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September 2, 1998

Ms. Blanca S. Bayo, Director
Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Docket No. 980696-TP

Dear Ms. Bayo:

Enclosed for filing in the above docket are the original and fifteen (15) copies of the Direct Testimonies of Carl H. Laemmler, Kent W. Dickerson, Brian K. Staihr and James W. Sichter on behalf of Sprint-Florida, Incorporated.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning the same to this writer.

Thank you for your assistance in this matter.

Sincerely,

Charles J. Rehwinkel

- ACK
- AFA *2*
- APP
- CAF
- CMU *Aug* CJR/th
- CTR Enclosures
- EAG
- LEG *2*
- LIN *stog*
- OPC
- RCH
- SEC *T*
- WAS
- OTH

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 DOCUMENT NUMBER-DATE
 FPSC-BUREAU OF RECORDS
 09599 SEP-2 88
 FPSC-RECORDS/REPORTING

Sichter DOCUMENT NUMBER-DATE 09592 SEP-2 88
 Staihr DOCUMENT NUMBER-DATE 09591 SEP-2 88
 Dickerson DOCUMENT NUMBER-DATE 09590 SEP-2 88
 FPSC-RECORDS/REPORTING

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
REBUTTAL TESTIMONY OF
KENT W. DICKERSON
ON BEHALF OF SPRINT-FLORIDA, INCORPORATED
DOCKET NO. 980696-TP
SEPTEMBER 2, 1998

Q. Please state your name, business address, employer and current position.

A. My name is Kent W. Dickerson. My business address is 4220 Shawnee Mission Parkway, Fairway Kansas 66205. I am presently employed as Director Cost Support for Sprint/United Management Company. I am testifying on behalf of Sprint - Florida (hereafter collectively referred to as "Sprint" or "Company").

Q. Are you the same Kent Dickerson who filed Direct Testimony in this proceeding on August 3, 1998?

A. Yes.

Q. What is the purpose of your Rebuttal Testimony?

A. I am responding to the Direct Testimonies of AT&T Communications and MCI witnesses Don J. Wood, and MCI witness James W. Wells, Jr. with respect to the validity of the HAI Model Version 5.0a ("HAI Model" or "HAI") default inputs to model forward looking costs; specifically, for Sprint's serving territories in Florida.

1 I am also responding to the Direct Testimony of Richard T. Guepe of AT&T
2 Communications of the Southern States, Inc and Joseph Gillan of The Florida Competitive
3 Carriers Association with respect to USF costs being equal to UNE costs.

4

5 Q. Are the HAI model national default inputs referenced in Mr. Wood's testimony
6 specific to Sprint's serving area within Florida or even to the state of Florida?

7 A. No. The HAI national default inputs are the same inputs promoted by MCI and AT&T for
8 all companies across all states.

9

10 Q. Why are Sprint's company specific inputs sponsored in your direct testimony
11 superior to the HAI national default inputs for calculating a reasonable forward
12 looking estimate of the cost of UNEs in Sprint's Florida serving area?

13 A. Because Sprint's inputs are based on the most objective and verifiable data available. In
14 many cases Sprint's inputs are based on the most recent actual material and labor cost
15 information available and are specific to Sprint's Florida operation. The use of actual
16 current cost information reflects the impacts of geography and regional labor costs within
17 the specific Florida serving areas.

18

19 Q. Does the use of inputs based on Sprint's most recent and actual experience with the
20 construction and maintenance of UNEs within Florida, constitute a use of embedded
21 cost and thereby violate the forward looking principle of TELRIC?

22 A. No it does not. Economic theory does not preclude the consideration of historic costs in a
23 forward looking economic cost study. Whether or not historic or current costs are a good
24 approximation of forward looking costs is an empirical issue. To argue otherwise (i.e., to
25 exclude any consideration of current costs in a forward looking study) leads to the absurd

1 conclusion that available empirical data should not be given any weight in a forward looking
2 cost study. This would preclude not only use of existing data, but all forecasts based on
3 historic data; in essence reducing forward looking cost studies to pure guesswork.

4 The term embedded costs implies the total historic book cost of a company. In contrast to
5 this, Sprint's inputs use the most currently available information as the best predictor of
6 forward looking costs and in most cases are based on 1997 and 1998 information. As I will
7 discuss in a moment there are clear deficiencies with the HAI inputs. However, at a high
8 level the approach described by Mr. Wells in his direct testimony and Exhibit JWV3
9 indicates that some portion of the Outside Plant (OSP) inputs were developed based on a
10 limited sample of contractor and vendor costs. Although inferior to Sprint's approach for
11 several reasons, the HAI inputs also use current vendor and contractor costs (i.e., current
12 cost data) to predict future costs. If the inputs selected are to have real world application, as
13 well as to allow an acceptable level of verification and objectivity, an approach that uses
14 current actual information is the only reasonable alternative.

15
16 **Q.** If the HAI national default inputs for OSP are based in part on some degree of
17 sampling of contractor prices, why then are they not acceptable for use in predicting
18 the forward looking costs of Sprint's Florida serving areas?

19 **A.** There are several reasons why the HAI national default inputs are not the best available
20 information for predicting the cost of constructing OSP within Florida. The most obvious
21 reason is that the inputs are the same national inputs promoted by the AT&T and MCI in
22 every state and are not specific to Florida, much less to Sprint's serving areas within the
23 state.
24

1 Exhibit JWW3 of Mr. Wells direct testimony contains the limited sampling information that
2 is purported to support the HAI national defaults for OSP construction costs. Page 1 of
3 JWW3 shows 16 data points for the cost of Bury Service Wire. Page 2 of 5 indicates 6 data
4 points for the labor costs associated with setting poles. Page 4 of 5 indicates a range of 13
5 to 21 data points for trench and backfill and trench and pavement restoral construction
6 activities. Finally page 5 of 5 indicates a range of 8 to 15 data points for the construction
7 activity of plowing cable.

8
9 As these inputs are national in scale and are promoted for use in all fifty states, the limited
10 data points equate to range of 58% to 84% probability that a given state is not even
11 represented in the sample. This assumes a best case scenario that each data point is a
12 unique state, which may not be the case

13
14 The range of values for the limited data points shown in exhibit JWW 3 suggests a high
15 degree of variability in the construction costs for OSP facilities. For example, Page 5 of 5 of
16 JWW3 shows a range of costs for plowing cable at 24 inches in rural areas from \$.40 to
17 \$1.50 per foot. The range of costs for 36 inch plowing depth ranges from \$.50 to \$2.00 in
18 rural areas. The same construction activity shows even greater variability for suburban areas
19 with ranges from \$.85 to \$3.50 for 24 inch depth and from \$.90 to \$4.00 for 36 inch depth.
20 Clearly contractors bidding on the same job can not compete with one another with bids
21 ranging from \$.40 to \$1.50 per foot. Rather the range of contractor prices likely reflect real
22 differences in regional labor costs, terrain conditions, local government restrictions on
23 blocking traffic flows and quality of construction issues such as trench width, depth and fill
24 material.

25

1 This is why the best predictor of the forward looking costs within a specific geographic area
2 is the market rate for that specific geographic area. Only Sprint's inputs reflect those local
3 market conditions.

4
5 Q. Starting on Page 19 of his direct testimony Mr. Wells' maintains the HAI model
6 national defaults are not based on the lowest default input value. Do you agree with his
7 discussion?

8 A. No I do not. While it is mathematically correct that the HAI national defaults are not based
9 on the absolute lowest value, they contain a definite and unexplained bias towards the lowest
10 value in each range. For example, on page 5 of 5 of exhibit JWV3, the default value for
11 plowing cable in rural areas to a 24 inch depth, is lower than 4 of 8 of the cost estimates
12 presented with the degree of understatement as ranging from 6% to 188%. The same input
13 for a 36 inch depth is lower than 12 of 15 of the cost estimates with the degree of
14 understatement ranging from 12.5% to 250%. The actual cost of plowing cable in Sprint's
15 Florida serving area in 1997 v as \$1.90, which is 138% greater than the HAI national default
16 value. This example illustrates the unsubstantiated downward bias contained in the HAI
17 national default inputs. Clearly in this example, Sprint's verifiable and actual cost of
18 plowing cable within Florida is the best available information for predicting forward looking
19 costs.

20
21 Q. The HAI Inputs Portfolio contained in Exhibit DJV-3 of Mr. Wood's direct testimony
22 describes numerous alleged "forward looking adjustments" to the 1996 ARMTS
23 expense data. Do these HAI national default adjustments and assumptions result in
24 reasonable estimates for forward looking expenses?

1 A. No they do not. Many areas of the HAI national default assumptions and expense inputs
2 result in unreasonable estimates for these necessary expenses. A simple comparison of the
3 HAI 5.0a results to Sprint's 1997 actual expenses demonstrates the grossly understated
4 nature of the cost estimates resulting from HAI 5.0a model and national default inputs.

5

6 Before describing several of the more serious areas of grossly understated expenses, I first
7 want to clarify that Sprint is not advocating that embedded book costs of operating expense
8 levels are automatically appropriate forward looking cost estimates. In fact Sprint's forward
9 looking cost estimates contain very material reductions to actual booked cost. Rather, as I
10 will now illustrate, the actual costs serve as useful, factual and objective information in order
11 to test the reasonableness of the results sponsored by Mr. Wood.

12 Exhibit KWD-1 demonstrates the unreasonably low levels of investments and expenses
13 resulting from HAI 5.0a and national default inputs. For example:

14 1. HAI 5.0a estimates general support expenses approximately 58% less than actual for
15 Sprint. This understatement is tied to an erroneous assumption which attributes
16 approximately 60% and 54% (HAI filed one cost study for Sprint-United and one for Sprint-
17 Central), of Motor Vehicles, Garage Work Equipment and Other Work Equipment to
18 corporate overheads. HAI then excludes this portion of those assets. Motor Vehicles,
19 Garage Work Equipment and Other Work Equipment is almost entirely utilized for the
20 construction and maintenance of outside plant facilities. The HAI model national default
21 assumption is unrealistic and dramatically understates the cost of these necessary assets.

22

23 2. HAI 5.0a estimates Plant Non-Specific expenses approximately 54% less than actual
24 for combined United and Central companies. Again this reduction is based on an
25 erroneous national default assumption that treats all companies in all states with the same

1 broad brush of alleged inefficiencies. This arbitrary and excessive reduction is not
2 supported by any data specific to Florida or to Sprint.

3

4 3. HAI 5.0a estimates digital switch maintenance expenses approximately 70% less than
5 actual for combined United and Central companies. The justification for this excessive
6 reduction comes from a 1993 New England Telephone incremental cost study. The AT&T
7 and MCI witnesses provide no support for the association of the outdated cost study to a
8 company the size of Sprint serving predominately rural territories in Florida.

9

10 4. HAI 5.0a estimates customer and corporate operations expenses approximately 80% less
11 than actual for combined United and Central companies.

12

13 Clearly the magnitude of expense reductions for alleged forward looking assumptions within
14 the HAI 5.0a model and national default inputs are unreasonable and must be rejected.

15

16 Q. The HAI Inputs Portfolio contained in Exhibit DJW-3 of Mr. Wood's direct testimony
17 describes the national default assumptions for the level of structure sharing with other
18 companies. Do these HAI national default assumptions reflect a reasonable estimate
19 of the forward looking level of cost sharing within Sprint's Florida serving area?

20 A. No. The HAI national default inputs dramatically overstate Sprint's cost sharing
21 opportunities associated with poles and trenching costs for buried cable and conduit. For
22 example, an analysis of Sprint's pole sharing arrangements within Florida indicates 31% of
23 the cost of poles is borne by Sprint. Based on this reality Sprint assumed a pole sharing
24 factor of 30% in the study filed in this docket. This contrasts with the HAI national default

1 assumption of 25%. This equates to 17% understatement of the cost of poles within the
2 HAI study.

3
4 Even more dramatic is the level of understatement associated with trenching buried cable
5 and conduit. The HAI inputs generally assume away 67% of the costs for trenching
6 buried cable and conduit. Sprint's actual experience indicates a much different reality,
7 where the real world issues of work coordination with other companies, safety concerns with
8 power cables and available space considerations make significant sharing of buried and
9 underground construction costs unlikely. Sprint's witness, Mr. Laemmli, discusses the real
10 world issues constraining structure sharing opportunities at length in his rebuttal testimony.

11
12 **Q. Are the HAI national default cable sizing factors supported by Mr. Wood's and Mr.
13 Wells' reflective of a functioning real world telecommunications network?**

14
15 **A. No. The HAI national default inputs fail to recognize that fill factors within actual working
16 networks are reflective of some cables that are completely full and other new cables that are
17 only partially full. At any given point in time, the un-utilized cable pairs provide the
18 inventory necessary to meet customer demand for new services within three working days
19 and to resolve 95% of trouble reports within twenty-four hours. This service standard within
20 Florida is likely continue into the future, thereby requiring maintenance of the necessary
21 cable pair inventory which enables Sprint to meet these service standards for both retail and
22 wholesale customers.**

23
24 The concept of a firm requiring inventory in order to run its business is not unique to
25 telecommunications nor is it a principle that can be ignored. Further any suggestion that it is

1 improper to include this cost in the ultimate price to current customers is totally contrary to
2 common business practices. The local hardware store must maintain inventory to satisfy
3 customer demand for products. A hardware store which is consistently out of nails will soon
4 drive its customers to shop elsewhere. The carry cost of an inventory of nails is most
5 certainly reflected in the current cost of nails to current customers. The practice of charging
6 current customers for the cost of inventory is an everyday occurrence across nearly all
7 business segments including telecommunications. This basic business reality is ignored in
8 the unrealistically high levels of distribution and feeder cable fill factors sponsored by Mr.
9 Wood's testimony. For this reason, the unrealistically low HAI default cable fill inputs must
10 be rejected in favor of the real world inputs sponsored in my direct testimony.

11
12 **Q.** In his testimony, Mr. Wells uses the ILEC pole cost data gathered from the FCC to
13 justify the proposed HAI default pole cost inputs. Do you agree?

14 **A.** No. The values for Sprint, as reported to the FCC, did not reflect all of the costs related to
15 the cost of pole materials and installation. For instance, the FCC reported material cost of
16 \$170 was a bare material cost and did not include related material overheads for items such
17 as shipping, taxes, and warehousing. The USF filed input of \$255 does include those
18 material overheads. Additionally, the FCC installation cost of \$100 as reported was simply
19 incorrect, since it was estimated instead of based on actual experience in placing poles in
20 Sprint's territory in Florida. The correct USF filed installation cost of \$294.00 was based on
21 an analysis of Sprint's recent experience placing a total of 526 poles in the state of Florida.

22
23 **Q.** The HAI Inputs Portfolio contained in Exhibit DJW-3 of Mr. Wood's direct testimony
24 describes the national default assumptions for Placement Fractions for both

1 Distribution and Feeder Cable. Do these HAI national default assumptions reflect a
2 reasonable estimate of Placement Fractions within Sprint's Florida serving area?
3 A. Yes. The HAI Input Portfolio is trying to fit a National square peg into a Florida specific
4 round hole. Sprint places buried or underground cable in approximately 88% of its
5 distribution cable, 97% of its feeder copper cable and 98% of its fiber feeder because it is
6 inexpensive to dig trenches and less expensive than aerial to maintain.
7
8 The surface structure of the Florida service territory consists of 76% of fine sand and 10% of
9 sandy loam. These terrain types allow for relatively inexpensive placement of buried cable.
10 The HAI maintenance factors show that the cost of maintaining aerial cable is 68% greater
11 (13.7% aerial vs. 8.2% buried) for the Central Telephone territory and 46% greater (6.3%
12 aerial vs. 4.3% buried) for the United Telephone territory than buried cable. The same cost
13 savings can be seen with the use of underground plant. The cost of maintaining aerial cable
14 is 244% greater (13.7% aerial vs. 4.0% underground) than underground for Central
15 Telephone and 291% greater (6.3% aerial vs. 1.6% underground) for United Telephone.
16
17 Greater aerial cable maintenance costs are attributable to the severe thunderstorms and
18 hurricanes that plague the area. For example, in 1985 Tallahassee was hit by hurricane
19 Katic causing power to be out for an extended period due to the power services reliance on
20 aerial plant, whereas telephone service remained almost entirely operational due to the
21 greater percentage of buried and underground cable.
22
23 HAI, however, has an extreme bias towards aerial cable. For example, the density zone of
24 201 - 650 (which contains the largest number of Sprint customers), the HAI input for aerial
25 distribution cable is 30% vs. Sprint's input of 12.4%. The HAI input for aerial copper feeder

1 is 40% vs. Sprint's input of 2.8%, and the HAI input for aerial fiber feeder is 30% vs. 2%
2 filed by Sprint. The HAI percent aerial plant input is subject to further overstatement due to
3 the HAI model "Buried Available for Shift" input. This input claims to look at a least cost
4 approach for build Buried or Aerial plant. Sprint's analysis has shown that this algorithm
5 does not switch plant from aerial to buried but only shifts from buried to aerial. Therefore
6 HAI will not model the overall least cost network in hurricane prone areas such as Florida.

7
8 HAI also does not consider the building codes of the Florida service area. Building codes
9 commonly require below ground telephone plant when building to new areas. For example,
10 Destin and Almonte Springs have issued ordinances prohibiting the use of aerial plant. This
11 forward looking trend will further reduce the need for aerial plant in the future.

12
13 HAI's bias towards aerial is not forward looking and is certainly not least cost. Sprint's
14 placement percentages represent a forward looking least cost method by reducing the amount
15 aerial cable being installed in the Florida service area. As discussed in Mr. Lacumli's
16 rebuttal testimony, Sprint's BCPM plant mix inputs reflect real world engineering decisions
17 resulting in the least cost network design consistent with real world issues such as terrain,
18 density and local building codes.

19 20 Switching Costs

21
22 **Q.** Are the HAI switch cost results reasonable?

23 **A.** No. As shown in Exhibit KWD - 1, the HAI switch investment results are only
24 approximately one half of that of the forward looking BCPM results using Sprint - Florida
25 specific inputs. It should be noted that this difference exists even though the forward looking

1 BCPM results are already 53% below Sprint's book cost for digital switching equipment.
2 The HAI results combine switches from several vendors and companies, and in effect creates
3 a cost function that is averaged nationally. Further, as the HAI national default switch cost
4 curve is based on a Northern Business Information study which focuses principally on the bell
5 companies and G.T.E., it is not at all reflective of switching costs for an independent
6 telephone company operation the size of Sprint's Local Telephone Division.
7

8 In contrast to the HAI national default inputs, Sprint's data, combined with the input options
9 reflected in BCPM, reflects the actual and current contractual arrangements between Sprint
10 and the switch vendor. Effective discounts received by LECs for switching equipment vary
11 significantly depending on the switch vendor, LEC size and the dollar amount of purchasing
12 commitments. To the extent the Northern Business Information study results include switch
13 purchases by RBOCs many times larger than Sprint they can not reasonably be applied to
14 Sprint - Florida

15
16 The BCPM, by contrast, reflects Sprint's specific purchase arrangements. Sprint-specific
17 vendor discounts can be input, ensuring that actual LEC price levels are reflected. Sprint's
18 BCPM results provide reasonable forward looking estimates of Basic Local Service switch
19 costs which are reflective of real world contracts, transactions, traffic patterns and costs.
20

21 Universal Service versus Unbundled Network Elements
22

23 Q. On Page nine of Mr. Guepe's testimony and on Page four of Mr. Gillan's
24 testimony they state that USF modeling should parallel UNE modeling. Do you agree
25 with this statement?

1 A. Yes, with some limited exceptions. For the most part the cost of loop, switch and transport
2 network elements that comprise basic local service are the same as when those network
3 elements are sold on an unbundled basis. Some necessary differences between USF and UNE
4 costs are:

- 5 1. UNE unbundled loop costs must reflect the cost of additional equipment necessary
6 to breakdown a common fiber path between the switch and the next generation
7 digital loop carrier device (NGDLC) so as to deliver single unbundled loops to a
8 new entrant competitor. This equipment is unnecessary for USF as a common path
9 can be used between the switch and NGDLC in that case.
- 10 2. UNE costs must reflect the removal of retail costs avoided when selling UNEs at a
11 wholesale level.
- 12 3. The usage cost of switching included in USF reflects only Local and EAS calling,
13 whereas UNE switch ports properly reflects the usage for all jurisdictions of calls.

14

15 Q. Does this conclude your testimony?

16 A. Yes.

SPRINT-FLORIDA INCORPORATED
Expense and Investment Comparison
Exhibit KWD - 1

Investment Comparison
(In Thousands)

	1997	1998	% Change	1999	% Change
Total Cable and Wire	1,723,204	1,489,148	-14%	1,049,081	-39%
Digital Circuit Equipment	586,868	458,016	-22%	271,036	-54%
Total Outside Plant	2,309,872	1,945,162	-16%	1,320,117	-43%
General Support Assets	301,957	155,002	-49%	124,013	-59%
Digital Switching	776,082	364,869	-53%	188,277	-76%
Other Investment	45,818	51,000	11%	14,106	-69%
Total Investment	3,433,729	2,818,123	-27%	1,646,513	-52%

Expense Comparison
(In Thousands)

	1997	1998	% Change	1999	% Change
Cable and Wire Costs	82,588	68,930	-16%	64,623	-22%
Digital Circuit Equipment	17,383	15,008	-14%	4,179	-76%
Total Outside Plant	99,949	81,938	-18%	68,802	-31%
General Support Assets	60,181	37,402	-38%	25,388	-58%
Plant Non-Specific	65,613	54,443	-17%	38,991	-41%
Digital Switching	38,914	18,243	-53%	11,590	-70%
Other Originating / Terminating	9,840	2,581	-73%	-	-100%
Total Investment Expenses	294,297	194,607	-34%	144,771	-51%
Customer & Corporate Operations	228,479	86,117	-62%	45,935	-80%
Depreciation	238,337	195,959	-18%	97,878	-59%
Total Company Expenses	761,113	476,683	-37%	288,584	-62%

Note: This a combination of HAI model runs. It includes one run each from Central Telephone as well as United Telephone.