

**BEFORE THE  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, D.C.**

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**IN THE MATTER OF**

**Petition of BNSF Railway for Exemption**

**Docket No. FAA-2020-0620**

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**COMMENTS OF THE SMALL UAV COALITION**

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The Small UAV Coalition (“Coalition”)<sup>1</sup> is pleased to provide comments in support of the petition by BNSF Railway (“BNSF”) for an exemption under 49 U.S.C. 44807 to operate up to five unmanned aircraft systems (“UAS”) by one remote pilot beyond the visual line of sight (“BVLOS”) of the pilot for the purpose of rail infrastructure inspection and patrolling. Although the UAS to be operated by BNSF are under 55 lbs., which might suggest seeking a *waiver* under Part 107, in section 2210 of the FAA Extension, Safety, and Security Act of 2016 Congress directed the FAA to grant *exemptions* to companies to authorize inspection of critical infrastructure. Congress recognized that using UAS to perform critical infrastructure inspection would enhance safety and significantly reduce environmental impacts vis-a-vis bucket trucks, on-track service vehicles, and manned aircraft.

Members of the Small UAV Coalition support advancing regulatory and policy changes to permit UAS operations beyond visual line of sight (“BVLOS”), with varying degrees of autonomy, for commercial and other civil purposes. Granting BNSF’s petition will further this objective. BNSF’s experience, under the Pathfinder Program and under waivers, includes over 700 hours of BVLOS operations over BNSF railways. The particular restricted operational environment -- operations are conducted only over property owned or controlled by BNSF, and at least 100 feet laterally from people, vehicles, and structures -- permits BVLOS operations without risk to persons or structures on the ground.

BNSF will operate its UAS using the Drone-in-a-Box concept. BNSF states that its UAS will be able to detect and avoid other aircraft in compliance with the ASTM F-38 Detect and Avoid (“DAA”) performance standard, meeting the intent of the see-and-avoid requirement in 14 C.F.R. 91.113. While the FAA has not yet adopted a DAA standard or rule, granting this requested exemption will provide the FAA data to inform such standard or rule. Considering that the UAS will operate below 100 feet Above Ground Level (“AGL”) over property BNSF owns or controls,

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<sup>1</sup> Members of the Small UAV Coalition are listed on the Coalition’s website, [www.smalluavcoalition.org](http://www.smalluavcoalition.org).


the Coalition supports this exemption to demonstrate the safety of obstacle-shielding and infrastructure-masking to meet the “well-clear” requirement in that section.

With respect to the airworthiness of the UAS, BNSF states that each UAS will fly at least 100 hours of durability and reliability testing. While the Coalition defers to the FAA’s evaluation of BNSF’s airworthiness showing in proprietary materials, the Coalition supports the use of durability and reliability testing to show the airworthiness of UAS for airworthiness certification under the special class provisions of Part 21. The tightly controlled operational environment provides an excellent opportunity for BNSF to demonstrate the airworthiness of its UAS to the FAA.

BNSF also seeks an exemption to use a Part 107 certificated remote pilot with small UAS rating instead of a Part 61 certificated commercial pilot. The Coalition has long supported allowing Part 107 certificated pilots to operate small UAS for commercial purposes under section 44807 provided the pilots are also specifically trained to operate the particular UAS. BNSF has a training regimen for its pilots that is tailored to the UAS and to allow its pilots to operate up to five UAS at one time. Accordingly, the Coalition supports this exemption request.

For the reasons stated above, the Coalition supports granting BNSF’s petition in full.

Respectfully submitted,



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