

FY04 US LORAN Performance Review

Prepared for ILA 33

Tokyo, Japan

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Overview

- Overview of US Loran System
- Detailed Review of FY04 Loran Performance
- Brief Look Ahead to FY05



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Disclaimer

- The views expressed herein are those of the author and are not to be construed as official or reflecting the views of the Commandant or the U.S. Coast Guard.



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US Loran Overview

24 Loran Stations

24 Monitor Sites

2 Control Stations (Alexandria, VA & Petaluma, CA)

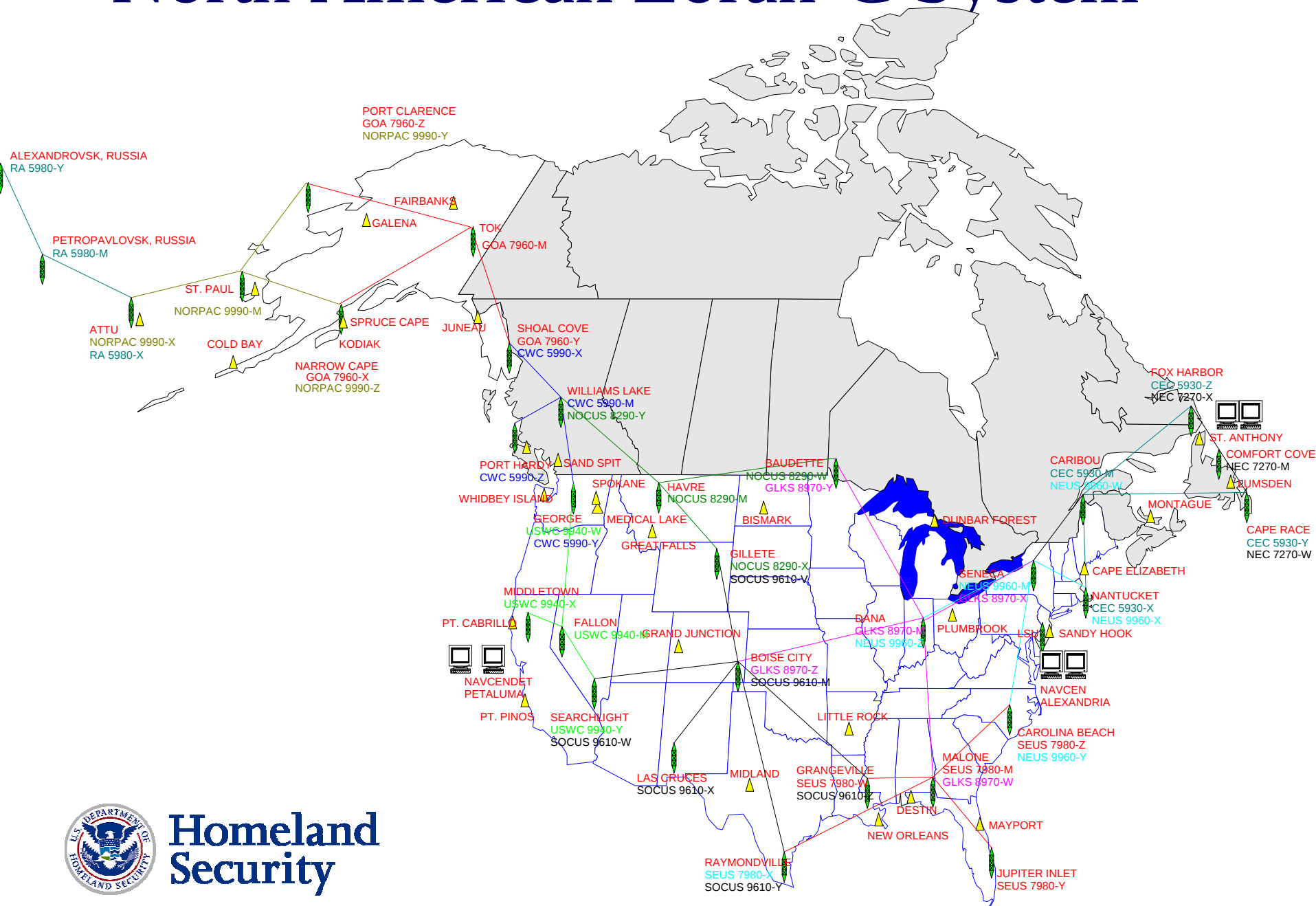
2 Shared Chains with Canada

1 Shared Chain with Russia



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North American Loran-C System



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FY04 US LORAN-C Performance



➤ *Another year of recapitalization, system modernization and solar activity!*



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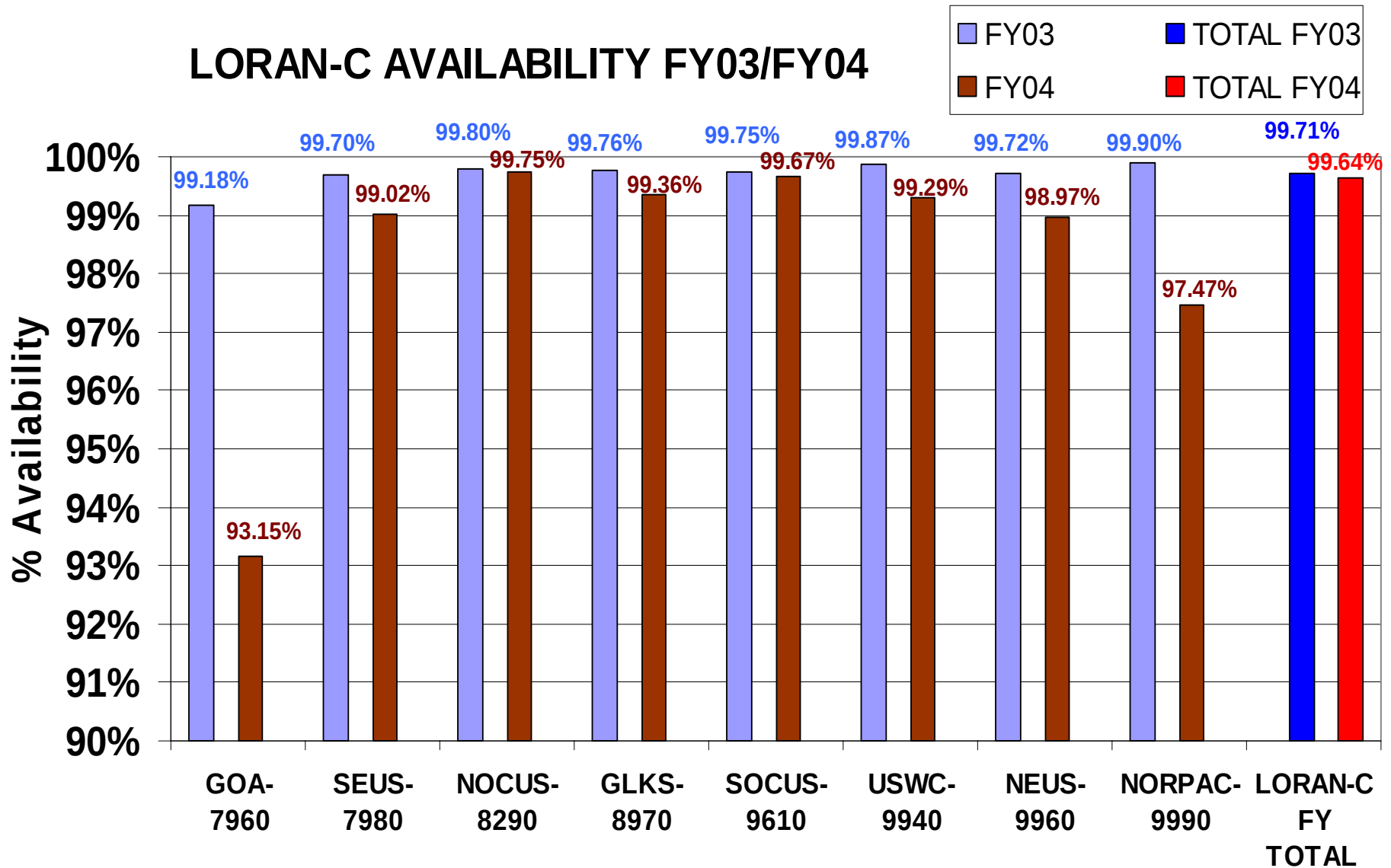
FY04 Preview (from ILA 32)

- Major solar impacts:
 - Total solar blink for 7960 in FY03: 9919 min
 - Total solar for 7960 in Oct 03: 6827 min
- Continued system improvements:
 - Improved timing suite
 - New solid state transmitters



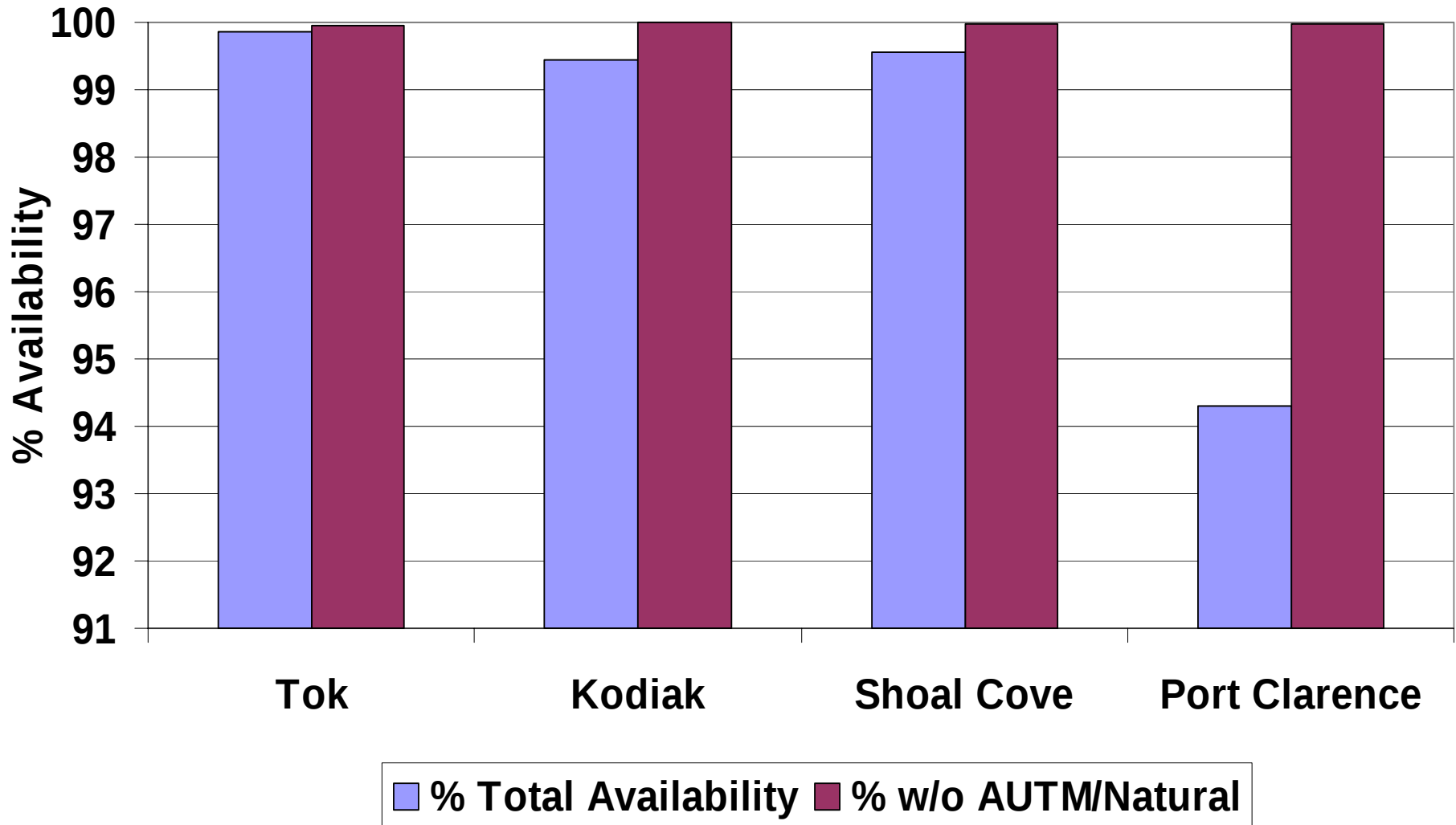
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LORAN-C AVAILABILITY FY03/FY04



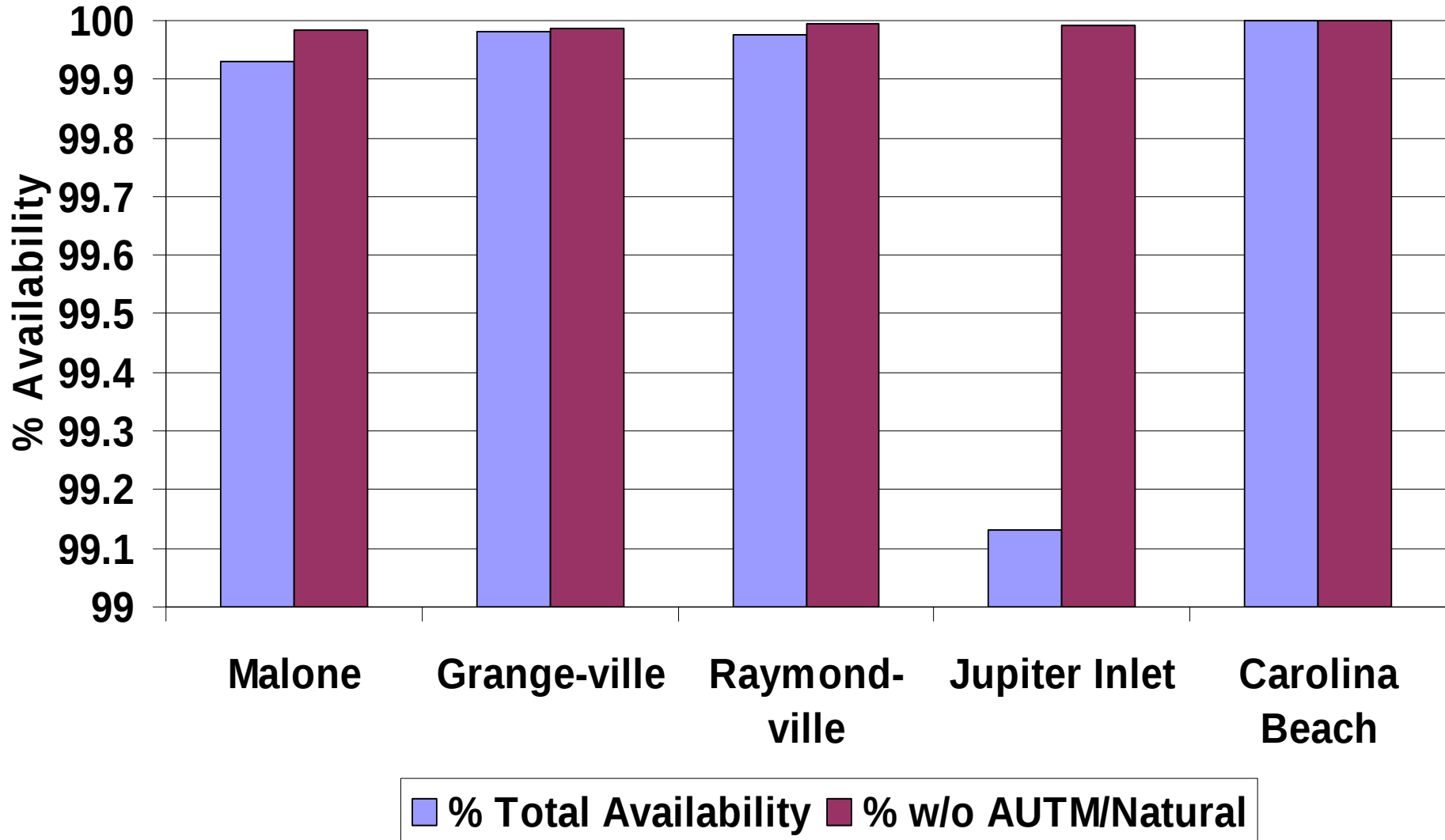
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7960 GOA Availability FY04



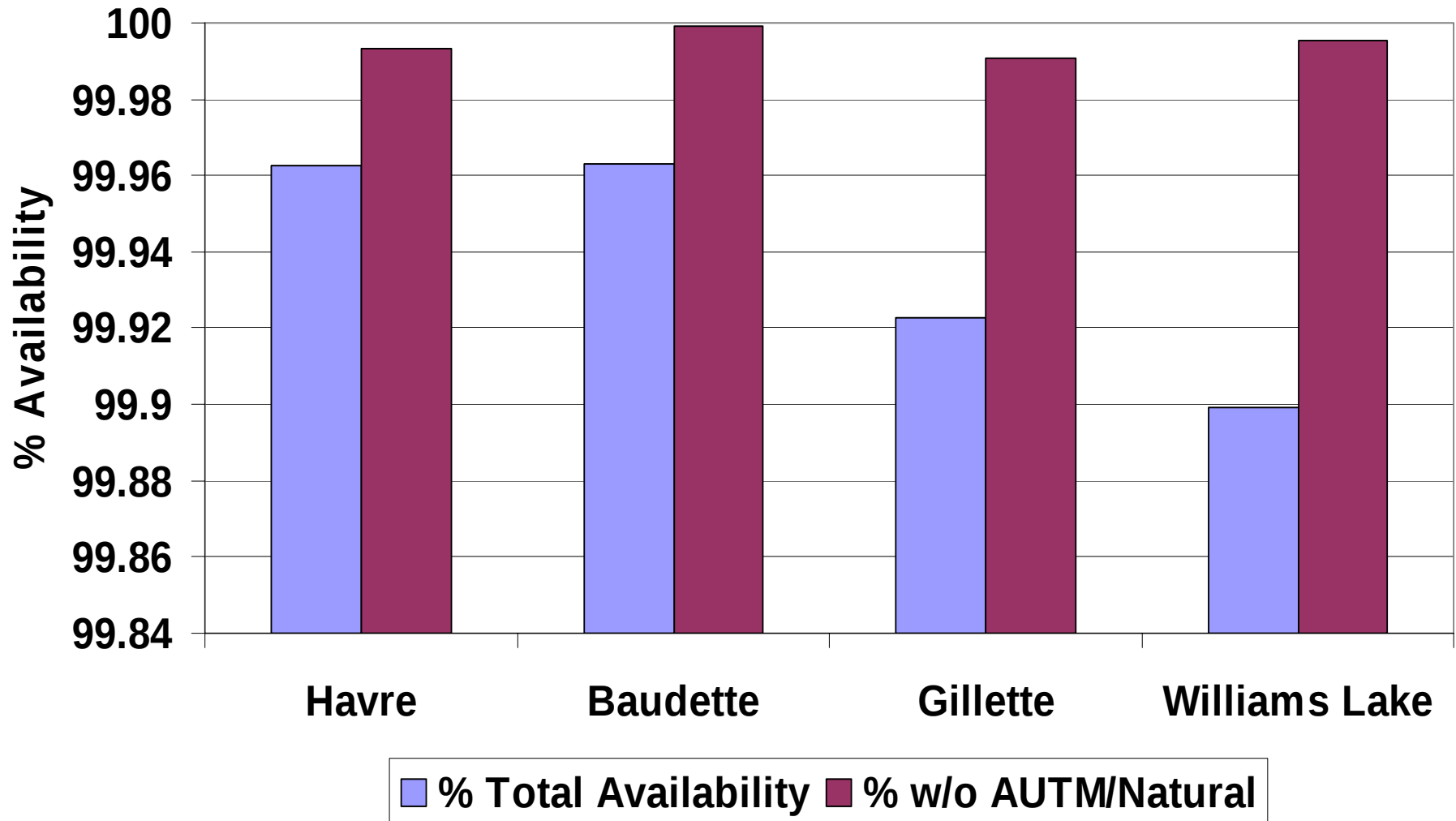
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7980 SEUS Availabilty FY04



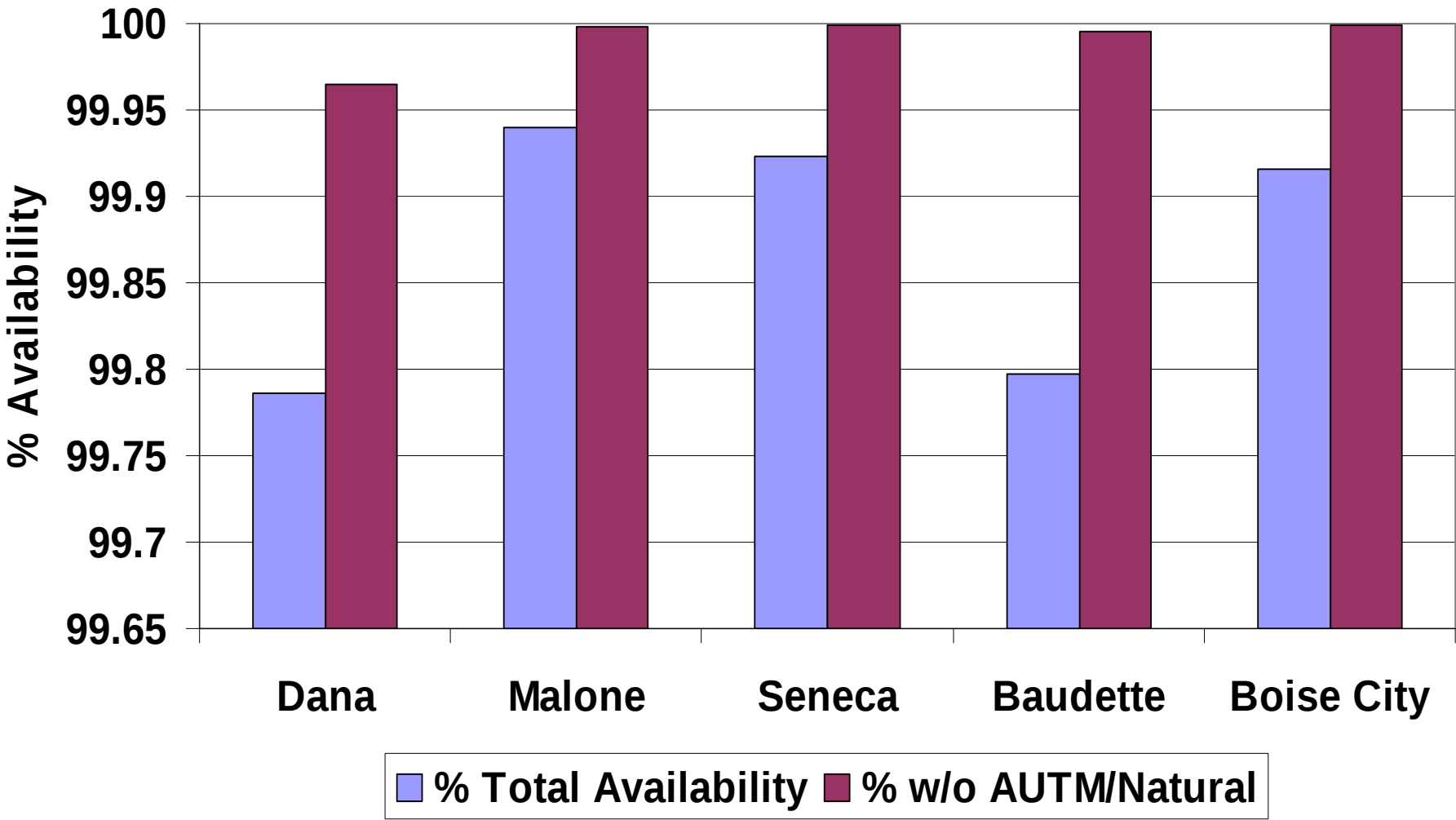
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8290 NOCUS Availability FY04



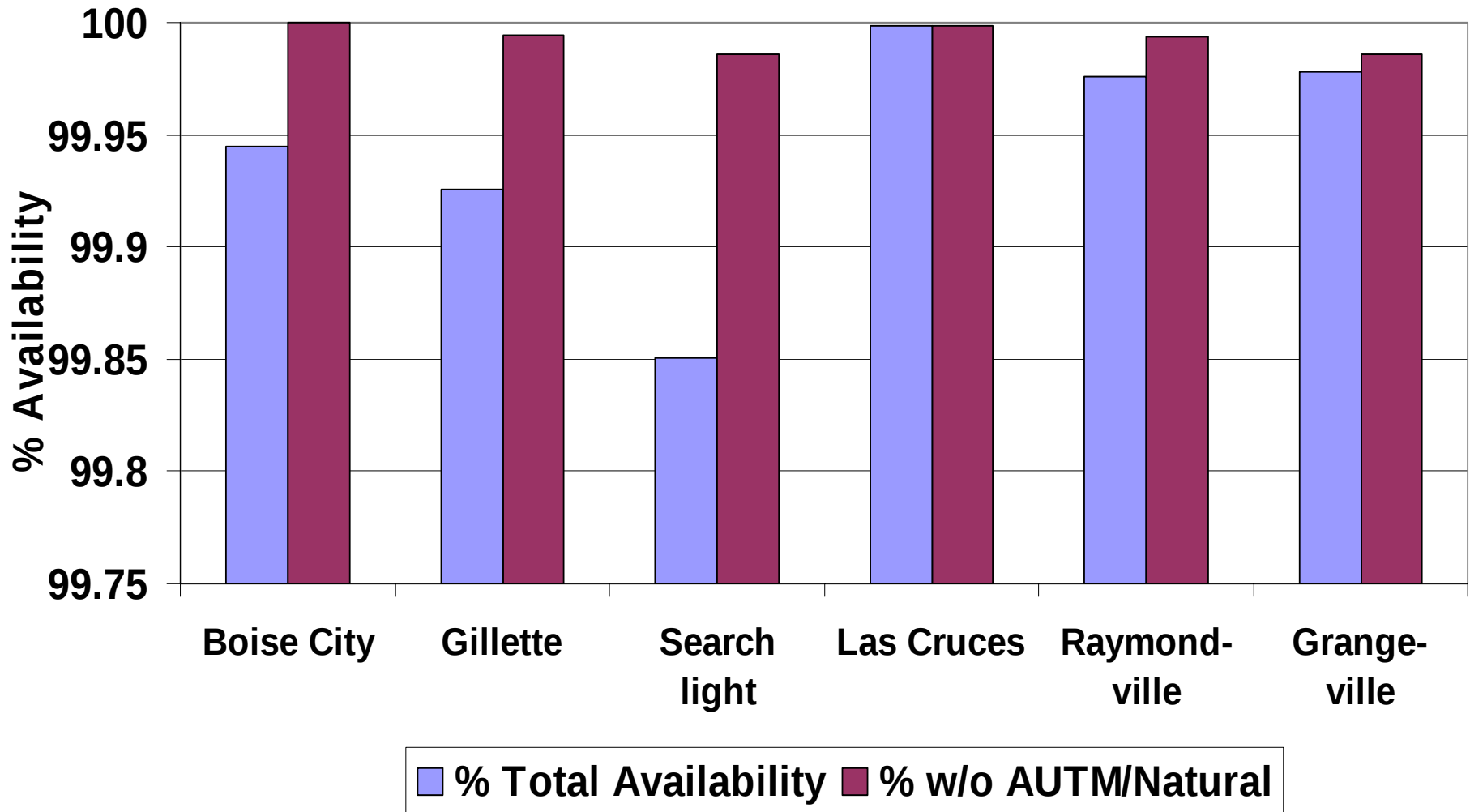
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8970 GLKS Availability FY04



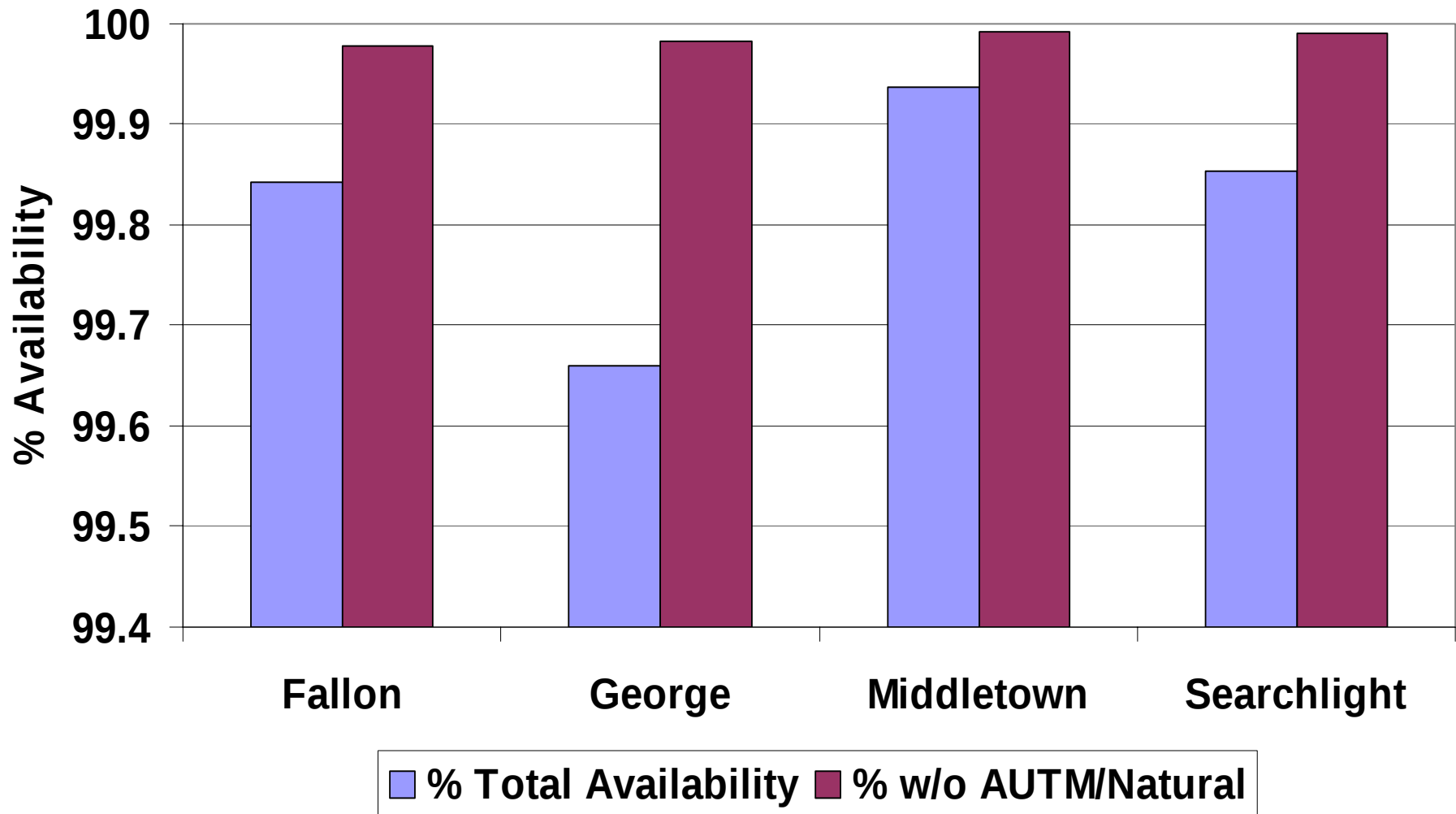
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9610 SOCUS Availability FY04



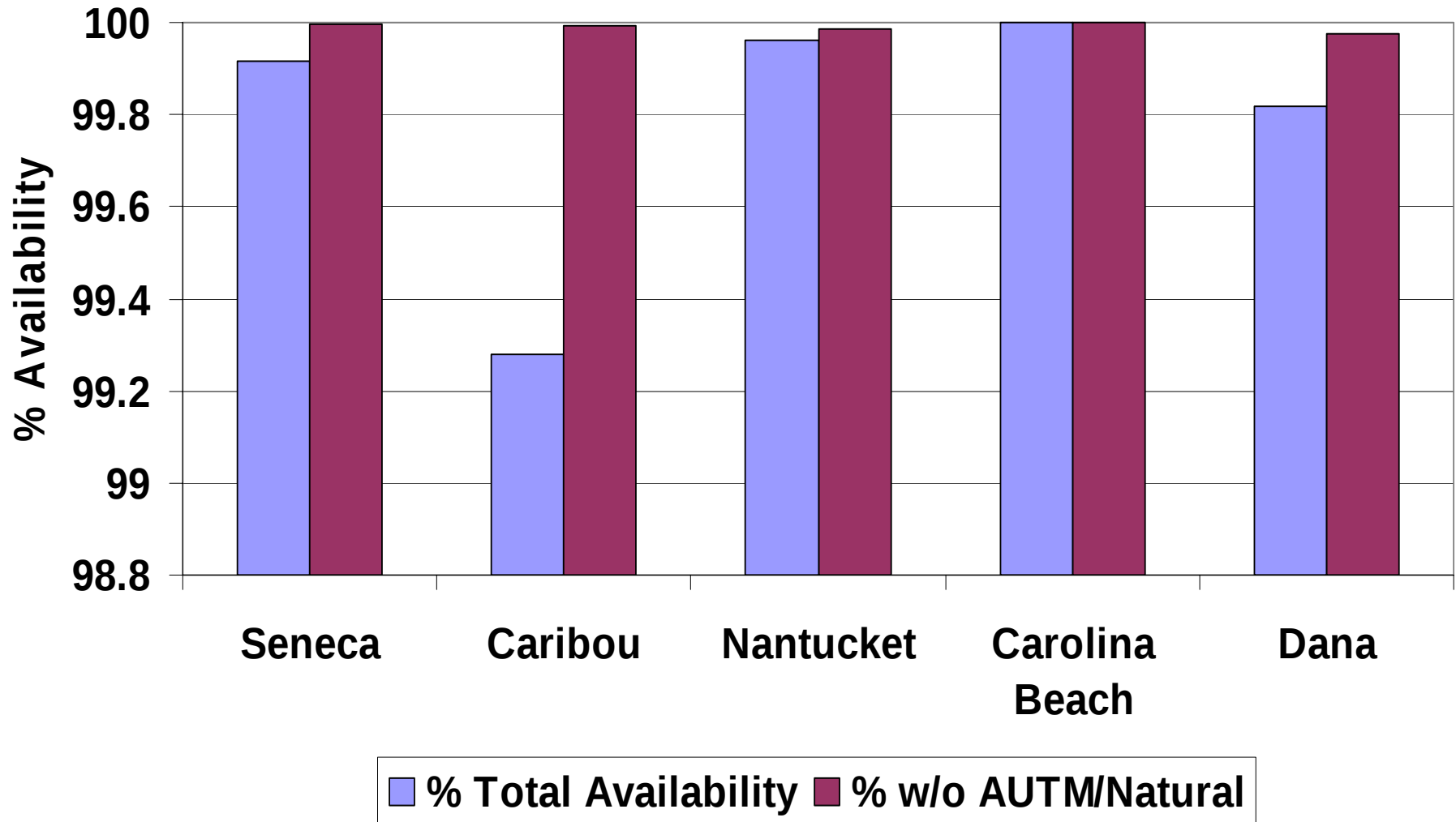
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9940 USWC Availability FY04



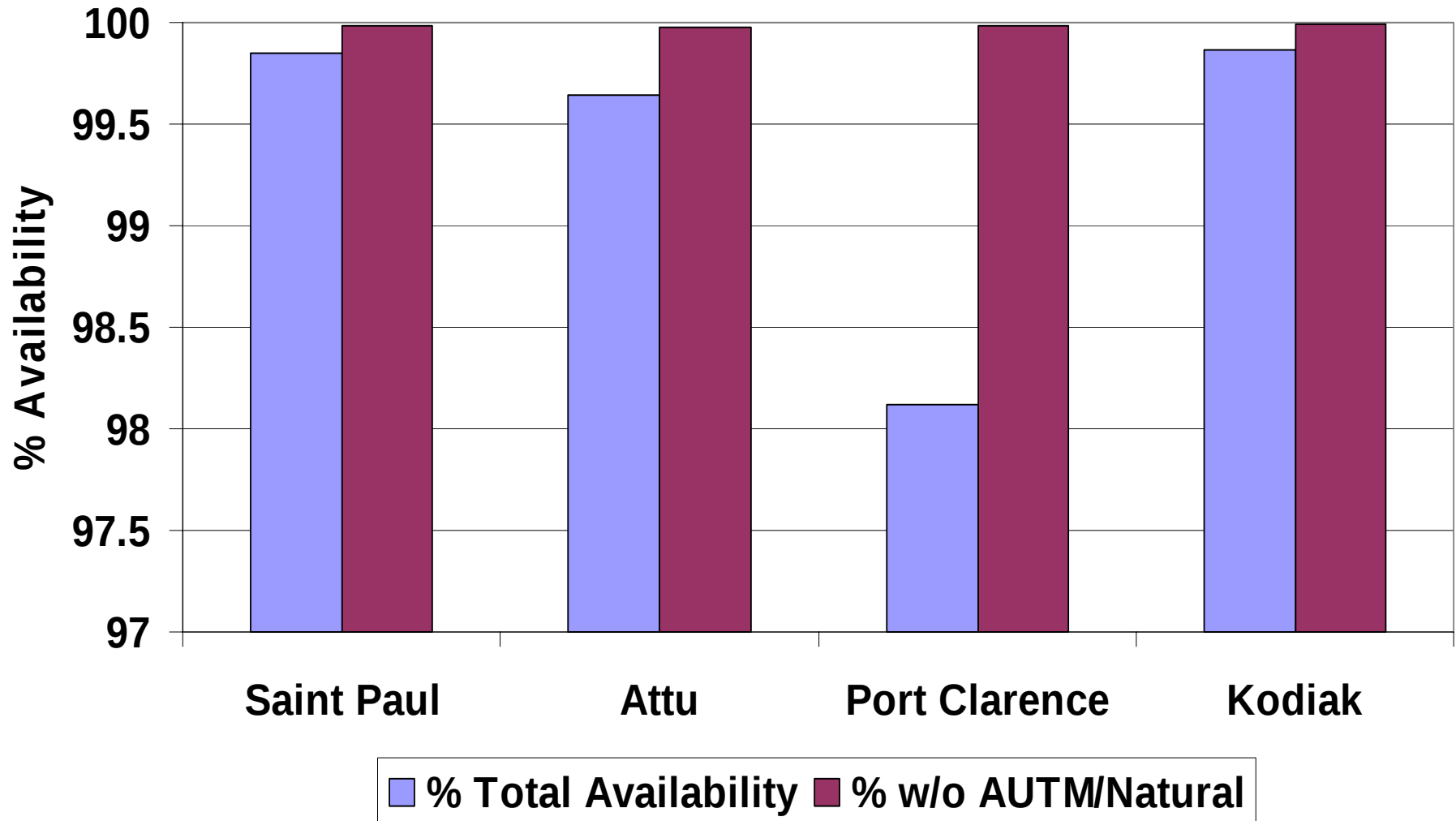
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9960 NEUS Availability FY04



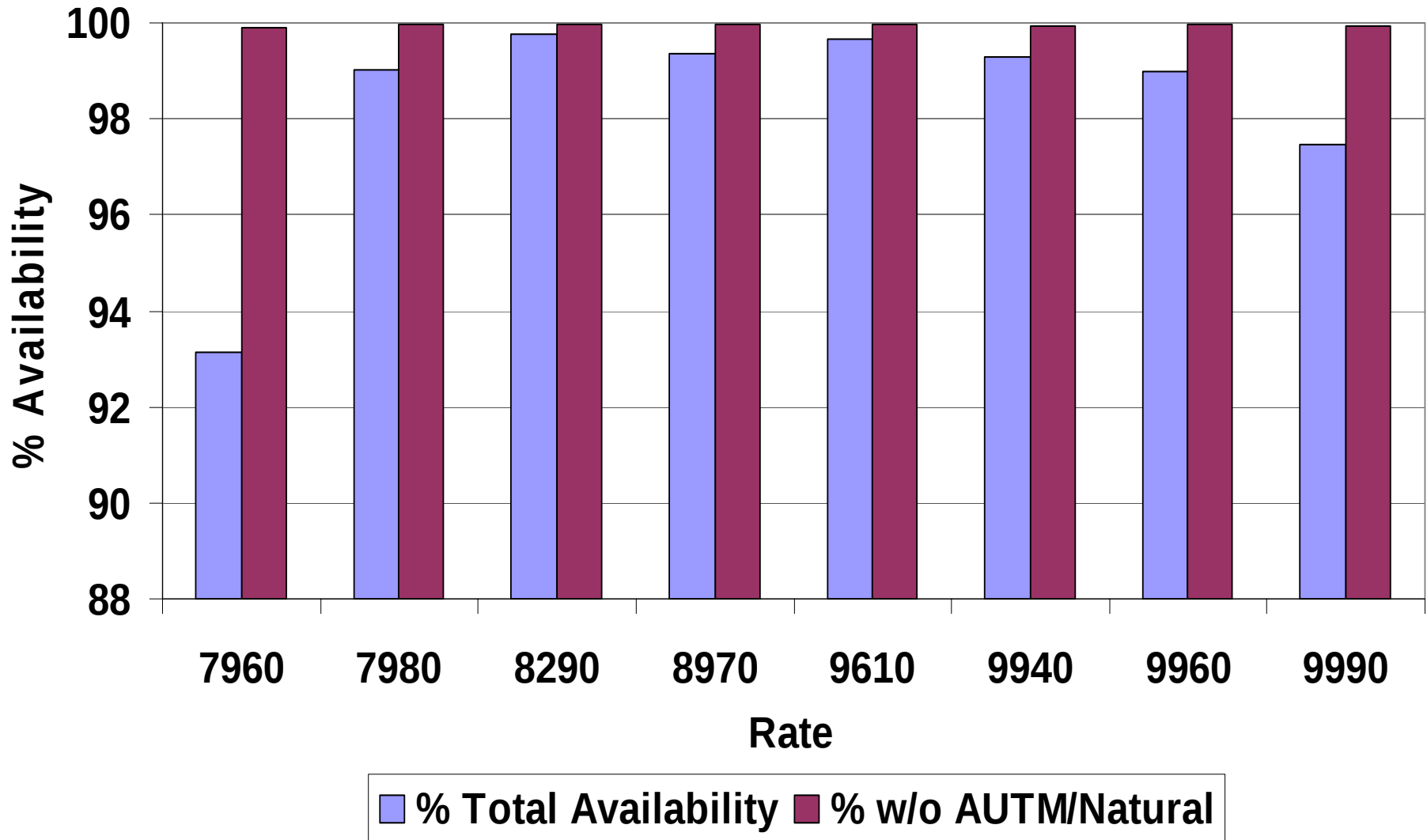
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9990 NORPAC Availability FY04



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U.S. LORAN Availability FY04



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FY04 Review

- Chain / baseline availability : **99.64%**
- Many major improvement projects
- Major solar impacts



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Looking ahead to FY05

- Continued system improvements:
 - Improved timing suite (TFE)
 - New solid state transmitters (nSSX)
- Reduced solar impacts
- Preparations for Time of Transmission Control
- New control system installation



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Thanks to NAVCEN personnel

- *ET1 Rich Nutting*
- *ET2 Michael Gessner*
- *LTJG Matt Will*
- *LT Scott Jinright*
- *LT Jim Bailey*
- *LT Luci Bookammer*
- *CAPT Curt Dubay*



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Summary

- U.S. Loran System continues modernization
- FY04 Operations were a success, despite:
 - Very heavy solar influences
 - Many station equipment upgrades
- Future plans are for continued system improvements
- Thank you for your attention ... your questions?



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