Question 4 Exhibit:

Details of program and CONOPs:
Aerostar's STA request for 4400-4940 MHz is in relation to high altitude balloon (HAB) flights supporting development and flight demonstration under a federal contract. The contract currently in place is with NASA and NIFC, contract 80AFRC18D0008. Under this program we intend to work in conjunction with NASA and NIFC to provide a backup means of communication for fire fighters on the ground in areas of large-scale incidents. The HAB will act as a relay system for both voice and data links between the fire fighters in the field and the leadership team at the incident command center.

Although we requested a 7-month license, this would only be used for one 2-3 weeklong flight. Given the variability of where and when a large fire may occur, we need to be as flexible as possible. As the fire season passes and we gain confidence on when and where this test may take place, we can further coordinate with local frequency managers and license holders to deconflict.

Details of radios:
The radios on the HAB flights are C-band radios which can be tuned to a 20MHz band to transmit within the 4400-4940MHz frequency range. After coordination with Mr. Melz, it was determined the best course of action is to request authorization for the entire band, with the intention that only one 20MHz band would be required per flight and could be determined by local frequency managers. Prior to flight, we can pre-coordinate and deconflict with other participants in our demonstrations, or other area license holders. In previous STAs Aerostar holds the DoD had recommended 4540-4560MHz and 4640-4700MHz as the best bands to use for HAB flights, after auditing C-band use in the area.

A separate exhibit has been attached to the application that gives details on the directional ground station antenna that will provide comms to the HAB from the command center.

We stand by for questions or requests from other federal license holders to deconflict as necessary.

Respectfully,

Eric Eigenberg
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Aerostar Technical Solutions