

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of )  
 )  
Amendment of the Commission's ) GEN Docket No. 90-314  
Rules to Establish New Personal )  
Communications Services )

**UTAM REPORT TO THE FCC**

July 1, 2004

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UTAM, Inc. ("UTAM"), the frequency coordinator for the unlicensed personal communications service ("UPCS") band, herewith submits its semi-annual report on implementation of the UTAM Plan for Financing and Managing 2 GHz Microwave Relocation.<sup>1</sup> As detailed below, UTAM continues to fulfill its obligations to make significant progress in clearing the UPCS band and facilitating the deployment of UPCS devices. The market for UPCS devices continues to expand as applications of wireless technology continue to penetrate all facets of business, education and health care. The procedures that UTAM has put in place to ensure compliance with its charter continue to work well in managing the deployment of unlicensed devices and protecting incumbent microwave operations from any interference. To date, no incidents of microwave interference have been encountered.

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<sup>1</sup> UTAM Plan for Financing and Managing 2 GHz Microwave Relocation, GEN Docket No. 90-314 (filed Aug. 1, 1994) [hereinafter "UTAM Plan"]. On April 19, 1995, the Commission formally approved UTAM as the UPCS frequency coordinator. As part of its responsibilities, UTAM was charged with submitting biannual progress reports to update: (a) the financial and band-clearing plans; (b) projections of future band clearing; (c) the extent of incumbent microwave relocations; (d) the extent of UPCS device deployment; and (e) any difficulties encountered in implementing the UTAM Plan. Amendment of the Commission's Rules to Establish New Personal Communications Services, 10 FCC Rcd 7955 (1995) (Fourth Memorandum Opinion and Order).

## I. EXECUTIVE SUMMARY

As noted in previous reports to the Commission, UTAM continues to meet the objectives established by the Commission in bringing UPCS systems to the public. Over the course of the reporting period, the processes and procedures put in place to allow the deployment of UPCS devices have continued to work well and continue to be adhered to by manufacturers of UPCS devices.<sup>2</sup> As in the past, UTAM will continue to monitor these processes and procedures and make any refinements deemed necessary.

Since UTAM filed its last report with the Commission in January 2004, UTAM is pleased to report that the following tasks have been accomplished:

- ▶ The comprehensive cost sharing agreement, which UTAM has entered into with the PCIA Clearinghouse and its members, continues to help accelerate the clearing of the UPCS band by opening up a number of counties and major metropolitan areas to unencumbered deployment of UPCS devices.
- ▶ Nationally, in the 1920 – 1930 MHz Isochronous band, UTAM has increased the number of counties available for unencumbered deployment to 3,084, or 98% of the U.S. In the 1910 – 1920 MHz asynchronous band, 2,855 counties, or 91%, of the country is available for unencumbered deployment.

## II. UPCS MARKET DEVELOPMENT

The use of enterprise-based wireless systems has become an integral part of conducting business. From small businesses to large businesses, from small elementary schools to college campuses, the use of these unlicensed wireless devices

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<sup>2</sup> Under FCC rules, parties must execute a signed Subscriber Agreement with UTAM, receive UTAM certification and obtain FCC authorization before marketing or installing a UPCS product of device. See 47 C.F.R § 15.307.

has improved productivity and has made communications more convenient. In many industries, the use of these devices is almost a competitive necessity; in others, such as nuclear power plants and hospitals, these systems serve mission-critical applications because of the heightened interference protection that UPCS devices provide. In addition, the sizes of the systems being deployed continue to grow and, in many cases, are supporting hundreds of users. In some of these locations, the high density of users in a small area has created the need for additional spectrum.

In light of this expressed and continuing need for UPCS frequencies, UTAM has participated extensively in two interrelated Commission proceedings that could affect the future of the UPCS band. Specifically, in both the 800 MHz Rebanding<sup>3</sup> proceeding and the Advanced Wireless Services proceeding,<sup>4</sup> proposals have been tendered to reallocate portions of the UPCS band for mobile services. In its comments, UTAM emphasized that reallocation of the UPCS band would injure the public interest and impose severe financial burdens upon an industry that is on the verge of significant advancements with full clearing of the UPCS band. Further, UTAM expressed its concern that these frequencies are technically unsuitable for other uses and serve as a critical guard band for licensed PCS users. UTAM also expressed its support for cross-over use of the 1910-1920 MHz band by isochronous devices due to the saturation of

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<sup>3</sup> See In the Matter of Improving Public Safety Communication in the 800 MHz Band, Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels, WT Docket No. 02-55 (Mar. 15, 2002) (*Notice of Proposed Rulemaking*) (800MHz NPRM).

<sup>4</sup> Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, ET Docket No. 00-258, *Memorandum Opinion and Order and Further Notice of Proposed Rulemaking*, FCC 01-224 (rel. Aug. 20, 2001) ("FNPRM"). See Comments of UTAM, Inc., ET Docket No. 00-258 et al. (filed Oct. 19, 2000); Joint Comments of UTAM, Inc. and Wireless Information Networks forum, Inc., ET Docket No. 00-258 et al. (filed Nov. 8, 2001).

the 10 MHz allocation for these devices, and noted that it was working with UTStarCom to explore whether other types of low power unlicensed uses could be accommodated in the asynchronous band.<sup>5</sup>

Significantly, UTAM also came to a consensus proposal with the DECT Forum for technical alterations to the UPCS rules<sup>6</sup> that would increase flexibility and permit the deployment of DECT devices in the United States. Although UTAM could not support filings by many members of the DECT Forum for rule changes earlier this year, UTAM and the DECT Forum have achieved consensus on certain flexibility proposals that would permit coexistence between both DECT devices and existing UPCS devices. Based on that work, UTAM filed an ex parte supporting the DECT Forum proposal.<sup>7</sup>

More recently, the proposals to reallocate portions of the UPCS band have concentrated on the lower portion of the asynchronous band, which is the segment spanning from 1910-1915/16 MHz. While UTAM continued its efforts to oppose such a reallocation, UTAM also noted that any reallocation, at a minimum, should address direct compensation to UTAM and the members of UTAM for the pro rata portion of the costs of band clearing that UTAM has undertaken. UTAM also recognized, in a recent

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<sup>5</sup> See Amendment of the Commission's Rules for Unlicensed Personal Communications Services, Petition For Rulemaking of the Wireless Information Networks Forum, RM-9498 (Jan. 8, 1999) ("WINForum Petition"). UTAM also expressed its willingness to consider use of the Asynchronous band for the provision of services to rural areas, provided certain limitations (including requiring any new users to contribute to current industry funding obligations) were imposed and certain technical and other concerns were addressed fully by proponents of such use.

<sup>6</sup> Recommendations of the DECT Forum for Revision of the Rules for the UPCS Band," DECT Forum, ET Docket 00-258 (filed November 7, 2003).

<sup>7</sup> Letter from Michael Stima, Managing Director, UTAM, to Marlene Dortch, Secretary, Federal Communications Commission dated December 1, 2003, filed in ET Docket 00-258.

*ex parte* filing,<sup>8</sup> that the proposal to reallocate a segment of the asynchronous band impacts the compromise position UTAM had achieved with UTStarCom, which would have permitted UTStarCom operate in the 1910-1918 MHz band, with control channels in the 1910-1912 MHz band and a guard band at 1918-1920 MHz. While UTAM has no issue with the relocation of the UTStarCom control channels higher in the asynchronous band, UTAM is strongly opposed to the introduction of higher-powered devices in the UPCS spectrum without an adequate guard band.

Through its participation in these regulatory activities, UTAM has continued its efforts to ensure that the UPCS frequencies are utilized efficiently and that UPCS devices are deployed rapidly and fully. Markets that are successful tend to attract additional competitors, and the market for unlicensed products is no different. Additional competitors continue to introduce new unlicensed products with enhanced features and applications. As a result of the additional competition, end users are enjoying the benefits of downward pressure on pricing. Further, as the technology continues to become less expensive, it is expected to create wider demand for these systems both in volume and in the size of systems deployed, as users will opt to provide coverage over greater areas of their business and expand the use of these devices to more employees.

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<sup>8</sup> See Supplemental *Ex Parte* Filing by UTAM, Inc. in re: Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems; ET Docket No. 00-258; IB Docket No. 99-81; RM-9911 (filed June 6, 2003).

### **III. DEPLOYMENT ACTIVITIES**

#### **A. Deployment Procedures**

As stated in previous reports, UTAM is pleased that the procedures developed and refined to facilitate the deployment of UPCS devices continue to be effective and are being readily adhered to by manufacturers. In an ongoing effort to effectively streamline its operations and to respond to suggestions made by participating manufacturers and others, UTAM will continue to evaluate and refine these procedures, as needed. To date, the lack of any interference incidents with microwave incumbents attests to the quality of the processes and the adherence to them by the manufacturers.

Members are complying with the requirements, set forth in the Subscriber Agreement, to update the Database Management System (DBMS) when products are sold and installed. These updates allow UTAM to monitor market development, aggregate power generation and ensure compliance with pre-designated power limits set for Zone 1 counties.

Also, as specified in the Subscriber Agreement, UTAM, through an independent third party, continues to audit its subscriber members' deployment records to ensure that UTAM's records accurately track product deployments, thereby ensuring the integrity of the DBMS. This audit is intended to ensure that the data base monitoring mechanisms are operating as intended and that the proper clearing fees are paid. To date, no major discrepancies have been observed.

#### **B. Prior Coordination Notice ("PCN") Procedure**

As noted in earlier reports to the Commission, UTAM has classified each county in the United States based upon a two-zone classification system. Zone 1 counties are

those counties distant from existing microwave operations that permit deployment of UPCS products up to a pre-determined and "pre-coordinated" power limit. In contrast, Zone 2 counties have existing microwave operations either nearby or in the county and, as a result, UPCS product deployments cannot occur within such a county until a site-specific coordination has been successfully completed. There are also 1,145 Isochronous and 1,207 Asynchronous Zone 2 counties that UTAM has classified as "non-scheduled". These counties qualify for a pre-coordinated Zone 1 status; however, their business population is typically less than 5,000 and therefore has not been scheduled for conversion at this time. These counties are automatically converted by UTAM, via the PCN process, when any subscriber files for site-specific coordination in that county.

Through July 1, 2004, UTAM, has converted 1,939, or 62% of the counties in the 1920 - 1930 MHz Isochronous band to Zone 1 status. When the qualified Zone 2 "non-scheduled" counties are considered, 98% of the counties in the U.S. would qualify as Zone 1. In the 1910 - 1920 GHz Asynchronous band, the total number of Zone 1 counties has reached 1,648, or 53% of the counties in the U.S. When the qualified Zone 2 "non-scheduled" counties are considered, 91% of the counties are available for unencumbered deployment in this band.

### **C. Product Deployment**

Also, as in past reporting periods, product deployment continues at a reasonable pace. Quarter-over-quarter product deployments continue to demonstrate a growth curve indicative of a maturing market. As chartered, UTAM will continue to coordinate the deployment of these unlicensed devices and to collect the associated clearing fees.

As more fully detailed in the UTAM Plan filed with the Commission, UTAM will use these fees to finance the relocation of microwave incumbents from the spectrum allocated to UPCS.

As mentioned above, UTAM is also supportive of modifying the rules of the band to allow the deployment of products utilizing other standards, such as PHS and DECT. UTAM has coordinated consensus rule changes both with UTStarCom, which is affiliated with a PHS manufacturer, and the DECT Forum, which represents a broad range of DECT-compatible equipment manufacturers. Through these activities, UTAM has supported the introduction of the broadest range of devices for the American public in a structured manner to avoid unnecessary inter-system interference.

#### **IV. RELOCATION ACTIVITIES**

The continued successful growth of the UPCS market ultimately depends on the full clearing of the UPCS band. While the complete clearing will still take a few more years, UTAM has taken steps that will both facilitate ease of deployment and accelerate the clearing process.

As mentioned in previous reports to the Commission, UTAM, in an effort to accelerate the clearing process, has entered into a comprehensive cost sharing agreement with the PCIA Clearinghouse and its members. Under the agreement, UTAM will share the costs of relocated microwave links with the PCS carriers responsible for their relocation. The result of this agreement has been to convert a significant number of counties to Zone 1 status, many of which contain major metropolitan areas. It is anticipated that this accelerated clearing effort will contribute to the continued growth of the UPCS market, and in turn, generate accelerated clearing

fees that will be applied, in part, to the costs incurred under the cost sharing agreement and increase the potential for opening up the UPCS band to nomadic devices.

## **V. OPERATIONAL, ORGANIZATIONAL AND FINANCIAL STATUS**

### **A. Operational Status**

UTAM continues to successfully use the operational procedures that it put in place to oversee the deployment of UPCS devices and coordinate deployment with incumbent microwave systems. UTAM will continue to evaluate these processes and refine them as necessary.

### **B. Membership and Staffing**

The voting membership currently consists of Alcatel USA, ASCOM Wireless Solutions, Avaya, IWATSU America, Motorola, Inc., NEC America, Inc., Nortel Networks Inc., SpectraLink Corporation, Tadiran, Inc., Seimens Information and Communications Networks and Toshiba. In addition, UTAM also has numerous associate members.<sup>9</sup> Given the ongoing number of inquiries for requirements to operate in the UPCS band, combined with the continued clearing of the UPCS band, UTAM is confident that additional manufacturers and distributors will become voting members in the course of 2004.

### **C. Funding**

UTAM has continued to collect clearing fees from the deployment of UPCS products. The actual and forecasted growth in clearing fees resulting from increased deployments indicates that these fees, combined with UTAM's current assets, will keep UTAM in a sound financial position into the foreseeable future.

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<sup>9</sup> A complete list of UTAM Board of Trustees and Associate Members is attached.

## **VI. OUTREACH ACTIVITIES**

UTAM has continued its efforts to maintain contacts with other PCS-related industry groups in order to remain current on industry developments. UTAM continues to discuss UTAM's participation in the FCC's cost sharing process with representatives of the PCIA clearinghouse. In addition, UTAM has worked together with WINForum to file comments in response to the Commission's FNPRM regarding potential reallocation of spectrum to accommodate 3G services. By these comments, UTAM and WINForum expressed their shared concern that the UPCS bands be retained for unlicensed applications and that UPCS devices be permitted to enjoy continued successful development and deployment. At the same time, UTAM has been receptive too, and worked in conjunction with, other classes of device manufacturers to promote the broadest availability of unlicensed products for the American public.

Through its members, UTAM also participates in other industry-wide seminars and trade shows to increase the awareness of the market for UPCS devices. In addition, UTAM continues to answer inquiries regarding its objectives and processes and provides information to interested parties as necessary.

## **VII. CONCLUSION**

UTAM is once again pleased to report that the framework that has been established and maintained for the deployment of unlicensed devices continues to work successfully. UTAM is confident that the success of the UPCS industry shall continue, provided that any uncertainties created by the Commission's recent FNPRM are resolved swiftly and the UPCS frequencies retain their current allocation for UPCS applications. As explained above, UTAM strongly opposes the reallocation of these

frequencies as contrary to the public interest. UPCS devices are used by a wide variety of organizations and companies, and, as microwave incumbents are cleared from the UPCS frequencies, the UPCS industry will have the ability to deploy even more service offerings to the public. The continued growth of UPCS sales, the continued adherence by manufacturers to UTAM's operational processes and UTAM's continued efforts to prevent harmful interference to microwave incumbents indicate that UTAM is maintaining a proper course for fulfilling its overall charter. UTAM will continue to monitor and refine its operations to meet the dynamics of the UPCS market and looks forward to the challenges that lie ahead.

Respectfully Submitted,

UTAM, INC.

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July 1, 2004

## APPENDIX A

### UTAM BOARD OF TRUSTEES AND ASSOCIATE MEMBERS

#### VOTING MEMBERS

Alcatel USA – Mr. Jose Paulett  
ASCOM Wireless Solutions. – Mr. Chad West \*\*  
Avaya, Inc. – Ms. Sandy Abramson (*President*) \*\*  
Tadiran, Inc. – Mr. Rob Roberts  
Motorola, Inc. – Mr. Craig Chenicek (*Treasurer*) \*\*  
NEC America Inc.– Mr. Tom Grady \*\*  
Nortel Networks Inc. – Mr. Gord Webster \*\*  
SpectraLink Corporation – Mr. Ben Guderian (*Secretary*) \*\*  
Toshiba – Mr. Paul Keith  
Nitsuko America, Inc. – Mr. Paul Shaeffer  
Iwatsu America, Inc. – Mr. Bob Chrostowski

\*\* Member of the Board of Trustees

#### UTAM ASSOCIATE MEMBERS

Communications Certification Laboratory	Matsushita
Comsearch	NTT America
Freepoint Telecom	P-Com Network Services
Harris Corporation	Phillips Business Communications
Industrial Telecommunications Association	Redcom Laboratories
JRC Canada, Inc.	