



(REFERENCE COPY - Not for submission)

# FCC Form 399: Reimbursement Request

Facility **43169** | Service: **DTV** | Call **WMAW-TV** | Channel: **28 (UHF)**  
ID: | Sign:  
File **000026656**  
Number:  
FRN: **0001739002** | Date **07/07**  
Submitted: **/2017**

## Applicant Information

### Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
<b>MISSISSIPPI AUTHORITY FOR EDUCATIONAL TV</b>	Scott Colwell 3825 RIDGEWOOD ROAD JACKSON, MS 39211 United States	+1 (601) 432- 6367	Scott. Colwell@mpbonline. org	Government Entity

## Reimbursement Contact Information

### Reimbursement Contact Name and Information

Applicant	Address	Phone	Email
[Confidential]			

## Preparer Contact Information

### Preparer Contact Name and Information

Applicant	Address	Phone	Email
<b>Robert Gehman</b> <i>ConsultingEngineer</i> <i>Kessler and Gehman</i> <i>Associates, Inc.</i>	Robert Gehman 507 NW 60 Street Suite D Gainesville, FL 32607 United States	+1 (352) 332-3157	bob@kesslerandgehman. com

**Broadcaster  
Information  
and  
Transition  
Plan**

Question	Response
Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	No
Briefly describe transition plan	Replace transmitter using existing antenna and line.

**Transmitters**

Section	Question	Response
<b>Transmitter Related Expenses</b>	Do you have transmitter related expenses?	Yes

**Primary  
Transmitter**

**Existing Transmitter Information**

<b>Section</b>	<b>Question</b>	<b>Response</b>
<b>Existing Transmitter Description</b>	Type of change	Purchase New
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is this transmitter currently shared with another station?	No
	Is this transmitter currently in operating condition?	Yes
<b>Existing Transmitter Manufacturer and Type</b>	Manufacturer	
	Model	SIGMA CD3200P2
	Year	2010
	Type	Inductive Output Tube
	IOT Power Type	Two
	Power Capacity	46 kW

**Primary  
Transmitter**

**New Transmitter Costs**

Section	Question	Response
<b>New Transmitter</b>	Use	Primary (Main)
	Change Type	Purchase New
	Is this a request for upgraded equipment?	No
	Manufacturer	
	Model	TBD
	Transmitter Type	Inductive Output Tube
	IOT Power Type	Two
	Power capacity	35.7 kW
	Justification for New Transmitter	The manufacturer of the existing transmitter advises that the transmitter cannot be re-tuned to the assigned channel. See attachment.

**Primary  
Transmitter**

**Other Transmitter Costs**

Section	Question	Response
<b>Electrical Service</b>	Service Entrance (3 phases 800A 208V)	No
	Switchgear (industrial 800 amp)	Yes
	Transformer (480V)	Yes
	Power	150 kVA
	Rigid Conduit and Wiring	Yes

	Size	3 inches
	Length	100.0 feet
	Other Electrical Service	No
	Description	N/A
<b>HVAC Service</b>	Does the replacement transmitter require HVAC Service?	No
	Type	N/A
	Size	N/A
	Other Size	N/A
<b>Transmitter Building Addition/Modification or Leasehold Improvement</b>	Does the Transmitter Building require an addition, modification, other leasehold improvement?	No
	Size	N/A
<b>Channel 14 Costs</b>	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

**Primary Transmitter**

**Other Transmitter Cost Not Listed**

Name	Description
<b>Additional Interior RF System</b>	Interior RF System Existing Transmitter to Interim Transmission line

**Antennas**

Section	Question	Response
<b>Antenna Related Expenses</b>	Do you have antenna related expenses?	Yes

**Primary  
Antenna****Existing Antenna Information**

Section	Question	Response
<b>Existing Antenna Description</b>	Type of change	Retune Existing
	Antenna Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing antenna shared with another station or stations?	No
	Is the existing antenna directional?	No
	Is antenna in operating condition?	Yes
	Is antenna located on or in close proximity to an antenna farm?	No
<b>Existing Antenna Manufacturer and Type</b>	Class	Full Power
	Mounting	Top Mount
	Antenna position in stack	Not in Stack
	Polarization	Horizontal
	Type	Broadband Panel
	Number of Stations Supported	1
	Number of Panels	56
	Design power capacity in use	60.0 %
	Lower Limit	470.00 MHz

Upper Limit	692.00 MHz
Other Antenna Type	N/A
ERP: (Effective Radiated Power)	880.0 kW
Manufacturer	Dielectric
Model	TUF-O4-14 /56H-1-T
Year	2007

**Primary  
Antenna**

**Adjustment to Existing Antenna**

Section	Question	Response
<b>Sweep Test of Existing Antenna</b>	Do you need a sweep test of existing antenna?	Yes

**Primary  
Antenna**

**Other Antenna Costs**

Section	Question	Response
<b>Combiner for Shared Antenna</b>	Do you need a Combiner for a Shared Antenna?	No
	Type	
	Number of channels supported	N/A
	Frequencies of channels supported	N/A
	Frequency	

**Primary  
Antenna**

**Other Antenna Cost Not Listed**

Information not provided.

Transmission Line	Section	Question	Response
	Transmission Line Related Expenses		Do you have transmission line related expenses?

**Primary Transmission Line**  
**Existing Transmission Line**

Section	Question	Response
Existing Transmission Line Description	Type of change	Utilize Existing
	Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Owner	N/A
	Site	N/A
	Is the existing transmission line shared with another station or stations?	No
	Is Transmission Line in operating condition?	Yes
Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
	Type	Rigid
	Diameter	6 1/8 inches
	Other Diameter	N/A
	Segment Length	Broadband
	Other Segment Length	N/A
	Number of parallel runs	1
	Length	1100 feet per run



**Primary  
Transmission  
Line**      **Other Transmission Line Expenses Not Listed**

Name	Description
<b>Sweep Line</b>	Sweep line to verify performance on the assigned channel
<b>Transmission Line Segments</b>	5 Line segments

**Tower Equipment And Rigging Costs**

Section	Question	Response
Tower Equipment or Rigging Costs Changes	Do you have tower equipment or rigging costs changes?	Yes

**Primary Tower**

**Existing Tower**

Section	Question	Response
<b>Existing Tower Description</b>	Type of change	Modify Existing
	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	Yes
	One or more FM, AM or TV radio broadcaster(s)	Yes
	Others Types of Users	Yes
	Is tower documented for structural analysis?	No
	Is tower compliant with Rev G?	No
<b>Existing Tower Structure Registration</b>	Do you have a tower registration number?	Yes
	ASR Number	1041037
<b>Coordinates (NAD83 ( North American Datum of 1983))</b>	Latitude (NAD83)	32° 08' 19.0" N-
	Longitude (NAD83)	089° 05' 36.0" W-
	Overall Structure Height	1059.04 feet
	Support Structure Height	1000.64 feet
	Ground Elevation Above Mean Sea Level (AMSL)	629.91 feet
	Structure Type	TOWER - Free Standing or Guyed Structure

Tower Owner	MISSISSIPPI AUTHORITY FOR EDUCATIONAL TELEVISION
Date Constructed	01/03/2005

**FM, AM or TV radio  
broadcasters. Facility ID's,  
Call Signs and Services of  
other broadcast stations with  
whom the tower is shared**

Facility ID	Call Sign	Service
43188	WMAW-FM	FM

**Other Types of Users**

Users
WMAW microwave

**Primary  
Tower**

**Tower Modification Costs**

Section	Question	Response
<b>Engineering Study</b>	Please what type of engineering study is required, if any:	No study needed
<b>Tower Reinforcements</b>	Please select whether tower reinforcements are needed:	No reinforcements needed

**Primary  
Tower**

**Tower Rigging Costs**

Section	Question	Response
<b>Tower Rigging Costs</b>	Complex Tower	N/A
<b>Helicopter Services Required</b>	Are helicopter services required?	No

**Primary  
Tower**

**Other Tower Expenses Not Listed**

Information not provided.

**Outside Professional Services Costs**

Section	Question	Response
<b>Outside Project Management Services</b>	Do you require outside project management services?	Yes
	Number of Hours	191
	Explanation	It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399. Station does not have available personnel or personnel trained in project management for such complex projects.
<b>Outside RF consulting Engineering Services</b>	Perform engineering study for new channel assignment and antenna development	Yes
	Prepare engineering section of Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare engineering section of Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	No

	Quantity	N/A
	Do you have Distributed Transmission System engineering services?	N/A
	Critical Facility	N/A
	Terrain-Shielded Facility	N/A
<b>Attorney and Other Outside Consulting Services</b>	Prepare and file Form FCC Construction Permit Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare and file Form FCC License to Cover Application	Yes
	For Auxiliary Facility	No
	For Main Facility	Yes
	Prepare request for Special Temporary Authority	No
	Quantity	N/A
	NEPA Section 106 environmental review	No
	Environmental Assessment	No
	ASR Modification	No
	FAA Consultation (including preparation of FAA Form 7460)	No
	Negotiation of Lease and other Matter for Shared Locations	No
	Prepare or Review FCC Form 399 for Reimbursement	Yes
	Address transition timing and coordination issues w/ other stations and wireless providers	Yes
<b>RF Field Engineering Services</b>	Comprehensive coverage verification via field study	No
	RF exposure measurements	No
	Additional Field Engineering Service	Yes

Number of Days	13
Justification	It will be necessary to survey the site, plan the equipment, develop specifications for purchasing, and oversee multiple vendor RF projects. Station does not have available personnel or personnel trained in such services.

**Outside Professional Services Costs**      **Other Professional Services Expenses Not Listed**  
Information not provided.

**Other Expenses**

Section	Question	Response
<b>AM Pattern Disturbance</b>	Is an Impact Study needed?	No
	Is Remediation needed?	No
<b>Facility Expenses</b>	Name	N/A
	Other Distributed Transmission System Expenses Not listed	N/A
	Name	N/A
	Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
<b>Permit and Filing Costs</b>	Local Zoning	No
	Non-zoning permits	No
	BLM or NFS Coordination	No
	FCC Construction Permit Minor Change	No
	FCC License to Cover Application	No
	FCC Special Temporary Authority Application	No
<b>Other Miscellaneous Expenses</b>	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
	Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
	Does this relocation require Equipment Storage?	Yes
	Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
	Does this relocation require MVPD Notification of a Channel Change?	Yes



**Other  
Expenses**

**Other Expenses Not Listed**

Information not provided.

**Cost Information**

**Transmitters**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Primary Transmitter TBD</b>	<b>\$1,162,950.00</b>	<b>\$1,593,970.00</b>		<b>\$0.00</b>	
Switchgear - industrial 800 amp	\$38,200.00	\$36,300.00	N/A	N/A	N/A
Transformer 3 phase/480v - 150 KVA	\$25,550.00	\$24,300.00	N/A	N/A	N/A
3" Rigid Conduit and Wiring (Cost per foot)	\$5,200.00	\$4,900.00	N/A	N/A	N/A
Additional Interior RF System	<i>\$140,000.00</i>	\$140,000.00	N/A	N/A	N/A
Two IOT system (35.7 kW)	\$954,000.00	\$1,388,470.00	The purchase price of the new transmitter is based on a Proposal from Comark for a 50 kW MSDC IOT as suggested by the FCC. See attachment.	N/A	N/A
<b>Sub-total</b>	<b>\$1,162,950.00</b>	<b>\$1,593,970.00</b>	N/A	<b>\$0.00</b>	N/A
<b>Total for all systems</b>	<b>\$2,034,988.00</b>	<b>\$1,769,070.00</b>	N/A	<b>\$0.00</b>	N/A

## **Components**

Information not provided.

**Cost Information**

**Antennas**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Primary Antenna TUF-O4-14/56H-1-T</b>	<b>\$266,030.00</b>	<b>\$18,100.00</b>		<b>\$0.00</b>	
UHF - High Power Top Mount (200-1000 kW), One station antenna, horizontally polarized	\$247,000.00	\$0.00	N/A	N/A	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	N/A	N/A
Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$266,030.00</b>	<b>\$18,100.00</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$2,034,988.00</b>	<b>\$1,769,070.00</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>

**Components**

Information not provided.

**Cost Information**

**Transmission Line**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Primary Transmission Line</b>	<b>\$280,800.00</b>	<b>\$25,600.00</b>		<b>\$0.00</b>	
Sweep Line	<i>\$6,400.00</i>	\$6,400.00	N/A	N/A	N/A
Rigid Transmission Line - copper, 6 1/8" broadband	\$255,200.00	\$0.00	N/A	N/A	N/A
Transmission Line Segments	<i>\$19,200.00</i>	\$19,200.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$280,800.00</b>	<b>\$25,600.00</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$2,034,988.00</b>	<b>\$1,769,070.00</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>

**Components**

Information not provided.

**Cost  
Information**

**Tower Equipment and Rigging Costs**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Primary Tower TOWER</b>	<b>\$210,500.00</b>	<b>\$20,000.00</b>		<b>\$0.00</b>	
Tall Tower (greater than 500')	\$210,500.00	\$20,000.00	Rigging to replace elbow complex and assist with tuning if necessary.	N/A	N/A
<b>Sub-total</b>	<b>\$210,500.00</b>	<b>\$20,000.00</b>	N/A	<b>\$0.00</b>	N/A
<b>Total for all systems</b>	<b>\$2,034,988.00</b>	<b>\$1,769,070.00</b>	N/A	<b>\$0.00</b>	N/A

**Components**

Information not provided.

**Cost Information**

**Outside Professional Services**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Outside Professional Services</b>	<b>\$81,158.00</b>	<b>\$78,400.00</b>		<b>\$0.00</b>	
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Project management of the transition	\$30,178.00	\$28,650.00	N/A	N/A	N/A

Prepare and or review reimbursement form	\$2,630.00	\$2,500.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	N/A	N/A
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N/A
Additional Field Engineering Service, 13 Days	<i>\$26,000.00</i>	\$26,000.00	N/A	N/A	N/A
<b>Sub-total</b>	\$81,158.00	\$78,400.00	N/A	\$0.00	N/A
<b>Total for all systems</b>	\$2,034,988.00	\$1,769,070.00	N/A	\$0.00	N/A

## Components

Information not provided.



**Cost Information**

**Other Expenses**

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
<b>Other Expenses</b>	<b>\$33,550.00</b>	<b>\$33,000.00</b>		<b>\$0.00</b>	
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	<i>\$5,000.00</i>	\$5,000.00	N/A	N/A	N/A
Equipment Delivery and Handling Charges	<i>\$10,000.00</i>	\$10,000.00	N/A	N/A	N/A
MVPD Notification of Channel Change	<i>\$2,000.00</i>	\$2,000.00	N/A	N/A	N/A
Equipment Storage	<i>\$5,000.00</i>	\$5,000.00	N/A	N/A	N/A
Develop and air announcement of upcoming channel change	<i>\$0.00</i>	\$0.00	N/A	N/A	N/A
<b>Sub-total</b>	<b>\$33,550.00</b>	<b>\$33,000.00</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>
<b>Total for all systems</b>	<b>\$2,034,988.00</b>	<b>\$1,769,070.00</b>	<b>N/A</b>	<b>\$0.00</b>	<b>N/A</b>

**Components**

Information not provided.

**Cost Information** **Grand Total**

	<b>Predetermined Cost Estimate</b>	<b>Estimated Cost</b>	<b>Actual Cost</b>
<b>Total for all systems</b>	\$2,034,988.00	\$1,769,070.00	\$0.00

**Reimbursement Status**

<b>Question</b>	<b>Response</b>
The facility has ceased operating on its pre-auction channel.	No
Construction of final facilities or all necessary modifications are complete.	No
All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator.	No

Certification	Section	Question	Response
	<p><b>Submission of Estimated Expenses Statements</b></p>	<p>WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.</p>	
		<ol style="list-style-type: none"> <li>1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity.</li> <li>2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.</li> <li>3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.</li> </ol>	

4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
5. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

<p>8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.</p>	
<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p><b>Ronnie Agnew</b> <i>Executive Director</i></p> <p>07/07/2017</p>

**Attachments**