

Regulatory Policy Goals and Spectrum Auction Design

Lessons from the
Canadian AWS Auction

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Executive Summary

On July 21, 2008, Industry Canada completed its auction of 105 megahertz (MHz) of radio spectrum. The auction lasted 331 rounds in which 282 of the 292 licenses offered were provisionally attributed, generating total revenue of CAD 4.26 billion.¹ These results far surpassed the CAD 1-1.5 billion forecasted by analysts. While some media outlets described the auction as a success, the high prices paid for the licenses raise at least two important questions:

- Why did the Canadian AWS spectrum sell at a significant premium over U.S. AWS spectrum when prior economic evidence suggests the opposite?
- What are the economic consequences of the record high spectrum prices?

The objective of this statement is to provide some answers to these two important questions, which in turn should be useful to Industry Canada in the design and implementation of future spectrum auctions.

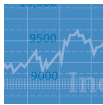
In order to answer the first question, it is important to verify whether the analysts' expectations were reasonable and, if so, to estimate the amount by which the Canadian AWS spectrum sold over its forecasted value. Using two econometric models and an analyst technique, we calculated this value based on the value of identical spectrum sold in the U.S.² The results of these models confirmed that the Canadian AWS spectrum sold at a significant premium. Specifically, the overall auction revenue exceeded the average predicted value by an average of 138 percent with unrestricted and restricted licenses commanding an average premium of 174 and 94 percent, respectively, over comparable licenses. The average prices paid for the Canadian AWS spectrum also were also much higher than the average prices paid for the same spectrum in the U.S., even though historically Canadian prices per MHz-pop were well below U.S. prices for identical spectrum.³ As expected, although prices for the Canadian AWS spectrum far exceeded comparable licenses, they were determined by the same variables as in the U.S and elsewhere, namely bandwidth and the size of the population covered by the license.

Once we determined that the Canadian AWS spectrum license prices far exceeded comparable values, it became important to identify what caused this overpayment. The econometric models take into account and control for any technological differences between various types of spectrum and the obvious differences in demand and supply conditions among Canada, the U.S., and other countries. Furthermore, the spectrum offered in Canada was technologically identical to the spectrum offered in the 2006 U.S. AWS auction, where licenses sold for much less than the Canadian licenses. In addition, the high price of spectrum in the Canadian auction is contrary to historical patterns because Canadian spectrum has generally sold for less than spectrum in the U.S. When deriving the expected value of the Canadian AWS spectrum, we implicitly assumed

¹ To the best of our knowledge, the 331 rounds in a global record for spectrum auctions.

² The econometric models are ordinary least square models, estimating the functional relationship of the final bid amount and the license attributes. The models rely on a comprehensive database with over 2,300 observations from previous AWS and other auctions in the U.S, Norway and Sweden

³ For instance, the average price per MHz-Pop in the U.S. AWS auction was CAD 0.57, while the Canadian mean prices per MHz-Pop were CAD 1.26 and CAD 1.78 for restricted and unrestricted AWS spectrum, respectively.



that the spectrum in Canada was to be allocated in exactly the same fashion as elsewhere. However, this was not the case because the Canadian auction design and the licensing terms and conditions differed from other countries. Consequently, it is reasonable to conclude that the valuation premium observed in Canada is at least partially, if not fully, the result of the specific design used for the Canadian AWS auction.

Having looked at the value of the spectrum, we now turned to the economic consequences of the record high spectrum prices. As evidenced in the UK 3G (third generation) auction and other 3G auctions in the early 2000s, excessively high spectrum prices can negatively affect competition, as investors tend to sell their holdings when earnings decrease and/or debt ratings drop. In severe cases, it can lead to market exit (as evidenced by the fallout of the UK 3G auction) or market consolidation because weaker market participants go bankrupt or are acquired by a more solvent company, all of which has a direct effect on competition.

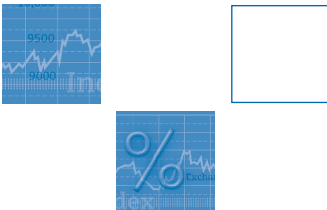
This last point is particularly critical for the Canadian wireless sector that after many years of significant net investment and negative cumulative wireless cash flows has just recently been able to offset its investments and carrying charges. The network investment requirements for AWS aside, the CAD 4.26 billion spectrum price will undoubtedly reverse this development and return the Canadian wireless industry to an era of negative annual and cumulative cash flows.

In essence, the outcome of the Canadian AWS auction is a repeat of the 3G auction outcome in the UK and other European countries as the cost of the licenses is the cost of staying in business. If the Canadian AWS auction design was responsible for the extremely high prices of the spectrum licenses, it could harm the very policy objectives that Industry Canada strives to achieve if the same auction design were to be used for future Canadian spectrum auctions.

To mitigate any future harm to competition that might have been caused by the auction design, we looked at all aspects of the auction design for possible problems. In particular, we examined the preferential treatment given to entrants in the Canadian AWS auction. Generally, preferential treatment of any bidding party carries a significant risk. Most importantly, it can lead to inefficient market entry. For this reason, before implementing an auction design that favors some bidders over others, it is necessary to balance carefully the costs and benefits of such programs or any regulatory intervention whatsoever. Specifically, if wireless markets are deemed competitive, the potential risk of harming competition through regulatory intervention outweighs the potential benefits of sustaining and enhancing competition.⁴ Even if it were to be determined that wireless markets are not competitive, the cause of the lack of competition must be examined. Simply adding more players to a market that is noncompetitive does not guarantee more competition. It is not entirely clear what Industry Canada was concerned about when it decided to establish set-asides and mandatory roaming and tower sharing provisions. The regulator provided no analytical findings demonstrating the necessity and expected benefits of these regulatory tools. However, these provisions do appear to have had a major effect on the prices of the licenses.

⁴. In competitive markets, no one single seller (or buyer) has the power to affect the market price of a service (or good). To determine the level of competition in a market, economists examine, among others, price levels, pricing trends, market shares, market share trends, abilities to collude, and market concentration.

The main component of the preferential treatment was the set-aside provision—spectrum reserved for entrants. A set-aside provision is not new to auction design and has often been discussed in the economic literature, which frequently points out the economic flaws.⁵ For instance, some economists have found that set-asides are unproductive and encourage inefficient entry into wireless markets. Most regulators also seem to have grown increasingly careful with their use of a set-aside provision in spectrum auctions. For instance, the U.S. Federal Communications Commission has refrained from using set-asides and comparable provisions in its more recent auctions, including the 2008 700 MHz auction. Furthermore, even when set-asides were used, they were typically restricted to a small percentage of the available spectrum. To the best of our knowledge, there is no precedent for reserving 40 of 90 MHz, or 44 percent of the spectrum, for entrants, which was the case in the Canadian AWS auction.



From a theoretical perspective, the set-aside provision in the Canadian AWS auction resulted in a double tax for the incumbents.⁶ First, set-asides decrease the supply of spectrum available to incumbents, other things being equal. Second, as implemented in Canada, the set-aside provision artificially raised the demand for spectrum because the entrants were allowed to place bids on unrestricted spectrum with no intention of buying, but with the objective of increasing the prices the incumbents would have to pay. We refer to such behavior as “fake bidding.”

While a reduction in supply is purely an economic fact, proving that the entrants engaged in fake bidding is more complicated. Auction behavior depends on many factors including, among other things, auction strategy, financial strength, dynamics and results from preceding auction rounds, and economically rational or irrational behavior. In addition, auction eligibility rules require that bidders maintain a certain level of activity. Thus, what might appear to be a fake bid may in fact be a bid to maintain eligibility. This type of behavior is referred to as “parking of points.” Therefore, identifying fake bidding is prone to Type I errors—or “false positives.” Nevertheless, fake bidding can be identified with reasonable accuracy. Specifically, when an entrant bids on an unrestricted license and does not bid on the identical set-aside, it is likely an example of fake bidding. Similarly, when an entrant bids on an unrestricted license even though it could acquire an equivalent set-aside license at a lower (often much lower) price, it is also potential fake bidding. With some possible exceptions, this type of bidding is irrational—it makes no economic sense—because economic behavior would dictate the purchase of the less expensive license. We identified many instances of fake bidding where entrants bid on unrestricted spectrum in the late rounds of the auction even though restricted spectrum was available for a fraction of the price. While there are many more instances, our report highlights 17 licenses for unrestricted spectrum where the final prices were clearly driven up by fake bidding in later rounds. Some might argue that these were simply bidding mistakes, but this does not seem to be the case as the entrant’s final purchase was almost always the cheaper restricted license.

⁵ See, for instance, Thomas W. Hazlett and Babette E.L. Boliek, “Use of Designated Entity Preferences in Assigning Wireless Licenses,” *Federal Communications Law Journal* 51, 640, or Robert W. Crandall and Allan T. Ingraham, “The Adverse Economic Effects of Spectrum Set-Asides,” *Canadian Journal of Law & Technology*, Vol. 6, November 2007, 131–140, n19.

⁶ We refer to entrants and incumbents in the same manner as Industry Canada. This is not to say that we agree necessarily that there are only three wireless incumbent providers in Canada.

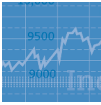
The set-aside provision also provided entrants with a possible strategic advantage because it allowed them to bid on open spectrum to maintain eligibility, while waiting for competitive entrants to drop out of the bidding. The consequences of this strategy are at least threefold. First, it results in an increase in the incumbents' license prices. Second, it jeopardizes one of the most fundamental auction design features, the eligibility rule. Third, it likely explains the record number of rounds it took to complete this auction.

Industry Canada's definition of an "entrant" intensified the effect of both the set-aside and fake bidding. Industry Canada determined that all bidders with less than 10 percent of the national wireless market would be considered entrants. In practicality, this meant that only Rogers, TELUS, and Bell Canada were subject to restrictions. All other bidders received preferential treatment. Defining an entrant on its national market share is shortsighted. First, it fails to consider regional incumbents, such as SaskTel and MTS that might have an incentive to enhance their regional market positions. Second, the definition fails to consider competition from wireless, wireline, satellite, and especially converged players, which are often large, well-capitalized firms with strong customer relationships, such as Shaw and Videotron that compete directly with the three nationwide incumbents. Third, the definition seems inconsistent with the market definition used by the Canadian Competition Bureau that confines its definition to provincial, not national. It appears that Industry Canada failed to assess the incentive of so-called entrants to raise the incumbents' costs, which they clearly did. Consequently, the failure to classify at least some of the larger, regional entrants as incumbents made it easier for them to protect and strengthen their current market position at the expense of the nationwide carriers.

Based on these findings, we recommend that the design used for the Canadian AWS auction be modified for future auctions. In particular, we recommend the following modifications:

1. Carefully balance the costs and benefits of regulatory intervention, whatever type it may be. The Canadian wireless sector has strong signs of competition. By intervening unnecessarily in this sector, Industry Canada runs the risk of damaging competition. Moreover, encouraging entry will not automatically lead to more competition in the Canadian wireless market as the market might have reached a natural equilibrium.
2. If Industry Canada finds that regulatory intervention through preferential treatment is necessary (i.e., market forces are not working properly):
 - a. It must ensure that the benefits of any such measures are limited to actual entrants—not regional or converged competitors. Rather than defining entrants based on market shares in a narrowly defined market, it might be more appropriate to define entrants based on their purchasing power, that is, average annual gross revenues.
 - b. It should focus on ex-post benefits, such as tax incentives, rather than ex-ante benefits, such as spectrum caps and the set-aside provision used in the Canadian AWS auction. Ex-post benefits are awarded only to successful bidders (i.e., actual entrants), while ex-ante benefits award all auction participants that qualify for the preferential treatment. Focusing on ex-post benefits will minimize the negative side effects of preferential treatment as it removes arbitrage opportunities for parties that do not seek to establish themselves in the market over the long run. Moreover, it will likely result in fewer auction rounds because the benefits are only awarded to new entrants.

3. Any benefits awarded to entrants should not come at the expense of the incumbents—which was the case in the Canadian AWS auction. That is, instead of forcing incumbents to subsidize entrants (by restricting them from bidding on set-aside spectrum) and subjecting them to extensive gaming, which further raises their costs, Industry Canada should directly subsidize entrants if, and only if, such a subsidy is economically justified (i.e., there is a risk of market failure).
4. Industry Canada must strive to minimize the side effects of any regulatory intervention. As evidenced in the economic literature, international best practices, and from actual auction experiences, including Canada's, set-aside provisions are inefficient and can harm competition. Therefore, we recommend that Industry Canada refrain from using set-aside provisions in future auctions. Instead, where justified by market circumstances, alternative measures should be considered, such as bidder credits like those used by the FCC in its recent spectrum auctions.



Introduction

On May 27, 2008, Industry Canada, the organization under the Minister of Industry that is responsible for spectrum management, made 105 megahertz (MHz) of radio spectrum available to mobile service providers. Ninety MHz of this spectrum was for new advanced wireless services (AWS), which include high-speed Internet, video, cell phones, and BlackBerrys. Fifty MHz of the AWS spectrum was made available to all providers, and 40 MHz was set aside for new entrants. The 2008 Canadian AWS auction was a simultaneous, multiple-round ascending type auction conducted over the Internet. The auction, which ended July 21, 2008, lasted a record 331 rounds, and 282 of the 292 licenses offered were provisionally attributed, generating total revenue of CAD 4.26 billion.

The spectrum for the Canadian AWS licenses was identical to the spectrum that was sold in 2006 in the U.S. AWS auction. Thus, based on the results from its neighboring country, Canadian analysts expected that the auction would earn between \$1 and \$1.5 billion for the government treasury.⁷ In the past, Canadian spectrum sold for significantly less than U.S. spectrum. To the experts' surprise, however, the Canadian AWS auction resulted in the AWS licenses being sold at prices almost threefold those anticipated—CAD 4.18 billion.⁸

While some media outlets described the auction as a success, the high prices paid for the licenses raise at least two important questions. What are the economic consequences of the record high spectrum prices? Why did Canadian AWS spectrum sell at a significant premium over U.S. AWS spectrum when prior economic evidence suggests the opposite?

⁷ "Canadian AWS Auction is On," Dailywireless.org, May 27, 2008, <http://www.dailywireless.org/2008/05/27/7796>. We understand that these forecasts were only for AWS blocks (A-F).

⁸ AWS licenses included blocks A-F.

The objective of this statement is to provide some answers to these two important questions, which in turn should be useful to Industry Canada in the design and implementation of future spectrum auctions. This statement does not attempt to quantify the specific financial and competitive impact of Industry Canada's spectrum rules and licensing conditions. Instead, it is an effort to identify the contributing factors that might explain the observed valuation premium.

As we show in this paper, the Canadian AWS spectrum sold at a significant premium over comparable U.S. and non-U.S. spectrum. High spectrum prices are not necessarily a catalyst for competition. In fact, excessively high prices, and particularly repetitively high prices (if the particular auction design were to be repeated for the upcoming 2.5 GHz and 700 MHz auctions), can significantly harm competition and delay the rollout of new, innovative services. The preferential treatment of entrants was a key contributing factor in the premium paid for Canadian AWS spectrum. In particular, the preferential treatment of entrants, via set-aside licenses, carries a significant risk because it fundamentally distorts the market forces underlying spectrum auctions. Additionally, several examples from the economic literature and from recent international experience identify set-asides as inefficient tools for promoting competition.

The set-aside provision results, among other things, in a "double tax" for the incumbents because it decreases the supply of spectrum available to them and artificially increases the demand for unrestricted spectrum—the only spectrum available to the incumbents. As set up in Canada, it also enables entrants to bid on unrestricted spectrum without any intention of purchasing it, thereby inflating prices by forcing the incumbents to compete with higher bids. Because entrants were allowed to withdraw their bids, they could do so with near impunity.⁹ The financial burden created by the set-aside provision was intensified by the flawed definition of an entrant, which provided a financial windfall for regional players, rather than actual entrants.

Several enhancements could be made to the design used in the Canadian AWS auction. The most important of these would be to conduct a careful analysis of current and projected competition before designing the auction. Then, there would be sufficient information available to determine if it is economically sound to give favorable treatment to any particular bidding party. Even if it is determined that preferential treatment is necessary, there are more effective competition-enhancing measures than set-asides. In addition, the definition of an entrant should be revised to encourage the entry of new, innovative operators, rather than allowing regional players and well-capitalized cable operators, some of whom already sell wireless services to enhance their regional market positions.

⁹. Bidders that withdrew a bid were financially liable for the price decrease, if the bidding for the license ended at that point. Hence, there was a non-zero risk associated with bid withdrawal.

AWS Spectrum Commanded a Significant Premium

The spectrum licenses sold at auction were in Tier 2 and 3 service areas across Canada. The AWS spectrum was offered in six blocks: three blocks of 2x10 MHz and three blocks of 2x5 MHz in the 1710–1755 MHz and 2110–2155 MHz range.¹⁰ Industry analysts and members of the media all seem to agree that the Canadian AWS spectrum sold at prices much higher than anticipated. For instance, five days into the auction, CBC News reported, “[a]fter 16 rounds of bidding, the auction has already greatly surpassed the \$1 billion to \$1.5 billion many analysts had expected it would net.”¹¹ Similarly, Communications Daily stated, “[t]he auction brought in CAD 4.25 billion, nearly three times the totals analysts projected last year.”¹² In addition, an industry analyst stated that regulators were “grinning from ear to ear” as the final auction revenue was “roughly double to triple what most people expected.”¹³



In order to verify these statements and thus the estimates of overpayment for the licenses, we calculated the value of the Canadian AWS spectrum that was offered in the auction relative to comparable spectrum offered in other countries, mainly the U.S. One would expect that, if AWS spectrum sells for a particular price in the U.S. (and other developed countries), this value would be indicative (albeit not necessarily identical) of the value of the spectrum in Canada. In fact, based on historical evidence, Canadian spectrum values might be *below*, not above, comparable U.S. values. Hence, having an estimate of the value of other developed countries’ spectrum provides a baseline for exploring the impact of the design used in the Canadian AWS auction on revenues.

Calculating the Value of Spectrum

Using econometric techniques, we forecasted the value of the Canadian AWS spectrum based on the value of identical (AWS) and similar (700 MHz and 2.6GHz) licenses in the U.S., Norway, and Sweden. Recognizing that geographic areas, demand and supply conditions, and various other attributes might influence the value of a license, we controlled for these differences in our analysis. Specifically, we built a comprehensive database consisting of over 2,300 observations from the 2006 U.S. AWS auction, the 2008 U.S. 700 MHz auction, the 2007 Norwegian 2.6 GHz auction, and the 2007 Swedish 2.6 GHz auction. Each observation represents a license in one of these auctions and includes the following variables:¹⁴

- Area
- Auction type
- Block
- Country GDP
- Auction set-aside dummy
- Auction year
- Country
- Employment percentage

¹⁰ There was also one block of 2x5 MHz in the 1910–1915 MHz and 1990–1995 MHz range for PCS and one block of 5 MHz in the 1670–1675 MHz range sold at auction

¹¹ “Spectrum Auction at \$2B and Counting,” CBC News, June 2, 2008.

¹² “Major Incumbents, Challengers Win Big in Canadian AWS Auction,” *Communications Daily*, July 22, 2008.

¹³ Ibid.

¹⁴ See Appendix A for the database.

- Final license bid amount
- License bandwidth
- License population over 16
- Market name
- Mobile data ARPU
- Mobile voice ARPU
- Number of licenses offered
- Population
- Unemployment percentage
- Household income
- License length (years)
- License set-aside ID
- Median family income
- Mobile penetration
- Name of winning party
- Number of registered bidders
- Population density

Using an ordinary least squares (OLS) regression method, we estimated the functional relationship of the final bid amount (the dependent variable) and the license attributes outlined above (independent variables). One of the strongest of these models was the following, rather simple, linear relationship:

$$C_{ib} = \alpha(POP_i * MHz_b) \quad (1)$$

Where $C_{i,b}$ is the final bid amount for geographic area i and block b , POP_i is the population in geographic area i , and MHz_b is the bandwidth size of the auctioned block b . Expressed in words, this model suggests that the cost of a spectrum license is a function of the product of bandwidth, population, and a coefficient. The product of the population covered by a license and the license's bandwidth is one measure of the "quantity" of spectrum offered by a license.

Estimating equation (1) above with the 2,300 observations from the 2006 U.S. AWS auction, the 2008 U.S. 700 MHz auction, the 2007 Norwegian 2.6 GHz auction, and the 2007 Swedish 2.6 GHz auction yields the following results:

$$C_{ib} = 0.757(POP_i * MHz_b) \quad (2)$$

The regressor is statistically significant at the 5 percent level or better. The R^2 of the regression is 0.65 with 35 percent of the variation in auction prices unexplained by the equation or the other variables.

By estimating equation (1) on only the 1,082 observations from the U.S. AWS auction, the explanatory power of the model, as measured by the R^2 , increases to 0.845, leaving only approximately 15 percent of the price variation unexplained. The fitted model is as follows:

$$C_{ib} = 0.747(POP_i * MHz_b) \quad (3)$$

The results indicate that the winning license bid amount increases proportionally with the product of population and license bandwidth. These findings are consistent with previous econometric studies, as well as common sense. For instance, in calculating the value of the unencumbered AWS-III spectrum in the U.S., the Phoenix Center for Advanced Legal and Economic Public Policy Studies finds that the “final gross bid of the auction” is a function of block size and population (megahertz-pop or MHz-pop) as well as a number of other variables.¹⁵ In fact, calculating the value of the unencumbered AWS-III spectrum in the U.S. based on equation (3) yields results generally consistent with those derived by the Phoenix Center study.

Similarly, analyst reports, investment firms, and the literature on spectrum prices frequently refer to and compare prices (or costs) per MHz-pop, a measure of spectrum quantity adjusted for the potential population it can serve, in deriving the value of a particular spectrum band or license. For example, as pointed out by Crandall and Ingraham, the product of bandwidth and population “is commonly used to define the ‘quantity’ of spectrum won.”¹⁶ Hence, equation 3 above simply states that the cost of a license is a product of price and quantity and can be rewritten as:

$$C_{i,b} = 0.747 * Q_{ib} \tag{4}$$

A slightly stronger model is the quadratic form of the relationship in equation (1). That is, adding a quadratic interaction term produces the following equation:

$$C_{i,b} = \alpha(POP_i * MHz_b) + \beta(POP_i * MHz_b)^2 \tag{5}$$

Estimating equation (5) above with the 1,082 observations from the 2006 U.S. AWS auction yields the following results:

$$C_{i,b} = 0.606(POP_i * MHz_b) + 1.89e^{-10}(POP_i * MHz_b)^2 \tag{6}$$

The regressor is statistically significant at the 5 percent level or better. The R² of the regression is 0.85.



¹⁵ G. S. Ford, *Calculating the Value of Unencumbered AWS-III Spectrum*, PHOENIX CENTER POLICY PERSPECTIVE 08-01, June 2008, 2, <http://www.phoenix-center.org/perspectives/Perspective08-01Final.pdf>.

¹⁶ Robert W. Crandall and Allan T. Ingraham, “The Adverse Economic Effects of Spectrum Set-Asides,” *Canadian Journal of Law & Technology*, Vol. 6, November 2007, 131–140, n19, (Crandall and Ingraham).

Calculating the Value of Canadian AWS Spectrum

In order to calculate the value of the AWS spectrum in Canada, we inserted the relevant values of the Canadian AWS licenses in equation 4 (linear model) and in equation 6 (quadratic model). Based on the linear model, the mean predicted value of the AWS spectrum that was sold in the Canadian AWS auction is approximately CAD 2.04 billion. The 95 percent confidence interval for this prediction is CAD 1.05 to 3.03 billion.¹⁷ The spectrum, however, sold for CAD 4.18 billion, more than twice the estimated value from the linear model.¹⁸ The valuation results, with and without blocks G and I, using the linear model are summarized in Appendix B.

Based on the quadratic model, the mean predicted value of the AWS spectrum that was sold in the auction is approximately CAD 1.68 billion. The 95 percent confidence interval for this prediction is CAD 0.71 to 2.65 billion. Again, the spectrum sold for CAD 4.18 billion, close to 150 percent above the estimated value from the quadratic model. The valuation results, with and without blocks G and I, using the quadratic model are summarized in Appendix C.

Analyst reports, investment firms, and the literature on spectrum prices frequently refer to and compare prices (or costs) per MHz-pop, valuing spectrum by deriving the average price per MHz-pop from a comparable auction and then multiplying the result by the product of MHz and population in the forecasted region. Consistent with the regression forecasts, we use the U.S. 2006 AWS auction as the basis for this third valuation analysis. Dividing the sum of the winning bids of this auction (in 2008 CAD) by the product of MHz and population yields a weighted average of CAD 0.57 per MHz-pop.¹⁹ Multiplying this number by the sum of the product of MHz and population for each AWS license offered in Canada yields a total auction value estimate of CAD 1.53 billion.²⁰ This, in turn, would imply that the AWS spectrum in Canada sold at a premium of approximately 173 percent, i.e., at nearly three times its expected value as reported by the analysts at the conclusion of the auction.

These three estimates are all reasonable and valid methods for valuing the spectrum, each with its own advantages and disadvantages. Hence, in order to provide one overall valuation estimate for the spectrum, we calculated the average predicted value based on these three estimates. In Tables 1–3, we summarize our estimates for the three models. Table 4 presents the consensus estimate, which is a simple average of the prior three estimates.

¹⁷ We used the average exchange rate of 1.01201 to convert from U.S. to Canadian Dollars.

¹⁸ We note that the above figures do not include blocks G and I, as they were not AWS blocks and thus cannot be accurately forecasted with this regression model. However, both of these blocks were offered in conjunction with blocks A-F and thus might have affected the prices of the AWS blocks. Hence, it is also informative to calculate the mean predicted value of the auction, including blocks G and I. This calculation yields CAD 2.27 billion and when compared to the total auction revenue of CAD 4.26 still indicates an overpayment of 87 percent.

¹⁹ We note that not adjusting for inflation will result in a weighted average of CAD 0.55 (USD 0.54) per MHz-pop.

²⁰ Consistent with the previous estimates, this estimate does not include blocks G (1.9GHz) and I (1.6GHz), which are not AWS blocks.

Table 1: **Canadian AWS Spectrum Valuation Linear Regression Forecasts in CAD Billion**²¹

	Actual	Predicted	Overpayment	95% Confidence Interval	
				Lower	Upper
All Licenses	4.18	2.04	104.7%	1.05	3.03
Unrestricted Licenses	2.66	1.13	135.0%	0.31	1.96
Set-Aside Licenses	1.51	0.91	66.9%	0.36	1.46

Table 2: **Canadian AWS Spectrum Valuation Quadratic Regression Forecasts in CAD Billion**²²

	Actual	Predicted	Overpayment	95% Confidence Interval	
				Lower	Upper
All Licenses	4.18	1.68	148.5%	0.71	2.65
Unrestricted Licenses	2.66	0.93	186.3%	0.12	1.74
Set-Aside Licenses	1.51	0.75	101.7%	0.21	1.29

Table 3: **Canadian AWS Spectrum Valuation Forecasts using Average Prices in CAD Billion**²³

	Actual	Predicted	Overpayment
All Licenses	4.18	1.53	172.6%
Unrestricted Licenses	2.66	0.85	212.9%
Set-Aside Licenses	1.51	0.68	122.3%

Table 4: **Canadian AWS Spectrum Valuation Consensus Forecasts in CAD Billion**²⁴

	Actual	Predicted	Overpayment
All Licenses	4.18	1.75	138.5%
Unrestricted Licenses	2.66	0.97	174.1%
Set-Aside Licenses	1.51	0.78	94.2%

²¹. Excludes non-AWS blocks G and I.

²². Ibid.

²³. Ibid.

²⁴. Ibid.

As illustrated in Figures 1-3, the overpayment is most pronounced for the unrestricted spectrum, although both restricted and unrestricted spectrum sold significantly above their mean predicted values.

Figure 1: Canadian AWS Spectrum Valuation and Overpayment All 90MHz AWS Spectrum in CAD Billion

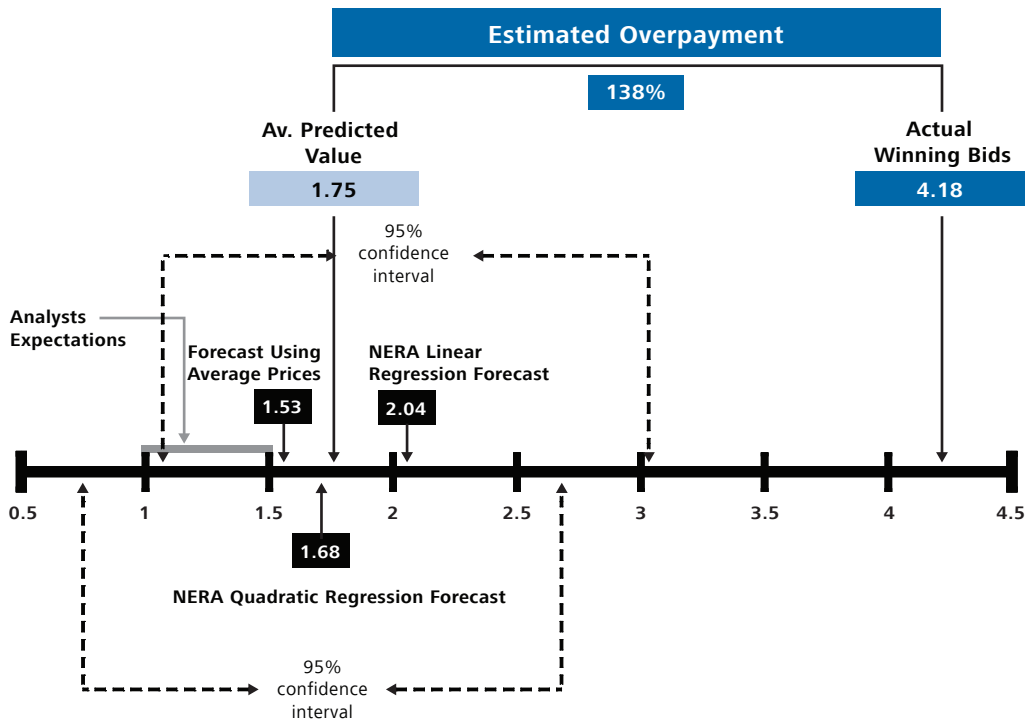


Figure 2: Canadian AWS Spectrum Valuation and Overpayment 50 MHz Unrestricted Spectrum in CAD Billion

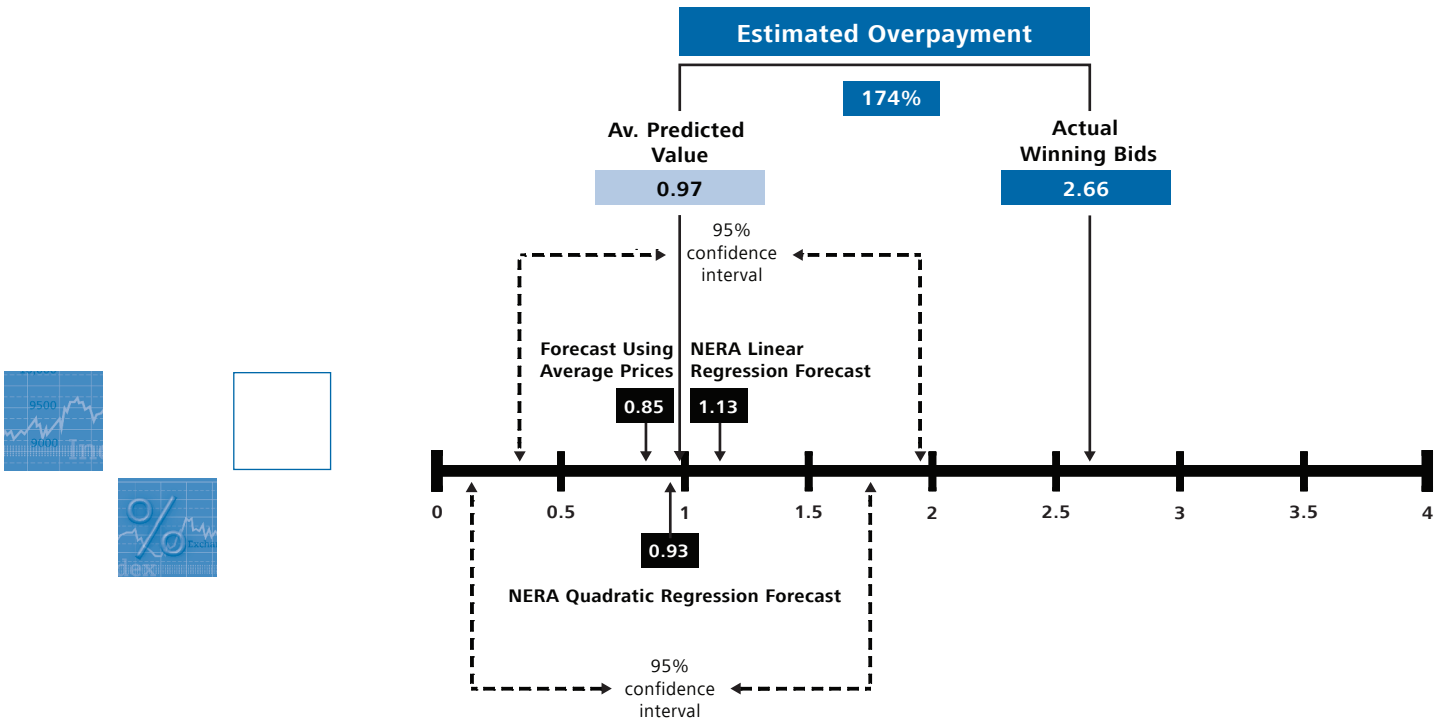
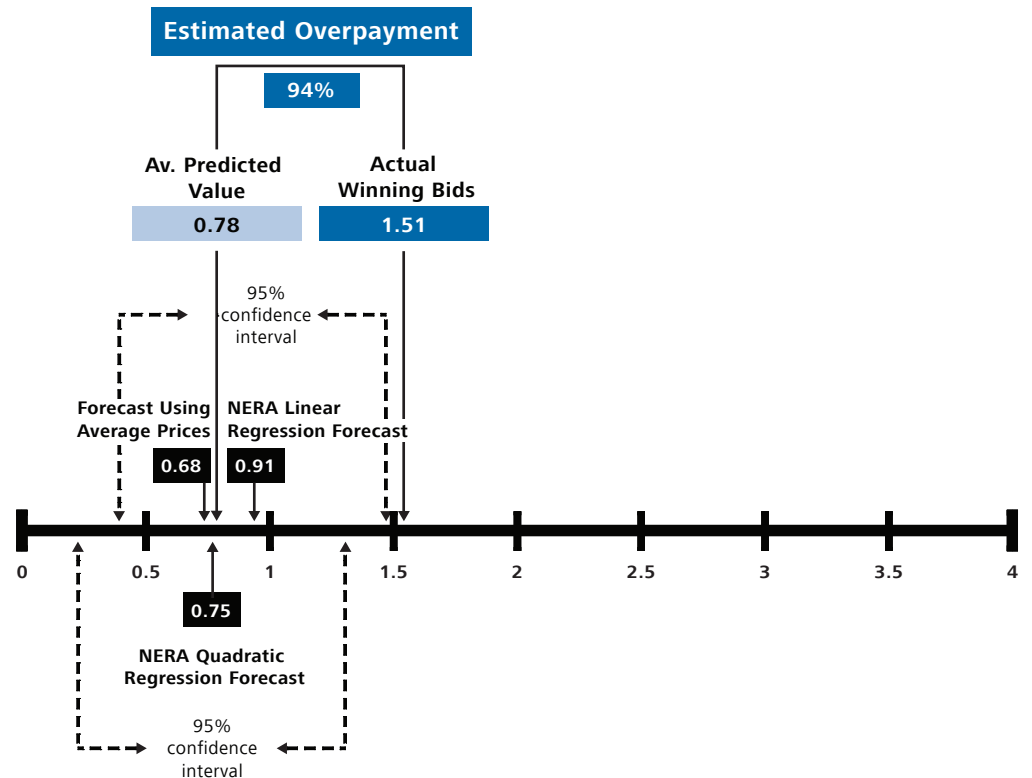


Figure 3: Canadian AWS Spectrum Valuation and Overpayment 40 MHz Set-Aside Spectrum in CAD Billion



By calculating the value of the Canadian AWS spectrum based on observed values from the U.S. AWS spectrum auction, we make two implicit assumptions. First, we assume that the price per MHz-pop in Canada is identical to that in the U.S. Based on historical evidence, this assumption is conservative because historically Canadian prices per MHz-pop were well below U.S. prices for identical spectrum. Furthermore, industry leaders frequently compare the spectrum prices paid in Canada to their U.S. counterparts. For instance, following the auction of 1.9 GHz PCS spectrum in Canada in 2001 which achieved one fourth of the dollars per Mhz-pop that the PCS auction in the US in 2001 achieved, TELUS in a press release stated:

The outcome of today's auction is quite favourable for TELUS, commented Robert McFarlane, Executive Vice President and Chief Financial Officer of TELUS. TELUS Mobility now has approximately 55 MHz of spectrum in all major urban areas of Canada including the valuable Southern Ontario market, and with the largest amount of licensed spectrum of any operator, we have maintained Canada's leading wireless spectrum position. TELUS Mobility acquired this additional spectrum at an attractive price, particularly when compared to what U.S. wireless operators paid in U.S. spectrum auctions, which ended last week.²⁵

As illustrated in Table 5, however, using the linear regression model or the average price method for comparative purposes reveals that the Canadian AWS spectrum license prices far exceeded the AWS license prices paid in the U.S. Specifically, the linear regression model indicates that the U.S. AWS auction commanded a price of CAD 0.76 per MHz-pop. In stark contrast, the same model indicates that the Canadian AWS auction commanded prices of CAD 1.49 and CAD 2.36 per MHz-pop for the restricted and unrestricted AWS spectrum, respectively. Interestingly, using the linear regression model to explain the differences in license prices for the Canadian AWS auction yields an R² of 0.92 and 0.94 for set-aside and unrestricted spectrum, respectively. This strongly indicates that, although prices in the AWS auction in Canada were much higher than prices in the AWS auction in the US, the prices are broadly determined by the same variables (i.e., bandwidth and population) in the U.S. and elsewhere. Using the mean price method, described above, confirms the above analysis. Specifically, the average price per MHz-Pop in the U.S. AWS auction was CAD 0.57, while the Canadian mean prices per MHz-Pop were CAD 1.26 and CAD 1.78 for restricted and unrestricted spectrum, respectively.

Table 5: **MHz-pop Spectrum Prices U.S. vs. Canada**²⁶

Auction	Licenses	Mean Price Method		Linear Regression Model			
		Price per MHz-Pop		Price per MHz-Pop	t-Stat	Adj. R ²	
U.S. AWS	1,082	CAD0.57	USD0.56	CAD0.76	USD0.75	76.89	0.85
CAN AWS Unrestricted	177	CAD.78	USD1.75	CAD2.36	USD2.33	52.88	0.94
CAN AWS Set-Aside	87	CAD1.26	USD1.25	CAD1.49	USD1.47	32.43	0.92

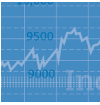
²⁵ TELUS, "TELUS Mobility Maintains Canada's Leading Wireless Spectrum Position," *TELUS Press Release*, February 2, 2001, http://about.telus.com/cgi-bin/media_news_viewer.cgi?news_id=206&mode=2&news_year=2001.

²⁶ Canadian forecasts do not include blocks G and I.

Second, when using the results of the U.S. AWS auction to forecast the value of the Canadian AWS spectrum, we assumed that the spectrum in Canada was to be allocated in the exact same fashion as in the U.S. However, this was not the case because both the auction design and the licensing terms and conditions were significantly different in the two countries. Logically, if:

- 1) Canadian AWS spectrum is identical to U.S. AWS spectrum.
- 2) Canadian spectrum typically commands a lower price than U.S. spectrum.
- 3) Canadian AWS auction design is different from U.S. AWS auction design.
- 4) Canadian AWS spectrum sold at a significant premium over U.S. AWS spectrum.

It is reasonable to conclude that the valuation premium observed in Canada was at least partially, if not fully, the result of the design (including the licensing terms and conditions) used for the Canadian AWS auction.



High Prices Jeopardize Policy Objectives

Industry Canada's policy objective for managing radio spectrum is "to maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource."²⁷

Finding that there may be "less competition in the Canadian wireless market than in the U.S. market, which consequently has resulted in higher prices, less innovation, lower uptake and lower rates of usages," Industry Canada sought to use this auction to induce competitive facilities-based entry and to sustain and enhance competition.²⁸

Specifically, Industry Canada stated:

... the current market structure is such that the loss of a national or regional facilities-based carrier, either wireline or wireless, could be sufficient to remove, in one or more regions of Canada, the conditions established by the Governor in Council for the deregulation of local telephone service. Ensuring opportunities for new facilities-based entrants into telecommunications markets is therefore an important policy issue.²⁹

Another (related) policy goal was to create more competition:

The department is of the view that notwithstanding that wireless markets in Canada are competitive at this time, market conditions are such that establishing measures for the auction for AWS spectrum licences to sustain and enhance competition is warranted.³⁰

In addition, while Industry Canada was careful not to promise a certain outcome, it stated:

In taking the measures outlined in this paper, Industry Canada recognizes that it can guarantee neither new entry nor success of eventual new entrants. The measures being taken are intended to ensure an opportunity for entry by addressing the potential to exploit spectrum as an entry barrier. The department is satisfied that the potential benefits of new entry warrant these measures. Conversely, the department is also satisfied that in the absence of these measures, there exists a potential that reliance on market forces alone may serve to unduly restrict market entry, which could reduce innovation to the detriment of the industry's advancement and, ultimately, to wireless users across Canada.³¹

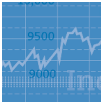
²⁷ 2GHz Auction Framework, 1.

²⁸ Ibid., 2.

²⁹ Ibid., 4.

³⁰ Ibid. 4

³¹ Ibid.



Consequently, Industry Canada adopted an auction design that incorporated specific regulatory measures, most of which favored regional players, cable operators, and new entrants. First, it implemented spectrum set-asides—40 MHz of AWS spectrum in frequency blocks B, C, and D were reserved for “new entrants.” New entrants were defined as “an entity, including affiliates and associated entities, which holds less than 10 percent of the national wireless market based on revenue.”³² Second, Industry Canada’s licensing terms included unprecedented mandatory roaming provisions that were retroactive to all existing mobile spectrum licenses. Thus, the incumbents are required to make roaming available to an entrant inside the entrant’s license area “at commercial rates for a period of 5 years while the licensee builds out its network” and for the term of the license outside the entrant’s license area.³³ Third, it mandated “antenna tower and site sharing.”³⁴ Finally, the licenses auctioned were flexible; they carry an initial 10-year term, and they can be transferred, resold, or partitioned. The only restriction in this respect was that set-aside spectrum could not be sold to incumbents for a period of five years. As shown above, this particular auction design resulted in an overpayment of approximately CAN 2.4 billion by the auction participants, the incumbent wireless providers in particular.

Some might argue that the auction was a success because it extracted the bidders’ maximum willingness-to-pay. However, as heavily debated in the economic literature, higher auction revenue is not necessarily welfare maximizing.³⁵ Industry Canada seems to share this view as it specifically states that the objective of the auction “is not to raise revenue, rather it is to award licences fairly, efficiently and effectively so as to ensure that the Canadian public derives the maximum possible benefit from the spectrum resources.”³⁶ Thus, with this policy objective in mind, it is important to study and understand the economic consequences of the record high spectrum prices generated by the Canadian AWS auction design. Only then can one answer the question of whether the auction met the policy objectives.

A basic economic principle is that sunk costs are not relevant to rational decision making.³⁷ As described in a popular introductory economics textbook, a “sunk cost is like spilled milk: once it is sunk, there is no use worrying about it, and it should not affect any subsequent decisions.”³⁸ Similarly, economists have argued that spectrum license payments are one-time fixed fees that are sunk. Thus, they should not affect consumer prices or be taken into consideration when deciding what types of services are to be offered to consumers. While the literature of behavioral economics is replete with discussions on the concept of sunk cost, the application and consequence to spectrum license payments have been repeatedly challenged.³⁹ Similarly, in the wake of the high spectrum prices generated by the 2000 UK 3G auction, British operators and

³². Ibid., 5.

³³. Ibid., 8

³⁴. Ibid., 8

³⁵. See, for example, Costas Courcoubetis and Richard Weber, “Pricing Communications Networks: Economics, Technology and Modelling,” John Wiley and Sons, 2003, 324.

³⁶. Spectrum Management and Telecommunications, Industry Canada, “Questions and Answers – Framework for Spectrum Auctions in Canada,” <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01854.html>.

³⁷. Sunk costs are costs that cannot be recovered when a firm leaves an industry, see *MIT Dictionary of Modern Economics*, s.v.

³⁸. Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, Third Edition, Addison-Wesley, 1999, 28.

³⁹. See, for example, R. Preston McAfee, Hugo M. Mialon, and Sue H. Mialon, “Do Sunk Costs Matter?” April 7, 2007, working paper, <http://www.suemialon.com/research/RevisedSunkCostsMatterApril2007.pdf>.

industry analysts argued that the high spectrum prices would lead to a delayed 3G rollout and higher retail prices. Consequently, the government was pressured to refund some of the auction money to the industry.⁴⁰ Furthermore, experts have blamed the high 3G spectrum prices collected in auctions throughout Europe on the downfall of the telecommunication sector. For instance, British Telecom (BT) Ignite's CEO Alfred Mocket stated, "the huge price paid by telcos in order to get their hands on spectrum has had an impact on the current slump in the telecoms market." Mocket continued:

The auction was played in an artificial market and operators paid twice as much for licences than they would for building the networks. We were obliged to bid or face becoming a bit player in our own market. The cost of the licence was the cost of staying in business.⁴¹

In fact, in an effort to lower its high debt burden following the UK 3G auction, BT was forced to spin off its wireless operation, BT Wireless. Hence, high spectrum prices can actually lead to less competition because it can force operators to exit the market.

It is worthwhile noting that the UK 3G auction used a similar design to the Canadian AWS spectrum auction. In particular, both of these auctions relied on set-aside provisions in an effort to promote competition. Importantly, however, the UK auction had only one national set-aside license, unlike the Canadian AWS auction, which reserved three of six blocks in 59 service areas for entrants.

In light of the economic repercussions due to the high spectrum prices collected in auctions in Europe, regulators in a number of Asian countries revisited their particular spectrum allocation mechanisms in an attempt to avoid a repeat of the UK 3G auction. For instance, the regulator in Singapore delayed its 3G spectrum auction because it was reportedly concerned "over debt and falling share prices in telecoms companies due to the spectacular prices fetched by 3G spectrum auctions in Europe."⁴²

Regardless of whether spectrum license payments are considered sunk costs that should be ignored in forward-looking pricing decisions, it is generally agreed that high spectrum payments can have negative consequences on mobile services. As evidenced in the EU 3G auctions, high auction prices can lead to a drop in the operators' stock prices because investors tend to sell their holdings when there is a decrease in earnings and/or a decrease in debt ratings. This problem can be particularly severe for entrants as, at times, their limited (or nonexistent) cash flows make it particularly difficult to attract new funding, which can lead to delayed rollouts, reductions in service quality, reduced R&D, or a combination of these factors. In severe cases, it can lead to market exit (as evidenced by the exit of BT Wireless) or market consolidation because weaker market participants go bankrupt or are acquired by a more solvent company, all of which has a direct effect on competition.

⁴⁰ Nigel Seel, *Business Strategies for the Next-Generation Network*, Auerbach Publications, 2006, Chapter 10, 2.

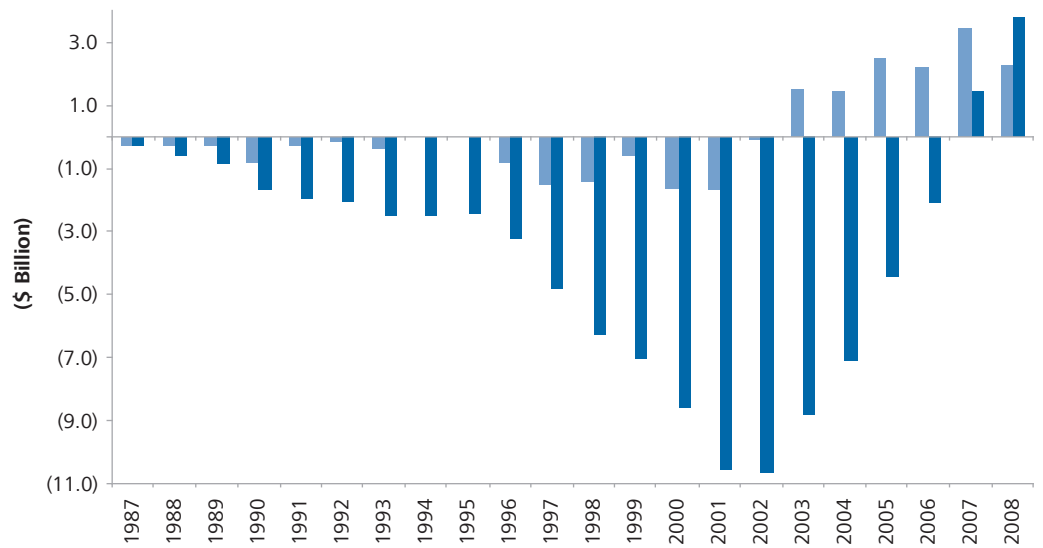
⁴¹ Jane Wakefield, "BT accuses government of 3G tax," ZDNet.co.uk, May 10, 2001, <http://news.zdnet.co.uk/internet/0,1000000097,2086122,00.htm>.

⁴² Susie Helme, "What's the Hold Up," *Mobile Communications International*, February 1, 2001, <http://www.allbusiness.com/computer-electronic/communications-equipment/1001085-1.html>.

This last point is particularly critical for the Canadian wireless sector. As shown in Figure 4, after many years of significant net investment, negative annual wireless cash flows, and negative cumulative cash flows, the Canadian wireless industry has just recently been able to generate positive cash flows and offset the initial investments and carrying charges. The network investment requirements for AWS aside, the CAD 4.26 spectrum price will undoubtedly reverse this development and return the Canadian wireless industry to the era of negative annual (and cumulative) cash flows.

Figure 4: **Canadian Wireless Industry Cash Flow, 1987-2008**

■ Annual Wireless Cash Flows ■ Cumulative Wireless Cash Flows



Consequently, excessively high spectrum prices can negatively affect competition, prices, service deployment, and quality of service. This risk is particularly pronounced in Canada where all winning parties, including the entrants, appear to have grossly overpaid in the recent AWS auction. As such, this particular auction design has the potential to harm the very policy objectives that Industry Canada strives to achieve, particularly if used again for future Canadian spectrum auctions.

Preferential Treatment

Preferential Treatment of Entrants Carries a Significant Risk

Many recent spectrum auctions around the world have used a simultaneous, multiple-round ascending auction format. The Canadian AWS auction was no different; however, it differed in two respects from the other auctions. Specifically, the Canadian auction included an unprecedented large set-aside provision and introduced mandated tower sharing and roaming retroactively to all Canadian mobile spectrum licenses. Because our previous finding was that the valuation premium observed in Canada was partially (if not fully) a result of the auction design and the specific conditions of license (COL), it follows that these differences are likely the underlying cause of the large valuation premium.

As Egyptian billionaire Naguib Sawiris points out, other factors that make the Canadian market attractive (and that might explain the high spectrum prices) are “lower penetration, an unaddressed prepaid market and friendly network roaming agreements.”⁴³ Although these factors cannot entirely be ruled out as reasons for the overpayment, it is unlikely that they are the principle contributing factors. Lower relative penetration rates have existed for a long time and so far have never caused Canadian spectrum to sell at a premium relative to U.S. spectrum. Furthermore, the reference to an unaddressed prepaid market is presumably inferring that there is an opportunity to compete on price. However, per the Canadian Radio-television and Telecommunications Commission (CRTC), Canada’s average revenue per minute (ARPM) metric is among the lowest of all the OECD countries.⁴⁴ Furthermore, as evidenced in the U.S. market, the prepaid sector is mainly served by mobile virtual network operators (MVNOs) that are typically not facilities-based, so they do not own spectrum. In addition, the “friendly network roaming agreements” to which Mr. Sawiris alludes, we can only assume refer to the expected direct consequence of the new and unprecedented mandated roaming COLs introduced as part of the AWS rulemaking. Others might argue that the overpayment is due to careless bidding strategies and practices by the bidders. However, as we explain below, this is a less than plausible explanation because history does not confirm this. Moreover, it would not explain why everyone overpaid, incumbents and entrants alike.

In providing entrants with preferential treatment through set-asides and mandatory roaming and tower sharing, Industry Canada attempted to prevent the incumbents from foreclosing entry or raising the entrants’ costs. Specifically, Industry Canada found that “incumbents have an incentive to pay a premium for spectrum to prevent entry.”⁴⁵ Hence, the regulator implemented the preferential treatment provisions with the intent “to ensure an opportunity for entry by addressing the potential to exploit spectrum as an entry barrier.”⁴⁶ However, as we explain below, the department seems not to have considered the “flip-side” of its program; that is, the arbitrage opportunity the preferential treatment provisions created for entrants.

⁴³ David George-Cosh, “Meet Canada’s Newest Wireless Contender,” *National Post*, July 22, 2008.

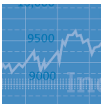
⁴⁴ Canadian Radio-television and Telecommunications Commission (“CRTC”) Communications Monitoring Report, Section 5.5, 196, <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2008/cmr2008.htm?Print=True#s55>

⁴⁵ 2GHz Auction Framework, 3.

⁴⁶ *Ibid.*, 4.

Ignoring for the moment whether Industry Canada’s concern was economically justified or even if the specific measures did promote competition, significant costs are associated with the provision of preferential treatment to any party in a competitive bidding process. Chief among these costs is the fact that preferential treatment can lead to inefficient market entry. As we explain in detail below, preferential treatment can also inflict additional harm on incumbent carriers by not only decreasing the effective prices paid by entrants, but also by increasing the prices paid by incumbents. Moreover, there seems to be little evidence, if any, demonstrating that preferential treatment is an effective tool to promote competition. As found by Crandall and Singer:

Despite the best of intentions, United States regulators have not been able to stimulate meaningful local competition through such asymmetric regulation. Moreover, the resultant easy access to capital created wasteful investment by the entrants.⁴⁷



Moreover, Crandall and Ingraham found, “the U.K. UMTS auction not only revealed that set asides can encourage entry that is not viable, but they also reveal that set asides can subsidize the purchase of the most valuable asset let at auction by the firm that values that asset the least—an outcome that is at odds with the maximization of consumer welfare.”⁴⁸

More generally, the success or failure of mobile operators should depend solely on how customers value those providers and the services they offer in the marketplace, not on preferential treatment received when obtaining spectrum licenses and building networks.

Preferential Treatment of Entrants Might Not Be Necessary

Preferential treatment is particularly problematic in competitive environments. In a competitive environment, forcing the entry of new facilities-based wireless carriers through specific auction rules and licensing terms and conditions can lead to an inefficient allocation of spectrum resources. It is not obvious that the entrants needed this type of assistance in overcoming what Industry Canada considered an entry barrier. As evidenced by Egyptian billionaire Naguib Sawiris’ financial backing of Globalive—\$500 million—entrants can be in an equally strong or even stronger financial position than the incumbents. In fact, entrant Globalive confirmed its financial strength in a press release stating:

We believe that the experience, global scale and purchasing power of Weather Investments are the pivotal ingredients to Globalive’s success as a new national wireless operator in Canada.⁴⁹

⁴⁷ Robert W. Crandall and Hal J. Singer, “Observations on Current Canadian Ownership Debate in Telecommunications,” Criterion Working Paper No. 03-02, February 2003.

⁴⁸ Crandall and Ingraham, 2.

⁴⁹ Globalive Press Release, “Globalive Well Positioned To Become Fourth National Wireless Carrier in Canada,” <http://www.globalive.com/?p=52>.

In order to determine if entrants need preferential economic treatment, it is necessary to look at what regulatory intervention can accomplish. While the number of competitors often is incorrectly viewed as an absolute determinant of the need for regulation, the main justification for regulatory intervention should be the risk of market failure. A major contributory factor to market failure is the possession of market power by one or more firms.⁵⁰ Usually, this power over price is made possible by a firm's ability to affect significantly the market supply of the product by restricting its own output. The corollary of this definition is that, in an effectively competitive or contestable market, no single firm, regardless of its relative size, can expect to charge a supracompetitive price and earn greater than normal profits. In such a market, countervailing forces are likely to defeat an attempt by any one firm to raise permanently the market price above the competitive level. Thus, any justification for regulatory intervention in auctions or other aspects of the telecommunications sector must depend on governments or regulators being able to establish first that the incumbents have the ability to exercise market power and prevent the normal operation of a competitive market from which consumers and society can benefit.

Industry Canada's main motivation for introducing preferential treatment in its AWS auction seems to rest on its concern that there is less competition in the Canadian wireless market than in the U.S. market and that "the loss of a national or regional facilities-based carrier" might remove the conditions necessary "for the deregulation of local telephone services."⁵¹ Despite these concerns, Industry Canada found that wireless markets in Canada were competitive and that preferential treatment was a means of sustaining and enhancing competition.⁵² Similarly, the CRTC forbore from regulating wireless services, finding that "such services were sufficiently competitive."⁵³

This position, however, raises a number of concerns. First and most fundamentally, if wireless markets are deemed competitive, the potential risks of harming competition through regulatory intervention likely outweigh the potential benefits of sustaining and enhancing competition. This is especially true in situations where preferential treatment is granted at the incumbents' expense, as was the case here. Second, even if wireless markets were to be found not competitive, the cause of the lack of competition must be examined. Simply adding more players to a market that is noncompetitive will not guarantee more competition.

⁵⁰ Economic theory defines market power as the ability to profitably raise and sustain the price of a product above the level that would prevail in a competitive market.

⁵¹ 2GHz Auction Framework, 2, 4.

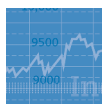
⁵² Ibid., 4

⁵³ CRTC, "Update to CRTC Telecommunications Monitoring Report – 24 September 2007," <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2007/tmr2007.htm?Print=True#4.6>.

Set Asides

Economic Literature and Regulators Do Not Favor Set-Asides

A key distinction of the Canadian AWS auction relative to other recent auctions was the presence of an unprecedented large set-aside provision. Set-aside provisions are not new to auction design and have been discussed in the economic literature, which frequently points out the economic flaws. For instance, Crandall and Ingraham find, “a set-aside for AWS spectrum in Canada will result in the uneconomic entry that Industry Canada refers to and that there are far more constructive ways than set-aside auctions to promote viable entry into the Canadian wireless industry.”⁵⁴ The authors point to the failure of set-aside auctions in the U.S. “which tied-up valuable spectrum in bankruptcy litigation for nearly a decade,” and the price distortion brought about by set-asides, which “resulted in the costly creation of bidding fronts that incumbent carriers have used to circumvent set-aside rules.” Crandall and Ingraham list multiple examples of auctions in the U.S. and the EU that show “set-asides are not a productive way to encourage efficient entry into a wireless market.”⁵⁵



Similarly, Hazlett and Boliek examined the economic impact of set-asides by comparing the results of the U.S. PCS C-Block auction (which used set-asides) to the corresponding results of the PCS A-Block and B-Block auctions (which did not use set-asides). This study also concludes, “in some instances, the very structure of the preference programs has encouraged entry of comparatively inefficient telecommunications providers,” which resulted in a “delay in the provision of telecommunications services to consumers.”⁵⁶ Hazlett and Boliek approximate the cost of this delay at USD 5.376 billion.⁵⁷

Cramton, Ingraham, and Singer raise another interesting economic effect of set-aside provisions. These authors describe how the provision caused incumbents to create bidding fronts—companies that qualify to bid on the restricted spectrum, yet are partially owned by incumbent carriers. For example, a bidder called “Alaska Native” was a front for AT&T, and likewise “Salmon PCS” was a front for Cingular. The authors conclude that bidding fronts increased prices for set-aside spectrum by 58 percent, while saving the incumbents supporting the bidding fronts a significant amount of money relative to the alternative when they had to bid on unrestricted spectrum.⁵⁸ As summarized by the editor of *Telecommunications Policy* in which the study was published:

⁵⁴ Crandall and Ingraham, 1.

⁵⁵ *Ibid.*, 12.

⁵⁶ Thomas W. Hazlett and Babette E.L. Boliek, “Use of Designated Entity Preferences in Assigning Wireless Licenses,” *Federal Communications Law Journal* 51, 640 (Hazlett and Boliek).

⁵⁷ Hazlett and Boliek, 657.

⁵⁸ Peter Cramton, Allan T. Ingraham, and Hal J. Singer, “The Effect of Incumbent Bidding in Set-Aside Auctions: An Analysis of Prices in the Closed and Open Segments of FCC Auction 35,” *Telecommunications Policy* 32:273–290, April 2008, <http://www.cramton.umd.edu/papers2005-2009/cramton-ingraham-singer-incumbent-bidding-in-set-aside-auctions.pdf>.

Perhaps unsurprisingly the main finding is that incumbent bidding in the closed auction through fronts enabled more licences to be obtained at lower prices by incumbents. This worked to the disadvantage of non-incumbents who won fewer licences at an inflated premium.⁵⁹

The practical consequence of this statement is that if incumbents can cause an entrant to pay an “inflated premium” when bidding on restricted spectrum (through fronts), the opposite must also be true. That is, entrants bidding on unrestricted spectrum can cause incumbents to pay an “inflated premium.” Furthermore, if prices for set-asides are significantly lower than for unrestricted spectrum, then it seems questionable why an entrant would bid on unrestricted spectrum unless the entrant’s objective was to increase the premium paid by incumbents. While one would need to conduct a case-by-case analysis, the obvious exceptions to this general conclusion would be situations in which no identical set-aside licenses were available and where an entrant sought to purchase two contiguous licenses.

Finally, Boyer concludes, “ex post benefits awarded only to successful new players would be more efficient than ex ante benefits, such as the currently proposed spectrum ‘set-asides.’”⁶⁰ Boyer points out that the economic literature favors auctions over other allocation mechanisms, such as beauty contests and lotteries. He finds, however, that regulators should refrain from ex-ante subsidies to entrants as “there seems to be no economic reason to subsidize entry in the wireless communication services industry given the level of competition already present in the industry....”⁶¹ Boyer argues that while barriers to entry in the wireless market may be substantial, entry alone does not guarantee increased competition. He argues it is “the post-entry conditions, post-entry prices and post-entry profits rather than the corresponding pre-entry levels ... which are the drivers behind the entry strategies of potential competitors.”⁶²

In line with the economic literature questioning the necessity, effectiveness, and competitive consequences of set-asides, regulators also seem to have grown increasingly careful with their use of a set-aside provision in spectrum auctions. A classical example of the risks associated with set-asides was the use of such a provision in the U.S. PCS C-Block auction in 1996. As described by Crandall and Ingraham, “the end result of the C-Block auction was that a number of the designated entities with winning bids could finance neither these purchases nor the subsequent costs of building out their networks.”⁶³ However, the FCC continued the use of set-asides in the subsequent re-auctions for C-Block and F-Block licenses. This time, the incumbents created bidding fronts to ensure their participation in the auctions. Therefore, once more, the set-aside provision did not work. Interestingly, even with the failure of the FCC’s designated entity program, the agency has since determined that the wireless industry in the U.S. is “effectively

⁵⁹ Doug Pitt, Editorial, *Telecommunications Policy*, Volume 32, Issues 3–4, 159–162.

⁶⁰ Marcel Boyer, “Optimal Policy Relative to Spectrum Auction,” Montreal Economic Institute, May 25, 2007, 4 (Boyer).

⁶¹ Boyer, 29.

⁶² Boyer, 29, citing himself in: “The Measure and Regulation of Competition in Telecommunications Markets,” *CIRANO 2005s-35*.

⁶³ Crandall and Ingraham, 4.

competitive,” supporting the notion that ineffective or unnecessary regulatory intervention is superfluous at best.⁶⁴ The FCC’s experience with set asides might also explain why the agency has refrained from using comparable provisions in its more recent AWS and 700 MHz auctions.⁶⁵

Another frequently cited example of the use of set-asides is the UK 3G auction. Lasting approximately seven weeks and 150 rounds, this auction raised a record £22.5 billion in revenues for the government, or €650 per citizen. Similar to the case in Canada, the auction exceeded all expectations and forecasts. As found by Cramton, “a critical choice impacting revenues was the decision to auction five licenses [in the presence of four incumbents]. Five licenses guaranteed that a new entrant would win a license.”⁶⁶ Furthermore, the UK regulator decided to set the largest license aside for entrants, creating even stronger demand from entrants for this license. As described above, the heavy debt burden created by the high prices raised a number of concerns and made it difficult for winning parties to raise the necessary resources to roll out 3G services across the UK. While opinions differed on who was to blame for the high prices generated by the auction, it is telling that UK regulator Ofcom did not use set-aside provisions in its recent auctions. Furthermore, the economic repercussions of the UK 3G auction caused regulators in a number of Asian countries to delay and revise their auction format.

Set-asides are also at the center of a dispute in the allocation of 3G spectrum in Chile. Chilean regulator Subtel announced that it plans to use a set-aside provision in its upcoming 3G auction. The incumbent operators challenged this provision and received a favorable ruling from an antitrust tribunal who ruled that entrants and incumbents must compete on the same terms and conditions.⁶⁷ While the regulator has opted to implement spectrum caps instead, it further illustrates how regulators face difficulties in successfully implementing this questionable provision and must resort to other tools instead.⁶⁸

Finally, it is also worthwhile noting that Industry Canada itself questioned the effectiveness of set-asides. Specifically, as stated in the auction rules for its 2005 fixed wireless access (FWA) auction for 2300 and 3500 MHz, Industry Canada “found no compelling arguments to demonstrate that a set-aside of spectrum for new entrants would significantly advance new service offerings, nor serve the public interest.”⁶⁹ While we recognize that the FWA market segment might have different characteristics than the mobile segment, it is nevertheless important to recognize the well documented “side effects” of set-aside provisions.

⁶⁴. See Federal Communications Commission, *Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, WT Docket No. 07-71, FCC 08-28, Feb. 4, 2008, ¶ 1.

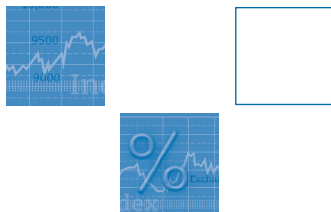
⁶⁵. See Federal Communications Commission, *Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures for Auction No. 66*, AU Docket No. 06-30, FCC 06-47, April 12, 2006.

⁶⁶. Peter Cramton, “Lessons Learned from the UK 3G Spectrum Auction,” in: *The Auction of Radio Spectrum for the Third Generation of Mobile Telephone*, University of Maryland, May 5, 2001, Appendix 3, 51.

⁶⁷. TeleGeography’s CommsUpdate, “Regulator commits to 2009 auction despite dispute,” January 9, 2009, http://www.telegeography.com/cu/article.php?article_id=26719.

⁶⁸. We note that we do not support the use of spectrum caps as they carry similar negative side effects as set-asides. Most problematically, spectrum caps distort the auction allocation process as they assign the spectrum not to the entity that values the spectrum most, but to the bidder that values it most and has not exceeded the spectrum cap.

⁶⁹. Industry Canada, *Policy and Licensing Procedures for the Auction of Additional PCS Spectrum in the 2 GHz Frequency Range*, PCS – 2 GHz, June 28, 2000, Amended by: SAB-001-05 - Policy Provisions to Support Licence-exempt Personal Communications Services (LE-PCS) in the Band 1920-1930 MHz and a Moratorium Imposed on the Band 1910-1920 MHz, December 2005, p. 4, [http://www.icce.ca/eic/site/smt-gst.nsf/vwapj/10.1e.pdf/\\$FILE/10.1e.pdf](http://www.icce.ca/eic/site/smt-gst.nsf/vwapj/10.1e.pdf/$FILE/10.1e.pdf).



Set-Aside Provisions Result in a Double Tax for Incumbents

Theory

As identified above, the set-aside provision in the Canadian AWS spectrum auction was a key contributing factor to the overpayment for unrestricted licenses. From a theoretical economics point of view, set-asides impose a potential double tax on incumbent carriers. First, set-asides decrease the supply of spectrum available to the incumbents, other things being equal. This, in turn, increases the price for unrestricted spectrum because the number of bidders does not decrease. As stated by Ayres:

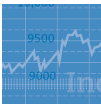
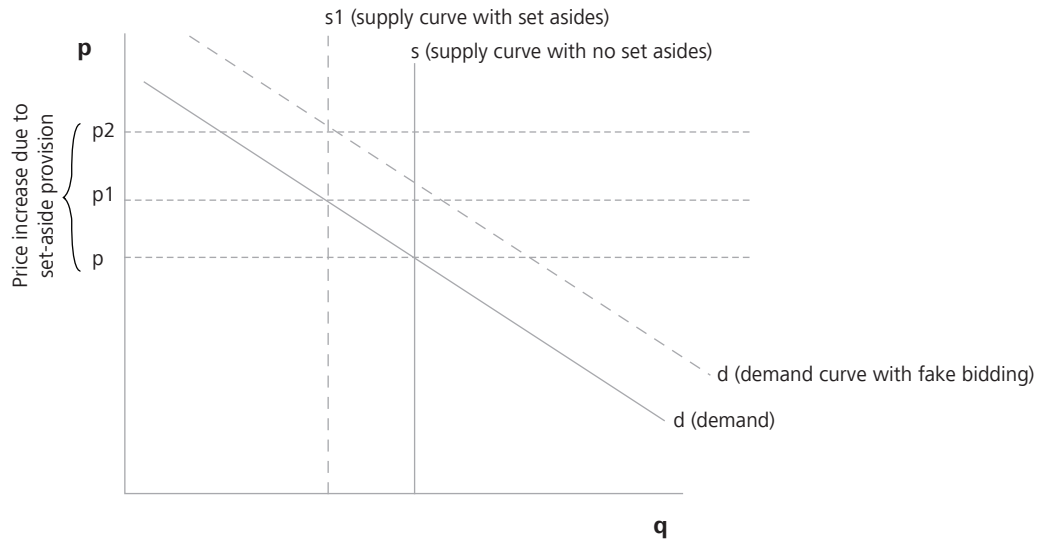
Sellers can induce more competition among strong bidders, and therefore increase auction revenue, by reducing the number of items available to the strong bidders. This is accomplished simply by setting aside one of the licenses to be auctioned only among the weak bidders. The set-aside license will be auctioned for just over \$40, as Weak1 will bid slightly more than Weak2's reservation price. After the set-aside, there are no longer enough licenses to satisfy strong-bidder demand, and these bidders accordingly will bid more aggressively for the remaining license. This remaining license will be auctioned for slightly more than \$90, as Strong1 will bid slightly more than Strong2's reservation price, and \$30 more than it would bid absent the set-aside. Setting aside one license thus raises the government's expected revenue to slightly more than \$130, an increase of \$10. Despite increasing government revenue, the set-aside also reduces the efficiency of the license allocation—as one of the licenses ends up in the hands of a \$60 valuer instead of a \$90 valuer.⁷⁰

Second, the set-aside, *as implemented in the Canadian AWS auction*, can artificially raise the demand for unrestricted spectrum. This can occur when an entrant places a bid on unrestricted spectrum with no intention of buying it, but to increase the price the incumbent that wins the license has to pay. We refer to such behavior as fake bidding. Critical to the success of an entrant's fake bidding is that the incumbents cannot retaliate by bidding on restricted spectrum *and* the entrant can withdraw its bid should the incumbents not outbid it. In essence, the set-aside provision allows entrants to drive up artificially the demand for unrestricted spectrum, thus also driving up its price without ever planning to purchase any of the spectrum. Fake bidding can be particularly pronounced if entrants are incorrectly defined (which they were as discussed below) and if the bidder qualifications are low.

Therefore, as illustrated in Figure 5, the set-aside provision, as implemented in Canada, led to a decrease in supply (i.e., a left shift of the vertical supply curve) and an increase (albeit artificial) in demand for the same spectrum (i.e., a right shift of the downward sloping demand curve).

⁷⁰ Ian Ayres, *Pervasive Prejudice? Unconventional Evidence of Race and Gender Discrimination*, University of Chicago Press, 2001, 326.

Figure 5: **Economic Impact of Set-Asides on Open Spectrum**



Practice

Understanding and demonstrating the theoretical impact of set-asides is relatively straightforward. However, while the first consequence (i.e., the reduction in supply) is merely an economic fact, proving that the entrants engaged in fake bidding is more complicated. Auction behavior depends on many factors including, among other things, auction strategy, financial strength, the dynamics and results from preceding auction rounds, and economically rational or irrational behavior. Furthermore, auction eligibility rules require that bidders maintain a certain level of activity. Hence, what might appear to be a fake bid may in fact be a bid to maintain eligibility. This type of behavior is frequently referred to as “parking of points.” Thus, identifying fake bidding is prone to Type I errors—or “false positives.”

Using the general rule outlined above and then investigating each case individually, one can identify fake bids with reasonable accuracy. Specifically, an instance in which an entrant bids on an unrestricted license without bidding on the identical set-aside is likely an example of fake bidding. One might argue that the bidder is simply parking points. While we cannot rule out this possibility, it raises the question of why the bidder elected to park its points on the unrestricted spectrum rather than the restricted spectrum. One might also argue that this is part of the bidder’s strategy because it wants to purchase two contiguous licenses and does not want to reveal its intent. Again, this is a possibility; however, the specific auction results do not seem to provide much support for the existence of such a strategy.

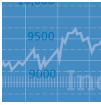
Similarly, when an entrant bids on an unrestricted license even though an equivalent set-aside license is available at a much lower price is also an indication of fake bidding. This type of bidding makes little economic sense because the expected behavior would be to switch from the more expensive to the less expensive block when one block becomes significantly more expensive than the other. We note that this type of behavior is less problematic in the early rounds of an auction when license bids are still well under their predicted values. However, it does become a problem in later rounds when bids approach or exceed the expected values.

While there are many more instances of fake bidding, we highlight here 17 licenses for unrestricted spectrum where the final prices were driven up by fake bidding in later rounds. Consider, for example, the bidding history of service area 304 (Cape Breton). License 304d is a 10 MHz set-aside license. License 304e is a 10 MHz unrestricted license. As shown in Appendix D, between rounds 31 and 117, entrant Bragg continually bid up the price of the unrestricted 10 MHz block, despite the fact that the identical set-aside block was available for as little as one-seventh the price of the unrestricted block. In round 122, Bragg then bid on the restricted spectrum and was outbid by another entrant, Globalive, in round 127. At that point, the restricted license traded at CAD 200,000, while the unrestricted license was at CAD 1,290,000—6.5 times higher than the identical restricted license. Expected behavior for Bragg would be to counter Globalive's CAD 200,000 bid. Yet, Bragg did not do so. Instead, in rounds 128 through 177, Bragg continued to bid on the unrestricted license to a level where the 304e unrestricted license traded at more than nine times higher levels than the set-aside license. In the end, Bragg was outbid by TELUS, which purchased the license for CAD 1,970,000. The restricted license sold for CAD 289,000 (one-seventh of its unrestricted counterpart).

One must conclude from this bidding history that Bragg had no true intention of purchasing the unrestricted E Block license for Cape Breton and only meant to increase TELUS' cost of obtaining the license. As we stated above, such behavior was made possible by the auction design. Bragg faced little to no risk in driving TELUS' cost up because due to the set-aside provision TELUS had no means to retaliate by bidding on licenses that Bragg was genuinely interested in purchasing. Further, if by chance, Bragg was not outbid by TELUS, Bragg could have withdrawn its bid. The net effect of this behavior was that it increased spectrum license prices well beyond expected levels, explaining at least partially the high prices observed in the Canadian AWS auction. Specifically, the E-Block sold at an estimated premium of 82 percent relative to the equivalent D-Block.

The same bidding behavior can be observed repeatedly. In Appendix D, we provide several more examples where entrants, particularly Globalive and Bragg, bid up the prices for unrestricted spectrum when they did not intend to purchase the license, but they simply wanted to increase the incumbents' licensing costs. As detailed, the bidding history examples contained in Appendix D include:

- Service Area 302. Prince Edward Island where Bragg drove up the price of the unrestricted 302e licenses even though it could have bid on the same license at one-tenth the price. Bragg ended up not purchasing any Tier 3 licenses in the service area.
- Service Area 314. Upper Outaouais where Globalive in the late rounds of the auction repeatedly bid on the unrestricted 314e license, increasing its price to CAD 640,000, even though the same license in the restricted block was available for CAD 512,000.
- Service area 317. Abitibi where Globalive in round 294 submitted a single bid of CAD 1,190,000 for the unrestricted block despite the fact that the equivalent set-aside license was available for less than one-third the price. Globalive was outbid by TELUS and opted not to bid again.
- Service area 324. Huntsville where entrant SaskTel in round 158, after 94 rounds of inactivity for both the restricted and unrestricted licenses, started bidding up the price of the unrestricted license even though the equivalent restricted license was available for a discount of approximately 45 percent.



- Service area 327. Guelph/Kitchener where entrant Globalive was bidding CAD 4,820,000 for the unrestricted license even though the equivalent set-aside license was available for CAD 2,600,000—a 46 percent discount.
- Service area 329. Niagara–St. Catharines where SaskTel submitted a single bid of CAD 2,730,000 even though the equivalent set-aside license was available for CAD 1,380,000—a 50 percent discount.
- Service area 334. North Bay where in round 122 Globalive was outbid for the set-aside block at CAD 309,000, yet it did not bid any higher on the set-aside block. Instead, from round 101 through 178, it bid on the unrestricted block even though at the time the restricted block traded at a much lower value. After 112 rounds of inactivity for both blocks, Globalive submitted yet another bid on the unrestricted license, increasing its bid to CAD 649,000, even though the set-aside block was available at CAD 544,000—a discount of 16 percent.
- Service area 345. Medicine Hat/Brooks where in round 153 Globalive was outbid for the set-aside block at CAD 254,000. Globalive never bid on the set-aside again. Instead, it bid on the unrestricted license, bidding as much as CAD 832,000, even though the set-aside license stood at CAD 414,000—less than half of what Globalive bid on the unrestricted license. Globalive was outbid by Bell Mobility and ended up winning neither of the two licenses.
- Service area 346. Lethbridge where Globalive in rounds 44 through 176 bid up the value of the unrestricted block to CAD 835,000. Yet, Globalive never bid on the equivalent set-aside even though it was available at one-third of the price. In the end, Globalive was outbid by Bell Mobility.
- Service area 348. Red Deer where in rounds 44 through 165 Globalive bid up the price of the unrestricted block to CAD 866,000 even though the identical set-aside block was available at a lower price. In round 309, after 100 rounds of inactivity for both blocks, Globalive submitted another bid for the unrestricted block of CAD 956,000 even though the identical set-aside block was available for about a 30 percent discount.
- Service area 350. Kootenays where in round 257 Globalive was outbid for the set-aside block at CAD 262,000 and did not bid any higher for the set-aside block. However, between rounds 86 and 196, Globalive bid up to CAD 681,000 for the unrestricted block even though the identical set-aside block was available for less than half the price. In round 313, after 115 rounds of inactivity for the unrestricted block, Globalive bid CAD 752,000 for the unrestricted block even though the identical set-aside block was available for about one-third the price. In the end, Globalive did not win either block.
- Service area 353. Victoria where in round 39 Globalive was outbid for the set-aside block at CAD 1,420,000 and did not bid any higher for the set-aside block. However, between rounds 44 and 151, Globalive bid up to CAD 2,690,000 for the unrestricted block even though the identical set-aside block was available at CAD 1,750,000—a discount of 35 percent. In the end, Globalive did not win either block.
- Service area 356. Thompson/Cariboo where Globalive bid up to CAD 848,000 for the unrestricted block without ever bidding on the restricted one. In round 296, after 129 rounds of inactivity for the unrestricted block, Globalive bid CAD 935,000 for the unrestricted block even though the identical set-aside block was available for a discount of 37 percent. In the end, Globalive did not win either block.

- Service area 357. Prince George where in rounds 113 to 307 Globalive bid the price of the unrestricted block up to CAD 954,000 without ever bidding on the less expensive identical set-aside block, which was available at about half the price. Similarly, Quebec Inc. submitted a single bid on the unrestricted block in round 125, never bidding on the cheaper restricted block. In the end, neither Globalive nor Quebec Inc. won a license in this area.

As explained above, one cannot be absolutely certain that each of these instances is an example of fake bidding because the possibility of alternative explanations does exist. What is clear, however, is that the specific auction design used by Industry Canada provided an opportunity for entrants to increase the prices of unrestricted licenses, while providing incumbents no opportunity to retaliate. Hence, one logical (and likely correct) answer to the auction behavior described above is that entrants took advantage of this opportunity.

There are three alternative explanations that we investigate further. First, one might argue that the entrants aimed at obtaining two contiguous licenses (i.e., blocks D and E). Because licenses in unrestricted block E were likely to sell at a higher price than the same licenses in restricted block D, the entrants might have decided to pursue a strategy where they aimed to secure a license in block E first and only bid on the equivalent license in block D afterwards. Based on a review of the auction data, it does not appear that this was their strategy. For instance, Bragg won 11 set-aside D-block licenses. Only once, in service area 349 (Grande Prairie), did it also win the accompanying identical E-block licenses. Analyzing the bidding behavior of this service area, however, seems to indicate that Bragg decided to bid on the two licenses simultaneously rather than separately.

Similarly, while entrant Globalive did not win a contiguous license, there are plenty of examples where the company bid as expected. For instance, in service area 343 (Saskatoon), Globalive rationally alternated its bids between the set-aside license and the unrestricted license. In the end, the company won the unrestricted license at a lower price than the set-aside. Thus, there seems to be no support for the theory that entrants were simply seeking contiguous licenses.

Second, one might argue that these examples are simply instance of entrants attempting to maintain their eligibility points—parking points. As we noted above, parking of points is not uncommon in auctions and is, by itself, not necessarily a reason for concern. However, parking of points can become a problem when combined with a set-aside provision, such as the one used in this auction. That is, the set-aside provision provides an incentive for entrants to park their points on the unrestricted spectrum rather than the restricted, even though there is no difference in terms of eligibility of where the points are parked. In an auction without set-asides, the effect of parking tends to be distributed equally among the bidders because each license bears the same probability of being used to park points. However, in the Canadian AWS auction design, incumbents did not have the opportunity to park points on the restricted licenses. This, coupled with the fact that the entrants had an incentive to park points on the unrestricted spectrum, resulted in unrestricted spectrum being disproportionately subject to the parking of points. Furthermore, based on the above review, it is doubtful that each of the above instances is simply entrants parking points. Rather, given that the entrants continuously bid up the prices of unrestricted licenses, even in the presence of much cheaper alternatives, seems to indicate that they engaged in a bidding game, whereby they sought to simply increase the prices paid by incumbent bidders.

Finally, one might argue that the entrants simply acted irrationally. Admittedly, there are a number of examples where both entrants *and* incumbents seemed to have acted irrationally by mistakenly bidding on a license when cheaper substitutes were available. However, when analyzing the overall bidding behavior of entrants and incumbents alike, it seems to indicate that such behavior appears to be isolated. For instance, as illustrated in Table 3, entrant Bragg seems to have been a sophisticated bidder as it *always* bought the cheaper of the two licenses in blocks D and E.

Table 6: **Comparative Winning Bids for Blocks D and E Bragg**

Market	10 MHz D-Block Winning Bid	10 MHz E-Block Winning Bid	% Discount Realized by Bragg
305	\$599	\$2,300	74.0
306	\$609	\$2,730	77.7
307	\$976	\$4,090	76.1
326	\$2,640	\$4,970	46.9
328	\$882	\$1,230	28.3
330	\$4,360	\$4,920	11.4
333	\$739	\$1,720	57.0
334	\$544	\$688	20.9
336	\$805	\$2,050	60.7
337	\$514	\$988	48.0
349	\$239	\$2,120	*

* Bragg purchased both the D- and E-blocks in market 349

Bold = Price paid by Bragg

Similarly and as shown in Table 4, with the exception of two licenses (341e and 342e), Globalive also purchased the cheaper of the licenses.

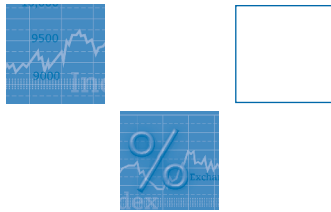


Table 7: **Comparative Winning Bids for Blocks D and E Bragg**

Market	10 MHz D-Block Winning Bid	10 MHz E-Block Winning Bid	% Discount Realized by Globalive
301	\$380	\$3,340	88.6
302	\$291	\$1,870	84.4
303	\$947	\$7,240	86.9
304	\$289	\$1,970	85.3
315	\$27,100	\$33,200	18.4
316	\$1,330	\$1,670	20.4
318	\$1,470	\$1,780	17.4
319	\$1,560	\$1,660	6.0
320	\$1,090	\$1,710	36.3
321	\$1,020	\$1,790	43.0
322	\$1,410	\$1,500	6.0
323	\$905	\$1,120	19.2
339	\$13,500	\$15,100	10.6
340	\$773	\$1,600	51.7
359	\$101	\$291	65.3
341	\$4,970	\$5,760	-15.9
342	\$2,430	\$2,690	-10.7
343	\$12,700	\$12,000	5.5

Bold = Price paid by Globalive

Therefore, it appears that entrants Bragg and Globalive pursued economically rational strategies and (almost) always purchased the cheaper of the equivalent D- and E-block licenses. This, however, raises the question of why these same companies drove up the final price of unrestricted licenses when the equivalent restricted licenses sold at a significant discount. Again, other than increasing the prices of unrestricted licenses or possibly to park points, there seems to be no plausible explanation. In either case, it resulted in unrestricted licenses selling at a significant premium over comparable spectrum prices in the U.S.

Bidding ratio distributions of final license prices confirm this conclusion. As expected, the distribution of the bid ratio between the unrestricted blocks A and E is similar to the distribution of the bid ratio between the unrestricted blocks F and E. Similarly, the distribution of the bid ratio between unrestricted block A and restricted block D seems to mirror the distribution of the bid ratio between unrestricted block F and restricted block D. Bidding ratio distributions between A and E to A and D, however, are significantly different. The same is true for all other comparisons (i.e., A to E and F to D; F to E and F to D; F to E and A to D). Specifically, the mean of the distribution for the bid ratio of A to E is 1.8. That is, on average, the 20 MHz A-block license sold for less than double the 10 MHz E-block license. Ninety percent of the ratios lie between 1.11 and 2.97. The distribution of the bid ratio of F to E has a mean of 1.99, with 90 percent of the ratios between 1.15 and 3.16. In stark contrast to this, the distribution of the bid ratio of A to D has a mean of 4.12 with 90 percent of the ratios between 1.21 and 14.03.

Similarly, the bid ratio of F to D has a mean of 4.48 and 90 percent of its ratios between 1.29 and 14.07. These data indicate that the set-aside provision significantly increased not only the mean bid ratio, but also caused very large price differences between the unrestricted and the restricted licenses, which is consistent with the fake bidding behavior discussed above. Figure 6 graphically illustrates this point.

Figure 6: **Winning Bid Ratio Distributions**
Unrestricted vs. Unrestricted Bid Ratios

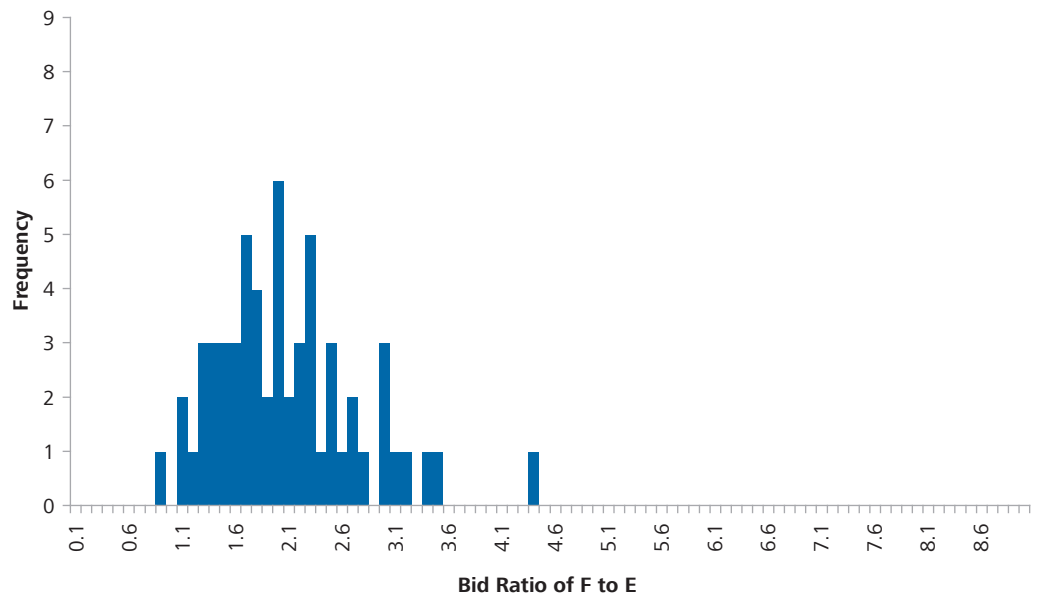
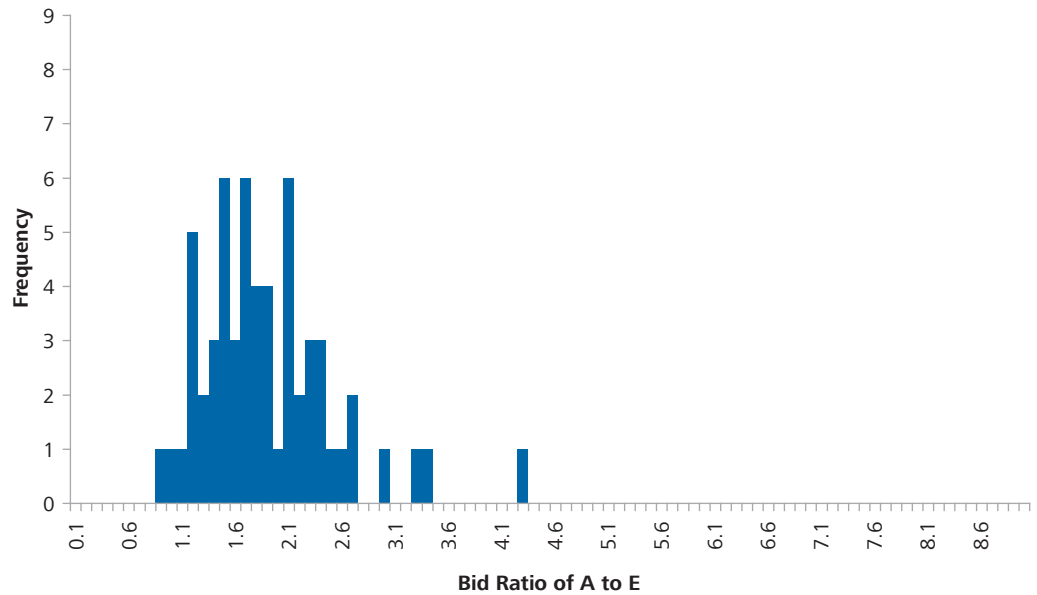
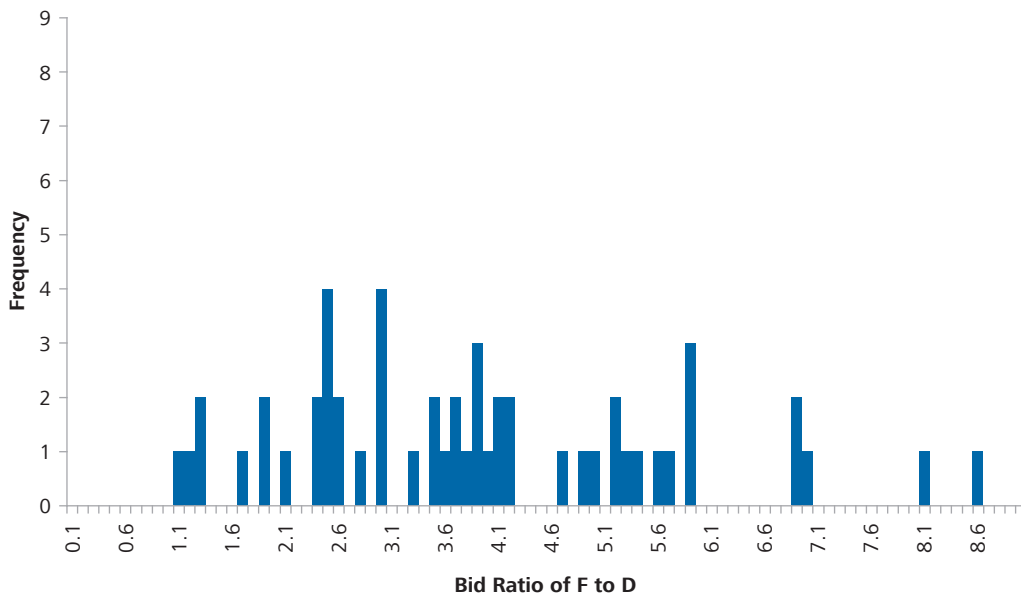
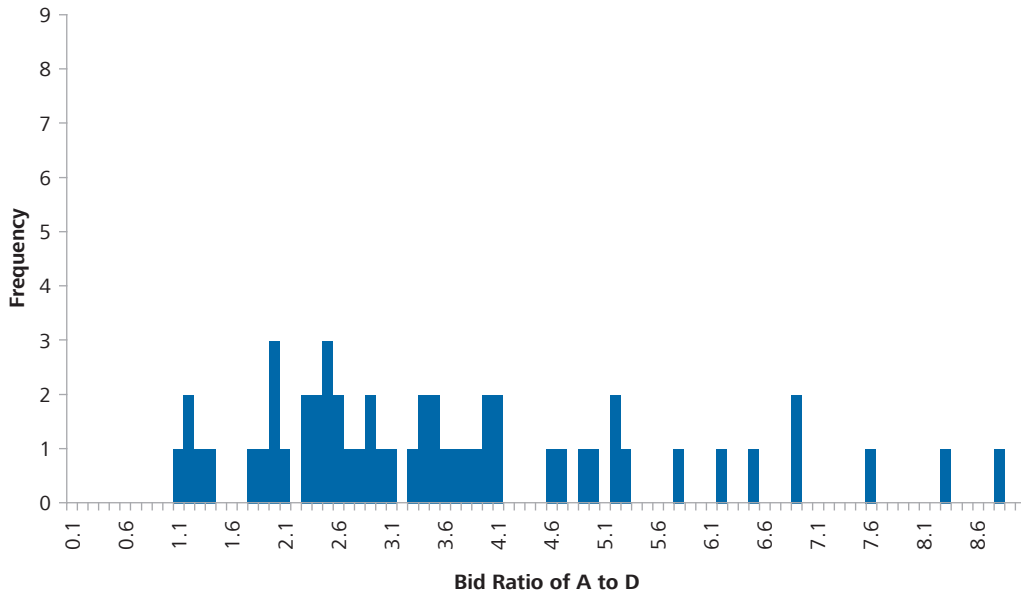


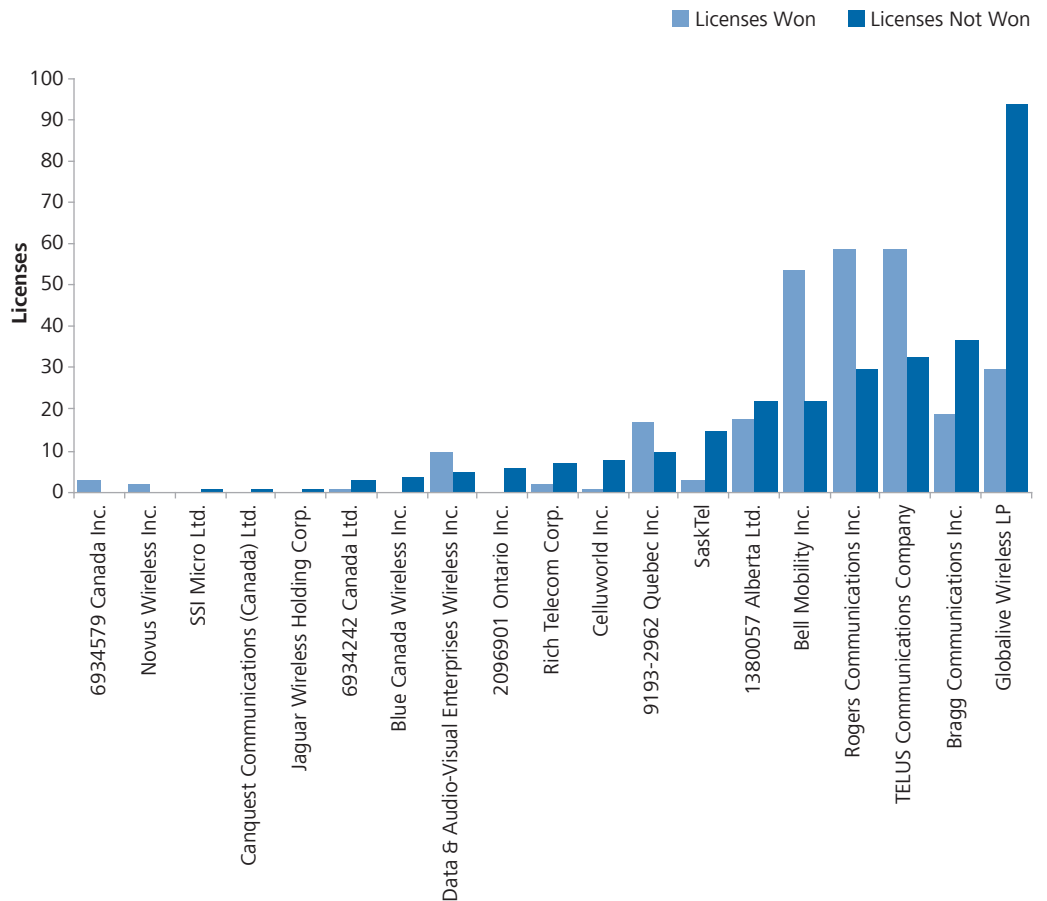
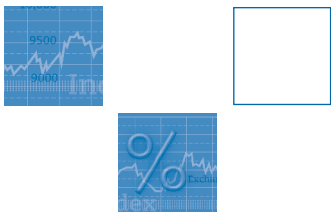
Figure 6: **Winning Bid Ratio Distributions**

Unrestricted vs. Restricted Bid Ratios



While Figure 6 provides detailed micro-level analyses of the auction behavior, it is also useful in illustrating the magnitude of the problems caused by the set-aside provision on a macro level. In Figure 6, we plotted, by bidder, the number of licenses that were won in the “end game” against the number of licenses that were lost in the “end game.” That is, we analyzed how many times a bidder won and lost when it was the highest or second highest bidder for a particular license (i.e., the end game). As can be seen in Figure 7, Bragg and Globalive had the highest number of losses—they lost most often in the end game. In contrast, incumbents TELUS, Rogers, and Bell Mobility had the highest number of end game wins.

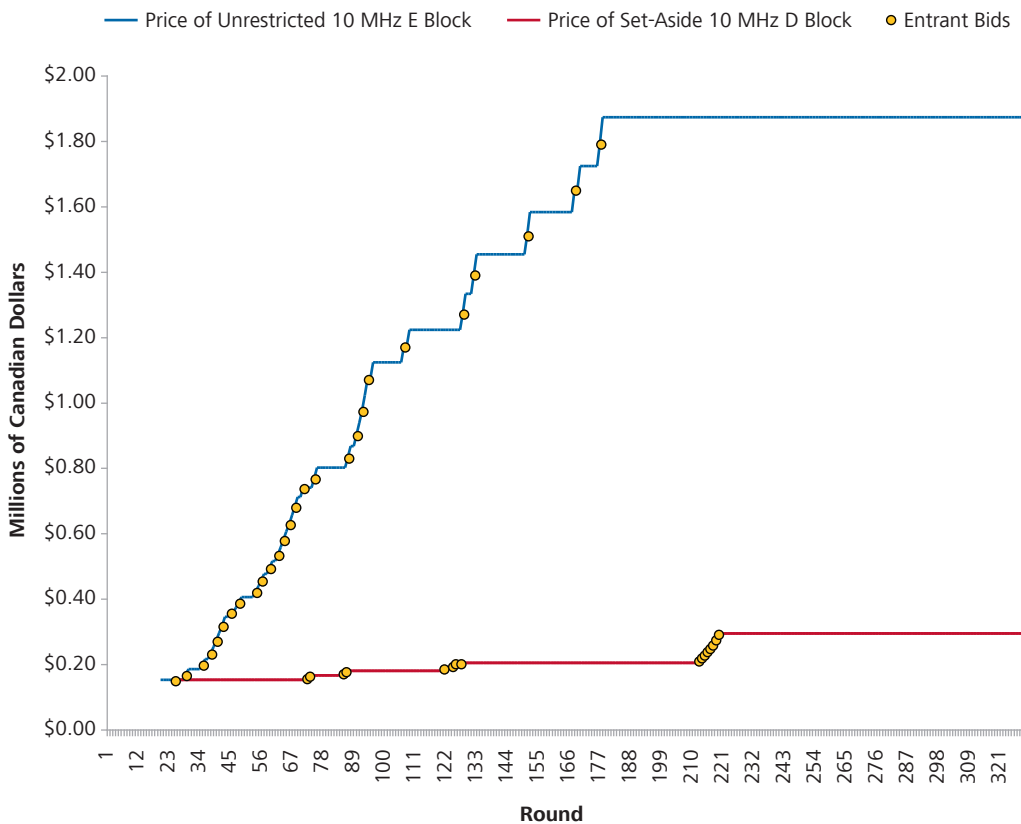
Figure 7: **Outcomes by Bidder When Among the First- or Second-Highest Bidders**



Again, there is more than one possible explanation for this finding. First, it might indicate that Globalive and Bragg engaged more frequently in fake bidding than anyone else, forcing the incumbents (who were limited to bidding on the unrestricted spectrum) to outbid them in the end game. Alternatively, one might read this finding as proof that entrants were more frequently the losing party, outbid by financially stronger incumbents that had an incentive to prevent competitive entry into their territory.

However, looking at the previous analyses and examples of fake bidding, the second explanation does not seem consistent with the actual bidding behavior. Furthermore, given that Globalive enjoyed strong financial backing, it is unclear why it lost the end game more frequently than financially weaker bidders, such as Quebec Inc., Data & Audio-Visual. If one were to believe that Globalive was simply outbid by the incumbents, one would have to conclude that it must not be satisfied with the license portfolio it obtained at the end of the auction, but this does not seem to be the case. Globalive’s CEO characterizes the company’s AWS license portfolio as setting the stage for Globalive “to become a major presence in the Canadian telecom market.”⁷¹ Mr. Lacavera goes on to describe the spectrum won by Globalive as “an historic event for wireless users across the country,” as it “marks a new era of choice in Canada’s wireless world.”⁷² Therefore, the first explanation of Figure 7 seems much more likely. That is, the high win/loss ratio observed by Globalive and Bragg is a direct consequence of the fake bidding observed and discussed above. This conclusion is further supported by the examples shown in Figures 8 and 9, which show that entrants consistently bid up the value of the unrestricted spectrum without apparent intent to purchase it, as identical spectrum was available at a fraction of the price.

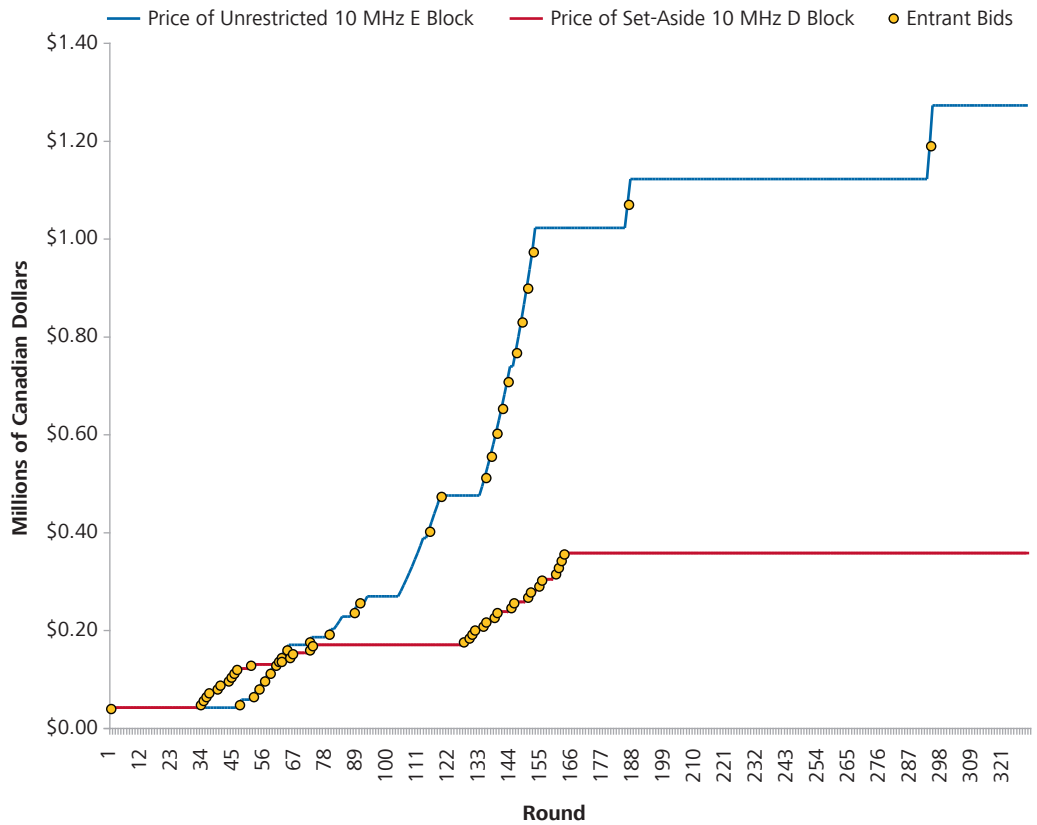
Figure 8: **Entrants Bidding Values by Round Identical D and E Blocks**
Service Area 302 – Prince Edward Island



⁷¹ Globalive.com, “Globalive Ready To Usher In A New Era,” July 21, 2008, <http://www.globalive.com/?p=51>.

⁷² Ibid.

Figure 9: **Entrants Bidding Values by Round Identical D and E Blocks**
 Service Area 317 – Abitibi



As noted above, there are many more instances of bidding out of value, or fake bidding. The above instances are meant for illustrative purposes only and do not represent an exhaustive list of each instance of fake bidding. An exhaustive list would require examining the bidding behavior for each license and each round. The purpose of this report, however, is not to quantify each such instance. Rather, it is to explain and illustrate the incentives created by this particular auction design and to provide guidance as to how future auctions can be improved.

Set-Asides Provided Entrants with a Strategic Advantage

The set-aside provision also provided entrants with a strategic advantage because it allowed them to bid on unrestricted spectrum to maintain eligibility, while waiting for competitive entrants to drop out of the bidding. The consequences of this strategy are at least threefold. First, as we discussed above, the parking of points coupled with the incumbents' inability to retaliate results in an increase in the incumbents' license prices. Second, this wait-and-see strategy jeopardizes one of the most fundamental auction design features, the eligibility rule. That is, entrants can maintain eligibility by bidding on the unrestricted spectrum with no intention of buying it, while waiting to bid on the restricted spectrum. Third, it likely explains the record number of rounds it took to complete this auction as at least some entrants waited to bid on the restricted spectrum until other entrants' eligibility points were reduced.

Downsides of Set-Asides Were Intensified by Flawed Definition of Entrants

Industry Canada defined an entrant as “[a]n entity, including affiliates and associated entities, which holds less than 10 percent of the national wireless market based on revenue.”⁷³ Practically, this meant that everyone, except the three incumbent carriers—Rogers, TELUS, and Bell Mobility—received the preferential treatment described above. This designation conferred a significant advantage upon entities that qualified as entrants including:

- Being allowed to bid on both set-aside and unrestricted spectrum.
- Entrant designation remains valid throughout the term of the license even if the licensee gains more than 10 percent of the national market share, based on revenue.
- Favorable in-territory roaming conditions, as outlined in the Policy Framework.

Importantly, as a result of being allowed to bid on both set-aside and unrestricted spectrum, entrants were shielded from fake bidding by incumbents. Conversely, only Rogers, TELUS, and Bell Mobility were subject to inflated spectrum prices due to fake bidding. With this definition of entrant, Industry Canada attempted to alleviate its assumption that “incumbents have an incentive to pay a premium for spectrum to prevent market entry.”⁷⁴ Industry Canada stated:

The measures being taken are intended to ensure an opportunity for entry by addressing the potential to exploit spectrum as an entry barrier.⁷⁵

⁷³ 2GHz Auction Framework, 5.

⁷⁴ Ibid., 3.

⁷⁵ Ibid., 4.

This definition has several shortcomings. First, while aimed at preventing *nationwide* incumbents from using spectrum as an entry barrier, it failed to consider the incentives that *regional* incumbents have to use spectrum as an entry barrier. As shown in Table 5, regional players also can have a strong incentive to guard their market positions. For instance, when considered on a provincial basis, Bell Mobility has no revenue market shares in Saskatchewan and Manitoba. Thus, it would qualify as an entrant in those provinces. Similarly, TELUS would be considered an entrant in Saskatchewan, New Brunswick, and possibly other provinces, and Rogers would be an entrant in Newfoundland and Labrador. Conversely, with a market share of well above 10 percent, SaskTel would clearly qualify as an incumbent in Saskatchewan, and Manitoba Telecom Services (MTS Allstream) would be considered an incumbent in Manitoba.

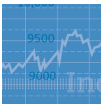


Table 8: **Wireless Subscriber Percent Market Share by Province 2006**

Province	Bell Group	TCC	Rogers	Others
British Columbia	11	45	42	2
Alberta	15	58	25	1
Saskatchewan	0	3	16	81
Manitoba	0	12	27	61
Ontario	35	18	44	3
Quebec	44	21	33	2
New Brunswick	72	6	20	1
Prince Edward Island	75	11	13	2
Nova Scotia	62	12	25	1
Newfoundland and Labrador	85	11	3	1
The North	100	0	0	0

As confirmed by MTS in its recent earnings release, carriers not only compete on a nationwide basis, but also on a provincial basis. Specifically:

As a result of the AWS spectrum auction, two new entrants became the provisional licensees for sufficient spectrum in Manitoba to enable them to offer wireless services in competition with us. These new entrants have indicated publicly that they will initially focus their efforts on more densely populated areas of Canada where they also acquired spectrum, and one announced that it will delay entry into our market in Manitoba. We are well-positioned to face these new competitors, and there is no certainty that these new entrants will create a more competitive environment in Manitoba at some point in the future.⁷⁶

⁷⁶ TMCnet.com, "Manitoba Telecom Services Inc. Reports Solid 2008 Results; Achieves Annual Guidance," February 5, 2009, <http://www.tmcnet.com/usubmit/2009/02/05/3967482.htm>.

Ironically, although at the receiving end of the preferential treatment program, MTS does question whether entry in Manitoba (“our market”) will create more competition.⁷⁷

Second, by restricting the product dimension of the market to wireless only, the definition of entrant fails to consider the converging nature of the telecommunications industry. Traditionally, the supply of communications services was clearly separated. Wireline providers offered wireline services, wireless providers offered wireless services, and cable providers offered TV programming. For the consumer, this meant separate purchasing decisions for wireline, wireless, and video services. However, wireline, wireless, cable, and other telecommunications providers have become blurred entities that offer all types of services. As markets and technologies converge, distinct markets are disappearing (e.g., standalone long distance) and others are taking their place, for example, competition is increasing for bundles of services, such as voice, high-speed data, and video—the “triple play”—and when you include wireless—the “quadruple play.”

By limiting the product dimension of the definition of entrant to wireless only, Industry Canada failed to consider this strong and increasing trend. Consequently, cable providers, such as Bragg, Shaw Communications, and Videotron, were considered entrants even though they compete directly with the incumbents. For instance, Videotron markets several bundles—duophone (cable telephony and wireless), triple play packages (illicio digital TV, cable telephony, and cable internet), and a “Quattro Package” (illicio digital TV, cable telephony, cable Internet, and wireless). Similarly, Bell Mobility offers bundles consisting of wireless, data (Internet), video (TV), and wireline services. Moreover, these false entrants are often large, well-capitalized firms with strong customer relationships.

Third, the geographic dimension used by Industry Canada seems to be inconsistent with the geographic dimension used by the Canadian Competition Bureau, which uses a provincial, instead of a national dimension. Specifically, the Competition Bureau finds:

Prior analysis of the cellular industry in both Canada and the United States found the geographic market to be something less than national in scope and the Bureau’s analysis in the current merger led to a similar conclusion ... Therefore, for the purpose of this assessment, it was determined that defining geographic markets around provincial boundaries was appropriate.⁷⁸

Thus, Industry Canada’s definition of an entrant is problematic in both its geographic and product market dimensions, and, while the regulator attempted to prevent the three nationwide incumbents from raising the entrants’ costs, it failed to consider the other side of this argument. That is, Industry Canada did not assess the incentives of so-called entrants to raise the incumbents’ costs, something that they clearly did. Consequently, it failed to classify at least some of the entrants as incumbents. Thus, rather than preventing these operators from exploiting spectrum as an entry barrier, Industry Canada made it *easier* for them to enhance their current market position

⁷⁷. Ibid.

⁷⁸. Competition Bureau Canada, “Acquisition of Microcell Telecommunications Inc. by Rogers Wireless Communications Inc.,” <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/00257.html>.

Conclusion and Recommendations

When designing the 2008 AWS auction, Industry Canada’s objective was to promote market entry, which was supposed to result in increased competition. This, in turn, should generate more services at lower prices and encourage operators to introduce innovative communications solutions. In order to achieve this goal, Industry Canada decided to classify a subset of bidders as entrants. These entrants were to receive preferential treatment in the auction. Most notably, 40 MHz of AWS spectrum was set aside exclusively for entrants. Furthermore, the entrants were the beneficiaries of mandated roaming and mandated tower sharing requirements placed on the incumbents. While Industry Canada’s objective to maximize social welfare was well intentioned, it failed to consider the side effects of its preferential treatment. Most significantly, the set-aside provision allowed entrants to bid on unrestricted spectrum with no intention of purchasing it, but with an objective of increasing the incumbent bidders’ spectrum prices. This and other auction design flaws contributed heavily to the record high prices paid for the unrestricted spectrum licenses. Although the set-aside spectrum also sold at a premium, the premium was significantly lower than the one paid for unrestricted spectrum. Furthermore, given the attractive roaming and tower sharing provisions granted to the winners of the set-aside spectrum licenses, at least part of this overpayment can be attributed to the fact that it was worth more to entrants. The repercussions of this overpayment should not be ignored because it could have a negative impact on the rollout of AWS services in Canada.



The side effects of Industry Canada’s set-aside provision were intensified by the flawed definition of the parties eligible for preferential treatment. While the regulator intended to prevent the incumbents from using spectrum as an entry barrier, its definition of an entrant failed to exclude all parties that would have such an incentive. That is, it excluded the three large national wireless carriers, but failed to exclude strong regional players, such as SaskTel and MTS, that dominate their regional markets for wireless services. The definition also failed to exclude cable operators, such as Bragg, Shaw, and Videotron, that offer converged services packages (i.e., triple, and quadruple play bundles) including in most cases wireless services. These entrants are often large, well-capitalized firms with strong customer relationships that compete directly with the three nationwide operators. Hence, the preferential treatment provision contained in the Canadian AWS spectrum auction effectively favored regional and converged competitors over the nationwide incumbents, mostly at the expense of the incumbents. Thus, Industry Canada’s effort to encourage entry with the hope of creating more competition came with a significant price tag—a price tag that we estimate will outweigh the potential benefits.

Based on these findings, we recommend that the design used for the Canadian AWS auction be modified for future auctions. In particular, we recommend the following modifications:

1. Carefully balance the costs and benefits of regulatory intervention, whatever type it may be.
The Canadian wireless sector has strong signs of competition. By intervening unnecessarily in this sector, Industry Canada runs the risk of damaging competition. In fact, our analysis indicates that the design of the Canadian AWS auction resulted in an overpayment of approximately CAN 2.4 billion by the auction participants, the incumbent wireless providers in particular. Moreover, encouraging entry will not automatically lead to more competition in the Canadian wireless market as the market might have reached a natural equilibrium.
2. If Industry Canada finds that regulatory intervention through preferential treatment is necessary (i.e., market forces are not working properly):
 - a. It must ensure that the benefits of any such measures are limited to actual entrants—not regional or converged competitors. Rather than defining entrants based on market shares in a narrowly defined market, it might be more appropriate to define entrants based on their purchasing power, that is, average annual gross revenues.
 - b. It should focus on ex-post benefits, such as tax incentives, rather than ex-ante benefits, such as spectrum caps and the set-aside provision used in the Canadian AWS auction. Ex-post benefits are awarded only to successful bidders (i.e., actual entrants), while ex-ante benefits award all auction participants that qualify for the preferential treatment. Focusing on ex-post benefits will minimize the negative side effects of preferential treatment as it removes arbitrage opportunities for parties that do not seek to establish themselves in the market over the long run. Moreover, it will likely result in fewer auction rounds because the benefits are only awarded to new entrants.
3. Any benefits awarded to entrants should not come at the expense of the incumbents—which was the case in the Canadian AWS auction. That is, instead of forcing incumbents to subsidize entrants (by restricting them from bidding on set-aside spectrum) and subjecting them to extensive gaming, which further raises their costs, Industry Canada should directly subsidize entrants if, and only if, such a subsidy is economically justified (i.e., there is a risk of market failure).
4. Industry Canada must strive to minimize the side effects of any regulatory intervention. As evidenced in the economic literature, international best practices, and from actual auction experiences, including Canada's, set-aside provisions are inefficient and can harm competition. Therefore, we recommend that Industry Canada refrain from using set-aside provisions in future auctions. Instead, where justified by market circumstances, alternative measures should be considered, such as bidder credits like those used by the FCC in its recent spectrum auctions.

About the Author

Mr. Dippon is a Vice President in NERA's Communications and Intellectual Property Practices. He specializes in the economics, business, and regulation of the communications and high-tech industries, and the evaluation of economic damages in intellectual property and commercial litigation disputes. He advises his clients in complex communications litigation and policy matters and provides strategic advice to cope with changes in competition, regulation, and technology. Mr. Dippon serves on the Board of Directors of the International Telecommunications Society (ITS) and the International Intellectual Property Institute (IIPI) and is a member of the American Economic Association, and the Federal Communications Bar Association.

Mr. Dippon has extensive testimonial experience, including depositions, expert testimonies before state and federal courts, the Federal Communications Commission, the International Trade Commission, numerous state commissions, and an antitrust authority. Recently, Mr. Dippon testified in a jury trial in US state court where his testimony was a key component of his client's win in a major wireless class action lawsuit. Mr. Dippon has consulted to clients in the United States, Canada, Japan, the United Kingdom, China, Brazil, Singapore, Hong Kong, Spain, Israel, the Dominican Republic, Korea, Indonesia, and Australia.

With over 12 years of experience, Mr. Dippon is an expert in telecommunications specializing in wireline, wireless, cable, and emerging technologies. His clients call on Mr. Dippon for his expertise with local exchange carriers, wireless operators, long distance carriers, Internet service providers (ISPs), cable operators, mobile network operators (MNOs), virtual mobile network operators (MVNOs), VoIP providers, and emerging players of Wi-Fi, WiMAX, video broadcasting. He has worked on a wide range of issues in the communications sector, including mergers and acquisitions, spectrum auctions, the evaluation of IP damages, allegations of antitrust violations, regulatory matters, assessment of competitive market conditions, consumer class action lawsuits, breach of contract disputes, convergence and business strategies, demand forecasting, pricing, and other complex commercial disputes.

Mr. Dippon has authored a book on mobile virtual network operators (MVNOs) and numerous articles on wireless and wireline competition and strategies and frequently lectures in these areas at industry conferences, continuing education programs for lawyers, and at universities. Most recently, he was the co-editor of *The K&L Gates-NERA Global Telecom Review*, a book by NERA and law firm K&L Gates that presents insights from a diverse range of legal, economic, and industry professionals from markets around the globe, highlighting some key aspects and debates that shape the ever-evolving telecommunications industry. Mr. Dippon's works have been cited by national and international newspapers and magazines, including the *Financial Times*, *Business Week*, *Forbes*, the *Chicago Tribune*, *Competition Law 360*, and the *Sydney Morning Herald*.

Mr. Dippon has completed substantial PhD coursework in economics and received an MA in economics, with a concentration in microeconomics and econometrics, from the University of California. Prior to joining NERA, Mr. Dippon was an analyst at BMW in Bangkok, Thailand.



About NERA

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NERA's clients value our ability to apply and communicate state-of-the-art approaches clearly and convincingly, our commitment to deliver unbiased findings, and our reputation for quality and independence. Our clients rely on the integrity and skills of our unparalleled team of economists and other experts backed by the resources and reliability of one of the world's largest economic consultancies. With its main office in New York City, NERA serves clients from over 20 offices across North America, Europe, and Asia Pacific.

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The opinions expressed herein are the opinions of the author and do not necessarily represent the views of NERA Economic Consulting or any other NERA consultant.

Appendix A: Spectrum Auction Database

Appendix A
Spectrum Auction Data
Industry Canada AWS Auction
2008

Market	Block	Set-Aside	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
201	B	Set-Aside	20	513,282	10,265,640	Bragg Communications Inc.	\$750,988	\$760,000
201	C	Set-Aside	10	513,282	5,132,820	Bragg Communications Inc.	\$434,783	\$440,000
201	G	Unrestricted	10	513,282	5,132,820	Globalive Wireless LP	\$556,324	\$563,000
202	B	Set-Aside	20	1,043,232	20,864,640	Bragg Communications Inc.	\$3,003,953	\$3,040,000
202	C	Set-Aside	10	1,043,232	10,432,320	Bragg Communications Inc.	\$1,650,198	\$1,670,000
202	G	Unrestricted	10	1,043,232	10,432,320	Blue Canada Wireless Inc.	\$1,138,834	\$1,152,500
203	B	Set-Aside	20	728,997	14,579,940	Bragg Communications Inc.	\$1,462,451	\$1,480,000
203	C	Set-Aside	10	728,997	7,289,970	Globalive Wireless LP	\$1,699,605	\$1,720,000
203	I	Unrestricted	5	728,997	3,644,985	Bragg Communications Inc.	\$475,296	\$481,000
204	B	Set-Aside	20	1,590,736	31,814,720	9193-2962 Québec Inc.	\$7,015,810	\$7,100,000
204	C	Set-Aside	10	1,590,736	15,907,360	9193-2962 Québec Inc.	\$3,063,241	\$3,100,000
204	G	Unrestricted	10	1,590,736	15,907,360	6934579 Canada Inc.	\$2,588,933	\$2,620,000
204	I	Unrestricted	5	1,590,736	7,953,680	Bell Mobility Inc.	\$802,372	\$812,000
205	B	Set-Aside	20	5,151,224	103,024,480	9193-2962 Québec Inc.	\$166,000,000	\$168,000,000
205	C	Set-Aside	10	5,151,224	51,512,240	9193-2962 Québec Inc.	\$110,700,000	\$112,000,000
205	G	Unrestricted	10	5,151,224	51,512,240	6934579 Canada Inc.	\$16,007,905	\$16,200,000
206	B	Set-Aside	20	2,122,177	42,443,540	9193-2962 Québec Inc.	\$51,284,585	\$51,900,000
206	C	Set-Aside	10	2,122,177	21,221,770	Data & Audio-Visual Enterprises Wireless Inc.	\$30,039,526	\$30,400,000
206	G	Unrestricted	10	2,122,177	21,221,770	6934579 Canada Inc.	\$8,389,328	\$8,490,000
207	B	Set-Aside	20	187,081	3,741,620	9193-2962 Québec Inc.	\$173,913	\$176,000
207	C	Set-Aside	10	187,081	1,870,810	9193-2962 Québec Inc.	\$351,779	\$356,000
207	G	Unrestricted	10	187,081	1,870,810	Globalive Wireless LP	\$257,905	\$261,000
207	I	Unrestricted	5	187,081	935,405	Globalive Wireless LP	\$121,542	\$123,000
208	B	Set-Aside	20	8,811,117	176,222,340	Globalive Wireless LP	\$275,700,000	\$279,000,000
208	C	Set-Aside	10	8,811,117	88,111,170	Data & Audio-Visual Enterprises Wireless Inc.	\$129,400,000	\$131,000,000
208	G	Unrestricted	10	8,811,117	88,111,170	6934579 Canada Inc.	\$24,777,744	\$25,075,077
209	B	Set-Aside	20	785,481	15,709,620	Bragg Communications Inc.	\$2,697,629	\$2,730,000
209	C	Set-Aside	10	785,481	7,854,810	Globalive Wireless LP	\$1,482,213	\$1,500,000
209	I	Unrestricted	5	785,481	3,927,405	Globalive Wireless LP	\$376,482	\$381,000
210	B	Set-Aside	20	1,118,283	22,365,660	6934242 Canada Ltd.	\$38,537,549	\$39,000,000
210	C	Set-Aside	10	1,118,283	11,182,830	1380057 Alberta Ltd.	\$13,636,364	\$13,800,000
210	G	Unrestricted	10	1,118,283	11,182,830	6934242 Canada Ltd.	\$1,168,478	\$1,182,500
210	I	Unrestricted	5	1,118,283	5,591,415	6934242 Canada Ltd.	\$584,239	\$591,250
211	B	Set-Aside	20	975,717	19,514,340	SaskTel	\$39,920,949	\$40,400,000
211	C	Set-Aside	10	975,717	9,757,170	SaskTel	\$23,913,043	\$24,200,000
211	G	Unrestricted	10	975,717	9,757,170	SaskTel	\$1,077,075	\$1,090,000
212	B	Set-Aside	20	2,979,436	59,588,720	1380057 Alberta Ltd.	\$32,312,253	\$32,700,000
212	C	Set-Aside	10	2,979,436	29,794,360	Globalive Wireless LP	\$17,885,375	\$18,100,000
212	G	Unrestricted	10	2,979,436	29,794,360	Novus Wireless Inc.	\$8,063,241	\$8,160,000
213	B	Set-Aside	20	3,907,624	78,152,480	1380057 Alberta Ltd.	\$99,802,372	\$101,000,000
213	C	Set-Aside	10	3,907,624	39,076,240	Globalive Wireless LP	\$66,600,791	\$67,400,000
213	G	Unrestricted	10	3,907,624	39,076,240	Novus Wireless Inc.	\$9,624,506	\$9,740,000
214	B	Set-Aside	20	92,707	1,854,140	Globalive Wireless LP	\$181,818	\$184,000
214	C	Set-Aside	10	92,707	927,070	Globalive Wireless LP	\$102,767	\$104,000
214	G	Unrestricted	10	92,707	927,070	Globalive Wireless LP	\$145,257	\$147,000
214	I	Unrestricted	5	92,707	463,535	Bell Mobility Inc.	\$136,364	\$138,000
301	A	Unrestricted	20	513,282	10,265,640	Rogers Communications Inc.	\$6,304,348	\$6,380,000
301	D	Set-Aside	10	513,282	5,132,820	Globalive Wireless LP	\$375,494	\$380,000
301	E	Unrestricted	10	513,282	5,132,820	TELUS Communications Company	\$3,300,395	\$3,340,000
301	F	Unrestricted	20	513,282	10,265,640	Bell Mobility Inc.	\$6,304,348	\$6,380,000
302	A	Unrestricted	20	135,294	2,705,880	Rogers Communications Inc.	\$2,519,763	\$2,550,000
302	D	Set-Aside	10	135,294	1,352,940	Globalive Wireless LP	\$287,549	\$291,000
302	E	Unrestricted	10	135,294	1,352,940	TELUS Communications Company	\$1,847,826	\$1,870,000
302	F	Unrestricted	20	135,294	2,705,880	Bell Mobility Inc.	\$2,598,814	\$2,630,000
303	A	Unrestricted	20	760,894	15,217,880	Bell Mobility Inc.	\$15,019,763	\$15,200,000
303	D	Set-Aside	10	760,894	7,608,940	Globalive Wireless LP	\$935,771	\$947,000
303	E	Unrestricted	10	760,894	7,608,940	TELUS Communications Company	\$7,154,150	\$7,240,000
303	F	Unrestricted	20	760,894	15,217,880	Rogers Communications Inc.	\$15,118,577	\$15,300,000
304	A	Unrestricted	20	147,044	2,940,880	Rogers Communications Inc.	\$3,577,075	\$3,620,000
304	D	Set-Aside	10	147,044	1,470,440	Globalive Wireless LP	\$285,573	\$289,000
304	E	Unrestricted	10	147,044	1,470,440	TELUS Communications Company	\$1,946,640	\$1,970,000
304	F	Unrestricted	20	147,044	2,940,880	Bell Mobility Inc.	\$3,833,992	\$3,880,000
305	A	Unrestricted	20	167,343	3,346,860	Rogers Communications Inc.	\$2,677,866	\$2,710,000
305	D	Set-Aside	10	167,343	1,673,430	Bragg Communications Inc.	\$591,897	\$599,000
305	E	Unrestricted	10	167,343	1,673,430	TELUS Communications Company	\$2,272,727	\$2,300,000
305	F	Unrestricted	20	167,343	3,346,860	Bell Mobility Inc.	\$3,023,715	\$3,060,000
306	A	Unrestricted	20	209,227	4,184,540	Rogers Communications Inc.	\$3,171,937	\$3,210,000
306	D	Set-Aside	10	209,227	2,092,270	Bragg Communications Inc.	\$601,779	\$609,000

**Spectrum Auction Data
Industry Canada AWS Auction
2008**

Market	Block	Set-Aside	License	Population	MHz * Pop	Winning Bidder	Winning Bid	Winning Bid
			Bandwidth				(2008 USD)	(2008 CAD)
			(MHz)					
306	E	Unrestricted	10	209,227	2,092,270	TELUS Communications Company	\$2,697,629	\$2,730,000
306	F	Unrestricted	20	209,227	4,184,540	Bell Mobility Inc.	\$3,537,549	\$3,580,000
307	A	Unrestricted	20	352,427	7,048,540	Rogers Communications Inc.	\$4,752,964	\$4,810,000
307	D	Set-Aside	10	352,427	3,524,270	Bragg Communications Inc.	\$964,427	\$976,000
307	E	Unrestricted	10	352,427	3,524,270	TELUS Communications Company	\$4,041,502	\$4,090,000
307	F	Unrestricted	20	352,427	7,048,540	Bell Mobility Inc.	\$5,059,289	\$5,120,000
308	A	Unrestricted	20	298,273	5,965,460	Rogers Communications Inc.	\$2,252,964	\$2,280,000
308	D	Set-Aside	10	298,273	2,982,730	9193-2962 Québec Inc.	\$975,296	\$987,000
308	E	Unrestricted	10	298,273	2,982,730	Bell Mobility Inc.	\$1,541,502	\$1,560,000
308	F	Unrestricted	20	298,273	5,965,460	TELUS Communications Company	\$2,450,593	\$2,480,000
309	A	Unrestricted	20	917,873	18,357,460	Rogers Communications Inc.	\$34,387,352	\$34,800,000
309	D	Set-Aside	10	917,873	9,178,730	9193-2962 Québec Inc.	\$2,450,593	\$2,480,000
309	E	Unrestricted	10	917,873	9,178,730	Bell Mobility Inc.	\$14,328,063	\$14,500,000
309	F	Unrestricted	20	917,873	18,357,460	TELUS Communications Company	\$34,486,166	\$34,900,000
310	A	Unrestricted	20	374,590	7,491,800	Rogers Communications Inc.	\$4,525,692	\$4,580,000
310	D	Set-Aside	10	374,590	3,745,900	9193-2962 Québec Inc.	\$545,455	\$552,000
310	E	Unrestricted	10	374,590	3,745,900	Bell Mobility Inc.	\$1,936,759	\$1,960,000
310	F	Unrestricted	20	374,590	7,491,800	TELUS Communications Company	\$4,397,233	\$4,450,000
311	A	Unrestricted	20	509,717	10,194,340	Rogers Communications Inc.	\$9,288,538	\$9,400,000
311	D	Set-Aside	10	509,717	5,097,170	9193-2962 Québec Inc.	\$3,547,431	\$3,590,000
311	E	Unrestricted	10	509,717	5,097,170	9193-2962 Québec Inc.	\$5,128,459	\$5,190,000
311	F	Unrestricted	20	509,717	10,194,340	TELUS Communications Company	\$10,375,494	\$10,500,000
312	A	Unrestricted	20	749,812	14,996,240	Rogers Communications Inc.	\$21,047,431	\$21,300,000
312	D	Set-Aside	10	749,812	7,498,120	9193-2962 Québec Inc.	\$5,187,747	\$5,250,000
312	E	Unrestricted	10	749,812	7,498,120	Bell Mobility Inc.	\$9,456,522	\$9,570,000
312	F	Unrestricted	20	749,812	14,996,240	TELUS Communications Company	\$21,640,316	\$21,900,000
313	A	Unrestricted	20	3,784,570	75,691,400	Rogers Communications Inc.	\$189,700,000	\$192,000,000
313	D	Set-Aside	10	3,784,570	37,845,700	9193-2962 Québec Inc.	\$95,454,545	\$96,600,000
313	E	Unrestricted	10	3,784,570	37,845,700	Bell Mobility Inc.	\$126,500,000	\$128,000,000
313	F	Unrestricted	20	3,784,570	75,691,400	TELUS Communications Company	\$231,200,000	\$234,000,000
314	A	Unrestricted	20	107,125	2,142,500	Rogers Communications Inc.	\$1,156,127	\$1,170,000
314	D	Set-Aside	10	107,125	1,071,250	9193-2962 Québec Inc.	\$505,929	\$512,000
314	E	Unrestricted	10	107,125	1,071,250	Bell Mobility Inc.	\$670,949	\$679,000
314	F	Unrestricted	20	107,125	2,142,500	TELUS Communications Company	\$1,185,771	\$1,200,000
315	A	Unrestricted	20	1,265,237	25,304,740	Rogers Communications Inc.	\$45,948,617	\$46,500,000
315	D	Set-Aside	10	1,265,237	12,652,370	Globalive Wireless LP	\$26,778,656	\$27,100,000
315	E	Unrestricted	10	1,265,237	12,652,370	Bell Mobility Inc.	\$32,806,324	\$33,200,000
315	F	Unrestricted	20	1,265,237	25,304,740	TELUS Communications Company	\$44,071,146	\$44,600,000
316	A	Unrestricted	20	108,154	2,163,080	Rogers Communications Inc.	\$1,571,146	\$1,590,000
316	D	Set-Aside	10	108,154	1,081,540	Globalive Wireless LP	\$1,314,229	\$1,330,000
316	E	Unrestricted	10	108,154	1,081,540	Bell Mobility Inc.	\$1,650,198	\$1,670,000
316	F	Unrestricted	20	108,154	2,163,080	TELUS Communications Company	\$1,699,605	\$1,720,000
317	A	Unrestricted	20	187,081	3,741,620	Rogers Communications Inc.	\$2,164,032	\$2,190,000
317	D	Set-Aside	10	187,081	1,870,810	9193-2962 Québec Inc.	\$351,779	\$356,000
317	E	Unrestricted	10	187,081	1,870,810	TELUS Communications Company	\$1,254,941	\$1,270,000
317	F	Unrestricted	20	187,081	3,741,620	Bell Mobility Inc.	\$2,075,099	\$2,100,000
318	A	Unrestricted	20	65,921	1,318,420	Rogers Communications Inc.	\$1,551,383	\$1,570,000
318	D	Set-Aside	10	65,921	659,210	Globalive Wireless LP	\$1,452,569	\$1,470,000
318	E	Unrestricted	10	65,921	659,210	TELUS Communications Company	\$1,758,893	\$1,780,000
318	F	Unrestricted	20	65,921	1,318,420	Bell Mobility Inc.	\$1,511,858	\$1,530,000
319	A	Unrestricted	20	82,869	1,657,380	Rogers Communications Inc.	\$1,709,486	\$1,730,000
319	D	Set-Aside	10	82,869	828,690	Globalive Wireless LP	\$1,541,502	\$1,560,000
319	E	Unrestricted	10	82,869	828,690	TELUS Communications Company	\$1,640,316	\$1,660,000
319	F	Unrestricted	20	82,869	1,657,380	Bell Mobility Inc.	\$1,739,130	\$1,760,000
320	A	Unrestricted	20	162,711	3,254,220	Rogers Communications Inc.	\$2,618,577	\$2,650,000
320	D	Set-Aside	10	162,711	1,627,110	Globalive Wireless LP	\$1,077,075	\$1,090,000
320	E	Unrestricted	10	162,711	1,627,110	TELUS Communications Company	\$1,689,723	\$1,710,000
320	F	Unrestricted	20	162,711	3,254,220	Bell Mobility Inc.	\$2,500,000	\$2,530,000
321	A	Unrestricted	20	184,594	3,691,880	Rogers Communications Inc.	\$2,954,546	\$2,990,000
321	D	Set-Aside	10	184,594	1,845,940	Globalive Wireless LP	\$1,007,905	\$1,020,000
321	E	Unrestricted	10	184,594	1,845,940	TELUS Communications Company	\$1,768,775	\$1,790,000
321	F	Unrestricted	20	184,594	3,691,880	Bell Mobility Inc.	\$2,806,324	\$2,840,000
322	A	Unrestricted	20	59,699	1,193,980	Rogers Communications Inc.	\$1,818,182	\$1,840,000
322	D	Set-Aside	10	59,699	596,990	Globalive Wireless LP	\$1,393,281	\$1,410,000
322	E	Unrestricted	10	59,699	596,990	TELUS Communications Company	\$1,482,213	\$1,500,000
322	F	Unrestricted	20	59,699	1,193,980	Bell Mobility Inc.	\$1,699,605	\$1,720,000
323	A	Unrestricted	20	192,992	3,859,840	Rogers Communications Inc.	\$2,727,273	\$2,760,000
323	D	Set-Aside	10	192,992	1,929,920	Globalive Wireless LP	\$894,269	\$905,000
323	E	Unrestricted	10	192,992	1,929,920	TELUS Communications Company	\$1,106,719	\$1,120,000

**Spectrum Auction Data
Industry Canada AWS Auction
2008**

Market	Block	Set-Aside	License	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
			Bandwidth (MHz)					
323	F	Unrestricted	20	192,992	3,859,840	Bell Mobility Inc.	\$2,658,103	\$2,690,000
324	A	Unrestricted	20	72,322	1,446,440	Rogers Communications Inc.	\$1,136,364	\$1,150,000
324	D	Set-Aside	10	72,322	723,220	Rich Telecom Corp.	\$497,036	\$503,000
324	E	Unrestricted	10	72,322	723,220	TELUS Communications Company	\$683,794	\$692,000
324	F	Unrestricted	20	72,322	1,446,440	Bell Mobility Inc.	\$1,472,332	\$1,490,000
325	A	Unrestricted	20	5,635,827	112,716,540	Rogers Communications Inc.	\$232,200,000	\$235,000,000
325	D	Set-Aside	10	5,635,827	56,358,270	9193-2962 Québec Inc.	\$95,256,917	\$96,400,000
325	E	Unrestricted	10	5,635,827	56,358,270	TELUS Communications Company	\$101,800,000	\$103,000,000
325	F	Unrestricted	20	5,635,827	112,716,540	Bell Mobility Inc.	\$310,300,000	\$314,000,000
326	A	Unrestricted	20	591,338	11,826,760	Rogers Communications Inc.	\$9,871,542	\$9,990,000
326	D	Set-Aside	10	591,338	5,913,380	Bragg Communications Inc.	\$2,608,696	\$2,640,000
326	E	Unrestricted	10	591,338	5,913,380	TELUS Communications Company	\$4,911,067	\$4,970,000
326	F	Unrestricted	20	591,338	11,826,760	Bell Mobility Inc.	\$14,624,506	\$14,800,000
327	A	Unrestricted	20	607,035	12,140,700	Rogers Communications Inc.	\$7,411,067	\$7,500,000
327	D	Set-Aside	10	607,035	6,070,350	Data & Audio-Visual Enterprises Wireless Inc.	\$2,569,170	\$2,600,000
327	E	Unrestricted	10	607,035	6,070,350	TELUS Communications Company	\$5,049,407	\$5,110,000
327	F	Unrestricted	20	607,035	12,140,700	Bell Mobility Inc.	\$15,019,763	\$15,200,000
328	A	Unrestricted	20	133,987	2,679,740	Rogers Communications Inc.	\$1,719,368	\$1,740,000
328	D	Set-Aside	10	133,987	1,339,870	Bragg Communications Inc.	\$871,542	\$882,000
328	E	Unrestricted	10	133,987	1,339,870	TELUS Communications Company	\$1,215,415	\$1,230,000
328	F	Unrestricted	20	133,987	2,679,740	Bell Mobility Inc.	\$3,320,158	\$3,360,000
329	A	Unrestricted	20	354,971	7,099,420	Rogers Communications Inc.	\$9,328,063	\$9,440,000
329	D	Set-Aside	10	354,971	3,549,710	Data & Audio-Visual Enterprises Wireless Inc.	\$1,363,636	\$1,380,000
329	E	Unrestricted	10	354,971	3,549,710	TELUS Communications Company	\$2,806,324	\$2,840,000
329	F	Unrestricted	20	354,971	7,099,420	Bell Mobility Inc.	\$9,446,640	\$9,560,000
330	A	Unrestricted	20	765,656	15,313,120	Rogers Communications Inc.	\$20,849,802	\$21,100,000
330	D	Set-Aside	10	765,656	7,656,560	Bragg Communications Inc.	\$4,308,300	\$4,360,000
330	E	Unrestricted	10	765,656	7,656,560	Bell Mobility Inc.	\$4,861,660	\$4,920,000
330	F	Unrestricted	20	765,656	15,313,120	TELUS Communications Company	\$20,948,617	\$21,200,000
331	A	Unrestricted	20	107,029	2,140,580	Rogers Communications Inc.	\$1,116,601	\$1,130,000
331	D	Set-Aside	10	107,029	1,070,290	Celluworld Inc.	\$920,949	\$932,000
331	E	Unrestricted	10	107,029	1,070,290	Bell Mobility Inc.	\$837,945	\$848,000
331	F	Unrestricted	20	107,029	2,140,580	TELUS Communications Company	\$2,213,439	\$2,240,000
332	A	Unrestricted	20	376,213	7,524,260	Rogers Communications Inc.	\$4,318,182	\$4,370,000
332	D	Set-Aside	10	376,213	3,762,130	Data & Audio-Visual Enterprises Wireless Inc.	\$1,561,265	\$1,580,000
332	E	Unrestricted	10	376,213	3,762,130	Bell Mobility Inc.	\$3,211,463	\$3,250,000
332	F	Unrestricted	20	376,213	7,524,260	TELUS Communications Company	\$5,701,581	\$5,770,000
333	A	Unrestricted	20	166,739	3,334,780	Rogers Communications Inc.	\$2,065,217	\$2,090,000
333	D	Set-Aside	10	166,739	1,667,390	Bragg Communications Inc.	\$730,237	\$739,000
333	E	Unrestricted	10	166,739	1,667,390	TELUS Communications Company	\$1,699,605	\$1,720,000
333	F	Unrestricted	20	166,739	3,334,780	Bell Mobility Inc.	\$3,428,854	\$3,470,000
334	A	Unrestricted	20	122,253	2,445,060	Rogers Communications Inc.	\$1,067,194	\$1,080,000
334	D	Set-Aside	10	122,253	1,222,530	Bragg Communications Inc.	\$537,549	\$544,000
334	E	Unrestricted	10	122,253	1,222,530	TELUS Communications Company	\$679,842	\$688,000
334	F	Unrestricted	20	122,253	2,445,060	Bell Mobility Inc.	\$1,007,905	\$1,020,000
335	A	Unrestricted	20	135,482	2,709,640	Rogers Communications Inc.	\$2,005,929	\$2,030,000
335	D	Set-Aside	10	135,482	1,354,820	1380057 Alberta Ltd.	\$430,830	\$436,000
335	E	Unrestricted	10	135,482	1,354,820	TELUS Communications Company	\$1,373,518	\$1,390,000
335	F	Unrestricted	20	135,482	2,709,640	Bell Mobility Inc.	\$2,114,625	\$2,140,000
336	A	Unrestricted	20	172,605	3,452,100	Rogers Communications Inc.	\$3,181,818	\$3,220,000
336	D	Set-Aside	10	172,605	1,726,050	Bragg Communications Inc.	\$795,455	\$805,000
336	E	Unrestricted	10	172,605	1,726,050	TELUS Communications Company	\$2,025,692	\$2,050,000
336	F	Unrestricted	20	172,605	3,452,100	Bell Mobility Inc.	\$3,310,277	\$3,350,000
337	A	Unrestricted	20	120,308	2,406,160	Rogers Communications Inc.	\$1,749,012	\$1,770,000
337	D	Set-Aside	10	120,308	1,203,080	Bragg Communications Inc.	\$507,905	\$514,000
337	E	Unrestricted	10	120,308	1,203,080	TELUS Communications Company	\$976,285	\$988,000
337	F	Unrestricted	20	120,308	2,406,160	Bell Mobility Inc.	\$1,749,012	\$1,770,000
338	A	Unrestricted	20	234,833	4,696,660	Rogers Communications Inc.	\$2,658,103	\$2,690,000
338	D	Set-Aside	10	234,833	2,348,330	1380057 Alberta Ltd.	\$792,490	\$802,000
338	E	Unrestricted	10	234,833	2,348,330	TELUS Communications Company	\$2,391,304	\$2,420,000
338	F	Unrestricted	20	234,833	4,696,660	Bell Mobility Inc.	\$3,053,360	\$3,090,000
339	A	Unrestricted	20	945,818	18,916,360	Rogers Communications Inc.	\$34,486,166	\$34,900,000
339	D	Set-Aside	10	945,818	9,458,180	Globalive Wireless LP	\$13,339,921	\$13,500,000
339	E	Unrestricted	10	945,818	9,458,180	1380057 Alberta Ltd.	\$14,920,949	\$15,100,000
339	F	Unrestricted	20	945,818	18,916,360	TELUS Communications Company	\$34,486,166	\$34,900,000
340	A	Unrestricted	20	172,465	3,449,300	Rogers Communications Inc.	\$1,768,775	\$1,790,000
340	D	Set-Aside	10	172,465	1,724,650	Globalive Wireless LP	\$763,834	\$773,000
340	E	Unrestricted	10	172,465	1,724,650	1380057 Alberta Ltd.	\$1,581,028	\$1,600,000
340	F	Unrestricted	20	172,465	3,449,300	TELUS Communications Company	\$1,907,115	\$1,930,000

**Spectrum Auction Data
Industry Canada AWS Auction
2008**

Market	Block	Set-Aside	License	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
			Bandwidth (MHz)					
341	A	Unrestricted	20	349,538	6,990,760	Rogers Communications Inc.	\$16,897,233	\$17,100,000
341	D	Set-Aside	10	349,538	3,495,380	1380057 Alberta Ltd.	\$4,911,067	\$4,970,000
341	E	Unrestricted	10	349,538	3,495,380	Globalive Wireless LP	\$5,691,700	\$5,760,000
341	F	Unrestricted	20	349,538	6,990,760	TELUS Communications Company	\$17,984,190	\$18,200,000
342	A	Unrestricted	20	104,297	2,085,940	Rogers Communications Inc.	\$4,387,352	\$4,440,000
342	D	Set-Aside	10	104,297	1,042,970	1380057 Alberta Ltd.	\$2,401,186	\$2,430,000
342	E	Unrestricted	10	104,297	1,042,970	Globalive Wireless LP	\$2,658,103	\$2,690,000
342	F	Unrestricted	20	104,297	2,085,940	TELUS Communications Company	\$4,377,470	\$4,430,000
343	A	Unrestricted	20	521,882	10,437,640	TELUS Communications Company	\$31,126,482	\$31,500,000
343	D	Set-Aside	10	521,882	5,218,820	1380057 Alberta Ltd.	\$12,549,407	\$12,700,000
343	E	Unrestricted	10	521,882	5,218,820	Globalive Wireless LP	\$11,857,708	\$12,000,000
343	F	Unrestricted	20	521,882	10,437,640	Rogers Communications Inc.	\$31,126,482	\$31,500,000
344	A	Unrestricted	20	1,199,124	23,982,480	Rogers Communications Inc.	\$34,980,237	\$35,400,000
344	D	Set-Aside	10	1,199,124	11,991,240	Data & Audio-Visual Enterprises Wireless Inc.	\$8,883,399	\$8,990,000
344	E	Unrestricted	10	1,199,124	11,991,240	Bell Mobility Inc.	\$18,972,332	\$19,200,000
344	F	Unrestricted	20	1,199,124	23,982,480	TELUS Communications Company	\$36,264,822	\$36,700,000
345	A	Unrestricted	20	175,718	3,514,360	Rogers Communications Inc.	\$1,452,569	\$1,470,000
345	D	Set-Aside	10	175,718	1,757,180	1380057 Alberta Ltd.	\$564,229	\$571,000
345	E	Unrestricted	10	175,718	1,757,180	Bell Mobility Inc.	\$855,731	\$866,000
345	F	Unrestricted	20	175,718	3,514,360	TELUS Communications Company	\$1,650,198	\$1,670,000
346	A	Unrestricted	20	156,171	3,123,420	Rogers Communications Inc.	\$1,897,233	\$1,920,000
346	D	Set-Aside	10	156,171	1,561,710	1380057 Alberta Ltd.	\$467,391	\$473,000
346	E	Unrestricted	10	156,171	1,561,710	Bell Mobility Inc.	\$858,696	\$869,000
346	F	Unrestricted	20	156,171	3,123,420	TELUS Communications Company	\$1,897,233	\$1,920,000
347	A	Unrestricted	20	1,091,673	21,833,460	Rogers Communications Inc.	\$53,458,498	\$54,100,000
347	D	Set-Aside	10	1,091,673	10,916,730	Data & Audio-Visual Enterprises Wireless Inc.	\$8,290,514	\$8,390,000
347	E	Unrestricted	10	1,091,673	10,916,730	Bell Mobility Inc.	\$16,501,976	\$16,700,000
347	F	Unrestricted	20	1,091,673	21,833,460	TELUS Communications Company	\$56,719,368	\$57,400,000
348	A	Unrestricted	20	198,479	3,969,580	Rogers Communications Inc.	\$2,193,676	\$2,220,000
348	D	Set-Aside	10	198,479	1,984,790	Data & Audio-Visual Enterprises Wireless Inc.	\$661,067	\$669,000
348	E	Unrestricted	10	198,479	1,984,790	Bell Mobility Inc.	\$1,007,905	\$1,020,000
348	F	Unrestricted	20	198,479	3,969,580	TELUS Communications Company	\$2,450,593	\$2,480,000
349	A	Unrestricted	20	158,271	3,165,420	Rogers Communications Inc.	\$3,577,075	\$3,620,000
349	D	Set-Aside	10	158,271	1,582,710	Bragg Communications Inc.	\$236,166	\$239,000
349	E	Unrestricted	10	158,271	1,582,710	Bragg Communications Inc.	\$2,094,862	\$2,120,000
349	F	Unrestricted	20	158,271	3,165,420	TELUS Communications Company	\$3,537,549	\$3,580,000
350	A	Unrestricted	20	132,914	2,658,280	Rogers Communications Inc.	\$1,324,111	\$1,340,000
350	D	Set-Aside	10	132,914	1,329,140	1380057 Alberta Ltd.	\$258,893	\$262,000
350	E	Unrestricted	10	132,914	1,329,140	Bell Mobility Inc.	\$788,538	\$798,000
350	F	Unrestricted	20	132,914	2,658,280	TELUS Communications Company	\$1,333,992	\$1,350,000
351	A	Unrestricted	20	368,647	7,372,940	Rogers Communications Inc.	\$5,098,814	\$5,160,000
351	D	Set-Aside	10	368,647	3,686,470	1380057 Alberta Ltd.	\$747,036	\$756,000
351	E	Unrestricted	10	368,647	3,686,470	Bell Mobility Inc.	\$1,986,166	\$2,010,000
351	F	Unrestricted	20	368,647	7,372,940	TELUS Communications Company	\$5,098,814	\$5,160,000
352	A	Unrestricted	20	2,310,047	46,200,940	Rogers Communications Inc.	\$115,600,000	\$117,000,000
352	D	Set-Aside	10	2,310,047	23,100,470	Data & Audio-Visual Enterprises Wireless Inc.	\$55,731,225	\$56,400,000
352	E	Unrestricted	10	2,310,047	23,100,470	Bell Mobility Inc.	\$61,363,636	\$62,100,000
352	F	Unrestricted	20	2,310,047	46,200,940	TELUS Communications Company	\$115,600,000	\$117,000,000
353	A	Unrestricted	20	389,247	7,784,940	Rogers Communications Inc.	\$5,602,767	\$5,670,000
353	D	Set-Aside	10	389,247	3,892,470	Data & Audio-Visual Enterprises Wireless Inc.	\$1,729,249	\$1,750,000
353	E	Unrestricted	10	389,247	3,892,470	Bell Mobility Inc.	\$2,766,798	\$2,800,000
353	F	Unrestricted	20	389,247	7,784,940	TELUS Communications Company	\$5,988,142	\$6,060,000
354	A	Unrestricted	20	165,741	3,314,820	Rogers Communications Inc.	\$1,986,166	\$2,010,000
354	D	Set-Aside	10	165,741	1,657,410	1380057 Alberta Ltd.	\$552,372	\$559,000
354	E	Unrestricted	10	165,741	1,657,410	Bell Mobility Inc.	\$986,166	\$998,000
354	F	Unrestricted	20	165,741	3,314,820	TELUS Communications Company	\$2,173,913	\$2,200,000
355	A	Unrestricted	20	106,015	2,120,300	Rogers Communications Inc.	\$1,067,194	\$1,080,000
355	D	Set-Aside	10	106,015	1,060,150	1380057 Alberta Ltd.	\$206,522	\$209,000
355	E	Unrestricted	10	106,015	1,060,150	Bell Mobility Inc.	\$654,150	\$662,000
355	F	Unrestricted	20	106,015	2,120,300	TELUS Communications Company	\$1,146,245	\$1,160,000
356	A	Unrestricted	20	174,289	3,485,780	Rogers Communications Inc.	\$2,134,387	\$2,160,000
356	D	Set-Aside	10	174,289	1,742,890	1380057 Alberta Ltd.	\$582,016	\$589,000
356	E	Unrestricted	10	174,289	1,742,890	Bell Mobility Inc.	\$980,237	\$992,000
356	F	Unrestricted	20	174,289	3,485,780	TELUS Communications Company	\$2,223,320	\$2,250,000
357	A	Unrestricted	20	200,007	4,000,140	Rogers Communications Inc.	\$2,114,625	\$2,140,000
357	D	Set-Aside	10	200,007	2,000,070	1380057 Alberta Ltd.	\$555,336	\$562,000
357	E	Unrestricted	10	200,007	2,000,070	Bell Mobility Inc.	\$1,007,905	\$1,020,000
357	F	Unrestricted	20	200,007	4,000,140	TELUS Communications Company	\$1,986,166	\$2,010,000
358	A	Unrestricted	20	60,717	1,214,340	Rogers Communications Inc.	\$1,333,992	\$1,350,000

**Spectrum Auction Data
Industry Canada AWS Auction
2008**

Market	Block	Set-Aside	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
358	D	Set-Aside	10	60,717	607,170	Rich Telecom Corp.	\$233,202	\$236,000
358	E	Unrestricted	10	60,717	607,170	Bell Mobility Inc.	\$644,269	\$652,000
358	F	Unrestricted	20	60,717	1,214,340	TELUS Communications Company	\$1,254,941	\$1,270,000
359	A	Unrestricted	20	92,707	1,854,140	Rogers Communications Inc.	\$757,905	\$767,000
359	D	Set-Aside	10	92,707	927,070	Globalive Wireless LP	\$99,802	\$101,000
359	E	Unrestricted	10	92,707	927,070	TELUS Communications Company	\$287,549	\$291,000
359	F	Unrestricted	20	92,707	1,854,140	Bell Mobility Inc.	\$853,755	\$864,000

Appendix A
Spectrum Auction Data
FCC AWS Auction
2006

Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
BEA001	B	20	526,106	10,522,120	SpectrumCo LLC	\$456,762	\$462,248
BEA001	C	10	526,106	5,261,060	T-Mobile License LLC	\$330,290	\$334,257
BEA002	B	20	748,817	14,976,340	SpectrumCo LLC	\$3,671,863	\$3,715,963
BEA002	C	10	748,817	7,488,170	T-Mobile License LLC	\$2,329,798	\$2,357,780
BEA003	B	20	7,954,554	159,091,080	SpectrumCo LLC	\$80,324,216	\$81,288,939
BEA003	C	10	7,954,554	79,545,540	Cingular AWS, LLC	\$31,847,895	\$32,230,400
BEA004	B	20	605,393	12,107,860	SpectrumCo LLC	\$1,602,324	\$1,621,569
BEA004	C	10	605,393	6,053,930	Vermont Telephone Company, Inc.	\$950,629	\$962,046
BEA005	B	20	1,171,669	23,433,380	SpectrumCo LLC	\$3,046,820	\$3,083,414
BEA005	C	10	1,171,669	11,716,690	AWS Wireless Inc.	\$3,095,946	\$3,133,129
BEA006	B	20	1,902,640	38,052,800	SpectrumCo LLC	\$6,074,826	\$6,147,787
BEA006	C	10	1,902,640	19,026,400	American Cellular Corporation	\$5,872,054	\$5,942,579
BEA007	B	20	1,493,518	29,870,360	SpectrumCo LLC	\$6,065,419	\$6,138,267
BEA007	C	10	1,493,518	14,935,180	Cricket Licensee (Reauction), Inc.	\$3,873,590	\$3,920,114
BEA008	B	20	1,507,759	30,155,180	Cingular AWS, LLC	\$1,769,560	\$1,790,813
BEA008	C	10	1,507,759	15,077,590	Cricket Licensee (Reauction), Inc.	\$1,260,537	\$1,275,676
BEA009	B	20	809,979	16,199,580	SpectrumCo LLC	\$5,222,971	\$5,285,701
BEA009	C	10	809,979	8,099,790	American Cellular Corporation	\$1,339,974	\$1,356,067
BEA010	B	20	25,712,577	514,251,540	SpectrumCo LLC	\$489,349,641	\$495,226,912
BEA010	C	10	25,712,577	257,125,770	MetroPCS AWS, LLC	\$380,403,084	\$384,971,866
BEA011	B	20	1,125,265	22,505,300	SpectrumCo LLC	\$2,480,310	\$2,510,100
BEA011	C	10	1,125,265	11,252,650	Spotlight Media Corp	\$1,516,877	\$1,535,096
BEA012	B	20	7,309,792	146,195,840	SpectrumCo LLC	\$81,357,939	\$82,335,078
BEA012	C	10	7,309,792	73,097,920	T-Mobile License LLC	\$58,628,556	\$59,332,707
BEA013	B	20	8,403,130	168,062,600	SpectrumCo LLC	\$155,432,777	\$157,299,582
BEA013	C	10	8,403,130	84,031,300	Cingular AWS, LLC	\$79,505,807	\$80,460,701
BEA014	B	20	363,970	7,279,400	SpectrumCo LLC	\$257,124	\$260,213
BEA014	C	10	363,970	3,639,700	AWS Wireless Inc.	\$113,929	\$115,297
BEA015	B	20	1,446,123	28,922,460	SpectrumCo LLC	\$9,241,847	\$9,352,845
BEA015	C	10	1,446,123	14,461,230	Cingular AWS, LLC	\$4,403,518	\$4,456,405
BEA016	B	20	334,087	6,681,740	SpectrumCo LLC	\$209,044	\$211,555
BEA016	C	10	334,087	3,340,870	AWS Wireless Inc.	\$118,110	\$119,529
BEA017	B	20	826,284	16,525,680	SpectrumCo LLC	\$1,276,215	\$1,291,543
BEA017	C	10	826,284	8,262,840	AWS Wireless Inc.	\$994,006	\$1,005,944
BEA018	B	20	1,854,853	37,097,060	SpectrumCo LLC	\$14,618,466	\$14,794,039
BEA018	C	10	1,854,853	18,548,530	Cricket Licensee (Reauction), Inc.	\$10,073,843	\$10,194,834
BEA019	B	20	1,831,510	36,630,200	SpectrumCo LLC	\$10,994,683	\$11,126,734
BEA019	C	10	1,831,510	18,315,100	Cricket Licensee (Reauction), Inc.	\$7,800,487	\$7,894,174
BEA020	B	20	1,722,764	34,455,280	SpectrumCo LLC	\$29,922,597	\$30,281,978
BEA020	C	10	1,722,764	17,227,640	Cricket Licensee (Reauction), Inc.	\$7,342,680	\$7,430,868
BEA021	B	20	823,517	16,470,340	SpectrumCo LLC	\$737,926	\$746,789
BEA021	C	10	823,517	8,235,170	AWS Wireless Inc.	\$441,083	\$446,381
BEA022	B	20	528,224	10,564,480	Cingular AWS, LLC	\$457,807	\$463,305
BEA022	C	10	528,224	5,282,240	AWS Wireless Inc.	\$306,250	\$309,928
BEA023	B	20	2,031,519	40,630,380	SpectrumCo LLC	\$14,309,080	\$14,480,938
BEA023	C	10	2,031,519	20,315,190	Cricket Licensee (Reauction), Inc.	\$8,694,151	\$8,798,571
BEA024	B	20	932,115	18,642,300	SpectrumCo LLC	\$5,261,644	\$5,324,839
BEA024	C	10	932,115	9,321,150	AWS Wireless Inc.	\$2,510,622	\$2,540,775
BEA025	B	20	878,267	17,565,340	SpectrumCo LLC	\$8,004,305	\$8,100,440
BEA025	C	10	878,267	8,782,670	AWS Wireless Inc.	\$1,423,591	\$1,440,689
BEA026	B	20	587,297	11,745,940	SpectrumCo LLC	\$3,205,694	\$3,244,195
BEA026	C	10	587,297	5,872,970	Cricket Licensee (Reauction), Inc.	\$1,877,218	\$1,899,764
BEA027	B	20	604,799	12,095,980	SpectrumCo LLC	\$685,665	\$693,900
BEA027	C	10	604,799	6,047,990	AWS Wireless Inc.	\$496,480	\$502,443
BEA028	B	20	668,214	13,364,280	SpectrumCo LLC	\$1,569,922	\$1,588,778
BEA028	C	10	668,214	6,682,140	AWS Wireless Inc.	\$1,567,832	\$1,586,662
BEA029	B	20	1,885,190	37,703,800	SpectrumCo LLC	\$14,167,975	\$14,338,138
BEA029	C	10	1,885,190	18,851,900	T-Mobile License LLC	\$5,816,657	\$5,886,517

**Spectrum Auction Data
FCC AWS Auction
2006**

Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
BEA030	B	20	3,642,540	72,850,800	SpectrumCo LLC	\$28,420,614	\$28,761,956
BEA030	C	10	3,642,540	36,425,400	Cingular AWS, LLC	\$16,825,973	\$17,028,059
BEA031	B	20	5,602,222	112,044,440	SpectrumCo LLC	\$63,815,990	\$64,582,443
BEA031	C	10	5,602,222	56,022,220	Cingular AWS, LLC	\$22,277,848	\$22,545,413
BEA032	B	20	692,265	13,845,300	SpectrumCo LLC	\$1,844,816	\$1,866,973
BEA032	C	10	692,265	6,922,650	AWS Wireless Inc.	\$1,159,150	\$1,173,072
BEA033	B	20	763,795	15,275,900	SpectrumCo LLC	\$2,293,216	\$2,320,758
BEA033	C	10	763,795	7,637,950	AWS Wireless Inc.	\$1,888,715	\$1,911,399
BEA034	B	20	2,395,997	47,919,940	SpectrumCo LLC	\$29,811,803	\$30,169,854
BEA034	C	10	2,395,997	23,959,970	Cingular AWS, LLC	\$27,058,690	\$27,383,675
BEA035	B	20	720,434	14,408,680	SpectrumCo LLC	\$1,861,539	\$1,883,897
BEA035	C	10	720,434	7,204,340	Cavalier Wireless, LLC	\$1,124,919	\$1,138,430
BEA036	B	20	332,409	6,648,180	SpectrumCo LLC	\$632,359	\$639,954
BEA036	C	10	332,409	3,324,090	AWS Wireless Inc.	\$330,290	\$334,257
BEA037	B	20	468,178	9,363,560	SpectrumCo LLC	\$893,664	\$904,397
BEA037	C	10	468,178	4,681,780	AWS Wireless Inc.	\$607,274	\$614,567
BEA038	B	20	768,701	15,374,020	SpectrumCo LLC	\$1,831,228	\$1,853,222
BEA038	C	10	768,701	7,687,010	AWS Wireless Inc.	\$1,053,583	\$1,066,237
BEA039	B	20	496,538	9,930,760	Cellular South Licenses, Inc.	\$1,191,552	\$1,205,863
BEA039	C	10	496,538	4,965,380	Cricket Licensee (Reauction), Inc.	\$1,228,135	\$1,242,885
BEA040	B	20	5,471,412	109,428,240	SpectrumCo LLC	\$36,909,902	\$37,353,203
BEA040	C	10	5,471,412	54,714,120	Cingular AWS, LLC	\$23,675,309	\$23,959,658
BEA041	B	20	1,248,824	24,976,480	Cricket Licensee (Reauction), Inc.	\$5,484,276	\$5,550,145
BEA041	C	10	1,248,824	12,488,240	AWS Wireless Inc.	\$2,388,331	\$2,417,016
BEA042	B	20	444,594	8,891,880	SpectrumCo LLC	\$3,518,215	\$3,560,470
BEA042	C	10	444,594	4,445,940	AWS Wireless Inc.	\$984,599	\$996,424
BEA043	B	20	720,375	14,407,500	SpectrumCo LLC	\$1,347,290	\$1,363,472
BEA043	C	10	720,375	7,203,750	Cricket Licensee (Reauction), Inc.	\$1,244,859	\$1,259,810
BEA044	B	20	983,329	19,666,580	SpectrumCo LLC	\$4,802,792	\$4,860,475
BEA044	C	10	983,329	9,833,290	Cricket Licensee (Reauction), Inc.	\$2,723,847	\$2,756,561
BEA045	B	20	576,081	11,521,620	SpectrumCo LLC	\$4,558,210	\$4,612,956
BEA045	C	10	576,081	5,760,810	AWS Wireless Inc.	\$1,424,637	\$1,441,747
BEA046	B	20	519,208	10,384,160	SpectrumCo LLC	\$1,134,065	\$1,147,686
BEA046	C	10	519,208	5,192,080	AWS Wireless Inc.	\$628,178	\$635,723
BEA047	B	20	1,851,367	37,027,340	SpectrumCo LLC	\$9,630,670	\$9,746,337
BEA047	C	10	1,851,367	18,513,670	Cricket Licensee (Reauction), Inc.	\$5,304,498	\$5,368,207
BEA048	B	20	1,199,373	23,987,460	SpectrumCo LLC	\$3,522,396	\$3,564,701
BEA048	C	10	1,199,373	11,993,730	AWS Wireless Inc.	\$1,800,916	\$1,822,546
BEA049	B	20	2,184,860	43,697,200	Cingular AWS, LLC	\$22,884,076	\$23,158,922
BEA049	C	10	2,184,860	21,848,600	Atlantic Wireless, L.P.	\$5,356,498	\$5,420,832
BEA050	B	20	1,133,004	22,660,080	SpectrumCo LLC	\$6,944,451	\$7,027,856
BEA050	C	10	1,133,004	11,330,040	Cingular AWS, LLC	\$5,675,552	\$5,743,717
BEA051	B	20	2,349,060	46,981,200	SpectrumCo LLC	\$12,993,147	\$13,149,199
BEA051	C	10	2,349,060	23,490,600	Atlantic Wireless, L.P.	\$6,228,213	\$6,303,016
BEA052	B	20	327,645	6,552,900	SpectrumCo LLC	\$325,064	\$328,968
BEA052	C	10	327,645	3,276,450	AWS Wireless Inc.	\$217,406	\$220,017
BEA053	B	20	2,971,829	59,436,580	SpectrumCo LLC	\$15,492,271	\$15,678,339
BEA053	C	10	2,971,829	29,718,290	Atlantic Wireless, L.P.	\$6,406,946	\$6,483,895
BEA054	B	20	519,348	10,386,960	SpectrumCo LLC	\$543,515	\$550,043
BEA054	C	10	519,348	5,193,480	American Cellular Corporation	\$221,587	\$224,248
BEA055	B	20	4,692,460	93,849,200	SpectrumCo LLC	\$16,729,813	\$16,930,744
BEA055	C	10	4,692,460	46,924,600	Atlantic Wireless, L.P.	\$7,993,592	\$8,089,598
BEA056	B	20	1,294,395	25,887,900	SpectrumCo LLC	\$1,738,203	\$1,759,080
BEA056	C	10	1,294,395	12,943,950	Atlantic Wireless, L.P.	\$1,512,174	\$1,530,336
BEA057	B	20	6,963,637	139,272,740	SpectrumCo LLC	\$82,559,944	\$83,551,520
BEA057	C	10	6,963,637	69,636,370	MetroPCS AWS, LLC	\$52,592,403	\$53,224,057
BEA058	B	20	269,986	5,399,720	American Cellular Corporation	\$169,326	\$171,360
BEA058	C	10	269,986	2,699,860	NSIGHTTEL WIRELESS, LLC	\$88,844	\$89,911
BEA059	B	20	671,225	13,424,500	Cingular AWS, LLC	\$1,272,034	\$1,287,312

**Spectrum Auction Data
FCC AWS Auction
2006**

Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
BEA059	C	10	671,225	6,712,250	Wittenberg Telephone Company	\$771,373	\$780,638
BEA060	B	20	433,250	8,665,000	Cingular AWS, LLC	\$971,011	\$982,673
BEA060	C	10	433,250	4,332,500	T-Mobile License LLC	\$713,886	\$722,460
BEA061	B	20	286,745	5,734,900	American Cellular Corporation	\$203,818	\$206,266
BEA061	C	10	286,745	2,867,450	NSIGHTTEL WIRELESS, LLC	\$89,889	\$90,969
BEA062	B	20	1,881,991	37,639,820	SpectrumCo LLC	\$9,770,729	\$9,888,079
BEA062	C	10	1,881,991	18,819,910	MetroPCS AWS, LLC	\$8,278,153	\$8,377,577
BEA063	B	20	2,255,183	45,103,660	SpectrumCo LLC	\$23,402,506	\$23,683,579
BEA063	C	10	2,255,183	22,551,830	Cricket Licensee (Reauction), Inc.	\$16,537,492	\$16,736,114
BEA064	B	20	10,328,854	206,577,080	SpectrumCo LLC	\$238,353,322	\$241,216,034
BEA064	C	10	10,328,854	103,288,540	Cingular AWS, LLC	\$169,411,567	\$171,446,263
BEA065	B	20	936,245	18,724,900	SpectrumCo LLC	\$972,056	\$983,731
BEA065	C	10	936,245	9,362,450	Atlantic Wireless, L.P.	\$356,682	\$360,966
BEA066	B	20	725,847	14,516,940	SpectrumCo LLC	\$1,367,150	\$1,383,569
BEA066	C	10	725,847	7,258,470	Atlantic Wireless, L.P.	\$256,341	\$259,419
BEA067	B	20	3,066,469	61,329,380	SpectrumCo LLC	\$13,248,181	\$13,407,296
BEA067	C	10	3,066,469	30,664,690	Cincinnati Bell Wireless LLC	\$10,820,131	\$10,950,085
BEA068	B	20	630,898	12,617,960	SpectrumCo LLC	\$679,394	\$687,554
BEA068	C	10	630,898	6,308,980	Cavalier Wireless, LLC	\$226,552	\$229,273
BEA069	B	20	854,714	17,094,280	SpectrumCo LLC	\$1,095,392	\$1,108,548
BEA069	C	10	854,714	8,547,140	Cavalier Wireless, LLC	\$516,601	\$522,805
BEA070	B	20	1,416,914	28,338,280	SpectrumCo LLC	\$12,857,268	\$13,011,688
BEA070	C	10	1,416,914	14,169,140	Cricket Licensee (Reauction), Inc.	\$5,343,172	\$5,407,345
BEA071	B	20	2,444,643	48,892,860	SpectrumCo LLC	\$12,433,953	\$12,583,290
BEA071	C	10	2,444,643	24,446,430	Cricket Licensee (Reauction), Inc.	\$9,356,822	\$9,469,200
BEA072	B	20	226,586	4,531,720	SpectrumCo LLC	\$215,316	\$217,902
BEA072	C	10	226,586	2,265,860	AWS Wireless Inc.	\$79,437	\$80,391
BEA073	B	20	1,882,332	37,646,640	SpectrumCo LLC	\$19,731,689	\$19,968,674
BEA073	C	10	1,882,332	18,823,320	Cricket Licensee (Reauction), Inc.	\$17,285,871	\$17,493,480
BEA074	B	20	997,824	19,956,480	SpectrumCo LLC	\$3,470,135	\$3,511,812
BEA074	C	10	997,824	9,978,240	Cellular South Licenses, Inc.	\$2,669,495	\$2,701,557
BEA075	B	20	625,002	12,500,040	SpectrumCo LLC	\$637,585	\$645,243
BEA075	C	10	625,002	6,250,020	AWS Wireless Inc.	\$335,516	\$339,546
BEA076	B	20	252,280	5,045,600	SpectrumCo LLC	\$310,431	\$314,159
BEA076	C	10	252,280	2,522,800	AWS Wireless Inc.	\$118,110	\$119,529
BEA077	B	20	1,432,518	28,650,360	SpectrumCo LLC	\$4,402,472	\$4,455,348
BEA077	C	10	1,432,518	14,325,180	Cellular South Licenses, Inc.	\$3,405,331	\$3,446,230
BEA078	B	20	1,578,903	31,578,060	SpectrumCo LLC	\$11,247,627	\$11,382,715
BEA078	C	10	1,578,903	15,789,030	Cellular South Licenses, Inc.	\$7,532,910	\$7,623,383
BEA079	B	20	481,137	9,622,740	SpectrumCo LLC	\$1,075,533	\$1,088,450
BEA079	C	10	481,137	4,811,370	AWS Wireless Inc.	\$817,363	\$827,180
BEA080	B	20	676,258	13,525,160	SpectrumCo LLC	\$9,036,984	\$9,145,521
BEA080	C	10	676,258	6,762,580	Cellular South Licenses, Inc.	\$5,781,119	\$5,850,553
BEA081	B	20	623,252	12,465,040	SpectrumCo LLC	\$3,722,033	\$3,766,736
BEA081	C	10	623,252	6,232,520	T-Mobile License LLC	\$1,526,023	\$1,544,351
BEA082	B	20	396,754	7,935,080	SpectrumCo LLC	\$3,411,602	\$3,452,577
BEA082	C	10	396,754	3,967,540	Cricket Licensee (Reauction), Inc.	\$463,033	\$468,594
BEA083	B	20	1,725,338	34,506,760	SpectrumCo LLC	\$7,163,947	\$7,249,989
BEA083	C	10	1,725,338	17,253,380	AWS Wireless Inc.	\$3,355,161	\$3,395,457
BEA084	B	20	739,673	14,793,460	SpectrumCo LLC	\$2,669,495	\$2,701,557
BEA084	C	10	739,673	7,396,730	Cavalier Wireless, LLC	\$1,592,917	\$1,612,049
BEA085	B	20	601,654	12,033,080	SpectrumCo LLC	\$1,787,329	\$1,808,795
BEA085	C	10	601,654	6,016,540	AWS Wireless Inc.	\$676,258	\$684,380
BEA086	B	20	536,758	10,735,160	Cellco Partnership d/b/a Verizon Wireless	\$3,756,526	\$3,801,643
BEA086	C	10	536,758	5,367,580	Command Connect, LLC	\$1,172,738	\$1,186,823
BEA087	B	20	456,637	9,132,740	SpectrumCo LLC	\$518,430	\$524,656
BEA087	C	10	456,637	4,566,370	Cricket Licensee (Reauction), Inc.	\$621,907	\$629,376
BEA088	B	20	573,616	11,472,320	SpectrumCo LLC	\$3,005,011	\$3,041,103
BEA088	C	10	573,616	5,736,160	MetroPCS AWS, LLC	\$650,128	\$657,936

**Spectrum Auction Data
FCC AWS Auction
2006**

Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
BEA089	B	20	333,519	6,670,380	SpectrumCo LLC	\$1,351,471	\$1,367,703
BEA089	C	10	333,519	3,335,190	AWS Wireless Inc.	\$153,648	\$155,493
BEA090	B	20	1,614,850	32,297,000	SpectrumCo LLC	\$4,249,870	\$4,300,913
BEA090	C	10	1,614,850	16,148,500	AWS Wireless Inc.	\$3,207,784	\$3,246,311
BEA091	B	20	329,136	6,582,720	SpectrumCo LLC	\$385,687	\$390,319
BEA091	C	10	329,136	3,291,360	AWS Wireless Inc.	\$372,099	\$376,568
BEA092	B	20	405,160	8,103,200	SpectrumCo LLC	\$1,422,546	\$1,439,632
BEA092	C	10	405,160	4,051,600	AWS Wireless Inc.	\$606,228	\$613,509
BEA093	B	20	263,904	5,278,080	SpectrumCo LLC	\$329,245	\$333,199
BEA093	C	10	263,904	2,639,040	American Cellular Corporation	\$153,648	\$155,493
BEA094	B	20	859,559	17,191,180	SpectrumCo LLC	\$1,180,055	\$1,194,228
BEA094	C	10	859,559	8,595,590	T-Mobile License LLC	\$631,314	\$638,896
BEA095	B	20	303,852	6,077,040	SpectrumCo LLC	\$199,637	\$202,035
BEA095	C	10	303,852	3,038,520	AWS Wireless Inc.	\$205,909	\$208,382
BEA096	B	20	3,558,651	71,173,020	Barat Wireless, L.P.	\$24,560,873	\$24,855,858
BEA096	C	10	3,558,651	35,586,510	Daredevil Communications LLC	\$8,802,593	\$8,908,315
BEA097	B	20	517,462	10,349,240	SpectrumCo LLC	\$736,881	\$745,731
BEA097	C	10	517,462	5,174,620	Cavalier Wireless, LLC	\$235,175	\$237,999
BEA098	B	20	369,014	7,380,280	SpectrumCo LLC	\$451,536	\$456,959
BEA098	C	10	369,014	3,690,140	Cavalier Wireless, LLC	\$144,241	\$145,973
BEA099	B	20	2,469,340	49,386,800	SpectrumCo LLC	\$24,853,273	\$25,151,770
BEA099	C	10	2,469,340	24,693,400	Cingular AWS, LLC	\$11,349,013	\$11,485,319
BEA100	B	20	1,683,257	33,665,140	SpectrumCo LLC	\$10,093,703	\$10,214,932
BEA100	C	10	1,683,257	16,832,570	T-Mobile License LLC	\$6,014,204	\$6,086,436
BEA101	B	20	528,671	10,573,420	SpectrumCo LLC	\$538,289	\$544,754
BEA101	C	10	528,671	5,286,710	Daredevil Communications LLC	\$178,733	\$180,879
BEA102	B	20	558,913	11,178,260	SpectrumCo LLC	\$1,457,039	\$1,474,538
BEA102	C	10	558,913	5,589,130	T-Mobile License LLC	\$1,246,949	\$1,261,925
BEA103	B	20	384,577	7,691,540	Barat Wireless, L.P.	\$1,171,954	\$1,186,030
BEA103	C	10	384,577	3,845,770	T-Mobile License LLC	\$1,420,456	\$1,437,516
BEA104	B	20	933,823	18,676,460	Barat Wireless, L.P.	\$1,088,075	\$1,101,144
BEA104	C	10	933,823	9,338,230	T-Mobile License LLC	\$507,978	\$514,079
BEA105	B	20	241,903	4,838,060	Barat Wireless, L.P.	\$873,282	\$883,771
BEA105	C	10	241,903	2,419,030	NSIGHTTEL WIRELESS, LLC	\$216,361	\$218,959
BEA106	B	20	318,374	6,367,480	SpectrumCo LLC	\$321,928	\$325,795
BEA106	C	10	318,374	3,183,740	NEIT Wireless, LLC	\$324,541	\$328,439
BEA107	B	20	4,498,286	89,965,720	SpectrumCo LLC	\$43,703,840	\$44,228,740
BEA107	C	10	4,498,286	44,982,860	Cingular AWS, LLC	\$31,352,460	\$31,729,014
BEA108	B	20	487,723	0	FCC		
BEA108	C	10	487,723	4,877,230	Cingular AWS, LLC	\$2,392,512	\$2,421,247
BEA109	B	20	350,059	7,001,180	American Cellular Corporation	\$1,351,471	\$1,367,703
BEA109	C	10	350,059	3,500,590	Cingular AWS, LLC	\$591,595	\$598,701
BEA110	B	20	230,253	4,605,060	Cingular AWS, LLC	\$385,687	\$390,319
BEA110	C	10	230,253	2,302,530	LL License Holdings II, LLC	\$79,071	\$80,021
BEA111	B	20	111,195	2,223,900	MTPCS License Co., LLC	\$180,823	\$182,995
BEA111	C	10	111,195	1,111,950	Red Rock Spectrum Holdings, LLC	\$37,628	\$38,080
BEA112	B	20	175,427	3,508,540	MTPCS License Co., LLC	\$559,193	\$565,910
BEA112	C	10	175,427	1,754,270	Red Rock Spectrum Holdings, LLC	\$133,788	\$135,395
BEA113	B	20	371,691	7,433,820	Cingular AWS, LLC	\$545,606	\$552,158
BEA113	C	10	371,691	3,716,910	LL License Holdings II, LLC	\$129,712	\$131,270
BEA114	B	20	82,608	1,652,160	James Valley	\$292,401	\$295,913
BEA114	C	10	82,608	0	FCC		
BEA115	B	20	213,696	4,273,920	MTPCS License Co., LLC	\$467,214	\$472,825
BEA115	C	10	213,696	2,136,960	Red Rock Spectrum Holdings, LLC	\$143,195	\$144,915
BEA116	B	20	519,143	10,382,860	SpectrumCo LLC	\$982,508	\$994,308
BEA116	C	10	519,143	5,191,430	Cingular AWS, LLC	\$422,269	\$427,341
BEA117	B	20	252,656	5,053,120	SpectrumCo LLC	\$734,791	\$743,616
BEA117	C	10	252,656	2,526,560	LL License Holdings II, LLC	\$579,262	\$586,219
BEA118	B	20	1,044,156	20,883,120	SpectrumCo LLC	\$7,039,566	\$7,124,114

**Spectrum Auction Data
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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
BEA118	C	10	1,044,156	10,441,560	Cingular AWS, LLC	\$1,815,549	\$1,837,355
BEA119	B	20	379,321	7,586,420	SpectrumCo LLC	\$429,586	\$434,745
BEA119	C	10	379,321	3,793,210	Barat Wireless, L.P.	\$145,024	\$146,766
BEA120	B	20	288,047	5,760,940	SpectrumCo LLC	\$1,087,030	\$1,100,086
BEA120	C	10	288,047	2,880,470	Hemingford Cooperative Telephone Company	\$67,417	\$68,226
BEA121	B	20	61,758	1,235,160	Hemingford Cooperative Telephone Company	\$53,306	\$53,947
BEA121	C	10	61,758	617,580	Hemingford Cooperative Telephone Company	\$14,894	\$15,073
BEA122	B	20	1,175,577	23,511,540	SpectrumCo LLC	\$4,489,226	\$4,543,143
BEA122	C	10	1,175,577	11,755,770	T-Mobile License LLC	\$2,475,084	\$2,504,811
BEA123	B	20	454,539	9,090,780	SpectrumCo LLC	\$1,258,447	\$1,273,561
BEA123	C	10	454,539	4,545,390	Lynch AWS Corporation	\$506,932	\$513,021
BEA124	B	20	1,384,426	27,688,520	SpectrumCo LLC	\$8,076,425	\$8,173,426
BEA124	C	10	1,384,426	13,844,260	AWS Wireless Inc.	\$2,349,658	\$2,377,878
BEA125	B	20	1,698,197	33,963,940	SpectrumCo LLC	\$21,138,557	\$21,392,438
BEA125	C	10	1,698,197	16,981,970	Cricket Licensee (Reauction), Inc.	\$10,555,690	\$10,682,468
BEA126	B	20	139,761	2,795,220	SpectrumCo LLC	\$997,141	\$1,009,117
BEA126	C	10	139,761	1,397,610	AWS Wireless Inc.	\$52,261	\$52,889
BEA127	B	20	7,645,530	152,910,600	SpectrumCo LLC	\$80,279,271	\$81,243,455
BEA127	C	10	7,645,530	76,455,300	MetroPCS AWS, LLC	\$52,016,486	\$52,641,223
BEA128	B	20	222,147	4,442,940	American Cellular Corporation	\$358,511	\$362,817
BEA128	C	10	222,147	2,221,470	AWS Wireless Inc.	\$209,044	\$211,555
BEA129	B	20	202,679	4,053,580	Central Texas Telephone Investments, LP	\$791,233	\$800,736
BEA129	C	10	202,679	2,026,790	American Cellular Corporation	\$450,490	\$455,901
BEA130	B	20	1,349,267	26,985,340	SpectrumCo LLC	\$11,678,258	\$11,818,518
BEA130	C	10	1,349,267	13,492,670	Atlantic Wireless, L.P.	\$3,754,174	\$3,799,263
BEA131	B	20	5,632,853	112,657,060	SpectrumCo LLC	\$42,950,236	\$43,466,084
BEA131	C	10	5,632,853	56,328,530	SpectrumCo LLC	\$19,374,223	\$19,606,915
BEA132	B	20	549,012	10,980,240	SpectrumCo LLC	\$962,649	\$974,211
BEA132	C	10	549,012	5,490,120	Cricket Licensee (Reauction), Inc.	\$732,700	\$741,500
BEA133	B	20	978,369	19,567,380	Cavalier Wireless, LLC	\$1,208,798	\$1,223,317
BEA133	C	10	978,369	9,783,690	Cricket Licensee (Reauction), Inc.	\$1,227,090	\$1,241,828
BEA134	B	20	2,141,060	42,821,200	SpectrumCo LLC	\$8,268,746	\$8,368,057
BEA134	C	10	2,141,060	21,410,600	T-Mobile License LLC	\$5,909,682	\$5,980,659
BEA135	B	20	388,007	7,760,140	Central Texas Telephone Investments, LP	\$1,039,995	\$1,052,486
BEA135	C	10	388,007	3,880,070	AWS Wireless Inc.	\$816,318	\$826,122
BEA136	B	20	190,340	3,806,800	Red Rock Spectrum Holdings, LLC	\$309,386	\$313,101
BEA136	C	10	190,340	1,903,400	AWS Wireless Inc.	\$154,693	\$156,551
BEA137	B	20	374,626	7,492,520	Red Rock Spectrum Holdings, LLC	\$632,359	\$639,954
BEA137	C	10	374,626	3,746,260	AWS Wireless Inc.	\$460,943	\$466,479
BEA138	B	20	481,633	9,632,660	American Cellular Corporation	\$909,343	\$920,264
BEA138	C	10	481,633	4,816,330	AWS Wireless Inc.	\$704,479	\$712,940
BEA139	B	20	258,790	5,175,800	SpectrumCo LLC	\$1,233,361	\$1,248,174
BEA139	C	10	258,790	2,587,900	AWS Wireless Inc.	\$683,575	\$691,785
BEA140	B	20	279,600	5,592,000	SpectrumCo LLC	\$525,746	\$532,061
BEA140	C	10	279,600	2,796,000	Command Connect, LLC	\$163,473	\$165,436
BEA141	B	20	3,984,105	79,682,100	SpectrumCo LLC	\$25,251,503	\$25,554,783
BEA141	C	10	3,984,105	39,841,050	Atlantic Wireless, L.P.	\$7,743,522	\$7,836,525
BEA142	B	20	92,360	1,847,200	Hemingford Cooperative Telephone Company	\$97,206	\$98,373
BEA142	C	10	92,360	923,600	Hemingford Cooperative Telephone Company	\$21,950	\$22,213
BEA143	B	20	408,708	8,174,160	MTPCS License Co., LLC	\$1,246,949	\$1,261,925
BEA143	C	10	408,708	4,087,080	Union Telephone Company	\$371,054	\$375,510
BEA144	B	20	404,902	8,098,040	Cavalier Wireless, LLC	\$413,908	\$418,879
BEA144	C	10	404,902	4,049,020	AWS Wireless Inc.	\$667,896	\$675,918
BEA145	B	20	166,564	3,331,280	3 Rivers Telephone Cooperative, Inc.	\$455,717	\$461,190
BEA145	C	10	166,564	1,665,640	AWS Wireless Inc.	\$364,782	\$369,163
BEA146	B	20	399,183	7,983,660	Cavalier Wireless, LLC	\$318,270	\$322,092
BEA146	C	10	399,183	3,991,830	AWS Wireless Inc.	\$356,420	\$360,701
BEA147	B	20	829,735	16,594,700	SpectrumCo LLC	\$2,877,494	\$2,912,054
BEA147	C	10	829,735	8,297,350	Cricket Licensee (Reauction), Inc.	\$1,947,247	\$1,970,635

**Spectrum Auction Data
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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
BEA148	B	20	306,120	6,122,400	SpectrumCo LLC	\$845,584	\$855,740
BEA148	C	10	306,120	3,061,200	Union Telephone Company	\$795,413	\$804,967
BEA149	B	20	162,397	3,247,940	SpectrumCo LLC	\$198,592	\$200,977
BEA149	C	10	162,397	1,623,970	Cavalier Wireless, LLC	\$74,472	\$75,366
BEA150	B	20	574,876	11,497,520	Atlantic Wireless, L.P.	\$1,787,329	\$1,808,795
BEA150	C	10	574,876	5,748,760	AWS Wireless Inc.	\$654,309	\$662,167
BEA151	B	20	670,013	13,400,260	SpectrumCo LLC	\$3,408,467	\$3,449,404
BEA151	C	10	670,013	6,700,130	Cavalier Wireless, LLC	\$778,429	\$787,778
BEA152	B	20	2,088,974	41,779,480	SpectrumCo LLC	\$16,885,551	\$17,088,353
BEA152	C	10	2,088,974	20,889,740	Cricket Licensee (Reauction), Inc.	\$7,642,659	\$7,734,450
BEA153	B	20	1,709,797	34,195,940	SpectrumCo LLC	\$17,949,586	\$18,165,167
BEA153	C	10	1,709,797	17,097,970	MetroPCS AWS, LLC	\$10,891,206	\$11,022,014
BEA154	B	20	401,766	8,035,320	SpectrumCo LLC	\$558,148	\$564,852
BEA154	C	10	401,766	4,017,660	Spotlight Media Corp	\$201,466	\$203,886
BEA155	B	20	193,872	3,877,440	SpectrumCo LLC	\$244,582	\$247,519
BEA155	C	10	193,872	1,938,720	AWS Wireless Inc.	\$91,979	\$93,084
BEA156	B	20	921,086	18,421,720	SpectrumCo LLC	\$3,024,871	\$3,061,200
BEA156	C	10	921,086	9,210,860	Cavalier Wireless, LLC	\$1,280,135	\$1,295,510
BEA157	B	20	955,602	19,112,040	SpectrumCo LLC	\$2,663,224	\$2,695,210
BEA157	C	10	955,602	9,556,020	AWS Wireless Inc.	\$1,798,826	\$1,820,431
BEA158	B	20	3,407,197	68,143,940	SpectrumCo LLC	\$28,320,272	\$28,660,409
BEA158	C	10	3,407,197	34,071,970	T-Mobile License LLC	\$14,645,642	\$14,821,541
BEA159	B	20	999,882	19,997,640	SpectrumCo LLC	\$4,949,123	\$5,008,564
BEA159	C	10	999,882	9,998,820	Cingular AWS, LLC	\$2,176,151	\$2,202,287
BEA160	B	20	18,003,420	360,068,400	SpectrumCo LLC	\$225,370,628	\$228,077,412
BEA160	C	10	18,003,420	180,034,200	T-Mobile License LLC	\$120,008,135	\$121,449,477
BEA161	B	20	2,813,833	56,276,660	SpectrumCo LLC	\$22,921,704	\$23,197,002
BEA161	C	10	2,813,833	28,138,330	Cricket Licensee (Reauction), Inc.	\$16,291,865	\$16,487,537
BEA162	B	20	1,419,998	28,399,960	SpectrumCo LLC	\$4,868,641	\$4,927,115
BEA162	C	10	1,419,998	14,199,980	Atlantic Wireless, L.P.	\$2,503,828	\$2,533,900
BEA163	B	20	9,111,806	182,236,120	SpectrumCo LLC	\$84,489,423	\$85,504,172
BEA163	C	10	9,111,806	91,118,060	Atlantic Wireless, L.P.	\$24,069,357	\$24,358,439
BEA164	B	20	2,311,567	46,231,340	SpectrumCo LLC	\$9,279,475	\$9,390,925
BEA164	C	10	2,311,567	23,115,670	Atlantic Wireless, L.P.	\$5,184,821	\$5,247,092
BEA165	B	20	336,820	6,736,400	SpectrumCo LLC	\$374,189	\$378,683
BEA165	C	10	336,820	3,368,200	Atlantic Wireless, L.P.	\$199,899	\$202,299
BEA166	B	20	791,776	15,835,520	SpectrumCo LLC	\$798,549	\$808,140
BEA166	C	10	791,776	7,917,760	Cricket Licensee (Reauction), Inc.	\$394,048	\$398,781
BEA167	B	20	2,883,737	57,674,740	SpectrumCo LLC	\$16,598,115	\$16,797,465
BEA167	C	10	2,883,737	28,837,370	Cingular AWS, LLC	\$11,610,319	\$11,749,763
BEA168	B	20	200,681	4,013,620	SpectrumCo LLC	\$236,220	\$239,057
BEA168	C	10	200,681	2,006,810	AWS Wireless Inc.	\$188,140	\$190,399
BEA169	B	20	677,674	13,553,480	SpectrumCo LLC	\$1,115,251	\$1,128,646
BEA169	C	10	677,674	6,776,740	Daredevil Communications LLC	\$322,189	\$326,059
BEA170	B	20	4,135,291	82,705,820	SpectrumCo LLC	\$34,780,786	\$35,198,516
BEA170	C	10	4,135,291	41,352,910	T-Mobile License LLC	\$16,515,543	\$16,713,900
BEA171	B	20	626,932	12,538,640	AWS Wireless Inc.	\$1,890,805	\$1,913,515
BEA171	C	10	626,932	6,269,320	T-Mobile License LLC	\$1,161,241	\$1,175,188
BEA172	B	20	1,211,537	24,230,740	Cellco Partnership d/b/a Verizon Wireless	\$4,446,372	\$4,499,774
BEA172	C	10	1,211,537	12,115,370	SpectrumCo LLC	\$2,550,340	\$2,580,971
BEA173	B	20	224,026	0	FCC		
BEA173	C	10	224,026	0	FCC		
BEA174	B	20	3,917,222	0	FCC		
BEA174	C	10	3,917,222	39,172,220	Triad AWS, Inc.	\$1,976,252	\$1,999,988
BEA175	B	20	57,291	0	FCC		
BEA175	C	10	57,291	0	FCC		
BEA176	B	20	0	0	PetroCom License Corporation	\$41,809	\$42,311
BEA176	C	10	0	0	PetroCom License Corporation	\$31,357	\$31,733
CMA001	A	20	16,134,166	322,683,320	T-Mobile License LLC	\$414,150,146	\$419,124,243

**Spectrum Auction Data
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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA002	A	20	15,620,448	312,408,960	Cingular AWS, LLC	\$187,262,902	\$189,511,999
CMA003	A	20	8,091,720	161,834,400	T-Mobile License LLC	\$266,344,350	\$269,543,244
CMA004	A	20	5,036,646	100,732,920	Cricket Licensee (Reauction), Inc.	\$86,298,701	\$87,335,180
CMA005	A	20	4,775,452	95,509,040	T-Mobile License LLC	\$68,134,844	\$68,953,169
CMA006	A	20	4,279,111	85,582,220	T-Mobile License LLC	\$38,450,558	\$38,912,363
CMA007	A	20	4,123,740	82,474,800	T-Mobile License LLC	\$28,182,303	\$28,520,783
CMA008	A	20	4,182,658	83,653,160	Cricket Licensee (Reauction), Inc.	\$139,171,223	\$140,842,721
CMA009	A	20	5,120,721	102,414,420	Cingular AWS, LLC	\$52,973,908	\$53,610,145
CMA010	A	20	4,393,382	87,867,640	T-Mobile License LLC	\$27,120,358	\$27,446,084
CMA011	A	20	2,518,470	50,369,400	Cricket Licensee (Reauction), Inc.	\$26,223,558	\$26,538,513
CMA012	A	20	3,876,380	77,527,600	T-Mobile License LLC	\$37,244,372	\$37,691,691
CMA013	A	20	2,035,968	40,719,360	AWS Wireless Inc.	\$11,202,682	\$11,337,231
CMA014	A	20	2,512,431	50,248,620	Cricket Licensee (Reauction), Inc.	\$45,631,228	\$46,179,276
CMA015	A	20	2,836,298	56,725,960	Cricket Licensee (Reauction), Inc.	\$30,411,760	\$30,777,017
CMA016	A	20	1,863,479	37,269,580	T-Mobile License LLC	\$7,531,865	\$7,622,326
CMA017	A	20	3,751,674	75,033,480	T-Mobile License LLC	\$31,406,811	\$31,784,019
CMA018	A	20	2,813,833	56,276,660	T-Mobile License LLC	\$19,839,346	\$20,077,624
CMA019	A	20	2,405,327	48,106,540	Cingular AWS, LLC	\$13,540,843	\$13,703,473
CMA020	A	20	2,343,058	46,861,160	Cricket Licensee (Reauction), Inc.	\$29,149,133	\$29,499,225
CMA021	A	20	1,500,741	30,014,820	Barat Wireless, L.P.	\$13,979,574	\$14,147,474
CMA022	A	20	2,265,195	45,303,900	T-Mobile License LLC	\$27,030,469	\$27,355,115
CMA023	A	20	1,553,843	31,076,860	Cincinnati Bell Wireless LLC	\$20,330,600	\$20,574,779
CMA024	A	20	1,627,081	32,541,620	Cricket Licensee (Reauction), Inc.	\$15,404,472	\$15,589,486
CMA025	A	20	1,170,111	23,402,220	American Cellular Corporation	\$1,784,193	\$1,805,622
CMA026	A	20	3,072,149	61,442,980	Cingular AWS, LLC	\$19,272,836	\$19,504,310
CMA027	A	20	1,682,585	33,651,700	T-Mobile License LLC	\$12,581,329	\$12,732,436
CMA028	A	20	1,474,128	29,482,560	AWS Wireless Inc.	\$7,335,363	\$7,423,464
CMA029	A	20	1,198,637	23,972,740	Cricket Licensee (Reauction), Inc.	\$6,288,052	\$6,363,573
CMA030	A	20	1,789,457	35,789,140	Cricket Licensee (Reauction), Inc.	\$13,893,082	\$14,059,943
CMA031	A	20	1,394,666	27,893,320	T-Mobile License LLC	\$7,702,236	\$7,794,743
CMA032	A	20	1,148,618	22,972,360	T-Mobile License LLC	\$8,889,608	\$8,996,375
CMA033	A	20	1,559,975	31,199,500	Atlantic Wireless, L.P.	\$5,345,523	\$5,409,725
CMA034	A	20	1,037,831	20,756,620	American Cellular Corporation	\$5,466,508	\$5,532,162
CMA035	A	20	1,640,558	32,811,160	AWS Wireless Inc.	\$8,071,199	\$8,168,137
CMA036	A	20	1,106,808	22,136,160	Cingular AWS, LLC	\$22,656,218	\$22,928,328
CMA037	A	20	968,313	19,366,260	AWS Wireless Inc.	\$4,978,389	\$5,038,182
CMA038	A	20	962,886	19,257,720	T-Mobile License LLC	\$6,839,929	\$6,922,079
CMA039	A	20	1,374,649	27,492,980	T-Mobile License LLC	\$8,005,350	\$8,101,498
CMA040	A	20	848,153	16,963,060	Cincinnati Bell Wireless LLC	\$4,631,376	\$4,687,000
CMA041	A	20	940,795	18,815,900	Cricket Licensee (Reauction), Inc.	\$7,863,200	\$7,957,640
CMA042	A	20	882,567	17,651,340	T-Mobile License LLC	\$7,287,283	\$7,374,806
CMA043	A	20	1,041,276	20,825,520	Cingular AWS, LLC	\$27,788,255	\$28,122,002
CMA044	A	20	844,001	16,880,020	American Cellular Corporation	\$3,758,616	\$3,803,758
CMA045	A	20	1,049,422	20,988,440	Cingular AWS, LLC	\$15,083,589	\$15,264,749
CMA046	A	20	1,231,311	24,626,220	Cellular South Licenses, Inc.	\$8,932,462	\$9,039,744
CMA047	A	20	1,085,874	21,717,480	Cingular AWS, LLC	\$9,524,057	\$9,638,444
CMA048	A	20	805,133	16,102,660	Cingular AWS, LLC	\$1,397,461	\$1,414,245
CMA049	A	20	824,008	16,480,160	T-Mobile License LLC	\$4,319,900	\$4,371,783
CMA050	A	20	876,156	17,523,120	Cingular AWS, LLC	\$3,745,028	\$3,790,007
CMA051	A	20	1,122,750	22,455,000	Cingular AWS, LLC	\$9,459,253	\$9,572,862
CMA052	A	20	694,960	13,899,200	T-Mobile License LLC	\$1,175,874	\$1,189,997
CMA053	A	20	650,154	13,003,080	Cricket Licensee (Reauction), Inc.	\$2,786,560	\$2,820,028
CMA054	A	20	631,362	12,627,240	T-Mobile License LLC	\$659,535	\$667,456
CMA055	A	20	750,963	15,019,260	T-Mobile License LLC	\$1,782,102	\$1,803,506
CMA056	A	20	671,232	13,424,640	AWS Wireless Inc.	\$1,824,956	\$1,846,875
CMA057	A	20	841,604	16,832,080	Barat Wireless, L.P.	\$2,432,491	\$2,461,707
CMA058	A	20	740,395	14,807,900	T-Mobile License LLC	\$7,983,401	\$8,079,284
CMA059	A	20	865,941	17,318,820	Cricket Licensee (Reauction), Inc.	\$6,102,002	\$6,175,290
CMA060	A	20	1,434,033	28,680,660	T-Mobile License LLC	\$14,632,054	\$14,807,790

**Spectrum Auction Data
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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
CMA061	A	20	1,009,496	20,189,920	Cingular AWS, LLC	\$9,606,629	\$9,722,009
CMA062	A	20	750,162	15,003,240	T-Mobile License LLC	\$7,621,754	\$7,713,294
CMA063	A	20	608,479	12,169,580	AWS Wireless Inc.	\$1,985,921	\$2,009,772
CMA064	A	20	812,649	16,252,980	Centennial Michiana License Company LLC	\$7,668,789	\$7,760,894
CMA065	A	20	673,884	13,477,680	Barat Wireless, L.P.	\$1,613,299	\$1,632,675
CMA066	A	20	482,671	9,653,420	American Cellular Corporation	\$569,646	\$576,487
CMA067	A	20	744,164	14,883,280	Cavalier Wireless, LLC	\$2,315,688	\$2,343,500
CMA068	A	20	507,828	10,156,560	T-Mobile License LLC	\$943,835	\$955,171
CMA069	A	20	650,501	13,010,020	Cricket Licensee (Reauction), Inc.	\$3,954,072	\$4,001,562
CMA070	A	20	615,301	12,306,020	T-Mobile License LLC	\$5,706,909	\$5,775,451
CMA071	A	20	969,387	19,387,740	Cingular AWS, LLC	\$7,770,176	\$7,863,498
CMA072	A	20	1,131,184	22,623,680	T-Mobile License LLC	\$6,317,318	\$6,393,191
CMA073	A	20	753,197	15,063,940	T-Mobile License LLC	\$4,113,991	\$4,163,402
CMA074	A	20	799,407	15,988,140	Cingular AWS, LLC	\$4,329,307	\$4,381,303
CMA075	A	20	1,159,836	23,196,720	T-Mobile License LLC	\$7,668,789	\$7,760,894
CMA076	A	20	534,678	10,693,560	T-Mobile License LLC	\$768,238	\$777,465
CMA077	A	20	843,746	16,874,920	T-Mobile License LLC	\$2,315,165	\$2,342,971
CMA078	A	20	509,246	10,184,920	Centennial Michiana License Company LLC	\$1,878,263	\$1,900,821
CMA079	A	20	576,993	11,539,860	AWS Wireless Inc.	\$2,559,747	\$2,590,491
CMA080	A	20	602,894	12,057,880	Cricket Licensee (Reauction), Inc.	\$2,549,295	\$2,579,913
CMA081	A	20	679,622	13,592,440	T-Mobile License LLC	\$1,211,412	\$1,225,961
CMA082	A	20	700,820	14,016,400	Cricket Licensee (Reauction), Inc.	\$1,146,608	\$1,160,379
CMA083	A	20	540,258	10,805,160	Cricket Licensee (Reauction), Inc.	\$7,124,229	\$7,209,793
CMA084	A	20	509,074	10,181,480	T-Mobile License LLC	\$1,257,401	\$1,272,503
CMA085	A	20	480,091	9,601,820	Carolina West Wireless, Inc.	\$1,703,711	\$1,724,173
CMA086	A	20	646,586	12,931,720	T-Mobile License LLC	\$1,283,532	\$1,298,948
CMA087	A	20	406,934	8,138,680	T-Mobile License LLC	\$479,757	\$485,519
CMA088	A	20	476,531	9,530,620	AWS Wireless Inc.	\$1,259,492	\$1,274,619
CMA089	A	20	512,351	10,247,020	Cingular AWS, LLC	\$3,118,941	\$3,156,400
CMA090	A	20	549,033	10,980,660	Palmetto Rural Telephone Cooperative, Inc.	\$2,670,645	\$2,702,721
CMA091	A	20	2,176,135	43,522,700	Cavalier Wireless, LLC	\$2,093,840	\$2,118,987
CMA092	A	20	583,845	11,676,900	Cricket Licensee (Reauction), Inc.	\$2,422,823	\$2,451,922
CMA093	A	20	1,375,765	27,515,300	Cricket Licensee (Reauction), Inc.	\$8,869,748	\$8,976,277
CMA094	A	20	403,070	8,061,400	Cingular AWS, LLC	\$1,541,701	\$1,560,218
CMA095	A	20	536,691	10,733,820	Cricket Licensee (Reauction), Inc.	\$4,333,488	\$4,385,535
CMA096	A	20	464,066	9,281,320	Cavalier Wireless, LLC	\$603,615	\$610,865
CMA097	A	20	661,645	13,232,900	T-Mobile License LLC	\$1,842,725	\$1,864,857
CMA098	A	20	359,062	7,181,240	Iowa Telecommunications Services, Inc.	\$423,315	\$428,399
CMA099	A	20	473,043	9,460,860	T-Mobile License LLC	\$494,390	\$500,328
CMA100	A	20	392,302	7,846,040	Cellco Partnership d/b/a Verizon Wireless	\$1,357,743	\$1,374,050
CMA101	A	20	385,090	7,701,800	Command Connect, LLC	\$480,645	\$486,418
CMA102	A	20	456,022	9,120,440	Barat Wireless, L.P.	\$2,361,155	\$2,389,513
CMA103	A	20	347,387	6,947,740	Cincinnati Bell Wireless LLC	\$362,692	\$367,048
CMA104	A	20	489,330	9,786,600	Cingular AWS, LLC	\$6,152,173	\$6,226,063
CMA105	A	20	470,658	9,413,160	T-Mobile License LLC	\$2,624,551	\$2,656,073
CMA106	A	20	440,801	8,816,020	Cingular AWS, LLC	\$3,163,885	\$3,201,884
CMA107	A	20	563,598	11,271,960	AWS Wireless Inc.	\$2,283,809	\$2,311,238
CMA108	A	20	452,846	9,056,920	T-Mobile License LLC	\$473,485	\$479,172
CMA109	A	20	417,939	8,358,780	Cavalier Wireless, LLC	\$1,147,653	\$1,161,437
CMA110	A	20	315,538	6,310,760	American Cellular Corporation	\$1,391,190	\$1,407,898
CMA111	A	20	518,821	10,376,420	T-Mobile License LLC	\$3,464,909	\$3,506,524
CMA112	A	20	380,783	7,615,660	Cavalier Wireless, LLC	\$420,179	\$425,225
CMA113	A	20	426,526	8,530,520	Barat Wireless, L.P.	\$663,193	\$671,158
CMA114	A	20	483,924	9,678,480	T-Mobile License LLC	\$2,594,239	\$2,625,397
CMA115	A	20	299,896	5,997,920	American Cellular Corporation	\$885,302	\$895,935
CMA116	A	20	408,326	8,166,520	American Cellular Corporation	\$4,237,327	\$4,288,219
CMA117	A	20	537,484	10,749,680	T-Mobile License LLC	\$589,505	\$596,585
CMA118	A	20	373,638	7,472,760	T-Mobile License LLC	\$2,290,080	\$2,317,585
CMA119	A	20	328,695	6,573,900	AWS Wireless Inc.	\$360,601	\$364,932

**Spectrum Auction Data
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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA120	A	20	424,607	8,492,140	Cricket Licensee (Reauction), Inc.	\$2,668,450	\$2,700,499
CMA121	A	20	350,761	7,015,220	T-Mobile License LLC	\$7,034,340	\$7,118,825
CMA122	A	20	294,558	5,891,160	American Cellular Corporation	\$678,349	\$686,496
CMA123	A	20	458,614	9,172,280	AWS Wireless Inc.	\$1,163,331	\$1,177,303
CMA124	A	20	399,347	7,986,940	T-Mobile License LLC	\$2,115,528	\$2,140,936
CMA125	A	20	358,365	7,167,300	NSIGHTTEL WIRELESS, LLC	\$891,574	\$902,282
CMA126	A	20	401,762	8,035,240	AWS Wireless Inc.	\$1,018,046	\$1,030,273
CMA127	A	20	412,153	8,243,060	Cellular South Licenses, Inc.	\$2,585,878	\$2,616,935
CMA128	A	20	569,463	11,389,260	T-Mobile License LLC	\$757,785	\$766,887
CMA129	A	20	310,687	0	FCC		\$0
CMA130	A	20	280,843	5,616,860	American Cellular Corporation	\$324,019	\$327,910
CMA131	A	20	320,204	6,404,080	T-Mobile License LLC	\$334,471	\$338,488
CMA132	A	20	314,866	6,297,320	Cingular AWS, LLC	\$478,711	\$484,461
CMA133	A	20	380,841	7,616,820	T-Mobile License LLC	\$1,757,017	\$1,778,120
CMA134	A	20	354,878	7,097,560	Cricket Licensee (Reauction), Inc.	\$1,629,500	\$1,649,071
CMA135	A	20	322,959	6,459,180	T-Mobile License LLC	\$430,631	\$435,803
CMA136	A	20	284,664	5,693,280	T-Mobile License LLC	\$364,782	\$369,163
CMA137	A	20	476,230	9,524,600	T-Mobile License LLC	\$2,777,153	\$2,810,508
CMA138	A	20	322,549	6,450,980	Public Service Wireless Services, Inc.	\$380,461	\$385,030
CMA139	A	20	333,055	6,661,100	Cellular South Licenses, Inc.	\$1,102,709	\$1,115,952
CMA140	A	20	251,662	5,033,240	American Cellular Corporation	\$757,785	\$766,887
CMA141	A	20	243,815	4,876,300	Chequamegon Communications Cooperative, Inc.	\$1,042,138	\$1,054,654
CMA142	A	20	446,997	8,939,940	Cricket Licensee (Reauction), Inc.	\$2,738,480	\$2,771,370
CMA143	A	20	232,621	4,652,420	AWS Wireless Inc.	\$452,581	\$458,017
CMA144	A	20	341,367	6,827,340	American Cellular Corporation	\$1,451,812	\$1,469,249
CMA145	A	20	332,807	6,656,140	Cincinnati Bell Wireless LLC	\$1,578,284	\$1,597,240
CMA146	A	20	443,343	8,866,860	T-Mobile License LLC	\$2,423,868	\$2,452,980
CMA147	A	20	264,919	5,298,380	Cavalier Wireless, LLC	\$207,738	\$210,233
CMA148	A	20	347,214	6,944,280	Stayton Cooperative Telephone Company	\$306,511	\$310,192
CMA149	A	20	302,963	6,059,260	T-Mobile License LLC	\$316,702	\$320,506
CMA150	A	20	368,021	7,360,420	Cricket Licensee (Reauction), Inc.	\$1,251,130	\$1,266,156
CMA151	A	20	280,150	5,603,000	American Cellular Corporation	\$1,778,967	\$1,800,333
CMA152	A	20	300,826	6,016,520	AWS Wireless Inc.	\$2,444,773	\$2,474,135
CMA153	A	20	250,929	5,018,580	Public Service Wireless Services, Inc.	\$695,072	\$703,420
CMA154	A	20	259,088	5,181,760	AWS Wireless Inc.	\$584,279	\$591,296
CMA155	A	20	293,000	5,860,000	Cricket Licensee (Reauction), Inc.	\$1,053,583	\$1,066,237
CMA156	A	20	298,975	5,979,500	AWS Wireless Inc.	\$713,886	\$722,460
CMA157	A	20	241,023	4,820,460	NTELOS Inc.	\$618,771	\$626,203
CMA158	A	20	219,469	4,389,380	Triad AWS, Inc.	\$193,627	\$195,953
CMA159	A	20	368,536	7,370,720	T-Mobile License LLC	\$618,771	\$626,203
CMA160	A	20	312,952	6,259,040	AWS Wireless Inc.	\$493,344	\$499,270
CMA161	A	20	242,628	4,852,560	Daredevil Communications LLC	\$281,426	\$284,806
CMA162	A	20	335,227	6,704,540	T-Mobile License LLC	\$446,310	\$451,670
CMA163	A	20	294,676	5,893,520	Fidelity Communications Company	\$423,785	\$428,875
CMA164	A	20	440,888	8,817,760	T-Mobile License LLC	\$1,846,906	\$1,869,088
CMA165	A	20	255,399	5,107,980	CROSS TELEPHONE COMPANY	\$278,081	\$281,421
CMA166	A	20	264,436	5,288,720	Carolina West Wireless, Inc.	\$659,535	\$667,456
CMA167	A	20	325,957	6,519,140	T-Mobile License LLC	\$1,567,832	\$1,586,662
CMA168	A	20	307,402	6,148,040	T-Mobile License LLC	\$997,141	\$1,009,117
CMA169	A	20	227,412	4,548,240	Cavalier Wireless, LLC	\$177,949	\$180,086
CMA170	A	20	250,158	5,003,160	T-Mobile License LLC	\$344,923	\$349,066
CMA171	A	20	339,486	6,789,720	Cricket Licensee (Reauction), Inc.	\$767,192	\$776,407
CMA172	A	20	250,291	5,005,820	Barat Wireless, L.P.	\$206,170	\$208,646
CMA173	A	20	246,190	4,923,800	Cable One, Inc.	\$3,052,046	\$3,088,703
CMA174	A	20	239,086	4,781,720	Cricket Licensee (Reauction), Inc.	\$296,843	\$300,408
CMA175	A	20	255,602	5,112,040	AWS Wireless Inc.	\$636,540	\$644,185
CMA176	A	20	201,437	4,028,740	T-Mobile License LLC	\$237,265	\$240,115
CMA177	A	20	194,740	3,894,800	Cingular AWS, LLC	\$314,612	\$318,390
CMA178	A	20	153,172	3,063,440	American Cellular Corporation	\$159,919	\$161,840

**Spectrum Auction Data
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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA179	A	20	205,009	4,100,180	Barat Wireless, L.P.	\$363,737	\$368,106
CMA180	A	20	183,632	3,672,640	Cincinnati Bell Wireless LLC	\$402,410	\$407,243
CMA181	A	20	197,073	3,941,460	American Cellular Corporation	\$896,800	\$907,571
CMA182	A	20	311,121	6,222,420	CROSS TELEPHONE COMPANY	\$493,083	\$499,005
CMA183	A	20	225,965	4,519,300	Carolina West Wireless, Inc.	\$829,906	\$839,873
CMA184	A	20	194,477	3,889,540	Cricket Licensee (Reauction), Inc.	\$202,773	\$205,208
CMA185	A	20	170,943	3,418,860	AWS Wireless Inc.	\$188,140	\$190,399
CMA186	A	20	226,778	4,535,560	T-Mobile License LLC	\$715,977	\$724,576
CMA187	A	20	260,283	5,205,660	MTA Communications, Inc.	\$563,374	\$570,141
CMA188	A	20	217,858	4,357,160	Daredevil Communications LLC	\$256,341	\$259,419
CMA189	A	20	188,831	3,776,620	T-Mobile License LLC	\$197,547	\$199,919
CMA190	A	20	300,904	6,018,080	Cable One, Inc.	\$1,176,919	\$1,191,054
CMA191	A	20	222,581	4,451,620	Red Rock Spectrum Holdings, LLC	\$319,838	\$323,679
CMA192	A	20	244,043	4,880,860	T-Mobile License LLC	\$1,013,865	\$1,026,042
CMA193	A	20	162,453	3,249,060	T-Mobile License LLC	\$169,326	\$171,360
CMA194	A	20	213,517	4,270,340	AWS Wireless Inc.	\$799,594	\$809,198
CMA195	A	20	191,701	3,834,020	Iowa Telecommunications Services, Inc.	\$1,916,936	\$1,939,959
CMA196	A	20	179,669	3,593,380	T-Mobile License LLC	\$212,180	\$214,728
CMA197	A	20	183,577	3,671,540	Cricket Licensee (Reauction), Inc.	\$2,003,689	\$2,027,754
CMA198	A	20	231,809	4,636,180	Cricket Licensee (Reauction), Inc.	\$412,862	\$417,821
CMA199	A	20	132,008	2,640,160	American Cellular Corporation	\$137,969	\$139,626
CMA200	A	20	157,110	3,142,200	American Cellular Corporation	\$164,100	\$166,071
CMA201	A	20	151,337	3,026,740	Iowa Telecommunications Services, Inc.	\$316,702	\$320,506
CMA202	A	20	199,750	3,995,000	Cavalier Wireless, LLC	\$156,783	\$158,666
CMA203	A	20	161,946	3,238,920	NTELOS Inc.	\$169,326	\$171,360
CMA204	A	20	190,868	3,817,360	Cavalier Wireless, LLC	\$149,728	\$151,526
CMA205	A	20	145,035	2,900,700	Command Connect, LLC	\$128,824	\$130,371
CMA206	A	20	173,489	3,469,780	AWS Wireless Inc.	\$791,233	\$800,736
CMA207	A	20	158,422	0	FCC		
CMA208	A	20	319,426	6,388,520	T-Mobile License LLC	\$1,960,835	\$1,984,386
CMA209	A	20	207,033	4,140,660	AWS Wireless Inc.	\$216,361	\$218,959
CMA210	A	20	251,494	5,029,880	T-Mobile License LLC	\$262,351	\$265,501
CMA211	A	20	264,002	5,280,040	T-Mobile License LLC	\$1,170,648	\$1,184,708
CMA212	A	20	231,969	4,639,380	Cricket Licensee (Reauction), Inc.	\$255,034	\$258,097
CMA213	A	20	134,953	2,699,060	AWS Wireless Inc.	\$141,105	\$142,800
CMA214	A	20	191,822	3,836,440	Red Rock Spectrum Holdings, LLC	\$200,682	\$203,093
CMA215	A	20	203,171	4,063,420	AWS Wireless Inc.	\$212,180	\$214,728
CMA216	A	20	152,307	3,046,140	T-Mobile License LLC	\$158,874	\$160,782
CMA217	A	20	133,358	2,667,160	Hancock Rural Telephone Corporation	\$493,083	\$499,005
CMA218	A	20	233,450	4,669,000	Atlantic Seawinds Communications, LLC	\$1,543,792	\$1,562,333
CMA219	A	20	147,250	2,945,000	Cellco Partnership d/b/a Verizon Wireless	\$251,898	\$254,924
CMA220	A	20	160,245	3,204,900	Central Texas Telephone Investments, LP	\$285,345	\$288,773
CMA221	A	20	174,367	3,487,340	Cable One, Inc.	\$557,103	\$563,794
CMA222	A	20	164,875	3,297,500	Cricket Licensee (Reauction), Inc.	\$942,790	\$954,113
CMA223	A	20	182,791	3,655,820	Ligtel Communications, Inc.	\$183,018	\$185,216
CMA224	A	20	144,919	2,898,380	Barat Wireless, L.P.	\$119,155	\$120,586
CMA225	A	20	129,144	2,582,880	AWS Wireless Inc.	\$275,938	\$279,253
CMA226	A	20	142,950	2,859,000	Cricket Licensee (Reauction), Inc.	\$397,184	\$401,954
CMA227	A	20	165,740	3,314,800	West Carolina Piedmont Bidding Consortium	\$362,483	\$366,836
CMA228	A	20	146,438	2,928,760	AWS Wireless Inc.	\$152,602	\$154,435
CMA229	A	20	181,269	3,625,380	18th Street Spectrum, LLC	\$160,807	\$162,739
CMA230	A	20	114,706	2,294,120	Daredevil Communications LLC	\$90,150	\$91,233
CMA231	A	20	128,852	2,577,040	Triad AWS, Inc.	\$153,648	\$155,493
CMA232	A	20	148,337	2,966,740	American Cellular Corporation	\$1,246,949	\$1,261,925
CMA233	A	20	142,670	2,853,400	AWS Wireless Inc.	\$174,552	\$176,648
CMA234	A	20	195,033	3,900,660	T-Mobile License LLC	\$1,163,331	\$1,177,303
CMA235	A	20	130,571	2,611,420	Cricket Licensee (Reauction), Inc.	\$465,124	\$470,710
CMA236	A	20	118,769	2,375,380	AWS Wireless Inc.	\$380,461	\$385,030
CMA237	A	20	174,706	3,494,120	AWS Wireless Inc.	\$761,966	\$771,118

**Spectrum Auction Data
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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
CMA238	A	20	120,293	2,405,860	American Cellular Corporation	\$615,635	\$623,029
CMA239	A	20	157,322	3,146,440	Cable One, Inc.	\$724,338	\$733,038
CMA240	A	20	143,377	2,867,540	Cable One, Inc.	\$754,650	\$763,713
CMA241	A	20	141,472	2,829,440	Red Rock Spectrum Holdings, LLC	\$235,175	\$237,999
CMA242	A	20	207,355	4,147,100	Cricket Licensee (Reauction), Inc.	\$343,878	\$348,008
CMA243	A	20	180,936	3,618,720	T-Mobile License LLC	\$189,185	\$191,457
CMA244	A	20	149,577	2,991,540	T-Mobile License LLC	\$156,783	\$158,666
CMA245	A	20	258,916	5,178,320	AWS Wireless Inc.	\$540,379	\$546,870
CMA246	A	20	137,916	2,758,320	Cellular South Licenses, Inc.	\$659,535	\$667,456
CMA247	A	20	148,955	2,979,100	AWS Wireless Inc.	\$163,055	\$165,013
CMA248	A	20	153,472	3,069,440	Vermont Telephone Company, Inc.	\$819,140	\$828,978
CMA249	A	20	112,249	2,244,980	Cable One, Inc.	\$498,571	\$504,559
CMA250	A	20	150,433	3,008,660	T-Mobile License LLC	\$156,783	\$158,666
CMA251	A	20	120,044	2,400,880	American Cellular Corporation	\$452,581	\$458,017
CMA252	A	20	131,420	2,628,400	Cable One, Inc.	\$626,088	\$633,607
CMA253	A	20	124,130	2,482,600	Cable One, Inc.	\$1,381,783	\$1,398,378
CMA254	A	20	163,256	3,265,120	AWS Wireless Inc.	\$170,371	\$172,417
CMA255	A	20	121,123	2,422,460	Cable One, Inc.	\$546,651	\$553,216
CMA256	A	20	159,576	3,191,520	NTELOS Inc.	\$912,478	\$923,437
CMA257	A	20	131,923	2,638,460	American Cellular Corporation	\$480,802	\$486,576
CMA258	A	20	150,355	0	FCC		
CMA259	A	20	135,758	2,715,160	T-Mobile License LLC	\$744,198	\$753,136
CMA260	A	20	114,996	2,299,920	American Cellular Corporation	\$196,502	\$198,862
CMA261	A	20	120,822	2,416,440	Public Service Wireless Services, Inc.	\$143,195	\$144,915
CMA262	A	20	110,156	2,203,120	AWS Wireless Inc.	\$114,974	\$116,355
CMA263	A	20	125,834	2,516,680	American Cellular Corporation	\$821,544	\$831,411
CMA264	A	20	125,761	2,515,220	FTC Management Group, Inc.	\$746,288	\$755,251
CMA265	A	20	170,498	3,409,960	Cellular South Licenses, Inc.	\$389,868	\$394,550
CMA266	A	20	124,345	2,486,900	American Cellular Corporation	\$173,507	\$175,591
CMA267	A	20	148,281	2,965,620	KTC AWS Limited Partnership	\$445,264	\$450,612
CMA268	A	20	129,352	2,587,040	Blackfoot Telephone Cooperative, Inc.	\$165,249	\$167,234
CMA269	A	20	102,008	2,040,160	American Cellular Corporation	\$461,988	\$467,536
CMA270	A	20	166,814	3,336,280	T-Mobile License LLC	\$174,552	\$176,648
CMA271	A	20	101,541	2,030,820	AWS Wireless Inc.	\$111,839	\$113,182
CMA272	A	20	103,459	2,069,180	Cavalier Wireless, LLC	\$80,743	\$81,713
CMA273	A	20	103,833	2,076,660	T-Mobile License LLC	\$108,703	\$110,009
CMA274	A	20	139,149	2,782,980	AWS Wireless Inc.	\$152,602	\$154,435
CMA275	A	20	102,490	2,049,800	T-Mobile License LLC	\$130,653	\$132,222
CMA276	A	20	97,478	1,949,560	Paul Bunyan Rural Telephone Cooperative	\$125,427	\$126,933
CMA277	A	20	112,646	2,252,920	NSIGHTTEL WIRELESS, LLC	\$907,252	\$918,149
CMA278	A	20	135,454	2,709,080	Fidelity Communications Company	\$299,404	\$303,000
CMA279	A	20	103,793	2,075,860	Barat Wireless, L.P.	\$81,527	\$82,506
CMA280	A	20	130,800	2,616,000	AWS Wireless Inc.	\$144,241	\$145,973
CMA281	A	20	193,117	3,862,340	Cricket Licensee (Reauction), Inc.	\$856,036	\$866,318
CMA282	A	20	120,563	2,411,260	AWS Wireless Inc.	\$568,600	\$575,430
CMA283	A	20	148,217	2,964,340	T-Mobile License LLC	\$182,914	\$185,111
CMA284	A	20	91,070	1,821,400	American Cellular Corporation	\$105,567	\$106,835
CMA285	A	20	174,682	3,493,640	T-Mobile License LLC	\$703,434	\$711,882
CMA286	A	20	89,143	1,782,860	Iowa Telecommunications Services, Inc.	\$364,782	\$369,163
CMA287	A	20	152,415	3,048,300	T-Mobile License LLC	\$436,903	\$442,150
CMA288	A	20	124,277	2,485,540	T-Mobile License LLC	\$129,607	\$131,164
CMA289	A	20	112,818	2,256,360	KTC AWS Limited Partnership	\$122,291	\$123,760
CMA290	A	20	107,120	2,142,400	NEIT Wireless, LLC	\$494,651	\$500,592
CMA291	A	20	84,278	1,685,560	Cricket Licensee (Reauction), Inc.	\$87,799	\$88,853
CMA292	A	20	110,595	2,211,900	Cable One, Inc.	\$606,228	\$613,509
CMA293	A	20	91,545	1,830,900	AWS Wireless Inc.	\$96,160	\$97,315
CMA294	A	20	104,010	2,080,200	Alenco Communications, Inc.	\$342,571	\$346,686
CMA295	A	20	116,009	2,320,180	Red Rock Spectrum Holdings, LLC	\$152,602	\$154,435
CMA296	A	20	111,006	2,220,120	Iowa Telecommunications Services, Inc.	\$2,261,859	\$2,289,025

**Spectrum Auction Data
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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
CMA297	A	20	80,357	1,607,140	3 Rivers Telephone Cooperative, Inc.	\$244,582	\$247,519
CMA298	A	20	94,719	1,894,380	BEK COMMUNICATIONS COOPERATIVE	\$172,462	\$174,533
CMA299	A	20	66,533	1,330,660	Union Telephone Company	\$163,055	\$165,013
CMA300	A	20	84,088	1,681,760	La Ward Cellular Telephone Company, Inc.	\$214,009	\$216,579
CMA301	A	20	99,962	1,999,240	Red Rock Spectrum Holdings, LLC	\$118,110	\$119,529
CMA302	A	20	57,813	1,156,260	American Cellular Corporation	\$122,291	\$123,760
CMA303	A	20	54,544	1,090,880	T-Mobile License LLC	\$57,487	\$58,178
CMA304	A	20	37,535	750,700	T-Mobile License LLC	\$39,718	\$40,195
CMA305	A	20	21,668	433,360	Cricket Licensee (Reauction), Inc.	\$133,788	\$135,395
CMA306	A	20		0	Cricket Licensee (Reauction), Inc.	\$41,809	\$42,311
CMA307	A	20	361,654	7,233,080	Cricket Licensee (Reauction), Inc.	\$262,351	\$265,501
CMA308	A	20	142,366	2,847,320	Farmers Telecommunications Cooperative, Inc.	\$75,517	\$76,424
CMA309	A	20	135,766	2,715,320	Cricket Licensee (Reauction), Inc.	\$130,653	\$132,222
CMA310	A	20	145,301	2,906,020	Cricket Licensee (Reauction), Inc.	\$187,095	\$189,342
CMA311	A	20	221,338	4,426,760	AWS Wireless Inc.	\$667,896	\$675,918
CMA312	A	20	122,817	2,456,340	AWS Wireless Inc.	\$81,527	\$82,506
CMA313	A	20	171,679	3,433,580	CenturyTel Broadband Wireless LLC	\$121,246	\$122,702
CMA314	A	20	196,259	3,925,180	Public Service Wireless Services, Inc.	\$1,698,485	\$1,718,884
CMA315	A	20	128,275	2,565,500	Space Data Spectrum Holdings, LLC	\$574,610	\$581,512
CMA316	A	20	165,292	3,305,840	MTA Communications, Inc.	\$548,741	\$555,332
CMA317	A	20	73,082	1,461,640	City of Ketchikan dba Ketchikan Public Utilities	\$164,100	\$166,071
CMA318	A	20	155,032	3,100,640	Cricket Licensee (Reauction), Inc.	\$599,957	\$607,163
CMA319	A	20	283,837	5,676,740	Cable One, Inc.	\$733,745	\$742,558
CMA320	A	20	166,893	3,337,860	Cable One, Inc.	\$437,948	\$443,208
CMA321	A	20	179,741	3,594,820	Red Rock Spectrum Holdings, LLC	\$124,381	\$125,875
CMA322	A	20	231,062	4,621,240	Red Rock Spectrum Holdings, LLC	\$213,225	\$215,786
CMA323	A	20	198,172	3,963,440	Cable One, Inc.	\$741,062	\$749,962
CMA324	A	20	82,156	0	FCC		
CMA325	A	20	99,177	1,983,540	CenturyTel Broadband Wireless LLC	\$62,713	\$63,466
CMA326	A	20	105,739	2,114,780	Cricket Licensee (Reauction), Inc.	\$77,346	\$78,275
CMA327	A	20	214,681	4,293,620	Cricket Licensee (Reauction), Inc.	\$159,919	\$161,840
CMA328	A	20	118,883	2,377,660	AWS Wireless Inc.	\$78,392	\$79,333
CMA329	A	20	109,491	2,189,820	CenturyTel Broadband Wireless LLC	\$68,985	\$69,813
CMA330	A	20	122,345	2,446,900	Cricket Licensee (Reauction), Inc.	\$80,482	\$81,449
CMA331	A	20	74,034	0	FCC		
CMA332	A	20	70,834	1,416,680	Pine Cellular Phones, Inc.	\$96,160	\$97,315
CMA333	A	20	167,641	3,352,820	Cricket Licensee (Reauction), Inc.	\$105,567	\$106,835
CMA334	A	20	67,704	1,354,080	Cellco Partnership d/b/a Verizon Wireless	\$42,854	\$43,369
CMA335	A	20	188,216	0	FCC		
CMA336	A	20	211,348	4,226,960	AWS Wireless Inc.	\$132,743	\$134,337
CMA337	A	20	64,101	1,282,020	AWS Wireless Inc.	\$39,718	\$40,195
CMA338	A	20	148,493	2,969,860	Volcano Internet Provider	\$109,748	\$111,066
CMA339	A	20	386,897	7,737,940	Cricket Licensee (Reauction), Inc.	\$474,530	\$480,230
CMA340	A	20	246,681	4,933,620	AWS Wireless Inc.	\$192,321	\$194,631
CMA341	A	20	30,798	615,960	Daredevil Communications LLC	\$14,110	\$14,280
CMA342	A	20	142,361	2,847,220	Daredevil Communications LLC	\$66,633	\$67,433
CMA343	A	20	101,296	2,025,920	AWS Wireless Inc.	\$63,759	\$64,524
CMA344	A	20	144,574	2,891,480	AWS Wireless Inc.	\$133,788	\$135,395
CMA345	A	20	95,588	1,911,760	AWS Wireless Inc.	\$62,713	\$63,466
CMA346	A	20	156,299	3,125,980	AWS Wireless Inc.	\$98,251	\$99,431
CMA347	A	20	129,461	2,589,220	Cricket Licensee (Reauction), Inc.	\$159,919	\$161,840
CMA348	A	20	52,879	1,057,580	Union Telephone Company	\$134,834	\$136,453
CMA349	A	20	69,669	1,393,380	Red Rock Spectrum Holdings, LLC	\$95,115	\$96,258
CMA350	A	20	324,669	6,493,380	Red Rock Spectrum Holdings, LLC	\$1,046,267	\$1,058,833
CMA351	A	20	88,225	1,764,500	Red Rock Spectrum Holdings, LLC	\$169,326	\$171,360
CMA352	A	20	36,201	724,020	Red Rock Spectrum Holdings, LLC	\$52,261	\$52,889
CMA353	A	20	81,299	1,625,980	Red Rock Spectrum Holdings, LLC	\$148,421	\$150,204
CMA354	A	20	52,425	1,048,500	Red Rock Spectrum Holdings, LLC	\$172,462	\$174,533
CMA355	A	20	47,932	958,640	Red Rock Spectrum Holdings, LLC	\$45,990	\$46,542

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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
CMA356	A	20	31,249	624,980	Red Rock Spectrum Holdings, LLC	\$24,040	\$24,329
CMA357	A	20	182,193	3,643,860	AWS Wireless Inc.	\$113,929	\$115,297
CMA358	A	20	109,091	2,181,820	AWS Wireless Inc.	\$67,939	\$68,755
CMA359	A	20	283,335	5,666,700	Cricket Licensee (Reauction), Inc.	\$555,013	\$561,678
CMA360	A	20	287,587	5,751,740	AWS Wireless Inc.	\$260,260	\$263,386
CMA361	A	20	246,799	4,935,980	AWS Wireless Inc.	\$261,305	\$264,444
CMA362	A	20	200,774	4,015,480	AWS Wireless Inc.	\$211,135	\$213,671
CMA363	A	20	512,760	10,255,200	AWS Wireless Inc.	\$710,751	\$719,287
CMA364	A	20	120,255	2,405,100	AWS Wireless Inc.	\$89,889	\$90,969
CMA365	A	20	62,714	1,254,280	Cavalier Wireless, LLC	\$29,789	\$30,147
CMA366	A	20	118,126	2,362,520	Cavalier Wireless, LLC	\$55,658	\$56,327
CMA367	A	20	57,913	1,158,260	Cavalier Wireless, LLC	\$27,437	\$27,767
CMA368	A	20	44,427	888,540	Cavalier Wireless, LLC	\$21,166	\$21,420
CMA369	A	20	126,893	2,537,860	Cellular South Licenses, Inc.	\$211,135	\$213,671
CMA370	A	20	79,589	1,591,780	AWS Wireless Inc.	\$50,171	\$50,773
CMA371	A	20	256,980	5,139,600	AWS Wireless Inc.	\$1,009,684	\$1,021,811
CMA372	A	20	353,474	7,069,480	AWS Wireless Inc.	\$221,587	\$224,248
CMA373	A	20	230,181	4,603,620	AWS Wireless Inc.	\$159,919	\$161,840
CMA374	A	20	137,356	2,747,120	AWS Wireless Inc.	\$85,708	\$86,738
CMA375	A	20	271,964	5,439,280	Public Service Wireless Services, Inc.	\$1,530,204	\$1,548,582
CMA376	A	20	211,408	4,228,160	Public Service Wireless Services, Inc.	\$1,203,050	\$1,217,499
CMA377	A	20	139,606	0	FCC		
CMA378	A	20	166,601	3,332,020	Cricket Licensee (Reauction), Inc.	\$104,522	\$105,777
CMA379	A	20	124,063	2,481,260	Public Service Wireless Services, Inc.	\$77,346	\$78,275
CMA380	A	20	162,261	3,245,220	Daredevil Communications LLC	\$84,663	\$85,680
CMA381	A	20	162,419	3,248,380	Daredevil Communications LLC	\$84,663	\$85,680
CMA382	A	20	220,558	4,411,160	Cricket Licensee (Reauction), Inc.	\$470,350	\$475,999
CMA383	A	20	157,068	3,141,360	Cavalier Wireless, LLC	\$73,688	\$74,573
CMA384	A	20	268,480	5,369,600	Daredevil Communications LLC	\$140,321	\$142,006
CMA385	A	20	58,463	1,169,260	Cavalier Wireless, LLC	\$27,437	\$27,767
CMA386	A	20	128,241	2,564,820	Cavalier Wireless, LLC	\$60,362	\$61,086
CMA387	A	20	148,677	2,973,540	Cavalier Wireless, LLC	\$69,769	\$70,606
CMA388	A	20	263,355	5,267,100	Blackfoot Telephone Cooperative, Inc.	\$826,247	\$836,171
CMA389	A	20	72,374	1,447,480	Cable One, Inc.	\$234,130	\$236,942
CMA390	A	20	18,818	376,360	AWS Wireless Inc.	\$12,543	\$12,693
CMA391	A	20	171,215	3,424,300	Cable One, Inc.	\$404,501	\$409,359
CMA392	A	20	165,296	3,305,920	Cable One, Inc.	\$199,637	\$202,035
CMA393	A	20	301,991	6,039,820	Cable One, Inc.	\$1,144,517	\$1,158,263
CMA394	A	20	324,658	6,493,160	T-Mobile License LLC	\$229,949	\$232,710
CMA395	A	20	257,863	5,157,260	T-Mobile License LLC	\$182,914	\$185,111
CMA396	A	20	198,214	3,964,280	Mediapolis Telephone Company	\$250,853	\$253,866
CMA397	A	20	217,323	4,346,460	Cricket Licensee (Reauction), Inc.	\$226,813	\$229,537
CMA398	A	20	94,671	1,893,420	Daredevil Communications LLC	\$44,683	\$45,220
CMA399	A	20	204,307	0	FCC		
CMA400	A	20	235,571	4,711,420	T-Mobile License LLC	\$147,376	\$149,146
CMA401	A	20	335,376	6,707,520	Mt. Vernon. Net, Inc.	\$177,949	\$180,086
CMA402	A	20	149,603	2,992,060	AWS Wireless Inc.	\$182,914	\$185,111
CMA403	A	20	217,293	4,345,860	T-Mobile License LLC	\$135,879	\$137,511
CMA404	A	20	188,455	3,769,100	Ligtel Communications, Inc.	\$100,394	\$101,599
CMA405	A	20	147,332	0	FCC		
CMA406	A	20	186,514	3,730,280	AWS Wireless Inc.	\$123,336	\$124,817
CMA407	A	20	126,683	2,533,660	AWS Wireless Inc.	\$111,839	\$113,182
CMA408	A	20	220,355	4,407,100	AWS Wireless Inc.	\$699,253	\$707,651
CMA409	A	20	226,189	4,523,780	Smithville Spectrum, LLC	\$1,119,432	\$1,132,877
CMA410	A	20	265,246	5,304,920	Smithville Spectrum, LLC	\$982,508	\$994,308
CMA411	A	20	147,985	2,959,700	Southeastern Indiana Rural Telephone Coop., Inc.	\$515,817	\$522,012
CMA412	A	20	62,744	1,254,880	Iowa Telecommunications Services, Inc.	\$366,873	\$371,279
CMA413	A	20	51,752	1,035,040	Iowa Telecommunications Services, Inc.	\$259,215	\$262,328
CMA414	A	20	90,319	1,806,380	Iowa Telecommunications Services, Inc.	\$610,409	\$617,741

**Spectrum Auction Data
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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
CMA415	A	20	154,644	3,092,880	Mediapolis Telephone Company	\$1,624,274	\$1,643,782
CMA416	A	20	108,853	2,177,060	Iowa Telecommunications Services, Inc.	\$1,235,452	\$1,250,290
CMA417	A	20	158,156	3,163,120	Iowa Telecommunications Services, Inc.	\$940,699	\$951,997
CMA418	A	20	55,129	1,102,580	Iowa Telecommunications Services, Inc.	\$671,032	\$679,091
CMA419	A	20	55,801	1,116,020	LL License Holdings II, LLC	\$564,158	\$570,934
CMA420	A	20	62,268	1,245,360	LL License Holdings II, LLC	\$580,150	\$587,118
CMA421	A	20	187,593	3,751,860	Iowa Telecommunications Services, Inc.	\$811,092	\$820,833
CMA422	A	20	113,903	2,278,060	Iowa Telecommunications Services, Inc.	\$443,174	\$448,497
CMA423	A	20	116,168	2,323,360	Iowa Telecommunications Services, Inc.	\$873,805	\$884,300
CMA424	A	20	66,106	1,322,120	FMTC Wireless, Inc.	\$1,233,152	\$1,247,963
CMA425	A	20	106,046	2,120,920	FMTC Wireless, Inc.	\$718,746	\$727,379
CMA426	A	20	84,043	1,680,860	Iowa Telecommunications Services, Inc.	\$496,480	\$502,443
CMA427	A	20	103,341	2,066,820	Mutual Telephone Company	\$326,109	\$330,026
CMA428	A	20	27,356	547,120	The S&T Telephone Cooperative Association, Inc.	\$35,538	\$35,964
CMA429	A	20	29,573	591,460	Red Rock Spectrum Holdings, LLC	\$36,583	\$37,022
CMA430	A	20	51,872	1,037,440	Blue Valley Tele-Communications, Inc.	\$175,597	\$177,706
CMA431	A	20	130,681	2,613,620	Blue Valley Tele-Communications, Inc.	\$381,767	\$386,352
CMA432	A	20	117,095	2,341,900	Cricket Licensee (Reauction), Inc.	\$199,637	\$202,035
CMA433	A	20	19,203	384,060	The S&T Telephone Cooperative Association, Inc.	\$28,430	\$28,771
CMA434	A	20	80,639	1,612,780	Red Rock Spectrum Holdings, LLC	\$99,296	\$100,489
CMA435	A	20	133,142	2,662,840	Red Rock Spectrum Holdings, LLC	\$342,833	\$346,950
CMA436	A	20	59,627	1,192,540	Cable One, Inc.	\$371,054	\$375,510
CMA437	A	20	113,232	2,264,640	Cricket Licensee (Reauction), Inc.	\$249,808	\$252,808
CMA438	A	20	93,815	1,876,300	Red Rock Spectrum Holdings, LLC	\$152,602	\$154,435
CMA439	A	20	47,468	949,360	Red Rock Spectrum Holdings, LLC	\$156,783	\$158,666
CMA440	A	20	28,437	568,740	Red Rock Spectrum Holdings, LLC	\$122,291	\$123,760
CMA441	A	20	175,105	3,502,100	SKT, Inc.	\$809,001	\$818,718
CMA442	A	20	154,883	3,097,660	Cable One, Inc.	\$684,620	\$692,843
CMA443	A	20	193,495	3,869,900	Daredevil Communications LLC	\$90,934	\$92,026
CMA444	A	20	129,201	2,584,020	AWS Wireless Inc.	\$81,527	\$82,506
CMA445	A	20	332,060	6,641,200	AWS Wireless Inc.	\$471,395	\$477,056
CMA446	A	20	260,291	5,205,820	American Cellular Corporation	\$1,103,754	\$1,117,010
CMA447	A	20	164,614	3,292,280	American Cellular Corporation	\$418,089	\$423,110
CMA448	A	20	277,683	5,553,660	American Cellular Corporation	\$263,396	\$266,559
CMA449	A	20	187,538	3,750,760	American Cellular Corporation	\$917,704	\$928,726
CMA450	A	20	124,331	2,486,620	American Cellular Corporation	\$180,823	\$182,995
CMA451	A	20	196,797	3,935,940	American Cellular Corporation	\$123,336	\$124,817
CMA452	A	20	150,294	3,005,880	American Cellular Corporation	\$104,522	\$105,777
CMA453	A	20	167,879	3,357,580	American Cellular Corporation	\$117,065	\$118,471
CMA454	A	20	113,312	2,266,240	Cellco Partnership d/b/a Verizon Wireless	\$71,075	\$71,929
CMA455	A	20	115,346	2,306,920	Cellco Partnership d/b/a Verizon Wireless	\$72,120	\$72,986
CMA456	A	20	150,186	3,003,720	Cellco Partnership d/b/a Verizon Wireless	\$262,351	\$265,501
CMA457	A	20	72,903	1,458,060	Cellco Partnership d/b/a Verizon Wireless	\$45,990	\$46,542
CMA458	A	20	399,898	7,997,960	Cricket Licensee (Reauction), Inc.	\$1,439,270	\$1,456,556
CMA459	A	20	183,474	3,669,480	Cricket Licensee (Reauction), Inc.	\$114,974	\$116,355
CMA460	A	20	191,510	3,830,200	Cricket Licensee (Reauction), Inc.	\$120,200	\$121,644
CMA461	A	20	112,332	2,246,640	Cricket Licensee (Reauction), Inc.	\$70,030	\$70,871
CMA462	A	20	26,757	535,140	Cricket Licensee (Reauction), Inc.	\$16,724	\$16,924
CMA463	A	20	84,222	1,684,440	AWS Wireless Inc.	\$53,306	\$53,947
CMA464	A	20	142,061	2,841,220	AWS Wireless Inc.	\$88,844	\$89,911
CMA465	A	20	226,628	4,532,560	AWS Wireless Inc.	\$226,813	\$229,537
CMA466	A	20	85,732	1,714,640	Barat Wireless, L.P.	\$39,980	\$40,460
CMA467	A	20	29,846	596,920	American Cellular Corporation	\$58,532	\$59,235
CMA468	A	20	470,726	9,414,520	Cricket Licensee (Reauction), Inc.	\$523,656	\$529,945
CMA469	A	20	195,277	3,905,540	Cricket Licensee (Reauction), Inc.	\$1,214,547	\$1,229,134
CMA470	A	20	71,535	1,430,700	AWS Wireless Inc.	\$44,945	\$45,484
CMA471	A	20	246,737	4,934,740	T-Mobile License LLC	\$154,693	\$156,551
CMA472	A	20	202,821	4,056,420	American Cellular Corporation	\$820,499	\$830,353
CMA473	A	20	114,795	2,295,900	Dakota Wireless Group, LLC	\$159,030	\$160,940

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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
CMA474	A	20	174,862	3,497,240	AGRI-VALLEY COMMUNICATIONS, INC.	\$93,286	\$94,406
CMA475	A	20	141,199	2,823,980	Wittenberg Telephone Company	\$69,769	\$70,606
CMA476	A	20	169,410	3,388,200	AGRI-VALLEY COMMUNICATIONS, INC.	\$176,799	\$178,923
CMA477	A	20	148,997	2,979,940	American Cellular Corporation	\$663,716	\$671,687
CMA478	A	20	255,329	5,106,580	AGRI-VALLEY COMMUNICATIONS, INC.	\$390,024	\$394,709
CMA479	A	20	105,665	2,113,300	AGRI-VALLEY COMMUNICATIONS, INC.	\$55,972	\$56,644
CMA480	A	20	304,730	6,094,600	Cincinnati Bell Wireless LLC	\$200,682	\$203,093
CMA481	A	20	138,892	2,777,840	AGRI-VALLEY COMMUNICATIONS, INC.	\$212,337	\$214,887
CMA482	A	20	49,661	993,220	Dakota Wireless Group, LLC	\$38,203	\$38,662
CMA483	A	20	65,227	1,304,540	Paul Bunyan Rural Telephone Cooperative	\$45,990	\$46,542
CMA484	A	20	58,347	1,166,940	Paul Bunyan Rural Telephone Cooperative	\$172,462	\$174,533
CMA485	A	20	16,226	324,520	Chequamegon Communications Cooperative, Inc.	\$9,773	\$9,890
CMA486	A	20	214,745	4,294,900	American Cellular Corporation	\$865,443	\$875,838
CMA487	A	20	274,452	5,489,040	American Cellular Corporation	\$766,147	\$775,349
CMA488	A	20	174,114	3,482,280	T-Mobile License LLC	\$158,874	\$160,782
CMA489	A	20	67,816	1,356,320	LL License Holdings II, LLC	\$167,915	\$169,932
CMA490	A	20	133,637	2,672,740	LL License Holdings II, LLC	\$403,351	\$408,195
CMA491	A	20	240,003	4,800,060	LCDW Wireless Limited Partnership	\$402,933	\$407,772
CMA492	A	20	212,896	4,257,920	Midwest AWS Limited Partnership	\$383,335	\$387,939
CMA493	A	20	183,347	3,666,940	Cable One, Inc.	\$623,997	\$631,492
CMA494	A	20	258,742	5,174,840	AWS Wireless Inc.	\$162,009	\$163,955
CMA495	A	20	160,230	3,204,600	Cable One, Inc.	\$186,049	\$188,284
CMA496	A	20	130,816	2,616,320	Cable One, Inc.	\$355,375	\$359,643
CMA497	A	20	160,830	3,216,600	Daredevil Communications LLC	\$79,176	\$80,126
CMA498	A	20	189,098	3,781,960	Cable One, Inc.	\$118,110	\$119,529
CMA499	A	20	188,499	3,769,980	Telephone Electronics Coporation	\$215,316	\$217,902
CMA500	A	20	160,376	3,207,520	Cable One, Inc.	\$484,983	\$490,808
CMA501	A	20	124,367	2,487,340	AWS Wireless Inc.	\$78,392	\$79,333
CMA502	A	20	157,867	3,157,340	Telephone Electronics Coporation	\$160,964	\$162,897
CMA503	A	20	204,876	4,097,520	Telephone Electronics Coporation	\$207,999	\$210,497
CMA504	A	20	42,936	858,720	Northwest Missouri Cellular Limited Partnership	\$27,176	\$27,502
CMA505	A	20	35,481	709,620	Northeast Missouri Rural Telephone Company	\$24,876	\$25,175
CMA506	A	20	56,401	1,128,020	Cable One, Inc.	\$218,451	\$221,075
CMA507	A	20	72,404	1,448,080	Green Hills Area Cellular Telephone, Inc.	\$189,237	\$191,510
CMA508	A	20	69,416	1,388,320	Chariton Valley Communication Corporation, Inc.	\$183,018	\$185,216
CMA509	A	20	91,430	1,828,600	Chariton Valley Communication Corporation, Inc.	\$55,083	\$55,745
CMA510	A	20	171,259	3,425,180	Grand River Communications, Inc.	\$107,658	\$108,951
CMA511	A	20	116,371	2,327,420	Cricket Licensee (Reauction), Inc.	\$489,164	\$495,039
CMA512	A	20	82,489	1,649,780	CenturyTel Broadband Wireless LLC	\$72,120	\$72,986
CMA513	A	20	105,824	2,116,480	Fidelity Communications Company	\$55,972	\$56,644
CMA514	A	20	157,501	3,150,020	Fidelity Communications Company	\$101,282	\$102,498
CMA515	A	20	127,624	2,552,480	Fidelity Communications Company	\$122,604	\$124,077
CMA516	A	20	96,827	1,936,540	Big River Telephone Company, LLC	\$45,467	\$46,013
CMA517	A	20	111,359	2,227,180	CenturyTel Broadband Wireless LLC	\$129,607	\$131,164
CMA518	A	20	128,225	2,564,500	Fidelity Communications Company	\$165,249	\$167,234
CMA519	A	20	104,516	2,090,320	Fidelity Communications Company	\$165,249	\$167,234
CMA520	A	20	55,504	1,110,080	CenturyTel Broadband Wireless LLC	\$34,492	\$34,907
CMA521	A	20	123,913	2,478,260	Big River Telephone Company, LLC	\$145,024	\$146,766
CMA522	A	20	197,383	3,947,660	BPS Telephone Company	\$202,564	\$204,997
CMA523	A	20	156,158	3,123,160	Blackfoot Telephone Cooperative, Inc.	\$406,016	\$410,893
CMA524	A	20	37,077	741,540	CCTN BIDDING CONSORTIUM	\$29,318	\$29,671
CMA525	A	20	13,555	271,100	CCTN BIDDING CONSORTIUM	\$11,550	\$11,688
CMA526	A	20	38,513	770,260	CCTN BIDDING CONSORTIUM	\$39,091	\$39,561
CMA527	A	20	201,482	4,029,640	Blackfoot Telephone Cooperative, Inc.	\$199,899	\$202,299
CMA528	A	20	64,977	1,299,540	3 Rivers Telephone Cooperative, Inc.	\$299,979	\$303,581
CMA529	A	20	29,729	594,580	CCTN BIDDING CONSORTIUM	\$24,876	\$25,175
CMA530	A	20	99,578	1,991,560	3 Rivers Telephone Cooperative, Inc.	\$113,929	\$115,297
CMA531	A	20	32,467	649,340	CCTN BIDDING CONSORTIUM	\$63,079	\$63,837
CMA532	A	20	18,950	379,000	CCTN BIDDING CONSORTIUM	\$34,649	\$35,065

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA533	A	20	90,410	1,808,200	Hemingford Cooperative Telephone Company	\$158,351	\$160,253
CMA534	A	20	29,189	583,780	Three River Telco	\$56,442	\$57,120
CMA535	A	20	117,334	2,346,680	Cable One, Inc.	\$2,027,729	\$2,052,083
CMA536	A	20	34,344	686,880	Hemingford Cooperative Telephone Company	\$16,462	\$16,660
CMA537	A	20	149,780	2,995,600	LL License Holdings II, LLC	\$548,166	\$554,750
CMA538	A	20	113,331	2,266,620	Hemingford Cooperative Telephone Company	\$229,687	\$232,446
CMA539	A	20	94,031	1,880,620	Hemingford Cooperative Telephone Company	\$361,385	\$365,726
CMA540	A	20	56,542	1,130,840	Hemingford Cooperative Telephone Company	\$40,764	\$41,253
CMA541	A	20	82,173	1,643,460	Hemingford Cooperative Telephone Company	\$239,878	\$242,759
CMA542	A	20	87,405	1,748,100	Barat Wireless, L.P.	\$224,200	\$226,893
CMA543	A	20	46,781	935,620	Churchill County Telephone d/b/a CC Communications	\$29,266	\$29,618
CMA544	A	20	52,736	1,054,720	Churchill County Telephone d/b/a CC Communications	\$33,447	\$33,849
CMA545	A	20	131,616	2,632,320	Cricket Licensee (Reauction), Inc.	\$93,025	\$94,142
CMA546	A	20	38,527	0	FCC		
CMA547	A	20	13,346	266,920	WUE INC	\$6,271	\$6,347
CMA548	A	20	229,137	4,582,740	Vermont Telephone Company, Inc.	\$816,475	\$826,281
CMA549	A	20	236,216	4,724,320	AWS Wireless Inc.	\$219,496	\$222,133
CMA550	A	20	121,989	2,439,780	AWS Wireless Inc.	\$76,301	\$77,218
CMA551	A	20	510,916	10,218,320	Cingular AWS, LLC	\$2,251,407	\$2,278,447
CMA552	A	20	144,166	2,883,320	AWS Wireless Inc.	\$275,938	\$279,253
CMA553	A	20	285,363	5,707,260	Red Rock Spectrum Holdings, LLC	\$199,637	\$202,035
CMA554	A	20	24,353	487,060	Plateau Telecommunications, Inc.	\$151,557	\$153,377
CMA555	A	20	101,043	2,020,860	Red Rock Spectrum Holdings, LLC	\$103,477	\$104,720
CMA556	A	20	274,809	5,496,180	Plateau Telecommunications, Inc.	\$2,171,970	\$2,198,056
CMA557	A	20	61,950	1,239,000	Red Rock Spectrum Holdings, LLC	\$38,673	\$39,138
CMA558	A	20	250,260	5,005,200	Plateau Telecommunications, Inc.	\$1,491,531	\$1,509,445
CMA559	A	20	250,613	5,012,260	American Cellular Corporation	\$173,507	\$175,591
CMA560	A	20	230,331	4,606,620	American Cellular Corporation	\$144,241	\$145,973
CMA561	A	20	476,152	9,523,040	American Cellular Corporation	\$298,933	\$302,524
CMA562	A	20	355,651	7,113,020	American Cellular Corporation	\$1,371,330	\$1,387,801
CMA563	A	20	393,028	7,860,560	American Cellular Corporation	\$370,008	\$374,452
CMA564	A	20	111,289	2,225,780	American Cellular Corporation	\$109,748	\$111,066
CMA565	A	20	200,333	4,006,660	Carolina West Wireless, Inc.	\$248,763	\$251,750
CMA566	A	20	170,738	3,414,760	Carolina West Wireless, Inc.	\$111,839	\$113,182
CMA567	A	20	171,912	3,438,240	Carolina West Wireless, Inc.	\$112,884	\$114,240
CMA568	A	20	372,614	7,452,280	Carolina West Wireless, Inc.	\$267,577	\$270,790
CMA569	A	20	134,659	2,693,180	ETCOM, LLC	\$221,848	\$224,513
CMA570	A	20	173,138	3,462,760	AWS Wireless Inc.	\$108,703	\$110,009
CMA571	A	20	309,736	6,194,720	AWS Wireless Inc.	\$194,411	\$196,746
CMA572	A	20	296,296	5,925,920	18th Street Spectrum, LLC	\$158,142	\$160,041
CMA573	A	20	120,566	2,411,320	Route 66 Wireless, LLC	\$56,442	\$57,120
CMA574	A	20	326,319	6,526,380	18th Street Spectrum, LLC	\$210,560	\$213,089
CMA575	A	20	244,012	4,880,240	AWS Wireless Inc.	\$152,602	\$154,435
CMA576	A	20	150,306	0	FCC		
CMA577	A	20	252,756	0	FCC		
CMA578	A	20	258,014	5,160,280	18th Street Spectrum, LLC	\$137,708	\$139,362
CMA579	A	20	476,998	9,539,960	AWS Wireless Inc.	\$886,348	\$896,993
CMA580	A	20	101,633	2,032,660	North Dakota Network Company	\$63,759	\$64,524
CMA581	A	20	58,222	1,164,440	North Dakota Network Company	\$65,849	\$66,640
CMA582	A	20	88,665	1,773,300	North Dakota Network Company	\$55,397	\$56,062
CMA583	A	20	61,696	1,233,920	Reservation Telephone Cooperative, Inc.	\$72,120	\$72,986
CMA584	A	20	48,018	960,360	BEK COMMUNICATIONS COOPERATIVE	\$72,120	\$72,986
CMA585	A	20	128,191	0	FCC		\$0
CMA586	A	20	259,513	5,190,260	T-Mobile License LLC	\$163,055	\$165,013
CMA587	A	20	102,728	2,054,560	American Cellular Corporation	\$516,339	\$522,541
CMA588	A	20	229,057	4,581,140	Cincinnati Bell Wireless LLC	\$193,366	\$195,688
CMA589	A	20	239,331	4,786,620	Triad AWS, Inc.	\$126,994	\$128,520
CMA590	A	20	471,304	9,426,080	AWS Wireless Inc.	\$435,857	\$441,092
CMA591	A	20	261,385	5,227,700	American Cellular Corporation	\$212,180	\$214,728

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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
CMA592	A	20	179,466	3,589,320	Cincinnati Bell Wireless LLC	\$227,858	\$230,595
CMA593	A	20	243,945	4,878,900	AWS Wireless Inc.	\$568,600	\$575,430
CMA594	A	20	175,317	3,506,340	AWS Wireless Inc.	\$264,441	\$267,617
CMA595	A	20	112,075	2,241,500	American Cellular Corporation	\$70,030	\$70,871
CMA596	A	20	29,112	582,240	AWS Wireless Inc.	\$125,427	\$126,933
CMA597	A	20	48,862	977,240	American Cellular Corporation	\$94,070	\$95,200
CMA598	A	20	215,441	4,308,820	American Cellular Corporation	\$892,619	\$903,340
CMA599	A	20	208,345	4,166,900	Cable One, Inc.	\$2,073,719	\$2,098,625
CMA600	A	20	60,223	1,204,460	American Cellular Corporation	\$334,471	\$338,488
CMA601	A	20	223,407	4,468,140	CROSS TELEPHONE COMPANY	\$1,405,509	\$1,422,390
CMA602	A	20	126,544	2,530,880	American Cellular Corporation	\$1,038,950	\$1,051,428
CMA603	A	20	94,340	1,886,800	Cable One, Inc.	\$610,409	\$617,741
CMA604	A	20	209,569	4,191,380	Cable One, Inc.	\$1,055,674	\$1,068,353
CMA605	A	20	83,895	1,677,900	Pine Cellular Phones, Inc.	\$532,018	\$538,407
CMA606	A	20	188,444	3,768,880	Cricket Licensee (Reauction), Inc.	\$219,496	\$222,133
CMA607	A	20	79,602	1,592,040	Bend Cable Communications, LLC	\$151,557	\$153,377
CMA608	A	20	158,595	3,171,900	Red Rock Spectrum Holdings, LLC	\$245,627	\$248,577
CMA609	A	20	225,701	4,514,020	Cricket Licensee (Reauction), Inc.	\$541,425	\$547,927
CMA610	A	20	260,041	5,200,820	Red Rock Spectrum Holdings, LLC	\$163,055	\$165,013
CMA611	A	20	213,355	4,267,100	Bend Cable Communications, LLC	\$400,320	\$405,128
CMA612	A	20	196,740	3,934,800	American Cellular Corporation	\$123,336	\$124,817
CMA613	A	20	87,022	1,740,440	American Cellular Corporation	\$60,623	\$61,351
CMA614	A	20	97,367	1,947,340	American Cellular Corporation	\$66,894	\$67,698
CMA615	A	20	97,397	1,947,940	American Cellular Corporation	\$66,894	\$67,698
CMA616	A	20	94,024	1,880,480	AWS Wireless Inc.	\$58,532	\$59,235
CMA617	A	20	382,883	7,657,660	American Cellular Corporation	\$1,933,659	\$1,956,883
CMA618	A	20	218,919	4,378,380	American Cellular Corporation	\$457,807	\$463,305
CMA619	A	20	406,449	8,128,980	AWS Wireless Inc.	\$255,034	\$258,097
CMA620	A	20	189,316	3,786,320	American Cellular Corporation	\$605,183	\$612,452
CMA621	A	20	193,558	3,871,160	AWS Wireless Inc.	\$167,235	\$169,244
CMA622	A	20	114,893	2,297,860	AWS Wireless Inc.	\$99,296	\$100,489
CMA623	A	20	120,327	2,406,540	AWS Wireless Inc.	\$75,256	\$76,160
CMA624	A	20	85,433	1,708,660	T-Mobile License LLC	\$53,306	\$53,947
CMA625	A	20	66,215	1,324,300	West Carolina Piedmont Bidding Consortium	\$42,645	\$43,157
CMA626	A	20	251,847	5,036,940	West Carolina Piedmont Bidding Consortium	\$1,053,688	\$1,066,343
CMA627	A	20	139,940	2,798,800	Chester Telephone Company	\$977,282	\$989,019
CMA628	A	20	222,349	4,446,980	Sandhill Communications, LLC	\$1,047,469	\$1,060,049
CMA629	A	20	287,892	5,757,840	Horry Telephone Cooperative, Inc.	\$966,830	\$978,442
CMA630	A	20	194,484	3,889,680	FTC Management Group, Inc.	\$696,117	\$704,478
CMA631	A	20	158,114	3,162,280	Cricket Licensee (Reauction), Inc.	\$172,462	\$174,533
CMA632	A	20	201,265	4,025,300	Palmetto Rural Telephone Cooperative, Inc.	\$1,312,223	\$1,327,983
CMA633	A	20	225,965	4,519,300	Comporium Wireless, LLC	\$308,340	\$312,044
CMA634	A	20	35,612	712,240	KTC AWS Limited Partnership	\$16,462	\$16,660
CMA635	A	20	23,121	462,420	KTC AWS Limited Partnership	\$10,975	\$11,107
CMA636	A	20	52,825	1,056,500	KTC AWS Limited Partnership	\$25,085	\$25,387
CMA637	A	20	68,784	1,375,680	KTC AWS Limited Partnership	\$747,072	\$756,045
CMA638	A	20	27,194	543,880	KTC AWS Limited Partnership	\$12,543	\$12,693
CMA639	A	20	38,915	778,300	KTC AWS Limited Partnership	\$46,251	\$46,807
CMA640	A	20	67,747	1,354,940	KTC AWS Limited Partnership	\$317,486	\$321,299
CMA641	A	20	74,488	1,489,760	KTC AWS Limited Partnership	\$186,572	\$188,813
CMA642	A	20	105,059	2,101,180	KTC AWS Limited Partnership	\$506,410	\$512,492
CMA643	A	20	317,877	6,357,540	AWS Wireless Inc.	\$499,616	\$505,616
CMA644	A	20	177,193	3,543,860	AWS Wireless Inc.	\$110,793	\$112,124
CMA645	A	20	366,706	7,334,120	AWS Wireless Inc.	\$229,949	\$232,710
CMA646	A	20	290,725	5,814,500	Carolina West Wireless, Inc.	\$847,675	\$857,855
CMA647	A	20	369,630	7,392,600	AWS Wireless Inc.	\$232,039	\$234,826
CMA648	A	20	170,150	3,403,000	Cricket Licensee (Reauction), Inc.	\$517,385	\$523,599
CMA649	A	20	282,930	5,658,600	AWS Wireless Inc.	\$177,688	\$179,822
CMA650	A	20	17,499	349,980	Carolina West Wireless, Inc.	\$48,080	\$48,658

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA651	A	20	69,498	1,389,960	Cellular South Licenses, Inc.	\$56,442	\$57,120
CMA652	A	20	55,812	1,116,240	Red Rock Spectrum Holdings, LLC	\$149,467	\$151,262
CMA653	A	20	89,253	1,785,060	Cable One, Inc.	\$519,475	\$525,714
CMA654	A	20	137,663	2,753,260	Plateau Telecommunications, Inc.	\$574,872	\$581,776
CMA655	A	20	41,975	839,500	Red Rock Spectrum Holdings, LLC	\$34,492	\$34,907
CMA656	A	20	77,084	1,541,680	Red Rock Spectrum Holdings, LLC	\$336,561	\$340,604
CMA657	A	20	91,269	1,825,380	AWS Wireless Inc.	\$363,737	\$368,106
CMA658	A	20	392,672	7,853,440	AWS Wireless Inc.	\$303,114	\$306,755
CMA659	A	20	134,426	2,688,520	Red Rock Spectrum Holdings, LLC	\$226,813	\$229,537
CMA660	A	20	193,442	3,868,840	Central Texas Telephone Investments, LP	\$2,925,575	\$2,960,712
CMA661	A	20	335,717	6,714,340	American Cellular Corporation	\$1,672,354	\$1,692,440
CMA662	A	20	300,759	6,015,180	AWS Wireless Inc.	\$504,842	\$510,905
CMA663	A	20	24,696	493,920	Big Bend Telecom, LTD	\$47,035	\$47,600
CMA664	A	20	31,027	620,540	Big Bend Telecom, LTD	\$87,799	\$88,853
CMA665	A	20	41,757	835,140	Central Texas Telephone Investments, LP	\$121,246	\$122,702
CMA666	A	20	194,504	3,890,080	Hill Country Telephone Cooperative, Inc.	\$2,531,160	\$2,561,560
CMA667	A	20	349,585	6,991,700	American Cellular Corporation	\$4,546,713	\$4,601,321
CMA668	A	20	270,140	5,402,800	Red Rock Spectrum Holdings, LLC	\$191,276	\$193,573
CMA669	A	20	227,582	4,551,640	Hill Country Telephone Cooperative, Inc.	\$1,644,499	\$1,664,250
CMA670	A	20	235,315	4,706,300	C&W Enterprises INC.	\$200,787	\$203,199
CMA671	A	20	158,126	3,162,520	Red Rock Spectrum Holdings, LLC	\$328,200	\$332,141
CMA672	A	20	26,031	520,620	Command Connect, LLC	\$17,769	\$17,982
CMA673	A	20	136,097	2,721,940	AWS Wireless Inc.	\$222,632	\$225,306
CMA674	A	20	52,080	1,041,600	Manti Telephone Company	\$436,641	\$441,885
CMA675	A	20	62,248	1,244,960	AWS Wireless Inc.	\$167,235	\$169,244
CMA676	A	20	130,138	2,602,760	Manti Telephone Company	\$213,225	\$215,786
CMA677	A	20	80,283	1,605,660	Manti Telephone Company	\$571,475	\$578,338
CMA678	A	20	29,138	582,760	Manti Telephone Company	\$22,734	\$23,007
CMA679	A	20	217,353	4,347,060	AWS Wireless Inc.	\$182,914	\$185,111
CMA680	A	20	238,002	4,760,040	AWS Wireless Inc.	\$2,246,181	\$2,273,158
CMA681	A	20	141,297	2,825,940	American Cellular Corporation	\$98,251	\$99,431
CMA682	A	20	136,903	2,738,060	American Cellular Corporation	\$281,165	\$284,541
CMA683	A	20	213,798	4,275,960	NTELOS Inc.	\$247,717	\$250,693
CMA684	A	20	187,302	3,746,040	NTELOS Inc.	\$117,065	\$118,471
CMA685	A	20	62,590	1,251,800	NTELOS Inc.	\$39,718	\$40,195
CMA686	A	20	234,162	4,683,240	NTELOS Inc.	\$293,707	\$297,235
CMA687	A	20	94,187	1,883,740	AWS Wireless Inc.	\$59,578	\$60,293
CMA688	A	20	91,070	1,821,400	AWS Wireless Inc.	\$57,487	\$58,178
CMA689	A	20	92,114	1,842,280	AWS Wireless Inc.	\$57,487	\$58,178
CMA690	A	20	247,404	4,948,080	AWS Wireless Inc.	\$919,795	\$930,842
CMA691	A	20	300,410	6,008,200	Cricket Licensee (Reauction), Inc.	\$869,624	\$880,069
CMA692	A	20	188,579	3,771,580	Cricket Licensee (Reauction), Inc.	\$726,429	\$735,154
CMA693	A	20	279,092	5,581,840	Cricket Licensee (Reauction), Inc.	\$449,445	\$454,843
CMA694	A	20	138,783	2,775,660	Red Rock Spectrum Holdings, LLC	\$86,753	\$87,795
CMA695	A	20	59,058	1,181,160	Red Rock Spectrum Holdings, LLC	\$43,899	\$44,427
CMA696	A	20	116,599	2,331,980	Cricket Licensee (Reauction), Inc.	\$245,627	\$248,577
CMA697	A	20	134,672	2,693,440	Red Rock Spectrum Holdings, LLC	\$95,115	\$96,258
CMA698	A	20	186,356	3,727,120	Cricket Licensee (Reauction), Inc.	\$388,822	\$393,492
CMA699	A	20	29,033	580,660	Red Rock Spectrum Holdings, LLC	\$17,769	\$17,982
CMA700	A	20	122,932	2,458,640	Red Rock Spectrum Holdings, LLC	\$258,170	\$261,270
CMA701	A	20	76,985	1,539,700	American Cellular Corporation	\$48,080	\$48,658
CMA702	A	20	76,624	1,532,480	American Cellular Corporation	\$53,306	\$53,947
CMA703	A	20	268,096	5,361,920	American Cellular Corporation	\$1,678,625	\$1,698,786
CMA704	A	20	185,405	3,708,100	American Cellular Corporation	\$515,294	\$521,483
CMA705	A	20	129,431	2,588,620	American Cellular Corporation	\$287,436	\$290,888
CMA706	A	20	166,643	3,332,860	American Cellular Corporation	\$104,522	\$105,777
CMA707	A	20	251,814	5,036,280	American Cellular Corporation	\$157,828	\$159,724
CMA708	A	20	117,992	2,359,840	CTC Telcom, Inc.	\$1,250,032	\$1,265,046
CMA709	A	20	86,105	1,722,100	Chequamegon Communications Cooperative, Inc.	\$1,097,221	\$1,110,399

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Market	Block	License Bandwidth		MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
		(MHz)	Population				
CMA710	A	20	142,982	2,859,640	American Cellular Corporation	\$649,082	\$656,878
CMA711	A	20	124,244	2,484,880	American Cellular Corporation	\$704,479	\$712,940
CMA712	A	20	97,679	1,953,580	Cricket Licensee (Reauction), Inc.	\$781,826	\$791,216
CMA713	A	20	120,566	2,411,320	American Cellular Corporation	\$274,893	\$278,195
CMA714	A	20	295,518	5,910,360	Wittenberg Telephone Company	\$349,627	\$353,826
CMA715	A	20	240,609	4,812,180	NEIT Wireless, LLC	\$211,657	\$214,199
CMA716	A	20	403,441	8,068,820	T-Mobile License LLC	\$591,595	\$598,701
CMA717	A	20	131,035	2,620,700	T-Mobile License LLC	\$325,064	\$328,968
CMA718	A	20	50,418	1,008,360	Union Telephone Company	\$37,628	\$38,080
CMA719	A	20	79,864	1,597,280	Union Telephone Company	\$441,083	\$446,381
CMA720	A	20	147,542	2,950,840	Manti Telephone Company	\$653,786	\$661,638
CMA721	A	20	137,373	2,747,460	Union Telephone Company	\$85,708	\$86,738
CMA722	A	20	12,052	241,040	Union Telephone Company	\$7,526	\$7,616
CMA723	A	20	14,767	0	FCC		
CMA724	A	20	285,531	0	FCC		
CMA725	A	20	126,274	0	FCC		
CMA726	A	20	270,223	0	FCC		
CMA727	A	20	41,757	0	FCC		
CMA728	A	20	9,106	0	FCC		
CMA729	A	20	1,868	0	FCC		
CMA730	A	20	55,378	1,107,560	Innovative Communication Corporation	\$97,206	\$98,373
CMA731	A	20	53,234	1,064,680	Innovative Communication Corporation	\$95,115	\$96,258
CMA732	A	20	154,805	0	FCC		
CMA733	A	20	57,291	1,145,820	AST Telecom, LLC	\$35,538	\$35,964
CMA734	A	20	69,221	0	FCC		
REA001	D	10	50,058,090	500,580,900	MetroPCS AWS, LLC	\$577,687,569	\$584,625,811
REA001	E	10	50,058,090	500,580,900	T-Mobile License LLC	\$493,922,485	\$499,854,677
REA001	F	20	50,058,090	1,001,161,800	Cellco Partnership d/b/a Verizon Wireless	\$1,395,761,415	\$1,412,525,027
REA002	D	10	49,676,946	496,769,460	T-Mobile License LLC	\$247,246,065	\$250,215,582
REA002	E	10	49,676,946	496,769,460	T-Mobile License LLC	\$325,058,614	\$328,962,688
REA002	F	20	49,676,946	993,538,920	Cellco Partnership d/b/a Verizon Wireless	\$598,332,781	\$605,518,979
REA003	D	10	58,178,304	581,783,040	Denali Spectrum License, LLC	\$286,478,187	\$289,918,896
REA003	E	10	58,178,304	581,783,040	T-Mobile License LLC	\$372,914,073	\$377,392,910
REA003	F	20	58,178,304	1,163,566,080	Cellco Partnership d/b/a Verizon Wireless	\$643,775,870	\$651,507,856
REA004	D	10	31,326,973	313,269,730	T-Mobile License LLC	\$115,586,848	\$116,975,089
REA004	E	10	31,326,973	313,269,730	Barat Wireless, L.P.	\$82,965,751	\$83,962,201
REA004	F	20	31,326,973	626,539,460	Cellco Partnership d/b/a Verizon Wireless	\$287,430,645	\$290,882,794
REA005	D	10	40,343,960	403,439,600	Cingular AWS, LLC	\$141,056,802	\$142,750,947
REA005	E	10	40,343,960	403,439,600	Cricket Licensee (Reauction), Inc.	\$127,813,848	\$129,348,939
REA005	F	20	40,343,960	806,879,200	T-Mobile License LLC	\$491,557,149	\$497,460,932
REA006	D	10	49,999,164	499,991,640	MetroPCS AWS, LLC	\$371,812,410	\$376,278,015
REA006	E	10	49,999,164	499,991,640	Cingular AWS, LLC	\$379,161,361	\$383,715,230
REA006	F	20	49,999,164	999,983,280	T-Mobile License LLC	\$935,044,568	\$946,274,799
REA007	D	10	626,932	6,269,320	American Cellular Corporation	\$1,145,563	\$1,159,321
REA007	E	10	626,932	6,269,320	American Cellular Corporation	\$1,147,653	\$1,161,437
REA007	F	20	626,932	12,538,640	MTA Communications, Inc.	\$1,240,678	\$1,255,579
REA008	D	10	1,211,537	12,115,370	SpectrumCo LLC	\$1,497,802	\$1,515,791
REA008	E	10	1,211,537	12,115,370	T-Mobile License LLC	\$2,005,780	\$2,029,870
REA008	F	20	1,211,537	24,230,740	T-Mobile License LLC	\$6,383,167	\$6,459,831
REA009	D	10	224,026	0	FCC		
REA009	E	10	224,026	2,240,260	Triad AWS, Inc.	\$52,522	\$53,153
REA009	F	20	224,026	0	FCC		
REA010	D	10	3,917,222	39,172,220	Cingular AWS, LLC	\$2,635,003	\$2,666,650
REA010	E	10	3,917,222	39,172,220	AWS Wireless Inc.	\$2,849,273	\$2,883,494
REA010	F	20	3,917,222	78,344,440	T-Mobile License LLC	\$3,735,621	\$3,780,487
REA011	D	10	57,291	0	FCC		
REA011	E	10	57,291	0	FCC		
REA011	F	20	57,291	0	FCC		
REA012	D	10		0	Space Data Spectrum Holdings, LLC	\$17,246	\$17,453

Spectrum Auction Data
FCC AWS Auction
2006

Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
REA012	E	10		0	Space Data Spectrum Holdings, LLC	\$17,246	\$17,453
REA012	F	20		0	FCC		

Appendix A
Spectrum Auction Data
FCC 700 MHz Auction
2008

Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
BEA001	A	12	526,106	6,313,272	King Street Wireless, L.P.	\$973,000	\$984,686
BEA001	E	6	526,106	3,156,636	Frontier Wireless LLC	\$118,000	\$119,417
BEA002	A	12	748,817	8,985,804	King Street Wireless, L.P.	\$2,658,000	\$2,689,924
BEA002	E	6	748,817	4,492,902	Frontier Wireless LLC	\$425,000	\$430,104
BEA003	A	12	7,954,554	95,454,648	MetroPCS 700 MHz, LLC	\$313,267,000	\$317,029,453
BEA003	E	6	7,954,554	47,727,324	QUALCOMM Incorporated	\$45,606,000	\$46,153,745
BEA004	A	12	605,393	7,264,716	King Street Wireless, L.P.	\$2,311,000	\$2,338,756
BEA004	E	6	605,393	3,632,358	Frontier Wireless LLC	\$318,000	\$321,819
BEA005	A	12	1,171,669	14,060,028	Cavalier Wireless, LLC	\$2,888,000	\$2,922,686
BEA005	E	6	1,171,669	7,030,014	Frontier Wireless LLC	\$424,000	\$429,092
BEA006	A	12	1,902,640	22,831,680	Cavalier Wireless, LLC	\$1,200,000	\$1,214,412
BEA006	E	6	1,902,640	11,415,840	Frontier Wireless LLC	\$2,050,000	\$2,074,621
BEA007	A	12	1,493,518	17,922,216	CenturyTel Broadband Wireless LLC	\$1,539,000	\$1,557,484
BEA007	E	6	1,493,518	8,961,108	Frontier Wireless LLC	\$1,616,000	\$1,635,409
BEA008	A	12	1,507,759	18,093,108	Cavalier Wireless, LLC	\$1,025,000	\$1,037,311
BEA008	E	6	1,507,759	9,046,554	Frontier Wireless LLC	\$971,000	\$982,662
BEA009	A	12	809,979	9,719,748	Cavalier Wireless, LLC	\$1,144,000	\$1,157,740
BEA009	E	6	809,979	4,859,874	Frontier Wireless LLC	\$431,000	\$436,176
BEA010	A	12	25,712,577	308,550,924	Cellco Partnership d/b/a Verizon Wireless	\$429,356,000	\$434,512,725
BEA010	E	6	25,712,577	154,275,462	QUALCOMM Incorporated	\$224,988,000	\$227,690,189
BEA011	A	12	1,125,265	13,503,180	Cavalier Wireless, LLC	\$1,087,000	\$1,100,055
BEA011	E	6	1,125,265	6,751,590	Frontier Wireless LLC	\$375,000	\$379,504
BEA012	A	12	7,309,792	87,717,504	Cellco Partnership d/b/a Verizon Wireless	\$247,613,000	\$250,586,924
BEA012	E	6	7,309,792	43,858,752	QUALCOMM Incorporated	\$47,408,000	\$47,977,388
BEA013	A	12	8,403,130	100,837,560	Cellco Partnership d/b/a Verizon Wireless	\$122,688,000	\$124,161,528
BEA013	E	6	8,403,130	50,418,780	Frontier Wireless LLC	\$61,108,000	\$61,841,930
BEA014	A	12	363,970	4,367,640	Triad 700, LLC	\$684,000	\$692,215
BEA014	E	6	363,970	2,183,820	Frontier Wireless LLC	\$272,000	\$275,267
BEA015	A	12	1,446,123	17,353,476	Continuum 700 LLC	\$7,202,000	\$7,288,499
BEA015	E	6	1,446,123	8,676,738	Frontier Wireless LLC	\$3,324,000	\$3,363,922
BEA016	A	12	334,087	4,009,044	Cavalier Wireless, LLC	\$533,000	\$539,402
BEA016	E	6	334,087	2,004,522	Frontier Wireless LLC	\$75,000	\$75,901
BEA017	A	12	826,284	9,915,408	King Street Wireless, L.P.	\$3,151,000	\$3,188,845
BEA017	E	6	826,284	4,957,704	Frontier Wireless LLC	\$342,000	\$346,108
BEA018	A	12	1,854,853	22,258,236	Cavalier Wireless, LLC	\$4,872,000	\$4,930,515
BEA018	E	6	1,854,853	11,129,118	Frontier Wireless LLC	\$4,463,000	\$4,516,602
BEA019	A	12	1,831,510	21,978,120	King Street Wireless, L.P.	\$9,080,000	\$9,189,054
BEA019	E	6	1,831,510	10,989,060	Frontier Wireless LLC	\$3,885,000	\$3,931,660
BEA020	A	12	1,722,764	20,673,168	Cox Wireless, Inc.	\$18,868,000	\$19,094,612
BEA020	E	6	1,722,764	10,336,584	Frontier Wireless LLC	\$6,391,000	\$6,467,758
BEA021	A	12	823,517	9,882,204	Cavalier Wireless, LLC	\$1,613,000	\$1,632,373
BEA021	E	6	823,517	4,941,102	Frontier Wireless LLC	\$371,000	\$375,456
BEA022	A	12	528,224	6,338,688	AWS Spectrum, LLC	\$887,000	\$897,653
BEA022	E	6	528,224	3,169,344	Frontier Wireless LLC	\$173,000	\$175,078
BEA023	A	12	2,031,519	24,378,228	Cavalier Wireless, LLC	\$7,811,000	\$7,904,813
BEA023	E	6	2,031,519	12,189,114	Frontier Wireless LLC	\$6,650,000	\$6,729,869
BEA024	A	12	932,115	11,185,380	Cavalier Wireless, LLC	\$2,782,000	\$2,815,413
BEA024	E	6	932,115	5,592,690	Frontier Wireless LLC	\$963,000	\$974,566
BEA025	A	12	878,267	10,539,204	Horry Telephone Cooperative, Inc.	\$8,469,000	\$8,570,716
BEA025	E	6	878,267	5,269,602	Frontier Wireless LLC	\$705,000	\$713,467
BEA026	A	12	587,297	7,047,564	Continuum 700 LLC	\$3,955,000	\$4,002,501
BEA026	E	6	587,297	3,523,782	Frontier Wireless LLC	\$538,000	\$544,462
BEA027	A	12	604,799	7,257,588	Cavalier Wireless, LLC	\$1,259,000	\$1,274,121
BEA027	E	6	604,799	3,628,794	Frontier Wireless LLC	\$757,000	\$766,092
BEA028	A	12	668,214	8,018,568	Continuum 700 LLC	\$3,899,000	\$3,945,828
BEA028	E	6	668,214	4,009,284	Frontier Wireless LLC	\$394,000	\$398,732
BEA029	A	12	1,885,190	22,622,280	Continuum 700 LLC	\$29,852,000	\$30,210,534
BEA029	E	6	1,885,190	11,311,140	Frontier Wireless LLC	\$7,543,000	\$7,633,594

**Spectrum Auction Data
FCC 700 MHz Auction
2008**

Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
BEA030	A	12	3,642,540	43,710,480	Cellco Partnership d/b/a Verizon Wireless	\$66,463,000	\$67,261,245
BEA030	E	6	3,642,540	21,855,240	Frontier Wireless LLC	\$30,071,000	\$30,432,164
BEA031	A	12	5,602,222	67,226,664	Cellco Partnership d/b/a Verizon Wireless	\$64,773,000	\$65,550,948
BEA031	E	6	5,602,222	33,613,332	Frontier Wireless LLC	\$26,110,000	\$26,423,591
BEA032	A	12	692,265	8,307,180	Continuum 700 LLC	\$5,726,000	\$5,794,771
BEA032	E	6	692,265	4,153,590	Frontier Wireless LLC	\$353,000	\$357,240
BEA033	A	12	763,795	9,165,540	Continuum 700 LLC	\$6,101,000	\$6,174,275
BEA033	E	6	763,795	4,582,770	Frontier Wireless LLC	\$410,000	\$414,924
BEA034	A	12	2,395,997	28,751,964	Cellco Partnership d/b/a Verizon Wireless	\$102,138,000	\$103,364,715
BEA034	E	6	2,395,997	14,375,982	Frontier Wireless LLC	\$12,410,000	\$12,559,049
BEA035	A	12	720,434	8,645,208	Cavalier Wireless, LLC	\$4,138,000	\$4,187,699
BEA035	E	6	720,434	4,322,604	Frontier Wireless LLC	\$680,000	\$688,167
BEA036	A	12	332,409	3,988,908	CenturyTel Broadband Wireless LLC	\$7,973,000	\$8,068,759
BEA036	E	6	332,409	1,994,454	Frontier Wireless LLC	\$625,000	\$632,506
BEA037	A	12	468,178	5,618,136	Cavalier Wireless, LLC	\$647,000	\$654,771
BEA037	E	6	468,178	2,809,068	Frontier Wireless LLC	\$276,000	\$279,315
BEA038	A	12	768,701	9,224,412	Cox Wireless, Inc.	\$2,635,000	\$2,666,647
BEA038	E	6	768,701	4,612,206	Frontier Wireless LLC	\$573,000	\$579,882
BEA039	A	12	496,538	5,958,456	Cellular South Licenses, Inc.	\$3,299,000	\$3,338,622
BEA039	E	6	496,538	2,979,228	Frontier Wireless LLC	\$398,000	\$402,780
BEA040	A	12	5,471,412	65,656,944	Cellco Partnership d/b/a Verizon Wireless	\$103,388,000	\$104,629,728
BEA040	E	6	5,471,412	32,828,472	Frontier Wireless LLC	\$32,098,000	\$32,483,509
BEA041	A	12	1,248,824	14,985,888	Cavalier Wireless, LLC	\$3,181,000	\$3,219,205
BEA041	E	6	1,248,824	7,492,944	Frontier Wireless LLC	\$948,000	\$959,386
BEA042	A	12	444,594	5,335,128	Cavalier Wireless, LLC	\$1,440,000	\$1,457,295
BEA042	E	6	444,594	2,667,564	Frontier Wireless LLC	\$226,000	\$228,714
BEA043	A	12	720,375	8,644,500	Cellular South Licenses, Inc.	\$15,121,000	\$15,302,609
BEA043	E	6	720,375	4,322,250	Frontier Wireless LLC	\$652,000	\$659,831
BEA044	A	12	983,329	11,799,948	Cellular South Licenses, Inc.	\$13,695,000	\$13,859,482
BEA044	E	6	983,329	5,899,974	Frontier Wireless LLC	\$842,000	\$852,113
BEA045	A	12	576,081	6,912,972	Cellular South Licenses, Inc.	\$1,108,000	\$1,121,307
BEA045	E	6	576,081	3,456,486	Frontier Wireless LLC	\$303,000	\$306,639
BEA046	A	12	519,208	6,230,496	King Street Wireless, L.P.	\$1,140,000	\$1,153,692
BEA046	E	6	519,208	3,115,248	Frontier Wireless LLC	\$421,000	\$426,056
BEA047	A	12	1,851,367	22,216,404	Cavalier Wireless, LLC	\$3,925,000	\$3,972,141
BEA047	E	6	1,851,367	11,108,202	Frontier Wireless LLC	\$2,914,000	\$2,948,998
BEA048	A	12	1,199,373	14,392,476	King Street Wireless, L.P.	\$1,993,000	\$2,016,937
BEA048	E	6	1,199,373	7,196,238	Frontier Wireless LLC	\$401,000	\$405,816
BEA049	A	12	2,184,860	26,218,320	Cellco Partnership d/b/a Verizon Wireless	\$23,601,000	\$23,884,457
BEA049	E	6	2,184,860	13,109,160	Frontier Wireless LLC	\$4,840,000	\$4,898,130
BEA050	A	12	1,133,004	13,596,048	Cincinnati Bell Wireless LLC	\$2,628,000	\$2,659,563
BEA050	E	6	1,133,004	6,798,024	Frontier Wireless LLC	\$695,000	\$703,347
BEA051	A	12	2,349,060	28,188,720	Continuum 700 LLC	\$7,814,000	\$7,907,849
BEA051	E	6	2,349,060	14,094,360	Frontier Wireless LLC	\$3,295,000	\$3,334,574
BEA052	A	12	327,645	3,931,740	FCC		
BEA052	E	6	327,645	1,965,870	Frontier Wireless LLC	\$100,000	\$101,201
BEA053	A	12	2,971,829	35,661,948	MCBRIDE SPECTRUM PARTNERS, LLC	\$8,407,000	\$8,507,971
BEA053	E	6	2,971,829	17,830,974	Frontier Wireless LLC	\$3,757,000	\$3,802,123
BEA054	A	12	519,348	6,232,176	Triad 700, LLC	\$379,000	\$383,552
BEA054	E	6	519,348	3,116,088	Frontier Wireless LLC	\$128,000	\$129,537
BEA055	A	12	4,692,460	56,309,520	Cellco Partnership d/b/a Verizon Wireless	\$18,654,000	\$18,878,041
BEA055	E	6	4,692,460	28,154,760	Frontier Wireless LLC	\$4,716,000	\$4,772,641
BEA056	A	12	1,294,395	15,532,740	Cavalier Wireless, LLC	\$3,620,000	\$3,663,478
BEA056	E	6	1,294,395	7,766,370	Frontier Wireless LLC	\$405,000	\$409,864
BEA057	A	12	6,963,637	83,563,644	Cellco Partnership d/b/a Verizon Wireless	\$79,490,000	\$80,444,704
BEA057	E	6	6,963,637	41,781,822	Frontier Wireless LLC	\$32,719,000	\$33,111,967
BEA058	A	12	269,986	3,239,832	CenturyTel Broadband Wireless LLC	\$450,000	\$455,405
BEA058	E	6	269,986	1,619,916	Frontier Wireless LLC	\$318,000	\$321,819
BEA059	A	12	671,225	8,054,700	CenturyTel Broadband Wireless LLC	\$12,170,000	\$12,316,166

**Spectrum Auction Data
FCC 700 MHz Auction
2008**

Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
BEA059	E	6	671,225	4,027,350	Frontier Wireless LLC	\$2,284,000	\$2,311,432
BEA060	A	12	433,250	5,199,000	King Street Wireless, L.P.	\$6,831,000	\$6,913,043
BEA060	E	6	433,250	2,599,500	Frontier Wireless LLC	\$532,000	\$538,390
BEA061	A	12	286,745	3,440,940	CenturyTel Broadband Wireless LLC	\$718,000	\$726,623
BEA061	E	6	286,745	1,720,470	Frontier Wireless LLC	\$639,000	\$646,675
BEA062	A	12	1,881,991	22,583,892	Cellco Partnership d/b/a Verizon Wireless	\$13,555,000	\$13,717,801
BEA062	E	6	1,881,991	11,291,946	Frontier Wireless LLC	\$3,094,000	\$3,131,160
BEA063	A	12	2,255,183	27,062,196	King Street Wireless, L.P.	\$17,760,000	\$17,973,304
BEA063	E	6	2,255,183	13,531,098	Frontier Wireless LLC	\$6,846,000	\$6,928,223
BEA064	A	12	10,328,854	123,946,248	Cellco Partnership d/b/a Verizon Wireless	\$152,532,000	\$154,363,966
BEA064	E	6	10,328,854	61,973,124	Frontier Wireless LLC	\$62,656,000	\$63,408,522
BEA065	A	12	936,245	11,234,940	King Street Wireless, L.P.	\$3,797,000	\$3,842,603
BEA065	E	6	936,245	5,617,470	Frontier Wireless LLC	\$754,000	\$763,056
BEA066	A	12	725,847	8,710,164	King Street Wireless, L.P.	\$2,306,000	\$2,333,696
BEA066	E	6	725,847	4,355,082	Frontier Wireless LLC	\$306,000	\$309,675
BEA067	A	12	3,066,469	36,797,628	Cellco Partnership d/b/a Verizon Wireless	\$31,858,000	\$32,240,626
BEA067	E	6	3,066,469	18,398,814	Frontier Wireless LLC	\$7,553,000	\$7,643,714
BEA068	A	12	630,898	7,570,776	King Street Wireless, L.P.	\$4,538,000	\$4,592,503
BEA068	E	6	630,898	3,785,388	Frontier Wireless LLC	\$1,742,000	\$1,762,922
BEA069	A	12	854,714	10,256,568	I-700, LLC	\$1,727,000	\$1,747,742
BEA069	E	6	854,714	5,128,284	Frontier Wireless LLC	\$619,000	\$626,434
BEA070	A	12	1,416,914	17,002,968	Cavalier Wireless, LLC	\$3,620,000	\$3,663,478
BEA070	E	6	1,416,914	8,501,484	Frontier Wireless LLC	\$2,258,000	\$2,285,119
BEA071	A	12	2,444,643	29,335,716	Cellular South Licenses, Inc.	\$49,201,000	\$49,791,922
BEA071	E	6	2,444,643	14,667,858	Frontier Wireless LLC	\$7,015,000	\$7,099,253
BEA072	A	12	226,586	2,719,032	I-700, LLC	\$441,000	\$446,297
BEA072	E	6	226,586	1,359,516	Frontier Wireless LLC	\$152,000	\$153,826
BEA073	A	12	1,882,332	22,587,984	Cellular South Licenses, Inc.	\$25,228,000	\$25,530,998
BEA073	E	6	1,882,332	11,293,992	Frontier Wireless LLC	\$6,507,000	\$6,585,151
BEA074	A	12	997,824	11,973,888	Cellular South Licenses, Inc.	\$15,851,000	\$16,041,376
BEA074	E	6	997,824	5,986,944	Frontier Wireless LLC	\$600,000	\$607,206
BEA075	A	12	625,002	7,500,024	Cellular South Licenses, Inc.	\$5,219,000	\$5,281,682
BEA075	E	6	625,002	3,750,012	Frontier Wireless LLC	\$422,000	\$427,068
BEA076	A	12	252,280	3,027,360	Cellular South Licenses, Inc.	\$1,971,000	\$1,994,672
BEA076	E	6	252,280	1,513,680	Frontier Wireless LLC	\$94,000	\$95,129
BEA077	A	12	1,432,518	17,190,216	Cellular South Licenses, Inc.	\$12,790,000	\$12,943,613
BEA077	E	6	1,432,518	8,595,108	Frontier Wireless LLC	\$1,405,000	\$1,421,875
BEA078	A	12	1,578,903	18,946,836	Cellular South Licenses, Inc.	\$15,856,000	\$16,046,436
BEA078	E	6	1,578,903	9,473,418	Frontier Wireless LLC	\$3,058,000	\$3,094,728
BEA079	A	12	481,137	5,773,644	Cellular South Licenses, Inc.	\$8,410,000	\$8,511,007
BEA079	E	6	481,137	2,886,822	Frontier Wireless LLC	\$469,000	\$474,633
BEA080	A	12	676,258	8,115,096	Cellular South Licenses, Inc.	\$11,719,000	\$11,859,750
BEA080	E	6	676,258	4,057,548	Frontier Wireless LLC	\$744,000	\$752,936
BEA081	A	12	623,252	7,479,024	Cox Wireless, Inc.	\$19,427,000	\$19,660,325
BEA081	E	6	623,252	3,739,512	Frontier Wireless LLC	\$399,000	\$403,792
BEA082	A	12	396,754	4,761,048	Cellular South Licenses, Inc.	\$4,777,000	\$4,834,374
BEA082	E	6	396,754	2,380,524	Frontier Wireless LLC	\$665,000	\$672,987
BEA083	A	12	1,725,338	20,704,056	Cox Wireless, Inc.	\$15,129,000	\$15,310,705
BEA083	E	6	1,725,338	10,352,028	Frontier Wireless LLC	\$2,380,000	\$2,408,585
BEA084	A	12	739,673	8,876,076	Cox Wireless, Inc.	\$9,517,000	\$9,631,303
BEA084	E	6	739,673	4,438,038	Frontier Wireless LLC	\$734,000	\$742,816
BEA085	A	12	601,654	7,219,848	CenturyTel Broadband Wireless LLC	\$10,614,000	\$10,741,478
BEA085	E	6	601,654	3,609,924	Frontier Wireless LLC	\$1,753,000	\$1,774,054
BEA086	A	12	536,758	6,441,096	CenturyTel Broadband Wireless LLC	\$3,533,000	\$3,575,433
BEA086	E	6	536,758	3,220,548	Frontier Wireless LLC	\$1,597,000	\$1,616,181
BEA087	A	12	456,637	5,479,644	Cavalier Wireless, LLC	\$1,167,000	\$1,181,016
BEA087	E	6	456,637	2,739,822	Frontier Wireless LLC	\$460,000	\$465,525
BEA088	A	12	573,616	6,883,392	CenturyTel Broadband Wireless LLC	\$4,499,000	\$4,553,035
BEA088	E	6	573,616	3,441,696	Frontier Wireless LLC	\$2,499,000	\$2,529,014

**Spectrum Auction Data
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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
BEA089	A	12	333,519	4,002,228	CenturyTel Broadband Wireless LLC	\$1,091,000	\$1,104,103
BEA089	E	6	333,519	2,001,114	Frontier Wireless LLC	\$1,186,000	\$1,200,244
BEA090	A	12	1,614,850	19,378,200	CenturyTel Broadband Wireless LLC	\$11,309,000	\$11,444,825
BEA090	E	6	1,614,850	9,689,100	Frontier Wireless LLC	\$5,610,000	\$5,677,378
BEA091	A	12	329,136	3,949,632	CenturyTel Broadband Wireless LLC	\$6,277,000	\$6,352,389
BEA091	E	6	329,136	1,974,816	Frontier Wireless LLC	\$783,000	\$792,404
BEA092	A	12	405,160	4,861,920	Cox Wireless, Inc.	\$6,180,000	\$6,254,224
BEA092	E	6	405,160	2,430,960	Frontier Wireless LLC	\$749,000	\$757,996
BEA093	A	12	263,904	3,166,848	King Street Wireless, L.P.	\$560,000	\$566,726
BEA093	E	6	263,904	1,583,424	Frontier Wireless LLC	\$235,000	\$237,822
BEA094	A	12	859,559	10,314,708	CenturyTel Broadband Wireless LLC	\$21,928,000	\$22,191,363
BEA094	E	6	859,559	5,157,354	Frontier Wireless LLC	\$2,194,000	\$2,220,351
BEA095	A	12	303,852	3,646,224	CenturyTel Broadband Wireless LLC	\$504,000	\$510,053
BEA095	E	6	303,852	1,823,112	Frontier Wireless LLC	\$761,000	\$770,140
BEA096	A	12	3,558,651	42,703,812	King Street Wireless, L.P.	\$60,918,000	\$61,649,648
BEA096	E	6	3,558,651	21,351,906	Frontier Wireless LLC	\$9,162,000	\$9,272,039
BEA097	A	12	517,462	6,209,544	King Street Wireless, L.P.	\$3,213,000	\$3,251,589
BEA097	E	6	517,462	3,104,772	Frontier Wireless LLC	\$1,008,000	\$1,020,106
BEA098	A	12	369,014	4,428,168	CenturyTel Broadband Wireless LLC	\$10,034,000	\$10,154,512
BEA098	E	6	369,014	2,214,084	Frontier Wireless LLC	\$1,984,000	\$2,007,829
BEA099	A	12	2,469,340	29,632,080	Cellco Partnership d/b/a Verizon Wireless	\$21,282,000	\$21,537,605
BEA099	E	6	2,469,340	14,816,040	Frontier Wireless LLC	\$8,260,000	\$8,359,206
BEA100	A	12	1,683,257	20,199,084	King Street Wireless, L.P.	\$7,740,000	\$7,832,960
BEA100	E	6	1,683,257	10,099,542	Frontier Wireless LLC	\$3,788,000	\$3,833,495
BEA101	A	12	528,671	6,344,052	CenturyTel Broadband Wireless LLC	\$4,063,000	\$4,111,798
BEA101	E	6	528,671	3,172,026	Frontier Wireless LLC	\$1,256,000	\$1,271,085
BEA102	A	12	558,913	6,706,956	King Street Wireless, L.P.	\$1,887,000	\$1,909,664
BEA102	E	6	558,913	3,353,478	Frontier Wireless LLC	\$618,000	\$625,422
BEA103	A	12	384,577	4,614,924	Iowa Intelegra Consortium, LLC	\$1,124,000	\$1,137,500
BEA103	E	6	384,577	2,307,462	Frontier Wireless LLC	\$720,000	\$728,647
BEA104	A	12	933,823	11,205,876	King Street Wireless, L.P.	\$23,037,000	\$23,313,683
BEA104	E	6	933,823	5,602,938	Frontier Wireless LLC	\$1,334,000	\$1,350,022
BEA105	A	12	241,903	2,902,836	CenturyTel Broadband Wireless LLC	\$7,150,000	\$7,235,874
BEA105	E	6	241,903	1,451,418	Frontier Wireless LLC	\$1,199,000	\$1,213,400
BEA106	A	12	318,374	3,820,488	King Street Wireless, L.P.	\$1,545,000	\$1,563,556
BEA106	E	6	318,374	1,910,244	Frontier Wireless LLC	\$430,000	\$435,164
BEA107	A	12	4,498,286	53,979,432	Cellco Partnership d/b/a Verizon Wireless	\$51,087,000	\$51,700,574
BEA107	E	6	4,498,286	26,989,716	Frontier Wireless LLC	\$21,358,000	\$21,614,517
BEA108	A	12	487,723	5,852,676	King Street Wireless, L.P.	\$5,645,000	\$5,712,799
BEA108	E	6	487,723	2,926,338	Frontier Wireless LLC	\$355,000	\$359,264
BEA109	A	12	350,059	4,200,708	NSIGHTTEL WIRELESS, LLC	\$2,403,000	\$2,431,861
BEA109	E	6	350,059	2,100,354	Frontier Wireless LLC	\$379,000	\$383,552
BEA110	A	12	230,253	2,763,036	Kurian, Thomas K	\$472,000	\$477,669
BEA110	E	6	230,253	1,381,518	Frontier Wireless LLC	\$278,000	\$281,339
BEA111	A	12	111,195	1,334,340	LL License Holdings, LLC	\$318,000	\$321,819
BEA111	E	6	111,195	667,170	Frontier Wireless LLC	\$237,000	\$239,846
BEA112	A	12	175,427	2,105,124	LL License Holdings, LLC	\$758,000	\$767,104
BEA112	E	6	175,427	1,052,562	Frontier Wireless LLC	\$329,000	\$332,951
BEA113	A	12	371,691	4,460,292	Kurian, Thomas K	\$834,000	\$844,017
BEA113	E	6	371,691	2,230,146	Frontier Wireless LLC	\$433,000	\$438,200
BEA114	A	12	82,608	991,296	James Valley Cooperative Telephone Company	\$306,000	\$309,675
BEA114	E	6	82,608	495,648	Frontier Wireless LLC	\$199,000	\$201,390
BEA115	A	12	213,696	2,564,352	LL License Holdings, LLC	\$805,000	\$814,668
BEA115	E	6	213,696	1,282,176	Frontier Wireless LLC	\$387,000	\$391,648
BEA116	A	12	519,143	6,229,716	LL License Holdings, LLC	\$976,000	\$987,722
BEA116	E	6	519,143	3,114,858	Frontier Wireless LLC	\$482,000	\$487,789
BEA117	A	12	252,656	3,031,872	LL License Holdings, LLC	\$955,000	\$966,470
BEA117	E	6	252,656	1,515,936	Frontier Wireless LLC	\$450,000	\$455,405
BEA118	A	12	1,044,156	12,529,872	Cox Wireless, Inc.	\$5,698,000	\$5,766,435

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
BEA118	E	6	1,044,156	6,264,936	Frontier Wireless LLC	\$1,133,000	\$1,146,608
BEA119	A	12	379,321	4,551,852	CenturyTel Broadband Wireless LLC	\$1,608,000	\$1,627,313
BEA119	E	6	379,321	2,275,926	Frontier Wireless LLC	\$421,000	\$426,056
BEA120	A	12	288,047	3,456,564	King Street Wireless, L.P.	\$1,784,000	\$1,805,427
BEA120	E	6	288,047	1,728,282	Frontier Wireless LLC	\$211,000	\$213,534
BEA121	A	12	61,758	741,096	King Street Wireless, L.P.	\$102,000	\$103,225
BEA121	E	6	61,758	370,548	Frontier Wireless LLC	\$61,000	\$61,733
BEA122	A	12	1,175,577	14,106,924	Cox Wireless, Inc.	\$7,801,000	\$7,894,693
BEA122	E	6	1,175,577	7,053,462	Frontier Wireless LLC	\$890,000	\$900,689
BEA123	A	12	454,539	5,454,468	Cox Wireless, Inc.	\$1,748,000	\$1,768,994
BEA123	E	6	454,539	2,727,234	Frontier Wireless LLC	\$303,000	\$306,639
BEA124	A	12	1,384,426	16,613,112	Cox Wireless, Inc.	\$15,618,000	\$15,805,578
BEA124	E	6	1,384,426	8,306,556	Frontier Wireless LLC	\$1,598,000	\$1,617,193
BEA125	A	12	1,698,197	20,378,364	Cellco Partnership d/b/a Verizon Wireless	\$12,177,000	\$12,323,250
BEA125	E	6	1,698,197	10,189,182	Frontier Wireless LLC	\$5,434,000	\$5,499,264
BEA126	A	12	139,761	1,677,132	Pioneer Telephone Cooperative, Inc.	\$252,000	\$255,027
BEA126	E	6	139,761	838,566	Frontier Wireless LLC	\$104,000	\$105,249
BEA127	A	12	7,645,530	91,746,360	Cellco Partnership d/b/a Verizon Wireless	\$171,956,000	\$174,021,255
BEA127	E	6	7,645,530	45,873,180	Frontier Wireless LLC	\$47,327,000	\$47,895,415
BEA128	A	12	222,147	2,665,764	Central Texas Telephone Investments, LP	\$927,000	\$938,134
BEA128	E	6	222,147	1,332,882	Frontier Wireless LLC	\$234,000	\$236,810
BEA129	A	12	202,679	2,432,148	Central Texas Telephone Investments, LP	\$721,000	\$729,659
BEA129	E	6	202,679	1,216,074	Frontier Wireless LLC	\$153,000	\$154,838
BEA130	A	12	1,349,267	16,191,204	Cellco Partnership d/b/a Verizon Wireless	\$17,370,000	\$17,578,620
BEA130	E	6	1,349,267	8,095,602	Frontier Wireless LLC	\$2,720,000	\$2,752,668
BEA131	A	12	5,632,853	67,594,236	Cellco Partnership d/b/a Verizon Wireless	\$53,474,000	\$54,116,243
BEA131	E	6	5,632,853	33,797,118	Frontier Wireless LLC	\$26,208,000	\$26,522,768
BEA132	A	12	549,012	6,588,144	Cavalier Wireless, LLC	\$829,000	\$838,957
BEA132	E	6	549,012	3,294,072	Frontier Wireless LLC	\$352,000	\$356,228
BEA133	A	12	978,369	11,740,428	Cavalier Wireless, LLC	\$1,161,000	\$1,174,944
BEA133	E	6	978,369	5,870,214	Frontier Wireless LLC	\$575,000	\$581,906
BEA134	A	12	2,141,060	25,692,720	Cellco Partnership d/b/a Verizon Wireless	\$23,043,000	\$23,319,755
BEA134	E	6	2,141,060	12,846,360	Frontier Wireless LLC	\$6,690,000	\$6,770,349
BEA135	A	12	388,007	4,656,084	Miller, David	\$1,730,000	\$1,750,778
BEA135	E	6	388,007	2,328,042	Frontier Wireless LLC	\$437,000	\$442,249
BEA136	A	12	190,340	2,284,080	PVT Networks, Inc.	\$473,000	\$478,681
BEA136	E	6	190,340	1,142,040	Frontier Wireless LLC	\$286,000	\$289,435
BEA137	A	12	374,626	4,495,512	FCC		
BEA137	E	6	374,626	2,247,756	Frontier Wireless LLC	\$425,000	\$430,104
BEA138	A	12	481,633	5,779,596	Miller, David	\$795,000	\$804,548
BEA138	E	6	481,633	2,889,798	Frontier Wireless LLC	\$292,000	\$295,507
BEA139	A	12	258,790	3,105,480	SAL Spectrum, LLC	\$1,036,000	\$1,048,443
BEA139	E	6	258,790	1,552,740	Frontier Wireless LLC	\$400,000	\$404,804
BEA140	A	12	279,600	3,355,200	CenturyTel Broadband Wireless LLC	\$967,000	\$978,614
BEA140	E	6	279,600	1,677,600	Frontier Wireless LLC	\$601,000	\$608,218
BEA141	A	12	3,984,105	47,809,260	Cellco Partnership d/b/a Verizon Wireless	\$38,056,000	\$38,513,067
BEA141	E	6	3,984,105	23,904,630	Frontier Wireless LLC	\$23,096,000	\$23,373,392
BEA142	A	12	92,360	1,108,320	Hemingford Cooperative Telephone Company	\$282,000	\$285,387
BEA142	E	6	92,360	554,160	Frontier Wireless LLC	\$150,000	\$151,802
BEA143	A	12	408,708	4,904,496	Union Telephone Company	\$3,797,000	\$3,842,603
BEA143	E	6	408,708	2,452,248	Frontier Wireless LLC	\$494,000	\$499,933
BEA144	A	12	404,902	4,858,824	Bresnan Communications, Inc.	\$1,457,000	\$1,474,499
BEA144	E	6	404,902	2,429,412	Frontier Wireless LLC	\$190,000	\$192,282
BEA145	A	12	166,564	1,998,768	Bresnan Communications, Inc.	\$317,000	\$320,807
BEA145	E	6	166,564	999,384	Frontier Wireless LLC	\$51,000	\$51,613
BEA146	A	12	399,183	4,790,196	CenturyTel Broadband Wireless LLC	\$3,456,000	\$3,497,508
BEA146	E	6	399,183	2,395,098	Frontier Wireless LLC	\$810,000	\$819,728
BEA147	A	12	829,735	9,956,820	Cavalier Wireless, LLC	\$4,445,000	\$4,498,386
BEA147	E	6	829,735	4,978,410	Frontier Wireless LLC	\$1,048,000	\$1,060,587

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
BEA148	A	12	306,120	3,673,440	Manti Telephone Company	\$1,086,000	\$1,099,043
BEA148	E	6	306,120	1,836,720	Frontier Wireless LLC	\$325,000	\$328,903
BEA149	A	12	162,397	1,948,764	Manti Telephone Company	\$374,000	\$378,492
BEA149	E	6	162,397	974,382	Frontier Wireless LLC	\$107,000	\$108,285
BEA150	A	12	574,876	6,898,512	Continuum 700 LLC	\$3,268,000	\$3,307,250
BEA150	E	6	574,876	3,449,256	Frontier Wireless LLC	\$720,000	\$728,647
BEA151	A	12	670,013	8,040,156	Triad 700, LLC	\$2,802,000	\$2,835,653
BEA151	E	6	670,013	4,020,078	Frontier Wireless LLC	\$588,000	\$595,062
BEA152	A	12	2,088,974	25,067,688	Continuum 700 LLC	\$15,824,000	\$16,014,052
BEA152	E	6	2,088,974	12,533,844	Frontier Wireless LLC	\$5,461,000	\$5,526,589
BEA153	A	12	1,709,797	20,517,564	Cox Wireless, Inc.	\$30,974,000	\$31,346,009
BEA153	E	6	1,709,797	10,258,782	Frontier Wireless LLC	\$9,533,000	\$9,647,495
BEA154	A	12	401,766	4,821,192	SAL Spectrum, LLC	\$1,475,000	\$1,492,715
BEA154	E	6	401,766	2,410,596	Frontier Wireless LLC	\$162,000	\$163,946
BEA155	A	12	193,872	2,326,464	CenturyTel Broadband Wireless LLC	\$1,489,000	\$1,506,883
BEA155	E	6	193,872	1,163,232	Frontier Wireless LLC	\$168,000	\$170,018
BEA156	A	12	921,086	11,053,032	Continuum 700 LLC	\$4,538,000	\$4,592,503
BEA156	E	6	921,086	5,526,516	Frontier Wireless LLC	\$738,000	\$746,864
BEA157	A	12	955,602	11,467,224	Miller, David	\$4,073,000	\$4,121,918
BEA157	E	6	955,602	5,733,612	Frontier Wireless LLC	\$2,624,000	\$2,655,515
BEA158	A	12	3,407,197	40,886,364	Cox Wireless, Inc.	\$53,042,000	\$53,679,054
BEA158	E	6	3,407,197	20,443,182	Frontier Wireless LLC	\$27,418,000	\$27,747,300
BEA159	A	12	999,882	11,998,584	Cox Wireless, Inc.	\$5,508,000	\$5,574,153
BEA159	E	6	999,882	5,999,292	Frontier Wireless LLC	\$1,950,000	\$1,973,420
BEA160	A	12	18,003,420	216,041,040	Cellco Partnership d/b/a Verizon Wireless	\$580,268,000	\$587,237,234
BEA160	E	6	18,003,420	108,020,520	QUALCOMM Incorporated	\$154,999,000	\$156,860,595
BEA161	A	12	2,813,833	33,765,996	Cox Wireless, Inc.	\$84,119,000	\$85,129,300
BEA161	E	6	2,813,833	16,882,998	Frontier Wireless LLC	\$14,469,000	\$14,642,778
BEA162	A	12	1,419,998	17,039,976	Cellco Partnership d/b/a Verizon Wireless	\$15,637,000	\$15,824,806
BEA162	E	6	1,419,998	8,519,988	Frontier Wireless LLC	\$2,251,000	\$2,278,035
BEA163	A	12	9,111,806	109,341,672	Cellco Partnership d/b/a Verizon Wireless	\$103,697,000	\$104,942,439
BEA163	E	6	9,111,806	54,670,836	QUALCOMM Incorporated	\$81,613,000	\$82,593,202
BEA164	A	12	2,311,567	27,738,804	Cellco Partnership d/b/a Verizon Wireless	\$25,353,000	\$25,657,499
BEA164	E	6	2,311,567	13,869,402	Frontier Wireless LLC	\$4,406,000	\$4,458,918
BEA165	A	12	336,820	4,041,840	King Street Wireless, L.P.	\$1,144,000	\$1,157,740
BEA165	E	6	336,820	2,020,920	Frontier Wireless LLC	\$83,000	\$83,997
BEA166	A	12	791,776	9,501,312	King Street Wireless, L.P.	\$2,721,000	\$2,753,680
BEA166	E	6	791,776	4,750,656	Frontier Wireless LLC	\$657,000	\$664,891
BEA167	A	12	2,883,737	34,604,844	Vulcan Spectrum LLC	\$43,603,000	\$44,126,688
BEA167	E	6	2,883,737	17,302,422	Frontier Wireless LLC	\$15,393,000	\$15,577,876
BEA168	A	12	200,681	2,408,172	CenturyTel Broadband Wireless LLC	\$730,000	\$738,768
BEA168	E	6	200,681	1,204,086	Frontier Wireless LLC	\$101,000	\$102,213
BEA169	A	12	677,674	8,132,088	King Street Wireless, L.P.	\$2,393,000	\$2,421,741
BEA169	E	6	677,674	4,066,044	Frontier Wireless LLC	\$622,000	\$629,470
BEA170	A	12	4,135,291	49,623,492	Vulcan Spectrum LLC	\$69,190,000	\$70,020,998
BEA170	E	6	4,135,291	24,811,746	Frontier Wireless LLC	\$36,477,000	\$36,915,102
BEA171	A	12	626,932	7,523,184	Triad 700, LLC	\$1,315,000	\$1,330,794
BEA171	E	6	626,932	3,761,592	Frontier Wireless LLC	\$1,002,000	\$1,014,034
BEA172	A	12	1,211,537	14,538,444	Cavalier Wireless, LLC	\$3,728,000	\$3,772,775
BEA172	E	6	1,211,537	7,269,222	Frontier Wireless LLC	\$1,088,000	\$1,101,067
BEA173	A	12	224,026	2,688,312	PTI Pacifica, Inc.	\$1,293,000	\$1,308,529
BEA173	E	6	224,026	1,344,156	Kurian, Thomas K	\$173,000	\$175,078
BEA174	A	12	3,917,222	47,006,664	Puerto Rico Telephone Company, Inc.	\$19,904,000	\$20,143,054
BEA174	E	6	3,917,222	23,503,332	Frontier Wireless LLC	\$10,068,000	\$10,188,920
BEA175	A	12	57,291	687,492	AST Telecom, LLC	\$20,000	\$20,240
BEA175	E	6	57,291	343,746	Club 42 CM Limited Partnership	\$17,000	\$17,204
BEA176	A	12			CHEVRON USA INC.	\$771,000	\$780,260
BEA176	E	6			CHEVRON USA INC.	\$217,000	\$219,606
CMA001	B	12	16,134,166	193,609,992	AT&T Mobility Spectrum, LLC	\$884,703,000	\$895,328,611

**Spectrum Auction Data
FCC 700 MHz Auction
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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA002	B	12	15,620,448	187,445,376	Cellco Partnership d/b/a Verizon Wireless	\$483,981,000	\$489,793,791
CMA003	B	12	8,091,720	97,100,640	Cellco Partnership d/b/a Verizon Wireless	\$892,400,000	\$903,118,055
CMA004	B	12	5,036,646	60,439,752	AT&T Mobility Spectrum, LLC	\$365,481,000	\$369,870,562
CMA005	B	12	4,775,452	57,305,424	AT&T Mobility Spectrum, LLC	\$202,656,000	\$205,089,974
CMA006	B	12	4,279,111	51,349,332	AT&T Mobility Spectrum, LLC	\$293,309,000	\$296,831,750
CMA007	B	12	4,123,740	49,484,880	AT&T Mobility Spectrum, LLC	\$250,467,000	\$253,475,202
CMA008	B	12	4,182,658	50,191,896	AT&T Mobility Spectrum, LLC	\$241,363,000	\$244,261,859
CMA009	B	12	5,120,721	61,448,652	AT&T Mobility Spectrum, LLC	\$131,125,000	\$132,699,860
CMA010	B	12	4,393,382	52,720,584	AT&T Mobility Spectrum, LLC	\$194,492,000	\$196,827,921
CMA011	B	12	2,518,470	30,221,640	AT&T Mobility Spectrum, LLC	\$128,457,000	\$129,999,816
CMA012	B	12	3,876,380	46,516,560	Cellco Partnership d/b/a Verizon Wireless	\$232,503,000	\$235,295,447
CMA013	B	12	2,035,968	24,431,616	AT&T Mobility Spectrum, LLC	\$76,471,000	\$77,389,445
CMA014	B	12	2,512,431	30,149,172	AT&T Mobility Spectrum, LLC	\$120,249,000	\$121,693,235
CMA015	B	12	2,836,298	34,035,576	AT&T Mobility Spectrum, LLC	\$166,880,000	\$168,884,291
CMA016	B	12	1,863,479	22,361,748	AT&T Mobility Spectrum, LLC	\$56,872,000	\$57,555,054
CMA017	B	12	3,751,674	45,020,088	AT&T Mobility Spectrum, LLC	\$248,784,000	\$251,771,988
CMA018	B	12	2,813,833	33,765,996	AT&T Mobility Spectrum, LLC	\$176,977,000	\$179,102,559
CMA019	B	12	2,405,327	28,863,924	AT&T Mobility Spectrum, LLC	\$55,682,000	\$56,350,761
CMA020	B	12	2,343,058	28,116,696	AT&T Mobility Spectrum, LLC	\$219,074,000	\$221,705,160
CMA021	B	12	1,500,741	18,008,892	AT&T Mobility Spectrum, LLC	\$111,118,000	\$112,452,568
CMA022	B	12	2,265,195	27,182,340	AT&T Mobility Spectrum, LLC	\$115,094,000	\$116,476,322
CMA023	B	12	1,553,843	18,646,116	Cellco Partnership d/b/a Verizon Wireless	\$35,120,000	\$35,541,804
CMA024	B	12	1,627,081	19,524,972	AT&T Mobility Spectrum, LLC	\$71,232,000	\$72,087,523
CMA025	B	12	1,170,111	14,041,332	AT&T Mobility Spectrum, LLC	\$10,461,000	\$10,586,640
CMA026	B	12	3,072,149	36,865,788	AT&T Mobility Spectrum, LLC	\$222,649,000	\$225,323,097
CMA027	B	12	1,682,585	20,191,020	AT&T Mobility Spectrum, LLC	\$107,376,000	\$108,665,626
CMA028	B	12	1,474,128	17,689,536	AT&T Mobility Spectrum, LLC	\$66,058,000	\$66,851,381
CMA029	B	12	1,198,637	14,383,644	AT&T Mobility Spectrum, LLC	\$27,888,000	\$28,222,945
CMA030	B	12	1,789,457	21,473,484	AT&T Mobility Spectrum, LLC	\$46,451,000	\$47,008,894
CMA031	B	12	1,394,666	16,735,992	AT&T Mobility Spectrum, LLC	\$23,487,000	\$23,769,088
CMA032	B	12	1,148,618	13,783,416	AT&T Mobility Spectrum, LLC	\$61,162,000	\$61,896,578
CMA033	B	12	1,559,975	18,719,700	AT&T Mobility Spectrum, LLC	\$54,914,000	\$55,573,537
CMA034	B	12	1,037,831	12,453,972	Cellco Partnership d/b/a Verizon Wireless	\$19,135,000	\$19,364,818
CMA035	B	12	1,640,558	19,686,696	AT&T Mobility Spectrum, LLC	\$77,783,000	\$78,717,203
CMA036	B	12	1,106,808	13,281,696	Cellco Partnership d/b/a Verizon Wireless	\$32,608,000	\$32,999,634
CMA037	B	12	968,313	11,619,756	AT&T Mobility Spectrum, LLC	\$34,096,000	\$34,505,506
CMA038	B	12	962,886	11,554,632	AT&T Mobility Spectrum, LLC	\$47,402,000	\$47,971,316
CMA039	B	12	1,374,649	16,495,788	AT&T Mobility Spectrum, LLC	\$55,556,000	\$56,223,248
CMA040	B	12	848,153	10,177,836	AT&T Mobility Spectrum, LLC	\$14,147,000	\$14,316,911
CMA041	B	12	940,795	11,289,540	AT&T Mobility Spectrum, LLC	\$25,042,000	\$25,342,764
CMA042	B	12	882,567	10,590,804	AT&T Mobility Spectrum, LLC	\$34,837,000	\$35,255,405
CMA043	B	12	1,041,276	12,495,312	AT&T Mobility Spectrum, LLC	\$42,352,000	\$42,860,663
CMA044	B	12	844,001	10,128,012	AT&T Mobility Spectrum, LLC	\$10,925,000	\$11,056,213
CMA045	B	12	1,049,422	12,593,064	Cellco Partnership d/b/a Verizon Wireless	\$92,226,000	\$93,333,668
CMA046	B	12	1,231,311	14,775,732	AT&T Mobility Spectrum, LLC	\$65,269,000	\$66,052,905
CMA047	B	12	1,085,874	13,030,488	Cellco Partnership d/b/a Verizon Wireless	\$57,465,000	\$58,155,176
CMA048	B	12	805,133	9,661,596	AT&T Mobility Spectrum, LLC	\$11,657,000	\$11,797,005
CMA049	B	12	824,008	9,888,096	AT&T Mobility Spectrum, LLC	\$29,490,000	\$29,844,186
CMA050	B	12	876,156	10,513,872	AT&T Mobility Spectrum, LLC	\$11,916,000	\$12,059,116
CMA051	B	12	1,122,750	13,473,000	AT&T Mobility Spectrum, LLC	\$30,733,000	\$31,102,115
CMA052	B	12	694,960	8,339,520	AT&T Mobility Spectrum, LLC	\$12,398,000	\$12,546,905
CMA053	B	12	650,154	7,801,848	AT&T Mobility Spectrum, LLC	\$10,736,000	\$10,864,943
CMA054	B	12	631,362	7,576,344	AT&T Mobility Spectrum, LLC	\$7,020,000	\$7,104,313
CMA055	B	12	750,963	9,011,556	AT&T Mobility Spectrum, LLC	\$11,858,000	\$12,000,419
CMA056	B	12	671,232	8,054,784	AT&T Mobility Spectrum, LLC	\$10,832,000	\$10,962,096
CMA057	B	12	841,604	10,099,248	AT&T Mobility Spectrum, LLC	\$24,336,000	\$24,628,284
CMA058	B	12	740,395	8,884,740	AT&T Mobility Spectrum, LLC	\$25,572,000	\$25,879,129
CMA059	B	12	865,941	10,391,292	AT&T Mobility Spectrum, LLC	\$24,745,000	\$25,042,197
CMA060	B	12	1,434,033	17,208,396	AT&T Mobility Spectrum, LLC	\$87,282,000	\$88,330,289

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CMA061	B	12	1,009,496	12,113,952	Cellco Partnership d/b/a Verizon Wireless	\$58,748,000	\$59,453,585
CMA062	B	12	750,162	9,001,944	AT&T Mobility Spectrum, LLC	\$45,356,000	\$45,900,742
CMA063	B	12	608,479	7,301,748	AT&T Mobility Spectrum, LLC	\$11,806,000	\$11,947,794
CMA064	B	12	812,649	9,751,788	AT&T Mobility Spectrum, LLC	\$38,441,000	\$38,902,691
CMA065	B	12	673,884	8,086,608	AT&T Mobility Spectrum, LLC	\$15,744,000	\$15,933,091
CMA066	B	12	482,671	5,792,052	Cellco Partnership d/b/a Verizon Wireless	\$5,468,000	\$5,533,673
CMA067	B	12	744,164	8,929,968	AT&T Mobility Spectrum, LLC	\$12,861,000	\$13,015,465
CMA068	B	12	507,828	6,093,936	AT&T Mobility Spectrum, LLC	\$7,399,000	\$7,487,865
CMA069	B	12	650,501	7,806,012	AT&T Mobility Spectrum, LLC	\$21,284,000	\$21,539,629
CMA070	B	12	615,301	7,383,612	AT&T Mobility Spectrum, LLC	\$26,178,000	\$26,492,407
CMA071	B	12	969,387	11,632,644	Cellco Partnership d/b/a Verizon Wireless	\$42,085,000	\$42,590,456
CMA072	B	12	1,131,184	13,574,208	Cellco Partnership d/b/a Verizon Wireless	\$26,993,000	\$27,317,196
CMA073	B	12	753,197	9,038,364	AT&T Mobility Spectrum, LLC	\$20,220,000	\$20,462,850
CMA074	B	12	799,407	9,592,884	AT&T Mobility Spectrum, LLC	\$14,057,000	\$14,225,830
CMA075	B	12	1,159,836	13,918,032	AT&T Mobility Spectrum, LLC	\$37,045,000	\$37,489,924
CMA076	B	12	534,678	6,416,136	AT&T Mobility Spectrum, LLC	\$5,936,000	\$6,007,294
CMA077	B	12	843,746	10,124,952	AT&T Mobility Spectrum, LLC	\$27,041,000	\$27,365,772
CMA078	B	12	509,246	6,110,952	AT&T Mobility Spectrum, LLC	\$13,031,000	\$13,187,507
CMA079	B	12	576,993	6,923,916	AT&T Mobility Spectrum, LLC	\$18,346,000	\$18,566,342
CMA080	B	12	602,894	7,234,728	AT&T Mobility Spectrum, LLC	\$16,010,000	\$16,202,286
CMA081	B	12	679,622	8,155,464	AT&T Mobility Spectrum, LLC	\$9,321,000	\$9,432,949
CMA082	B	12	700,820	8,409,840	AT&T Mobility Spectrum, LLC	\$12,524,000	\$12,674,418
CMA083	B	12	540,258	6,483,096	AT&T Mobility Spectrum, LLC	\$11,046,000	\$11,178,667
CMA084	B	12	509,074	6,108,888	AT&T Mobility Spectrum, LLC	\$5,547,000	\$5,613,622
CMA085	B	12	480,091	5,761,092	AT&T Mobility Spectrum, LLC	\$5,446,000	\$5,511,408
CMA086	B	12	646,586	7,759,032	AT&T Mobility Spectrum, LLC	\$8,124,000	\$8,221,572
CMA087	B	12	406,934	4,883,208	AT&T Mobility Spectrum, LLC	\$5,711,000	\$5,779,591
CMA088	B	12	476,531	5,718,372	AT&T Mobility Spectrum, LLC	\$9,612,000	\$9,727,444
CMA089	B	12	512,351	6,148,212	AT&T Mobility Spectrum, LLC	\$12,123,000	\$12,268,602
CMA090	B	12	549,033	6,588,396	AT&T Mobility Spectrum, LLC	\$13,409,000	\$13,570,047
CMA091	B	12	2,176,135	26,113,620	Puerto Rico Telephone Company, Inc.	\$11,498,000	\$11,636,095
CMA092	B	12	583,845	7,006,140	AT&T Mobility Spectrum, LLC	\$16,582,000	\$16,781,156
CMA093	B	12	1,375,765	16,509,180	AT&T Mobility Spectrum, LLC	\$82,281,000	\$83,269,225
CMA094	B	12	403,070	4,836,840	AT&T Mobility Spectrum, LLC	\$1,308,000	\$1,323,710
CMA095	B	12	536,691	6,440,292	AT&T Mobility Spectrum, LLC	\$15,516,000	\$15,702,353
CMA096	B	12	464,066	5,568,792	AT&T Mobility Spectrum, LLC	\$3,706,000	\$3,750,510
CMA097	B	12	661,645	7,939,740	AT&T Mobility Spectrum, LLC	\$8,248,000	\$8,347,062
CMA098	B	12	359,062	4,308,744	AT&T Mobility Spectrum, LLC	\$3,952,000	\$3,999,465
CMA099	B	12	473,043	5,676,516	AT&T Mobility Spectrum, LLC	\$5,167,000	\$5,229,058
CMA100	B	12	392,302	4,707,624	AT&T Mobility Spectrum, LLC	\$7,947,000	\$8,042,446
CMA101	B	12	385,090	4,621,080	AT&T Mobility Spectrum, LLC	\$2,617,000	\$2,648,431
CMA102	B	12	456,022	5,472,264	King Street Wireless, L.P.	\$27,057,000	\$27,381,965
CMA103	B	12	347,387	4,168,644	AT&T Mobility Spectrum, LLC	\$2,777,000	\$2,810,353
CMA104	B	12	489,330	5,871,960	AT&T Mobility Spectrum, LLC	\$13,064,000	\$13,220,903
CMA105	B	12	470,658	5,647,896	AT&T Mobility Spectrum, LLC	\$19,682,000	\$19,918,388
CMA106	B	12	440,801	5,289,612	AT&T Mobility Spectrum, LLC	\$7,131,000	\$7,216,646
CMA107	B	12	563,598	6,763,176	AT&T Mobility Spectrum, LLC	\$10,238,000	\$10,360,962
CMA108	B	12	452,846	5,434,152	AT&T Mobility Spectrum, LLC	\$8,669,000	\$8,773,118
CMA109	B	12	417,939	5,015,268	AT&T Mobility Spectrum, LLC	\$8,309,000	\$8,408,794
CMA110	B	12	315,538	3,786,456	AT&T Mobility Spectrum, LLC	\$3,475,000	\$3,516,736
CMA111	B	12	518,821	6,225,852	AT&T Mobility Spectrum, LLC	\$17,012,000	\$17,216,320
CMA112	B	12	380,783	4,569,396	AT&T Mobility Spectrum, LLC	\$1,289,000	\$1,304,481
CMA113	B	12	426,526	5,118,312	AT&T Mobility Spectrum, LLC	\$12,029,000	\$12,173,473
CMA114	B	12	483,924	5,807,088	AT&T Mobility Spectrum, LLC	\$16,068,000	\$16,260,983
CMA115	B	12	299,896	3,598,752	PCS Partners, L.P.	\$674,000	\$682,095
CMA116	B	12	408,326	4,899,912	AT&T Mobility Spectrum, LLC	\$11,471,000	\$11,608,771
CMA117	B	12	537,484	6,449,808	AT&T Mobility Spectrum, LLC	\$6,630,000	\$6,709,629
CMA118	B	12	373,638	4,483,656	AT&T Mobility Spectrum, LLC	\$1,820,000	\$1,841,859
CMA119	B	12	328,695	3,944,340	AT&T Mobility Spectrum, LLC	\$673,000	\$681,083

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CMA120	B	12	424,607	5,095,284	AT&T Mobility Spectrum, LLC	\$9,590,000	\$9,705,179
CMA121	B	12	350,761	4,209,132	AT&T Mobility Spectrum, LLC	\$2,410,000	\$2,438,945
CMA122	B	12	294,558	3,534,696	Cavalier Wireless, LLC	\$186,000	\$188,234
CMA123	B	12	458,614	5,503,368	AT&T Mobility Spectrum, LLC	\$5,181,000	\$5,243,226
CMA124	B	12	399,347	4,792,164	AT&T Mobility Spectrum, LLC	\$12,251,000	\$12,398,139
CMA125	B	12	358,365	4,300,380	AT&T Mobility Spectrum, LLC	\$6,908,000	\$6,990,968
CMA126	B	12	401,762	4,821,144	AT&T Mobility Spectrum, LLC	\$4,963,000	\$5,022,607
CMA127	B	12	412,153	4,945,836	AT&T Mobility Spectrum, LLC	\$19,446,000	\$19,679,554
CMA128	B	12	569,463	6,833,556	AT&T Mobility Spectrum, LLC	\$8,342,000	\$8,442,191
CMA129	B	12	310,687	3,728,244	AT&T Mobility Spectrum, LLC	\$2,200,000	\$2,226,423
CMA130	B	12	280,843	3,370,116	Triad 700, LLC	\$224,000	\$226,690
CMA131	B	12	320,204	3,842,448	AT&T Mobility Spectrum, LLC	\$2,407,000	\$2,435,909
CMA132	B	12	314,866	3,778,392	AT&T Mobility Spectrum, LLC	\$3,631,000	\$3,674,610
CMA133	B	12	380,841	4,570,092	AT&T Mobility Spectrum, LLC	\$7,911,000	\$8,006,014
CMA134	B	12	354,878	4,258,536	AT&T Mobility Spectrum, LLC	\$2,520,000	\$2,550,266
CMA135	B	12	322,959	3,875,508	AT&T Mobility Spectrum, LLC	\$1,978,000	\$2,001,757
CMA136	B	12	284,664	3,415,968	CenturyTel Broadband Wireless LLC	\$408,000	\$412,900
CMA137	B	12	476,230	5,714,760	AT&T Mobility Spectrum, LLC	\$12,615,000	\$12,766,511
CMA138	B	12	322,549	3,870,588	AT&T Mobility Spectrum, LLC	\$7,171,000	\$7,257,126
CMA139	B	12	333,055	3,996,660	AT&T Mobility Spectrum, LLC	\$3,930,000	\$3,977,201
CMA140	B	12	251,662	3,019,944	King Street Wireless, L.P.	\$661,000	\$668,939
CMA141	B	12	243,815	2,925,780	AT&T Mobility Spectrum, LLC	\$1,607,000	\$1,626,301
CMA142	B	12	446,997	5,363,964	AT&T Mobility Spectrum, LLC	\$12,193,000	\$12,339,442
CMA143	B	12	232,621	2,791,452	Miller, David	\$158,000	\$159,898
CMA144	B	12	341,367	4,096,404	AT&T Mobility Spectrum, LLC	\$1,831,000	\$1,852,991
CMA145	B	12	332,807	3,993,684	AT&T Mobility Spectrum, LLC	\$866,000	\$876,401
CMA146	B	12	443,343	5,320,116	AT&T Mobility Spectrum, LLC	\$16,553,000	\$16,751,808
CMA147	B	12	264,919	3,179,028	VentureTel 700, Inc.	\$590,000	\$597,086
CMA148	B	12	347,214	4,166,568	AT&T Mobility Spectrum, LLC	\$1,161,000	\$1,174,944
CMA149	B	12	302,963	3,635,556	King Street Wireless, L.P.	\$5,351,000	\$5,415,267
CMA150	B	12	368,021	4,416,252	AT&T Mobility Spectrum, LLC	\$4,408,000	\$4,460,942
CMA151	B	12	280,150	3,361,800	PCS Partners, L.P.	\$674,000	\$682,095
CMA152	B	12	300,826	3,609,912	AT&T Mobility Spectrum, LLC	\$1,662,000	\$1,681,961
CMA153	B	12	250,929	3,011,148	Cellco Partnership d/b/a Verizon Wireless	\$826,000	\$835,921
CMA154	B	12	259,088	3,109,056	Triad 700, LLC	\$717,000	\$725,611
CMA155	B	12	293,000	3,516,000	AT&T Mobility Spectrum, LLC	\$9,064,000	\$9,172,862
CMA156	B	12	298,975	3,587,700	AT&T Mobility Spectrum, LLC	\$2,099,000	\$2,124,210
CMA157	B	12	241,023	2,892,276	Cox Wireless, Inc.	\$2,339,000	\$2,367,092
CMA158	B	12	219,469	2,633,628	Triad 700, LLC	\$659,000	\$666,915
CMA159	B	12	368,536	4,422,432	AT&T Mobility Spectrum, LLC	\$6,032,000	\$6,104,447
CMA160	B	12	312,952	3,755,424	AT&T Mobility Spectrum, LLC	\$4,324,000	\$4,375,933
CMA161	B	12	242,628	2,911,536	Cellco Partnership d/b/a Verizon Wireless	\$714,000	\$722,575
CMA162	B	12	335,227	4,022,724	AT&T Mobility Spectrum, LLC	\$2,568,000	\$2,598,843
CMA163	B	12	294,676	3,536,112	AT&T Mobility Spectrum, LLC	\$9,274,000	\$9,385,384
CMA164	B	12	440,888	5,290,656	AT&T Mobility Spectrum, LLC	\$12,635,000	\$12,786,751
CMA165	B	12	255,399	3,064,788	Cox Wireless, Inc.	\$5,789,000	\$5,858,528
CMA166	B	12	264,436	3,173,232	Cavalier Wireless, LLC	\$889,000	\$899,677
CMA167	B	12	325,957	3,911,484	AT&T Mobility Spectrum, LLC	\$3,171,000	\$3,209,085
CMA168	B	12	307,402	3,688,824	AT&T Mobility Spectrum, LLC	\$9,312,000	\$9,423,841
CMA169	B	12	227,412	2,728,944	VentureTel 700, Inc.	\$547,000	\$553,570
CMA170	B	12	250,158	3,001,896	Triad 700, LLC	\$930,000	\$941,170
CMA171	B	12	339,486	4,073,832	AT&T Mobility Spectrum, LLC	\$2,689,000	\$2,721,296
CMA172	B	12	250,291	3,003,492	Cable Montana LLC	\$1,770,000	\$1,791,258
CMA173	B	12	246,190	2,954,280	AT&T Mobility Spectrum, LLC	\$4,503,000	\$4,557,083
CMA174	B	12	239,086	2,869,032	Cox Wireless, Inc.	\$2,965,000	\$3,000,611
CMA175	B	12	255,602	3,067,224	Triad 700, LLC	\$989,000	\$1,000,878
CMA176	B	12	201,437	2,417,244	King Street Wireless, L.P.	\$1,618,000	\$1,637,433
CMA177	B	12	194,740	2,336,880	Agri-Valley Communications, Inc.	\$375,000	\$379,504
CMA178	B	12	153,172	1,838,064	GreenFly LLC	\$159,000	\$160,910

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CMA179	B	12	205,009	2,460,108	King Street Wireless, L.P.	\$1,895,000	\$1,917,760
CMA180	B	12	183,632	2,203,584	Cavalier Wireless, LLC	\$297,000	\$300,567
CMA181	B	12	197,073	2,364,876	Agri-Valley Communications, Inc.	\$339,000	\$343,072
CMA182	B	12	311,121	3,733,452	AT&T Mobility Spectrum, LLC	\$5,789,000	\$5,858,528
CMA183	B	12	225,965	2,711,580	King Street Wireless, L.P.	\$712,000	\$720,551
CMA184	B	12	194,477	2,333,724	maxima international llc	\$113,000	\$114,357
CMA185	B	12	170,943	2,051,316	I-700, LLC	\$665,000	\$672,987
CMA186	B	12	226,778	2,721,336	King Street Wireless, L.P.	\$3,752,000	\$3,797,063
CMA187	B	12	260,283	3,123,396	AT&T Mobility Spectrum, LLC	\$1,383,000	\$1,399,610
CMA188	B	12	217,858	2,614,296	Cellco Partnership d/b/a Verizon Wireless	\$765,000	\$774,188
CMA189	B	12	188,831	2,265,972	King Street Wireless, L.P.	\$2,990,000	\$3,025,911
CMA190	B	12	300,904	3,610,848	AT&T Mobility Spectrum, LLC	\$3,609,000	\$3,652,345
CMA191	B	12	222,581	2,670,972	Cellco Partnership d/b/a Verizon Wireless	\$1,866,000	\$1,888,411
CMA192	B	12	244,043	2,928,516	Cox Wireless, Inc.	\$8,069,000	\$8,165,912
CMA193	B	12	162,453	1,949,436	King Street Wireless, L.P.	\$423,000	\$428,080
CMA194	B	12	213,517	2,562,204	Cellco Partnership d/b/a Verizon Wireless	\$951,000	\$962,422
CMA195	B	12	191,701	2,300,412	King Street Wireless, L.P.	\$3,047,000	\$3,083,596
CMA196	B	12	179,669	2,156,028	I-700, LLC	\$819,000	\$828,836
CMA197	B	12	183,577	2,202,924	Cellco Partnership d/b/a Verizon Wireless	\$3,885,000	\$3,931,660
CMA198	B	12	231,809	2,781,708	Wireless Communications Venture	\$8,055,000	\$8,151,744
CMA199	B	12	132,008	1,584,096	Triad 700, LLC	\$58,000	\$58,697
CMA200	B	12	157,110	1,885,320	King Street Wireless, L.P.	\$365,000	\$369,384
CMA201	B	12	151,337	1,816,044	King Street Wireless, L.P.	\$1,827,000	\$1,848,943
CMA202	B	12	199,750	2,397,000	VentureTel 700, Inc.	\$401,000	\$405,816
CMA203	B	12	161,946	1,943,352	King Street Wireless, L.P.	\$428,000	\$433,140
CMA204	B	12	190,868	2,290,416	VentureTel 700, Inc.	\$204,000	\$206,450
CMA205	B	12	145,035	1,740,420	Cellco Partnership d/b/a Verizon Wireless	\$1,714,000	\$1,734,586
CMA206	B	12	173,489	2,081,868	Cellco Partnership d/b/a Verizon Wireless	\$1,062,000	\$1,074,755
CMA207	B	12	158,422	1,901,064	PCS Partners, L.P.	\$197,000	\$199,366
CMA208	B	12	319,426	3,833,112	AT&T Mobility Spectrum, LLC	\$2,301,000	\$2,328,636
CMA209	B	12	207,033	2,484,396	Bluegrass Wireless LLC	\$881,000	\$891,581
CMA210	B	12	251,494	3,017,928	Cellco Partnership d/b/a Verizon Wireless	\$2,076,000	\$2,100,934
CMA211	B	12	264,002	3,168,024	Cellco Partnership d/b/a Verizon Wireless	\$1,780,000	\$1,801,378
CMA212	B	12	231,969	2,783,628	Whidbey Telephone Company	\$1,902,000	\$1,924,844
CMA213	B	12	134,953	1,619,436	Triad 700, LLC	\$170,000	\$172,042
CMA214	B	12	191,822	2,301,864	Whidbey Telephone Company	\$1,129,000	\$1,142,560
CMA215	B	12	203,171	2,438,052	Triad 700, LLC	\$373,000	\$377,480
CMA216	B	12	152,307	1,827,684	King Street Wireless, L.P.	\$546,000	\$552,558
CMA217	B	12	133,358	1,600,296	Cellco Partnership d/b/a Verizon Wireless	\$1,094,000	\$1,107,139
CMA218	B	12	233,450	2,801,400	King Street Wireless, L.P.	\$1,768,000	\$1,789,234
CMA219	B	12	147,250	1,767,000	CenturyTel Broadband Wireless LLC	\$1,729,000	\$1,749,766
CMA220	B	12	160,245	1,922,940	Central Texas Telephone Investments, LP	\$641,000	\$648,699
CMA221	B	12	174,367	2,092,404	FCC		
CMA222	B	12	164,875	1,978,500	CenturyTel Broadband Wireless LLC	\$429,000	\$434,152
CMA223	B	12	182,791	2,193,492	King Street Wireless, L.P.	\$724,000	\$732,696
CMA224	B	12	144,919	1,739,028	King Street Wireless, L.P.	\$680,000	\$688,167
CMA225	B	12	129,144	1,549,728	Buffalo-Lake Erie Wireless Systems Co., L.L.C.	\$210,000	\$212,522
CMA226	B	12	142,950	1,715,400	Cellular South Licenses, Inc.	\$205,000	\$207,462
CMA227	B	12	165,740	1,988,880	West Carolina Communications, LLC	\$406,000	\$410,876
CMA228	B	12	146,438	1,757,256	AT&T Mobility Spectrum, LLC	\$313,000	\$316,759
CMA229	B	12	181,269	2,175,228	King Street Wireless, L.P.	\$775,000	\$784,308
CMA230	B	12	114,706	1,376,472	King Street Wireless, L.P.	\$617,000	\$624,410
CMA231	B	12	128,852	1,546,224	Triad 700, LLC	\$407,000	\$411,888
CMA232	B	12	148,337	1,780,044	King Street Wireless, L.P.	\$6,920,000	\$7,003,112
CMA233	B	12	142,670	1,712,040	King Street Wireless, L.P.	\$639,000	\$646,675
CMA234	B	12	195,033	2,340,396	Cellco Partnership d/b/a Verizon Wireless	\$581,000	\$587,978
CMA235	B	12	130,571	1,566,852	Broadband Wireless Unlimited, LLC	\$96,000	\$97,153
CMA236	B	12	118,769	1,425,228	I-700, LLC	\$381,000	\$385,576
CMA237	B	12	174,706	2,096,472	Cellco Partnership d/b/a Verizon Wireless	\$1,270,000	\$1,285,253

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA238	B	12	120,293	1,443,516	Triad 700, LLC	\$350,000	\$354,204
CMA239	B	12	157,322	1,887,864	CenturyTel Broadband Wireless LLC	\$2,314,000	\$2,341,792
CMA240	B	12	143,377	1,720,524	Cellco Partnership d/b/a Verizon Wireless	\$942,000	\$953,314
CMA241	B	12	141,472	1,697,664	Cellco Partnership d/b/a Verizon Wireless	\$488,000	\$493,861
CMA242	B	12	207,355	2,488,260	Whidbey Telephone Company	\$1,267,000	\$1,282,217
CMA243	B	12	180,936	2,171,232	N.E. Colorado Wireless Technologies, Inc.	\$1,657,000	\$1,676,901
CMA244	B	12	149,577	1,794,924	King Street Wireless, L.P.	\$2,884,000	\$2,918,638
CMA245	B	12	258,916	3,106,992	Cox Wireless, Inc.	\$6,117,000	\$6,190,467
CMA246	B	12	137,916	1,654,992	CenturyTel Broadband Wireless LLC	\$2,129,000	\$2,154,570
CMA247	B	12	148,955	1,787,460	King Street Wireless, L.P.	\$905,000	\$915,869
CMA248	B	12	153,472	1,841,664	Vermont Telephone Company, Inc.	\$1,597,000	\$1,616,181
CMA249	B	12	112,249	1,346,988	Cellular South Licenses, Inc.	\$287,000	\$290,447
CMA250	B	12	150,433	1,805,196	King Street Wireless, L.P.	\$1,573,000	\$1,591,892
CMA251	B	12	120,044	1,440,528	AT&T Mobility Spectrum, LLC	\$371,000	\$375,456
CMA252	B	12	131,420	1,577,040	Cellular South Licenses, Inc.	\$237,000	\$239,846
CMA253	B	12	124,130	1,489,560	King Street Wireless, L.P.	\$3,623,000	\$3,666,514
CMA254	B	12	163,256	1,959,072	King Street Wireless, L.P.	\$308,000	\$311,699
CMA255	B	12	121,123	1,453,476	Cellco Partnership d/b/a Verizon Wireless	\$759,000	\$768,116
CMA256	B	12	159,576	1,914,912	King Street Wireless, L.P.	\$455,000	\$460,465
CMA257	B	12	131,923	1,583,076	King Street Wireless, L.P.	\$308,000	\$311,699
CMA258	B	12	150,355	1,804,260	King Street Wireless, L.P.	\$719,000	\$727,635
CMA259	B	12	135,758	1,629,096	Buffalo-Lake Erie Wireless Systems Co., L.L.C.	\$165,000	\$166,982
CMA260	B	12	114,996	1,379,952	King Street Wireless, L.P.	\$764,000	\$773,176
CMA261	B	12	120,822	1,449,864	AT&T Mobility Spectrum, LLC	\$557,000	\$563,690
CMA262	B	12	110,156	1,321,872	King Street Wireless, L.P.	\$123,000	\$124,477
CMA263	B	12	125,834	1,510,008	King Street Wireless, L.P.	\$3,907,000	\$3,953,925
CMA264	B	12	125,761	1,509,132	AT&T Mobility Spectrum, LLC	\$2,355,000	\$2,383,284
CMA265	B	12	170,498	2,045,976	Cellular South Licenses, Inc.	\$1,554,000	\$1,572,664
CMA266	B	12	124,345	1,492,140	Worldcall Inc.	\$400,000	\$404,804
CMA267	B	12	148,281	1,779,372	KTC AWS Limited Partnership	\$2,938,000	\$2,973,286
CMA268	B	12	129,352	1,552,224	Cellco Partnership d/b/a Verizon Wireless	\$1,564,000	\$1,582,784
CMA269	B	12	102,008	1,224,096	King Street Wireless, L.P.	\$517,000	\$523,209
CMA270	B	12	166,814	2,001,768	AT&T Mobility Spectrum, LLC	\$3,314,000	\$3,353,802
CMA271	B	12	101,541	1,218,492	AT&T Mobility Spectrum, LLC	\$624,000	\$631,494
CMA272	B	12	103,459	1,241,508	Cellular South Licenses, Inc.	\$502,000	\$508,029
CMA273	B	12	103,833	1,245,996	I-700, LLC	\$493,000	\$498,921
CMA274	B	12	139,149	1,669,788	QUALCOMM Incorporated	\$985,000	\$996,830
CMA275	B	12	102,490	1,229,880	King Street Wireless, L.P.	\$1,963,000	\$1,986,576
CMA276	B	12	97,478	1,169,736	FCC		
CMA277	B	12	112,646	1,351,752	King Street Wireless, L.P.	\$7,294,000	\$7,381,604
CMA278	B	12	135,454	1,625,448	CenturyTel Broadband Wireless LLC	\$1,215,000	\$1,229,593
CMA279	B	12	103,793	1,245,516	King Street Wireless, L.P.	\$220,000	\$222,642
CMA280	B	12	130,800	1,569,600	King Street Wireless, L.P.	\$489,000	\$494,873
CMA281	B	12	193,117	2,317,404	Cellco Partnership d/b/a Verizon Wireless	\$483,000	\$488,801
CMA282	B	12	120,563	1,446,756	Triad 700, LLC	\$567,000	\$573,810
CMA283	B	12	148,217	1,778,604	Cellular South Licenses, Inc.	\$1,247,000	\$1,261,977
CMA284	B	12	91,070	1,092,840	Broadband Wireless Unlimited, LLC	\$162,000	\$163,946
CMA285	B	12	174,682	2,096,184	PVT Networks, Inc.	\$1,270,000	\$1,285,253
CMA286	B	12	89,143	1,069,716	King Street Wireless, L.P.	\$1,019,000	\$1,031,239
CMA287	B	12	152,415	1,828,980	CenturyTel Broadband Wireless LLC	\$448,000	\$453,381
CMA288	B	12	124,277	1,491,324	Midwest AWS Limited Partnership	\$1,519,000	\$1,537,244
CMA289	B	12	112,818	1,353,816	Cellco Partnership d/b/a Verizon Wireless	\$1,448,000	\$1,465,391
CMA290	B	12	107,120	1,285,440	CenturyTel Broadband Wireless LLC	\$2,971,000	\$3,006,683
CMA291	B	12	84,278	1,011,336	CenturyTel Broadband Wireless LLC	\$176,000	\$178,114
CMA292	B	12	110,595	1,327,140	Miller, David	\$214,000	\$216,570
CMA293	B	12	91,545	1,098,540	Bluegrass Wireless LLC	\$320,000	\$323,843
CMA294	B	12	104,010	1,248,120	Central Texas Telephone Investments, LP	\$1,551,000	\$1,569,628
CMA295	B	12	116,009	1,392,108	Cellco Partnership d/b/a Verizon Wireless	\$405,000	\$409,864
CMA296	B	12	111,006	1,332,072	King Street Wireless, L.P.	\$1,957,000	\$1,980,504

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA297	B	12	80,357	964,284	Cellco Partnership d/b/a Verizon Wireless	\$648,000	\$655,783
CMA298	B	12	94,719	1,136,628	FCC		
CMA299	B	12	66,533	798,396	Cellco Partnership d/b/a Verizon Wireless	\$488,000	\$493,861
CMA300	B	12	84,088	1,009,056	Broadband Wireless Unlimited, LLC	\$207,000	\$209,486
CMA301	B	12	99,962	1,199,544	The World Company	\$1,495,000	\$1,512,956
CMA302	B	12	57,813	693,756	King Street Wireless, L.P.	\$879,000	\$889,557
CMA303	B	12	54,544	654,528	Broadband Wireless Unlimited, LLC	\$309,000	\$312,711
CMA304	B	12	37,535	450,420	King Street Wireless, L.P.	\$227,000	\$229,726
CMA305	B	12	21,668	260,016	King Street Wireless, L.P.	\$145,000	\$146,742
CMA306	B	12			CHEVRON USA INC.	\$675,000	\$683,107
CMA307	B	12	361,654	4,339,848	AT&T Mobility Spectrum, LLC	\$3,880,000	\$3,926,600
CMA308	B	12	142,366	1,708,392	Cellular South Licenses, Inc.	\$2,291,000	\$2,318,516
CMA309	B	12	135,766	1,629,192	CenturyTel Broadband Wireless LLC	\$138,000	\$139,657
CMA310	B	12	145,301	1,743,612	CenturyTel Broadband Wireless LLC	\$166,000	\$167,994
CMA311	B	12	221,338	2,656,056	CenturyTel Broadband Wireless LLC	\$359,000	\$363,312
CMA312	B	12	122,817	1,473,804	AT&T Mobility Spectrum, LLC	\$466,000	\$471,597
CMA313	B	12	171,679	2,060,148	CenturyTel Broadband Wireless LLC	\$1,932,000	\$1,955,204
CMA314	B	12	196,259	2,355,108	CenturyTel Broadband Wireless LLC	\$383,000	\$387,600
CMA315	B	12	128,275	1,539,300	AlasConnect, Inc.	\$560,000	\$566,726
CMA316	B	12	165,292	1,983,504	MTA Communications, Inc.	\$197,000	\$199,366
CMA317	B	12	73,082	876,984	MTA Communications, Inc.	\$42,000	\$42,504
CMA318	B	12	155,032	1,860,384	Data-Max Wireless LLC	\$434,000	\$439,213
CMA319	B	12	283,837	3,406,044	AT&T Mobility Spectrum, LLC	\$1,413,000	\$1,429,971
CMA320	B	12	166,893	2,002,716	SAL Spectrum, LLC	\$229,000	\$231,750
CMA321	B	12	179,741	2,156,892	PCS Partners, L.P.	\$509,000	\$515,113
CMA322	B	12	231,062	2,772,744	AT&T Mobility Spectrum, LLC	\$2,381,000	\$2,409,597
CMA323	B	12	198,172	2,378,064	PCS Partners, L.P.	\$362,000	\$366,348
CMA324	B	12	82,156	985,872	Cox Wireless, Inc.	\$979,000	\$990,758
CMA325	B	12	99,177	1,190,124	CenturyTel Broadband Wireless LLC	\$369,000	\$373,432
CMA326	B	12	105,739	1,268,868	CenturyTel Broadband Wireless LLC	\$393,000	\$397,720
CMA327	B	12	214,681	2,576,172	CenturyTel Broadband Wireless LLC	\$1,325,000	\$1,340,914
CMA328	B	12	118,883	1,426,596	CenturyTel Broadband Wireless LLC	\$893,000	\$903,725
CMA329	B	12	109,491	1,313,892	CenturyTel Broadband Wireless LLC	\$652,000	\$659,831
CMA330	B	12	122,345	1,468,140	CenturyTel Broadband Wireless LLC	\$1,203,000	\$1,217,448
CMA331	B	12	74,034	888,408	CenturyTel Broadband Wireless LLC	\$170,000	\$172,042
CMA332	B	12	70,834	850,008	Pine Cellular Phones, Inc.	\$411,000	\$415,936
CMA333	B	12	167,641	2,011,692	CenturyTel Broadband Wireless LLC	\$102,000	\$103,225
CMA334	B	12	67,704	812,448	CenturyTel Broadband Wireless LLC	\$129,000	\$130,549
CMA335	B	12	188,216	2,258,592	CenturyTel Broadband Wireless LLC	\$263,000	\$266,159
CMA336	B	12	211,348	2,536,176	King Street Wireless, L.P.	\$843,000	\$853,125
CMA337	B	12	64,101	769,212	King Street Wireless, L.P.	\$38,000	\$38,456
CMA338	B	12	148,493	1,781,916	Triad 700, LLC	\$402,000	\$406,828
CMA339	B	12	386,897	4,642,764	AT&T Mobility Spectrum, LLC	\$5,151,000	\$5,212,865
CMA340	B	12	246,681	2,960,172	Club 42 CM Limited Partnership	\$1,341,000	\$1,357,106
CMA341	B	12	30,798	369,576	Great American Broadband, Inc.	\$125,000	\$126,501
CMA342	B	12	142,361	1,708,332	QUALCOMM Incorporated	\$676,000	\$684,119
CMA343	B	12	101,296	1,215,552	King Street Wireless, L.P.	\$524,000	\$530,293
CMA344	B	12	144,574	1,734,888	King Street Wireless, L.P.	\$360,000	\$364,324
CMA345	B	12	95,588	1,147,056	Triad 700, LLC	\$210,000	\$212,522
CMA346	B	12	156,299	1,875,588	Triad 700, LLC	\$540,000	\$546,486
CMA347	B	12	129,461	1,553,532	Club 42 CM Limited Partnership	\$298,000	\$301,579
CMA348	B	12	52,879	634,548	AT&T Mobility Spectrum, LLC	\$944,000	\$955,338
CMA349	B	12	69,669	836,028	Cellco Partnership d/b/a Verizon Wireless	\$623,000	\$630,482
CMA350	B	12	324,669	3,896,028	AT&T Mobility Spectrum, LLC	\$4,485,000	\$4,538,867
CMA351	B	12	88,225	1,058,700	Cellco Partnership d/b/a Verizon Wireless	\$921,000	\$932,062
CMA352	B	12	36,201	434,412	Cellco Partnership d/b/a Verizon Wireless	\$486,000	\$491,837
CMA353	B	12	81,299	975,588	AT&T Mobility Spectrum, LLC	\$1,001,000	\$1,013,022
CMA354	B	12	52,425	629,100	CenturyTel Broadband Wireless LLC	\$284,000	\$287,411
CMA355	B	12	47,932	575,184	CenturyTel Broadband Wireless LLC	\$228,000	\$230,738

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA356	B	12	31,249	374,988	C&W Enterprises, Inc.	\$84,000	\$85,009
CMA357	B	12	182,193	2,186,316	Triad 700, LLC	\$387,000	\$391,648
CMA358	B	12	109,091	1,309,092	Triad 700, LLC	\$240,000	\$242,882
CMA359	B	12	283,335	3,400,020	AT&T Mobility Spectrum, LLC	\$1,080,000	\$1,092,971
CMA360	B	12	287,587	3,451,044	AT&T Mobility Spectrum, LLC	\$1,768,000	\$1,789,234
CMA361	B	12	246,799	2,961,588	Triad 700, LLC	\$281,000	\$284,375
CMA362	B	12	200,774	2,409,288	Cellco Partnership d/b/a Verizon Wireless	\$453,000	\$458,441
CMA363	B	12	512,760	6,153,120	AT&T Mobility Spectrum, LLC	\$7,185,000	\$7,271,295
CMA364	B	12	120,255	1,443,060	Dragon Arch, Inc.	\$366,000	\$370,396
CMA365	B	12	62,714	752,568	Miller, David	\$35,000	\$35,420
CMA366	B	12	118,126	1,417,512	Cavalier Wireless, LLC	\$131,000	\$132,573
CMA367	B	12	57,913	694,956	Cavalier Wireless, LLC	\$36,000	\$36,432
CMA368	B	12	44,427	533,124	Cavalier Wireless, LLC	\$123,000	\$124,477
CMA369	B	12	126,893	1,522,716	Cellular South Licenses, Inc.	\$409,000	\$413,912
CMA370	B	12	79,589	955,068	Triad 700, LLC	\$75,000	\$75,901
CMA371	B	12	256,980	3,083,760	AT&T Mobility Spectrum, LLC	\$1,359,000	\$1,375,322
CMA372	B	12	353,474	4,241,688	AT&T Mobility Spectrum, LLC	\$3,908,000	\$3,954,937
CMA373	B	12	230,181	2,762,172	Cavalier Wireless, LLC	\$522,000	\$528,269
CMA374	B	12	137,356	1,648,272	Miller, David	\$144,000	\$145,729
CMA375	B	12	271,964	3,263,568	AT&T Mobility Spectrum, LLC	\$1,855,000	\$1,877,279
CMA376	B	12	211,408	2,536,896	Public Service Wireless Services, Inc.	\$823,000	\$832,885
CMA377	B	12	139,606	1,675,272	Miller, David	\$50,000	\$50,601
CMA378	B	12	166,601	1,999,212	PBP Bidco LLC	\$326,000	\$329,915
CMA379	B	12	124,063	1,488,756	Public Service Wireless Services, Inc.	\$216,000	\$218,594
CMA380	B	12	162,261	1,947,132	AT&T Mobility Spectrum, LLC	\$737,000	\$745,852
CMA381	B	12	162,419	1,949,028	Cavalier Wireless, LLC	\$92,000	\$93,105
CMA382	B	12	220,558	2,646,696	AT&T Mobility Spectrum, LLC	\$3,059,000	\$3,095,740
CMA383	B	12	157,068	1,884,816	Miller, David	\$165,000	\$166,982
CMA384	B	12	268,480	3,221,760	Broadband Wireless Unlimited, LLC	\$146,000	\$147,754
CMA385	B	12	58,463	701,556	Triad 700, LLC	\$182,000	\$184,186
CMA386	B	12	128,241	1,538,892	Triad 700, LLC	\$622,000	\$629,470
CMA387	B	12	148,677	1,784,124	Triad 700, LLC	\$398,000	\$402,780
CMA388	B	12	263,355	3,160,260	Cellco Partnership d/b/a Verizon Wireless	\$1,271,000	\$1,286,265
CMA389	B	12	72,374	868,488	Whidbey Telephone Company	\$58,000	\$58,697
CMA390	B	12	18,818	225,816	Manti Telephone Company	\$212,000	\$214,546
CMA391	B	12	171,215	2,054,580	Toba Inlet PCS, LLC	\$175,000	\$177,102
CMA392	B	12	165,296	1,983,552	Cellco Partnership d/b/a Verizon Wireless	\$970,000	\$981,650
CMA393	B	12	301,991	3,623,892	AT&T Mobility Spectrum, LLC	\$2,888,000	\$2,922,686
CMA394	B	12	324,658	3,895,896	AT&T Mobility Spectrum, LLC	\$6,373,000	\$6,449,542
CMA395	B	12	257,863	3,094,356	King Street Wireless, L.P.	\$1,596,000	\$1,615,169
CMA396	B	12	198,214	2,378,568	AT&T Mobility Spectrum, LLC	\$1,555,000	\$1,573,676
CMA397	B	12	217,323	2,607,876	AT&T Mobility Spectrum, LLC	\$1,744,000	\$1,764,946
CMA398	B	12	94,671	1,136,052	King Street Wireless, L.P.	\$550,000	\$556,606
CMA399	B	12	204,307	2,451,684	I-700, LLC	\$836,000	\$846,041
CMA400	B	12	235,571	2,826,852	King Street Wireless, L.P.	\$898,000	\$908,785
CMA401	B	12	335,376	4,024,512	AT&T Mobility Spectrum, LLC	\$2,404,000	\$2,432,873
CMA402	B	12	149,603	1,795,236	King Street Wireless, L.P.	\$577,000	\$583,930
CMA403	B	12	217,293	2,607,516	King Street Wireless, L.P.	\$1,081,000	\$1,093,983
CMA404	B	12	188,455	2,261,460	Ligtel Communications, Inc.	\$1,219,000	\$1,233,641
CMA405	B	12	147,332	1,767,984	Great American Broadband, Inc.	\$290,000	\$293,483
CMA406	B	12	186,514	2,238,168	Cellco Partnership d/b/a Verizon Wireless	\$2,055,000	\$2,079,681
CMA407	B	12	126,683	1,520,196	I-700, LLC	\$598,000	\$605,182
CMA408	B	12	220,355	2,644,260	Triad 700, LLC	\$726,000	\$734,720
CMA409	B	12	226,189	2,714,268	King Street Wireless, L.P.	\$945,000	\$956,350
CMA410	B	12	265,246	3,182,952	AT&T Mobility Spectrum, LLC	\$3,023,000	\$3,059,307
CMA411	B	12	147,985	1,775,820	Miles Communications Corp	\$392,000	\$396,708
CMA412	B	12	62,744	752,928	King Street Wireless, L.P.	\$1,084,000	\$1,097,019
CMA413	B	12	51,752	621,024	King Street Wireless, L.P.	\$1,217,000	\$1,231,617
CMA414	B	12	90,319	1,083,828	King Street Wireless, L.P.	\$1,867,000	\$1,889,423

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA415	B	12	154,644	1,855,728	King Street Wireless, L.P.	\$3,959,000	\$4,006,549
CMA416	B	12	108,853	1,306,236	King Street Wireless, L.P.	\$1,800,000	\$1,821,619
CMA417	B	12	158,156	1,897,872	Iowa Telecommunications Services, Inc.	\$2,698,000	\$2,730,404
CMA418	B	12	55,129	661,548	King Street Wireless, L.P.	\$865,000	\$875,389
CMA419	B	12	55,801	669,612	King Street Wireless, L.P.	\$1,476,000	\$1,493,727
CMA420	B	12	62,268	747,216	Iowa Telecommunications Services, Inc.	\$1,217,000	\$1,231,617
CMA421	B	12	187,593	2,251,116	King Street Wireless, L.P.	\$2,476,000	\$2,505,738
CMA422	B	12	113,903	1,366,836	King Street Wireless, L.P.	\$881,000	\$891,581
CMA423	B	12	116,168	1,394,016	King Street Wireless, L.P.	\$1,233,000	\$1,247,809
CMA424	B	12	66,106	793,272	Iowa Telecommunications Services, Inc.	\$1,979,000	\$2,002,769
CMA425	B	12	106,046	1,272,552	King Street Wireless, L.P.	\$2,671,000	\$2,703,080
CMA426	B	12	84,043	1,008,516	King Street Wireless, L.P.	\$1,490,000	\$1,507,895
CMA427	B	12	103,341	1,240,092	King Street Wireless, L.P.	\$1,214,000	\$1,228,581
CMA428	B	12	27,356	328,272	The S&T Telephone Cooperative Association, Inc.	\$128,000	\$129,537
CMA429	B	12	29,573	354,876	Rural Telephone Service Company, Inc.	\$107,000	\$108,285
CMA430	B	12	51,872	622,464	Blue Valley Tele-Communications, Inc.	\$1,058,000	\$1,070,707
CMA431	B	12	130,681	1,568,172	Blue Valley Tele-Communications, Inc.	\$2,021,000	\$2,045,273
CMA432	B	12	117,095	1,405,140	AT&T Mobility Spectrum, LLC	\$2,064,000	\$2,088,789
CMA433	B	12	19,203	230,436	The S&T Telephone Cooperative Association, Inc.	\$64,000	\$64,769
CMA434	B	12	80,639	967,668	Cellco Partnership d/b/a Verizon Wireless	\$964,000	\$975,578
CMA435	B	12	133,142	1,597,704	Cellco Partnership d/b/a Verizon Wireless	\$1,018,000	\$1,030,227
CMA436	B	12	59,627	715,524	King Street Wireless, L.P.	\$1,743,000	\$1,763,934
CMA437	B	12	113,232	1,358,784	King Street Wireless, L.P.	\$811,000	\$820,740
CMA438	B	12	93,815	1,125,780	Cellco Partnership d/b/a Verizon Wireless	\$788,000	\$797,464
CMA439	B	12	47,468	569,616	Cellco Partnership d/b/a Verizon Wireless	\$646,000	\$653,759
CMA440	B	12	28,437	341,244	Cellco Partnership d/b/a Verizon Wireless	\$304,000	\$307,651
CMA441	B	12	175,105	2,101,260	King Street Wireless, L.P.	\$1,493,000	\$1,510,931
CMA442	B	12	154,883	1,858,596	King Street Wireless, L.P.	\$1,443,000	\$1,460,331
CMA443	B	12	193,495	2,321,940	BPS Telephone Company	\$421,000	\$426,056
CMA444	B	12	129,201	1,550,412	Bluegrass Wireless LLC	\$235,000	\$237,822
CMA445	B	12	332,060	3,984,720	AT&T Mobility Spectrum, LLC	\$3,640,000	\$3,683,718
CMA446	B	12	260,291	3,123,492	AT&T Mobility Spectrum, LLC	\$3,526,000	\$3,568,349
CMA447	B	12	164,614	1,975,368	Bluegrass Wireless LLC	\$1,109,000	\$1,122,320
CMA448	B	12	277,683	3,332,196	Bluegrass Wireless LLC	\$727,000	\$735,732
CMA449	B	12	187,538	2,250,456	AT&T Mobility Spectrum, LLC	\$1,013,000	\$1,025,167
CMA450	B	12	124,331	1,491,972	AT&T Mobility Spectrum, LLC	\$829,000	\$838,957
CMA451	B	12	196,797	2,361,564	East Kentucky Network, LLC	\$298,000	\$301,579
CMA452	B	12	150,294	1,803,528	Reiter, Scott D	\$55,000	\$55,661
CMA453	B	12	167,879	2,014,548	East Kentucky Network, LLC	\$108,000	\$109,297
CMA454	B	12	113,312	1,359,744	Cellco Partnership d/b/a Verizon Wireless	\$1,159,000	\$1,172,920
CMA455	B	12	115,346	1,384,152	Cellco Partnership d/b/a Verizon Wireless	\$1,727,000	\$1,747,742
CMA456	B	12	150,186	1,802,232	Cellco Partnership d/b/a Verizon Wireless	\$1,188,000	\$1,202,268
CMA457	B	12	72,903	874,836	CenturyTel Broadband Wireless LLC	\$760,000	\$769,128
CMA458	B	12	399,898	4,798,776	AT&T Mobility Spectrum, LLC	\$5,180,000	\$5,242,214
CMA459	B	12	183,474	2,201,688	Cox Wireless, Inc.	\$1,492,000	\$1,509,919
CMA460	B	12	191,510	2,298,120	CenturyTel Broadband Wireless LLC	\$93,000	\$94,117
CMA461	B	12	112,332	1,347,984	Columbia Cellular, Inc.	\$793,000	\$802,524
CMA462	B	12	26,757	321,084	Broadband Wireless Unlimited, LLC	\$15,000	\$15,180
CMA463	B	12	84,222	1,010,664	King Street Wireless, L.P.	\$970,000	\$981,650
CMA464	B	12	142,061	1,704,732	King Street Wireless, L.P.	\$1,043,000	\$1,055,527
CMA465	B	12	226,628	2,719,536	King Street Wireless, L.P.	\$1,186,000	\$1,200,244
CMA466	B	12	85,732	1,028,784	AT&T Mobility Spectrum, LLC	\$1,101,000	\$1,114,223
CMA467	B	12	29,846	358,152	King Street Wireless, L.P.	\$245,000	\$247,943
CMA468	B	12	470,726	5,648,712	AT&T Mobility Spectrum, LLC	\$5,783,000	\$5,852,456
CMA469	B	12	195,277	2,343,324	Cellco Partnership d/b/a Verizon Wireless	\$564,000	\$570,774
CMA470	B	12	71,535	858,420	Broadband Wireless Unlimited, LLC	\$140,000	\$141,681
CMA471	B	12	246,737	2,960,844	Triad 700, LLC	\$834,000	\$844,017
CMA472	B	12	202,821	2,433,852	NSIGHTTEL WIRELESS, LLC	\$956,000	\$967,482
CMA473	B	12	114,795	1,377,540	CenturyTel Broadband Wireless LLC	\$1,024,000	\$1,036,299

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA474	B	12	174,862	2,098,344	Agri-Valley Communications, Inc.	\$485,000	\$490,825
CMA475	B	12	141,199	1,694,388	CenturyTel Broadband Wireless LLC	\$420,000	\$425,044
CMA476	B	12	169,410	2,032,920	CenturyTel Broadband Wireless LLC	\$435,000	\$440,225
CMA477	B	12	148,997	1,787,964	CenturyTel Broadband Wireless LLC	\$567,000	\$573,810
CMA478	B	12	255,329	3,063,948	Iowa Intelgra Consortium, LLC	\$232,000	\$234,786
CMA479	B	12	105,665	1,267,980	Iowa Intelgra Consortium, LLC	\$83,000	\$83,997
CMA480	B	12	304,730	3,656,760	AT&T Mobility Spectrum, LLC	\$3,389,000	\$3,429,703
CMA481	B	12	138,892	1,666,704	Agri-Valley Communications, Inc.	\$1,309,000	\$1,324,722
CMA482	B	12	49,661	595,932	Iowa Intelgra Consortium, LLC	\$18,000	\$18,216
CMA483	B	12	65,227	782,724	Paul Bunyan Rural Telephone Cooperative, Inc.	\$175,000	\$177,102
CMA484	B	12	58,347	700,164	AT&T Mobility Spectrum, LLC	\$319,000	\$322,831
CMA485	B	12	16,226	194,712	Dragon Arch, Inc.	\$81,000	\$81,973
CMA486	B	12	214,745	2,576,940	Sky Com 700 MHZ, LLC	\$2,227,000	\$2,253,747
CMA487	B	12	274,452	3,293,424	AT&T Mobility Spectrum, LLC	\$1,181,000	\$1,195,184
CMA488	B	12	174,114	2,089,368	Redwood Wireless Corp.	\$1,656,000	\$1,675,889
CMA489	B	12	67,816	813,792	Redwood Wireless Corp.	\$506,000	\$512,077
CMA490	B	12	133,637	1,603,644	Redwood Wireless Corp.	\$995,000	\$1,006,950
CMA491	B	12	240,003	2,880,036	Redwood Wireless Corp.	\$2,870,000	\$2,904,470
CMA492	B	12	212,896	2,554,752	Redwood Wireless Corp.	\$1,818,000	\$1,839,835
CMA493	B	12	183,347	2,200,164	AT&T Mobility Spectrum, LLC	\$1,651,000	\$1,670,829
CMA494	B	12	258,742	3,104,904	CenturyTel Broadband Wireless LLC	\$783,000	\$792,404
CMA495	B	12	160,230	1,922,760	CenturyTel Broadband Wireless LLC	\$168,000	\$170,018
CMA496	B	12	130,816	1,569,792	CenturyTel Broadband Wireless LLC	\$323,000	\$326,879
CMA497	B	12	160,830	1,929,960	CenturyTel Broadband Wireless LLC	\$164,000	\$165,970
CMA498	B	12	189,098	2,269,176	CenturyTel Broadband Wireless LLC	\$200,000	\$202,402
CMA499	B	12	188,499	2,261,988	CenturyTel Broadband Wireless LLC	\$178,000	\$180,138
CMA500	B	12	160,376	1,924,512	CenturyTel Broadband Wireless LLC	\$272,000	\$275,267
CMA501	B	12	124,367	1,492,404	CenturyTel Broadband Wireless LLC	\$110,000	\$111,321
CMA502	B	12	157,867	1,894,404	CenturyTel Broadband Wireless LLC	\$117,000	\$118,405
CMA503	B	12	204,876	2,458,512	Cellular South Licenses, Inc.	\$363,000	\$367,360
CMA504	B	12	42,936	515,232	King Street Wireless, L.P.	\$548,000	\$554,582
CMA505	B	12	35,481	425,772	King Street Wireless, L.P.	\$932,000	\$943,194
CMA506	B	12	56,401	676,812	King Street Wireless, L.P.	\$1,476,000	\$1,493,727
CMA507	B	12	72,404	868,848	AT&T Mobility Spectrum, LLC	\$2,748,000	\$2,781,004
CMA508	B	12	69,416	832,992	Chariton Valley Communication Corporation, Inc.	\$2,335,000	\$2,363,044
CMA509	B	12	91,430	1,097,160	CenturyTel Broadband Wireless LLC	\$1,542,000	\$1,560,520
CMA510	B	12	171,259	2,055,108	AT&T Mobility Spectrum, LLC	\$7,879,000	\$7,973,630
CMA511	B	12	116,371	1,396,452	AT&T Mobility Spectrum, LLC	\$6,187,000	\$6,261,308
CMA512	B	12	82,489	989,868	AT&T Mobility Spectrum, LLC	\$3,166,000	\$3,204,025
CMA513	B	12	105,824	1,269,888	King Street Wireless, L.P.	\$3,519,000	\$3,561,264
CMA514	B	12	157,501	1,890,012	AT&T Mobility Spectrum, LLC	\$1,267,000	\$1,282,217
CMA515	B	12	127,624	1,531,488	King Street Wireless, L.P.	\$3,903,000	\$3,949,876
CMA516	B	12	96,827	1,161,924	AT&T Mobility Spectrum, LLC	\$2,078,000	\$2,102,958
CMA517	B	12	111,359	1,336,308	CenturyTel Broadband Wireless LLC	\$1,657,000	\$1,676,901
CMA518	B	12	128,225	1,538,700	CenturyTel Broadband Wireless LLC	\$1,427,000	\$1,444,139
CMA519	B	12	104,516	1,254,192	CenturyTel Broadband Wireless LLC	\$1,501,000	\$1,519,028
CMA520	B	12	55,504	666,048	CenturyTel Broadband Wireless LLC	\$800,000	\$809,608
CMA521	B	12	123,913	1,486,956	King Street Wireless, L.P.	\$1,009,000	\$1,021,118
CMA522	B	12	197,383	2,368,596	King Street Wireless, L.P.	\$1,555,000	\$1,573,676
CMA523	B	12	156,158	1,873,896	CenturyTel Broadband Wireless LLC	\$2,587,000	\$2,618,071
CMA524	B	12	37,077	444,924	MTN3B Consortium	\$322,000	\$325,867
CMA525	B	12	13,555	162,660	MTN3B Consortium	\$146,000	\$147,754
CMA526	B	12	38,513	462,156	MTN3B Consortium	\$489,000	\$494,873
CMA527	B	12	201,482	2,417,784	Bresnan Communications, Inc.	\$2,085,000	\$2,110,042
CMA528	B	12	64,977	779,724	MTN3B Consortium	\$267,000	\$270,207
CMA529	B	12	29,729	356,748	Cellco Partnership d/b/a Verizon Wireless	\$292,000	\$295,507
CMA530	B	12	99,578	1,194,936	Cellco Partnership d/b/a Verizon Wireless	\$580,000	\$586,966
CMA531	B	12	32,467	389,604	Cellco Partnership d/b/a Verizon Wireless	\$330,000	\$333,963
CMA532	B	12	18,950	227,400	MTN3B Consortium	\$185,000	\$187,222

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Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA533	B	12	90,410	1,084,920	Cellco Partnership d/b/a Verizon Wireless	\$787,000	\$796,452
CMA534	B	12	29,189	350,268	Cellco Partnership d/b/a Verizon Wireless	\$287,000	\$290,447
CMA535	B	12	117,334	1,408,008	King Street Wireless, L.P.	\$3,437,000	\$3,478,280
CMA536	B	12	34,344	412,128	King Street Wireless, L.P.	\$156,000	\$157,874
CMA537	B	12	149,780	1,797,360	King Street Wireless, L.P.	\$1,925,000	\$1,948,120
CMA538	B	12	113,331	1,359,972	Glenwood Telephone Membership, Corporation	\$1,214,000	\$1,228,581
CMA539	B	12	94,031	1,128,372	Cellco Partnership d/b/a Verizon Wireless	\$2,364,000	\$2,392,393
CMA540	B	12	56,542	678,504	Glenwood Telephone Membership, Corporation	\$313,000	\$316,759
CMA541	B	12	82,173	986,076	Cellco Partnership d/b/a Verizon Wireless	\$1,557,000	\$1,575,700
CMA542	B	12	87,405	1,048,860	King Street Wireless, L.P.	\$1,133,000	\$1,146,608
CMA543	B	12	46,781	561,372	Churchill County Telephone d/b/a CC Communications	\$210,000	\$212,522
CMA544	B	12	52,736	632,832	SAL Spectrum, LLC	\$126,000	\$127,513
CMA545	B	12	131,616	1,579,392	Cellco Partnership d/b/a Verizon Wireless	\$401,000	\$405,816
CMA546	B	12	38,527	462,324	Great American Broadband, Inc.	\$190,000	\$192,282
CMA547	B	12	13,346	160,152	WUE, Inc.	\$189,000	\$191,270
CMA548	B	12	229,137	2,749,644	King Street Wireless, L.P.	\$4,299,000	\$4,350,633
CMA549	B	12	236,216	2,834,592	King Street Wireless, L.P.	\$779,000	\$788,356
CMA550	B	12	121,989	1,463,868	QUALCOMM Incorporated	\$1,867,000	\$1,889,423
CMA551	B	12	510,916	6,130,992	Cellco Partnership d/b/a Verizon Wireless	\$7,178,000	\$7,264,210
CMA552	B	12	144,166	1,729,992	Cavalier Wireless, LLC	\$204,000	\$206,450
CMA553	B	12	285,363	3,424,356	AT&T Mobility Spectrum, LLC	\$2,010,000	\$2,034,141
CMA554	B	12	24,353	292,236	PCS Partners, L.P.	\$169,000	\$171,030
CMA555	B	12	101,043	1,212,516	PVT Networks, Inc.	\$506,000	\$512,077
CMA556	B	12	274,809	3,297,708	PVT Networks, Inc.	\$1,356,000	\$1,372,286
CMA557	B	12	61,950	743,400	Cellco Partnership d/b/a Verizon Wireless	\$690,000	\$698,287
CMA558	B	12	250,260	3,003,120	Cellco Partnership d/b/a Verizon Wireless	\$1,207,000	\$1,221,497
CMA559	B	12	250,613	3,007,356	King Street Wireless, L.P.	\$156,000	\$157,874
CMA560	B	12	230,331	2,763,972	King Street Wireless, L.P.	\$576,000	\$582,918
CMA561	B	12	476,152	5,713,824	AT&T Mobility Spectrum, LLC	\$4,248,000	\$4,299,020
CMA562	B	12	355,651	4,267,812	AT&T Mobility Spectrum, LLC	\$251,000	\$254,015
CMA563	B	12	393,028	4,716,336	Cavalier Wireless, LLC	\$918,000	\$929,026
CMA564	B	12	111,289	1,335,468	Broadband Wireless Unlimited, LLC	\$129,000	\$130,549
CMA565	B	12	200,333	2,403,996	Comporium Wireless, LLC	\$1,399,000	\$1,415,803
CMA566	B	12	170,738	2,048,856	FCC		
CMA567	B	12	171,912	2,062,944	King Street Wireless, L.P.	\$2,289,000	\$2,316,492
CMA568	B	12	372,614	4,471,368	AT&T Mobility Spectrum, LLC	\$2,367,000	\$2,395,429
CMA569	B	12	134,659	1,615,908	King Street Wireless, L.P.	\$181,000	\$183,174
CMA570	B	12	173,138	2,077,656	King Street Wireless, L.P.	\$275,000	\$278,303
CMA571	B	12	309,736	3,716,832	AT&T Mobility Spectrum, LLC	\$8,575,000	\$8,677,989
CMA572	B	12	296,296	3,555,552	AT&T Mobility Spectrum, LLC	\$12,393,000	\$12,541,845
CMA573	B	12	120,566	1,446,792	King Street Wireless, L.P.	\$285,000	\$288,423
CMA574	B	12	326,319	3,915,828	King Street Wireless, L.P.	\$9,804,000	\$9,921,750
CMA575	B	12	244,012	2,928,144	King Street Wireless, L.P.	\$1,721,000	\$1,741,670
CMA576	B	12	150,306	1,803,672	Star Telephone Membership Corporation	\$1,968,000	\$1,991,636
CMA577	B	12	252,756	3,033,072	King Street Wireless, L.P.	\$360,000	\$364,324
CMA578	B	12	258,014	3,096,168	King Street Wireless, L.P.	\$577,000	\$583,930
CMA579	B	12	476,998	5,723,976	AT&T Mobility Spectrum, LLC	\$11,916,000	\$12,059,116
CMA580	B	12	101,633	1,219,596	AT&T Mobility Spectrum, LLC	\$190,000	\$192,282
CMA581	B	12	58,222	698,664	Iowa Intelegra Consortium, LLC	\$91,000	\$92,093
CMA582	B	12	88,665	1,063,980	Red River Rural Telephone Association, Inc.	\$267,000	\$270,207
CMA583	B	12	61,696	740,352	KTC AWS Limited Partnership	\$630,000	\$637,567
CMA584	B	12	48,018	576,216	BEK Communications Cooperative	\$383,000	\$387,600
CMA585	B	12	128,191	1,538,292	Triad 700, LLC	\$331,000	\$334,975
CMA586	B	12	259,513	3,114,156	Bascom Long Distance, Inc.	\$925,000	\$936,110
CMA587	B	12	102,728	1,232,736	Triad 700, LLC	\$213,000	\$215,558
CMA588	B	12	229,057	2,748,684	Gold Radio Group, LLC	\$710,000	\$718,527
CMA589	B	12	239,331	2,871,972	Triad 700, LLC	\$468,000	\$473,621
CMA590	B	12	471,304	5,655,648	AT&T Mobility Spectrum, LLC	\$3,782,000	\$3,827,423
CMA591	B	12	261,385	3,136,620	Triad 700, LLC	\$416,000	\$420,996

**Spectrum Auction Data
FCC 700 MHz Auction
2008**

Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA592	B	12	179,466	2,153,592	Cincinnati Bell Wireless LLC	\$201,000	\$203,414
CMA593	B	12	243,945	2,927,340	The Chillicothe Telephone Company	\$1,038,000	\$1,050,467
CMA594	B	12	175,317	2,103,804	Triad 700, LLC	\$432,000	\$437,188
CMA595	B	12	112,075	1,344,900	Triad 700, LLC	\$46,000	\$46,552
CMA596	B	12	29,112	349,344	Panhandle Telecommunication Systems, Inc.	\$435,000	\$440,225
CMA597	B	12	48,862	586,344	King Street Wireless, L.P.	\$999,000	\$1,010,998
CMA598	B	12	215,441	2,585,292	AT&T Mobility Spectrum, LLC	\$4,169,000	\$4,219,071
CMA599	B	12	208,345	2,500,140	Cellco Partnership d/b/a Verizon Wireless	\$3,769,000	\$3,814,267
CMA600	B	12	60,223	722,676	King Street Wireless, L.P.	\$704,000	\$712,455
CMA601	B	12	223,407	2,680,884	Cross Telephone Company, LLC	\$2,051,000	\$2,075,633
CMA602	B	12	126,544	1,518,528	King Street Wireless, L.P.	\$2,516,000	\$2,546,218
CMA603	B	12	94,340	1,132,080	King Street Wireless, L.P.	\$1,254,000	\$1,269,061
CMA604	B	12	209,569	2,514,828	King Street Wireless, L.P.	\$1,936,000	\$1,959,252
CMA605	B	12	83,895	1,006,740	Pine Cellular Phones, Inc.	\$1,235,000	\$1,249,833
CMA606	B	12	188,444	2,261,328	AT&T Mobility Spectrum, LLC	\$711,000	\$719,539
CMA607	B	12	79,602	955,224	King Street Wireless, L.P.	\$1,068,000	\$1,080,827
CMA608	B	12	158,595	1,903,140	Cellco Partnership d/b/a Verizon Wireless	\$911,000	\$921,941
CMA609	B	12	225,701	2,708,412	CenturyTel Broadband Wireless LLC	\$926,000	\$937,122
CMA610	B	12	260,041	3,120,492	King Street Wireless, L.P.	\$1,233,000	\$1,247,809
CMA611	B	12	213,355	2,560,260	Bend Cable Communications, LLC	\$6,745,000	\$6,826,010
CMA612	B	12	196,740	2,360,880	USA Choice Internet Services Company LLC	\$387,000	\$391,648
CMA613	B	12	87,022	1,044,264	Miller, David	\$32,000	\$32,384
CMA614	B	12	97,367	1,168,404	Miller, David	\$36,000	\$36,432
CMA615	B	12	97,397	1,168,764	Miller, David	\$36,000	\$36,432
CMA616	B	12	94,024	1,128,288	PCS Partners, L.P.	\$175,000	\$177,102
CMA617	B	12	382,883	4,594,596	Toba Inlet PCS, LLC	\$696,000	\$704,359
CMA618	B	12	218,919	2,627,028	MCBRIDE SPECTRUM PARTNERS, LLC	\$83,000	\$83,997
CMA619	B	12	406,449	4,877,388	AT&T Mobility Spectrum, LLC	\$4,744,000	\$4,800,977
CMA620	B	12	189,316	2,271,792	Cavalier Wireless, LLC	\$139,000	\$140,669
CMA621	B	12	193,558	2,322,696	King Street Wireless, L.P.	\$134,000	\$135,609
CMA622	B	12	114,893	1,378,716	Miller, David	\$55,000	\$55,661
CMA623	B	12	120,327	1,443,924	PCS Partners, L.P.	\$61,000	\$61,733
CMA624	B	12	85,433	1,025,196	Triad 700, LLC	\$360,000	\$364,324
CMA625	B	12	66,215	794,580	VentureTel 700, Inc.	\$26,000	\$26,312
CMA626	B	12	251,847	3,022,164	Piedmont Rural Telephone Cooperative, Inc.	\$418,000	\$423,020
CMA627	B	12	139,940	1,679,280	Chester Telephone Company	\$254,000	\$257,051
CMA628	B	12	222,349	2,668,188	Sandhill Communications, LLC	\$1,590,000	\$1,609,096
CMA629	B	12	287,892	3,454,704	AT&T Mobility Spectrum, LLC	\$5,930,000	\$6,001,221
CMA630	B	12	194,484	2,333,808	FCC		
CMA631	B	12	158,114	1,897,368	Cavalier Wireless, LLC	\$151,000	\$152,814
CMA632	B	12	201,265	2,415,180	AT&T Mobility Spectrum, LLC	\$4,363,000	\$4,415,401
CMA633	B	12	225,965	2,711,580	Comporium Wireless, LLC	\$951,000	\$962,422
CMA634	B	12	35,612	427,344	Cellco Partnership d/b/a Verizon Wireless	\$107,000	\$108,285
CMA635	B	12	23,121	277,452	Iowa Intelgra Consortium, LLC	\$43,000	\$43,516
CMA636	B	12	52,825	633,900	KTC AWS Limited Partnership	\$296,000	\$299,555
CMA637	B	12	68,784	825,408	AT&T Mobility Spectrum, LLC	\$658,000	\$665,903
CMA638	B	12	27,194	326,328	N.E. Colorado Wireless Technologies, Inc.	\$249,000	\$251,991
CMA639	B	12	38,915	466,980	N.E. Colorado Wireless Technologies, Inc.	\$116,000	\$117,393
CMA640	B	12	67,747	812,964	Iowa Intelgra Consortium, LLC	\$105,000	\$106,261
CMA641	B	12	74,488	893,856	AT&T Mobility Spectrum, LLC	\$340,000	\$344,084
CMA642	B	12	105,059	1,260,708	AT&T Mobility Spectrum, LLC	\$1,183,000	\$1,197,208
CMA643	B	12	317,877	3,814,524	AT&T Mobility Spectrum, LLC	\$1,079,000	\$1,091,959
CMA644	B	12	177,193	2,126,316	AT&T Mobility Spectrum, LLC	\$378,000	\$382,540
CMA645	B	12	366,706	4,400,472	AT&T Mobility Spectrum, LLC	\$3,124,000	\$3,161,520
CMA646	B	12	290,725	3,488,700	AT&T Mobility Spectrum, LLC	\$3,633,000	\$3,676,634
CMA647	B	12	369,630	4,435,560	AT&T Mobility Spectrum, LLC	\$2,511,000	\$2,541,158
CMA648	B	12	170,150	2,041,800	Cellular South Licenses, Inc.	\$193,000	\$195,318
CMA649	B	12	282,930	3,395,160	AT&T Mobility Spectrum, LLC	\$3,164,000	\$3,202,001
CMA650	B	12	17,499	209,988	Broadband Wireless Unlimited, LLC	\$35,000	\$35,420

**Spectrum Auction Data
FCC 700 MHz Auction
2008**

Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA651	B	12	69,498	833,976	Miller, David	\$43,000	\$43,516
CMA652	B	12	55,812	669,744	SAL Spectrum, LLC	\$75,000	\$75,901
CMA653	B	12	89,253	1,071,036	Cellco Partnership d/b/a Verizon Wireless	\$587,000	\$594,050
CMA654	B	12	137,663	1,651,956	Miller, David	\$204,000	\$206,450
CMA655	B	12	41,975	503,700	Miller, David	\$42,000	\$42,504
CMA656	B	12	77,084	925,008	King Street Wireless, L.P.	\$540,000	\$546,486
CMA657	B	12	91,269	1,095,228	Cellco Partnership d/b/a Verizon Wireless	\$402,000	\$406,828
CMA658	B	12	392,672	4,712,064	AT&T Mobility Spectrum, LLC	\$2,088,000	\$2,113,078
CMA659	B	12	134,426	1,613,112	Central Texas Telephone Investments, LP	\$557,000	\$563,690
CMA660	B	12	193,442	2,321,304	Central Texas Telephone Investments, LP	\$763,000	\$772,164
CMA661	B	12	335,717	4,028,604	AT&T Mobility Spectrum, LLC	\$732,000	\$740,792
CMA662	B	12	300,759	3,609,108	AT&T Mobility Spectrum, LLC	\$1,846,000	\$1,868,171
CMA663	B	12	24,696	296,352	Spectrum Acquisitions, Inc.	\$238,000	\$240,858
CMA664	B	12	31,027	372,324	C&W Enterprises, Inc.	\$45,000	\$45,540
CMA665	B	12	41,757	501,084	Central Texas Telephone Investments, LP	\$192,000	\$194,306
CMA666	B	12	194,504	2,334,048	Central Texas Telephone Investments, LP	\$995,000	\$1,006,950
CMA667	B	12	349,585	4,195,020	Worldcall Inc.	\$648,000	\$655,783
CMA668	B	12	270,140	3,241,680	AT&T Mobility Spectrum, LLC	\$1,140,000	\$1,153,692
CMA669	B	12	227,582	2,730,984	Cellco Partnership d/b/a Verizon Wireless	\$940,000	\$951,290
CMA670	B	12	235,315	2,823,780	Cellco Partnership d/b/a Verizon Wireless	\$316,000	\$319,795
CMA671	B	12	158,126	1,897,512	AT&T Mobility Spectrum, LLC	\$260,000	\$263,123
CMA672	B	12	26,031	312,372	AT&T Mobility Spectrum, LLC	\$673,000	\$681,083
CMA673	B	12	136,097	1,633,164	Cellco Partnership d/b/a Verizon Wireless	\$474,000	\$479,693
CMA674	B	12	52,080	624,960	AT&T Mobility Spectrum, LLC	\$997,000	\$1,008,974
CMA675	B	12	62,248	746,976	Manti Telephone Company	\$400,000	\$404,804
CMA676	B	12	130,138	1,561,656	Cellco Partnership d/b/a Verizon Wireless	\$593,000	\$600,122
CMA677	B	12	80,283	963,396	Cellco Partnership d/b/a Verizon Wireless	\$2,133,000	\$2,158,618
CMA678	B	12	29,138	349,656	Cellco Partnership d/b/a Verizon Wireless	\$331,000	\$334,975
CMA679	B	12	217,353	2,608,236	King Street Wireless, L.P.	\$1,029,000	\$1,041,359
CMA680	B	12	238,002	2,856,024	King Street Wireless, L.P.	\$9,082,000	\$9,191,078
CMA681	B	12	141,297	1,695,564	FCC		
CMA682	B	12	136,903	1,642,836	King Street Wireless, L.P.	\$519,000	\$525,233
CMA683	B	12	213,798	2,565,576	King Street Wireless, L.P.	\$758,000	\$767,104
CMA684	B	12	187,302	2,247,624	King Street Wireless, L.P.	\$462,000	\$467,549
CMA685	B	12	62,590	751,080	King Street Wireless, L.P.	\$143,000	\$144,717
CMA686	B	12	234,162	2,809,944	King Street Wireless, L.P.	\$287,000	\$290,447
CMA687	B	12	94,187	1,130,244	Buggs Island Telephone Cooperative	\$615,000	\$622,386
CMA688	B	12	91,070	1,092,840	Buggs Island Telephone Cooperative	\$252,000	\$255,027
CMA689	B	12	92,114	1,105,368	Buggs Island Telephone Cooperative	\$265,000	\$268,183
CMA690	B	12	247,404	2,968,848	Cellco Partnership d/b/a Verizon Wireless	\$645,000	\$652,747
CMA691	B	12	300,410	3,604,920	AT&T Mobility Spectrum, LLC	\$690,000	\$698,287
CMA692	B	12	188,579	2,262,948	Cox Wireless, Inc.	\$619,000	\$626,434
CMA693	B	12	279,092	3,349,104	AT&T Mobility Spectrum, LLC	\$6,529,000	\$6,607,416
CMA694	B	12	138,783	1,665,396	Cellco Partnership d/b/a Verizon Wireless	\$1,057,000	\$1,069,695
CMA695	B	12	59,058	708,696	Whidbey Telephone Company	\$348,000	\$352,180
CMA696	B	12	116,599	1,399,188	Whidbey Telephone Company	\$792,000	\$801,512
CMA697	B	12	134,672	1,616,064	Cellco Partnership d/b/a Verizon Wireless	\$1,448,000	\$1,465,391
CMA698	B	12	186,356	2,236,272	AT&T Mobility Spectrum, LLC	\$1,478,000	\$1,495,751
CMA699	B	12	29,033	348,396	King Street Wireless, L.P.	\$159,000	\$160,910
CMA700	B	12	122,932	1,475,184	Cellco Partnership d/b/a Verizon Wireless	\$1,241,000	\$1,255,905
CMA701	B	12	76,985	923,820	King Street Wireless, L.P.	\$174,000	\$176,090
CMA702	B	12	76,624	919,488	King Street Wireless, L.P.	\$150,000	\$151,802
CMA703	B	12	268,096	3,217,152	King Street Wireless, L.P.	\$511,000	\$517,137
CMA704	B	12	185,405	2,224,860	King Street Wireless, L.P.	\$658,000	\$665,903
CMA705	B	12	129,431	1,553,172	King Street Wireless, L.P.	\$292,000	\$295,507
CMA706	B	12	166,643	1,999,716	King Street Wireless, L.P.	\$1,044,000	\$1,056,539
CMA707	B	12	251,814	3,021,768	King Street Wireless, L.P.	\$553,000	\$559,642
CMA708	B	12	117,992	1,415,904	King Street Wireless, L.P.	\$5,043,000	\$5,103,568
CMA709	B	12	86,105	1,033,260	King Street Wireless, L.P.	\$3,609,000	\$3,652,345

**Spectrum Auction Data
FCC 700 MHz Auction
2008**

Market	Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
CMA710	B	12	142,982	1,715,784	King Street Wireless, L.P.	\$3,704,000	\$3,748,486
CMA711	B	12	124,244	1,490,928	King Street Wireless, L.P.	\$5,761,000	\$5,830,192
CMA712	B	12	97,679	1,172,148	AT&T Mobility Spectrum, LLC	\$7,633,000	\$7,724,675
CMA713	B	12	120,566	1,446,792	King Street Wireless, L.P.	\$6,278,000	\$6,353,401
CMA714	B	12	295,518	3,546,216	AT&T Mobility Spectrum, LLC	\$7,942,000	\$8,037,386
CMA715	B	12	240,609	2,887,308	King Street Wireless, L.P.	\$6,011,000	\$6,083,194
CMA716	B	12	403,441	4,841,292	AT&T Mobility Spectrum, LLC	\$21,187,000	\$21,441,464
CMA717	B	12	131,035	1,572,420	King Street Wireless, L.P.	\$2,252,000	\$2,279,047
CMA718	B	12	50,418	605,016	Union Telephone Company	\$588,000	\$595,062
CMA719	B	12	79,864	958,368	Cellco Partnership d/b/a Verizon Wireless	\$1,539,000	\$1,557,484
CMA720	B	12	147,542	1,770,504	Manti Telephone Company	\$2,027,000	\$2,051,345
CMA721	B	12	137,373	1,648,476	AT&T Mobility Spectrum, LLC	\$1,867,000	\$1,889,423
CMA722	B	12	12,052	144,624	Great American Broadband, Inc.	\$94,000	\$95,129
CMA723	B	12	14,767	177,204	maxima international llc	\$95,000	\$96,141
CMA724	B	12	285,531	3,426,372	VentureTel 700, Inc.	\$134,000	\$135,609
CMA725	B	12	126,274	1,515,288	VentureTel 700, Inc.	\$38,000	\$38,456
CMA726	B	12	270,223	3,242,676	Worldcall Inc.	\$134,000	\$135,609
CMA727	B	12	41,757	501,084	Worldcall Inc.	\$112,000	\$113,345
CMA728	B	12	9,106	109,272	Dragon Arch, Inc.	\$91,000	\$92,093
CMA729	B	12	1,868	22,416	Worldcall Inc.	\$81,000	\$81,973
CMA730	B	12	55,378	664,536	Worldcall Inc.	\$303,000	\$306,639
CMA731	B	12	53,234	638,808	Worldcall Inc.	\$240,000	\$242,882
CMA732	B	12	154,805	1,857,660	Choice Phone LLC	\$933,000	\$944,206
CMA733	B	12	57,291	687,492	Club 42 CM Limited Partnership	\$21,000	\$21,252
CMA734	B	12	69,221	830,652	Choice Phone LLC	\$70,000	\$70,841
NWA511	D	10	285,620,445	2,856,204,450	QUALCOMM Incorporated (public safety block)		
REA001	C	22	50,058,090	1,101,277,980	Cellco Partnership d/b/a Verizon Wireless	\$502,774,000	\$508,812,502
REA002	C	22	49,676,946	1,092,892,812	Cellco Partnership d/b/a Verizon Wireless	\$424,224,000	\$429,319,087
REA003	C	22	58,178,304	1,279,922,688	Cellco Partnership d/b/a Verizon Wireless	\$1,109,715,000	\$1,123,043,088
REA004	C	22	31,326,973	689,193,406	Cellco Partnership d/b/a Verizon Wireless	\$1,625,930,000	\$1,645,458,022
REA005	C	22	40,343,960	887,567,120	Cellco Partnership d/b/a Verizon Wireless	\$723,228,000	\$731,914,236
REA006	C	22	49,999,164	1,099,981,608	Cellco Partnership d/b/a Verizon Wireless	\$319,798,000	\$323,638,893
REA007	C	22	626,932	13,792,504	Triad 700, LLC	\$1,783,000	\$1,804,414
REA008	C	22	1,211,537	26,653,814	Cellco Partnership d/b/a Verizon Wireless	\$36,138,000	\$36,572,031
REA009	C	22	224,026	4,928,572			
REA010	C	22	3,917,222	86,178,884	Triad 700, LLC	\$3,124,000	\$3,161,520
REA011	C	22	57,291	1,260,402			
REA012	C	22			Small Ventures USA, L.P.	\$1,055,000	\$1,067,671
REAGs 9 & 11	C	22	281,317	6,188,974	Club 42 CM Limited Partnership	\$550,000	\$556,606

Appendix A
Spectrum Auction Data
Norway 2.5 GHz Auction
2008

Lower (MHz)	Upper (MHz)	Paired	Block	License Bandwidth		Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
				(MHz)	Population			
2010	2025	Unpaired	A	15	1,987,893	29,818,395 Inquam Broadband GmbH	\$66,503	\$67,301
2500 / 2620	2505 / 2625	Paired	C1	10	1,987,893	19,878,930 Hafslund Telekom AS	\$857,533	\$867,832
2505 / 2625	2510 / 2630	Paired	C2	10	1,987,893	19,878,930 NetCom AS	\$847,192	\$857,367
2510 / 2630	2515 / 2635	Paired	C3	10	1,987,893	19,878,930 NetCom AS	\$742,188	\$751,102
2515 / 2635	2520 / 2640	Paired	C4	10	1,987,893	19,878,930 NetCom AS	\$895,716	\$906,474
2520 / 2640	2525 / 2645	Paired	C5	10	1,987,893	19,878,930 Telenor ASA	\$862,306	\$872,663
2525 / 2645	2530 / 2650	Paired	C6	10	1,987,893	19,878,930 Telenor ASA	\$503,542	\$509,590
2530 / 2650	2535 / 2655	Paired	C7	10	1,987,893	19,878,930 Telenor ASA	\$1,203,569	\$1,218,025
2535 / 2655	2540 / 2660	Paired	C8	10	1,987,893	19,878,930 Telenor ASA	\$1,203,569	\$1,218,025
2540	2550	Unpaired	D1	10	1,987,893	19,878,930 Telenor ASA	\$1,201,183	\$1,215,609
2550	2560	Unpaired	D2	10	1,987,893	19,878,930 Telenor ASA	\$1,174,136	\$1,188,238
2560	2570	Unpaired	D3	10	1,987,893	19,878,930 Hafslund Telekom AS	\$1,174,932	\$1,189,043
2570	2580	Unpaired	B1	10	1,987,893	19,878,930 Craig Wireless Systems Ltd.	\$1,127,203	\$1,140,741
2580	2590	Unpaired	B2	10	1,987,893	19,878,930 Craig Wireless Systems Ltd.	\$1,082,655	\$1,095,659
2590	2600	Unpaired	B3	10	1,987,893	19,878,930 Craig Wireless Systems Ltd.	\$1,491,535	\$1,509,449
2600	2610	Unpaired	B4	10	1,987,893	19,878,930 Craig Wireless Systems Ltd.	\$1,666,542	\$1,686,557
2610	2620	Unpaired	B5	10	1,987,893	19,878,930 Craig Wireless Systems Ltd.	\$1,008,198	\$1,020,307
2660	2670	Unpaired	E1	10	1,987,893	19,878,930 Telenor ASA	\$1,153,454	\$1,167,307
2670	2680	Unpaired	E2	10	1,987,893	19,878,930 Telenor ASA	\$1,280,731	\$1,296,113
2680	2690	Unpaired	E3	10	1,987,893	19,878,930 Hafslund Telekom AS	\$1,427,896	\$1,445,046
2010	2025	Unpaired	A	15	684,761	10,271,415 Inquam Broadband GmbH	\$22,910	\$23,185
2500 / 2620	2505 / 2625	Paired	C1	10	684,761	6,847,610 NetCom AS	\$125,687	\$127,196
2505 / 2625	2510 / 2630	Paired	C2	10	684,761	6,847,610 NetCom AS	\$311,830	\$315,575
2510 / 2630	2515 / 2635	Paired	C3	10	684,761	6,847,610 NetCom AS	\$178,189	\$180,329
2515 / 2635	2520 / 2640	Paired	C4	10	684,761	6,847,610 NetCom AS	\$310,239	\$313,965
2520 / 2640	2525 / 2645	Paired	C5	10	684,761	6,847,610 Telenor ASA	\$288,761	\$292,229
2525 / 2645	2530 / 2650	Paired	C6	10	684,761	6,847,610 Telenor ASA	\$116,141	\$117,536
2530 / 2650	2535 / 2655	Paired	C7	10	684,761	6,847,610 Telenor ASA	\$110,572	\$111,900
2535 / 2655	2540 / 2660	Paired	C8	10	684,761	6,847,610 Telenor ASA	\$116,141	\$117,536
2540	2550	Unpaired	D1	10	684,761	6,847,610 Telenor ASA	\$329,331	\$333,286
2550	2560	Unpaired	D2	10	684,761	6,847,610 Telenor ASA	\$232,282	\$235,071
2560	2570	Unpaired	D3	10	684,761	6,847,610 Hafslund Telekom AS	\$264,101	\$267,273
2570	2580	Unpaired	B1	10	684,761	6,847,610 Craig Wireless Systems Ltd.	\$244,214	\$247,147
2580	2590	Unpaired	B2	10	684,761	6,847,610 Craig Wireless Systems Ltd.	\$482,064	\$487,854
2590	2600	Unpaired	B3	10	684,761	6,847,610 Craig Wireless Systems Ltd.	\$473,314	\$478,998
2600	2610	Unpaired	B4	10	684,761	6,847,610 Craig Wireless Systems Ltd.	\$324,558	\$328,456
2610	2620	Unpaired	B5	10	684,761	6,847,610 Craig Wireless Systems Ltd.	\$243,737	\$246,664
2660	2670	Unpaired	E1	10	684,761	6,847,610 Telenor ASA	\$297,512	\$301,085
2670	2680	Unpaired	E2	10	684,761	6,847,610 Telenor ASA	\$283,988	\$287,399
2680	2690	Unpaired	E3	10	684,761	6,847,610 Not Assigned		
2010	2025	Unpaired	A	15	815,705	12,235,575 Inquam Broadband GmbH	\$275,238	\$278,544
2500 / 2620	2505 / 2625	Paired	C1	10	815,705	8,157,050 NetCom AS	\$148,756	\$150,542
2505 / 2625	2510 / 2630	Paired	C2	10	815,705	8,157,050 NetCom AS	\$338,081	\$342,142
2510 / 2630	2515 / 2635	Paired	C3	10	815,705	8,157,050 NetCom AS	\$206,031	\$208,505
2515 / 2635	2520 / 2640	Paired	C4	10	815,705	8,157,050 NetCom AS	\$320,581	\$324,431
2520 / 2640	2525 / 2645	Paired	C5	10	815,705	8,157,050 Telenor ASA	\$317,399	\$321,211
2525 / 2645	2530 / 2650	Paired	C6	10	815,705	8,157,050 Telenor ASA	\$124,891	\$126,391
2530 / 2650	2535 / 2655	Paired	C7	10	815,705	8,157,050 Telenor ASA	\$142,392	\$144,102
2535 / 2655	2540 / 2660	Paired	C8	10	815,705	8,157,050 Telenor ASA	\$136,028	\$137,662
2540	2550	Unpaired	D1	10	815,705	8,157,050 Telenor ASA	\$293,534	\$297,060
2550	2560	Unpaired	D2	10	815,705	8,157,050 Telenor ASA	\$280,806	\$284,179
2560	2570	Unpaired	D3	10	815,705	8,157,050 Arctic Wireless AS	\$83,526	\$84,529
2570	2580	Unpaired	B1	10	815,705	8,157,050 Craig Wireless Systems Ltd.	\$287,170	\$290,619
2580	2590	Unpaired	B2	10	815,705	8,157,050 Craig Wireless Systems Ltd.	\$294,330	\$297,865

**Spectrum Auction Data
Norway 2.5 GHz Auction
2008**

Lower (MHz)	Upper (MHz)	Paired	Block	License Bandwidth			Winning Bidder	Winning Bid	Winning Bid
				(MHz)	Population	MHz * Pop		(2008 USD)	(2008 CAD)
2590	2600	Unpaired	B3	10	815,705	8,157,050	Craig Wireless Systems Ltd.	\$294,330	\$297,865
2600	2610	Unpaired	B4	10	815,705	8,157,050	Craig Wireless Systems Ltd.	\$294,330	\$297,865
2610	2620	Unpaired	B5	10	815,705	8,157,050	Craig Wireless Systems Ltd.	\$161,484	\$163,423
2660	2670	Unpaired	E1	10	815,705	8,157,050	Telenor ASA	\$199,667	\$202,065
2670	2680	Unpaired	E2	10	815,705	8,157,050	Telenor ASA	\$195,689	\$198,040
2680	2690	Unpaired	E3	10	815,705	8,157,050	Not Assigned		
2010	2025	Unpaired	A	15	372,926	5,593,890	Inquam Broadband GmbH	\$12,569	\$12,720
2500 / 2620	2505 / 2625	Paired	C1	10	372,926	3,729,260	NetCom AS	\$73,185	\$74,064
2505 / 2625	2510 / 2630	Paired	C2	10	372,926	3,729,260	NetCom AS	\$160,688	\$162,618
2510 / 2630	2515 / 2635	Paired	C3	10	372,926	3,729,260	NetCom AS	\$98,640	\$99,825
2515 / 2635	2520 / 2640	Paired	C4	10	372,926	3,729,260	NetCom AS	\$155,915	\$157,788
2520 / 2640	2525 / 2645	Paired	C5	10	372,926	3,729,260	Telenor ASA	\$153,529	\$155,373
2525 / 2645	2530 / 2650	Paired	C6	10	372,926	3,729,260	Telenor ASA	\$64,434	\$65,208
2530 / 2650	2535 / 2655	Paired	C7	10	372,926	3,729,260	Telenor ASA	\$64,434	\$65,208
2535 / 2655	2540 / 2660	Paired	C8	10	372,926	3,729,260	Telenor ASA	\$61,252	\$61,988
2540	2550	Unpaired	D1	10	372,926	3,729,260	Telenor ASA	\$165,461	\$167,448
2550	2560	Unpaired	D2	10	372,926	3,729,260	Telenor ASA	\$130,460	\$132,026
2560	2570	Unpaired	D3	10	372,926	3,729,260	Hafslund Telekom AS	\$60,457	\$61,183
2570	2580	Unpaired	B1	10	372,926	3,729,260	Craig Wireless Systems Ltd.	\$136,823	\$138,467
2580	2590	Unpaired	B2	10	372,926	3,729,260	Craig Wireless Systems Ltd.	\$130,460	\$132,026
2590	2600	Unpaired	B3	10	372,926	3,729,260	Craig Wireless Systems Ltd.	\$133,642	\$135,247
2600	2610	Unpaired	B4	10	372,926	3,729,260	Craig Wireless Systems Ltd.	\$162,279	\$164,228
2610	2620	Unpaired	B5	10	372,926	3,729,260	Craig Wireless Systems Ltd.	\$134,119	\$135,730
2660	2670	Unpaired	E1	10	372,926	3,729,260	Telenor ASA	\$150,347	\$152,152
2670	2680	Unpaired	E2	10	372,926	3,729,260	Telenor ASA	\$156,711	\$158,593
2680	2690	Unpaired	E3	10	372,926	3,729,260	NetCom AS	\$46,138	\$46,692
2010	2025	Unpaired	A	15	412,849	6,192,735	Inquam Broadband GmbH	\$13,841	\$14,008
2500 / 2620	2505 / 2625	Paired	C1	10	412,849	4,128,490	NetCom AS	\$77,958	\$78,894
2505 / 2625	2510 / 2630	Paired	C2	10	412,849	4,128,490	NetCom AS	\$164,665	\$166,643
2510 / 2630	2515 / 2635	Paired	C3	10	412,849	4,128,490	NetCom AS	\$102,618	\$103,850
2515 / 2635	2520 / 2640	Paired	C4	10	412,849	4,128,490	NetCom AS	\$159,893	\$161,813
2520 / 2640	2525 / 2645	Paired	C5	10	412,849	4,128,490	Telenor ASA	\$157,506	\$159,398
2525 / 2645	2530 / 2650	Paired	C6	10	412,849	4,128,490	Telenor ASA	\$78,753	\$79,699
2530 / 2650	2535 / 2655	Paired	C7	10	412,849	4,128,490	Telenor ASA	\$69,207	\$70,038
2535 / 2655	2540 / 2660	Paired	C8	10	412,849	4,128,490	Telenor ASA	\$69,207	\$70,038
2540	2550	Unpaired	D1	10	412,849	4,128,490	Telenor ASA	\$141,596	\$143,297
2550	2560	Unpaired	D2	10	412,849	4,128,490	Telenor ASA	\$132,051	\$133,637
2560	2570	Unpaired	D3	10	412,849	4,128,490	Arctic Wireless AS	\$44,547	\$45,082
2570	2580	Unpaired	B1	10	412,849	4,128,490	Craig Wireless Systems Ltd.	\$138,414	\$140,077
2580	2590	Unpaired			412,849	4,128,490	Craig Wireless Systems Ltd.	\$141,596	\$143,297
2590	2600	Unpaired			412,849	4,128,490	Craig Wireless Systems Ltd.	\$141,596	\$143,297
2600	2610	Unpaired	B4	10	412,849	4,128,490	Craig Wireless Systems Ltd.	\$141,596	\$143,297
2610	2620	Unpaired	B5	10	412,849	4,128,490	Craig Wireless Systems Ltd.	\$78,753	\$79,699
2660	2670	Unpaired	E1	10	412,849	4,128,490	Telenor ASA	\$97,049	\$98,215
2670	2680	Unpaired	E2	10	412,849	4,128,490	Telenor ASA	\$77,958	\$78,894
2680	2690	Unpaired	E3	10	412,849	4,128,490	Not Assigned		
2010	2025	Unpaired	A	15	462,037	6,930,555	Inquam Broadband GmbH	\$15,751	\$15,940
2500 / 2620	2505 / 2625	Paired	C1	10	462,037	4,620,370	NetCom AS	\$82,730	\$83,724
2505 / 2625	2510 / 2630	Paired	C2	10	462,037	4,620,370	NetCom AS	\$182,166	\$184,354
2510 / 2630	2515 / 2635	Paired	C3	10	462,037	4,620,370	NetCom AS	\$108,981	\$110,290
2515 / 2635	2520 / 2640	Paired	C4	10	462,037	4,620,370	NetCom AS	\$171,029	\$173,083
2520 / 2640	2525 / 2645	Paired	C5	10	462,037	4,620,370	Telenor ASA	\$166,256	\$168,253
2525 / 2645	2530 / 2650	Paired	C6	10	462,037	4,620,370	Telenor ASA	\$75,571	\$76,479
2530 / 2650	2535 / 2655	Paired	C7	10	462,037	4,620,370	Telenor ASA	\$75,571	\$76,479
2535 / 2655	2540 / 2660	Paired	C8	10	462,037	4,620,370	Telenor ASA	\$89,890	\$90,969

**Spectrum Auction Data
Norway 2.5 GHz Auction
2008**

Lower (MHz)	Upper (MHz)	Paired	Block	License Bandwidth			Winning Bidder	Winning Bid	Winning Bid
				(MHz)	Population	MHz * Pop		(2008 USD)	(2008 CAD)
2540	2550	Unpaired	D1	10	462,037	4,620,370	Telenor ASA	\$166,256	\$168,253
2550	2560	Unpaired	D2	10	462,037	4,620,370	Telenor ASA	\$151,938	\$153,763
2560	2570	Unpaired	D3	10	462,037	4,620,370	Arctic Wireless AS	\$46,934	\$47,497
2570	2580	Unpaired	B1	10	462,037	4,620,370	Craig Wireless Systems Ltd.	\$155,120	\$156,983
2580	2590	Unpaired	B2	10	462,037	4,620,370	Craig Wireless Systems Ltd.	\$155,120	\$156,983
2590	2600	Unpaired	B3	10	462,037	4,620,370	Craig Wireless Systems Ltd.	\$151,142	\$152,957
2600	2610	Unpaired	B4	10	462,037	4,620,370	Craig Wireless Systems Ltd.	\$155,120	\$156,983
2610	2620	Unpaired	B5	10	462,037	4,620,370	Craig Wireless Systems Ltd.	\$85,753	\$86,783
2660	2670	Unpaired	E1	10	462,037	4,620,370	Telenor ASA	\$108,981	\$110,290
2670	2680	Unpaired	E2	10	462,037	4,620,370	Telenor ASA	\$70,003	\$70,843
2680	2690	Unpaired	E3	10	462,037	4,620,370	NetCom AS	\$46,934	\$47,497

Appendix A
Spectrum Auction Data
Sweden 2.6 GHz Auction
2008

Block	License Bandwidth (MHz)	Population	MHz * Pop	Winning Bidder	Winning Bid (2008 USD)	Winning Bid (2008 CAD)
FDD1	10	9,182,927	91,829,270	Tele2 Sverige AB	\$9,898,260	\$10,017,142
FDD2	10	9,182,927	91,829,270	Tele2 Sverige AB	\$24,745,650	\$25,042,854
FDD3	10	9,182,927	91,829,270	Tele2 Sverige AB	\$31,485,420	\$31,863,572
FDD4	10	9,182,927	91,829,270	Tele2 Sverige AB	\$24,745,650	\$25,042,854
FDD5	10	9,182,927	91,829,270	HI3G Access AB	\$24,248,250	\$24,539,480
FDD6	10	9,182,927	91,829,270	HI3G Access AB	\$24,928,030	\$25,227,425
FDD7	10	9,182,927	91,829,270	TeliaSonera Mobile Networks AB	\$23,750,850	\$24,036,107
FDD8	10	9,182,927	91,829,270	TeliaSonera Mobile Networks AB	\$22,797,500	\$23,071,306
FDD9	10	9,182,927	91,829,270	TeliaSonera Mobile Networks AB	\$23,560,180	\$23,843,146
FDD10	10	9,182,927	91,829,270	TeliaSonera Mobile Networks AB	\$23,145,680	\$23,423,668
FDD11	10	9,182,927	91,829,270	Telenor Sverige AB	\$23,460,700	\$23,742,472
FDD12	10	9,182,927	91,829,270	Telenor Sverige AB	\$22,441,030	\$22,710,555
FDD13	10	9,182,927	91,829,270	Telenor Sverige AB	\$25,442,010	\$25,747,578
FDD14	10	9,182,927	91,829,270	Telenor Sverige AB	\$17,035,950	\$17,240,558
TDD1	50	9,182,927	459,146,350	Intel Capital Corporation	\$26,403,650	\$26,720,768

Appendix B: Predicted License Values—Linear Model

Appendix B
Actual and Predicted Auction Values for the Industry Canada 2008 AWS Auction
Linear Regression Using Data from the 2006 FCC AWS Auction

Estimated Model: Winning Bid = 0.7466129 * (Mhz * Population)
Adjusted R-Squared: 84.53%
Regression Sample: 1,082 Licenses from the 2006 FCC AWS Auction

Set	Bandwidth	Winning Bidder	Population	MHz * Pop	2008 USD		2008 CAD		
					Actual Winning Bid	Predicted Value	Actual Winning Bid	Predicted Value	
1	201b	20	Bragg Communications Inc.	513,282	10,265,640	\$750,988	\$7,664,459	\$760,000	\$7,756,512
1	201c	10	Bragg Communications Inc.	513,282	5,132,820	\$434,783	\$3,832,230	\$440,000	\$3,878,256
0	201g	10	Globalive Wireless LP	513,282	5,132,820	\$556,324	\$3,832,230	\$563,000	\$3,878,256
1	202b	20	Bragg Communications Inc.	1,043,232	20,864,640	\$3,003,953	\$15,577,809	\$3,040,000	\$15,764,904
1	202c	10	Bragg Communications Inc.	1,043,232	10,432,320	\$1,650,198	\$7,788,904	\$1,670,000	\$7,882,452
0	202g	10	Blue Canada Wireless Inc.	1,043,232	10,432,320	\$1,138,834	\$7,788,904	\$1,152,500	\$7,882,452
1	203b	20	Bragg Communications Inc.	728,997	14,579,940	\$1,462,451	\$10,885,571	\$1,480,000	\$11,016,311
1	203c	10	Globalive Wireless LP	728,997	7,289,970	\$1,699,605	\$5,442,786	\$1,720,000	\$5,508,155
0	203i	5	Bragg Communications Inc.	728,997	3,644,985	\$475,296	\$2,721,393	\$481,000	\$2,754,078
1	204b	20	9193-2962 Québec Inc.	1,590,736	31,814,720	\$7,015,810	\$23,753,280	\$7,100,000	\$24,038,566
1	204c	10	9193-2962 Québec Inc.	1,590,736	15,907,360	\$3,063,241	\$11,876,640	\$3,100,000	\$12,019,283
0	204g	10	6934579 Canada Inc.	1,590,736	15,907,360	\$2,588,933	\$11,876,640	\$2,620,000	\$12,019,283
0	204i	5	Bell Mobility Inc.	1,590,736	7,953,680	\$802,372	\$5,938,320	\$812,000	\$6,009,641
1	205b	20	9193-2962 Québec Inc.	5,151,224	103,000,000	\$166,000,000	\$76,919,403	\$168,000,000	\$77,843,234
1	205c	10	9193-2962 Québec Inc.	5,151,224	51,512,240	\$110,700,000	\$38,459,702	\$112,000,000	\$38,921,617
0	205g	10	6934579 Canada Inc.	5,151,224	51,512,240	\$16,007,905	\$38,459,702	\$16,200,000	\$38,921,617
1	206b	20	9193-2962 Québec Inc.	2,122,177	42,443,540	\$51,284,585	\$31,688,894	\$51,900,000	\$32,069,489
1	206c	10	Data & Audio-Visual Enterprises Wireless Inc.	2,122,177	21,221,770	\$30,039,526	\$15,844,447	\$30,400,000	\$16,034,745
0	206g	10	6934579 Canada Inc.	2,122,177	21,221,770	\$8,389,328	\$15,844,447	\$8,490,000	\$16,034,745
1	207b	20	9193-2962 Québec Inc.	187,081	3,741,620	\$173,913	\$2,793,542	\$176,000	\$2,827,093
1	207c	10	9193-2962 Québec Inc.	187,081	1,870,810	\$351,779	\$1,396,771	\$356,000	\$1,413,547
0	207g	10	Globalive Wireless LP	187,081	1,870,810	\$257,905	\$1,396,771	\$261,000	\$1,413,547
0	207i	5	Globalive Wireless LP	187,081	935,405	\$121,542	\$698,385	\$123,000	\$706,773
1	208b	20	Globalive Wireless LP	8,811,117	176,200,000	\$275,700,000	\$131,600,000	\$279,000,000	\$133,180,565
1	208c	10	Data & Audio-Visual Enterprises Wireless Inc.	8,811,117	88,111,170	\$129,400,000	\$65,784,934	\$131,000,000	\$66,575,035
0	208g	10	6934579 Canada Inc.	8,811,117	88,111,170	\$24,777,744	\$65,784,934	\$25,075,077	\$66,575,035
1	209b	20	Bragg Communications Inc.	785,481	15,709,620	\$2,697,629	\$11,729,005	\$2,730,000	\$11,869,875
1	209c	10	Globalive Wireless LP	785,481	7,854,810	\$1,482,213	\$5,864,502	\$1,500,000	\$5,934,937
0	209i	5	Globalive Wireless LP	785,481	3,927,405	\$376,482	\$2,932,251	\$381,000	\$2,967,469
1	210b	20	6934242 Canada Ltd.	1,118,283	22,365,660	\$38,537,549	\$16,698,490	\$39,000,000	\$16,899,045
1	210c	10	1380057 Alberta Ltd.	1,118,283	11,182,830	\$13,636,364	\$8,349,245	\$13,800,000	\$8,449,522
0	210g	10	6934242 Canada Ltd.	1,118,283	11,182,830	\$1,168,478	\$8,349,245	\$1,182,500	\$8,449,522
0	210i	5	6934242 Canada Ltd.	1,118,283	5,591,415	\$584,239	\$4,174,622	\$591,250	\$4,224,761
1	211b	20	SaskTel	975,717	19,514,340	\$39,920,949	\$14,569,658	\$40,400,000	\$14,744,645
1	211c	10	SaskTel	975,717	9,757,170	\$23,913,043	\$7,284,829	\$24,200,000	\$7,372,322
0	211g	10	SaskTel	975,717	9,757,170	\$1,077,075	\$7,284,829	\$1,090,000	\$7,372,322
1	212b	20	1380057 Alberta Ltd.	2,979,436	59,588,720	\$32,312,253	\$44,489,706	\$32,700,000	\$45,024,044
1	212c	10	Globalive Wireless LP	2,979,436	29,794,360	\$17,885,375	\$22,244,853	\$18,100,000	\$22,512,022
0	212g	10	Novus Wireless Inc.	2,979,436	29,794,360	\$8,063,241	\$22,244,853	\$8,160,000	\$22,512,022
1	213b	20	1380057 Alberta Ltd.	3,907,624	78,152,480	\$99,802,372	\$58,349,648	\$101,000,000	\$59,050,449
1	213c	10	Globalive Wireless LP	3,907,624	39,076,240	\$66,600,791	\$29,174,824	\$67,400,000	\$29,525,224
0	213g	10	Novus Wireless Inc.	3,907,624	39,076,240	\$9,624,506	\$29,174,824	\$9,740,000	\$29,525,224
1	214b	20	Globalive Wireless LP	92,707	1,854,140	\$181,818	\$1,384,325	\$184,000	\$1,400,951
1	214c	10	Globalive Wireless LP	92,707	927,070	\$102,767	\$692,162	\$104,000	\$700,476
0	214g	10	Globalive Wireless LP	92,707	927,070	\$145,257	\$692,162	\$147,000	\$700,476
0	214i	5	Bell Mobility Inc.	92,707	463,535	\$136,364	\$346,081	\$138,000	\$350,238
0	301a	20	Rogers Communications Inc.	513,282	10,265,640	\$6,304,348	\$7,664,459	\$6,380,000	\$7,756,512
1	301d	10	Globalive Wireless LP	513,282	5,132,820	\$375,494	\$3,832,230	\$380,000	\$3,878,256
0	301e	10	TELUS Communications Company	513,282	5,132,820	\$3,300,395	\$3,832,230	\$3,340,000	\$3,878,256
0	301f	20	Bell Mobility Inc.	513,282	10,265,640	\$6,304,348	\$7,664,459	\$6,380,000	\$7,756,512
0	302a	20	Rogers Communications Inc.	135,294	2,705,880	\$2,519,763	\$2,020,245	\$2,550,000	\$2,044,509
1	302d	10	Globalive Wireless LP	135,294	1,352,940	\$287,549	\$1,010,122	\$291,000	\$1,022,254
0	302e	10	TELUS Communications Company	135,294	1,352,940	\$1,847,826	\$1,010,122	\$1,870,000	\$1,022,254
0	302f	20	Bell Mobility Inc.	135,294	2,705,880	\$2,598,814	\$2,020,245	\$2,630,000	\$2,044,509
0	303a	20	Bell Mobility Inc.	760,894	15,217,880	\$15,019,763	\$11,361,865	\$15,200,000	\$11,498,325
1	303d	10	Globalive Wireless LP	760,894	7,608,940	\$935,771	\$5,680,933	\$947,000	\$5,749,163
0	303e	10	TELUS Communications Company	760,894	7,608,940	\$7,154,150	\$5,680,933	\$7,240,000	\$5,749,163
0	303f	20	Rogers Communications Inc.	760,894	15,217,880	\$15,118,577	\$11,361,865	\$15,300,000	\$11,498,325
0	304a	20	Rogers Communications Inc.	147,044	2,940,880	\$3,577,075	\$2,195,699	\$3,620,000	\$2,222,070
1	304d	10	Globalive Wireless LP	147,044	1,470,440	\$285,573	\$1,097,849	\$289,000	\$1,111,035
0	304e	10	TELUS Communications Company	147,044	1,470,440	\$1,946,640	\$1,097,849	\$1,970,000	\$1,111,035
0	304f	20	Bell Mobility Inc.	147,044	2,940,880	\$3,833,992	\$2,195,699	\$3,880,000	\$2,222,070
0	305a	20	Rogers Communications Inc.	167,343	3,346,860	\$2,677,866	\$2,498,809	\$2,710,000	\$2,528,820
1	305d	10	Bragg Communications Inc.	167,343	1,673,430	\$591,897	\$1,249,404	\$599,000	\$1,264,410
0	305e	10	TELUS Communications Company	167,343	1,673,430	\$2,272,727	\$1,249,404	\$2,300,000	\$1,264,410
0	305f	20	Bell Mobility Inc.	167,343	3,346,860	\$3,023,715	\$2,498,809	\$3,060,000	\$2,528,820
0	306a	20	Rogers Communications Inc.	209,227	4,184,540	\$3,171,937	\$3,124,231	\$3,210,000	\$3,161,755
1	306d	10	Bragg Communications Inc.	209,227	2,092,270	\$601,779	\$1,562,116	\$609,000	\$1,580,877

Appendix B
Actual and Predicted Auction Values for the Industry Canada 2008 AWS Auction
Linear Regression Using Data from the 2006 FCC AWS Auction

Estimated Model: Winning Bid = 0.7466129 * (Mhz * Population)
Adjusted R-Squared: 84.53%
Regression Sample: 1,082 Licenses from the 2006 FCC AWS Auction

Set Aside	Block	Bandwidth (Mhz)	Winning Bidder	Population	MHz * Pop	2008 USD		2008 CAD	
						Actual Winning Bid	Predicted Value	Actual Winning Bid	Predicted Value
0	306e	10	TELUS Communications Company	209,227	2,092,270	\$2,697,629	\$1,562,116	\$2,730,000	\$1,580,877
0	306f	20	Bell Mobility Inc.	209,227	4,184,540	\$3,537,549	\$3,124,231	\$3,580,000	\$3,161,755
0	307a	20	Rogers Communications Inc.	352,427	7,048,540	\$4,752,964	\$5,262,531	\$4,810,000	\$5,325,736
1	307d	10	Bragg Communications Inc.	352,427	3,524,270	\$964,427	\$2,631,265	\$976,000	\$2,662,868
0	307e	10	TELUS Communications Company	352,427	3,524,270	\$4,041,502	\$2,631,265	\$4,090,000	\$2,662,868
0	307f	20	Bell Mobility Inc.	352,427	7,048,540	\$5,059,289	\$5,262,531	\$5,120,000	\$5,325,736
0	308a	20	Rogers Communications Inc.	298,273	5,965,460	\$2,252,964	\$4,453,889	\$2,280,000	\$4,507,382
1	308d	10	9193-2962 Québec Inc.	298,273	2,982,730	\$975,296	\$2,226,945	\$987,000	\$2,253,691
0	308e	10	Bell Mobility Inc.	298,273	2,982,730	\$1,541,502	\$2,226,945	\$1,560,000	\$2,253,691
0	308f	20	TELUS Communications Company	298,273	5,965,460	\$2,450,593	\$4,453,889	\$2,480,000	\$4,507,382
0	309a	20	Rogers Communications Inc.	917,873	18,357,460	\$34,387,352	\$13,705,916	\$34,800,000	\$13,870,529
1	309d	10	9193-2962 Québec Inc.	917,873	9,178,730	\$2,450,593	\$6,852,958	\$2,480,000	\$6,935,265
0	309e	10	Bell Mobility Inc.	917,873	9,178,730	\$14,328,063	\$6,852,958	\$14,500,000	\$6,935,265
0	309f	20	TELUS Communications Company	917,873	18,357,460	\$34,486,166	\$13,705,916	\$34,900,000	\$13,870,529
0	310a	20	Rogers Communications Inc.	374,590	7,491,800	\$4,525,692	\$5,593,474	\$4,580,000	\$5,660,654
1	310d	10	9193-2962 Québec Inc.	374,590	3,745,900	\$545,455	\$2,796,737	\$552,000	\$2,830,327
0	310e	10	Bell Mobility Inc.	374,590	3,745,900	\$1,936,759	\$2,796,737	\$1,960,000	\$2,830,327
0	310f	20	TELUS Communications Company	374,590	7,491,800	\$4,397,233	\$5,593,474	\$4,450,000	\$5,660,654
0	311a	20	Rogers Communications Inc.	509,717	10,194,340	\$9,288,538	\$7,611,226	\$9,400,000	\$7,702,639
1	311d	10	9193-2962 Québec Inc.	509,717	5,097,170	\$3,547,431	\$3,805,613	\$3,590,000	\$3,851,320
0	311e	10	9193-2962 Québec Inc.	509,717	5,097,170	\$5,128,459	\$3,805,613	\$5,190,000	\$3,851,320
0	311f	20	TELUS Communications Company	509,717	10,194,340	\$10,375,494	\$7,611,226	\$10,500,000	\$7,702,639
0	312a	20	Rogers Communications Inc.	749,812	14,996,240	\$21,047,431	\$11,196,386	\$21,300,000	\$11,330,859
1	312d	10	9193-2962 Québec Inc.	749,812	7,498,120	\$5,187,747	\$5,598,193	\$5,250,000	\$5,665,429
0	312e	10	Bell Mobility Inc.	749,812	7,498,120	\$9,456,522	\$5,598,193	\$9,570,000	\$5,665,429
0	312f	20	TELUS Communications Company	749,812	14,996,240	\$21,640,316	\$11,196,386	\$21,900,000	\$11,330,859
0	313a	20	Rogers Communications Inc.	3,784,570	75,691,400	\$189,700,000	\$56,512,174	\$192,000,000	\$57,190,906
1	313d	10	9193-2962 Québec Inc.	3,784,570	37,845,700	\$95,454,545	\$28,256,087	\$96,600,000	\$28,595,453
0	313e	10	Bell Mobility Inc.	3,784,570	37,845,700	\$126,500,000	\$28,256,087	\$128,000,000	\$28,595,453
0	313f	20	TELUS Communications Company	3,784,570	75,691,400	\$231,200,000	\$56,512,174	\$234,000,000	\$57,190,906
0	314a	20	Rogers Communications Inc.	107,125	2,142,500	\$1,156,127	\$1,599,618	\$1,170,000	\$1,618,830
1	314d	10	9193-2962 Québec Inc.	107,125	1,071,250	\$505,929	\$799,809	\$512,000	\$809,415
0	314e	10	Bell Mobility Inc.	107,125	1,071,250	\$670,949	\$799,809	\$679,000	\$809,415
0	314f	20	TELUS Communications Company	107,125	2,142,500	\$1,185,771	\$1,599,618	\$1,200,000	\$1,618,830
0	315a	20	Rogers Communications Inc.	1,265,237	25,304,740	\$45,948,617	\$18,892,845	\$46,500,000	\$19,119,755
1	315d	10	Globalive Wireless LP	1,265,237	12,652,370	\$26,778,656	\$9,446,422	\$27,100,000	\$9,559,877
0	315e	10	Bell Mobility Inc.	1,265,237	12,652,370	\$32,806,324	\$9,446,422	\$33,200,000	\$9,559,877
0	315f	20	TELUS Communications Company	1,265,237	25,304,740	\$44,071,146	\$18,892,845	\$44,600,000	\$19,119,755
0	316a	20	Rogers Communications Inc.	108,154	2,163,080	\$1,571,146	\$1,614,983	\$1,590,000	\$1,634,380
1	316d	10	Globalive Wireless LP	108,154	1,081,540	\$1,314,229	\$807,492	\$1,330,000	\$817,190
0	316e	10	Bell Mobility Inc.	108,154	1,081,540	\$1,650,198	\$807,492	\$1,670,000	\$817,190
0	316f	20	TELUS Communications Company	108,154	2,163,080	\$1,699,605	\$1,614,983	\$1,720,000	\$1,634,380
0	317a	20	Rogers Communications Inc.	187,081	3,741,620	\$2,164,032	\$2,793,542	\$2,190,000	\$2,827,093
1	317d	10	9193-2962 Québec Inc.	187,081	1,870,810	\$351,779	\$1,396,771	\$356,000	\$1,413,547
0	317e	10	TELUS Communications Company	187,081	1,870,810	\$1,254,941	\$1,396,771	\$1,270,000	\$1,413,547
0	317f	20	Bell Mobility Inc.	187,081	3,741,620	\$2,075,099	\$2,793,542	\$2,100,000	\$2,827,093
0	318a	20	Rogers Communications Inc.	65,921	1,318,420	\$1,551,383	\$984,349	\$1,570,000	\$996,172
1	318d	10	Globalive Wireless LP	65,921	659,210	\$1,452,569	\$492,175	\$1,470,000	\$498,086
0	318e	10	TELUS Communications Company	65,921	659,210	\$1,758,893	\$492,175	\$1,780,000	\$498,086
0	318f	20	Bell Mobility Inc.	65,921	1,318,420	\$1,511,858	\$984,349	\$1,530,000	\$996,172
0	319a	20	Rogers Communications Inc.	82,869	1,657,380	\$1,709,486	\$1,237,421	\$1,730,000	\$1,252,283
1	319d	10	Globalive Wireless LP	82,869	828,690	\$1,541,502	\$618,711	\$1,560,000	\$626,142
0	319e	10	TELUS Communications Company	82,869	828,690	\$1,640,316	\$618,711	\$1,660,000	\$626,142
0	319f	20	Bell Mobility Inc.	82,869	1,657,380	\$1,739,130	\$1,237,421	\$1,760,000	\$1,252,283
0	320a	20	Rogers Communications Inc.	162,711	3,254,220	\$2,618,577	\$2,429,643	\$2,650,000	\$2,458,824
1	320d	10	Globalive Wireless LP	162,711	1,627,110	\$1,077,075	\$1,214,821	\$1,090,000	\$1,229,412
0	320e	10	TELUS Communications Company	162,711	1,627,110	\$1,689,723	\$1,214,821	\$1,710,000	\$1,229,412
0	320f	20	Bell Mobility Inc.	162,711	3,254,220	\$2,500,000	\$2,429,643	\$2,530,000	\$2,458,824
0	321a	20	Rogers Communications Inc.	184,594	3,691,880	\$2,954,546	\$2,756,405	\$2,990,000	\$2,789,511
1	321d	10	Globalive Wireless LP	184,594	1,845,940	\$1,007,905	\$1,378,203	\$1,020,000	\$1,394,755
0	321e	10	TELUS Communications Company	184,594	1,845,940	\$1,768,775	\$1,378,203	\$1,790,000	\$1,394,755
0	321f	20	Bell Mobility Inc.	184,594	3,691,880	\$2,806,324	\$2,756,405	\$2,840,000	\$2,789,511
0	322a	20	Rogers Communications Inc.	59,699	1,193,980	\$1,818,182	\$891,441	\$1,840,000	\$902,147
1	322d	10	Globalive Wireless LP	59,699	596,990	\$1,393,281	\$445,720	\$1,410,000	\$451,074
0	322e	10	TELUS Communications Company	59,699	596,990	\$1,482,213	\$445,720	\$1,500,000	\$451,074
0	322f	20	Bell Mobility Inc.	59,699	1,193,980	\$1,699,605	\$891,441	\$1,720,000	\$902,147
0	323a	20	Rogers Communications Inc.	192,992	3,859,840	\$2,727,273	\$2,881,806	\$2,760,000	\$2,916,418
1	323d	10	Globalive Wireless LP	192,992	1,929,920	\$894,269	\$1,440,903	\$905,000	\$1,458,209

Appendix B
Actual and Predicted Auction Values for the Industry Canada 2008 AWS Auction
Linear Regression Using Data from the 2006 FCC AWS Auction

Estimated Model: Winning Bid = 0.7466129 * (Mhz * Population)
Adjusted R-Squared: 84.53%
Regression Sample: 1,082 Licenses from the 2006 FCC AWS Auction

Set	Aside	Block	Bandwidth (Mhz)	Winning Bidder	Population	MHZ * Pop	2008 USD		2008 CAD	
							Actual Winning Bid	Predicted Value	Actual Winning Bid	Predicted Value
0	323e	10	10	TELUS Communications Company	192,992	1,929,920	\$1,106,719	\$1,440,903	\$1,120,000	\$1,458,209
0	323f	20	20	Bell Mobility Inc.	192,992	3,859,840	\$2,658,103	\$2,881,806	\$2,690,000	\$2,916,418
0	324a	20	20	Rogers Communications Inc.	72,322	1,446,440	\$1,136,364	\$1,079,931	\$1,150,000	\$1,092,901
1	324d	10	10	Rich Telecom Corp.	72,322	723,220	\$497,036	\$539,965	\$503,000	\$546,451
0	324e	10	10	TELUS Communications Company	72,322	723,220	\$683,794	\$539,965	\$692,000	\$546,451
0	324f	20	20	Bell Mobility Inc.	72,322	1,446,440	\$1,472,332	\$1,079,931	\$1,490,000	\$1,092,901
0	325a	20	20	Rogers Communications Inc.	5,635,827	112,700,000	\$232,200,000	\$84,155,620	\$235,000,000	\$85,166,360
1	325d	10	10	9193-2962 Québec Inc.	5,635,827	56,358,270	\$95,256,917	\$42,077,810	\$96,400,000	\$42,583,180
0	325e	10	10	TELUS Communications Company	5,635,827	56,358,270	\$101,800,000	\$42,077,810	\$103,000,000	\$42,583,180
0	325f	20	20	Bell Mobility Inc.	5,635,827	112,700,000	\$310,300,000	\$84,155,620	\$314,000,000	\$85,166,360
0	326a	20	20	Rogers Communications Inc.	591,338	11,826,760	\$9,871,542	\$8,830,011	\$9,990,000	\$8,936,063
1	326d	10	10	Bragg Communications Inc.	591,338	5,913,380	\$2,608,696	\$4,415,006	\$2,640,000	\$4,468,032
0	326e	10	10	TELUS Communications Company	591,338	5,913,380	\$4,911,067	\$4,415,006	\$4,970,000	\$4,468,032
0	326f	20	20	Bell Mobility Inc.	591,338	11,826,760	\$14,624,506	\$8,830,011	\$14,800,000	\$8,936,063
0	327a	20	20	Rogers Communications Inc.	607,035	12,140,700	\$7,411,067	\$9,064,403	\$7,500,000	\$9,173,270
1	327d	10	10	Data & Audio-Visual Enterprises Wireless Inc.	607,035	6,070,350	\$2,569,170	\$4,532,202	\$2,600,000	\$4,586,635
0	327e	10	10	TELUS Communications Company	607,035	6,070,350	\$5,049,407	\$4,532,202	\$5,110,000	\$4,586,635
0	327f	20	20	Bell Mobility Inc.	607,035	12,140,700	\$15,019,763	\$9,064,403	\$15,200,000	\$9,173,270
0	328a	20	20	Rogers Communications Inc.	133,987	2,679,740	\$1,719,368	\$2,000,728	\$1,740,000	\$2,024,758
1	328d	10	10	Bragg Communications Inc.	133,987	1,339,870	\$871,542	\$1,000,364	\$882,000	\$1,012,379
0	328e	10	10	TELUS Communications Company	133,987	1,339,870	\$1,215,415	\$1,000,364	\$1,230,000	\$1,012,379
0	328f	20	20	Bell Mobility Inc.	133,987	2,679,740	\$3,320,158	\$2,000,728	\$3,360,000	\$2,024,758
0	329a	20	20	Rogers Communications Inc.	354,971	7,099,420	\$9,328,063	\$5,300,518	\$9,440,000	\$5,364,180
1	329d	10	10	Data & Audio-Visual Enterprises Wireless Inc.	354,971	3,549,710	\$1,363,636	\$2,650,259	\$1,380,000	\$2,682,090
0	329e	10	10	TELUS Communications Company	354,971	3,549,710	\$2,806,324	\$2,650,259	\$2,840,000	\$2,682,090
0	329f	20	20	Bell Mobility Inc.	354,971	7,099,420	\$9,446,640	\$5,300,518	\$9,560,000	\$5,364,180
0	330a	20	20	Rogers Communications Inc.	765,656	15,313,120	\$20,849,802	\$11,432,973	\$21,100,000	\$11,570,287
1	330d	10	10	Bragg Communications Inc.	765,656	7,656,560	\$4,308,300	\$5,716,486	\$4,360,000	\$5,785,143
0	330e	10	10	Bell Mobility Inc.	765,656	7,656,560	\$4,861,660	\$5,716,486	\$4,920,000	\$5,785,143
0	330f	20	20	TELUS Communications Company	765,656	15,313,120	\$20,948,617	\$11,432,973	\$21,200,000	\$11,570,287
0	331a	20	20	Rogers Communications Inc.	107,029	2,140,580	\$1,116,601	\$1,598,185	\$1,130,000	\$1,617,379
1	331d	10	10	Celluworld Inc.	107,029	1,070,290	\$920,949	\$799,092	\$932,000	\$808,690
0	331e	10	10	Bell Mobility Inc.	107,029	1,070,290	\$837,945	\$799,092	\$848,000	\$808,690
0	331f	20	20	TELUS Communications Company	107,029	2,140,580	\$2,213,439	\$1,598,185	\$2,240,000	\$1,617,379
0	332a	20	20	Rogers Communications Inc.	376,213	7,524,260	\$4,318,182	\$5,617,709	\$4,370,000	\$5,685,180
1	332d	10	10	Data & Audio-Visual Enterprises Wireless Inc.	376,213	3,762,130	\$1,561,265	\$2,808,855	\$1,580,000	\$2,842,590
0	332e	10	10	Bell Mobility Inc.	376,213	3,762,130	\$3,211,463	\$2,808,855	\$3,250,000	\$2,842,590
0	332f	20	20	TELUS Communications Company	376,213	7,524,260	\$5,701,581	\$5,617,709	\$5,770,000	\$5,685,180
0	333a	20	20	Rogers Communications Inc.	166,739	3,334,780	\$2,065,217	\$2,489,790	\$2,090,000	\$2,519,693
1	333d	10	10	Bragg Communications Inc.	166,739	1,667,390	\$730,237	\$1,244,895	\$739,000	\$1,259,846
0	333e	10	10	TELUS Communications Company	166,739	1,667,390	\$1,699,605	\$1,244,895	\$1,720,000	\$1,259,846
0	333f	20	20	Bell Mobility Inc.	166,739	3,334,780	\$3,428,854	\$2,489,790	\$3,470,000	\$2,519,693
0	334a	20	20	Rogers Communications Inc.	122,253	2,445,060	\$1,067,194	\$1,825,513	\$1,080,000	\$1,847,438
1	334d	10	10	Bragg Communications Inc.	122,253	1,222,530	\$537,549	\$912,757	\$544,000	\$923,719
0	334e	10	10	TELUS Communications Company	122,253	1,222,530	\$679,842	\$912,757	\$688,000	\$923,719
0	334f	20	20	Bell Mobility Inc.	122,253	2,445,060	\$1,007,905	\$1,825,513	\$1,020,000	\$1,847,438
0	335a	20	20	Rogers Communications Inc.	135,482	2,709,640	\$2,005,929	\$2,023,052	\$2,030,000	\$2,047,350
1	335d	10	10	1380057 Alberta Ltd.	135,482	1,354,820	\$430,830	\$1,011,526	\$436,000	\$1,023,675
0	335e	10	10	TELUS Communications Company	135,482	1,354,820	\$1,373,518	\$1,011,526	\$1,390,000	\$1,023,675
0	335f	20	20	Bell Mobility Inc.	135,482	2,709,640	\$2,114,625	\$2,023,052	\$2,140,000	\$2,047,350
0	336a	20	20	Rogers Communications Inc.	172,605	3,452,100	\$3,181,818	\$2,577,382	\$3,220,000	\$2,608,338
1	336d	10	10	Bragg Communications Inc.	172,605	1,726,050	\$795,455	\$1,288,691	\$805,000	\$1,304,169
0	336e	10	10	TELUS Communications Company	172,605	1,726,050	\$2,025,692	\$1,288,691	\$2,050,000	\$1,304,169
0	336f	20	20	Bell Mobility Inc.	172,605	3,452,100	\$3,310,277	\$2,577,382	\$3,350,000	\$2,608,338
0	337a	20	20	Rogers Communications Inc.	120,308	2,406,160	\$1,749,012	\$1,796,470	\$1,770,000	\$1,818,046
1	337d	10	10	Bragg Communications Inc.	120,308	1,203,080	\$507,905	\$898,235	\$514,000	\$909,023
0	337e	10	10	TELUS Communications Company	120,308	1,203,080	\$976,285	\$898,235	\$988,000	\$909,023
0	337f	20	20	Bell Mobility Inc.	120,308	2,406,160	\$1,749,012	\$1,796,470	\$1,770,000	\$1,818,046
0	338a	20	20	Rogers Communications Inc.	234,833	4,696,660	\$2,658,103	\$3,506,587	\$2,690,000	\$3,548,702
1	338d	10	10	1380057 Alberta Ltd.	234,833	2,348,330	\$792,490	\$1,753,293	\$802,000	\$1,774,351
0	338e	10	10	TELUS Communications Company	234,833	2,348,330	\$2,391,304	\$1,753,293	\$2,420,000	\$1,774,351
0	338f	20	20	Bell Mobility Inc.	234,833	4,696,660	\$3,053,360	\$3,506,587	\$3,090,000	\$3,548,702
0	339a	20	20	Rogers Communications Inc.	945,818	18,916,360	\$34,486,166	\$14,123,198	\$34,900,000	\$14,292,823
1	339d	10	10	Globalive Wireless LP	945,818	9,458,180	\$13,339,921	\$7,061,599	\$13,500,000	\$7,146,411
0	339e	10	10	1380057 Alberta Ltd.	945,818	9,458,180	\$14,920,949	\$7,061,599	\$15,100,000	\$7,146,411
0	339f	20	20	TELUS Communications Company	945,818	18,916,360	\$34,486,166	\$14,123,198	\$34,900,000	\$14,292,823
0	340a	20	20	Rogers Communications Inc.	172,465	3,449,300	\$1,768,775	\$2,575,292	\$1,790,000	\$2,606,222
1	340d	10	10	Globalive Wireless LP	172,465	1,724,650	\$763,834	\$1,287,646	\$773,000	\$1,303,111

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Regression Sample: 1,082 Licenses from the 2006 FCC AWS Auction

Set Aside	Block	Bandwidth (Mhz)	Winning Bidder	Population	MHz * Pop	2008 USD		2008 CAD	
						Actual Winning Bid	Predicted Value	Actual Winning Bid	Predicted Value
0	340e	10	1380057 Alberta Ltd.	172,465	1,724,650	\$1,581,028	\$1,287,646	\$1,600,000	\$1,303,111
0	340f	20	TELUS Communications Company	172,465	3,449,300	\$1,907,115	\$2,575,292	\$1,930,000	\$2,606,222
0	341a	20	Rogers Communications Inc.	349,538	6,990,760	\$16,897,233	\$5,219,391	\$17,100,000	\$5,282,078
1	341d	10	1380057 Alberta Ltd.	349,538	3,495,380	\$4,911,067	\$2,609,696	\$4,970,000	\$2,641,039
0	341e	10	Globalive Wireless LP	349,538	3,495,380	\$5,691,700	\$2,609,696	\$5,760,000	\$2,641,039
0	341f	20	TELUS Communications Company	349,538	6,990,760	\$17,984,190	\$5,219,391	\$18,200,000	\$5,282,078
0	342a	20	Rogers Communications Inc.	104,297	2,085,940	\$4,387,352	\$1,557,390	\$4,440,000	\$1,576,095
1	342d	10	1380057 Alberta Ltd.	104,297	1,042,970	\$2,401,186	\$778,695	\$2,430,000	\$788,047
0	342e	10	Globalive Wireless LP	104,297	1,042,970	\$2,658,103	\$778,695	\$2,690,000	\$788,047
0	342f	20	TELUS Communications Company	104,297	2,085,940	\$4,377,470	\$1,557,390	\$4,430,000	\$1,576,095
0	343a	20	TELUS Communications Company	521,882	10,437,640	\$31,126,482	\$7,792,876	\$31,500,000	\$7,886,472
1	343d	10	1380057 Alberta Ltd.	521,882	5,218,820	\$12,549,407	\$3,896,438	\$12,700,000	\$3,943,236
0	343e	10	Globalive Wireless LP	521,882	5,218,820	\$11,857,708	\$3,896,438	\$12,000,000	\$3,943,236
0	343f	20	Rogers Communications Inc.	521,882	10,437,640	\$31,126,482	\$7,792,876	\$31,500,000	\$7,886,472
0	344a	20	Rogers Communications Inc.	1,199,124	23,982,480	\$34,980,237	\$17,905,628	\$35,400,000	\$18,120,681
1	344d	10	Data & Audio-Visual Enterprises Wireless Inc.	1,199,124	11,991,240	\$8,883,399	\$8,952,814	\$8,990,000	\$9,060,341
0	344e	10	Bell Mobility Inc.	1,199,124	11,991,240	\$18,972,332	\$8,952,814	\$19,200,000	\$9,060,341
0	344f	20	TELUS Communications Company	1,199,124	23,982,480	\$36,264,822	\$17,905,628	\$36,700,000	\$18,120,681
0	345a	20	Rogers Communications Inc.	175,718	3,514,360	\$1,452,569	\$2,623,866	\$1,470,000	\$2,655,380
1	345d	10	1380057 Alberta Ltd.	175,718	1,757,180	\$564,229	\$1,311,933	\$571,000	\$1,327,690
0	345e	10	Bell Mobility Inc.	175,718	1,757,180	\$855,731	\$1,311,933	\$866,000	\$1,327,690
0	345f	20	TELUS Communications Company	175,718	3,514,360	\$1,650,198	\$2,623,866	\$1,670,000	\$2,655,380
0	346a	20	Rogers Communications Inc.	156,171	3,123,420	\$1,897,233	\$2,331,986	\$1,920,000	\$2,359,994
1	346d	10	1380057 Alberta Ltd.	156,171	1,561,710	\$467,391	\$1,165,993	\$473,000	\$1,179,997
0	346e	10	Bell Mobility Inc.	156,171	1,561,710	\$858,696	\$1,165,993	\$869,000	\$1,179,997
0	346f	20	TELUS Communications Company	156,171	3,123,420	\$1,897,233	\$2,331,986	\$1,920,000	\$2,359,994
0	347a	20	Rogers Communications Inc.	1,091,673	21,833,460	\$53,458,498	\$16,301,142	\$54,100,000	\$16,496,925
1	347d	10	Data & Audio-Visual Enterprises Wireless Inc.	1,091,673	10,916,730	\$8,290,514	\$8,150,571	\$8,390,000	\$8,248,463
0	347e	10	Bell Mobility Inc.	1,091,673	10,916,730	\$16,501,976	\$8,150,571	\$16,700,000	\$8,248,463
0	347f	20	TELUS Communications Company	1,091,673	21,833,460	\$56,719,368	\$16,301,142	\$57,400,000	\$16,496,925
0	348a	20	Rogers Communications Inc.	198,479	3,969,580	\$2,193,676	\$2,963,740	\$2,220,000	\$2,999,335
1	348d	10	Data & Audio-Visual Enterprises Wireless Inc.	198,479	1,984,790	\$661,067	\$1,481,870	\$669,000	\$1,499,668
0	348e	10	Bell Mobility Inc.	198,479	1,984,790	\$1,007,905	\$1,481,870	\$1,020,000	\$1,499,668
0	348f	20	TELUS Communications Company	198,479	3,969,580	\$2,450,593	\$2,963,740	\$2,480,000	\$2,999,335
0	349a	20	Rogers Communications Inc.	158,271	3,165,420	\$3,577,075	\$2,363,343	\$3,620,000	\$2,391,728
1	349d	10	Bragg Communications Inc.	158,271	1,582,710	\$236,166	\$1,181,672	\$239,000	\$1,195,864
0	349e	10	Bragg Communications Inc.	158,271	1,582,710	\$2,094,862	\$1,181,672	\$2,120,000	\$1,195,864
0	349f	20	TELUS Communications Company	158,271	3,165,420	\$3,537,549	\$2,363,343	\$3,580,000	\$2,391,728
0	350a	20	Rogers Communications Inc.	132,914	2,658,280	\$1,324,111	\$1,984,706	\$1,340,000	\$2,008,543
1	350d	10	1380057 Alberta Ltd.	132,914	1,329,140	\$258,893	\$992,353	\$262,000	\$1,004,272
0	350e	10	Bell Mobility Inc.	132,914	1,329,140	\$788,538	\$992,353	\$798,000	\$1,004,272
0	350f	20	TELUS Communications Company	132,914	2,658,280	\$1,333,992	\$1,984,706	\$1,350,000	\$2,008,543
0	351a	20	Rogers Communications Inc.	368,647	7,372,940	\$5,098,814	\$5,504,732	\$5,160,000	\$5,570,846
1	351d	10	1380057 Alberta Ltd.	368,647	3,686,470	\$747,036	\$2,752,366	\$756,000	\$2,785,423
0	351e	10	Bell Mobility Inc.	368,647	3,686,470	\$1,986,166	\$2,752,366	\$2,010,000	\$2,785,423
0	351f	20	TELUS Communications Company	368,647	7,372,940	\$5,098,814	\$5,504,732	\$5,160,000	\$5,570,846
0	352a	20	Rogers Communications Inc.	2,310,047	46,200,940	\$115,600,000	\$34,494,217	\$117,000,000	\$34,908,505
1	352d	10	Data & Audio-Visual Enterprises Wireless Inc.	2,310,047	23,100,470	\$55,731,225	\$17,247,108	\$56,400,000	\$17,454,252
0	352e	10	Bell Mobility Inc.	2,310,047	23,100,470	\$61,363,636	\$17,247,108	\$62,100,000	\$17,454,252
0	352f	20	TELUS Communications Company	2,310,047	46,200,940	\$115,600,000	\$34,494,217	\$117,000,000	\$34,908,505
0	353a	20	Rogers Communications Inc.	389,247	7,784,940	\$5,602,767	\$5,812,337	\$5,670,000	\$5,882,145
1	353d	10	Data & Audio-Visual Enterprises Wireless Inc.	389,247	3,892,470	\$1,729,249	\$2,906,168	\$1,750,000	\$2,941,072
0	353e	10	Bell Mobility Inc.	389,247	3,892,470	\$2,766,798	\$2,906,168	\$2,800,000	\$2,941,072
0	353f	20	TELUS Communications Company	389,247	7,784,940	\$5,988,142	\$5,812,337	\$6,060,000	\$5,882,145
0	354a	20	Rogers Communications Inc.	165,741	3,314,820	\$1,986,166	\$2,474,887	\$2,010,000	\$2,504,612
1	354d	10	1380057 Alberta Ltd.	165,741	1,657,410	\$552,372	\$1,237,444	\$559,000	\$1,252,306
0	354e	10	Bell Mobility Inc.	165,741	1,657,410	\$986,166	\$1,237,444	\$998,000	\$1,252,306
0	354f	20	TELUS Communications Company	165,741	3,314,820	\$2,173,913	\$2,474,887	\$2,200,000	\$2,504,612
0	355a	20	Rogers Communications Inc.	106,015	2,120,300	\$1,067,194	\$1,583,043	\$1,080,000	\$1,602,056
1	355d	10	1380057 Alberta Ltd.	106,015	1,060,150	\$206,522	\$791,522	\$209,000	\$801,028
0	355e	10	Bell Mobility Inc.	106,015	1,060,150	\$654,150	\$791,522	\$662,000	\$801,028
0	355f	20	TELUS Communications Company	106,015	2,120,300	\$1,146,245	\$1,583,043	\$1,160,000	\$1,602,056
0	356a	20	Rogers Communications Inc.	174,289	3,485,780	\$2,134,387	\$2,602,528	\$2,160,000	\$2,633,786
1	356d	10	1380057 Alberta Ltd.	174,289	1,742,890	\$582,016	\$1,301,264	\$589,000	\$1,316,893
0	356e	10	Bell Mobility Inc.	174,289	1,742,890	\$980,237	\$1,301,264	\$992,000	\$1,316,893
0	356f	20	TELUS Communications Company	174,289	3,485,780	\$2,223,320	\$2,602,528	\$2,250,000	\$2,633,786
0	357a	20	Rogers Communications Inc.	200,007	4,000,140	\$2,114,625	\$2,986,556	\$2,140,000	\$3,022,426
1	357d	10	1380057 Alberta Ltd.	200,007	2,000,070	\$555,336	\$1,493,278	\$562,000	\$1,511,213

Appendix B
Actual and Predicted Auction Values for the Industry Canada 2008 AWS Auction
Linear Regression Using Data from the 2006 FCC AWS Auction

Estimated Model: Winning Bid = 0.7466129 * (Mhz * Population)
Adjusted R-Squared: 84.53%
Regression Sample: 1,082 Licenses from the 2006 FCC AWS Auction

Set Aside	Block	Bandwidth (Mhz)	Winning Bidder	Population	MHZ * Pop	2008 USD		2008 CAD	
						Actual Winning Bid	Predicted Value	Actual Winning Bid	Predicted Value
0	357e	10	Bell Mobility Inc.	200,007	2,000,070	\$1,007,905	\$1,493,278	\$1,020,000	\$1,511,213
0	357f	20	TELUS Communications Company	200,007	4,000,140	\$1,986,166	\$2,986,556	\$2,010,000	\$3,022,426
0	358a	20	Rogers Communications Inc.	60,717	1,214,340	\$1,333,992	\$906,642	\$1,350,000	\$917,531
1	358d	10	Rich Telecom Corp.	60,717	607,170	\$233,202	\$453,321	\$236,000	\$458,765
0	358e	10	Bell Mobility Inc.	60,717	607,170	\$644,269	\$453,321	\$652,000	\$458,765
0	358f	20	TELUS Communications Company	60,717	1,214,340	\$1,254,941	\$906,642	\$1,270,000	\$917,531
0	359a	20	Rogers Communications Inc.	92,707	1,854,140	\$757,905	\$1,384,325	\$767,000	\$1,400,951
1	359d	10	Globalive Wireless LP	92,707	927,070	\$99,802	\$692,162	\$101,000	\$700,476
0	359e	10	TELUS Communications Company	92,707	927,070	\$287,549	\$692,162	\$291,000	\$700,476
0	359f	20	Bell Mobility Inc.	92,707	1,854,140	\$853,755	\$1,384,325	\$864,000	\$1,400,951
Total Industry Canada 2008 AWS Auction						\$4,204,216,133	\$2,245,902,177	\$4,254,710,327	\$2,272,876,295
All Unrestricted Licenses						\$2,708,375,620	\$1,349,724,732	\$2,740,901,327	\$1,365,935,426
All Set-Aside Licenses						\$1,495,840,514	\$896,177,446	\$1,513,809,000	\$906,940,869
Excluding Blocks g and i:									
Total Industry Canada 2008 AWS Auction						\$4,127,924,308	\$2,016,361,584	\$4,177,503,000	\$2,040,578,834
All Unrestricted Licenses						\$2,632,083,795	\$1,120,184,138	\$2,663,694,000	\$1,133,637,965
All Set-Aside Licenses						\$1,495,840,514	\$896,177,446	\$1,513,809,000	\$906,940,869

Appendix C: Predicted License Values—Quadratic Model

Appendix C
Actual and Predicted Auction Values for the Industry Canada 2008 AWS Auction
Quadratic Regression Using Data from the 2006 FCC AWS Auction

Estimated Model: Winning Bid = 0.6057315 * (Mhz * Population) + 1.89e-10 * (MHz * Population)²
Adjusted R-Squared: 85.08%
Regression Sample: 1,082 Licenses from the 2006 FCC AWS Auction

Set Aside	Block	Bandwidth (Mhz)	Winning Bidder	Population	MHz*Pop	2008 USD		2008 CAD	
						Actual Winning		Actual Winning	
						Bid	Predicted Value	Bid	Predicted Value
1	201b	20	Bragg Communications Inc.	513,282	10,265,640	\$750,988	\$6,238,148	\$760,000	\$6,313,071
1	201c	10	Bragg Communications Inc.	513,282	5,132,820	\$434,783	\$3,114,093	\$440,000	\$3,151,494
0	201g	10	Globalive Wireless LP	513,282	5,132,820	\$556,324	\$3,114,093	\$563,000	\$3,151,494
1	202b	20	Bragg Communications Inc.	1,043,232	20,864,640	\$3,003,953	\$12,720,684	\$3,040,000	\$12,873,464
1	202c	10	Bragg Communications Inc.	1,043,232	10,432,320	\$1,650,198	\$6,339,764	\$1,670,000	\$6,415,907
0	202g	10	Blue Canada Wireless Inc.	1,043,232	10,432,320	\$1,138,834	\$6,339,764	\$1,152,500	\$6,415,907
1	203b	20	Bragg Communications Inc.	728,997	14,579,940	\$1,462,451	\$8,871,724	\$1,480,000	\$8,978,276
1	203c	10	Globalive Wireless LP	728,997	7,289,970	\$1,699,605	\$4,425,813	\$1,720,000	\$4,478,969
0	203i	5	Bragg Communications Inc.	728,997	3,644,985	\$475,296	\$2,210,395	\$481,000	\$2,236,942
1	204b	20	9193-2962 Québec Inc.	1,590,736	31,814,720	\$7,015,810	\$19,462,564	\$7,100,000	\$19,696,317
1	204c	10	9193-2962 Québec Inc.	1,590,736	15,907,360	\$3,063,241	\$9,683,436	\$3,100,000	\$9,799,738
0	204g	10	6934579 Canada Inc.	1,590,736	15,907,360	\$2,588,933	\$9,683,436	\$2,620,000	\$9,799,738
0	204i	5	Bell Mobility Inc.	1,590,736	7,953,680	\$802,372	\$4,829,756	\$812,000	\$4,887,764
1	205b	20	9193-2962 Québec Inc.	5,151,224	103,000,000	\$166,000,000	\$64,412,106	\$168,000,000	\$65,185,719
1	205c	10	9193-2962 Québec Inc.	5,151,224	51,512,240	\$110,700,000	\$31,704,321	\$112,000,000	\$32,085,102
0	205g	10	6934579 Canada Inc.	5,151,224	51,512,240	\$16,007,905	\$31,704,321	\$16,200,000	\$32,085,102
1	206b	20	9193-2962 Québec Inc.	2,122,177	42,443,540	\$51,284,585	\$26,050,014	\$51,900,000	\$26,362,884
1	206c	10	Data & Audio-Visual Enterprises Wireless Inc.	2,122,177	21,221,770	\$30,039,526	\$12,939,851	\$30,400,000	\$13,095,263
0	206g	10	6934579 Canada Inc.	2,122,177	21,221,770	\$8,389,328	\$12,939,851	\$8,490,000	\$13,095,263
1	207b	20	9193-2962 Québec Inc.	187,081	3,741,620	\$173,913	\$2,269,064	\$176,000	\$2,296,317
1	207c	10	9193-2962 Québec Inc.	187,081	1,870,810	\$351,779	\$1,133,870	\$356,000	\$1,147,489
0	207g	10	Globalive Wireless LP	187,081	1,870,810	\$257,905	\$1,133,870	\$261,000	\$1,147,489
0	207i	5	Globalive Wireless LP	187,081	935,405	\$121,542	\$566,770	\$123,000	\$573,577
1	208b	20	Globalive Wireless LP	8,811,117	176,200,000	\$275,700,000	\$112,600,000	\$279,000,000	\$113,952,368
1	208c	10	Data & Audio-Visual Enterprises Wireless Inc.	8,811,117	88,111,170	\$129,400,000	\$54,839,671	\$131,000,000	\$55,498,316
0	208g	10	6934579 Canada Inc.	8,811,117	88,111,170	\$24,777,744	\$54,839,671	\$25,075,077	\$55,498,316
1	209b	20	Bragg Communications Inc.	785,481	15,709,620	\$2,697,629	\$9,562,476	\$2,730,000	\$9,677,325
1	209c	10	Globalive Wireless LP	785,481	7,854,810	\$1,482,213	\$4,769,572	\$1,500,000	\$4,826,857
0	209i	5	Globalive Wireless LP	785,481	3,927,405	\$376,482	\$2,381,870	\$381,000	\$2,410,477
1	210b	20	6934242 Canada Ltd.	1,118,283	22,365,660	\$38,537,549	\$13,642,169	\$39,000,000	\$13,806,017
1	210c	10	1380057 Alberta Ltd.	1,118,283	11,182,830	\$13,636,364	\$6,797,439	\$13,800,000	\$6,879,078
0	210g	10	6934242 Canada Ltd.	1,118,283	11,182,830	\$1,168,478	\$6,797,439	\$1,182,500	\$6,879,078
0	210i	5	6934242 Canada Ltd.	1,118,283	5,591,415	\$584,239	\$3,392,808	\$591,250	\$3,433,557
1	211b	20	SaskTel	975,717	19,514,340	\$39,920,949	\$11,892,456	\$40,400,000	\$12,035,289
1	211c	10	SaskTel	975,717	9,757,170	\$23,913,043	\$5,928,227	\$24,200,000	\$5,999,427
0	211g	10	SaskTel	975,717	9,757,170	\$1,077,075	\$5,928,227	\$1,090,000	\$5,999,427
1	212b	20	1380057 Alberta Ltd.	2,979,436	59,588,720	\$32,312,253	\$36,766,164	\$32,700,000	\$37,207,739
1	212c	10	Globalive Wireless LP	2,979,436	29,794,360	\$17,885,375	\$18,215,233	\$18,100,000	\$18,434,005
0	212g	10	Novus Wireless Inc.	2,979,436	29,794,360	\$8,063,241	\$18,215,233	\$8,160,000	\$18,434,005
1	213b	20	1380057 Alberta Ltd.	3,907,624	78,152,480	\$99,802,372	\$48,494,302	\$101,000,000	\$49,076,737
1	213c	10	Globalive Wireless LP	3,907,624	39,076,240	\$66,600,791	\$23,958,431	\$67,400,000	\$24,246,181
0	213g	10	Novus Wireless Inc.	3,907,624	39,076,240	\$9,624,506	\$23,958,431	\$9,740,000	\$24,246,181
1	214b	20	Globalive Wireless LP	92,707	1,854,140	\$181,818	\$1,123,761	\$184,000	\$1,137,258
1	214c	10	Globalive Wireless LP	92,707	927,070	\$102,767	\$561,718	\$104,000	\$568,464
0	214g	10	Globalive Wireless LP	92,707	927,070	\$145,257	\$561,718	\$147,000	\$568,464
0	214i	5	Bell Mobility Inc.	92,707	463,535	\$136,364	\$280,818	\$138,000	\$284,191
0	301a	20	Rogers Communications Inc.	513,282	10,265,640	\$6,304,348	\$6,238,148	\$6,380,000	\$6,313,071
1	301d	10	Globalive Wireless LP	513,282	5,132,820	\$375,494	\$3,114,093	\$380,000	\$3,151,494
0	301e	10	TELUS Communications Company	513,282	5,132,820	\$3,300,395	\$3,114,093	\$3,340,000	\$3,151,494
0	301f	20	Bell Mobility Inc.	513,282	10,265,640	\$6,304,348	\$6,238,148	\$6,380,000	\$6,313,071
0	302a	20	Rogers Communications Inc.	135,294	2,705,880	\$2,519,763	\$1,640,421	\$2,550,000	\$1,660,123
1	302d	10	Globalive Wireless LP	135,294	1,352,940	\$287,549	\$819,865	\$291,000	\$829,711
0	302e	10	TELUS Communications Company	135,294	1,352,940	\$1,847,826	\$819,865	\$1,870,000	\$829,711
0	302f	20	Bell Mobility Inc.	135,294	2,705,880	\$2,598,814	\$1,640,421	\$2,630,000	\$1,660,123
0	303a	20	Bell Mobility Inc.	760,894	15,217,880	\$15,019,763	\$9,261,738	\$15,200,000	\$9,372,975
1	303d	10	Globalive Wireless LP	760,894	7,608,940	\$935,771	\$4,619,922	\$947,000	\$4,675,409
0	303e	10	TELUS Communications Company	760,894	7,608,940	\$7,154,150	\$4,619,922	\$7,240,000	\$4,675,409
0	303f	20	Rogers Communications Inc.	760,894	15,217,880	\$15,118,577	\$9,261,738	\$15,300,000	\$9,372,975
0	304a	20	Rogers Communications Inc.	147,044	2,940,880	\$3,577,075	\$1,783,019	\$3,620,000	\$1,804,434
1	304d	10	Globalive Wireless LP	147,044	1,470,440	\$285,573	\$891,101	\$289,000	\$901,803
0	304e	10	TELUS Communications Company	147,044	1,470,440	\$1,946,640	\$891,101	\$1,970,000	\$901,803
0	304f	20	Bell Mobility Inc.	147,044	2,940,880	\$3,833,992	\$1,783,019	\$3,880,000	\$1,804,434
0	305a	20	Rogers Communications Inc.	167,343	3,346,860	\$2,677,866	\$2,029,417	\$2,710,000	\$2,053,791
1	305d	10	Bragg Communications Inc.	167,343	1,673,430	\$591,897	\$1,014,179	\$599,000	\$1,026,359
0	305e	10	TELUS Communications Company	167,343	1,673,430	\$2,272,727	\$1,014,179	\$2,300,000	\$1,026,359
0	305f	20	Bell Mobility Inc.	167,343	3,346,860	\$3,023,715	\$2,029,417	\$3,060,000	\$2,053,791

Set Aside	Block	Bandwidth (Mhz)	Winning Bidder	Population	MHZ*Pop	Actual Winning		Actual Winning	
						Bid	Predicted Value	Bid	Predicted Value
0	306a	20	Rogers Communications Inc.	209,227	4,184,540	\$3,171,937	\$2,538,019	\$3,210,000	\$2,568,501
1	306d	10	Bragg Communications Inc.	209,227	2,092,270	\$601,779	\$1,268,182	\$609,000	\$1,283,413
0	306e	10	TELUS Communications Company	209,227	2,092,270	\$2,697,629	\$1,268,182	\$2,730,000	\$1,283,413
0	306f	20	Bell Mobility Inc.	209,227	4,184,540	\$3,537,549	\$2,538,019	\$3,580,000	\$2,568,501
0	307a	20	Rogers Communications Inc.	352,427	7,048,540	\$4,752,964	\$4,278,917	\$4,810,000	\$4,330,308
1	307d	10	Bragg Communications Inc.	352,427	3,524,270	\$964,427	\$2,137,110	\$976,000	\$2,162,777
0	307e	10	TELUS Communications Company	352,427	3,524,270	\$4,041,502	\$2,137,110	\$4,090,000	\$2,162,777
0	307f	20	Bell Mobility Inc.	352,427	7,048,540	\$5,059,289	\$4,278,917	\$5,120,000	\$4,330,308
0	308a	20	Rogers Communications Inc.	298,273	5,965,460	\$2,252,964	\$3,620,196	\$2,280,000	\$3,663,676
1	308d	10	9193-2962 Québec Inc.	298,273	2,982,730	\$975,296	\$1,808,416	\$987,000	\$1,830,136
0	308e	10	Bell Mobility Inc.	298,273	2,982,730	\$1,541,502	\$1,808,416	\$1,560,000	\$1,830,136
0	308f	20	TELUS Communications Company	298,273	5,965,460	\$2,450,593	\$3,620,196	\$2,480,000	\$3,663,676
0	309a	20	Rogers Communications Inc.	917,873	18,357,460	\$34,387,352	\$11,183,413	\$34,800,000	\$11,317,730
1	309d	10	9193-2962 Québec Inc.	917,873	9,178,730	\$2,450,593	\$5,575,776	\$2,480,000	\$5,642,743
0	309e	10	Bell Mobility Inc.	917,873	9,178,730	\$14,328,063	\$5,575,776	\$14,500,000	\$5,642,743
0	309f	20	TELUS Communications Company	917,873	18,357,460	\$34,486,166	\$11,183,413	\$34,900,000	\$11,317,730
0	310a	20	Rogers Communications Inc.	374,590	7,491,800	\$4,525,692	\$4,548,632	\$4,580,000	\$4,603,263
1	310d	10	9193-2962 Québec Inc.	374,590	3,745,900	\$545,455	\$2,271,663	\$552,000	\$2,298,946
0	310e	10	Bell Mobility Inc.	374,590	3,745,900	\$1,936,759	\$2,271,663	\$1,960,000	\$2,298,946
0	310f	20	TELUS Communications Company	374,590	7,491,800	\$4,397,233	\$4,548,632	\$4,450,000	\$4,603,263
0	311a	20	Rogers Communications Inc.	509,717	10,194,340	\$9,288,538	\$6,194,684	\$9,400,000	\$6,269,084
1	311d	10	9193-2962 Québec Inc.	509,717	5,097,170	\$3,547,431	\$3,092,429	\$3,590,000	\$3,129,570
0	311e	10	9193-2962 Québec Inc.	509,717	5,097,170	\$5,128,459	\$3,092,429	\$5,190,000	\$3,129,570
0	311f	20	TELUS Communications Company	509,717	10,194,340	\$10,375,494	\$6,194,684	\$10,500,000	\$6,269,084
0	312a	20	Rogers Communications Inc.	749,812	14,996,240	\$21,047,431	\$9,126,218	\$21,300,000	\$9,235,827
1	312d	10	9193-2962 Québec Inc.	749,812	7,498,120	\$5,187,747	\$4,552,478	\$5,250,000	\$4,607,155
0	312e	10	Bell Mobility Inc.	749,812	7,498,120	\$9,456,522	\$4,552,478	\$9,570,000	\$4,607,155
0	312f	20	TELUS Communications Company	749,812	14,996,240	\$21,640,316	\$9,126,218	\$21,900,000	\$9,235,827
0	313a	20	Rogers Communications Inc.	3,784,570	75,691,400	\$189,700,000	\$46,931,957	\$192,000,000	\$47,495,627
1	313d	10	9193-2962 Québec Inc.	3,784,570	37,845,700	\$95,454,545	\$23,195,156	\$96,600,000	\$23,473,738
0	313e	10	Bell Mobility Inc.	3,784,570	37,845,700	\$126,500,000	\$23,195,156	\$128,000,000	\$23,473,738
0	313f	20	TELUS Communications Company	3,784,570	75,691,400	\$231,200,000	\$46,931,957	\$234,000,000	\$47,495,627
0	314a	20	Rogers Communications Inc.	107,125	2,142,500	\$1,156,127	\$1,298,648	\$1,170,000	\$1,314,245
1	314d	10	9193-2962 Québec Inc.	107,125	1,071,250	\$505,929	\$649,107	\$512,000	\$656,903
0	314e	10	Bell Mobility Inc.	107,125	1,071,250	\$670,949	\$649,107	\$679,000	\$656,903
0	314f	20	TELUS Communications Company	107,125	2,142,500	\$1,185,771	\$1,298,648	\$1,200,000	\$1,314,245
0	315a	20	Rogers Communications Inc.	1,265,237	25,304,740	\$45,948,617	\$15,448,954	\$46,500,000	\$15,634,502
1	315d	10	Globalive Wireless LP	1,265,237	12,652,370	\$26,778,656	\$7,694,208	\$27,100,000	\$7,786,619
0	315e	10	Bell Mobility Inc.	1,265,237	12,652,370	\$32,806,324	\$7,694,208	\$33,200,000	\$7,786,619
0	315f	20	TELUS Communications Company	1,265,237	25,304,740	\$44,071,146	\$15,448,954	\$44,600,000	\$15,634,502
0	316a	20	Rogers Communications Inc.	108,154	2,163,080	\$1,571,146	\$1,311,131	\$1,590,000	\$1,326,878
1	316d	10	Globalive Wireless LP	108,154	1,081,540	\$1,314,229	\$655,344	\$1,330,000	\$663,215
0	316e	10	Bell Mobility Inc.	108,154	1,081,540	\$1,650,198	\$655,344	\$1,670,000	\$663,215
0	316f	20	TELUS Communications Company	108,154	2,163,080	\$1,699,605	\$1,311,131	\$1,720,000	\$1,326,878
0	317a	20	Rogers Communications Inc.	187,081	3,741,620	\$2,164,032	\$2,269,064	\$2,190,000	\$2,296,317
1	317d	10	9193-2962 Québec Inc.	187,081	1,870,810	\$351,779	\$1,133,870	\$356,000	\$1,147,489
0	317e	10	TELUS Communications Company	187,081	1,870,810	\$1,254,941	\$1,133,870	\$1,270,000	\$1,147,489
0	317f	20	Bell Mobility Inc.	187,081	3,741,620	\$2,075,099	\$2,269,064	\$2,100,000	\$2,296,317
0	318a	20	Rogers Communications Inc.	65,921	1,318,420	\$1,551,383	\$798,937	\$1,570,000	\$808,533
1	318d	10	Globalive Wireless LP	65,921	659,210	\$1,452,569	\$399,386	\$1,470,000	\$404,183
0	318e	10	TELUS Communications Company	65,921	659,210	\$1,758,893	\$399,386	\$1,780,000	\$404,183
0	318f	20	Bell Mobility Inc.	65,921	1,318,420	\$1,511,858	\$798,937	\$1,530,000	\$808,533
0	319a	20	Rogers Communications Inc.	82,869	1,657,380	\$1,709,486	\$1,004,447	\$1,730,000	\$1,016,510
1	319d	10	Globalive Wireless LP	82,869	828,690	\$1,541,502	\$502,094	\$1,560,000	\$508,124
0	319e	10	TELUS Communications Company	82,869	828,690	\$1,640,316	\$502,094	\$1,660,000	\$508,124
0	319f	20	Bell Mobility Inc.	82,869	1,657,380	\$1,739,130	\$1,004,447	\$1,760,000	\$1,016,510
0	320a	20	Rogers Communications Inc.	162,711	3,254,220	\$2,618,577	\$1,973,186	\$2,650,000	\$1,996,885
1	320d	10	Globalive Wireless LP	162,711	1,627,110	\$1,077,075	\$986,092	\$1,090,000	\$997,936
0	320e	10	TELUS Communications Company	162,711	1,627,110	\$1,689,723	\$986,092	\$1,710,000	\$997,936
0	320f	20	Bell Mobility Inc.	162,711	3,254,220	\$2,500,000	\$1,973,186	\$2,530,000	\$1,996,885
0	321a	20	Rogers Communications Inc.	184,594	3,691,880	\$2,954,546	\$2,238,865	\$2,990,000	\$2,265,755
1	321d	10	Globalive Wireless LP	184,594	1,845,940	\$1,007,905	\$1,118,788	\$1,020,000	\$1,132,225
0	321e	10	TELUS Communications Company	184,594	1,845,940	\$1,768,775	\$1,118,788	\$1,790,000	\$1,132,225
0	321f	20	Bell Mobility Inc.	184,594	3,691,880	\$2,806,324	\$2,238,865	\$2,840,000	\$2,265,755
0	322a	20	Rogers Communications Inc.	59,699	1,193,980	\$1,818,182	\$723,501	\$1,840,000	\$732,190
1	322d	10	Globalive Wireless LP	59,699	596,990	\$1,393,281	\$361,683	\$1,410,000	\$366,027
0	322e	10	TELUS Communications Company	59,699	596,990	\$1,482,213	\$361,683	\$1,500,000	\$366,027
0	322f	20	Bell Mobility Inc.	59,699	1,193,980	\$1,699,605	\$723,501	\$1,720,000	\$732,190
0	323a	20	Rogers Communications Inc.	192,992	3,859,840	\$2,727,273	\$2,340,844	\$2,760,000	\$2,368,958
1	323d	10	Globalive Wireless LP	192,992	1,929,920	\$894,269	\$1,169,718	\$905,000	\$1,183,766
0	323e	10	TELUS Communications Company	192,992	1,929,920	\$1,106,719	\$1,169,718	\$1,120,000	\$1,183,766
0	323f	20	Bell Mobility Inc.	192,992	3,859,840	\$2,658,103	\$2,340,844	\$2,690,000	\$2,368,958
0	324a	20	Rogers Communications Inc.	72,322	1,446,440	\$1,136,364	\$876,550	\$1,150,000	\$887,078
1	324d	10	Rich Telecom Corp.	72,322	723,220	\$497,036	\$438,176	\$503,000	\$443,439

Set Aside	Block	Bandwidth (Mhz)	Winning Bidder	Population	MHZ*Pop	Actual Winning		Actual Winning	
						Bid	Predicted Value	Bid	Predicted Value
0	324e	10	TELUS Communications Company	72,322	723,220	\$683,794	\$438,176	\$692,000	\$443,439
0	324f	20	Bell Mobility Inc.	72,322	1,446,440	\$1,472,332	\$876,550	\$1,490,000	\$887,078
0	325a	20	Rogers Communications Inc.	5,635,827	112,700,000	\$232,200,000	\$70,678,259	\$235,000,000	\$71,527,131
1	325d	10	9193-2962 Québec Inc.	5,635,827	56,358,270	\$95,256,917	\$34,738,556	\$96,400,000	\$35,155,779
0	325e	10	TELUS Communications Company	5,635,827	56,358,270	\$101,800,000	\$34,738,556	\$103,000,000	\$35,155,779
0	325f	20	Bell Mobility Inc.	5,635,827	112,700,000	\$310,300,000	\$70,678,259	\$314,000,000	\$71,527,131
0	326a	20	Rogers Communications Inc.	591,338	11,826,760	\$9,871,542	\$7,190,289	\$9,990,000	\$7,276,647
1	326d	10	Bragg Communications Inc.	591,338	5,913,380	\$2,608,696	\$3,588,533	\$2,640,000	\$3,631,632
0	326e	10	TELUS Communications Company	591,338	5,913,380	\$4,911,067	\$3,588,533	\$4,970,000	\$3,631,632
0	326f	20	Bell Mobility Inc.	591,338	11,826,760	\$14,624,506	\$7,190,289	\$14,800,000	\$7,276,647
0	327a	20	Rogers Communications Inc.	607,035	12,140,700	\$7,411,067	\$7,381,875	\$7,500,000	\$7,470,534
1	327d	10	Data & Audio-Visual Enterprises Wireless Inc.	607,035	6,070,350	\$2,569,170	\$3,683,970	\$2,600,000	\$3,728,216
0	327e	10	TELUS Communications Company	607,035	6,070,350	\$5,049,407	\$3,683,970	\$5,110,000	\$3,728,216
0	327f	20	Bell Mobility Inc.	607,035	12,140,700	\$15,019,763	\$7,381,875	\$15,200,000	\$7,470,534
0	328a	20	Rogers Communications Inc.	133,987	2,679,740	\$1,719,368	\$1,624,561	\$1,740,000	\$1,644,072
1	328d	10	Bragg Communications Inc.	133,987	1,339,870	\$871,542	\$811,941	\$882,000	\$821,693
0	328e	10	TELUS Communications Company	133,987	1,339,870	\$1,215,415	\$811,941	\$1,230,000	\$821,693
0	328f	20	Bell Mobility Inc.	133,987	2,679,740	\$3,320,158	\$1,624,561	\$3,360,000	\$1,644,072
0	329a	20	Rogers Communications Inc.	354,971	7,099,420	\$9,328,063	\$4,309,873	\$9,440,000	\$4,361,636
1	329d	10	Data & Audio-Visual Enterprises Wireless Inc.	354,971	3,549,710	\$1,363,636	\$2,152,554	\$1,380,000	\$2,178,407
0	329e	10	TELUS Communications Company	354,971	3,549,710	\$2,806,324	\$2,152,554	\$2,840,000	\$2,178,407
0	329f	20	Bell Mobility Inc.	354,971	7,099,420	\$9,446,640	\$4,309,873	\$9,560,000	\$4,361,636
0	330a	20	Rogers Communications Inc.	765,656	15,313,120	\$20,849,802	\$9,319,978	\$21,100,000	\$9,431,914
1	330d	10	Bragg Communications Inc.	765,656	7,656,560	\$4,308,300	\$4,648,905	\$4,360,000	\$4,704,740
0	330e	10	Bell Mobility Inc.	765,656	7,656,560	\$4,861,660	\$4,648,905	\$4,920,000	\$4,704,740
0	330f	20	TELUS Communications Company	765,656	15,313,120	\$20,948,617	\$9,319,978	\$21,200,000	\$9,431,914
0	331a	20	Rogers Communications Inc.	107,029	2,140,580	\$1,116,601	\$1,297,483	\$1,130,000	\$1,313,066
1	331d	10	Celluworld Inc.	107,029	1,070,290	\$920,949	\$648,525	\$932,000	\$656,314
0	331e	10	Bell Mobility Inc.	107,029	1,070,290	\$837,945	\$648,525	\$848,000	\$656,314
0	331f	20	TELUS Communications Company	107,029	2,140,580	\$2,213,439	\$1,297,483	\$2,240,000	\$1,313,066
0	332a	20	Rogers Communications Inc.	376,213	7,524,260	\$4,318,182	\$4,568,386	\$4,370,000	\$4,623,254
1	332d	10	Data & Audio-Visual Enterprises Wireless Inc.	376,213	3,762,130	\$1,561,265	\$2,281,517	\$1,580,000	\$2,308,919
0	332e	10	Bell Mobility Inc.	376,213	3,762,130	\$3,211,463	\$2,281,517	\$3,250,000	\$2,308,919
0	332f	20	TELUS Communications Company	376,213	7,524,260	\$5,701,581	\$4,568,386	\$5,770,000	\$4,623,254
0	333a	20	Rogers Communications Inc.	166,739	3,334,780	\$2,065,217	\$2,022,084	\$2,090,000	\$2,046,370
1	333d	10	Bragg Communications Inc.	166,739	1,667,390	\$730,237	\$1,010,516	\$739,000	\$1,022,653
0	333e	10	TELUS Communications Company	166,739	1,667,390	\$1,699,605	\$1,010,516	\$1,720,000	\$1,022,653
0	333f	20	Bell Mobility Inc.	166,739	3,334,780	\$3,428,854	\$2,022,084	\$3,470,000	\$2,046,370
0	334a	20	Rogers Communications Inc.	122,253	2,445,060	\$1,067,194	\$1,482,180	\$1,080,000	\$1,499,982
1	334d	10	Bragg Communications Inc.	122,253	1,222,530	\$537,549	\$740,808	\$544,000	\$749,705
0	334e	10	TELUS Communications Company	122,253	1,222,530	\$679,842	\$740,808	\$688,000	\$749,705
0	334f	20	Bell Mobility Inc.	122,253	2,445,060	\$1,007,905	\$1,482,180	\$1,020,000	\$1,499,982
0	335a	20	Rogers Communications Inc.	135,482	2,709,640	\$2,005,929	\$1,642,703	\$2,030,000	\$1,662,432
1	335d	10	1380057 Alberta Ltd.	135,482	1,354,820	\$430,830	\$821,004	\$436,000	\$830,865
0	335e	10	TELUS Communications Company	135,482	1,354,820	\$1,373,518	\$821,004	\$1,390,000	\$830,865
0	335f	20	Bell Mobility Inc.	135,482	2,709,640	\$2,114,625	\$1,642,703	\$2,140,000	\$1,662,432
0	336a	20	Rogers Communications Inc.	172,605	3,452,100	\$3,181,818	\$2,093,299	\$3,220,000	\$2,118,440
1	336d	10	Bragg Communications Inc.	172,605	1,726,050	\$795,455	\$1,046,086	\$805,000	\$1,058,650
0	336e	10	TELUS Communications Company	172,605	1,726,050	\$2,025,692	\$1,046,086	\$2,050,000	\$1,058,650
0	336f	20	Bell Mobility Inc.	172,605	3,452,100	\$3,310,277	\$2,093,299	\$3,350,000	\$2,118,440
0	337a	20	Rogers Communications Inc.	120,308	2,406,160	\$1,749,012	\$1,458,582	\$1,770,000	\$1,476,100
1	337d	10	Bragg Communications Inc.	120,308	1,203,080	\$507,905	\$729,017	\$514,000	\$737,773
0	337e	10	TELUS Communications Company	120,308	1,203,080	\$976,285	\$729,017	\$988,000	\$737,773
0	337f	20	Bell Mobility Inc.	120,308	2,406,160	\$1,749,012	\$1,458,582	\$1,770,000	\$1,476,100
0	338a	20	Rogers Communications Inc.	234,833	4,696,660	\$2,658,103	\$2,849,086	\$2,690,000	\$2,883,305
1	338d	10	1380057 Alberta Ltd.	234,833	2,348,330	\$792,490	\$1,423,500	\$802,000	\$1,440,597
0	338e	10	TELUS Communications Company	234,833	2,348,330	\$2,391,304	\$1,423,500	\$2,420,000	\$1,440,597
0	338f	20	Bell Mobility Inc.	234,833	4,696,660	\$3,053,360	\$2,849,086	\$3,090,000	\$2,883,305
0	339a	20	Rogers Communications Inc.	945,818	18,916,360	\$34,486,166	\$11,525,895	\$34,900,000	\$11,664,325
1	339d	10	Globalive Wireless LP	945,818	9,458,180	\$13,339,921	\$5,746,033	\$13,500,000	\$5,815,045
0	339e	10	1380057 Alberta Ltd.	945,818	9,458,180	\$14,920,949	\$5,746,033	\$15,100,000	\$5,815,045
0	339f	20	TELUS Communications Company	945,818	18,916,360	\$34,486,166	\$11,525,895	\$34,900,000	\$11,664,325
0	340a	20	Rogers Communications Inc.	172,465	3,449,300	\$1,768,775	\$2,091,600	\$1,790,000	\$2,116,720
1	340d	10	Globalive Wireless LP	172,465	1,724,650	\$763,834	\$1,045,237	\$773,000	\$1,057,791
0	340e	10	1380057 Alberta Ltd.	172,465	1,724,650	\$1,581,028	\$1,045,237	\$1,600,000	\$1,057,791
0	340f	20	TELUS Communications Company	172,465	3,449,300	\$1,907,115	\$2,091,600	\$1,930,000	\$2,116,720
0	341a	20	Rogers Communications Inc.	349,538	6,990,760	\$16,897,233	\$4,243,764	\$17,100,000	\$4,294,734
1	341d	10	1380057 Alberta Ltd.	349,538	3,495,380	\$4,911,067	\$2,119,572	\$4,970,000	\$2,145,029
0	341e	10	Globalive Wireless LP	349,538	3,495,380	\$5,691,700	\$2,119,572	\$5,760,000	\$2,145,029
0	341f	20	TELUS Communications Company	349,538	6,990,760	\$17,984,190	\$4,243,764	\$18,200,000	\$4,294,734
0	342a	20	Rogers Communications Inc.	104,297	2,085,940	\$4,387,352	\$1,264,342	\$4,440,000	\$1,279,528
1	342d	10	1380057 Alberta Ltd.	104,297	1,042,970	\$2,401,186	\$631,966	\$2,430,000	\$639,556
0	342e	10	Globalive Wireless LP	104,297	1,042,970	\$2,658,103	\$631,966	\$2,690,000	\$639,556
0	342f	20	TELUS Communications Company	104,297	2,085,940	\$4,377,470	\$1,264,342	\$4,430,000	\$1,279,528

Set Aside	Block	Bandwidth (Mhz)	Winning Bidder	Population	MHZ*Pop	Actual Winning		Actual Winning	
						Bid	Predicted Value	Bid	Predicted Value
0	343a	20	TELUS Communications Company	521,882	10,437,640	\$31,126,482	\$6,343,007	\$31,500,000	\$6,419,189
1	343d	10	1380057 Alberta Ltd.	521,882	5,218,820	\$12,549,407	\$3,166,354	\$12,700,000	\$3,204,383
0	343e	10	Globalive Wireless LP	521,882	5,218,820	\$11,857,708	\$3,166,354	\$12,000,000	\$3,204,383
0	343f	20	Rogers Communications Inc.	521,882	10,437,640	\$31,126,482	\$6,343,007	\$31,500,000	\$6,419,189
0	344a	20	Rogers Communications Inc.	1,199,124	23,982,480	\$34,980,237	\$14,635,697	\$35,400,000	\$14,811,477
1	344d	10	Data & Audio-Visual Enterprises Wireless Inc.	1,199,124	11,991,240	\$8,883,399	\$7,290,660	\$8,990,000	\$7,378,224
0	344e	10	Bell Mobility Inc.	1,199,124	11,991,240	\$18,972,332	\$7,290,660	\$19,200,000	\$7,378,224
0	344f	20	TELUS Communications Company	1,199,124	23,982,480	\$36,264,822	\$14,635,697	\$36,700,000	\$14,811,477
0	345a	20	Rogers Communications Inc.	175,718	3,514,360	\$1,452,569	\$2,131,094	\$1,470,000	\$2,156,689
1	345d	10	1380057 Alberta Ltd.	175,718	1,757,180	\$564,229	\$1,064,963	\$571,000	\$1,077,754
0	345e	10	Bell Mobility Inc.	175,718	1,757,180	\$855,731	\$1,064,963	\$866,000	\$1,077,754
0	345f	20	TELUS Communications Company	175,718	3,514,360	\$1,650,198	\$2,131,094	\$1,670,000	\$2,156,689
0	346a	20	Rogers Communications Inc.	156,171	3,123,420	\$1,897,233	\$1,893,799	\$1,920,000	\$1,916,544
1	346d	10	1380057 Alberta Ltd.	156,171	1,561,710	\$467,391	\$946,438	\$473,000	\$957,805
0	346e	10	Bell Mobility Inc.	156,171	1,561,710	\$858,696	\$946,438	\$869,000	\$957,805
0	346f	20	TELUS Communications Company	156,171	3,123,420	\$1,897,233	\$1,893,799	\$1,920,000	\$1,916,544
0	347a	20	Rogers Communications Inc.	1,091,673	21,833,460	\$53,458,498	\$13,315,351	\$54,100,000	\$13,475,273
1	347d	10	Data & Audio-Visual Enterprises Wireless Inc.	1,091,673	10,916,730	\$8,290,514	\$6,635,142	\$8,390,000	\$6,714,832
0	347e	10	Bell Mobility Inc.	1,091,673	10,916,730	\$16,501,976	\$6,635,142	\$16,700,000	\$6,714,832
0	347f	20	TELUS Communications Company	1,091,673	21,833,460	\$56,719,368	\$13,315,351	\$57,400,000	\$13,475,273
0	348a	20	Rogers Communications Inc.	198,479	3,969,580	\$2,193,676	\$2,407,479	\$2,220,000	\$2,436,394
1	348d	10	Data & Audio-Visual Enterprises Wireless Inc.	198,479	1,984,790	\$661,067	\$1,202,995	\$669,000	\$1,217,443
0	348e	10	Bell Mobility Inc.	198,479	1,984,790	\$1,007,905	\$1,202,995	\$1,020,000	\$1,217,443
0	348f	20	TELUS Communications Company	198,479	3,969,580	\$2,450,593	\$2,407,479	\$2,480,000	\$2,436,394
0	349a	20	Rogers Communications Inc.	158,271	3,165,420	\$3,577,075	\$1,919,289	\$3,620,000	\$1,942,341
1	349d	10	Bragg Communications Inc.	158,271	1,582,710	\$236,166	\$959,171	\$239,000	\$970,691
0	349e	10	Bragg Communications Inc.	158,271	1,582,710	\$2,094,862	\$959,171	\$2,120,000	\$970,691
0	349f	20	TELUS Communications Company	158,271	3,165,420	\$3,537,549	\$1,919,289	\$3,580,000	\$1,942,341
0	350a	20	Rogers Communications Inc.	132,914	2,658,280	\$1,324,111	\$1,611,540	\$1,340,000	\$1,630,895
1	350d	10	1380057 Alberta Ltd.	132,914	1,329,140	\$258,893	\$805,436	\$262,000	\$815,110
0	350e	10	Bell Mobility Inc.	132,914	1,329,140	\$788,538	\$805,436	\$798,000	\$815,110
0	350f	20	TELUS Communications Company	132,914	2,658,280	\$1,333,992	\$1,611,540	\$1,350,000	\$1,630,895
0	351a	20	Rogers Communications Inc.	368,647	7,372,940	\$5,098,814	\$4,476,301	\$5,160,000	\$4,530,063
1	351d	10	1380057 Alberta Ltd.	368,647	3,686,470	\$747,036	\$2,235,581	\$756,000	\$2,262,431
0	351e	10	Bell Mobility Inc.	368,647	3,686,470	\$1,986,166	\$2,235,581	\$2,010,000	\$2,262,431
0	351f	20	TELUS Communications Company	368,647	7,372,940	\$5,098,814	\$4,476,301	\$5,160,000	\$4,530,063
0	352a	20	Rogers Communications Inc.	2,310,047	46,200,940	\$115,600,000	\$28,388,968	\$117,000,000	\$28,729,930
1	352d	10	Data & Audio-Visual Enterprises Wireless Inc.	2,310,047	23,100,470	\$55,731,225	\$14,093,584	\$56,400,000	\$14,262,853
0	352e	10	Bell Mobility Inc.	2,310,047	23,100,470	\$61,363,636	\$14,093,584	\$62,100,000	\$14,262,853
0	352f	20	TELUS Communications Company	2,310,047	46,200,940	\$115,600,000	\$28,388,968	\$117,000,000	\$28,729,930
0	353a	20	Rogers Communications Inc.	389,247	7,784,940	\$5,602,767	\$4,727,043	\$5,670,000	\$4,783,817
1	353d	10	Data & Audio-Visual Enterprises Wireless Inc.	389,247	3,892,470	\$1,729,249	\$2,360,657	\$1,750,000	\$2,389,009
0	353e	10	Bell Mobility Inc.	389,247	3,892,470	\$2,766,798	\$2,360,657	\$2,800,000	\$2,389,009
0	353f	20	TELUS Communications Company	389,247	7,784,940	\$5,988,142	\$4,727,043	\$6,060,000	\$4,783,817
0	354a	20	Rogers Communications Inc.	165,741	3,314,820	\$1,986,166	\$2,009,969	\$2,010,000	\$2,034,109
1	354d	10	1380057 Alberta Ltd.	165,741	1,657,410	\$552,372	\$1,004,465	\$559,000	\$1,016,529
0	354e	10	Bell Mobility Inc.	165,741	1,657,410	\$986,166	\$1,004,465	\$998,000	\$1,016,529
0	354f	20	TELUS Communications Company	165,741	3,314,820	\$2,173,913	\$2,009,969	\$2,200,000	\$2,034,109
0	355a	20	Rogers Communications Inc.	106,015	2,120,300	\$1,067,194	\$1,285,183	\$1,080,000	\$1,300,618
1	355d	10	1380057 Alberta Ltd.	106,015	1,060,150	\$206,522	\$642,379	\$209,000	\$650,094
0	355e	10	Bell Mobility Inc.	106,015	1,060,150	\$654,150	\$642,379	\$662,000	\$650,094
0	355f	20	TELUS Communications Company	106,015	2,120,300	\$1,146,245	\$1,285,183	\$1,160,000	\$1,300,618
0	356a	20	Rogers Communications Inc.	174,289	3,485,780	\$2,134,387	\$2,113,744	\$2,160,000	\$2,139,131
1	356d	10	1380057 Alberta Ltd.	174,289	1,742,890	\$582,016	\$1,056,298	\$589,000	\$1,068,984
0	356e	10	Bell Mobility Inc.	174,289	1,742,890	\$980,237	\$1,056,298	\$992,000	\$1,068,984
0	356f	20	TELUS Communications Company	174,289	3,485,780	\$2,223,320	\$2,113,744	\$2,250,000	\$2,139,131
0	357a	20	Rogers Communications Inc.	200,007	4,000,140	\$2,114,625	\$2,426,037	\$2,140,000	\$2,455,174
1	357d	10	1380057 Alberta Ltd.	200,007	2,000,070	\$555,336	\$1,212,262	\$562,000	\$1,226,822
0	357e	10	Bell Mobility Inc.	200,007	2,000,070	\$1,007,905	\$1,212,262	\$1,020,000	\$1,226,822
0	357f	20	TELUS Communications Company	200,007	4,000,140	\$1,986,166	\$2,426,037	\$2,010,000	\$2,455,174
0	358a	20	Rogers Communications Inc.	60,717	1,214,340	\$1,333,992	\$735,843	\$1,350,000	\$744,681
1	358d	10	Rich Telecom Corp.	60,717	607,170	\$233,202	\$367,852	\$236,000	\$372,270
0	358e	10	Bell Mobility Inc.	60,717	607,170	\$644,269	\$367,852	\$652,000	\$372,270
0	358f	20	TELUS Communications Company	60,717	1,214,340	\$1,254,941	\$735,843	\$1,270,000	\$744,681
0	359a	20	Rogers Communications Inc.	92,707	1,854,140	\$757,905	\$1,123,761	\$767,000	\$1,137,258
1	359d	10	Globalive Wireless LP	92,707	927,070	\$99,802	\$561,718	\$101,000	\$568,464
0	359e	10	TELUS Communications Company	92,707	927,070	\$287,549	\$561,718	\$291,000	\$568,464
0	359f	20	Bell Mobility Inc.	92,707	1,854,140	\$853,755	\$1,123,761	\$864,000	\$1,137,258
Total Industry Canada 2008 AWS Auction						\$4,204,216,133	\$1,849,776,102	\$4,254,710,327	\$1,871,992,598
All Unrestricted Licenses						\$2,708,375,620	\$1,108,316,001	\$2,740,901,327	\$1,121,627,287
All Set-Aside Licenses						\$1,495,840,514	\$741,460,101	\$1,513,809,000	\$750,365,312
Excluding Blocks g and i:									
Total Industry Canada 2008 AWS Auction						\$4,127,924,308	\$1,660,897,632	\$4,177,503,000	\$1,680,845,628

Set Aside	Block	Bandwidth (Mhz)	Winning Bidder	Population	MHz*Pop	Actual Winning Bid	Predicted Value	Actual Winning Bid	Predicted Value
						\$2,632,083,795	\$919,437,531	\$2,663,694,000	\$930,480,317
						\$1,495,840,514	\$741,460,101	\$1,513,809,000	\$750,365,312

Appendix D: Examples of Bids Out of Value

Appendix D
Bids Out of Value in Late Rounds
Service Area 302 - Prince Edward Island

Round	302d - 10 MHz Set-Aside				302e - 10 MHz Unrestricted			Ratio of Unrestricted to Set-Aside High Bids
	Bragg Comm. Inc.	Globalive Wireless	9193-2962 Quebec Inc.	SaskTel	Bell Mobility Inc.	Bragg Comm. Inc.	TELUS Comm. Inc.	
20							\$149.5	
25		\$149.5						1.0
29						\$165.0		1.1
30							\$182.0	1.2
35						\$197.0		1.3
36							\$213.0	1.4
38						\$231.0		1.5
39							\$250.0	1.7
40						\$270.0		1.8
41							\$292.0	2.0
42						\$316.0		2.1
43							\$342.0	2.3
45						\$356.0		2.4
47							\$371.0	2.5
48						\$386.0		2.6
49							\$402.0	2.7
54						\$419.0		2.8
55							\$436.0	2.9
56						\$454.0		3.0
57							\$473.0	3.2
59						\$492.0		3.3
60							\$512.0	3.4
62						\$533.0		3.6
63							\$555.0	3.7
64						\$578.0		3.9
65							\$602.0	4.0
66						\$627.0		4.2
67							\$653.0	4.4
68						\$680.0		4.5
69					\$708.0			4.7
71						\$737.0	\$737.0	4.9
72			\$156.0					4.7
73		\$163.0						4.5
75						\$767.0		4.7
76							\$798.0	4.9
85	\$170.0							4.7
86		\$177.0						4.5
87						\$830.0		4.7
88							\$864.0	4.9
90						\$899.0		5.1
91							\$935.0	5.3
92						\$973.0		5.5
93							\$1,020.0	5.8
94						\$1,070.0		6.0
96							\$1,120.0	6.3
107						\$1,170.0		6.6
109							\$1,220.0	6.9
121	\$185.0							6.6
124		\$193.0						6.3
125	\$201.0							6.1
127		\$201.0						6.1
128						\$1,270.0		6.3
129							\$1,330.0	6.6
132						\$1,390.0		6.9
133							\$1,450.0	7.2
151						\$1,510.0		7.5
152							\$1,580.0	7.9
168						\$1,650.0		8.2
170							\$1,720.0	8.6
177						\$1,790.0		8.9
178							\$1,870.0	9.3
212				\$210.0				8.9
213		\$219.0						8.5
214				\$228.0				8.2
215		\$238.0						7.9
216				\$248.0				7.5
217		\$258.0						7.2
218				\$274.0				6.8
219		\$291.0						6.4

Commentary: In Rounds 38 through 96, Bragg continually bids up the price of the unrestricted 10 MHz block despite the fact that the identical set-aside block is available for as little as one-fifth of the price of the unrestricted block. In Round 127, Bragg is outbid for the set-aside license at \$201,000, yet does not respond by bidding higher on the set-aside. Instead, in Rounds 128 through 177, Bragg begins bidding on the identical unrestricted block at more than eight times what the set-aside is available for. Bragg and TELUS are the only remaining bidders in the late rounds of the unrestricted auction. In the end, Bragg does not win either auction.

Appendix D
Bids Out of Value in Late Rounds
Service Area 304 - Cape Breton

Round	304d - 10 MHz Set-Aside				304e - 10 MHz Unrestricted			Ratio of Unrestricted to Set-Aside High Bids
	Bragg Comm. Inc.	Globalive Wireless	9193-2962 Quebec Inc.	SaskTel	Bragg Comm. Inc.	Globalive Wireless	TELUS Comm. Inc.	
20							\$162.4	
25		\$162.4						1.0
29					\$179.0			1.1
30							\$197.0	1.2
31					\$217.0			1.3
32							\$239.0	1.5
35					\$259.0			1.6
36							\$280.0	1.7
38					\$303.0			1.9
39							\$328.0	2.0
40					\$355.0			2.2
41							\$384.0	2.4
42					\$415.0			2.6
43							\$449.0	2.8
48					\$467.0			2.9
49							\$486.0	3.0
50					\$506.0			3.1
51							\$527.0	3.2
52					\$549.0			3.4
53							\$571.0	3.5
57					\$594.0			3.7
58							\$618.0	3.8
62					\$643.0			4.0
63							\$669.0	4.1
64					\$696.0			4.3
65							\$724.0	4.5
66					\$753.0			4.6
67							\$784.0	4.8
68					\$816.0			5.0
71							\$849.0	5.2
72			\$169.0					5.0
73		\$176.0						4.8
83					\$883.0			5.0
84							\$919.0	5.2
88					\$956.0			5.4
89							\$995.0	5.7
98						\$1,040.0		5.9
99							\$1,090.0	6.2
109					\$1,140.0			6.5
110							\$1,190.0	6.8
117					\$1,240.0			7.0
118							\$1,290.0	7.3
122	\$184.0							7.0
124		\$192.0						6.7
125	\$200.0							6.5
127		\$200.0						6.5
128					\$1,350.0			6.8
129							\$1,410.0	7.1
132					\$1,470.0			7.4
133							\$1,530.0	7.7
151					\$1,600.0			8.0
152							\$1,670.0	8.4
168					\$1,740.0			8.7
175							\$1,810.0	9.1
177					\$1,890.0			9.5
178							\$1,970.0	9.9
212				\$208.0				9.5
213		\$217.0						9.1
214				\$226.0				8.7
215		\$236.0						8.3
216				\$246.0				8.0
217		\$256.0						7.7
218				\$272.0				7.2
219		\$289.0						6.8

Commentary: In Rounds 31 through 117, Bragg continually bids up the price of the unrestricted 10 MHz block despite the fact that the identical set-aside block is available for as little as one-seventh of the price of the unrestricted block. In Round 127, Bragg is outbid for the set-aside license at \$200,000, yet does not respond by bidding higher on the set-aside. Instead, in Rounds 128 through 177, Bragg begins bidding on the identical unrestricted block at more than nine times what the set-aside is available for. In the end, Bragg does not win either auction.

Appendix D
Bids Out of Value in Late Rounds
Service Area 314 - Upper Outaouais

Round	314d - 10 MHz Set-Aside		314e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	Globalive Wireless	9193-2962 Quebec Inc.	Bell Mobility Inc.	Globalive Wireless	9193-2962 Quebec Inc.	TELUS Comm. Inc.	
1		\$304.9					
37						\$304.9	1.0
38			\$330.0				1.1
39	\$330.0						1.0
40		\$357.0					0.9
44	\$386.0						0.9
45		\$402.0					0.8
53	\$419.0						0.8
54					\$344.0		0.8
55			\$358.0				0.9
56					\$373.0		0.9
57			\$388.0				0.9
58					\$404.0		1.0
59			\$421.0				1.0
60					\$438.0		1.0
61			\$456.0				1.1
62		\$436.0					1.0
65	\$454.0						1.0
66		\$473.0					1.0
71	\$492.0						0.9
72		\$512.0					0.9
74					\$475.0		0.9
75			\$494.0			\$494.0	1.0
76					\$514.0		1.0
77			\$535.0				1.0
231				\$568.0			1.1
232			\$603.0				1.2
297				\$640.0			1.3
298			\$679.0				1.3

Commentary: In rounds 231 and 297, Globalive submits bids of \$568,000 and \$640,000 for the unrestricted block despite the fact that the identical set-aside is available for a lower price, and the fact that in Round 72 Globalive was outbid at \$512,000 for the set-aside and did not respond by bidding higher. In the end, Globalive does not win either auction.

Contrast this with the rational bidding behavior of other entrants such as Quebec Inc. Between Rounds 60 and 62, Quebec Inc. switches from bidding on the unrestricted block to bidding on the set-aside once the set-aside becomes more expensive. After Round 76, it ceases bidding on the unrestricted auction once the price is bid up past its high bid of \$512,000 on the set-aside. In the end, Quebec Inc. wins the set-aside block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 317 - Abitibi

Round	317d - 10 MHz Set-Aside			317e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	Globalive Wireless	2096901 Ontario Inc.	9193-2962 Quebec Inc.	Bell Mobility Inc.	Globalive Wireless	9193-2962 Quebec Inc.	TELUS Comm. Inc.	
1			\$40.0					
33	\$48.0							
34			\$56.0					
35	\$64.0						\$40.0	0.6
36			\$72.0					0.6
39	\$80.0							0.5
40			\$88.0					0.5
43	\$96.0							0.4
44			\$104.0					0.4
45	\$112.0							0.4
46			\$120.0					0.3
47					\$48.0			0.4
48							\$56.0	0.5
51	\$128.0							0.4
52						\$64.0		0.5
53							\$72.0	0.6
54						\$80.0		0.6
55							\$88.0	0.7
56						\$96.0		0.8
57							\$104.0	0.8
58						\$112.0		0.9
59							\$120.0	0.9
60					\$128.0	\$128.0		1.0
61						\$136.0	\$136.0	1.1
62			\$136.0		\$144.0			1.1
63							\$152.0	1.1
64					\$160.0			1.2
65	\$144.0						\$168.0	1.2
66			\$152.0					1.1
72	\$160.0					\$176.0		1.1
73			\$168.0				\$184.0	1.1
79					\$192.0			1.1
80							\$200.0	1.2
82				\$208.0				1.2
83							\$217.0	1.3
84				\$226.0				1.3
88					\$236.0			1.4
89				\$246.0				1.5
90					\$256.0			1.5
93				\$267.0				1.6
105							\$278.0	1.7
106				\$290.0				1.7
107							\$302.0	1.8
108				\$315.0				1.9
109							\$328.0	2.0
110				\$342.0				2.0
111							\$356.0	2.1
112				\$371.0				2.2
113							\$386.0	2.3
115				\$402.0	\$402.0			2.4
116							\$419.0	2.5
117				\$436.0				2.6
118							\$454.0	2.7
119						\$473.0		2.8
127		\$176.0						2.7
129			\$184.0					2.6
130		\$192.0						2.5
131			\$200.0					2.4

**Bids Out of Value in Late Rounds
Service Area 317 - Abitibi**

Round	317d - 10 MHz Set-Aside			317e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	Globalive Wireless	2096901 Ontario Inc.	9193-2962 Quebec Inc.	Bell Mobility Inc.	Globalive Wireless	9193-2962 Quebec Inc.	TELUS Comm. Inc.	
134		\$208.0					\$492.0	2.4
135			\$217.0			\$512.0		2.4
136							\$533.0	2.5
137						\$555.0		2.6
138		\$226.0					\$578.0	2.6
139			\$236.0			\$602.0		2.6
140							\$627.0	2.7
141						\$653.0		2.8
142							\$680.0	2.9
143						\$708.0		3.0
144		\$246.0					\$737.0	3.0
145			\$256.0					2.9
146					\$767.0			3.0
147							\$798.0	3.1
148					\$830.0			3.2
149							\$864.0	3.4
150		\$267.0				\$899.0		3.4
151			\$278.0				\$935.0	3.4
152					\$973.0			3.5
153							\$1,020.0	3.7
154		\$290.0						3.5
155			\$302.0					3.4
160		\$315.0						3.2
161			\$328.0					3.1
162		\$342.0						3.0
163			\$356.0					2.9
186					\$1,070.0			3.0
187							\$1,120.0	3.1
294					\$1,190.0			3.3
295							\$1,270.0	3.6

Commentary: In Round 73, Globalive is outbid for the set-aside at \$168,000 yet does not bid any higher on the set-aside. Instead, in Rounds 79 through 116, Globalive bids as much as twice as much for the identical unrestricted block. Then in Round 294, Globalive submits a single bid of \$1,190,000 (almost three times higher than its previous bid several rounds earlier) for the unrestricted block despite the fact that the set-aside is available for less than one-third the price. In the end, Globalive does not win either auction.

Contrast this with the rational bidding behavior of other entrants such as Quebec Inc. In Round 62, Quebec Inc. switches from bidding on the unrestricted to bidding on the set-aside when the set-aside block reaches the same price. In the end, Quebec Inc. wins the set-aside block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 324 - Huntsville

Round	324d - 10 MHz Set-Aside			324e - 10 MHz Unrestricted			Ratio of Unrestricted to Set-Aside High Bids	
	Globalive Wireless	2096901 Ontario Inc.	Rich Telecom	Data & Audio Visual	Globalive Wireless	2096901 Ontario Inc.		TELUS Comm. Inc.
22							\$205.8	
36	\$205.8							1.0
62				\$215.0				1.0
63							\$224.0	1.1
71						\$233.0		1.1
72							\$243.0	1.2
75					\$253.0	\$253.0		1.2
76							\$264.0	1.3
77					\$275.0			1.3
78							\$286.0	1.4
79					\$298.0			1.4
80							\$310.0	1.5
83						\$323.0		1.6
84							\$336.0	1.6
87						\$350.0		1.7
88							\$364.0	1.8
89					\$379.0			1.8
90							\$395.0	1.9
97			\$215.0					1.8
99						\$411.0		1.9
100							\$428.0	2.0
101		\$224.0						1.9
102			\$233.0					1.8
106		\$243.0						1.8
107			\$253.0					1.7
108		\$264.0			\$446.0			1.7
109			\$275.0				\$464.0	1.7
110			\$286.0					1.6
119					\$483.0			1.7
133							\$503.0	1.8
142		\$298.0						1.7
143			\$310.0					1.6
148		\$323.0						1.6
149	\$336.0		\$336.0					1.5
150			\$350.0					1.4
151	\$364.0							1.4
152			\$379.0					1.3
153			\$395.0					1.3
155					\$524.0			1.3
156							\$545.0	1.4
159	\$411.0							1.3
160			\$428.0					1.3
165	\$446.0							1.2
166			\$464.0					1.2
167	\$483.0							1.1
168			\$503.0					1.1
190					\$567.0			1.1
191							\$590.0	1.2
192					\$614.0			1.2
193							\$639.0	1.3
194					\$665.0			1.3
195							\$692.0	1.4

Commentary: In Round 168, Globalive is outbid for the set-aside block at \$503,000, yet does not bid any higher on the set-aside. However, in Rounds 155 through 194, it submits higher bids ranging from \$524,000 to \$665,000 on the identical unrestricted block. In the end, Globalive does not win either block.

Contrast this with the rational behavior of other entrants such as Ontario Inc. Between Rounds 99 and 101, it switches from bidding on the unrestricted block to bidding on the set-aside once the unrestricted block becomes almost twice as expensive as the set-aside.

Appendix D
Bids Out of Value in Late Rounds
Service Area 326 - Barrie

Round	326d - 10 MHz Set-Aside			326e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	Bragg Comm. Inc.	Data & Audio Visual	Globalive Wireless	Data & Audio Visual	Globalive Wireless	SaskTel	TELUS Comm. Inc.	
1							\$1,682.9	
35		\$1,682.9	\$1,682.9					1.0
36		\$1,820.0			\$1,820.0			1.0
37							\$1,970.0	1.1
38					\$2,130.0			1.2
39							\$2,310.0	1.3
44					\$2,500.0			1.4
45							\$2,600.0	1.4
49	\$1,900.0							1.4
50		\$1,980.0						1.3
51	\$2,060.0			\$2,710.0				1.3
52		\$2,150.0					\$2,820.0	1.3
53	\$2,240.0				\$2,940.0			1.3
54		\$2,330.0					\$3,060.0	1.3
55	\$2,430.0							1.3
56				\$3,190.0				1.3
57							\$3,320.0	1.4
58				\$3,460.0				1.4
59							\$3,600.0	1.5
60		\$2,530.0						1.4
61	\$2,640.0							1.4
62				\$3,750.0				1.4
63							\$3,900.0	1.5
158						\$4,060.0		1.5
160							\$4,230.0	1.6
164						\$4,400.0		1.7
165							\$4,580.0	1.7
166						\$4,770.0		1.8
167							\$4,970.0	1.9

Commentary: In Round 36, Globalive is outbid for the set-aside block at \$1,820,000, yet does not respond by bidding any higher on the set-aside. Instead, in Rounds 36 through 53, Globalive bids up the price of unrestricted block while the set-aside is available for a lower price. Then, in Round 158, after 94 rounds of inactivity for both blocks, SaskTel bids up the price of the unrestricted block to \$4,770,000 while the identical set-aside block is available at a lower price. SaskTel never bids on the set-aside. Also, Barrie does not appear to be in SaskTel's core service area, Saskatchewan. Neither Globalive nor SaskTel wins either block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 327 - Guelph/Kitchener

Round	327d - 10 MHz Set-Aside			327e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	Bragg Comm. Inc.	Data & Audio Visual	Globalive Wireless	Data & Audio Visual	Globalive Wireless	SaskTel	TELUS Comm. Inc.	
1							\$1,727.5	
35		\$1,727.5	\$1,727.5					1.0
36		\$1,870.0			\$1,870.0			1.0
37							\$2,020.0	1.1
38					\$2,190.0			1.2
39							\$2,370.0	1.3
44					\$2,560.0			1.4
45							\$2,670.0	1.4
49	\$1,950.0							1.4
50		\$2,030.0						1.3
51	\$2,120.0							1.3
52		\$2,210.0						1.2
53	\$2,300.0				\$2,780.0			1.2
54		\$2,400.0					\$2,900.0	1.2
55	\$2,500.0				\$3,020.0			1.2
56							\$3,150.0	1.3
60		\$2,600.0						1.2
62				\$3,280.0				1.3
63							\$3,420.0	1.3
110					\$3,560.0			1.4
111							\$3,710.0	1.4
158						\$3,860.0		1.5
159							\$4,020.0	1.5
160						\$4,190.0		1.6
163							\$4,360.0	1.7
168						\$4,540.0		1.7
183							\$4,540.0	1.7
252					\$4,820.0			1.9
253							\$5,110.0	2.0

Commentary: In Round 36, Globalive is outbid for the set-aside block at \$1,870,000 yet does not bid any higher on the set-aside. Instead, during Rounds 36 through 110, Globalive submits bids of up to \$3,560,000 on the unrestricted block despite the fact that the identical set-aside block is available at a lower price. In Round 252, after 68 rounds of inactivity in both blocks, Globalive submits a bid of \$4,820,000 for the unrestricted block when the set-aside block is available for about half the price. During Rounds 158 through 168, SaskTel bids up the price of the unrestricted block to \$4,540,000 even though the set-aside is available at a lower price. SaskTel never submits a bid for the set-aside. Also, Guelph/Kitchener appears to be outside of SaskTel's core service area. In the end, neither Globalive nor SaskTel wins either block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 329 - Niagara-St. Catharines

Round	329d - 10 MHz Set-Aside			329e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	Bragg Comm. Inc.	Data & Audio Visual	Globalive Wireless	Data & Audio Visual	Globalive Wireless	SaskTel	TELUS Comm. Inc.	
20							\$1,010.2	
35			\$1,010.2					1.0
36					\$1,100.0			1.1
37							\$1,190.0	1.2
38					\$1,290.0			1.3
39							\$1,400.0	1.4
44					\$1,520.0			1.5
45		\$1,060.0					\$1,590.0	1.5
49	\$1,110.0							1.4
52		\$1,160.0						1.4
53	\$1,210.0				\$1,660.0			1.4
54		\$1,260.0					\$1,730.0	1.4
55	\$1,320.0							1.3
56		\$1,380.0		\$1,800.0				1.3
57							\$1,880.0	1.4
58				\$1,960.0				1.4
59							\$2,040.0	1.5
69				\$2,130.0				1.5
70							\$2,220.0	1.6
71				\$2,310.0				1.7
72							\$2,410.0	1.7
153					\$2,510.0			1.8
154							\$2,620.0	1.9
158						\$2,730.0		2.0
159							\$2,840.0	2.1

Commentary: In Round 45, Globalive is outbid for the set-aside block at \$1,060,000 yet does not bid any higher for the set-aside. Instead, in Rounds 53 and 153, Globalive submits bids of \$1,660,000 and \$2,510,000, respectively, while the set-aside is available for a lower price. In Round 158, SaskTel submits a single bid of \$2,730,000 for the unrestricted block when the identical set-aside was available at half the price. SaskTel never submits a bid for the set-aside. Also, St. Catharines would appear to be outside of SaskTel's core service area. In the end, neither Globalive nor SaskTel wins either block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 334 - North Bay

Round	334d - 10 MHz Set-Aside					334e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	1380057 Alberta Ltd.	Bragg Comm. Inc.	Globalive Wireless	2096901 Ontario Inc.	Rich Telecom	Bragg Comm. Inc.	Globalive Wireless	2096901 Ontario Inc.	TELUS Comm. Inc.	
1	\$93.4									
26						\$93.4				1.0
32			\$103.0							0.9
33		\$114.0								0.8
35									\$101.0	0.9
36						\$110.0				1.0
37							\$119.0		\$119.0	1.0
38							\$129.0			1.1
39									\$140.0	1.2
41					\$124.0					1.1
46				\$129.0				\$146.0		1.1
47					\$135.0				\$152.0	1.1
48				\$141.0						1.1
49					\$147.0					1.0
50				\$153.0				\$159.0		1.0
51									\$166.0	1.1
52								\$173.0		1.1
53									\$180.0	1.2
54							\$188.0	\$188.0		1.2
55					\$160.0				\$196.0	1.2
57				\$167.0						1.2
58					\$174.0					1.1
59				\$181.0	\$181.0					1.1
60							\$204.0			1.1
61									\$213.0	1.2
62							\$222.0			1.2
63									\$231.0	1.3
64							\$241.0			1.3
65									\$251.0	1.4
69								\$262.0		1.4
70									\$273.0	1.5
76							\$284.0			1.6
77									\$296.0	1.6
82								\$308.0		1.7
83									\$321.0	1.8
85								\$334.0		1.8
86									\$348.0	1.9
88								\$362.0		2.0
89									\$377.0	2.1
93								\$393.0		2.2
94									\$409.0	2.3
95								\$426.0		2.4
96									\$444.0	2.5
100					\$189.0					2.3
101				\$197.0			\$462.0			2.3
102					\$205.0				\$481.0	2.3
103				\$214.0						2.2
104					\$223.0					2.2
105				\$232.0						2.1
106					\$242.0					2.0
107				\$252.0	\$252.0					1.9
108				\$263.0	\$263.0					1.8
109					\$274.0					1.8
110					\$285.0					1.7
113						\$501.0				1.8
114									\$522.0	1.8
117			\$297.0							1.8
122		\$309.0								1.7
142				\$322.0						1.6
143		\$335.0								1.6
145					\$349.0					1.5
146		\$363.0								1.4
147					\$378.0					1.4
148		\$394.0								1.3
161							\$543.0			1.4
162									\$565.0	1.4
166				\$410.0						1.4
167		\$427.0								1.3
172				\$445.0						1.3
173		\$463.0								1.2
178							\$588.0			1.3
179									\$612.0	1.3
182				\$482.0						1.3
183		\$502.0								1.2
190				\$523.0						1.2
191		\$544.0								1.1
304							\$649.0			1.2
305									\$688.0	1.3

Commentary: In Round 122, Globalive is outbid for the set-aside block at \$309,000 yet it does not bid any higher on the set-aside block. However, in Rounds 101 through 178, Globalive bids up to \$588,000 for the restricted block even though the set-aside block is available at a lower price. In Round 304, after 112 rounds of inactivity for both blocks, Globalive submits a bid of \$649,000 for the unrestricted block when the set-aside is available for a lower price. In the end, Globalive does not win either block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 345 - Medicine Hat/Brooks

Round	345d - 10 MHz Set-Aside			345e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	1380057 Alberta Ltd.	Globalive Wireless	Rich Telecom	1380057 Alberta Ltd.	Bell Mobility Inc.	Globalive Wireless	TELUS Comm. Inc.	
1	\$234.4						\$234.4	1.0
23					\$258.0			1.1
54				\$269.0				1.1
55					\$280.0			1.2
56				\$292.0				1.2
57					\$304.0			1.3
58				\$317.0				1.4
59					\$330.0			1.4
60				\$344.0				1.5
61					\$358.0			1.5
62				\$373.0				1.6
63					\$388.0			1.7
64				\$404.0				1.7
65					\$421.0			1.8
66				\$438.0				1.9
67					\$456.0			1.9
104						\$475.0		2.0
107					\$494.0			2.1
128						\$514.0		2.2
129					\$535.0			2.3
152		\$244.0						2.2
153	\$254.0							2.1
164				\$557.0				2.2
166					\$580.0			2.3
167				\$604.0				2.4
168					\$629.0			2.5
169						\$655.0		2.6
170					\$682.0			2.7
171			\$265.0	\$710.0		\$710.0		2.7
172	\$276.0				\$739.0			2.7
173			\$288.0					2.6
174	\$300.0							2.5
175			\$312.0					2.4
176	\$325.0							2.3
177			\$338.0					2.2
178	\$352.0							2.1
179			\$367.0					2.0
180	\$382.0					\$769.0		2.0
181			\$398.0		\$800.0			2.0
182	\$414.0					\$832.0		2.0
183			\$431.0		\$866.0			2.0
184	\$449.0							1.9
185			\$467.0					1.9
186	\$486.0							1.8
187			\$506.0					1.7
188	\$527.0							1.6
189			\$549.0					1.6
190	\$571.0							1.5

Commentary: In Round 153, Globalive is outbid for the set-aside block at \$254,000 yet it does not bid any higher on the set-aside. However, during Rounds 104 through 182, Globalive bids up to \$832,000 on the unrestricted block even though the identical set-aside block is available for half the price. In the end, Globalive does not win either auction.

Appendix D
Bids Out of Value in Late Rounds
Service Area 346 - Lethbridge

Round	346d - 10 MHz Set-Aside		346e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	1380057 Alberta Ltd.	Rich Telecom	1380057 Alberta Ltd.	Bell Mobility Inc.	Globalive Wireless	TELUS Comm. Inc.	
1	\$208.4					\$208.4	1.0
23				\$230.0			1.1
44					\$249.0		1.2
45				\$259.0			1.2
54			\$270.0				1.3
55				\$281.0			1.3
56			\$293.0				1.4
57				\$305.0			1.5
58			\$318.0				1.5
59				\$331.0			1.6
60			\$345.0				1.7
61				\$359.0			1.7
62			\$374.0				1.8
63				\$389.0			1.9
68			\$405.0				1.9
69				\$422.0			2.0
70			\$439.0				2.1
71				\$457.0			2.2
72			\$476.0				2.3
73				\$496.0			2.4
74			\$516.0				2.5
76				\$537.0			2.6
87			\$559.0				2.7
88				\$582.0			2.8
139			\$606.0				2.9
140				\$631.0	\$631.0		3.0
169			\$657.0				3.2
170				\$684.0			3.3
171		\$217.0					3.2
172	\$226.0				\$712.0		3.2
173		\$236.0		\$741.0			3.1
174	\$246.0				\$771.0		3.1
175		\$256.0		\$802.0			3.1
176	\$267.0				\$835.0		3.1
177		\$278.0		\$869.0			3.1
178	\$290.0						3.0
179		\$302.0					2.9
180	\$315.0						2.8
181		\$328.0					2.6
182	\$342.0						2.5
183		\$356.0					2.4
184	\$371.0						2.3
185		\$386.0					2.3
186	\$402.0						2.2
187		\$419.0					2.1
188	\$436.0						2.0
189		\$454.0					1.9
190	\$473.0						1.8

Commentary: In Rounds 44 through 176, Globalive bids up to \$835,000 for the unrestricted block when the set-aside block is available for a lower price. Globalive never submits a bid for the set-aside block. In the end, Globalive does not win either block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 348 - Red Deer

Round	348d			348e				Ratio of Unrestricted to Set-Aside High Bids
	1380057 Alberta Ltd.	Data & Audio Visual	Rich Telecom	1380057 Alberta Ltd.	Bell Mobility Inc.	Globalive Wireless	TELUS Comm. Inc.	
1	\$264.8						\$264.8	1.0
3					\$305.0			1.2
44						\$330.0		1.2
45		\$276.0			\$344.0			1.2
50				\$358.0				1.3
51					\$373.0			1.4
52				\$388.0				1.4
53					\$404.0			1.5
54				\$421.0				1.5
55					\$438.0			1.6
74				\$456.0				1.7
75					\$475.0			1.7
76	\$288.0			\$494.0				1.7
77		\$300.0			\$514.0			1.7
78	\$312.0							1.6
79		\$325.0						1.6
80	\$338.0							1.5
81		\$352.0						1.5
98						\$535.0		1.5
99					\$557.0			1.6
104						\$580.0		1.6
105					\$604.0			1.7
136						\$629.0		1.8
137					\$655.0			1.9
138						\$682.0		1.9
139					\$710.0			2.0
149						\$739.0		2.1
150					\$769.0			2.2
151						\$800.0		2.3
152					\$832.0			2.4
165						\$866.0		2.5
167					\$901.0			2.6
191			\$367.0					2.5
192		\$382.0						2.4
193			\$398.0					2.3
194		\$414.0						2.2
195			\$431.0					2.1
196		\$449.0						2.0
199			\$467.0					1.9
200		\$486.0						1.9
201			\$506.0					1.8
202		\$527.0						1.7
203			\$549.0					1.6
204		\$571.0						1.6
205			\$594.0					1.5
206		\$618.0						1.5
207			\$643.0					1.4
208		\$669.0						1.3
309						\$956.0		1.4
310					\$1,020.0			1.5

Commentary: In Rounds 44 through 165, Globalive bids up to \$866,000 for the unrestricted block even though the identical set-aside block is available at a lower price. In Round 309, after 100 rounds of inactivity for both blocks, Globalive submits a bid of \$956,000 for the unrestricted block when the identical set-aside block is available for about two-thirds the price. In the end, Globalive fails to win either block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 350 - Kootenays

Round	350d - 10 MHz Set-Aside		350e - 10 MHz Unrestricted				Ratio of Unrestricted to Set-Aside High Bids
	1380057 Alberta Ltd.	Globalive Wireless	1380057 Alberta Ltd.	Bell Mobility Inc.	Globalive Wireless	TELUS Comm. Inc.	
1	\$232.3					\$232.3	1.0
3				\$268.0			1.2
84			\$279.0				1.2
85				\$291.0			1.3
86			\$303.0		\$303.0		1.3
87				\$316.0			1.4
89			\$329.0				1.4
93				\$343.0			1.5
98					\$357.0		1.5
100				\$372.0			1.6
115					\$387.0		1.7
116				\$403.0			1.7
126			\$420.0				1.8
127				\$437.0			1.9
128			\$455.0		\$455.0		2.0
129			\$474.0	\$474.0			2.0
130			\$493.0				2.1
131				\$513.0			2.2
132			\$534.0				2.3
133				\$556.0			2.4
148			\$579.0				2.5
149				\$603.0			2.6
162			\$628.0				2.7
163				\$654.0			2.8
196					\$681.0		2.9
197				\$709.0			3.1
256		\$247.0					2.9
257	\$262.0						2.7
313					\$752.0		2.9
314				\$798.0			3.0

Commentary: In Round 257, Globalive is outbid for the set-aside block at \$262,000 and does not bid any higher for the set-aside block. However, between Rounds 86 and 196, it bids up to \$681,000 for the unrestricted block when the identical set-aside block is available for less than half the price. In Round 313, after 115 rounds of inactivity for the unrestricted block, Globalive bids \$752,000 for the unrestricted block when the identical set-aside block is available for about one-third the price. In the end, Globalive does not win either block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 353 - Victoria

Round	353d - 10 MHz Set-Aside				353e - 10 MHz Unrestricted						Ratio of Unrestricted to Set-Aside High Bids
	1380057 Alberta Ltd.	Data & Audio Visual	Globalive Wireless	Novus Wireless Inc.	1380057 Alberta Ltd.	Bell Mobility Inc.	Globalive Wireless	Novus Wireless Inc.	Rogers Comm. Inc.	TELUS Comm. Inc.	
1	\$680.4									\$680.4	1.0
4					\$783.0						1.2
5						\$901.0					1.3
17				\$749.0				\$992.0			1.3
18	\$824.0					\$1,100.0					1.3
19			\$907.0	\$907.0				\$1,210.0			1.3
20	\$998.0					\$1,340.0				\$1,340.0	1.3
21				\$1,100.0				\$1,480.0			1.3
22	\$1,210.0					\$1,630.0					1.3
38			\$1,310.0								1.2
39	\$1,420.0										1.1
44							\$1,770.0				1.2
45		\$1,480.0				\$1,850.0					1.3
75					\$1,930.0						1.3
76						\$2,010.0					1.4
77	\$1,540.0										1.3
78		\$1,610.0									1.2
80	\$1,680.0										1.2
81		\$1,750.0									1.1
100								\$2,100.0			1.2
102						\$2,190.0					1.3
112							\$2,280.0				1.3
114						\$2,380.0					1.4
149							\$2,480.0				1.4
150						\$2,580.0					1.5
151							\$2,690.0				1.5
152						\$2,800.0					1.6

Commentary: In Round 39, Globalive is outbid for the set-aside block at \$1,420,000 and does not bid any higher for the set-aside block. However, between Rounds 44 and 151 Globalive bids up to \$2,690,000 for the unrestricted block when the identical set-aside block is available at a lower price. In the end, Globalive does not win either block.

Appendix D
Bids Out of Value in Late Rounds
Service Area 356 - Thompson/Cariboo

Round	356d - 10 MHz Set-Aside		356e - 10 MHz Unrestricted					Ratio of Unrestricted to Set-Aside High Bids
	1380057 Alberta Ltd.	Rich Telecom	1380057 Alberta Ltd.	Bell Mobility Inc.	Globalive Wireless	9193-2962 Quebec Inc.	TELUS Comm. Inc.	
1	\$304.6						\$304.6	1.0
3				\$351.0				1.2
91					\$366.0			1.2
92				\$381.0				1.3
102					\$397.0			1.3
103				\$413.0				1.4
115					\$430.0			1.4
116				\$448.0				1.5
125						\$466.0		1.5
126					\$485.0			1.6
127						\$505.0		1.7
128					\$526.0			1.7
129				\$548.0				1.8
133			\$570.0					1.9
134				\$593.0				1.9
136					\$617.0			2.0
137				\$642.0				2.1
138					\$668.0			2.2
139				\$695.0				2.3
147					\$723.0			2.4
148				\$752.0				2.5
156					\$783.0			2.6
161				\$815.0				2.7
165					\$848.0			2.8
166				\$882.0				2.9
209		\$317.0						2.8
210	\$330.0							2.7
211		\$344.0						2.6
212	\$358.0							2.5
213		\$373.0						2.4
214	\$388.0							2.3
215		\$404.0						2.2
216	\$421.0							2.1
217		\$438.0						2.0
218	\$465.0							1.9
219		\$493.0						1.8
220	\$523.0							1.7
221		\$555.0						1.6
222	\$589.0							1.5
296					\$935.0			1.6
297				\$992.0				1.7

Commentary: Without ever bidding on the identical and less expensive set-aside, Globalive bids up to \$848,000 for the unrestricted block. Then in Round 296, after 129 rounds of inactivity for the unrestricted block, Globalive bids \$935,000 for the unrestricted block when the identical set-aside block is available for two-thirds the price. In Rounds 125 and 127, Quebec Inc. bids on the unrestricted block having never bid on the less expensive identical set-aside block. In the end, neither Globalive nor Quebec Inc. wins either auction.

Appendix D
Bids Out of Value in Late Rounds
Service Area 357 - Prince George

Round	357d - 10 MHz Set-Aside		357e - 10 MHz Unrestricted					Ratio of Unrestricted to Set-Aside High Bids
	1380057 Alberta Ltd.	Rich Telecom	1380057 Alberta Ltd.	Bell Mobility Inc.	Globalive Wireless	9193-2962 Quebec Inc.	TELUS Comm. Inc.	
1	\$349.6						\$349.6	1.0
3				\$403.0				1.2
78			\$420.0					1.2
79				\$437.0				1.3
113					\$455.0			1.3
114				\$474.0				1.4
125						\$493.0		1.4
129				\$513.0				1.5
130					\$534.0			1.5
131				\$556.0				1.6
133			\$579.0					1.7
134				\$603.0				1.7
136					\$628.0			1.8
137				\$654.0				1.9
138					\$681.0			1.9
139				\$709.0				2.0
162					\$738.0			2.1
163				\$768.0				2.2
164					\$799.0			2.3
166				\$831.0				2.4
177					\$865.0			2.5
178				\$900.0				2.6
223		\$371.0						2.4
224	\$394.0							2.3
225		\$418.0						2.2
226	\$444.0							2.0
227		\$471.0						1.9
228	\$500.0							1.8
229		\$530.0						1.7
230	\$562.0							1.6
307					\$954.0			1.7
308				\$1,020.0				1.8

Commentary: From Round 113 to 307, Globalive bids the price of the unrestricted block up to \$954,000 without ever bidding on the less expensive identical set-aside block which was available at about half the price. In Round 125, Quebec Inc. submits a single bid for the unrestricted block having never bid on the less expensive identical set-aside block. In the end, neither Globalive nor Quebec Inc. wins either auction.