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August 29, 2008

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Via Certified Mail Return Receipt Requested

Re: Notice of Default and Unsatisfactory Completion of SWN Testing

Dear Dr. Vaughan and Mr. Muscatello:

The State of New York hereby declares M/A-COM, Inc. in default of the SWN Master Agreement pursuant to Article 3.18 and Attachment 2, RFP Section 12.24(B).

M/A-COM, by letter dated July 1, 2008, certified the Primary Regional Build-Out (PRB) in Erie and Chautauqua Counties was ready for Operational Testing by the State. Testing of the PRB by CIO/OFT, which was conducted between July 7 and July 18, 2008, revealed the PRB was unsatisfactory and unacceptable due to the existence of significant deficiencies. Such deficiencies are set forth in Exhibit 1, which is attached.

M/A-COM has delivered the PRB to the State for testing on three separate occasions. The first occurred in the fall of 2007, the second in the spring of 2008, and the third in summer of 2008. Prior to each of the two tests in 2008, M/A-COM certified the network in writing as ready for testing. On each occasion, testing by the State revealed the PRB was unsatisfactory and unacceptable. Accordingly, the State has determined that M/A-COM has been provided with

ample opportunity to deliver a PRB that materially complies with the contract requirements, but M/A-COM has failed to do so.

The SWN Master Agreement provides, upon receipt of this default notice, that M/A-COM has forty-five (45) calendar days ("the Cure Period") to correct the deficiencies set forth in Exhibit 1. Upon expiration of the Cure Period, the State will re-test the PRB to determine if the deficiencies identified in Exhibit 1 have been cured. In the event re-testing reveals the deficiencies have not been cured in the aggregate or alone which renders the PRB unsatisfactory and unacceptable, M/A-COM shall be deemed to remain in default of the Master Agreement. At such time, the State has the right to take one or more of the actions set forth in RFP Section 12.24(B) (4) (a).

The State reserves the right to cite any additional deficiencies and related defaults, not otherwise addressed in this letter or attachment.

Sincerely,


Dr. Melodie Mayberry-Stewart

Exhibit 1

For purposes of the contract references below, "Master Agreement" means the Statewide Wireless Network (SWN) Master Agreement approved by the New York State Comptroller on September 19, 2005 and as amended thereafter. References to the "SWN RFP" mean Master Agreement Attachment #1, *RFP Amendments* and Attachment #2, *RFP #1-007*. References to the "M/A-Com Mandatory Technical Proposal" mean Master Agreement Attachment #7, Part 2. Terms capitalized herein shall have the same meaning as set forth in the Master Agreement.

The deficiencies below are referenced to particular provisions of the SWN Master Agreement. The references are included to illustrate the deficiencies, but are not meant to encompass all applicable SWN Master Agreement provisions which may apply.

Identification of Deficiencies

The following deficiencies constitute a default on behalf of M/A-COM under the SWN Master Agreement. Each deficiency below was identified either: 1) during State testing of the PRB during the period of July 7 through July 18, 2008 (hereafter, the "July 2008 Operational Test"), 2) by determination that M/A-COM failed to deliver a mandatory feature or requirement under the Master Agreement, or 3) via an acknowledgement by M/A-COM that it had failed to deliver a specific contract requirement.

These deficiencies, individually and in the aggregate, constitute a violation of the SWN contract warranties, set forth in RFP Section 12.19 (See; Article 3.18(C)) of the Master Agreement and other contract requirements.

The warranties provide, in pertinent part, that:

1. SWN shall operate in accordance with the Functional Specifications and contract acceptance criteria (e.g., for the PRB). RFP Section 12.19 (A).
2. The equipment and services delivered by M/A-COM conform to the manufacturer's specifications, standards, and documentation. More specifically, M/A-COM product offerings must comply with the specifications as set forth by M/A-COM in its Bid Proposal and as elsewhere published. RFP Section 12.19 (B).
3. The equipment and services delivered under the SWN Agreement must be substantially uninterrupted or error free. RFP Section 12.19 (C).

Supporting Deficiency Reports

Summary deficiency reports are incorporated in Appendices A, B, F and G. These reports are generated from the handwritten "Problem Reporting Forms" completed during the July 2008 Operational Test and are examples of noted deficiencies. They are not intended to be a complete record of evidence supporting any deficiency.

Deficiency # 1: EQUIPMENT FAILURES

Reference:

- **RFP, Part 12, § 12.19(C); Equipment Failures**

Subscriber Equipment, as delivered by M/A-COM, failed to operate substantially uninterrupted or error free.

During the July 2008 Operational Test and the past two acceptance test iterations in the spring of 2008 and the fall of 2007 significant deficiencies were found with the overall reliability of the 7200 radio series delivered for acceptance testing.

During the July 2008 Operational Test, the failure rates (defined to be radios delivered by M/A-COM which required M/A-COM's intervention and service to initially function correctly or regain functionality after failure) associated with each of the Subscriber Equipment product lines were so significant that reliable and stable mobile communications capability was not demonstrated for a public safety system.

The following percentages reflect the Subscriber Equipment failure rates experienced during the July 2008 Operational Test:

- 5 of 16 (31%) mobiles failed
- 3 of 5 (60%) V-TACs failed
- 21 of 27 (78%) portables failed

Examples of failures include:

- *Radio Lockups, rendering the equipment unusable.*
- *Radio hardware failures (e.g. defective transmitters/receivers)*
- *Loss of portable radio user interface menus (e.g. Priority Scan and Scan Mode).*

Additionally, in both the Spring 2008 and the July 2008 Operational Tests, there were multiple instances of "open microphone" malfunctions, whereby radio voice transmissions occurred without a push-to-talk action by the operator.

See supporting problem reports, attached as "Appendix A".

Deficiency # 2: UNINTERRUPTED ROAMING

Reference:

- **RFP Exhibit 1, Part 1, § 1.01(B) (8); Uninterrupted Roaming**
- **M/A-COM Mandatory Technical Proposal**
 - **§ 7(A)(II); Seamless Handoff**
 - **§ 11.4; Automatic Grade-of-Service Optimization**
 - **§ 11(a) (3.2); Roaming**

During the July 2008 Operational Test significant problems associated with OpenSky roaming within the Primary Region were found, including, but not limited to:

- Excessive mid-transmission “roam tones”, which forced the operator to stop talking while on a drive route (simulating patrol operations) and wait for the Subscriber Equipment to determine and connect to a new Site before being able to continue communications on the network. During some drive routes, this occurred on nearly every transmission, effectively preventing use of the radio for emergency communications. Often the roaming would eventually re-associate the radio with the original Site, causing additional interruptions in service.
- Failure to optimize radio reception quality by radios passing over a Site with a stronger signal in favor of a Site with a poorer signal.
- Instances of “lost audio” where the tester experienced “frequent roaming”, coupled with Subscriber Equipment incorrectly indicating a communication connection available (received “grant tones”), when, in fact, there was actually no useable connection to the network.

See supporting problem reports, attached as “Appendix B”.

Deficiency # 3: PROJECT DELAYS

Reference:

- **RFP § 1.04; Implementation Timetable**

M/A-COM’s project schedule has been repeatedly revised to accommodate its failure to remediate its deficiencies. The SWN contract was approved on September 19, 2005. Phase I was required to be completed July 18, 2007, 22 months thereafter. As of July 18, 2008, the PRB remains unsatisfactory. The project is now substantially behind schedule, threatening the ongoing operation of SWN.

Deficiency # 4: CONFORMANCE TESTING FAILURES

Reference:

- **RFP Exhibit 3, Part 2, §2; M/A-COM Conformance Testing**
- **M/A-COM Mandatory Technical Proposal, Volume 1, Part 2, § 6; Acceptance Testing Methodologies**

M/A-COM has failed to conduct testing to verify the functionality of all equipment and systems deployed, as is evidenced by the high rate of failure of Subscriber Equipment and network availability. M/A-COM has thus failed to adequately plan, design, and execute reliable Conformance Tests for the PRB which accurately reflect the readiness of the system for State testing. The result has been three failed Operational Test iterations (fall 2007, spring 2008, and summer 2008) with numerous and recurring deficiencies identified by the State. The project is now substantially behind schedule and without proper conformance testing (e.g. Factory Integration Testing which fails to uncover Subscriber Equipment deficiencies), successful remediation has not occurred, threatening the ongoing operation of SWN.

Deficiency # 5: QUALITY ASSURANCE

Reference:

- **M/A-COM Mandatory Technical Proposal, Part 2, § 5, Quality Assurance:**
 - 5.4.3 System Optimization & Testing
 - 5.4.6.3 Equipment Reliability
 - 5.4.7 Software Quality Assurance
 - 5.4.8 Six Sigma Program
- RFP § 12.07; Quality Assurance (QA) Program
- RFP Part 4, § 4.02 (A); Quality Assurance (QA) Program

M/A-COM has failed to implement an effective quality assurance program for the PRB implementation, as was evidenced by the high rate of failure of Subscriber Equipment and lack of network availability. The lack of reasonable technical quality standards has resulted in three unsuccessful acceptance test iterations characterized by significant deficiencies associated with deployed OpenSky technologies, most importantly Radio Subscriber Equipment. M/A-COM's lack of quality control was demonstrated by its issuance of a certification of system readiness certifying that the PRB had passed all vendor Technical Testing and retesting, and was found to be functioning properly prior to the start of two failed Operational Tests. The project is now substantially behind schedule and without a proper quality control program (e.g. software regression testing) successful remediation has not occurred, threatening the ongoing operation of SWN.

Deficiency # 6: VEHICULAR REPEATERS

Reference:

- RFP Exhibit 1, Part 1, §1.01(B) (7); *Vehicular Repeaters*
- M/A-COM Training Session Notes (Power Point) ECP-7021e, M7200 System Model V-TAC, Page 129 (attached as "Appendix C"); *XCOV Mode*
- M/A-COM Training Session Notes (Power Point) ECP-7022e, P7200 System Model Portable Radio, Page 124 (attached as "Appendix D"); *V-TAC Search Icon*
- M/A-COM Training Session Notes (Power Point) ECP-7021e, M7200 System Model V-TAC, Page 133 (attached as "Appendix E"); *V-TAC Client Aliases*

The July 2008 Operational Test, as well as the past two Operational Test iterations in spring 2008 and fall 2007, revealed significant deficiencies with M/A-COM's Vehicular Tactical Network (V-TAC) system. These problems, when considered collectively, render the V-TAC system, acting as a vehicular repeater, unusable, unsafe and unsatisfactory for a public safety environment where reliable, consistent performance is of paramount importance. Deficiencies found include:

- *Inability to perform two-way authentication within an acceptable time period.*
- *Instability and unreliability of portable radio attachment and detachment performance, particularly when "automatic attaching".*
- *Portable clients unexpectedly being dropped by V-TACs, leading to a loss of service.*

- XCOV – 8 client mode showed serious deficiencies with attachments, select calls, and grant tones.

M/A-COM has asserted in its training material that the V-TAC in XCOV mode accommodates up to 8 portable radio clients. Testing has revealed that this configuration delivers unreliable and unsafe performance. M/A-COM has acknowledged that, due to design limitations, the effective loading in XCOV mode does not exceed two clients.

During the July 2008 Operational Test, it was found that the V-TAC search icon's display was inconsistent and does not accurately represent whether a V-TAC search is in progress.

During Operational testing, it was found that the client alias display was inaccurate and often reported portable radios that were no longer attached to the V-TAC.

See supporting problem reports, attached as "Appendix F".

Deficiency # 7: EMERGENCY CALLS

Reference:

- **RFP Exhibit 1, Part 2, §2.19 (B) (1) (a) (vii); Emergency Calls**
- **RFP Exhibit 1, Part 2, § 2.19 (B) (1) (h); Emergency Calls**

The July 2008 Operational Test, as well as the previous two Operational Test iterations in the spring of 2008 and the fall of 2007, found significant and continuing deficiencies associated with M/A-COM's emergency alert functionality. These deficiencies, when considered individually and collectively, render use of this critical Subscriber Equipment emergency alert feature unreliable, unsafe and unsatisfactory for use in a public safety environment. Specific deficiencies found include:

- Inability to clear declared emergencies.
- Instances of consoles receiving multiple emergencies in a short timeframe when only one emergency was declared from a single portable.
- "Phantom" emergency – instances where a talk group was not in a declared emergency state in the system, but nevertheless the Site equipment improperly declared a "phantom" emergency without any action on the part of the users. Emergency declarations could not be cleared without intervention and remediation by M/A-COM.
- Instances whereby emergencies declared by users of portable radios, connected to the network through a V-TAC, prematurely "cleared" during an ongoing emergency scenario without any user intervention. In other cases, the attempt to "clear" an initial emergency state by the user improperly caused a second emergency declaration.
- The ability for the last user to declare an emergency to clear all previous emergencies.

See supporting problem reports, attached as "Appendix G".

Deficiency # 8: DATA THROUGHPUT

Reference:

- RFP Exhibit 1, Part 2, §2.01, Table 1, (m); *Data Throughput*
- RFP Exhibit 1, Part 2, §2.06 (A); *Data Throughput*
- RFP Exhibit 1, Part 2, §2.07 (C); *Data Coverage*
- M/A-COM Mandatory Proposal, § 11(A) (5) *Data Throughput and Integrity*
- M/A-COM Mandatory Proposal, § 6.12.3.4; *Data*

M/A-COM has failed to demonstrate that this requirement has been met in the PRB and it acknowledged this deficiency on August 1, 2008.

Deficiency # 9: SYSTEM-WIDE CALL TYPE

Reference:

- RFP Exhibit 1, Part 2, §2.19 (B) (1) (e); *System-wide call type*

This feature has not been provided by M/A-COM.

Deficiency # 10: NETWORK-WIDE CALL TYPE

Reference:

- RFP Exhibit 1, Part 2, §2.19 (B) (1) (f); *Network-wide call type*

This feature has not been provided by M/A-COM.

Deficiency # 11: SYSTEM ACCESS TIME

Reference:

- RFP Exhibit 1, Part 2, §2.12; *System Access Time*

M/A-COM has failed to demonstrate that this requirement has been met in the PRB. Additionally, M/A-COM confirmed on August 1st, 2008 that this requirement has not been met.

Deficiency # 12: NETWORK RELIABILITY

Reference:

- RFP, Exhibit 1, Part 2, §2.16; *Network Reliability*

During the July 2008 Operational Test, the network experienced multiple Site outages, totaling 43 hours, 51 minutes of SWN unavailability. This magnitude of non-availability falls significantly below the Contract requirements for SWN reliability when projected on an annual basis and creates an unsafe, unacceptable and unsatisfactory environment for emergency first responders.

See M/A-COM network outage reports, attached as "Appendix H".

Deficiency # 13: OFF-SYSTEM CALL OPTIONS

Reference:

- **RFP Exhibit 1, Part 2, §2.19 (B) (2); Off-System Call Options**

Portions of this feature have not been provided by M/A-COM. These include:

- *Individual*
- *Emergency*

Deficiency # 14: FULL-DUPLEX MODE

Reference:

- **RFP Exhibit 1, Part 2, §2.19 (C) (2); High-tier subscriber units shall be capable of operating in, with appropriate echo cancelling**

This feature has not been provided by M/A-COM for the P-7200 radio (any tier).

Deficiency # 15: TOWER HAZARD-LIGHT MONITORING

Reference:

- **RFP Exhibit 1, Part 4, §4.06 (C) (4); Tower Hazard-Light Monitoring**

M/A-COM has not implemented hazard-light monitoring and reporting on all towers, instead enabling this capability only for new M/A-COM constructed Sites.

Deficiency # 16: GATEWAYS

Reference:

- **RFP Exhibit 3, Part 2, § 9 (C); Inter-Working With Other Legacy Systems**
- **RFP Exhibit 1, Part 1, § 1.01 (D); Interworking Gateway**
- **RFP Exhibit 1, Part 2, § 2.11(G); Interoperability - Infrastructure**

Four M/A-COM gateways were tested during the July 2008 Operational Test. Consistent and acceptable voice quality was not demonstrated.

- *Hamburg Police Department: Poor audio quality from the Hamburg Police system to OpenSky was repeatedly noted. Additionally, when attempting to test a portable through a V-TAC, several seconds of unusable audio were present at the start of each transmission.*
- *New York State Park Police and Park Operations: Poor audio quality was repeatedly noted. Additionally, during one attempt to test these gateways, no audio was heard.*

It was subsequently determined that M/A-COM had conducted service action on these gateways and had failed to properly reinitialize them – leaving them inoperable.

Deficiency # 17: CALLER ALIAS

Reference:

- **M/A-COM Training Session Notes (Power Point) ECP-7022e, P7200 System Model Portable Radio, Page 51 (Attached as “Appendix I”); Caller Alias**

It was found during the July 2008 Operational Test that the “alias” display malfunctioned intermittently and did not consistently display the caller’s correct alias on line 2, making it unreliable, unstable and unsatisfactory.

Deficiency # 18: DIGITAL VOICE BUFFERING

Reference:

- **M/A-COM Mandatory Technical Proposal, § 7(A)(II); OpenSky Subscriber Features and Functions – Digital Voice Buffering**
- **M/A-COM Mandatory Technical Proposal , § 11.4; Call Buffering**

M/A-COM has failed to demonstrate that this requirement has been met in the PRB.

Deficiency # 19: OVER-THE-AIR PROVISIONING

Reference:

- **M/A-COM Mandatory Technical Proposal §12b.4.1 Example of SWN Over-the-Air Provisioning using the OpenSky Network Administration System**
- **M/A-COM Mandatory Technical Proposal, § 12B.5 OpenSky Remote Download Configuration: Over-The-Air Programming (OTAR)**
- **M/A-COM Mandatory Technical Proposal § 11.4; Over-the-Air Provisioning**
- **RFP Exhibit I, Part 1, §1.01(B) (5); Over-the-Air Programming (OTAP) of Changes to Subscriber Unit personality, New Features and Software Upgrades**
- **RFP Exhibit 1, Part 2, § 2.19 (C) (1) (a); Radio Programming**

M/A-COM has failed to provide a convenient, flexible and stable method for over-the-air upgrading of radio operating code and configuration files. When M/A-COM attempted over-the-air programming in preparation for the July 2008 Operational Test, some over-the-air transfers failed and it was found that not all applications could be upgraded over-the-air. For M/A-COM to complete its programming process, it was necessary to abandon over-the-air programming and substitute direct cable connectivity for its over-the-air feature.