

## **Adeunis-NA, Inc. STA Background Information**

### The Company

Adeunis-NA, Inc. (“Adeunis”) is the United States subsidiary of Adeunis RF (“ARF”), a French corporation engaged in the design, manufacture and marketing of wireless communications systems. Adeunis is headquartered at 65 Pondfield Rd., Suite 14, Bronxville, NY 10708. ARF headquarters is located at 283 rue Louis Néel Crolles, Rhône-Alpes, 38920, France.

### The Vokkero Radio System and Its Uses

Among ARF’s products sold by Adeunis is the Vokkero® radio system (FCC Identifier U3Z-ARF7672). The Vokkero radio system is an all-in-one, full-duplex, hands-free communication system that enables individuals to speak to each other, using a private and portable wireless network. The Vokkero radio system can be set up in minutes and requires no base station or license, as it operates on unlicensed Part 15 spectrum as an “intentional radiator” (a “Part 15C device”). Specifically, it operates 25 500 KHz channels within the 902-928 MHz band, transmitting and receiving signals between 902.25 MHz and 927.75 MHz, at 0.233 Watts of power. Its signals have a range of approximately 800 meters in an open field environment and somewhat less in a major college football stadium. Its high-performance noise filter ensures optimal sound quality in noisy environments.

In Europe and other parts of the world, ARF has sold the Vokkero radio system to many customers, especially those in competitive sports. One of the leading uses of the product is by soccer referees in major competitions such as the 2014 World Cup in Brazil and the Champions League. It is also used by all of the best European-wide and nationwide leagues, as well as by many leagues and competitions in the Americas that belong to, or are affiliated with, the Confederation of North, Central American and Caribbean Association Football (“CONCACAF”).

Additionally, use of the Vokkero radio system has spread to other sports, including American football, ice hockey, rugby, basketball, field hockey, and competitive sailing.

### Use by the SEC and Big Ten for the 2014 Football Season

In 2012, the National Collegiate Athletic Association (“NCAA”) granted a waiver to the Southeastern Conference (“SEC”) and to the Big Ten Conference (“Big Ten”) to permit the entire officiating team of referees to test the Vokkero radio system during certain football games. Then-existing NCAA football rules permitted only the head referee to wear a microphone. The goals of the test were to “identify pre-snap reads, become more efficient in enforcing penalties without huddling, and explain rulings better to coaches.”<sup>1</sup> These improvements can result in better officiating and fewer game delays, similar to what has been found with soccer officiating. Using the NCAA waiver, those two major football conferences tested the Vokkero radio system during the 2012 spring football practice season,<sup>2</sup> and the SEC continued its test during their regular season.

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<sup>1</sup> [http://www.al.com/sports/index.ssf/2012/07/sec\\_will\\_try\\_wireless\\_communic.html](http://www.al.com/sports/index.ssf/2012/07/sec_will_try_wireless_communic.html) (visited August 5, 2013).

<sup>2</sup> [http://espn.go.com/college-football/story/\\_/id/8314421/sec-officials-wear-wireless-microphones-thursday-game-south-carolina-gamecocks-vanderbilt-commodores](http://espn.go.com/college-football/story/_/id/8314421/sec-officials-wear-wireless-microphones-thursday-game-south-carolina-gamecocks-vanderbilt-commodores) (visited August 5, 2013). The Vokkero radio

Another goal of the test was to determine whether the system could function without receiving interference from other RF devices.<sup>3</sup> In 2013, the NCAA changed their rules to allow officiating crews to utilize a protected wireless communication system, beginning with the 2013 season. The Vokkero radio system was utilized in all SEC games during the 2013 football season. Contracts have been signed with both the SEC and the Big Ten to use the Vokkero radio system for their respective 2014 football seasons.

### Interference and Solution

The Vokkero radio system was tested against certain radio communications systems used by football coaches to communicate, among themselves, during games ("Coaches' Systems"). These other radio systems are made by several manufacturers and also utilize 900 MHz frequencies, most often within the 902-928 MHz band. During the trials of the Vokkero radio system, referees experienced sporadic interference from the Coaches' Systems. The interference was such that communications among the referees was interrupted on an "on-off, on-off" basis when there was transmission by the Coaches' Systems.<sup>4</sup> The RF interference made communication among the referees less than satisfactory, even though the Vokkero system was viewed as a positive development for football officiating.

ARF engineers are working to modify the Vokkero radio system to eliminate interference from other 902-928 MHz users (i.e., the Coaches' Systems) while continuing to use the same frequencies. This work began June 1, 2013 and continues today. While the details of this work are proprietary and constitute trade secrets, such that the details are not set forth herein, ARF engineers have established a testing framework that simulates the operation of four radio systems using the 902-928 MHz spectrum; have made modifications to Adeunis' proprietary software that has produced clear improvement in the reduction of interference to the Vokkero radios, but have not yet produced acceptable levels of communications clarity required by customers. As such, ARF engineers are still working to modify Adeunis' radio system to be more resistant to interference caused by the simultaneous operations of Coaches' Systems, while providing customer-desired voice quality. While ARF engineers cannot specify the completion date for their work, their best estimate is that completion (a market-ready new radio system) is at least six months into the future.

As explained in Exhibit C hereto, Adeunis has also attempted to reach an informal frequency-sharing agreement in the 902-928 MHz band with CoachComm, LLC ("CoachComm"), one of the largest manufacturers of Coaches' Systems. CoachComm's radio systems are used in both the SEC and Big Ten. To date, such an agreement has not been reached.

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system has been used in high school football as well. "The Alabama High School Athletic Association (AHSAA) ... demonstrate[ed] a new approach to officiating Friday night as top-ranked Muscle Shoals visit[ed] Cullman for the final Class 5A, Region 8 game of the season" in October 2012. The Vokkero radio system was used by game officials.  
<http://www.cullmantimes.com/local/x253554419/Cullman-game-will-feature-equipment-test-for-officiating-crew> (visited August 5, 2013).

<sup>3</sup> *Id.*

<sup>4</sup> Adeunis employees have become aware that, on the occasion when both football teams' coaches are communicating via radio headsets, one or more of the Coaches' Systems receive interference. Needless to say, the Vokkero radio system is not a cause of this interference.

These issues together present a problem because, as noted above, Adeunis has contracted with the SEC to supply the Vokkero radio system for use by conference referees during the 2014 football season that begins August 28, 2014 and ends December 6, 2014 with the conference championship game at the Georgia Dome in Atlanta. The Big Ten's season starts August 30, 2014 and also ends December 6, 2014 with the championship game at Lucas Oil Stadium in Indianapolis.

In order to offer its customers a better experience with the Vokkero radio system by eliminating the possibility of interference from the Coaches' Systems, during the 2014 football season, Adeunis engineers believe the Adeunis product can be easily set, without costly and time-consuming modifications, again to operate at the 900-901 MHz band as it did in 2013 (File No. 0772-EX-ST-2013, Call Sign WG9XXH).

#### An STA Is Required and Warranted under the Facts

Section 309(f) of the Communications Act of 1934, as amended, 47 U.S.C. 309(f), authorizes the FCC to grant an applicant for a license to use radio spectrum on a special, temporary basis, not to exceed 180 days, whenever the FCC determines "such application is otherwise authorized by law"; "there are extraordinary circumstances requiring temporary operations in the public interest and that delay in the institution of such temporary operations would seriously prejudice the public interest."

As explained in this application, the Vokkero radio system has begun to bring benefits to college football in the form of better officiating, better communication of referee decisions and fewer game delays, each of which better serve fans, players and coaches, as well as referees. Despite the existence of some radio interference, the SEC saw sufficient value in the Vokkero radio system from the 2012 trials to agree with Adeunis to use the system for all home games and for the league championship game for both 2013 and 2014. Moreover, the Big Ten has also purchased the Vokkero radio system for its 2014 football season. It is in the public interest for both conferences to have access to the system for the entire season, even though the ARF engineers may not have the interference problem remedied before the end of the 2014 football season. This result can be achieved by the Commission's grant of an STA to allow operation of the Vokkero radio system on 900-901 MHz.<sup>5</sup> Similarly, it would not serve the public interest for the Commission to delay the use of the Vokkero radio system beyond the opening football games that begin in late August 2014. The requirements of Section 309(f) are satisfied, such that the STA should be granted as soon as possible.

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<sup>5</sup> The Commission has granted STAs to enable the continued provision of services to customers. *See, e.g., Intelsat North America, LLC Request for Extension of Special Temporary Authority*, Order, 20 FCC Rcd 7955 (2005).