

Microwave Path Data Sheet COMSEARCH

19700 Janelia Farm Boulevard, Ashburn, VA, 20147
(703)726-5729 www.comsearch.com

PCN Date: 01/26/2004
Job Number 040126COMSFB01

Previous PCN Date: 12/04/2001
RCN Number: 04012615

Administrative Information	CHESTERTOWN MD	DENTON MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign		WPUI979
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	MW -- Microwave Public Safety Pool	FXO -- Fixed

Site Information	CHESTERTOWN MD	DENTON MD
Latitude (NAD 83)	<u>39 ° 13' 37.3" N</u>	<u>38 ° 53' 20.0" N</u>
Longitude (NAD 83)	<u>76 ° 2' 52.6" W</u>	<u>75 ° 49' 29.9" W</u>
Ground Elevation (m/ft-AMSL)	<u>6.16 / 20.2</u>	<u>8.80 / 28.9</u>
Antenna Structure Registration #		<u>1227605</u>
Path Azimuth (°)	<u>152.720</u>	<u>332.861</u>
Path Length (km / miles)		<u>42.209 / 26.228</u>

Transmit Antenna	CHESTERTOWN MD	DENTON MD
Manufacturer	<u>52570A</u> ANDREW CORPORATION	<u>52570A</u> ANDREW CORPORATION
Model	<u>PAR8-65B RF</u>	<u>PAR8-65B RF</u>
Gain (dBi) / Beamwidth (°) / Tilt (°)	<u>41.3 / 1.30 / -0.14</u>	<u>41.3 / 1.30 / -0.15</u>
Centerline (m / ft - AGL)	<u>76.20 / 250.0</u>	<u>76.20 / 250.0</u>

Receive Antenna	Same As Transmit	
Manufacturer		
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Diversity Receive Antenna
Manufacturer
Model
Gain (dBi) / Beamwidth (°)
Centerline (m / ft - AGL)

Radio Information	CHESTERTOWN MD	DENTON MD
Manufacturer	<u>TEM52</u> HARRIS CORPORATION	<u>TEM52</u> HARRIS CORPORATION
Model	<u>HRS-CX-06G155M-H</u>	<u>HRS-CX-06G155M-H</u>
Model Description	<u>CONSTELLATION HIGH GAIN (6GHz, 155M)</u>	<u>CONSTELLATION HIGH GAIN (6GHz, 155M)</u>
Emission Designator / Modulation	<u>30M0D7W</u> <u>128 TCM</u>	<u>30M0D7W</u> <u>128 TCM</u>
Loading	<u>2016CH DIG 172560.000</u>	<u>2016CH DIG 172560.000</u>
Stability (%)	<u>0.0003</u>	<u>0.0003</u>
Power (dBm)	Nominal Coordinated Maximum <u>31.5</u>	Nominal Coordinated Maximum <u>31.5</u>
Received Level (dBm)	<u>-37.7</u>	<u>-37.7</u>
EIRP (dBm)	<u>67.7</u>	<u>67.6</u>
Fixed Loss: Tx / Common (dB)	<u>0.0 / 5.1</u>	<u>0.0 / 5.2</u>
Free Space Loss (dB)		<u>141.5</u>

Transmit Frequencies (MHz)	CHESTERTOWN MD	DENTON MD
	<u>6785.0000V(5)</u>	<u>6625.0000V(5)</u>

*30MHz bandwidth radios were coordinated on this path as there were Lower 6 GHz channels available for coordination.

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PCN Date: 03/04/2004
 Job Number 040304COMSFB01

New Path
 RCN Number: 04030408

Administrative Information

CENTRAL MD

SALISBURY MD

Status / License Basis PROPOSED / PRIMARY OPERATION
 Call Sign WPUJ383
 Licensee Code S10262
 Licensee Name MARYLAND, STATE OF MIEMSS COMMUNICATIONS
 Radio Service / Station Class MW -- Microwave Public Safety Pool

PROPOSED / PRIMARY OPERATION
 S10262
 MARYLAND, STATE OF MIEMSS COMMUNICATIONS
 FXO -- Fixed

Site Information

Latitude (NAD 83) 38 ° 13' 13.0" N
 Longitude (NAD 83) 75 ° 19' 55.0" W
 Ground Elevation (m/ft-AMSL) 6.00 / 19.7
 Antenna Structure Registration # 1223690
 Path Azimuth (°) 309.020
 Path Length (km / miles) 29.239 / 18.168

38 ° 23' 9.0" N
 75 ° 35' 31.0" W
 8.20 / 26.9
 1036645
 128.858

Transmit Antenna

A67730
 ANDREW CORPORATION
 UHX8-59W RF
 Gain (dBi) / Beamwidth (°) / Tilt (°) 41.7 / 1.40 / -0.09
 Centerline (m / ft - AGL) 60.96 / 200.0

A67730
 ANDREW CORPORATION
 UHX8-59W RF
 41.7 / 1.40 / -0.10
 60.96 / 200.0

Receive Antenna

Same As Transmit

Manufacturer
 Model
 Gain (dBi) / Beamwidth (°)
 Centerline (m / ft - AGL)

Diversity Receive Antenna

Manufacturer
 Model
 Gain (dBi) / Beamwidth (°)
 Centerline (m / ft - AGL)

Radio Information

TEM52
 HARRIS CORPORATION
 HRS-CX-06G155M-H
 CONSTELLATION HIGH GAIN (6GHz, 155M)
 Emission Designator / Modulation 30M0D7W 128 TCM
 Loading 2016CH DIG 172560.000
 Stability (%) 0.0003

Nominal	Coordinated	Maximum
	31.5	
	-32.5	
	64.7	

TEM52
 HARRIS CORPORATION
 HRS-CX-06G155M-H
 CONSTELLATION HIGH GAIN (6GHz, 155M)
 Emission Designator / Modulation 30M0D7W 128 TCM
 Loading 2016CH DIG 172560.000
 Stability (%) 0.0003

Nominal	Coordinated	Maximum
	31.5	
	-36.5	
	68.6	

Fixed Loss: Tx / Common (dB) 4.0 / 4.5
 Free Space Loss (dB) 138.3

0.0 / 4.6

Transmit Frequencies (MHz) 6645.0000H(7)

6805.0000H(7)

*30MHz bandwidth radio was used on this system as there were no lower 6 GHz channels available

Microwave Path Data Sheet

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PCN Date: 03/04/2004
 Job Number 040304COMSFB01

New Path
 RCN Number: 04030407

Administrative Information	SALISBURY MD	BUCKTOWN MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign		
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	CF -- Point-to-Point Microwave, Common Carrier	FXO -- Fixed

Site Information		
Latitude (NAD 83)	38 ° 23' 9.0" N	38 ° 27' 34.0" N
Longitude (NAD 83)	75 ° 35' 31.0" W	76 ° 2' 34.0" W
Ground Elevation (m/ft-AMSL)	8.20 / 26.9	1.50 / 4.9
Antenna Structure Registration #	1036645	1036622
Path Azimuth (°)	281.865	101.585
Path Length (km / miles)	40.209 / 24.985	

Transmit Antenna		
Manufacturer	A67730	A67730
Model	ANDREW CORPORATION	ANDREW CORPORATION
Gain (dBi) / Beamwidth (°) / Tilt (°)	UHX8-59W RF	UHX8-59W RF
Centerline (m / ft - AGL)	41.7 / 1.40 / -0.14	41.7 / 1.40 / -0.13
	67.06 / 220.0	68.58 / 225.0

Receive Antenna	Same As Transmit		
Manufacturer			
Model			
Gain (dBi) / Beamwidth (°)			
Centerline (m / ft - AGL)			

Diversity Receive Antenna			
Manufacturer			
Model			
Gain (dBi) / Beamwidth (°)			
Centerline (m / ft - AGL)			

Radio Information		
Manufacturer	TEM52	TEM52
Model	HARRIS CORPORATION	HARRIS CORPORATION
Model Description	HRS-CX-06G155M-H	HRS-CX-06G155M-H
Emission Designator / Modulation	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)
Loading	30M0D7W 128 TCM	30M0D7W 128 TCM
Stability (%)	2016CH DIG 172560.000	2016CH DIG 172560.000
	0.0003	0.0003
	Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm)	31.5	31.5
Received Level (dBm)	-39.5	-41.5
EIRP (dBm)	61.7	63.7
Fixed Loss: Tx / Common (dB)	7.0 / 4.5	5.0 / 4.5
Free Space Loss (dB)	140.4	

Transmit Frequencies (MHz)		
	5945.2000H(11T)	6226.8900H(22T)

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PCN Date: 03/04/2004
Job Number 040304COMSFB01

New Path
RCN Number: 04030407

Administrative Information	CAMBRIDGE MD	EASTON MSP MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign		
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	CF - Point-to-Point Microwave, Common Carrier	FXO -- Fixed

Site Information	CAMBRIDGE MD	EASTON MSP MD
Latitude (NAD 83)	38 ° 32' 51.0" N	38 ° 44' 33.7" N
Longitude (NAD 83)	76 ° 3' 33.0" W	76 ° 3' 58.0" W
Ground Elevation (m/ft-AMSL)	6.10 / 20.0	12.50 / 41.0
Antenna Structure Registration #		
Path Azimuth (°)	358.404	178.400
Path Length (km / miles)		21.676 / 13.469

Transmit Antenna	CAMBRIDGE MD	EASTON MSP MD
Manufacturer	52572A	52572A
Model	ANDREW CORPORATION	ANDREW CORPORATION
Gain (dBi) / Beamwidth (°) / Tilt (°)	PAR8-59W RF	PAR8-59W RF
Centerline (m / ft - AGL)	41.0 / 1.40 / 0.00	41.0 / 1.40 / -0.15
	38.10 / 125.0	60.96 / 200.0

Receive Antenna	Same As Transmit
Manufacturer	
Model	
Gain (dBi) / Beamwidth (°)	
Centerline (m / ft - AGL)	

Diversity Receive Antenna
Manufacturer
Model
Gain (dBi) / Beamwidth (°)
Centerline (m / ft - AGL)

Radio Information	CAMBRIDGE MD	EASTON MSP MD
Manufacturer	TEM52	TEM52
Model	HARRIS CORPORATION	HARRIS CORPORATION
Model Description	HRS-CX-06G155M-H	HRS-CX-06G155M-H
Emission Designator / Modulation	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)
Loading	30M0D7W 128 TCM	30M0D7W 128 TCM
Stability (%)	2016CH DIG 172560.000	2016CH DIG 172560.000
	0.0003	0.0003
	Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm)	31.5	31.5
Received Level (dBm)	-33.8	-32.8
EIRP (dBm)	65.7	63.0
Fixed Loss: Tx / Common (dB)	4.0 / 2.8	5.0 / 4.5
Free Space Loss (dB)		135.0

Transmit Frequencies (MHz)	CAMBRIDGE MD	EASTON MSP MD
	6093.4500V(16T)	6345.4900V(26T)

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PCN Date: 03/04/2004

Job Number 040304COMSFB01

New Path

RCN Number: 04030407

Administrative Information	EASTON MSP MD	PAROLE MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign		
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	CF - Point-to-Point Microwave, Common Carrier	FXO -- Fixed

Site Information

Latitude (NAD 83)	38 ° 44' 33.7" N	38 ° 59' 10.0" N
Longitude (NAD 83)	76 ° 3' 58.0" W	76 ° 31' 59.0" W
Ground Elevation (m/ft-AMSL)	12.50 / 41.0	23.99 / 78.7
Antenna Structure Registration #		
Path Azimuth (°)	303.840	123.547
Path Length (km / miles)	48.710 / 30.267	

Transmit Antenna

Manufacturer	52572A ANDREW CORPORATION	52572A ANDREW CORPORATION
Model	PAR8-59W RF	PAR8-59W RF
Gain (dBi) / Beamwidth (°) / Tilt (°)	41.0 / 1.40 / -0.16	41.0 / 1.40 / -0.17
Centerline (m / ft - AGL)	67.06 / 220.0	60.96 / 200.0

Receive Antenna

Same As Transmit

Manufacturer	
Model	
Gain (dBi) / Beamwidth (°)	
Centerline (m / ft - AGL)	

Diversity Receive Antenna

Manufacturer	
Model	
Gain (dBi) / Beamwidth (°)	
Centerline (m / ft - AGL)	

Radio Information

Radio Information	TEMC52	TEMC52
Manufacturer	HARRIS CORPORATION	HARRIS CORPORATION
Model	HRS-CX-06G155M-H	HRS-CX-06G155M-H
Model Description	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)
Emission Designator / Modulation	30M0D7W 128 TCM	30M0D7W 128 TCM
Loading	2016CH DIG 172560.000	2016CH DIG 172560.000
Stability (%)	0.0003	0.0003
	Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm)	31.5	31.5
Received Level (dBm)	-37.7	-37.7
EIRP (dBm)	67.7	68.1
Fixed Loss: Tx / Common (dB)	0.0 / 4.8	0.0 / 4.4
Free Space Loss (dB)		142.0

Transmit Frequencies (MHz) 6226.8900V(22T)

5974.8500V(12T)

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PCN Date: 03/04/2004
 Job Number 040304COMSFB01

New Path
 RCN Number: 04030407

Administrative Information	BUCKTOWN MD	CAMBRIDGE MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign		
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	CF -- Point-to-Point Microwave, Common Carrier	FXO -- Fixed

Site Information	BUCKTOWN MD	CAMBRIDGE MD
Latitude (NAD 83)	38 ° 27' 34.0" N	38 ° 32' 51.0" N
Longitude (NAD 83)	76 ° 2' 34.0" W	76 ° 3' 33.0" W
Ground Elevation (m/ft-AMSL)	1.52 / 5.0	6.10 / 20.0
Antenna Structure Registration #		
Path Azimuth (°)	351.684	171.674
Path Length (km / miles)		9.878 / 6.138

Transmit Antenna	BUCKTOWN MD	CAMBRIDGE MD
Manufacturer	ANDREW CORPORATION	ANDREW CORPORATION
Model	PAR6-59W RF	PAR6-59W RF
Gain (dBi) / Beamwidth (°) / Tilt (°)	38.7 / 1.80 / -0.05	38.7 / 1.80 / -0.02
Centerline (m / ft - AGL)	38.10 / 125.0	30.48 / 100.0

Receive Antenna	BUCKTOWN MD	CAMBRIDGE MD
Manufacturer	Same As Transmit	
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Diversity Receive Antenna	BUCKTOWN MD	CAMBRIDGE MD
Manufacturer		
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Radio Information	BUCKTOWN MD	CAMBRIDGE MD
Manufacturer	HARRIS CORPORATION	HARRIS CORPORATION
Model	HRS-CX-06G155M-H	HRS-CX-06G155M-H
Model Description	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)
Emission Designator / Modulation	30M0D7W 128 TCM	30M0D7W 128 TCM
Loading	2016CH DIG 172560.000	2016CH DIG 172560.000
Stability (%)	0.0003	0.0003
	Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm)	31.5	31.5
Received Level (dBm)	-25.8	-25.8
EIRP (dBm)	66.7	67.2
Fixed Loss: Tx / Common (dB)	0.0 / 3.5	0.0 / 3.0
Free Space Loss (dB)		128.2

Transmit Frequencies (MHz)	BUCKTOWN MD	CAMBRIDGE MD
	6286.1900V(24T)	6034.1500V(14T)

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PCN Date: 03/04/2004
Job Number 040304COMSFB01

New Path
RCN Number: 04030407

Administrative Information	EASTON MSP MD	SAFETY DR MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign		
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	CF -- Point-to-Point Microwave, Common Carrier	FXO -- Fixed

Site Information		
Latitude (NAD 83)	38 ° 44' 33.7" N	39 ° 1' 50.6" N
Longitude (NAD 83)	76 ° 3' 58.0" W	76 ° 1' 9.5" W
Ground Elevation (m/ft-AMSL)	12.50 / 41.0	22.89 / 75.1
Antenna Structure Registration #		
Path Azimuth (°)	7.224	187.253
Path Length (km / miles)		32.231 / 20.027

Transmit Antenna		
Manufacturer	52572A	52572A
Model	ANDREW CORPORATION	ANDREW CORPORATION
Gain (dBi) / Beamwidth (°) / Tilt (°)	PAR8-59W RF	PAR8-59W RF
Centerline (m / ft - AGL)	41.0 / 1.40 / -0.09	41.0 / 1.40 / -0.13
	60.96 / 200.0	60.96 / 200.0

Receive Antenna	Same As Transmit	
Manufacturer		
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Diversity Receive Antenna		
Manufacturer		
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Radio Information	TEM52	TEM52
Manufacturer	HARRIS CORPORATION	HARRIS CORPORATION
Model	HRS-CX-06G155M-H	HRS-CX-06G155M-H
Model Description	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)
Emission Designator / Modulation	30M0D7W 128 TCM	30M0D7W 128 TCM
Loading	2016CH DIG 172560.000	2016CH DIG 172560.000
Stability (%)	0.0003	0.0003
	Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm)	31.5	31.5
Received Level (dBm)	-33.9	-33.9
EIRP (dBm)	68.0	68.0
Fixed Loss: Tx / Common (dB)	0.0 / 4.5	0.0 / 4.5
Free Space Loss (dB)		138.4

Transmit Frequencies (MHz)	6404.7900V(28T)	6152.7500V(18T)

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(703)726-5729 www.comsearch.comPCN Date: 03/04/2004
Job Number 040304COMSFB01New Path
RCN Number: 04030407

Administrative Information	SAFETY DR MD	CHESTERTOWN MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign		
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	CF - Point-to-Point Microwave, Common Carrier	FXO -- Fixed

Site Information

Latitude (NAD 83)	39 ° 1' 50.6" N	39 ° 13' 37.3" N
Longitude (NAD 83)	76 ° 1' 9.5" W	76 ° 2' 52.6" W
Ground Elevation (m/ft-AMSL)	22.89 / 75.1	6.16 / 20.2
Antenna Structure Registration #		
Path Azimuth (°)	353.526	173.508
Path Length (km / miles)		21.933 / 13.629

Transmit Antenna	52572A	52572A
Manufacturer	ANDREW CORPORATION	ANDREW CORPORATION
Model	PAR8-59W RF	PAR8-59W RF
Gain (dBi) / Beamwidth (°) / Tilt (°)	41.0 / 1.40 / -0.12	41.0 / 1.40 / -0.03
Centerline (m / ft - AGL)	60.96 / 200.0	60.96 / 200.0

Receive Antenna	Same As Transmit
Manufacturer	
Model	
Gain (dBi) / Beamwidth (°)	
Centerline (m / ft - AGL)	

Diversity Receive Antenna

Manufacturer	
Model	
Gain (dBi) / Beamwidth (°)	
Centerline (m / ft - AGL)	

Radio Information	TEMC52	TEMC52
Manufacturer	HARRIS CORPORATION	HARRIS CORPORATION
Model	HRS-CX-06G155M-H	HRS-CX-06G155M-H
Model Description	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)
Emission Designator / Modulation	30M0D7W 128 TCM	30M0D7W 128 TCM
Loading	2016CH DIG 172560.000	2016CH DIG 172560.000
Stability (%)	0.0003	0.0003
	Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm)	31.5	31.5
Received Level (dBm)	-30.6	-30.6
EIRP (dBm)	68.0	68.0
Fixed Loss: Tx / Common (dB)	0.0 / 4.5	0.0 / 4.5
Free Space Loss (dB)		135.1

Transmit Frequencies (MHz)	6226.8900V(22T)	5974.8500V(12T)
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(703)726-5729 www.comsearch.comPCN Date: 01/26/2004
Job Number 040126COMSFB01New Path
RCN Number: 04012614

Administrative Information	JFK-195 MD	CHESTERTOWN MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign		
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	CF - Point-to-Point Microwave, Common Carrier	FXO - Fixed

Site Information	JFK-195 MD	CHESTERTOWN MD
Latitude (NAD 83)	39 ° 35' 22.3" N	39 ° 13' 37.3" N
Longitude (NAD 83)	76 ° 4' 24.3" W	76 ° 2' 52.6" W
Ground Elevation (m/ft-AMSL)	104.70 / 343.5	6.16 / 20.2
Antenna Structure Registration #	1218217	
Path Azimuth (°)	176.872	356.888
Path Length (km / miles)	40.305 / 25.044	

Transmit Antenna	JFK-195 MD	CHESTERTOWN MD
Manufacturer	52572A ANDREW CORPORATION	52572A ANDREW CORPORATION
Model	PAR8-59W RF	PAR8-59W RF
Gain (dBi) / Beamwidth (°) / Tilt (°)	41.0 / 1.40 / -0.23	41.0 / 1.40 / -0.04
Centerline (m / ft - AGL)	30.48 / 100.0	60.96 / 200.0

Receive Antenna	JFK-195 MD	CHESTERTOWN MD
Manufacturer	Same As Transmit	
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Diversity Receive Antenna	JFK-195 MD	CHESTERTOWN MD
Manufacturer		
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Radio Information	JFK-195 MD	CHESTERTOWN MD
Manufacturer	TEMC52 HARRIS CORPORATION	TEMC52 HARRIS CORPORATION
Model	HRS-CX-06G155M-H	HRS-CX-06G155M-H
Model Description	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)
Emission Designator / Modulation	30M0D7W 128 TCM	30M0D7W 128 TCM
Loading	2016CH DIG 172560.000	2016CH DIG 172560.000
Stability (%)	0.0003	0.0003
Power (dBm)	Nominal 31.5	Nominal 31.5
Received Level (dBm)	-34.9	-34.9
EIRP (dBm)	69.5	67.5
Fixed Loss: Tx / Common (dB)	0.0 / 3.0	0.0 / 5.0
Free Space Loss (dB)		140.4

Transmit Frequencies (MHz)	JFK-195 MD	CHESTERTOWN MD
	6197.2400V(21T)	5945.2000V(11T)

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19700 Janelia Farm Boulevard, Ashburn, VA, 20147

(703)726-5729 www.comsearch.com

PCN Date: 01/26/2004

Job Number 040126COMSFB01

New Path

RCN Number: 04012614

Administrative Information		VIENNA MD	PRINCE ANNE MD
Status / License Basis		PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign			
Licensee Code	S10262	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	CF -- Point-to-Point Microwave, Common Carrier	FXO -- Fixed	

Site Information

Latitude (NAD 83)	38 ° 29' 55.7" N	38 ° 9' 37.0" N
Longitude (NAD 83)	75 ° 50' 52.4" W	75 ° 41' 31.5" W
Ground Elevation (m/ft-AMSL)	2.40 / 7.9	4.60 / 15.1
Antenna Structure Registration #	1204969	1225042
Path Azimuth (°)	160.023	340.120
Path Length (km / miles)		39.970 / 24.836

Transmit Antenna	52572A	52572A
Manufacturer	ANDREW CORPORATION	ANDREW CORPORATION
Model	PAR8-59W RF	PAR8-59W RF
Gain (dBi) / Beamwidth (°) / Tilt (°)	41.0 / 1.40 / -0.13	41.0 / 1.40 / -0.14
Centerline (m / ft - AGL)	67.06 / 220.0	67.06 / 220.0

Receive Antenna Same As Transmit

Manufacturer	
Model	
Gain (dBi) / Beamwidth (°)	
Centerline (m / ft - AGL)	

Diversity Receive Antenna

Manufacturer	
Model	
Gain (dBi) / Beamwidth (°)	
Centerline (m / ft - AGL)	

Radio Information	TEMC52	TEMC52
Manufacturer	HARRIS CORPORATION	HARRIS CORPORATION
Model	HRS-CX-06G155M-H	HRS-CX-06G155M-H
Model Description	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)
Emission Designator / Modulation	30M0D7W 128 TCM	30M0D7W 128 TCM
Loading	2016CH DIG 172560.000	2016CH DIG 172560.000
Stability (%)	0.0003	0.0003
	Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm)	31.5	31.5
Received Level (dBm)	-36.7	-36.7
EIRP (dBm)	67.6	67.5
Fixed Loss: Tx / Common (dB)	0.0 / 4.9	0.0 / 5.0
Free Space Loss (dB)		140.3

Transmit Frequencies (MHz)	5974.8500V(12T)	6226.8900V(22T)
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Administrative Information	PRINCE ANNE MD	CENTRAL MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign		
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	CF -- Point-to-Point Microwave, Common Carrier	FXO -- Fixed

Site Information	PRINCE ANNE MD	CENTRAL MD
Latitude (NAD 83)	38 ° 9' 37.0" N	38 ° 13' 13.0" N
Longitude (NAD 83)	75 ° 41' 31.5" W	75 ° 19' 55.0" W
Ground Elevation (m/ft-AMSL)	4.60 / 15.1	6.00 / 19.7
Antenna Structure Registration #	1225042	1223690
Path Azimuth (°)	77.969	258.192
Path Length (km / miles)		32.246 / 20.037

Transmit Antenna	PRINCE ANNE MD	CENTRAL MD
Manufacturer	ANDREW CORPORATION	ANDREW CORPORATION
Model	PAR8-59W RF	PAR8-59W RF
Gain (dBi) / Beamwidth (°) / Tilt (°)	41.0 / 1.40 / -0.10	41.0 / 1.40 / -0.12
Centerline (m / ft - AGL)	60.96 / 200.0	67.06 / 220.0

Receive Antenna	PRINCE ANNE MD	CENTRAL MD
Manufacturer	Same As Transmit	
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Diversity Receive Antenna	PRINCE ANNE MD	CENTRAL MD
Manufacturer		
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Radio Information	PRINCE ANNE MD	CENTRAL MD	
Manufacturer	HARRIS CORPORATION	HARRIS CORPORATION	
Model	HRS-CX-06G155M-H	HRS-CX-06G155M-H	
Model Description	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)	
Emission Designator / Modulation	30M0D7W 128 TCM	30M0D7W 128 TCM	
Loading	2016CH DIG 172560.000	2016CH DIG 172560.000	
Stability (%)	0.0003	0.0003	
	Nominal	Coordinated	Maximum
Power (dBm)		31.5	
Received Level (dBm)		-33.2	
EIRP (dBm)		68.5	
Fixed Loss: Tx / Common (dB)	0.0 / 4.0		0.0 / 4.3
Free Space Loss (dB)			138.4

Transmit Frequencies (MHz)	PRINCE ANNE MD	CENTRAL MD
	6315.8400V(25T)	6063.8000V(15T)

Microwave Path Data Sheet

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PCN Date: 01/26/2004
Job Number 040126COMSFB01

New Path
RCN Number: 04012615

Administrative Information	DENTON MD	VIENNA MD
Status / License Basis	PROPOSED / PRIMARY OPERATION	PROPOSED / PRIMARY OPERATION
Call Sign	WPUI979	WPUH593
Licensee Code	S10262	S10262
Licensee Name	MARYLAND, STATE OF MIEMSS COMMUNICATIONS	MARYLAND, STATE OF MIEMSS COMMUNICATIONS
Radio Service / Station Class	MW -- Microwave Public Safety Pool	FXO -- Fixed

Site Information		
Latitude (NAD 83)	38 ° 53' 20.0" N	38 ° 29' 55.7" N
Longitude (NAD 83)	75 ° 49' 29.9" W	75 ° 50' 52.4" W
Ground Elevation (m/ft-AMSL)	8.80 / 28.9	2.41 / 7.9
Antenna Structure Registration #	1227605	1204969
Path Azimuth (°)	182.643	2.629
Path Length (km / miles)	43.348 / 26.935	

Transmit Antenna	52570A	52570A
Manufacturer	ANDREW CORPORATION	ANDREW CORPORATION
Model	PAR8-65B RF	PAR8-65B RF
Gain (dBi) / Beamwidth (°) / Tilt (°)	41.3 / 1.30 / -0.15	41.3 / 1.30 / -0.14
Centerline (m / ft - AGL)	76.20 / 250.0	76.20 / 250.0

Receive Antenna	Same As Transmit	
Manufacturer		
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Diversity Receive Antenna		
Manufacturer		
Model		
Gain (dBi) / Beamwidth (°)		
Centerline (m / ft - AGL)		

Radio Information	TEM52	TEM52
Manufacturer	HARRIS CORPORATION	HARRIS CORPORATION
Model	HRS-CX-06G155M-H	HRS-CX-06G155M-H
Model Description	CONSTELLATION HIGH GAIN (6GHz, 155M)	CONSTELLATION HIGH GAIN (6GHz, 155M)
Emission Designator / Modulation	30M0D7W 128 TCM	30M0D7W 128 TCM
Loading	2016CH DIG 172560.000	2016CH DIG 172560.000
Stability (%)	0.0003	0.0003
	Nominal Coordinated Maximum	Nominal Coordinated Maximum
Power (dBm)	31.5	
Received Level (dBm)	-38.0	
EIRP (dBm)	67.6	
Fixed Loss: Tx / Common (dB)	0.0 / 5.2	
Free Space Loss (dB)	141.7	

Transmit Frequencies (MHz)	6685.0000V(11)	6845.0000V(11)
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*30MHz bandwidth radios were coordinated on this as there were no Lower 6 GHz channels available for coordination.