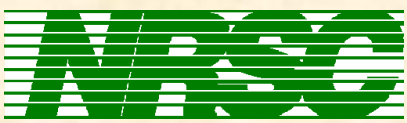
Network Reliability Steering Committee

Annual Report 2003



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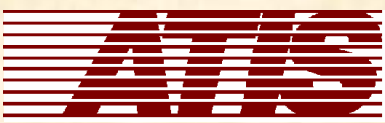

Sponsored by the Alliance for Telecommunications Industry Solutions

DATE: **September 20, 2004**

TO: **Stakeholders of the Nation's Public Communications Networks**

Public communications networks are *vital* to our nation's social well-being, public safety, economic stability and prosperity, and defense and security. The objectives of the Network Reliability Steering Committee include reporting on the health of the nation's networks and guiding industry improvements in network reliability. This Annual Report reviews the health of the nation's wireline communications networks for the year 2003, as well as trends observed over the past eleven years of outage reporting to the FCC.

2003 was a year of considerable challenges for the communications industry as it addressed the challenge of terrorism through increased hardening of physical and cyber security for its networks, faced the challenge of an historic electricity infrastructure failure during the August Northeast Power Blackout, and weathered two major national disasters in September's Hurricane Isabel and October's Southern California wildfires.

Despite these challenges, the 2003 numbers show trends in the right direction for most categories. Throughout its history, the NRSC has used two primary metrics to get its pulse on the health of the nation's networks – one for outage frequency and one for outage impact. The latter is computed with an outage index that is based on event duration, subscriber impact and other factors. Thus, network reliability improvements include both reducing the number of outages and reducing the impact of a given outage (e.g., the number of impacted subscribers gand/or the duration of the outage). *2003 had the lowest outage frequency and the lowest aggregated outage index to date.* However, the median outage index per outage does have an increasing trend over time. For all categories, 2003 outage frequency and outage index numbers remained within the "green" area of the control charts. These results are consistent with those observed in recent years, and demonstrate the continued overall reliability of the public wireline communications networks and services. As in previous Annual Reports, the NRSC encourages all service providers, network operators and equipment suppliers to review the industry's Best Practices documents available on the NRSC and NRIC web sites (www.nrsc.org/nrsc and www.nric.org).

At the writing of this letter, the industry is absorbing details of a new rulemaking regarding expanded FCC mandates for outage reporting. The NRSC is prepared to support analyses that would be expanded in other areas such as wireless and cable networks. Believing its function has been invaluable to the nation, the NRSC is hoping that the industry experts' access to the data that allows it to report on the health of the nation's networks and guide industry improvements will be allowed to continue.

The industry's recognition of its critical role in serving the nation's needs, its commitment to ensuring highly reliable networks, and its willingness to work together for the good of the nation despite a very competitive environment are as evident in the work of the NRSC as they are anywhere else. The NRSC is humbled that its methodologies are used as a model by others around the world and continues to review its processes for improvements.

KARL F. RAUSCHER
VICE CHAIR
NETWORK RELIABILITY STEERING COMMITTEE

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INTRODUCTION

This report provides an analysis of U.S. telecommunications network performance based on outage reports made by wireline service providers to the FCC from January 1, 1993 through December 31, 2003. While service providers are required to make such reports for outages meeting various criteria, the vast majority of reports are made for outages that potentially affect 30,000 or more customers for 30 minutes or more. The analysis results presented here were limited to those outages reported on the basis of these 30,000 customer/30 minute thresholds.

The report is divided into two major sections. The first section describes network performance overall and within failure categories. The second section provides further breakdown analyses of failure subcategories and root cause categories within each failure category. In both sections, the major metrics examined are outage frequency and aggregated outage index. The first section also examines the number of customers potentially affected and outage duration per outage.

The "Special" Outages section covers reports filed by carriers below the 30,000 customer threshold that affect major airports, major military installations, key government facilities, nuclear power plants, and 911 service, as well as fire-related incidents which impact 1,000 or more lines, but less than 30,000 lines, for 30 minutes or longer.

During 2003, members and participants in the NRSC included:

AT&T
BellSouth
e-Commerce & Telecommunications Users Group (ETUG)
Federal Communications Commission (FCC)
Juniper Networks
Lucent Technologies
National Communications System (NCS)
Nortel Networks
Qwest Communications
Roxtel
SBC
Sprint
Telcordia Technologies
Union Pacific Railroad
Verizon