10D	No
New Jersey	973	10D	10D	1+10D	1+10D	Yes
New Mexico	505	7D	1+10D	NA	1+10D	No
New York	212	7D	7D	1+10D	1+10D	Yes
New York	315	7D	7D	1+10D	1+10D	No
New York	347	7D	7D	1+10D	1+10D	Yes
New York	516	7D	7D	1+10D	1+10D	No
New York	518	7D	7D	1+10D	1+10D	No
New York	585	7D	7D	1+10D	1+10D	No
New York	607	7D	7D	1+10D	1+10D	No

Location	NPA	Local call to same NPA	Toll call to same NPA	Local call to another NPA	Toll call to another NPA	Overlay
New York	631	7D	7D	1+10D	1+10D	No
New York	646	7D	7D	1+10D	1+10D	Yes
New York	716	7D	7D	1+10D	1+10D	No
New York	718	7D	7D	1+10D	1+10D	Yes
New York	845	7D	7D	1+10D	1+10D	No
New York	914	7D	7D	1+10D	1+10D	No
New York	917	7D	7D	1+10D	1+10D	Yes
North Carolina	252	7D	1+10D	10D	1+10D	No
North Carolina	336	7D	1+10D	10D	1+10D	No
North Carolina	704	10D	1+10D	10D	1+10D	Yes
North Carolina	828	7D	1+10D	10D	1+10D	No
North Carolina	910	7D	1+10D	10D	1+10D	No
North Carolina	919	7D	1+10D	10D	1+10D	No
North Carolina	980	10D	1+10D	10D	1+10D	Yes
North Dakota	701	7D	1+10D	7D	1+10D	No
Ohio	216	7D	1+10D	1+10D	1+10D	No
Ohio	234	10D	1+10D	1+10D	1+10D	Yes
Ohio	330	10D	1+10D	1+10D	1+10D	Yes
Ohio	419	10D	1+10D	1+10D	1+10D	Yes
Ohio	440	7D	1+10D	1+10D	1+10D	No
Ohio	513	7D	1+10D	1+10D	1+10D	No
Ohio	567	10D	1+10D	1+10D	1+10D	Yes
Ohio	614	7D	1+10D	1+10D	1+10D	No
Ohio	740	7D	1+10D	1+10D	1+10D	No
Ohio	937	7D	1+10D	1+10D	1+10D	No
Oklahoma	405	7D	1+10D	7D	1+10D	No
Oklahoma	580	7D	1+10D	7D	1+10D	No
Oklahoma	918	7D	1+10D	7D	1+10D	No
Oregon	503	10D	1+10D	10D	1+10D	Yes
Oregon	541	7D	1+10D	7D	1+10D	No
Oregon	971	10D	1+10D	10D	1+10D	Yes
Pennsylvania	215	10D	10D	Note 3	1+10D	Yes
Pennsylvania	267	10D	10D	Note 3	1+10D	Yes

Location	NPA	Local call to same NPA	Toll call to same NPA	Local call to another NPA	Toll call to another NPA	Overlay
Pennsylvania	412	10D	10D	Note 2	Note 2	Yes
Pennsylvania	484	10D	10D	Note 3	1+10D	Yes
Pennsylvania	570	7D	7D	1+10D	1+10D	No
Pennsylvania	610	10D	10D	Note 3	1+10D	Yes
Pennsylvania	717	7D	7D	1+10D	1+10D	No
Pennsylvania	724	10D	10D	Note 2	Note 2	Yes
Pennsylvania	814	7D	7D	1+10D	1+10D	No
Pennsylvania	878	10D	10D	Note 2	Note 2	Yes
Puerto Rico	787	10D	1+10D	10D	1+10D	Yes
Puerto Rico	939	10D	1+10D	10D	1+10D	Yes
Rhode Island	401	7D	7D	1+10D	1+10D	No
South Carolina	803	7D	1+10D	1+10D	1+10D	No
South Carolina	843	7D	1+10D	1+10D	1+10D	No
South Carolina	864	7D	1+10D	1+10D	1+10D	No
South Dakota	605	7D	1+10D	7D	1+10D	No
Tennessee	423	7D	1+10D	10D	1+10D	No
Tennessee	615	7D	1+10D	7D	1+10D	No
Tennessee	731	7D	1+10D	10D	1+10D	No
Tennessee	865	7D	1+10D	10D	1+10D	No
Tennessee	901	7D	1+10D	10D	1+10D	No
Tennessee	931	7D	1+10D	7D	1+10D	No
Texas	210	7D	1+10D	10D	1+10D	No
Texas	214	10D	1+10D	10D	1+10D	Yes
Texas4	254	7D	1+10D	10D	1+10D	No
Texas	281	10D	1+10D	10D	1+10D	Yes
Texas	361	7D	1+10D	10D	1+10D	No
Texas	409	7D	1+10D	10D	1+10D	No
Texas	469	10D	1+10D	10D	1+10D	Yes
Texas	512	7D	1+10D	10D	1+10D	No
Texas	682	10D	1+10D	10D	1+10D	Yes
Texas	713	10D	1+10D	10D	1+10D	Yes
Texas	806	7D	1+10D	10D	1+10D	No

Note 2: All calls within and between NPAs 412, 724, and 878 can be dialed as 10D or 1+10D. Calls to other NPAs must be dialed as 1+10D.

Note 3: All calls within and between NPAs 215, 267, 484, and 610 can be dialed as 10D or 1+10D. Calls to other NPAs must be dialed as 1+10D.

Location	NPA	Local call to same NPA	Toll call to same NPA	Local call to another NPA	Toll call to another NPA	Overlay
Texas	817	10D	1+10D	10D	1+10D	Yes
Texas	830	7D	1+10D	10D	1+10D	No
Texas	832	10D	1+10D	10D	1+10D	Yes
Texas	903	7D	1+10D	10D	1+10D	No
Texas	915	7D	1+10D	10D	1+10D	No
Texas	936	7D	1+10D	10D	1+10D	No
Texas	940	7D	1+10D	10D	1+10D	No
Texas	956	7D	1+10D	10D	1+10D	No
Texas	972	10D	1+10D	10D	1+10D	Yes
Texas	979	7D	1+10D	10D	1+10D	No
US Virgin Islands	340	7D	1+10D	NA	1+10D	No
Utah	435	7D	1+10D	7D	1+10D	No
Utah	801	7D	1+10D	10D	1+10D	No
Vermont	802	7D	1+10D	1+10D	1+10D	No
Virginia	276	7D	1+10D	10D	1+10D	No
Virginia	434	7D	1+10D	10D	1+10D	No
Virginia	540	7D	1+10D	10D	1+10D	No
Virginia	571	10D	1+10D	10D	1+10D	Yes
Virginia	703	10D	1+10D	10D	1+10D	Yes
Virginia	757	7D	1+10D	10D	1+10D	No
Virginia	804	7D	1+10D	10D	1+10D	No
Washington	206	7D	1+10D	10D	1+10D	No
Washington	253	7D	1+10D	10D	1+10D	No
Washington	360	7D	1+10D	10D	1+10D	No
Washington	425	7D	1+10D	10D	1+10D	No
Washington	509	7D	1+10D	7D	1+10D	No
West Virginia	304	7D	1+10D	1+10D	1+10D	No
Wisconsin	262	7D	1+10D	1+10D	1+10D	No
Wisconsin	414	7D	1+10D	1+10D	1+10D	No
Wisconsin	608	7D	1+10D	1+10D	1+10D	No
Wisconsin	715	7D	1+10D	1+10D	1+10D	No
Wisconsin	920	7D	1+10D	1+10D	1+10D	No
Wyoming	307	7D	1+10D	7D	1+10D	No

Attachment 6—NPA exhaust projections

Based on 2001 NRUF Sorted by NPA.

Locality	NPA	Apr 2001	Prev Fcst	Quarter*** +/-	Notes
New Jersey R	201	2001 4Q	2002 1Q	(-1)	
Washington, D.C.	202	2006 1Q	2004 3Q	(+6)	
Connecticut R	203	2001 4Q	2001 3Q	(+1)	Forecast reflects impact of pooling implemented on 2/01
Canada	204	2017 4Q	2015 4Q	(+8)	
Alabama	205	2004 3Q	2003 2Q	(+5)	
Washington	206/564A	2006 1Q	2003 1Q	(+12)	564 Overlay planned for 10/01
Maine	207	2005 3Q	2002 3Q	(+12)	Pooling in place as of 6/00
Idaho	208	2003 3Q	2003 1Q	(+2)	
California	209	2005 2Q	2004 3Q	(+3)	
Texas	210	2005 4Q	2005 2Q	(+2)	
New York	212/646	2006 1Q	2003 2Q	(+11)	212 is capped. Codes will be assigned if they become available. Forecast reflects impact of pooling implemented on 4/01.
California	213	2007 2Q	2006 2Q*	(+4)	
Texas	214/469/972	2004 2Q	2002 1Q	(+9)	
Pennsylvania	215/267	2003 1Q	2001 4Q	(+5)	445 Overlay relief planned
Ohio	216	2005 3Q	2004 2Q	(+5)	
Illinois	217	2004 2Q	2004 2Q*	(0)	
Minnesota	218	2009 4Q	2009 2Q	(+2)	
Indiana R	219	2003 2Q	2003 1Q	(+1)	
Illinois	224/847	2016 3Q	2016 2Q	(+1)	Pooling in place as of 6/98
Louisiana	225	2013 2Q	2009 4Q	(+14)	Decrease in code demand
Mississippi	228	2015 4Q	2015 4Q	(0)	
Georgia	229	2019 3Q	2019 2Q	(+1)	
Michigan	231	2008 2Q	2005 3Q	(+11)	
Maryland	240/301	2003 3Q	2002 2Q	(+5)	NPA 301 is capped. Codes will be assigned if they become available; Forecast reflects impact of pooling planned for 8/01.
Michigan R	248	2002 1Q	2001 2Q	(+3)	947 Overlay suspended
Canada	250	2007 4Q	2009 4Q	(-8)	
Alabama	251	2011 1Q		(NA)	New NPA

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Locality	NPA	Apr 2001	Prev Fcst	Quarter*** +/-	Notes
North Carolina	252	2007 3Q	2005 1Q	(+10)	
Washington	253/564B	2006 4Q	2004 1Q	(+11)	564B Overlay planned for 10/01
Texas	254	2014 1Q	2017 2Q	(-13)	
Alabama	256	2005 3Q	2004 4Q*	(+3)	Reflects reduction in monthly CO code demand and the return of codes.
Wisconsin	262	2004 3Q	2003 3Q*	(+4)	
Kentucky	270	2003 2Q	2004 2Q	(-4)	
Texas	281/713/832	2002 4Q	2002 3Q	(+1)	
Delaware	302	2005 3Q	2003 4Q	(+7)	
Colorado	303/720	2006 3Q	2004 3Q*	(+8)	Forecast reflects impact of pooling implemented on 5/01
West Virginia R	304	2003 2Q	2002 1Q	(+5)	
Florida	305-A	2002 3Q	2001 4Q	(+3)	305 capped. Codes will be assigned if they become available; Florida Keys only; Forecast reflects impact of pooling implemented on 5/01.
Florida	305/786	2006 4Q	2004 3Q	(+9)	Excludes the Keys
Canada	306	2016 1Q	(NA)		306 is not projected to exhaust prior to 2021
Wyoming	307	2017 1Q	2012 3Q	(+18)	Decrease in code demand
Nebraska	308	2033 4Q	2032 1Q	(+7)	
Illinois	309	2006 4Q	2010 1Q	(-13)	Increase in code demand
California R	310	2003 1Q	2001 4Q	(+5)	Forecast reflects impact of pooling implemented on 3/00; Relief planning suspended. Reflects reduction in monthly CO code demand and the return of codes.
Illinois	312	2002 3Q	2002 1Q	(+2)	Pooling in place as of 8/99
Michigan	313	2003 1Q	2002 1Q	(+4)	679 Overlay relief suspended. Reflects reduction in monthly CO code demand and the return of codes.
Missouri R	314	2004 1Q	2001 2Q	(+11)	557 Overlay planned for 10/01. Reflects reduction in monthly CO code demand and the return of codes.
New York	315	2004 1Q	2002 1Q	(+8)	Forecast reflects impact of pooling implemented on 2/01
Kansas	316	2012 3Q	2001 4Q*	(+43)	NPA Relief implemented
Indiana	317	2002 3Q	2002 3Q*	(0)	
Louisiana	318	2005 2Q	2004 4Q	(+3)	Reflects reduction in monthly CO code demand and the return of codes
Iowa	319	2010 1Q	2001 4Q	(+33)	NPA Relief implemented
Minnesota	320	2024 3Q	2023 4Q	(+3)	
Florida	321-A	2005 2Q	2005 2Q*	(0)	Brevard County only

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Locality	NPA	Apr 2001	Prev Fcst	Quarter*** +/-	Notes
Florida	321/407	2004 1Q	2003 4Q*	(+1)	
California	323	2003 3Q	2003 4Q	(-1)	
Ohio	330/234	2012 3Q	2009 3Q	(+12)	
Alabama	334	2005 3Q	2002 2Q	(+13)	
North Carolina	336	2003 1Q	2002 4Q	(+1)	
Louisiana	337	2007 4Q	2006 1Q	(+7)	
Massachusetts	339/781	2008 2Q	2001 3Q	(+27)	Impact of 339 Relief Overlay; Forecast reflects impact of pooling implemented on 5/01
US Virgin Islands	340	2148 4Q	2148 4Q	(0)	
New York	347/718	2006 1Q	2003 2Q	(+11)	Forecast reflects impact of pooling implemented on 4/01
Massachusetts	351/978	2007 3Q	2001 4Q	(+23)	Impact of 351Relief Overlay; Forecast reflects impact of pooling planned for 2/02
Florida	352	2008 1Q	2008 1Q	(0)	
Washington	360/564	2004 1Q	2010 2Q	(-25)	Reflects decision to have the 564 overlay multiple NPAs and to delay NPA relief and implement pooling on 2/15/02.
Texas	361	2008 4Q	2006 4Q	(+8)	
Florida	386	2018 4Q		(NA)	New NPA
Rhode Island	401	2003 1Q	2002 3Q	(+2)	
Nebraska	402	2003 3Q	2001 2Q	(+9)	Forecast reflects impact of pooling implemented on 5/01
Canada	403	2008 4Q	2009 3Q	(-3)	
Georgia	404	2003 4Q	2004 2Q	(-2)	
Oklahoma	405	2004 1Q	2002 3Q	(+6)	Reflects reduction in monthly CO code demand and the return of codes
Montana	406	2005 4Q	2004 1Q	(+7)	
California R	408	2004 1Q	2004 2Q	(-1)	Relief planning suspended; Forecast reflects impact of pooling implemented on 5/01
Texas	409	2010 1Q	2005 3Q	(+18)	NPA Relief implemented
Maryland	410/443	2002 3Q	2001 4Q*	(+3)	NPA 410 is capped. Codes will be assigned if they become available; Forecast reflects impact of pooling planned for 9/01
Pennsylvania R	412	2002 4Q	2002 3Q	(+1)	Overlay 878 planned for 7/01
Massachusetts	413	2005 1Q	2002 4Q*	(+9)	Forecast reflects impact of pooling planned for 8/01, and reduction in monthly CO code demand and the return of codes
Wisconsin	414	2010 1Q	2006 2Q	(+15)	NPA Relief Implemented
California R	415	2003 4Q	2002 3Q	(+5)	Relief planning suspended; Pooling in place as of 7/00

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Locality	NPA	Apr 2001	Prev Fcst	Quarter*** +/-	Notes
Canada	416/647	2011 4Q	2009 1Q	(+11)	
Missouri	417	2008 3Q	2005 1Q	(+14)	
Canada	418	2010 4Q	2011 4Q	(-4)	
Ohio	419	2002 3Q	2002 1Q	(+2)	Overlay 567 planned for 12/01
Tennessee	423	2005 3Q	2004 2Q	(+5)	Reflects reduction in monthly CO code demand and the return of codes
Washington	425/564C	2006 1Q	2002 2Q	(+15)	Overlay 564 planned for 10/01
Utah	435	2013 2Q	2012 4Q	(+2)	
Ohio	440	2004 2Q	2004 2Q	(0)	
Canada	450	2017 4Q	2020 4Q	(-12)	
Georgia	478	2022 2Q	2022 2Q	(0)	
Arizona	480	2008 2Q	2008 2Q*	(0)	
Pennsylvania R	484/610	2002 4Q	2001 4Q	(+4)	Forecast reflects impact of pooling implemented on 4/01
Arkansas	501	2002 1Q	2002 4Q	(-3)	
Kentucky	502	2006 2Q	2005 4Q*	(+2)	Reflects reduction in monthly CO code demand and the return of codes
Oregon	503A	2011 3Q	2004 3Q*	(+28)	Coastal Counties only; NPA Relief Implemented
Oregon	503/971	2008 2Q	2006 3Q	(+7)	Forecast reflects impact of pooling planned for 9/01
Louisiana	504	2005 4Q	2002 1Q	(+15)	NPA Relief implemented
New Mexico R	505	2004 4Q	2002 4Q	(+8)	Reflects reduction in monthly CO code demand and the return of codes
Canada	506	2021 2Q	(NA)		506 is not projected to exhaust prior to 2021
Minnesota	507	2006 1Q	2004 2Q*	(+7)	Reflects reduction in monthly CO code demand and the return of codes
Massachusetts	508/774	2007 1Q	2000 2Q	(+27)	Impact of Overlay 774; Forecast reflects impact of pooling implemented on 5/01
Washington	509	2004 1Q	2003 2Q*	(+3)	Forecast reflects impact of pooling planned for 7/01
California	510	2003 3Q	2003 3Q	(0)	Relief planning suspended; Forecast reflects impact of pooling planned for 7/01
Texas R	512	2003 4Q	2003 4Q	(0)	Pooling in place as of 8/00
Ohio	513	2003 2Q	2003 1Q*	(+1)	
Canada	514	2005 4Q	2004 2Q	(+6)	
Iowa	515	2015 1Q	2008 1Q*	(+28)	Forecast reflects impact of pooling planned for 8/01
New York	516	2003 2Q	2001 3Q	(+7)	Pooling in place as of 7/00
Michigan	517	2007 4Q	2001 3Q	(+25)	NPA Relief Implemented

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Locality	NPA	Apr 2001	Prev Fcst	Quarter*** +/-	Notes
New York	518	2005 2Q	2003 1Q	(+9)	Pooling in place as of 9/00
Canada	519	2006 4Q	2006 1Q	(+3)	
Arizona R	520	2002 1Q	2001 3Q	(+2)	
California R	530	2005 1Q	2004 4Q	(+1)	
Virginia R	540	2002 3Q	2002 3Q	(0)	
Oregon	541	2005 2Q	2002 4Q	(+10)	Forecast reflects impact of pooling planned for 6/01. Reflects reduction in monthly CO code demand and the return of codes.
California	559	2006 1Q	2005 1Q	(+4)	
Florida	561	2002 4Q	2002 3Q	(+1)	Forecast reflects impact of pooling implemented on 4/01
California	562	2006 3Q	2001 4Q	(+19)	Forecast reflects impact of pooling planned for 11/01
Iowa	563	2016 1Q		(NA)	New NPA
Pennsylvania	570	2003 4Q	2003 2Q*	(+2)	
Virginia	571/703	2007 2Q	2006 1Q	(+5)	
Missouri	573	2008 1Q	2005 4Q	(+9)	
Oklahoma	580	2007 2Q	2006 4Q	(+2)	
Mississippi R	601	2003 3Q	2003 1Q	(+2)	
Arizona	602	2006 1Q	2006 1Q*	(0)	
New Hampshire	603	2004 1Q	2001 4Q	(+9)	Forecast reflects impact of pooling implemented on 5/00
Canada	604	2004 3Q		(NA)	604 is not projected to exhaust prior to 2021
South Dakota	605	2007 3Q	2006 3Q*	(+4)	
Kentucky	606	2009 1Q	2003 4Q	(+21)	NPA Relief Implemented
New York	607	2012 2Q	2005 1Q	(+29)	Forecast reflects impact of pooling planned for 6/01
Wisconsin	608	2006 3Q	2005 4Q	(+3)	
New Jersey	609	2002 4Q	2001 4Q	(+4)	
Minnesota	612	2008 4Q	2004 4Q	(+16)	NPA Relief Implemented
Canada	613	2007 4Q	2005 1Q	(+11)	
Ohio	614	2002 4Q	2002 3Q	(+1)	
Tennessee	615	2005 1Q	2002 2Q	(+11)	Forecast reflects impact of pooling implemented on 3/01. Reflects reduction in monthly CO code demand and the return of codes.
Michigan R	616	2002 4Q	2001 4Q	(+4)	Reflects reduction in monthly CO code demand and the return of codes
Massachusetts	617/857	2006 3Q		(NA)	Forecast reflects impact of pooling implemented on 5/01; NPA 617 was exhausted at previous forecast publication.

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*** = The quarterly change column shows a positive number if the exhaust date moved out from the previous forecast and a negative number if the exhaust date moved in.

Locality	NPA	Apr 2001	Prev Fcst	Quarter*** +/-	Notes
Illinois R	618	2002 3Q	2004 3Q	(-8)	
California	619	2007 1Q	2004 4Q	(+9)	Relief suspended; Forecast reflects impact of pooling planned for 10/01
Kansas	620	2010 3Q		(NA)	New NPA
Arizona	623	2020 4Q	2010 3Q	(+41)	Decrease in code demand
California	626	2005 4Q	2005 1Q	(+3)	
Illinois	630	2001 3Q	2000 4Q	(+3)	Pooling in place as of 8/99
New York	631	2003 3Q	2002 3Q*	(+4)	Pooling in place as of 6/00
Missouri	636	2008 1Q	2008 1Q	(0)	
Iowa	641	2019 2Q	2008 4Q*	(+42)	Decrease in code demand
California	650	2005 2Q	2003 2Q	(+8)	Relief planning suspended; Forecast reflects impact of pooling planned for 6/01
Minnesota	651	2012 1Q	2008 4Q	(+13)	Decrease in code demand
Missouri	660	2021 4Q	2020 1Q	(+7)	
California	661	2006 1Q	2005 2Q*	(+3)	
Mississippi	662	2004 2Q	2004 2Q*	(0)	
CNMI	670	2307 2Q	2307 2Q	(0)	
Guam	671	2173 4Q	2173 4Q	(0)	
Georgia R	678/770	2001 4Q	2001 1Q	(+3)	
Texas	682/817	2008 3Q	2000 3Q	(+32)	Impact of 682 Relief Overlay
North Dakota	701	2007 3Q	2007 2Q*	(+1)	
Nevada	702	2006 2Q	2006 2Q	(0)	
North Carolina	704/980	2008 1Q	2008 2Q	(-1)	
Canada	705	2020 3Q		(NA)	705 is not projected to exhaust prior to 2021
Georgia	706	2003 1Q	2002 4Q	(+1)	
California R	707	2005 2Q	2005 1Q*	(+1)	
Illinois	708	2004 1Q	2001 2Q	(+11)	Pooling in place as of 4/00
Canada	709	2021 3Q		(NA)	709 is not projected to exhaust prior to 2021
Iowa	712	2015 2Q	2010 2Q	(+20)	Decrease in code demand
California R	714	2003 2Q	2002 3Q	(+3)	Relief planning suspended; Pooling in place as of 10/00
Wisconsin	715	2005 2Q	2004 3Q	(+3)	
New York R	716	2002 4Q	2002 2Q	(+2)	Pooling in place as of 4/00
Pennsylvania	717	2003 2Q	2003 4Q	(-2)	

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Locality	NPA	Apr 2001	Prev Fcst	Quarter*** +/-	Notes
Colorado	719	2009 3Q	2009 3Q*	(0)	
Pennsylvania	724	2002 1Q	2001 4Q	(+1)	
Florida	727	2005 2Q	2005 2Q*	(0)	
Tennessee	731	2012 4Q		(0)	New NPA
New Jersey	732	2000 4Q	2000 4Q	(NA)	NPA exhausted
Michigan	734	2003 3Q	2002 1Q*	(+6)	Reflects reduction in monthly CO code demand and the return of codes
Ohio	740	2006 4Q	2006 4Q	(0)	
Virginia	757	2003 1Q	2002 2Q	(+3)	
California R	760	2004 3Q	2004 2Q*	(+1)	
Minnesota	763	2015 4Q	2005 1Q	(+43)	NPA Relief Implemented
Indiana	765	2004 3Q	2004 2Q	(+1)	
Illinois	773	2003 4Q	2002 3Q	(+5)	Pooling in place as of 10/99
Nevada	775	2006 4Q	2006 4Q	(0)	
Canada	778	2012 4Q		(NA)	New NPA
Canada	780	2012 4Q	2012 3Q	(+1)	
Kansas	785	2006 4Q	2006 2Q	(+2)	
Puerto Rico	787	2002 2Q	2001 3Q	(+3)	
Utah R	801	2002 1Q	2001 1Q	(+4)	Forecast reflects impact of pooling implemented on 3/01
Vermont	802	2005 4Q	2007 1Q	(-5)	
South Carolina	803	2004 2Q	2003 2Q	(+4)	
Virginia R	804	2002 2Q	2002 2Q	(0)	Forecast reflects impact of pooling planned for 6/01
California R	805	2003 4Q	2003 4Q	(0)	
Texas	806	2012 2Q	2013 1Q	(-3)	
Canada	807			(NA)	807 is not projected to exhaust before 2021
Hawaii	808	2008 3Q	2006 2Q	(+9)	
Michigan R	810	2001 4Q	2001 2Q	(+2)	Relief planning suspended
Indiana	812	2004 4Q	2005 1Q	(-1)	
Florida	813	2006 4Q	2006 4Q	(0)	
Pennsylvania	814	2005 1Q	2004 3Q*	(+2)	
Illinois R	815	2002 4Q	2002 2Q	(+2)	
Missouri	816	2004 1Q	2002 1Q	(+8)	

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Locality	NPA	Apr 2001	Prev Fcst	Quarter*** +/-	Notes
California R	818	2003 3Q	2003 4Q	(-1)	Forecast reflects impact of pooling implemented on 3/01
Canada	819	2007 4Q	2006 1Q	(+7)	
North Carolina	828	2006 4Q	2006 1Q*	(+3)	
Texas	830	2012 1Q	2007 1Q	(+20)	Decrease in code demand
California	831	2008 4Q	2007 4Q*	(+4)	
South Carolina	843	2004 1Q	2003 2Q	(+3)	
New York	845	2008 3Q	2009 2Q	(-3)	Forecast reflects impact of pooling implemented on 4/01
Florida	850	2006 1Q	2004 3Q	(+6)	Reflects reduction in monthly CO code demand and the return of codes
New Jersey	856	2004 1Q	2002 3Q	(+6)	
California	858	2009 3Q	2005 4Q*	(+15)	NPA Relief Implemented; Forecast reflects impact of pooling planned for 12/01
Kentucky	859	2007 2Q	2005 4Q	(+6)	Reflects reduction in monthly CO code demand and the return of codes
Connecticut	860	2001 3Q	2002 1Q*	(-2)	Pooling in place as of 10/00
Florida	863	2011 4Q	2007 3Q	(+17)	NPA Relief Implemented
South Carolina	864	2005 3Q	2005 3Q	(0)	
Tennessee	865	2014 2Q	2006 2Q	(+32)	NPA Relief Implemented
Canada	867			(NA)	867 is not projected to exhaust prior to 2021
Arkansas	870	2006 1Q	2006 3Q*	(-2)	
Tennessee	901	2006 3Q	2001 4Q	(+19)	NPA Relief Implemented
Canada	902	2015 3Q		(NA)	902 not projected to exhaust prior to 2021
Texas	903	2003 1Q	2002 4Q	(+1)	
Florida	904	2009 1Q	2002 1Q	(+28)	NPA Relief Implemented; Forecast reflects impact of pooling implemented on 4/01
Canada	905/289	2011 2Q	2002 1Q	(+37)	Impact of 289 Relief Overlay
Michigan	906	2008 2Q	2013 4Q	(-22)	3X increase in code demand
Alaska	907	2006 2Q	2006 3Q	(-1)	
New Jersey	908	2002 4Q	2002 4Q	(0)	
California R	909	2003 2Q	2002 4Q	(+2)	Relief planning suspended; Pooling in place as of 12/00
North Carolina	910	2006 3Q	2005 1Q	(+6)	
Georgia	912	2015 3Q	2008 3Q	(+28)	NPA Relief Implemented
Kansas	913	2009 2Q	2008 3Q	(+3)	

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Locality	NPA	Apr 2001	Prev Fcst	Quarter*** +/-	Notes
New York	914	2005 3Q	2001 3Q	(+16)	Forecast reflects impact of pooling implemented on 4/01
Texas	915	2004 1Q	2004 2Q*	(-1)	
California	916	2005 2Q	2003 3Q	(+7)	Pooling in place as of 12/00
New York	917	2001 1Q	2001 2Q	(-1)	NPA 917 is capped. Codes are assigned if they become available; Forecast reflects impact of pooling planned for 8/01
Oklahoma	918	2003 1Q	2002 3Q	(+2)	
North Carolina	919	2003 4Q	2001 4Q	(+8)	Reflects reduction in monthly CO code demand and the return of codes
Wisconsin	920	2004 4Q	2003 4Q*	(+4)	Reflects reduction in monthly CO code demand and the return of codes
California	925	2007 4Q	2004 3Q	(+13)	Forecast reflects impact of pooling planned for 9/01
Tennessee	931	2009 2Q	2009 2Q	(0)	
Texas	936	2013 4Q	2005 4Q	(+32)	NPA relief implemented
Ohio	937	2004 2Q	2003 4Q	(+2)	
Texas	940	2015 1Q	2007 3Q	(+30)	Decrease in code demand
Florida	941	2003 3Q	2003 1Q	(+2)	
California R	949	2006 3Q	2006 1Q	(+2)	
Minnesota	952	2013 1Q	2006 2Q	(+27)	NPA Relief Implemented
Florida R	954	2002 4Q	2002 3Q	(+1)	Forecast reflects impact of pooling implemented on 1/01
Texas	956	2011 3Q	2007 1Q	(+18)	Decrease in code demand
Colorado	970	2008 1Q	2008 1Q	(0)	
New Jersey R	973	2001 1Q	2001 1Q	(0)	NPA exhausted
Texas	979	2010 3Q	2005 4Q	(+19)	NPA Relief implemented
Louisiana	985	2008 4Q		(NA)	New NPA
Michigan	989	2007 4Q		(NA)	New NPA

R = Relief date based upon rationing amount.
NA = Not Applicable.
* = Indicates a new forecast has been published since the May 2000 forecast
** = Code data used for study as of 3/1/01; Canadian data as of 1/1/01.
*** = The quarterly change column shows a positive number if the exhaust date moved out from the previous forecast and a negative number if the exhaust date moved in.

Attachment 7—NANP exhaust projection

based on 2001 NRUF

Overview

Each year, NANPA projects the exhaust of the NANP based upon the utilization and forecast data submitted by carriers via the NRUF process. Similar to the NANPA study conducted in September 2000, NANPA's 2001 NANP exhaust analysis incorporated the potential impact of thousands-block number pooling as prescribed in the FCC NRO Order. Further, NANPA worked with the NANC Number Resource Optimization (NRO) Working Group to develop base case assumptions that were to be used in the study to project the impact pooling might have on NANP exhaust. These assumptions were reviewed and approved by NANC at their July 2001 meeting.

It was recognized at that time that there was limited data available to assist in projecting the impact of number pooling on CO code demand. For this reason, it was decided that it was best to apply the same basic assumptions used in the September 2000 study. Further, appropriate sensitivity analysis was applied to these assumptions in order to understand the potential impact of these assumptions on the study. It was generally recognized, however, that these assumptions were still speculative, by necessity, because of limited experience with pooling. As more experience with pooling is gained, a more realistic projection of NANP exhaust will begin to be developed.

2001 NANP exhaust projection assumptions

The following is a list of assumptions used in the development of the 2001 NANP exhaust projection prepared by NANPA. This study attempts to reflect the impact of the FCC's pooling requirement as specified in Number Resource Optimization Order (CC Docket No. 99-200), released March 31, 2000, which orders number pooling to be implemented in the top 100 Metropolitan Statistical Areas (MSA).[7] This study also attempts to show the impact of the implementation of utilization thresholds for growth resources, which became effective May 8, 2001.

1. The NANP exhaust study uses as its basis, the CO code demand. This includes carrier forecasts, historical CO code assignments and other NPA-specific information, calculated for each respective NPA. The monthly CO code demand, as calculated in the NPA exhaust analysis, is straight-lined to determine demand outside the five-year time frame included in NRUF submissions.[8]

2. For NPAs in rationing, a "non-rationed" demand was developed. This demand is applied in the rationed NPA beginning 3/1/01. Although the NPA may be in rationing for several months beyond 3/1/01, by applying the "non-rationed" demand on 3/1/01, any pent-up demand that typically occurs once an NPA comes out of rationing is accounted for in the projection.

3. It is assumed that thousands-block number pooling will only be implemented in those NPAs which have 50 % or more of their rate areas located in the top 100 MSAs. Further, the study included those NPAs where pooling has been implemented or is scheduled for implementation, regardless of whether or not the NPA was in one of the top 100 MSAs. This study will not include pooling within NPAs that are not located in top 100 MSAs, but will be included in subsequent exhaust studies as information on pooling implementation beyond the top 100 MSAs becomes available.

4. The study uses 4/1/2002 as a date by which the impact of national pooling will be felt in the CO code assignment rate for all pooling NPAs. The specific date for when pooling will begin for these individual NPAs is unknown[9]. Beginning 4/1/2002, the top 21 NPAs in terms of the highest CO code demand per month are identified and the baseline percent reduction applied. The next highest 21 NPAs reflect a pooling implementation date of 7/1/2002. This process continued until all appropriate NPAs were addressed.

5. The study reflects a reduction in the range of 50% to 80% in the quantity of CO codes assigned to wireline service providers in each NPA with 25 or more rate areas in the top 100 MSAs. It also reflects a 30% to 60% reduction for NPAs with 24 or less rate areas, starting 4/1/2002. Subsequent NANP exhaust projections will incorporate the actual pooling rollout schedule when it is available. For identified NPAs, NANPA determined the total number of rate centers in the NPA and applied the assumed percent reduction in CO code demand.

6. The FCC has requested comment on whether CMRS service providers subject to number portability should implement number pooling simultaneously with number portability, currently scheduled for November 24, 2002. For purposes of this study, it is assumed that CMRS providers will implement pooling in those NPAs identified in Assumption 3 by January 1, 2003. Therefore, the study reflects an additional 10% reduction in the num-

[7]NPAs 855, 844, 833, 822, 880, 881, 882, 883, 884, 885, 886, 887, and 889

[8]Effective May 8, 2001, the federally mandated utilization threshold in effect at the time of the study was implemented for all NPAs. The potential impact of utilization thresholds on CO demand was factored in by NANPA by reducing CO code demand based upon the individual NPA's overall utilization rate as reported in NRUF data (February 1, 2001 submissions). In future projections, this assumption should include the CO code growth rate when considering the impact of utilization thresholds on code demand.

[9]Subsequent NANP exhaust projections will incorporate the actual pooling rollout schedule when it is available.

ber of CO codes assigned to wireless service providers in each pooling NPA starting 1/1/2003. NOTE: Based on future data availability, more empirical data will be used to provide a more accurate projection of the impact of wireless participation in pooling on code demand.

7. Pooling is implemented in all rate centers in a pooling NPA. Even though pooling may not be implemented outside the MSA, but inside the NPA, it was assumed that pooling was implemented in all rate centers in a pooling NPA.[10]

8. A new NPA code will be required when the number of assigned and unavailable CO codes reaches 800 NXXs.

9. It is assumed that each new NPA will require the same number of unassignable codes as the current NPA has. It appears that most of the unassignable codes in the existing NPA are duplicated in the new NPA. There are also times when additional codes in the new NPA are marked as unassignable.[11]

10. No assumptions were made with regard to the relief method implemented (i.e., NPA split vs. overlay). However, it was assumed that the selected relief method did not require the duplication of NXX codes.

11. The CO code demand for an exhausting NPA will be continued after relief. By doing so, the demand for both the existing and new NPA codes will be taken into account for the geographic area covered by the original NPA.

12. The total quantity of available NPA codes will be 685 NPAs. This figure is derived as follows: 800 NPAs less NPAs reserved for NANP expansion (80), N11 codes (8), 555 and 950 NPAs (2), toll-free NPAs (13)[12] and non-geographic NPAs (12).[13]

13. To account for the variability of demand, a sensitivity analysis will be performed to the CO code demand in the pooling NPAs (i.e., demand will be increased and decreased by increments of 10%) to understand the impact on NANP exhaust.

[10]This may somewhat overstate the impact since not all wireline carriers within those rate centers are LNP capable.

[11]It should be noted that NANPA has a project underway to identify the status of all unavailable codes. This study could result in a change in the number of codes available for assignment in each NPA and therefore impact the date of NANP exhaust.

[12]NPAs 855, 844, 833, 822, 880, 881, 882, 883, 884, 885, 886, 887, and 889

[13]These include the six codes reserved for future PCS expansion (522, 533, 544, 566, 577, 588) and six of the codes reserved for Canada (622, 633, 644, 655, 677, 688).

Study methodology

Using the model developed for the 2000 NANP exhaust study and updated with the new NPA exhaust projections published in June 2001, NANPA applied the above assumptions to reflect the impact of number pooling as directed in the FCC's NRO Order. It should be recognized that some modifications, which are highlighted below, were made to the model to improve the overall results of the analysis.

- Maps of the Top 100 MSAs were created. Overlaid on these maps were the boundaries of existing NPA codes. In addition, the percent of rate centers geographically located in the MSA were noted on each map.

- For identified NPAs, NANPA determined the total number of rate centers in the NPA and applied the assumed percent reduction in CO code demand. Beginning 4/1/2002, the top 21 NPAs in terms of the highest CO code demand per month were identified and the baseline percent reduction applied. (NOTE: This percent reduction was applied to the wireline CO code demand, not total demand, as was done in the September 2000 study.) The next highest 21 NPAs reflected a pooling implementation date of 7/1/2002. This process continued until all appropriate NPAs were addressed.

- The assumed percent reduction to account for wireless pooling was applied on 1/1/2003 for each NPA in pooling on that date. (NOTE: The percent reduction was applied to CMRS demand, not total demand, as was done in the September 2000 study. In addition, the wireless reduction was applied 1/1/03 and not 24 months after the pooling implementation date, which was done in the September 2000 study.)

- The study incorporated those NPAs scheduled to implement pooling. The assumed percent reduction was applied on the scheduled date of implementation. The wireless pooling reduction was applied beginning 1/1/2003. (NOTE: The percent reduction for wireline pooling was applied to wireline demand only and the percent reduction for wireless demand was applied to CMRS demand only.)

- A sensitivity analysis was performed on various assumptions to determine its impact on the results.

Results based upon assumptions

As was discovered in the September 2000 NANP exhaust analysis, the model is sensitive to the yearly CO code demand rate. Using the monthly CO code demand for each NPA, as calculated in the June 2001 NPA exhaust analysis, and straight-lining this demand outside the five-year time frame included in NRUF submissions, creates a yearly demand rate

of 16,573 CO codes/year. This yearly demand rate was higher than the demand rate in 1999 and 2000 and significantly higher than the 2001 annualized demand rate. The annual CO code demand is summarized below:

Year	Annual gross CO code demand	Annual net CO code demand
1999	15,300	14,800
2000	16,000	12,500
2001 (annualized)	11,800	5,500

In order to provide a NANP exhaust analysis more reflective of the current industry trend in terms of yearly CO code demand, NANPA selected a base case of 11,600 annual CO code demand. This represents a 30% reduction in the annual demand created using the June 2001 NPA exhaust analysis. It was NANPA's view that, over time, the quantity of returned codes will begin to decrease as the industry adjusts to the optimization measures put in place with the FCC's NRO Order and the local exchange market begins to stabilize. Further, with the current attention being placed and actions being taken to conserve numbers, maximize number utilization, and delay NPA relief, it is envisioned that annual net demand will become more in line with gross demand as carriers obtain resources only when truly needed.

Model based on projected demand

Assuming pooling is only implemented in those NPAs that have 50 % or more of their rate areas located in the top 100 MSAs.

Using an average CO code demand rate of 11,600 codes assigned per year, the projected NANP exhaust date is 2025, assuming the quantity of NPAs available at time of exhaust is 685.

Sensitivity analysis

A sensitivity analysis was conducted to understand the relative impacts of certain assumptions on the results. As in the September 2000 study, NANPA identified two aspects of the exhaust analysis that impacted the results of the study. These two items included:

1. The assumption that only those NPAs with 50% or more of their rate centers in the Top 100 MSAs would implement pooling and,
2. The assumed percent reduction in CO code demand to reflect the impact of pooling (i.e., 50% reduction in CO code demand for NPAs with 25 or more rate centers, 30% reduction for NPAs with 24 or less rate centers and the 10% reduction to account for wireless pooling).

NPAs implementing pooling

The base model assumptions stated that only those NPAs with 50% or more of their rate centers in the MSA would implement pooling. Using this criterion, and counting those NPAs in this category that had already implemented or had plans to implement mandatory pooling, 114 NPAs were identified for pooling. To understand the sensitivity of this assumption, NANPA reduced this requirement to just one rate center. This resulted in an additional 55 NPAs implementing pooling as a result of the NRO Order. The projected NANP exhaust was 2027.

Percent reduction in CO code demand criteria

As stated earlier, it was recognized at that time that there was very limited data available to assist in projecting the impact of number pooling on CO code demand. The percent reductions included in the assumptions were estimates of the impact of pooling, to be further refined as additional data became available. For this reason, the assumptions included increasing the percent reductions for both wireline and wireless demand.

The table below depicts the impact of varying the percent reduction in demand in NPAs that implement pooling using the base model of 11,600 yearly CO code demand and assuming that pooling is implemented in any NPA with at least one rate center in the Top 100 MSAs. The analysis indicated that a reasonable variation in the percent reduction included in the study assumptions could impact the NANP exhaust time frame.

Change in CO code demand where pooling exists in at least one rate center

% wireline reduction (25 or more RCs)	% wireline reduction (24 or less RCs)	% wireless reduction	base demand (11,600 codes/yr.)
80	60	40	2034
70	50	30	2032
60	40	20	2030
50	30	10	2027

Varying annual CO code demand and sensitivity analysis

As part of its analysis, NANPA also applied the percent reductions in CO code demand due to number pooling to two other possible annual CO demand rates. For comparison purposes, NANPA performed a sensitivity analysis using 13,300 annual CO code demand, which represented the lowest demand rate used in the September 2000 NANP Exhaust

Analysis. In addition, NANPA further reduced demand to 9,900 codes per year, which represented a further reduction in demand. The table below summarizes the results, assuming pooling exists in at least one rate center.

Sensitivity analysis with various yearly CO demand

% wireline reduction (25 or more RCs)	% wireline reduction (24 or less RCs)	% wireless reduction	Increased demand (13,300 codes/yr.)	Base demand (11,600 codes/yr.)	Reduced demand (9,900 codes/yr.)
80	60	40	2030	2034	2038
70	50	30	2028	2032	2036
60	40	20	2026	2030	2034
50	30	10	2024	2027	2031

NANPA observations

As discovered in the September 2000 NANP exhaust study, the impact of number pooling on the overall exhaust of the NANP is based primarily on the assumptions used in the analysis. Although the number of NPAs that have implemented pooling have increased from last year, in many of these instances, other factors impacting the CO code demand rate (e.g., rationing prior to pooling) made it difficult to specifically identify the impact of pooling on demand. Therefore, the assumptions used in the 2001 study remained basically the same as those in 2000.

The primary difference in the studies was the application of the percent reduction in CO code demand as a result of pooling. In this study, the percent reduction in CO demand to reflect wireline pooling was applied only to wireline demand, not demand in total, as was the case in the September 2000 study. Further, the percent reduction in wireless demand was applied only to CMRS demand. This change did impact the result, as demonstrated by the sensitivity run using 13,300 assigned/codes per year. In this case, when comparing a similar sensitivity run from the September 2000 NANP Exhaust Analysis, the NANP exhaust date was advanced by five years (2029 to 2024).

Looking forward, with the selection of a National Pooling Administrator and a scheduled rollout of pooling beginning in March 2002, the identification and date of those NPAs implementing pooling will be available. Further, additional data from those NPAs in pooling today will be available to further refine the assumptions used in the analysis. This will permit more information to be available to assist in development of the assumptions used in the analysis and further enhance the results.

Attachment 8—Where to find numbering information

Many key numbering documents are available through the Internet. Here are some useful 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, and 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 Canadian numbering information similar to that provided by www.nanpa.com for the U.S. and its territories.

www.fcc.gov

Sections of the FCC's web site of particular interest are:

- www.fcc.gov/ccb—the home page of the Common Carrier Bureau. Orders related to numbering topics, including the NRO orders, can be found here.
- www.fcc.gov/ccb/Nanc/—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. This site contains their charter, meeting minutes, and membership lists.

www.nanc-chair.org

The home page for the Chair of the NANC. This site contains 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 regulator.

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 (INC). It lists the various subgroups active within the INC, and provides access to their meeting records and contribution. From here, links can be found to:

- INC documents, including all of the assignment guidelines for numbering resources, and
- INC working documents, including documentation on, for example, what alternatives the industry is considering when 10-digit telephone numbers are depleted.

www.trainfo.com

This is the home page for TRA. From this site, the NPA NXX Activity Guide, a valuable document for those who administer PBXs and other customer premise equipment, can be downloaded.

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. Links to all of the state commissions' web sites can be found at this site.

Attachment 9—NANP country contacts

Country	Contact for formal letters and policy issues	Contact for day-to-day regulatory numbering issues	Contact for central office code administration
Anguilla	Hon. Kenneth Harrigan Minister of Infrastructure, Communications and Utilities P.O. Box 60 Coronation Avenue The Valley, Anguilla British West Indies Phone 264-497-2442 Fax 264-497-3651	Kenn Banks Permanent Secretary MICU Coronation Avenue P.O. Box 60 Coronation Avenue The Valley, Anguilla British West Indies Phone 264-497-2442 Fax 264-497-3651 banksmicu@anguillanet.com	
Antigua and Barbuda	Asot Michael Telecommunications Minister Ministry of Public Works and Communications St. John's Street St. John's, Antigua British West Indies Phone 268-462-3022 Fax 264-497-3651		
Bahamas	Sir William Allen Ministry of Finance Sir Cecil Wallace-Whitfield Center P.O. Box N-3017 Nassau Bahamas Phone 242-327-1530	Leander Bethel Ministry of Finance Sir Cecil Wallace-Whitfield Center P.O. Box CB-10980 Nassau Bahamas Phone 242-327-5826	Michael Davis Executive Engineer Planning and Engineering Bahamas Telecommunications Corporation John F. Kennedy Drive Nassau Bahamas Phone 242-302-7031 Fax 242-325-3354 mdavis@batelan.com
Barbados	Chelsea R. Denny Senior Telecommunications Office Ministry of Industry and International Business The Business Centre Upton, St. Michael Barbados British West Indies Phone 246-430-2200 Fax 246-426-0960		

Country	Contact for formal letters and policy issues	Contact for day-to-day regulatory numbering issues	Contact for central office code administration
Bermuda	Gregory Swan Director of Telecommunications P.O. Box HM101, HMAX Hamilton Bermuda Phone 441-295-4595 Fax 441-295-1462 bswan@ bdagov.bm	Hiram Edwards Assistant Telecommunications Inspector P.O. Box HM101, HMAX Hamilton Bermuda hedwards@bdagov.bm	
British Virgin Islands	Mr. Elvin Stoutt Permanent Secretary Ministry of Communications and Works #33 Admin Drive, Central Administration Complex Roadtown Tortola British Virgin Islands Phone 284-494-3701 x2183		
Canada	Ursula Menke Secretary General Canadian Radio-Television and Telecommunications Commission One Promenade du Portage Ottawa, Ontario Canada K1A 0N2 Phone 819-953-3991 Fax 819-953-0589	Brenda M. Stevens Manager Policy, Numbering & Consumer Affairs CRTC Telecom Branch 1 Promenade du Portage, Hull, Quebec Canada K1A 0N2 Phone 819-953-8882 Fax 819-953-0795 brenda.stevens@crtc.gc.ca	Glenn Pilley Director Canadian Numbering Administrator SAIC Canada 1516-60 Queen Street Ottawa, Ontario Canada ON K1P 5Y7 Phone 613 563 7242 Fax 613 563 9293
Cayman Islands	Hon. Linford Pierson Ministry of Planning, Communications, Works and Information Technology Government Administration Building, 4th Floor Grand Cayman Cayman Islands Phone 345-244-2410 Fax 345-949-2922	Michael Kiron Office of Telecommunications PO Box 10002 Grand Cayman Cayman Islands Phone 345-949-2919 Fax 345-945-5091 Michael.Kiron@gov.ky	Graham Scott Route and Traffic Manage Cable and Wireless (Cayman Islands, LTD) PO Box 293, GT Grand Cayman Cayman Islands Phone 345-914-0554 Fax 345-949-4292 Graham.Scott@cwcay.cwplc.com
Dominica	Hon. Reginald V. Austrie Minister for Communications and Works Government Headquarters Rosseau, Commonwealth of Dominica Phone 767-448-2401 x3204 Fax 767-448-4807		Donnie DeFreitas National Telecommunications Regulatory Commission Secretariat PO Box BM690 Castries St. Lucia West Indies ddefreitas@hotmail.com

Country	Contact for formal letters and policy issues	Contact for day-to-day regulatory numbering issues	Contact for central office code administration
Dominican Republic	Orlando Jorge Meras Ministro de Republica Dominicana Instituto Dominicano De Telecommunicaciones Santo Domingo Dominican Republic Phone 809-473-8580 Fax 809-732-3904 ojorge@indotel.org.do	Fabricio Gómez Mazara Manager Concessions and Licenses Department Phone 809-473-8520 fgomez@indotel.org.do	Elving Santana Engineer Concessions and Licenses Department Phone 809-473-8504 esantana@indotel.org.do.
Grenada	Hon. Gregory Bowen Minister of Works, Communications and Public Utilities National Telecommunications Regulatory Commission PO Box 854 St. George's Grenada	Robert O. Finlay Director of Telecommunications National Telecommunications Regulatory Commission PO Box 854 St. George's Grenada Phone 473-435-6872 Fax 473-435-2132 gntrc@caribsurf.com	Eugene Gittens Numbering Administrator National Telecommunications Regulatory Commission PO Box 854 St. George's Grenada Phone 473-435-6872 Fax 473-435-2132 gntrc@caribsurf.com
Jamaica	Phillip Paulwell MP Ministry of Industry, Commerce & Technology 36 Trafalgar Road Kingston 10 Jamaica Phone 876-960-0312 Fax 876-929-8103 ppaulwell@mct.gov.jm	Rowland Phillips Director of Technology Ministry of Industry, Commerce & Technology 36 Trafalgar Road Kingston 10 Jamaica Phone 876-929-8990-9 Fax 876-754-5522 rphillips@mct.gov.jm	Courtney Jackson Deputy Director General Office of Utilities Regulation 36 Trafalgar Road Kingston 10 Jamaica Phone 876-968-6111 Fax 876-929-3645 cjackson@our.org.jm
Montserrat	Eugene Skerrit Permanent Secretary Department of Communications and Works for the Government of Montserrat Olde Towne Montserrat West Indies Phone 664-491-2521 Fax 664-491-3475		
St. Kitts and Nevis	Rupert Herbert Telecommunications Minister Saint Kitts and Nevis Phone 869-465-2521 x1018 Fax 869-465-0604		Donnie DeFreitas National Telecommunications Regulatory Commission Secretariat PO Box BM690 Castries St. Lucia West Indies ddefreitas@hotmail.com

Country	Contact for formal letters and policy issues	Contact for day-to-day regulatory numbering issues	Contact for central office code administration
St. Lucia	Senator Calixte George Ministry of Communications, Works, Transport and Public Utilities Union St. Lucia West Indies Phone 758-468-4300 Fax 758-453-2769	Truscott Augustin Chief Public Utilities Office Ministry of Communications, Works, Transport and Public Utilities Union St. Lucia West Indies Phone 758-468-4300 Fax 758-453-2769	Donnie DeFreitas National Telecommunications Regulatory Commission Secretariat PO Box BM690 Castries St. Lucia West Indies ddefreitas@hotmail.com
St. Vincent and the Grenadines	Apollo Knights Telecommunications Office Ministry of Communications & Works Kingstown St. Vincent and the Grenadines West Indies Phone 784-457-2279 Fax 784-457-1289 telecomsvg@caribsurf.com		Donnie DeFreitas National Telecommunications Regulatory Commission Secretariat PO Box BM690 Castries St. Lucia West Indies ddefreitas@hotmail.com
Trinidad and Tobago	Mala Guinness Deputy Director Telecommunications Minsistry of Science & Technology Corner of Agra and Patna Streets St. James, Trinidad, West Indies Phone 868-622-8389 Fax 868-628-3484		
Turks and Caicos Islands	Hon. Oswald O. Skippings Minister of Communications and Transportation Government Square Grand Turks Turks and Caicos Islands British West Indies		
United States	Dorothy T. Attwood Chief Common Carrier Bureau Federal Communications Commission 445 12th St., SW Washington, DC 20554 Phone 202 418-1500 Fax 202-418-2825	Diane Griffin Harmon Acting Chief Network Services Division Federal Communications Commission 445 12th St., SW Washington, DC 20554 Phone 202 418-2320 Fax 202-418-2345	Sandy Tokarek Regional Director, Code Administration NeuStar, Inc. 1800 Sutter Street, Suite 570 Concord, CA 94520 Phone 925-363-8701 Fax 925-363-8756 sandy.tokarek@neustar.biz


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