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**VIA COURIER**

January 17, 2006



Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
c/o Natek, Inc.
236 Massachusetts Avenue, N.E.
Suite 110
Washington, DC 20002

**Re: NewCom International, Inc. Amendment to Earth Station Application SES-MFS-20041206-01790, as amended by SES-AFS-20050114-00050**

Dear Ms. Dortch:

NewCom International, Inc. ("NewCom"), through its undersigned counsel, hereby amends its pending earth station application (SES-MFS-20041206-01790, as amended by SES-AFS-20050114-00050) as required by Section 25.137 of the Commission's rules.[1] NewCom had previously been granted a 60-day extension to provide a narrative description of the space station operator's plans to mitigate orbital debris.[2] By this letter, NewCom demonstrates that the Express 3A Russian satellite complies with the Commission's orbital debris mitigation rules.

NewCom does not own or operate the Express 3A satellite, but obtained a copy of the English language version of the Russian Space Communications Company ("RSCC") debris mitigation guidelines for the Express 3A from Intersputnik. The RSCC's Express 3A debris mitigation guidelines are attached hereto as Exhibit 1. These guidelines provide a narrative description of the space stations operator's plans to mitigate orbital debris as required by the Commission's rule.[3]

In addition, please note that NewCom has been in contact with MCI's counsel in order to coordinate the filing of this showing because MCI also has a pending earth station application to

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1 *See also, Mitigation of Orbital Debris*, Second Report and Order, 19 FCC Rcd 11567 (2004).

2 *See* Letter to Marlene H. Dortch, Secretary from Kathy L. Cooper, Troy F. Tanner, and Danielle C. Burt, Counsel for NewCom International, Inc. (filed November 14, 2005), granted in *Satellite Communications Services Information Re: Actions Taken*, Public Notice, Report No. SES-00774, (December 7, 2005).

3 47 C.F.R. § 25.137.

access the Express 3A. Accordingly, it is our understanding that MCI is concurrently filing a letter received from the RSCC that addresses the orbital debris mitigation plans of the Express 3A satellite. NewCom has reviewed the RSCC's letter to MCI, and believes it is consistent with the information NewCom has received from Intersputnik.[4] Both filings should independently confirm to the Commission that the Express 3A satellite will operate in a manner consistent with the Commission's orbital debris mitigation rules.

An original and four (4) copies are enclosed for filing. Please date-stamp the enclosed extra copy, and return it to the undersigned. Please do not hesitate to contact us if you have any questions regarding this matter

Respectfully submitted,

Troy F. Tanner
Danielle C. Burt

cc: Scott Kotler (FCC)
Stephan Duall (FCC)

[4] NewCom notes that the RSCC letter to MCI states that the Express 3A's disposal orbit will be at a height of not less than 150 kilometers above the geostationary orbit, which is confirmed by the attached RSCC's orbital debris mitigation guidelines because they require Express 3A's disposal orbit to be at least 200 km above the geostationary orbit.

# Exhibit 1

## Express 3A Orbital Debris Mitigation Guidelines

# Russian Space Communications Company

Express system with Express 3A satellite

GSO space debris mitigation guidelines

10АОГК.0000-0ПМ-3

Contents

## Introduction

This document was prepared to support the industrial standard of Russian Federal Space Agency (OST 134-1023-2000) and provides for the general guidelines to mitigate the GSO space debris. Such plan is used by Russian Space Communications Company as one of the basic documents to reduce the amount of space debris in relation to Express 3A SC.

## 1 Reference documentation

The following documentation is not the formal part of this documents and is drafted in order to ensure more clear understanding:

1. Industrial standard of Russian Federal Space Agency OST 134-1023-2000 «General requirements to mitigate technogenic space debris».
2. Committee on the Peaceful Uses of Outer Space. Scientific and Technical Subcommittee. Fortieth session. Vienna, 17-28 February 2003 Item 10 of the provisional agenda. Space debris.
3. IADC Space Debris Mitigation Guidelines. IADC -02-01. 15 Oct. 2002.

## 2 General information on Express 3A SC

Express 3A SC was manufactured in accordance with Russian standards and specifications and carries telecommunications payload produced by Alcatel.

The spacecraft is equipped with orientation thrusters and plasma thrusters using xenon propellant.

Express 3A was launched in 2000, its lifetime will expire not earlier than in 2007.

## 3 Express 3A operations

All materials used in Express 3A in accordance with GOST P50109-92 have minimum factors of mass loss and outgassing.

Express 3A operations at GSO, SC transfer to a new operating GSO slot (if necessary), SC de-orbiting from GSO after the end of operational lifetime are performed under constant control and monitoring of RSCC ballistic group which fact provides for the flight safety and eliminates the possibility of collisions with other SC in orbit.

The onboard equipment of Express 3A SC includes the pressurized items, such as Nickel-Hydrogen battery, xenon storage & supply tank. There is no possibility for the destruction of the above equipment which is provided by substantial margins of safety and proved by numerous ground and flight tests after over 20 missions.

There will be no separation of structural elements and units of Express 3A SC during its operations at GSO and de-orbiting.

Express 3A is operating at geostationary slot 11W00 in accordance with the filing to the ITU and pursuant to the ITU legal requirements, thus the possibility of collision with other SC due to the RSCC fault is eliminated.

Express 3A is monitored non-stop. Orbital corrections are performed in standard mode in accordance with orbital correction schedule.

The onboard systems and control principles of Express 3A are organized in such a way to make sure that a single failure or erroneous command will not lead to unauthorized activation of propulsion system.

## 4 De-orbiting of Express 3A SC

RSCC plans the following operations to de-orbit SC upon the end of operational lifetime:

1. Calculation of requisite amount of propellant to de-orbit SC from GSO upon the end of operational lifetime.
2. Telemetry monitoring of propellant (xenon) at propulsion system during the total period of operations.
3. SC de-orbiting from GSO upon the end of operational lifetime with requisite amount of propellant at propulsion system. Perigee of orbit for SC transferred to the de-orbiting area should exceed the radius of GSO by at least 200 km (OST 134-1023-2000). Considering such factors the altitude increase for Express 3A while removing from GSO is taken as 200 km. (300ГК.0000А201-0 П311 ч. 12)
4. As part of measures to inactivate SC upon the decommissioning it is stipulated that all power sources will be switched off thus preventing the transformation of energy generated from onboard power sources into destructive energy. Such measures include:
    - deactivation of correction and orientation thrusters (switching power sources off). It should be noted that the remaining propellant at propulsion system (inert gas – xenon) is explosion-proof;
    - final discharge of batteries as commanded from ground control system;
    - switching the onboard equipment off.
5. During SC de-orbiting from GSO the operations of service control channel will be planned to avoid the possibility of interference in the frequency bands of other SC.

## 5 Notifications

RSCC shall undertake to provide copies of documents covering this issue as requested by Russian Space Agency and IADC with all requisite notifications as required by law and standards for RSCC spacecraft including but not limited to the issues related to bringing into use, orbital slot, transfer to another orbital slot, orbital inclination change, transfer to different orbit.

Annex A

## List of acronyms

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|---|---|---|
| GSO | - | Geostationary Orbit; |
| SC | - | Spacecraft; |
| ITU | - | International Telecommunication Union. |