



October 24, 2013

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Room TWA325
Washington, DC 20554

Re: Application of Northrop Grumman Systems Corporation for Temporary Spectrum Use, File No. 0868-EX-ST-2013, Call Sign WG9XHQ

Dear Ms. Dortch:

The First Responder Network Authority ("FirstNet") consents to the application of Northrop Grumman Systems Corporation ("Northrop") for experimental special temporary authority ("Experimental STA") for a proposed trial Long Term Evolution ("LTE") network ("Demo Network") using FirstNet's 700 MHz band spectrum. The Demo Network would test how a public safety network operations center with local content and local control would interface with a regional network core. Northrop proposes to test three first responder features: identity management, cyber security, and an applications delivery platform ("apps store"). The proposed trial network would operate between the New York City metro area and Northern Virginia for a period not to exceed 180 days between November 2, 2013 and May 1, 2014.

The Federal Communications Commission ("Commission") previously granted Northrop an STA, in which FirstNet concurred. The previous STA expires November 1.¹ However, Northrop explains that siting, permitting and contractual issues delayed the start of the trial, necessitating a new application to extend the trial.²

FirstNet's concurrence is premised on temporary operations that conform to the following parameters:

- 1) Operation will be confined to the immediate vicinity of three base stations: one in Manhattan and one in Brooklyn, and one in McLean, Virginia, together with 20 end user devices and a backhaul system. In the New York metro area, the devices will operate within three miles or less of the base stations. In McLean, the devices will operate indoors. Northrop states that it

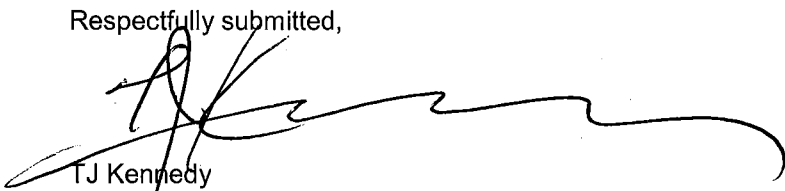
¹ FCC Experimental Special Temporary Authorization, Northrop Grumman Systems Corporation, File No. 0775-EX-ST-2012, Call Sign WG9XHQ (effective May 1, 2013), *available at* <https://apps.fcc.gov/els/GetAtt.html?id=133770&x=>.

² In its previous application, Northrop understood that any request for extension would require a separate application and concurrence from FirstNet. Letter from Karen L. Hull, Northrop Contracts Director, to Julius Knapp, Chief, Office of Engineering and Technology, FCC (dated Feb. 19, 2013), *available at* <https://apps.fcc.gov/els/GetAtt.html?id=133667&x=>.

- will use equipment from different manufacturers, thereby testing interoperability among diverse vendors.
- 2) Northrop has requested authority from the FCC to operate over the 758-768/788-798 MHz bands, which are currently licensed on a nationwide basis to FirstNet.
 - 3) Operation will occur no longer than 180 days from the date on which the FCC grants Northrop an Experimental STA, allowing time during that period for setup and testing, demonstrations, and teardown.
 - 4) This Experimental STA cannot be renewed. To the extent Northrop would like to obtain additional Experimental STA use of the radio frequencies licensed to FirstNet, beyond the 180 day period to which this application refers, Northrop must file a separate request with the FCC.
 - 5) FirstNet understands that Northrop has analyzed information from the FCC's license databases and has determined that the proposed operation would not interfere or create a significant potential for interference with any public safety operations in the 700 MHz band. Subject to certain conditions, the Commonwealth of Virginia, which is an incumbent narrowband licensee, has consented to this STA.³
 - 6) Northrop has stated that this temporary operation will not be used in mission-critical operations or in the delivery of live transmissions in duties to protect life, property, or safety.
 - 7) Northrop has stated that the Experimental STA will serve as an expository vehicle upon which advanced concepts of hypothetical first responder communications will be demonstrated.

FirstNet concurs with the proposed operation by Northrop on certain frequencies currently licensed to FirstNet for purposes of trialing an LTE network between New York City metropolitan area and Northern Virginia locations that will test and develop network architecture concepts and enhanced first responder applications. This consent is subject to the FirstNet's ongoing ability to monitor any operations and use of FirstNet's licensed spectrum.

Respectfully submitted,



TJ Kennedy
Deputy General Manager
First Responder Network Authority

cc: Erika Olsen
Jennifer Richter
Royce J. Kincaid
Anika Hyink

³ These conditions include obtaining the prior consent of the Virginia State Police before conducting any test, and discontinuing operations immediately upon notification of verifiable interference. Letter from Chris McIntosh, Statewide Interoperability Coordinator, Office of the Governor, Commonwealth of Virginia to Royce Kincaid, Northrop Grumman (dated Oct. 16, 2013), available at <https://apps.fcc.gov/els/GetAtt.html?id=141958&x=>.