

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C.

In Re: )  
1392 -1395 and 1432 - 1435 MHz, ) Auction No. 46  
1390 - 1392 MHz, 1670 - 1675, and )  
2385 - 2390 MHz Band Auction )

To The Wireless Telecommunications Bureau

Reply Comments of AeroAstro, Inc.

AeroAstro, Inc., (AeroAstro) by counsel, hereby files brief reply comments to the two filed comments of which it is aware in the captioned auction. AeroAstro replies to highlight that in contrast to AeroAstro's empirically supported valuation proposals for minimum opening bids and upfront payments, the only other commenter, ArrayComm, Inc., (ACI) makes vague statements that are, in part, contradictory.

A. Valuation Analysis The Bureau has proposed a \$ 0.01 per MegaHertz, per population minimum opening bid and upfront payment for nationwide licenses. AeroAstro submitted empirical valuation evidence from previous auctions indicating that the monetary factor of the upfront payment for nationwide licenses was more appropriately set at \$ 0.001 rather than \$0.01. Similarly, AeroAstro established that the minimum opening bid monetary factor was appropriately set at \$ 0.002 rather than \$ 0.01. AeroAstro calculated the monetary factors based upon uncontroverted data from previous auctions. Moreover, AeroAstro believes that its proposed monetary factors will avoid unsold licenses or skewed bidding which would be

detrimental to the public interest and deployment of services on the 1670 - 1675 MHz spectrum. In light of the limited participation by industry in the service rule proceedings for this spectrum (further illustrated by the limited comments received about the auction), AeroAstro submits that setting minimum opening bids and upfront payments too high - - or close to an anticipated final bid price - - will jeopardize the success of conducting an auction by improperly burdening the dynamics of auction gaming with skewed base components.

AeroAstro provided comments which addressed “such factors as the amount of spectrum being auctioned, levels of incumbency, the availability of technology to provide service, the size of the geographic service areas, issues of interference with other spectrum bands and other relevant factors.”<sup>1</sup> In stark contrast, ACI provided no support for its conclusion that the Commission proposed minimum opening bid and upfront payment amounts are “appropriate.” Indeed, of the ten pages of comments submitted, ACI is able to provide only a few sentences to address the minimum opening bid amount and the related upfront payment. AeroAstro agrees with much of the ACI comments which support the use of upfront payment and minimum opening bid mechanisms; AeroAstro disagrees with ACI with regard to the upfront payment and minimum opening bid amounts. ACI has done nothing, other than a vague reference to the “import of this license in having nationwide coverage,”<sup>2</sup> to support its contention that this spectrum merits a minimum opening bid of nearly \$13,000,000.

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<sup>1</sup> 1392 -1395 and 1432 - 1435 MHz, 1390 - 1392 MHz, 1670 - 1675, and 2385 - 2390 MHz Bands Auction Scheduled for September 18, 2002, Public Notice, page 7, Report No. AUC-02-46-A, DA 02-1257 (rel. May 24, 2002).

<sup>2</sup> Comments of ArrayComm, Inc. at 4.

B. ACI Supports Smaller Bids in the Same Comments AeroAstro fully supports ACI's comments which declare that, "rather than decrease the overall success of the auction, a smaller bid increment actually provides a greater net gain, while ensuring that the party assigning the higher value to the license is more likely to win it."<sup>3</sup> This is a fundamental tenet of gaming and auction theory. AeroAstro made note of this efficiency argument in its own comments.<sup>4</sup> ACI also declares that "a smaller bid increment in a two-bidder scenario will achieve an outcome that more closely realizes the parties' relative valuation for the spectrum."<sup>5</sup>

Unfortunately, ACI's economically sound theories regarding smaller bid increments fail to materialize in its support for a \$12.6 million minimum opening bid and upfront payment. Curiously, ACI appears to understand the concept of marginal optimization of bids as it acknowledges that an "[inefficient] outcome becomes more likely as [a] license price rises."<sup>6</sup> Yet ACI ignores the fact that efficient bidding is destroyed by overly burdensome factors such as an entry requirement set at a level reflecting the marginal bidding amount rather than as a filtering function to determine the interest of participants. The logical outgrowth of the soundly formed marginal utility theory relied upon by ACI would be for the entry level to be set at a rational amount, such as that calculated and supported by AeroAstro. Instead, ACI curiously claims that the suggested upfront payment and minimum opening bid amounts contained in the Public Notice are "appropriate" and encourages a \$12.6 million minimum opening bid. Even in the

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<sup>3</sup> Comments of ArrayComm, Inc. at 8.

<sup>4</sup> Comments of AeroAstro, Inc. at fn. 3.

<sup>5</sup> Comments of ArrayComm, Inc. at 8.

<sup>6</sup> *Id.* at 7.

illustrative example provided by ACI,<sup>7</sup> it is clear that the final round of the assumed auction, consisting of two bidders, would be determined by the scant marginal utility amount of \$550,000 (rather than reaching its marginal value of \$31 million, Bidder B recognizes that the current \$30.45 million bid is \$ 550,000 below the tangential point of its demand *vis a vis* the current price). AeroAstro observes that ACI supports a minimum opening bid which is \$10 million dollars (20 times the amount used in its example) higher than the amount which AeroAstro has calculated as the appropriate minimum opening bid.<sup>8</sup>

AeroAstro reiterates that its comments are well researched and supported. ACI, save one passing reference, has submitted well supported comments. However, ACI's has suggested amounts for upfront payment and minimum opening bids in the 1670 - 1675 MHz spectrum (as opposed to properly implemented mechanisms) that are fatally unsupported and unacceptably vague. These amounts should be reduced to amounts calculated and provided by AeroAstro.

Respectfully Submitted,  
Fletcher, Heald & Hildreth, P.L.C.

Date: June 14, 2002

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<sup>7</sup> *Id.*

<sup>8</sup> It should also be noted that the auction for the 1670 - 1675 MHz spectrum will likely have a very limited number of bidders. The Commission's Order adopting service rules for this spectrum as well as both AeroAstro's and ACI's comments reveal an interest by three entities. Moreover, only two of these three have commented in this proceeding. This is the precise scenario referred to by ACI (i.e. few bidders) when it proves that a bidding amount that is too high will limit the bidding and efficiency of the auction. This scenario merits lowered entry (minimum opening bid and upfront payment) factors.