Contents

Page

The ITS Mission 1

Overview 2

Spectrum and Propagation Measurements 5

Radio Spectrum Measurement Science (RSMS) Operations 6

RSMS 4th Generation System Development 8

Table Mountain Research Program 10

Telecommunications and Information Technology Planning 13

Public Safety Broadband Communications 14

Standards Development for Public Safety Interoperability 16

Project 25 Compliance Assessment Program 18

Department of Commerce ISSI Evaluation and Test System (DIETS) 20

Emergency Telecommunications Service (ETS) Standards Development 22

Multimedia Quality Research 24

Wireless Network Measurement Methods 26

Telecommunications Engineering, Analysis, and Modeling 29

Interference Issues Affecting Land-Mobile Systems 30

Public Safety Video Quality 32

Public Safety Architecture Framework 34

Analysis of the High-Accuracy Nationwide Differential Global Positioning System . . 36

Telecommunications Analysis Services 38

Geographic Information System (GIS) Applications 40

Broadband Wireless Standards 42

Short-Range Mobile-to-Mobile Propagation Model Development and Measurements . 44

Page

Telecommunications Theory 47
Audio Quality Research. 48
Effects of the Channel on Radio System Performance 50
1.7 GHz Advanced Wireless Systems Compatibility Testing 52
Signal Characteristics, Spectrum Emissions, and Interference Analyses 54
Video Quality Research 56

Support to Private Sector Telecommunications Activities 58
Technology Transfer to Industry and Academia 58
ITU-R Standards Activities 60
ITU-T & Related U.S. Standards Development 62

ITS Tools and Facilities 65

ITS Projects in FY 2007 74

ITS Publications and Presentations in FY 2007 78
NTIA Publications 78
Outside Publications 79
Unpublished Presentations. 80
Conferences Sponsored by ITS 81

ITS Standards Work in FY 2007 82
Standards Leadership Roles. 82
Representative Technical Contributions 83

ITS Awards in FY 2007 85

Abbreviations/Acronyms 87