

Attachment A

ELECTRONICS RESEARCH, INC. ERI®

Bill Harland
Vice President of Marketing

July 11, 2015

EMAIL: bharland@erinc.com
TEL: +1 (812) 925-6000 x. 214

Corporate:
7777 Gardner Road
Chandler, Indiana 47610-9219
USA

TEL: +1 (812) 925-6000
FAX: +1 (812) 925-4030

Julie Dabydeen (AS)
Nebraska State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508

REF: State of Nebraska
INVITATION TO BID ONE TIME PURCHASE
Broadcast Television Antenna Replacement for KTNE-TV
Solicitation Number: 5048 OF
Bid Due Date: July 14, 2015 at 2:00 PM CDT

Dear Ms. Dabydeen:

Please find enclosed with this letter an original and one copy of Electronics Research, Inc. (ERI) response to the State of Nebraska's Invitation to Bid for replacement television antenna for KTNE-TV. We believe this response to be complete and in compliance with the bid specifications.

We also believe the Preliminary Specification and the accompanying Product and Company Information is complete enough to provide the individuals reviewing the offer with the information needed to evaluate the product and services offered. ERI is dedicated to serving the antenna and structural needs of the broadcast industry and is the only antenna, transmission line, and tower manufacturing company focused exclusively on serving broadcast requirements. If you have questions on this proposal or our company please contact Scott Martin (telephone: +1 (812) 925-6000, Ext. 300) or Bill Harland (telephone: +1 (812) 925-6000, Ext. 214).

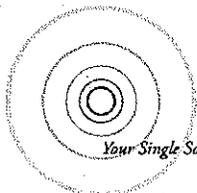
Sincerely,

ELECTRONICS RESEARCH, INC.



Bill Harland
Vice President of Marketing

cc: Scott Martin, ERI



Original

**Electronics Research, Inc.
Response to
INVITATION TO BID ONE TIME
PURCHASE**

**State of Nebraska
Broadcast Television Antenna Replacement for KTNE-TV
Solicitation Number: 5048 OF**

ERI Proposal Number: 20150618-429
Bid Due Date: July 14, 2015 at 2:00 PM CDT
Pricing Validity: September 14, 2015

Prepared For:

Julie Dabydeen (AS)
Nebraska State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508

Prepared by:

Bill Harland
Vice President of Marketing
ELECTRONICS RESEARCH, INC.
Telephone: +1 (812) 925-6000, ext. 214
Facsimile: +1 (812) 925-4030
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Scott A. Martin
Director of Television Sales
ELECTRONICS RESEARCH, INC.
Telephone: +1 (812) 925-6000, Ext. 300
Facsimile: +1 (812) 925-4030
Cell Phone: +1 (812) 589-4755
E-mail: samartin@eriinc.com

Tab Contents

Completed State of Nebraska Bid Documents

State of Nebraska Solicitation Number 5048 OF Addendum One

3 Preliminary Television Antenna Specification Number 20150618-429

ERI Price Proposal 20150618-429

ERI Company Information and General Product Information

Electronics Research, Inc. • 7777 Gardner Road • Chandler, IN 47610-9219 • USA
+1 812 925-6000 (tel) • +1 812 925-4030 (fax)

Your Single Source for Broadcast Solutions™ • Call Toll-free at 877 ERI-LINE • Visit Online at www.eriinc.com

ELECTRONICS RESEARCH, INC. ERI

2

3

4

5

State of Nebraska - INVITATION TO BID

ONE TIME PURCHASE

Return to:
 State Purchasing Bureau
 1526 K Street, Suite 130
 Lincoln, Nebraska 68508

Date	6/17/15	Page	1 of 5
Solicitation Number	5048 OF		
Opening Date and Time	07/14/15	2:00 PM	
Buyer	JULIE DABYDEEN (AS)		

DESTINATION OF GOODS
 EDUCATIONAL TELECOMM COMM
 KTNE - ANGORA NE
 11660 ROAD 103
 4 M EAST ON COUNTY RD 118
 ANGORA NE 69331-9608

Per Nebraska's Transparency in Government Procurement Act, DAS is required to collect statistical information regarding the number of contracts awarded to Nebraska contractors. This information is for statistical purposes only and will not be considered for contract award purposes.

NEBRASKA CONTRACTOR AFFADAVIT: Bidder hereby attests that bidder is a Nebraska Contractor. "Nebraska Contractor" shall mean any bidder who has maintained a bona fide place of business and at least one employee within this state for at least the six (6) months immediately preceding the posting date of this ITB.

I hereby certify that I am a Resident disabled veteran or business located in a designated enterprise zone in accordance with Neb. Rev. Stat. §73-107 and wish to have preference, if applicable, considered in the award of this contract.

One Time Purchase to supply and deliver Broadcast Television Antenna Replacement for KTNE-TV to the State of Nebraska as per the attached specifications.

A response to this Solicitation is subject to, but not limited to, the Standard Terms and Conditions. PLEASE READ CAREFULLY!

IT IS THE RESPONSIBILITY OF THE BIDDER TO REFER TO STATE PURCHASING BUREAU'S WEBSITE FOR ALL INFORMATION RELEVANT TO THIS SOLICITATION TO INCLUDE ADDENDA AND/OR AMENDMENTS THAT MAY BE ISSUED PRIOR TO THE OPENING DATE. <<http://das.nebraska.gov/materiel/purchasing.html>>

Bid Tabulations are available on the internet at <<http://www.das.state.ne.us/materiel/purchasing/bidtabs.htm>>

This form is part of the specification package and must be signed and returned, along with all documents, by the opening date and time specified.

Any questions regarding this solicitation must be directed to State Purchasing Bureau, to the attention of the buyer. It is preferred that questions be sent via e-mail to as.materielpurchasing@nebraska.gov <<mailto:as.materielpurchasing@nebraska.gov>>. Questions may also be sent by facsimile to 402-471-2089. Refer to specification for additional information.

No facsimile or email solicitation responses will be accepted on bids \$25,000 and over.

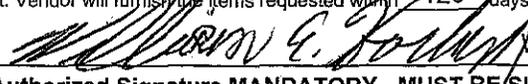
The State may request that payment be made electronically instead of by state warrant. ACH/EFT Enrollment Form can be found at: <<http://www.das.state.ne.us/accounting/forms/achenrol.pdf>>

No Bid Respond: () Remove From Class-Item OR () Keep Active For Class-Item

BIDDER MUST COMPLETE THE FOLLOWING

DISCOUNT PAYMENT TERMS: 0 % 45 DAYS

By signing this Invitation to Bid, the bidder agrees to the "Standard Conditions and Terms of Bid Solicitation and Offer" and is committed to provide a drug free work place environment. Vendor will furnish the items requested within 120 days after receipt of order. Failure to enter Delivery Date may cause quotation to be REJECTED.

Sign Here  William A. Harland
 (Authorized Signature MANDATORY - MUST BE SIGNED IN INK)

Enter Contact Information Below

VENDOR# 504660
 VENDOR: Electronics Research, Inc.
 Address: 7777 Gardner Road
 Chandler, IN 47610

Contact Bill Harland
 Telephone +1 (812) 925-6000 Ext. 214
 Facsimile +1 (812) 925-4030
 Email bharland@eriinc.com

State of Nebraska - INVITATION TO BID

ONE TIME PURCHASE

Return to:
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Date	6/17/15	Page	2 of 5
Solicitation Number	5048 OF		
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The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing services within the State of Nebraska. A federal immigration verification system mean the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Responsibility Act of 1996, 8 U.S.C. 1324a, known as E-Verify Program, or an equivalent federal program designed by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

The contractor, by signature to this Invitation to Bid, certifies that the contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from participating in transactions (debarred). The contractor also agrees to include the above requirements in any and all subcontracts into which it enters. The contractor shall immediately notify the Department if, during the term of this contract, contractor becomes debarred. The Department may immediately terminate this contract by providing contractor written notice if contractor becomes debarred during the term of this contract.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at: <http://das.nebraska.gov/lb403/attestation_form.pdf>
2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.
3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

Proprietary Information - Data contained in the Invitation to Bid response and all documentation provided therein, become the property of the State of Nebraska and the data becomes public information upon opening the Invitation to Bid. If the bidder wishes to have any information withheld from the public, such information must fall within the definition of Proprietary Information contained within Nebraska's Public Records Statutes. All Proprietary Information the bidder wishes the state to withhold must be submitted in a sealed package, which is separate from the remainder of the bid response. The separate package must be clearly marked PROPRIETARY on the outside of the package. Bidders may not mark their entire Invitation to Bid response as proprietary. Bidders cost may not be marked as proprietary information. Failure of the bidder to follow the instructions for submitting proprietary and copyrighted information may result in the information being viewed by other bidders and the public. Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, bidders submitting information as proprietary may be required to prove specific, named competitor(s) would be advantaged by release of the information and the specific advantage the competitor(s) would receive. Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.

Once bids are opened they become the property of the State of Nebraska and will not be returned.

It is understood by the parties that in the State of Nebraska's opinion, any limitation on the contractor's liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section III and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied by the contractor's bid response.

State Statute §73-107 allows for a preference for a resident disabled veteran or business located in a designated enterprise zone. When a state contract is to be awarded to the lowest responsible bidder, a resident disabled veteran or a business located in a designated enterprise zone under the Enterprise Zone Act shall be allowed a preference over any other resident or

State of Nebraska - INVITATION TO BID

ONE TIME PURCHASE

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Date	6/17/15	Page	3 of 5
Solicitation Number	5048 OF		
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nonresident bidder, if all other factors are equal.

Resident disabled veterans means any person (a) who resides in the State of Nebraska, who served in the United States Armed Forces, including any reserve component or the National Guard, who was discharged or otherwise separated with a characterization of honorable or general (under honorable conditions), and who possesses a disability rating letter issued by the United States Department of Veterans Affairs establishing a service-connected disability or a disability determination from the United States Department of Defense and (b)(i) who owns and controls a business or, in the case of a publicly owned business, more than fifty percent of the stock is owned by one or more persons described in subdivision (a) of this subsection and (ii) the management and daily business operations of the business are controlled by one or more persons described in subdivision (a) of this subsection. Any contract entered into without compliance with this section shall be null and void.

Therefore, if a resident disabled veteran or business located in a designated enterprise zone submits a bid in accordance with Neb. Rev. Stat. §73-107 and has checked "yes" requesting priority/preference to be considered in the award of this contract, the following will need to be submitted by the vendor within 10 business days of request:

- Documentation from the United States Armed Forces confirming service,
- Documentation of discharge or otherwise separated characterization of honorable or general (under honorable conditions),
- Disability rating letter issued by the United States Department of Veterans Affairs establishing a service-connected disability or a disability determination from the United States Department of Defense; and
- Documentation which shows ownership and control of a business or, in the case of a publicly owned business, more than fifty percent of the stock is owned by one or more persons described in subdivision (a) of this subsection; and the management and daily business operations of the business are controlled by one or more persons described in subdivision (a) of this subsection.

Failure to submit the requested documentation within 10 business days of notice will disqualify the bidder from consideration of the preference.

(b) 06/16/15)

A response to this Solicitation is subject to, but not limited to, the included Standard Conditions and Terms. PLEASE READ CAREFULLY!

IT IS THE RESPONSIBILITY OF THE BIDDER TO REFER TO STATE PURCHASING BUREAU'S WEB SITE FOR ALL INFORMATION RELEVANT TO THIS SOLICITATION TO INCLUDE ADDENDA AND/OR AMENDMENTS THAT MAY BE ISSUED PRIOR TO THE OPENING DATE.

<http://das.nebraska.gov/materiel/purchasing.html>

Bid Tabulations are available on the internet at <http://das.nebraska.gov/materiel/purchasing/bidtabs.htm>

This form is part of the specification package and must be signed and returned, along with all documents, by the opening date and time specified.

Any questions regarding this solicitation must be directed to State Purchasing Bureau, to the attention of the buyer. It is preferred that questions be sent via e-mail to matpurch.dasmat@nebraska.gov. Questions may also be sent by facsimile to 402-471-2089. Refer to specification for additional information.

No facsimile or email solicitation responses will be accepted on bids \$25,000 and over.

State of Nebraska - INVITATION TO BID

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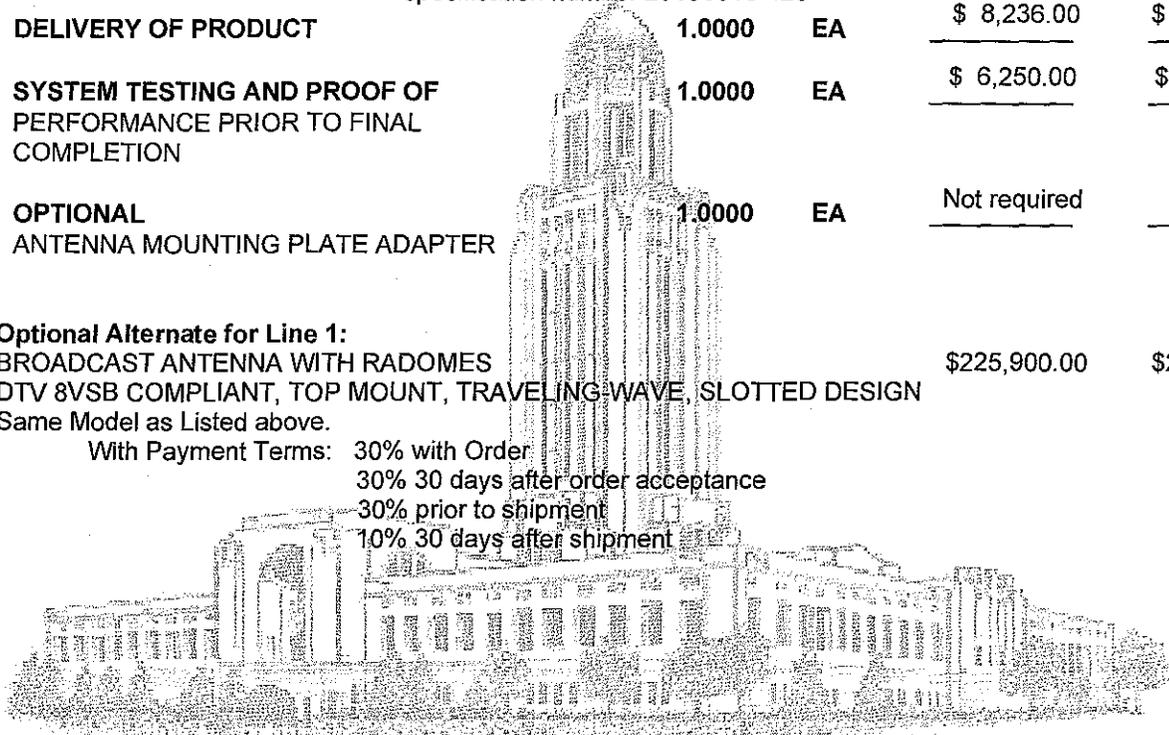
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 11660 ROAD 103
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 ANGORA NE 69331-9608

INVITATION

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
1	BROADCAST ANTENNA WITH RADOMES DTV 8VSB COMPLIANT, TOP-MOUNTED, TRAVELING-WAVE, SLOTTED DESIGN	1.0000	EA	\$233,900.00	\$233,900.00
	BRAND AND MODEL BIDDING: Electronics Research, Inc. Model ATW18V3-HTO-13 per preliminary specification number 20150618-429				
2	DELIVERY OF PRODUCT	1.0000	EA	\$ 8,236.00	\$ 8,236.00
3	SYSTEM TESTING AND PROOF OF PERFORMANCE PRIOR TO FINAL COMPLETION	1.0000	EA	\$ 6,250.00	\$ 6,250.00
4	OPTIONAL ANTENNA MOUNTING PLATE ADAPTER	1.0000	EA	Not required	

Optional Alternate for Line 1:
 BROADCAST ANTENNA WITH RADOMES
 DTV 8VSB COMPLIANT, TOP MOUNT, TRAVELING WAVE, SLOTTED DESIGN
 Same Model as Listed above.

With Payment Terms: 30% with Order
 30% 30 days after order acceptance
 30% prior to shipment
 10% 30 days after shipment



Electronics Research, Inc. downloaded and reviewed the questions and answers published as Addendum One. This bid response is compliant with the changes that addendum applied to the original bid specifications.

STANDARD CONDITIONS AND TERMS OF BID SOLICITATION AND OFFER Invitations to Bid and Contract Awards

It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the opening date. Website address: <http://das.nebraska.gov/materiel/purchasing.html>

- SCOPE**- These standard conditions and terms of bid solicitation and acceptance apply in like force to this inquiry and to any subsequent contract resulting therefrom.
- PRICES**- Prices quoted shall be net, including transportation and delivery charges fully prepaid by the bidder, F.O.B. destination named in the Invitation to Bid. No additional charges will be allowed for packing, packages or partial delivery costs. When an arithmetic error has been made in the extended total, the unit price will govern.
- EXECUTION**- Bids must be signed in ink by the bidder on the State of Nebraska's Invitation to Bid form. All bids must be typewritten or in ink on the State of Nebraska's Invitation to Bid form. Erasures and alterations must be initialed by the bidder in ink. No telephone or voice bids will be accepted. Failure to comply with these provisions may result in the rejection of the bid.
- FACSIMILE DOCUMENTS**- The State Purchasing Bureau will only accept facsimile responses to Invitations to Bid on bids under \$25,000 and up to ten (10) pages. However, two party sealed bids containing facsimile pages are acceptable. No direct facsimile solicitation responses will be accepted for a commodity contract.
- VALID BID TIME**- Bids shall be firm for a minimum of sixty (60) calendar days after the opening date, unless otherwise stipulated by either party in the Invitation to Bid.
- DISCOUNTS**- Prices quoted shall be inclusive of ALL trade discounts. Cash discount terms of less than thirty (30) days will not be considered as part of the bid. Cash discount periods will be computed from the date of receipt of a properly executed claim voucher or the date of completion of delivery of all items in a satisfactory condition, whichever is later.
- PAYMENT**- Payment will be made by the responsible agency in conjunction with the State of Nebraska Prompt Payment Act 81-2401 through 2408. The State may request that payment be made electronically instead of by state warrant.
- COLLUSIVE BIDDING**- The bidder guarantees that the prices quoted have been arrived at without collusion with other eligible bidders and without effort to preclude the State of Nebraska from obtaining the lowest possible competitive price.
- LUMP SUM OR ALL OR NONE BIDS**- The State reserves the right to purchase item-by-item, by groups or as a total when the State may benefit by so doing. Bidders may submit a bid on an "all or none" or "lump sum" basis but should also submit a bid on an item-by-item basis. The term "all or none" means a conditional bid which requires the purchase of all items on which bids are offered and bidder declines to accept award on individual items; a "lump sum" bid is one in which the bidder offers a lower price than the sum of the individual bids if all items are purchased but agrees to deliver individual items at the prices quoted.
- SPECIFICATIONS**- Any manufacturer's names, trade names, brand names, information and/or catalog numbers listed in a specification are for reference and not intended to limit competition, but will be used as the standard by which equivalent material offered will be judged. The State Purchasing Director will be the sole judge of equivalency. The bidder may offer any brand which meets or exceeds the specification. When a specific product is required, the Invitation to Bid will so state. Any item bid is to be the latest current model under standard production at the time of order. No used or refurbished equipment will be accepted, unless otherwise stated.
- ALTERNATE/EQUIVALENT BIDS**- Bidder may offer bids which are at variance from the express specifications of the Invitation to Bid. The State reserves the right to consider and accept such bids if, in the judgement of the State Purchasing Director, the bid will result in goods and/or services equivalent to or better than those which would be supplied in the original bid specifications. Bidders must indicate on the Invitation to Bid the manufacturer's name, number and shall submit with their bid, sketches, descriptive literature and/or complete specifications. Reference to literature submitted with a previous bid will not satisfy this provision. Bids which do not comply with these requirements are subject to rejection. In the absence of any stated deviation or exception, the bid will be accepted as in strict compliance with all terms, conditions and specifications, and the bidder shall be held liable therefore.
- SAMPLES**- When requested, samples shall be furnished at the bidders expense prior to the opening of the bid, unless otherwise specified. Each sample must be labeled clearly and identify the bidders name, the Invitation to Bid number and the item number. Samples submitted must be representative of the commodities or equipment which would be delivered if awarded the bid. The State of Nebraska reserves the right to request samples even though this may not have been set forth in the Invitation to Bid. Samples not destroyed in testing will be returned at bidders expense, if requested, or will be donated to a public institution.
- RECYCLING**- Preference will be given to items which are manufactured or produced from recycled material or which can be readily reused or recycled after their normal use as per State Statute Section 81-15,159.
- LATE BIDS**- All bids will be time and date stamped upon receipt by the State Purchasing Bureau, and this shall be the official time and date of receipt. Bids received after the time of the bid opening will be considered late bids and will be returned to the bidder unopened. The State Purchasing Bureau is not responsible for late bids or lost requests due to mail service inadequacies, traffic or other similar reasons.
- BID OPENING**- Openings shall be public on the date and time specified on the Invitation to Bid form. It is the bidder's responsibility to assure the bid is delivered at the designated date, time and place of the bid opening. Telephone bids are not acceptable. A bid may not be altered after opening of the bids.
- NO BID**- If not submitting a bid, respond by returning the Invitation to Bid form explaining the reason in the space provided. Failure to respond to an Invitation to Bid may be cause for the removal of the bidder's name from the mailing list. NOTE: To qualify as a respondent, bidder must submit a "NO BID" and it must be received no later than the stated bid opening date and time.
- AWARD**- All purchases, leases, or contracts which are based on competitive bids will be awarded to the lowest responsible bidder, determined according to the provisions of State Statute Section 81-161 R.R.S. 1943. The State reserves the right to reject any or all bids, wholly or in part and to waive any deviations or errors that are not material, do not invalidate the legitimacy of the bid and do not improve the bidders competitive position. All awards will be made in a manner deemed in the best interest of the State.
- BID TABULATIONS**- Tabulations will be furnished upon written request. A self-addressed, stamped envelope which must include the agency and solicitation number must be enclosed. Bid tabulations will not be provided by telephone or facsimile. Bid files may be examined during normal working hours by appointment. Bid tabulations are available on the website at: <http://www.das.state.ne.us/materiel/purchasing/bidtabs.htm>
- PERFORMANCE AND DEFAULT**- The State reserves the right to require a performance bond from the successful bidder, as provided by law, without expense to the State. Otherwise, in case of default of the contractor, the State may procure the articles from other sources and hold the contractor responsible for any excess cost occasioned thereby.
- IN-STATE PREFERENCE**- A resident bidder shall be allowed a preference against a nonresident from a state which gives or requires a preference to bidders from that state. The preference shall be equal to the preference given or required by the state of the nonresident bidders. Where the lowest responsible bid from a resident bidder is equal in all respects to one from a nonresident bidder from a state which has no preference law, the resident bidder shall be awarded the contract.
- NONDISCRIMINATION**- The Nebraska Fair Employment Practice Act prohibits contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for employment, to be employed in the performance of such contracts, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin. (State Statute Sections 48-1101 through 48-1125) The bidder guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this Invitation to Bid.
- TAXES**- Purchases made by the State of Nebraska are exempt from the payment of Federal Excise Taxes, and exemption certificates will be furnished on request. State and local taxes are exempt by State Statute Section 77-2704 (l) (m) R.R.S. 1943 and must not be included in the bid prices. Exemption by statute precludes the furnishing of State exemption certificates.
- DRUG POLICY**- Bidder certifies that it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.
- NE ACCESS TECHNOLOGY STANDARDS**- Vendor agrees to ensure compliance with Nebraska Access Technology Standards. See website at: <http://www.nitc.state.ne.us/standards/accessibility/>

**STATE OF NEBRASKA
STATE PURCHASING BUREAU**

SCHEDULE OF EVENTS

The State expects to adhere to the tentative procurement schedule shown below. It should be noted, however, that some dates are approximate and subject to change.

	ACTIVITY	DATE/TIME
1	Release Invitation to Bid	June 17, 2015
2	Last Day to Submit Written Questions	June 25, 2015
3	State Responds to Written Questions Through an Addendum to be posted to the internet at: http://das.nebraska.gov/materiel/purchasing.html	June 30, 2015
4	Bid Opening Location: Nebraska State Purchasing Bureau 1526 K St. Suite 130 Lincoln, NE 68508	July 14, 2015 2:00 p.m. Central Time

WRITTEN QUESTIONS AND ANSWERS

Any explanation desired by a bidder regarding the meaning or interpretation of any Invitation to Bid provision must be submitted in writing to the State Purchasing Bureau and clearly marked "ITB Number 5048 OF; Broadcast Television Antenna Replacement for KTNE-TV". It is preferred that questions be sent via e-mail to as.materielpurchasing@nebraska.gov. Questions may also be sent by facsimile to 402-471-2089, but must include a cover sheet clearly indicating that the transmission is to the attention of Julie Dabydeen, showing the total number of pages transmitted, and clearly marked "ITB Number 5048 OF; Broadcast Television Antenna Replacement for KTNE-TV".

Written answers will be provided through an addendum to be posted on the internet at <http://das.nebraska.gov/materiel/purchasing.html> on or before the date shown in the Schedule of Events.

STATE OF NEBRASKA: Commodity, One-Time Purchase

**BROADCAST TELEVISION ANTENNA REPLACEMENT FOR KTNE-TV
Specifications
5048 OF**

SCOPE

The State of Nebraska, State Purchasing Bureau is securing an Invitation to Bid (ITB) for the Nebraska Educational Telecommunications Commission (NETC) to issue a Purchase Order to a qualified bidder for the supply and delivery of a **Broadcast Television Antenna for Digital Television Transmissions** at the KTNE transmitter site near Angora, Nebraska.

This Invitation to Bid does not include installation of the Broadcast Television Antenna for Digital Television; however, the delivering vendor must be aware that System Testing and Proof of Performance will be completed in tandem with NETC and the contractor/subcontractors responsible for installation.

All item(s) bid shall be of the latest manufacture in production as of the date of the Invitation to Bid and be of proven performance and under standard design, complete as regularly advertised and marketed. All necessary materials for satisfactory performance of the antenna shall be incorporated whether or not they may be specifically mentioned below.

Complete specifications, manufacturer's descriptive literature and/or advertising data sheets with cuts or photographs may be required prior to an award and should be included with the bid on the IDENTICAL item(s) proposed. Literature should be complete and the latest published. Any information necessary to show compliance with these specifications not given on the manufacturer's descriptive literature and/or advertising data sheets should be supplied in writing on or attached to the bid document. If manufacturer's specifications sheets, descriptive literature, advertising data sheets or information necessary to show compliance with these specifications is not supplied in writing on or attached to the bid document, the bidder will be required to submit requested information within three (3) business days of a written request. Failure to submit requested descriptive literature or advertising data sheets may be grounds to reject the bid.

Site Location and Address

The location of the tower structure is:

NAD27 Coordinates: 41 50' 27" N, 103 03' 18" W

The physical address of the transmitter site is:

KTNE-TV/FM, NET
11660 Road 103
Angora, Nebraska 69331

The site is located approximately 2 miles east of Angora, Nebraska.

ACCEPTABLE BRANDS

Dielectric Communications

Electronic Research, Inc.

Other brands must be field proven, meet or exceed specifications and may be subject to satisfactory reference checks. All manufacturer's literature necessary to show compliance with specifications should be included with the Invitation to Bid response submittal.

Equipment bid shall be the latest current models in production as of the date of the invitation to bid and be of proven performance and under standard design, complete as regularly advertised and marketed and shall be delivered complete with all necessary parts, specified accessories, tools, and special features, whether or not they may be specifically mentioned below. Used, demonstrator, prototype, or discontinued equipment is not acceptable. Complete specifications, manufacturer's descriptive literature and/or advertising data sheets with cuts or photographs may be required prior to an award and should be included with the bid on the IDENTICAL equipment proposed. Literature should be complete and the latest published. Any information necessary to show compliance with these specifications not given on the manufacturer's descriptive literature and/or advertising data sheets should be supplied in writing on or attached to the bid document

COOPERATION WITH OTHER CONTRACTORS

The State may already have in place or choose to award supplemental contracts related to this Invitation To Bid or any portion thereof.

1. The State reserves the right to award the contract jointly between two or more potential Contractors, if such an arrangement is in the best interest of the State.
2. The Contractor shall agree to cooperate with such other Contractors, and shall not commit or permit any act which may interfere with the performance of work by any other Contractor.
3. The State reserves the right to award multiple contracts or to award line by line contract.

ATTORNEY'S FEES

In the event of any litigation, appeal, or other legal action to enforce any provision of the contract, the Contractor agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the State is the prevailing party.

PROPRIETARY INFORMATION

Data contained in the bid and all documentation provided therein, become the property of the State of Nebraska and the data becomes public information upon opening the bid. If the Bidder wishes to have any information withheld from the public, such information must fall within the definition of proprietary information contained within Nebraska's public record statutes. All proprietary information the Bidder wishes the State to withhold must be submitted in a sealed package, which is separate from the remainder of the bid, and provide supporting documents showing why such documents should be marked proprietary. The separate package must be clearly marked PROPRIETARY on the outside of the package. Bidders may not mark their entire Invitation To Bid as proprietary. Pricing submitted in Bidder's ITB may not be marked as proprietary information. Failure of the Bidder to follow the instructions for submitting proprietary and copyrighted information may result in the information being viewed by other Bidders and the public. Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, Bidders submitting information as proprietary may be required

to prove specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive. Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.

TESTING UPON COMPLETION

Upon final installation, testing is to be performed with coordination between manufacturer and installation contractor, and is subject to review and approval by NETC. Documentation of all performance analysis measurements shall be provided, as well as documentation of the installation itself. The antenna system must be fully FCC compliant and operational with all parties signing off on System Acceptance. **Verification of manufacturer's compliance with FCC requirements shall be provided by the manufacturer via the awarded vendor/reseller.**

NON-COMPLIANCE STATEMENT

Read these specifications carefully. Any and all exceptions to these specifications must be written on or attached to quotation request. Any noncompliance may void your quotation. Non-compliance to any single specification can void your bid.

It is the responsibility of Bidders to obtain information and clarifications as provided below. The State of Nebraska is not responsible for any erroneous or incomplete understandings or wrongful interpretations of this Invitation to Bid by any Bidder.

No interpretation related to the meaning of bid specifications or other pre-bid documents will be made orally to any Bidder by the State of Nebraska. Any request for bid interpretation must be put in writing and faxed by the Bidder to: the State Purchasing Bureau, Fax (402) 471-2089 or e-mailed to AS Materiel Purchasing as.materielpurchasing@nebraska.gov by the last day to submit written questions that is specified in the Schedule of Events. (Inquiries received after the last day to submit written questions may not be addressed).

RIGHTS

The State reserves the right to waive technicalities; reject any or all bids, wholly or in part; and to waive any deviations or errors that are not material, do not invalidate the legitimacy of the bid and do not improve the bidder's competitive position. The State of Nebraska will be the sole judge of equivalence and any decision will be final. All awards will be made in a manner deemed in the best interest of the State.

SECRETARY OF STATE

Contract or purchase order awards may be limited to bidders authorized to transact business in the State of Nebraska. All awarded bidders are expected to comply with all Nebraska Secretary of State registration requirements. It is the responsibility of the bidder to comply with any registration requirements pertaining to types of business entities (e.g. person, partnership, foreign or domestic limited liability company, association, or foreign or domestic corporation or other type of business entity). The bidder who is the expected recipient of an award recommendation will be required to certify that it has so complied and produce a true and exact copy of its current (dated within 90 days), valid Certificate of Good Standing or Letter of Good Standing; or in the case registration is not required, to provide, in writing, the reason as to why none is required. This must be accomplished prior to the award of the contract or purchase order. Further, all bidders shall comply with any and all other applicable Nebraska statutes regarding transacting business in the State of Nebraska. In order to expedite the award process, bidders are encouraged to submit their valid Certificate of Good Standing or Letter of Good Standing with their bid.

AWARD

All purchases, leases, or contracts which are based on competitive bids will be awarded to the lowest responsible bidder, determined according to the provision of State Statute Section §81-161, R.R.S 1943.

The State reserves the right to reject any or all bids, wholly or in part and to waive any deviations or errors that are not material, do not invalidate the legitimacy of the bid and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

TAXES

The State is not required to pay taxes of any kind and assumes no such liability as a result of this solicitation. Any property tax payable on the contractor's equipment which may be installed in a state-owned facility is the responsibility of the contractor.

PRICES

Price quoted shall be unit price and are to be net; including transportation and delivery charges fully prepaid by the bidder F.O.B. Destination as specified. No additional charges will be allowed for packing, handling, fuel surcharge, or partial delivery costs.

GRAY MARKET PRODUCTS PROHIBITION

The State of Nebraska will not accept Gray Market Products for this solicitation. Gray Market is defined as the trade of a commodity through distribution channels which, while legal, are unofficial, unauthorized, or unintended by the original manufacturer. Gray Market items are not designed to be sold in a particular market and cannot be supported by the authorized importer because of various reasons.

AUTHORIZED DEALER AND WARRANTY

To the extent required by the manufacturer, the Bidder shall be an authorized dealer. Bidder may be required to substantiate that he/she is an authorized dealer. Proof, if required, must be submitted to the State Purchasing Bureau within three (3) days of the request and prior to the award of any contract. The terms of the original manufacturer's standard warranty shall apply to all equipment acquired from this solicitation for the entire warranty period.

WARRANTY

Contractor must warrant the average life expectancy supplies hereunder to be not less than that stated in the manufacturer's price list and agree to replace, without cost, all supplies failing to meet this requirement, except where the reduced life is due to conditions beyond the control of the contractor. Defective parts or those damaged in shipment must be replaced by the contractor at no charge to the State of Nebraska. The manufacturer's Standard warranty shall apply and be in effect for at least two (2) years from the date system acceptance had been approved. A copy of warranty shall be provided upon request.

SUBSTITUTIONS

Vendor will not substitute any item that has been awarded without prior written approval of State Purchasing Bureau.

DELIVERY OF PRODUCT

Delivery of product will be made to the KTNE-TV/FM Transmitter/Tower site at 11660 Road 103, Angora, NE 69331 (2 miles east of Angora) and shall be coordinated in advance with the Site Manager, Craig Emerick, NET, 308-631-0670 mobile or 308-262-1948 site office.

Vendor will be expected to provide equipment and crew necessary for delivery and off-loading of product(s).

PAYMENT

Payment will be made in conjunction with the State of Nebraska Prompt Payment Act §81-2401 through 2408. Payment shall be within 45 days of receipt of service or invoice, whichever is received later. Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State may require the contractor to accept payment by

electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the contractor prior to the Effective Date, and the contractor hereby waives any claim or cause of action for any such services.

REFERENCE CHECKS

The State reserves the right to check any reference(s), regardless of the source of the reference information, including but not limited to, those that may be identified by the company in the bid, those indicated through the explicitly specified contacts, those that are identified during the review of the bid, or those that result from communication with other entities involved with similar projects. The State may use a third party to conduct reference checks.

List the name, addresses, and the telephone numbers of three companies/businesses that we may contact who have performed similar installations.

1. Mr. Robert Thurber, RAYCOM MEDIA, 201 Monroe Street , Montgomery AL 36104 +1 (334) 206-1409 bthurber@raycommedia.com
2. Mr. Kent Hatfield, WXXI-TV, 280 State Street, Rochester, NY 14603 +1 (585) 258-0223 khatfield@wxxi.org
3. Mr. Brian McArthur, Milwaukee PTV, 1036 N. 8th Street, 4th Floor, Milwaukee, WI 53233, +1 (414) 271-1036 mcarthub@matc.edu

CUSTOMER SERVICE/PROJECT MANAGER

The vendor shall list the name and phone number of the customer service representative/project manager who will be assigned to service the State of Nebraska's account:

Customer Service Representative/Project Manager: Peggy Hunt
Phone Number: +1 (812) 925-6000
Fax Number: +1 (812) 925-4030
E-mail Address: peggy@eriinc.com

**Broadcast Television Antenna Replacement for KTNE-TV
Specifications
Bidder Instructions
5048 OF**

BIDDER INSTRUCTIONS

Bidder must respond to each of the following statements. Specifications listed are minimum conditions that must be met in order for a bidder to qualify for the award. A "YES" response means the bidder guarantees they can meet this condition. A "NO" response means the bidder cannot meet this condition and will not be considered. "NO & PROVIDE ALTERNATIVE" responses should be used only with a narrative response in the NOTES/COMMENTS section explaining in detail any deviation from the bidder's ability to meet the condition, and an explanation of how this would be determined to be an acceptable alternative to meeting the condition. Alternatives must be detailed in such a way that allows such deviations to be fully evaluated. The State of Nebraska shall determine at its sole discretion whether or not the vendor's alternative is an acceptable alternative.

YES	NO	NO & PROVIDE ALTERNATIVE	1. TV BROADCAST ANTENNA ANTENNA SHALL HAVE THE FOLLOWING ELECTRICAL SPECIFICATIONS:
X			A. DTV 8VSB compliant, top-mounted, traveling-wave, slotted design Broadcast Antenna with Radomes.
X			B. TV Channel 13
X			C. Frequency 210 to 216 MHz
X			D. Polarization Horizontal
X			E. Pattern Omni-directional, null-filled to within 1 dB
X			F. Power Gain 18 (12.6 dBd) approximately
X			G. Input Impedance 50 Ohms
X			H. Input Power Rating >/=30kW
X			I. Electrical Beam Tilt -0.75 degrees
X			J. Structurally designed per ANSI/TIA-222-G
X			K. Maximum VSWR 1.10:1 over the 6 MHz Channel
X			L. Full Radome Enclosure
X			M. Accommodate Top Beacon Placement (NETC supplied)

X			N. Full Lightning Protection and Grounding to be included
X			O. Overall Antenna Height <= 117-feet, including lightning protection.
X			P. Antenna Climbing Ladder Supplied
X			Q. Provide an Antenna Tuner/Matching Section to accommodate the existing input line/elbow complex assembly.
X			R. Antenna to be factory assembled and tested prior to shipping
X			S. Factory Calibration/Testing certification shall be supplied with the antenna.
X			T. Mechanical: Top-Mount antenna with mounting components to adapt to Stainless G8 tower top-plate.
		This item is not required the antenna proposed matches the mounting flange on the tower.	U. OPTION: Awarded vendor will be required to supply Antenna Mounting Plate Adapter, if required. Drawing of tower top-plate is attached (See ATTACHMENT A). Antenna installation contractor will verify accuracy of drawing before adapter is requested.

NOTES/COMMENTS:

In addition to fabricating the new antenna with a mounting flange that will interface directly to KTNE Tower mounting flange the antenna supplied will have an input matching section that will interface directly to the existing transmission line elbow complex.

YES	NO	NO & PROVIDE ALTERNATIVE	2. DELIVERY OF PRODUCT
		Antenna delivery will be coordinated with the installer per Addendum 1.	A. Delivery personnel will be required to deliver and off load all products. It will be the Vendor's responsibility to provide any equipment needed to complete the delivery process. NET will not provide equipment or crew for off-loading products at site.
		Delivery within 120 days following receipt of an order.	B. Delivery preferred within 45 days of receipt of purchase order. Delivery times quoted past 120 days may be a factor in award consideration.
X			C. Bidder state delivery time of product in days, ARO: <u>120</u> Days ARO

NOTES/COMMENTS:

YES	NO	NO & PROVIDE ALTERNATIVE	3. SYSTEM TESTING and PROOF OF PERFORMANCE PRIOR TO FINAL COMPLETION
X			A. The System must be fully tested with Proof of Performance documentation, and operational upon completion of installation with written sign off acceptance from NETC. The final Proof of Performance testing is typically performed by a manufacturer's representative with the assistance of a tower crew.
X			B. Cooperation with other contractors involved in the testing and/or installation may be necessary.
NOTES/COMMENTS:			

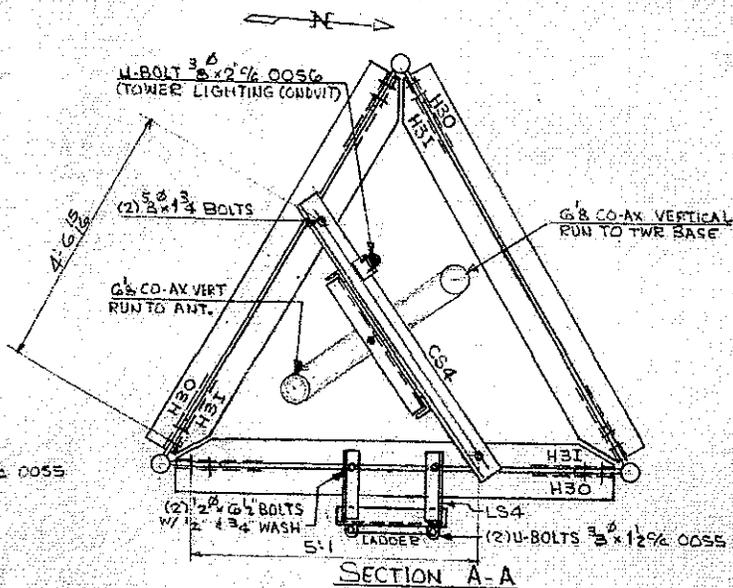
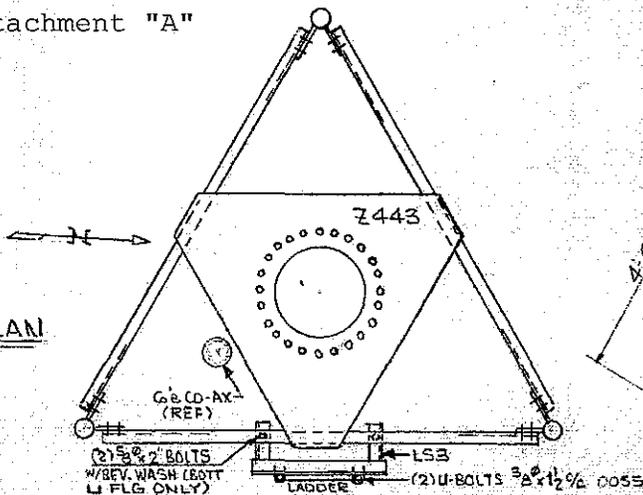
YES	NO	NO & PROVIDE ALTERNATIVE	4. SECRETARY OF STATE REGISTRATION REQUIREMENTS
			<p>*Prior to contract award and/or upon request of SPB, potential award recipient(s) will be asked to certify compliance with Nebraska Secretary of State Registration by providing a true and exact copy of current (dated within 90 days) valid Certificate of Good Standing or Letter of Good Standing.</p> <p>A. Bidder is a SOLE PROPRIETORSHIP (in which case, no Letter of Good Standing/Certificate of Good Standing is required) If the Bidder is an Individual or Sole Proprietorship, the following applies:</p> <ol style="list-style-type: none"> The Bidder must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at http://das.nebraska.gov/materiel/purchasing.html The completed United States Attestation Form should be submitted with the Invitation to Bid response. If the Bidder indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program. The Bidder understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.
			B. Bidder is a GENERAL PARTNERSHIP (in which case, no Letter of Good Standing/Certificate of Good Standing is required)
			C. Bidder is a FOREIGN or DOMESTIC CORPORATION or BUSINESS and a copy of current Letter of Good Standing/Certificate of Good Standing from the Nebraska

			Secretary of State is provided within bid submission documents.
X			D. Bidder is a FOREIGN or DOMESTIC CORPORATION or BUSINESS and a copy of current Letter of Good Standing/Certificate of Good Standing from the Nebraska Secretary of State will be provided in a timely manner upon request prior to award.
NOTES/COMMENTS: ERI has filed with the Nebraska Secretary of State and will be able to provide the Letter/Certificate required prior to award of a contract.			

YES	NO	NO & PROVIDE ALTERNATIVE	5. BID COMPLIANCE
X			A. Specifications have been read and fully understood. Any exceptions have been written on the bid or attached. Bid is signed and unit price is in compliance with the given unit of measure.
NOTES/COMMENTS:			

Attachment "A"

PLAN



SECTION A-A

(4) 8x2 1/2 BOLTS (TYP)
ELEV 5633'

(3) 1/4 THK SPACERS
072B (TYP)
(7) 1x3 BOLTS (TYP)

(7) 1x3 BOLTS (TYP)

(3EA) 1/4 THK SPACER
0723 (TYP)

(5EA) 5/8x2 1/4 BOLTS (TYP)

(6) 8x2 BOLTS (TYP)

(2) 4x2 1/4 BOLTS (TYP
TR3 CONN)

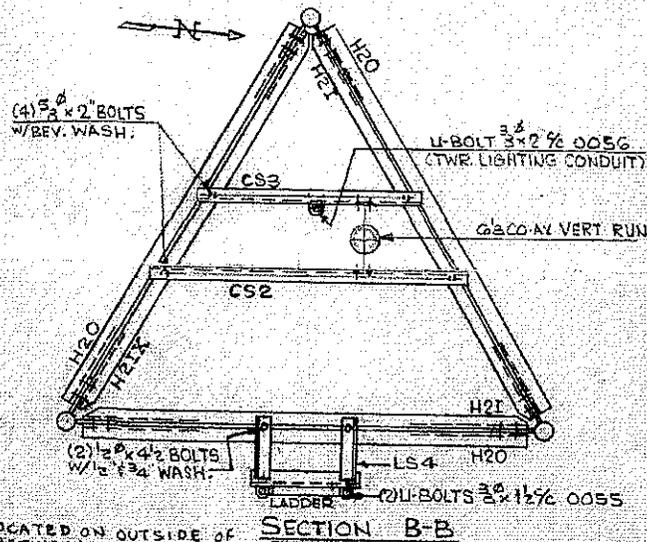
WRAPLOCK TENSION
RODS AT INTERSECTION (TYP)

OUTSIDE LADDER
TRANSFER PLATFORM
SEE DWG EG.2

(5) 5/8x2 BOLTS (TYP)

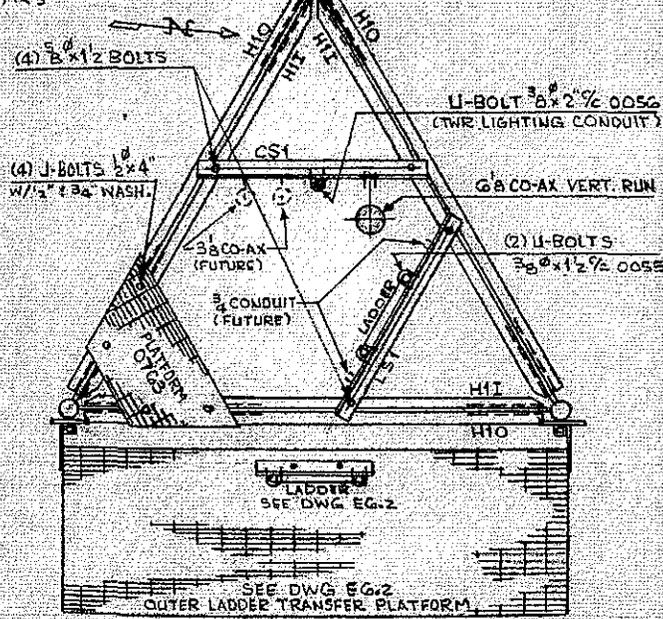
(4) SPACER WASHERS
0794 (TYP)

TOP OF TOWER ELEVATION



SECTION B-B

SPI LOCATED ON OUTSIDE OF
TOWER BETWEEN GUSSET (R
& K20, K3



SECTION C-C

ADDENDUM ONE, QUESTIONS and ANSWERS

Date: June 30, 2015
 To: All Bidders
 From: Julie Dabydeen, Buyer
 State Purchasing Bureau
 RE: Addendum for Invitation to Bid Number 5048 OF
 to be opened July 14, 2015 at 2:00 p.m. Central Time

Questions and Answers

Following are the questions submitted and answers provided for the above mentioned Invitation to Bid. The questions and answers are to be considered as part of the Invitation to Bid. It is the Bidder's responsibility to check the State Purchasing Bureau website for all addenda or amendments.

QUESTIONS	ANSWERS
<p>1. The Invitation to Bid mentions the "System Testing and Proof of Performance will be completed in tandem with NETC and the contractor/subcontractors responsible for installation". It also states that "Vendor will be expected to provide equipment and crew necessary for delivery and off-loading of product(s)". The solicitation for the antenna in 2008, did not have such an offloading requirement, as normally the antenna supplier works with the installer (who will off load on site). The proposed antennas are Very large and Very heavy, requiring specialized, expensive equipment and labor to unload. If offloading 'independent' of the antenna</p>	<p>Within Specifications section under the Section titled Delivery of Product, the second paragraph is hereby deleted.</p> <p>Vendor will be expected to provide equipment and crew necessary for delivery and off-loading of product(s).</p> <p>Within the specification tables under Section 2. A. Delivery of Product, the following is hereby amended to read:</p> <p>Delivery personnel will be required to deliver all products. NET will not provide equipment or crew for off-loading products at site. Antenna supplier will work with the installer to off load on site.</p>

<p>installers is definitely required, it will be a significant additional expense, normally not necessary. Please re-clarify.</p>	
<p>2. Has NETC determined the root cause of the KTNE antenna structural failure? It would be important to understand, if precautionary design changes to any proposed antenna are necessary.</p>	<p>NETC is awaiting the report from the investigation into the KTNE antenna structure failure. No timeframe is known as of this date for receipt of the report.</p>
<p>3. Is the state interested in bids for alternate, lower gain options?</p>	<p>The State may consider submitted alternate bids. However, bidders should submit a response to the ITB specifications and a separate submission for any proposed alternative. This does not commit the State to accept alternative submissions.</p>

This addendum will become part of the ITB and should be acknowledged with the Invitation to Bid.

**PRELIMINARY SPECIFICATION FOR
TRASAR® HORIZONTALLY POLARIZED
COAXIAL SLOTTED ARRAY ANTENNA**

*Prepared for
KTNE-DT Channel 13 Alliance, NE
July 10, 2015*

**ANTENNA TYPE:
ATW18V3-HTO-13**

**SPECIFICATION NO :
20150618-429**

**PRELIMINARY SPECIFICATION FOR
TRASAR[®] HORIZONTALLY POLARIZED
COAXIAL SLOTTED ARRAY ANTENNA**

ELECTRICAL CHARACTERISTICS:

CHANNEL :	13
FREQUENCY RANGE :	210 - 216 MHz
AZIMUTH PATTERN NUMBER :	ATW-O
ELEVATION PATTERN NUMBER :	ATW18V3H
AZIMUTH DIRECTIVITY :	1.00 (0.00 dBd)
ELEVATION DIRECTIVITY :	18.00 (12.55 dBd)
PEAK POWER GAIN :	18.00 (12.55 dBd)
GAIN AT HORIZONTAL :	14.71 (11.68 dBd)
ELECTRICAL BEAM TILT :	0.75 Degrees
INPUT POWER REQUIRED :	1.50 kW (1.76 dBk)
INPUT TYPE :	4 1/16-50 Ohm
INPUT POWER (MAXIMUM) :	50 kW Average, 8VSB Digital
ANTENNA VSWR (MAXIMUM) :	ATSC: 1.10 Over 6MHz Channel

PRELIMINARY SPECIFICATION FOR TRASAR[®] HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

MECHANICAL CHARACTERISTICS:

MOUNTING CONFIGURATION:		Top Mount
<i>*(Tower Interface supplied and installed by others)</i>		
HEIGHT OF ANTENNA :		86.10 feet
HEIGHT OF CENTER OF RADIATION (B) :		43.05 feet
OVERALL HEIGHT (A) :		89.60 feet
<i>(Includes two 4-foot Lightning Rods)</i>		
DEICING :		Pressurized Radome Enclosure
RADOME DIAMETER (C):		24.50 inches, OD
RADOME COLOR :		AVIATION ORANGE (Standard)
CLIMBING DEVICE :		Galvanized Climbing Pole
CALCULATED WEIGHT :		20,150.0 lbs
	With 0.7" ice:	22,480.0 lbs
WINDLOAD DATA ¹ :	EPAa	157.9 sq.ft.
	EPAaice:	263.3 sq.ft.
EFFECTIVE MOMENT ARM:		52.6 feet
	With 0.7" ice:	44.8 feet
BASE FLANGE DIMENSIONS		
	BOLT CIRCLE DIAMETER:	27.00 in.
	BOLT DIAMETER:	1.50 in.
	NO. OF BOLTS:	24

This antenna is designed to be supported by a structure that can resist the antenna base reactions and which provides a support that is rigid in the three translational and three rotational degrees of freedom.

¹ Calculated weight is based on the **PRELIMINARY** design of the antenna. The actual weight of the antenna will be within $\pm 10\%$ of the calculated weight. The actual weight will be given in the technical manual that accompanies the antenna. This figure is for the antenna only and does not include the antenna input section.

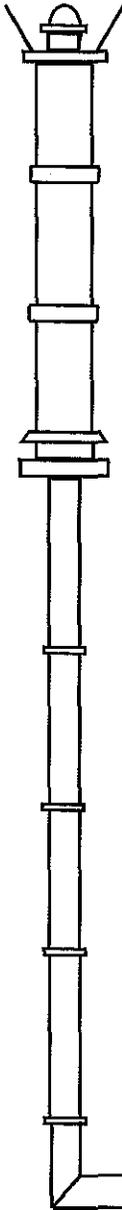
² Based on Structure Class II, Exposure C, Topographic Category I at 1421 feet above ground level (AGL) per TIA-222-G at 90 MPH with no ice and 60 MPH with 0.25" base radial ice thickness (Actual ice thickness is 0.7").

NOTE: Localized conditions may require higher wind speed specifications than TIA/EIA specifications. Check with local authorities to verify wind speed requirements.

Broadcast Antenna System Power Analysis

KTNE-DT
Alliance, NE
ATW18V3-HTO-13

Channel **13**



ANTENNA PARAMETERS :

Azimuth Directivity :

Hor. Pol : 1.00
dBd : 0.00

Elevation Directivity :

Hor. Pol : 18.00
dBd : 12.55

TRANSMISSION LINE :

VERTICAL RUN :

Type: MACX450
Length, ft. : 1389
Attenuation , dB/100 ft: 0.107

HORIZONTAL RUN :

Type: MACX450
Length, ft. : 150
Attenuation , dB/100 ft: 0.107

OTHER LINE LOSSES:

Type: N/A
Length, ft. : 0
Attenuation , dB/100 ft: 0

Line Efficiency : 68.44%

ERP :

kW : 27.00
dBk : 14.31

POWER GAIN :

Ratio : 18.00
dBd : 12.55

ANTENNA INPUT :

kW : 1.50
dBk : 1.76

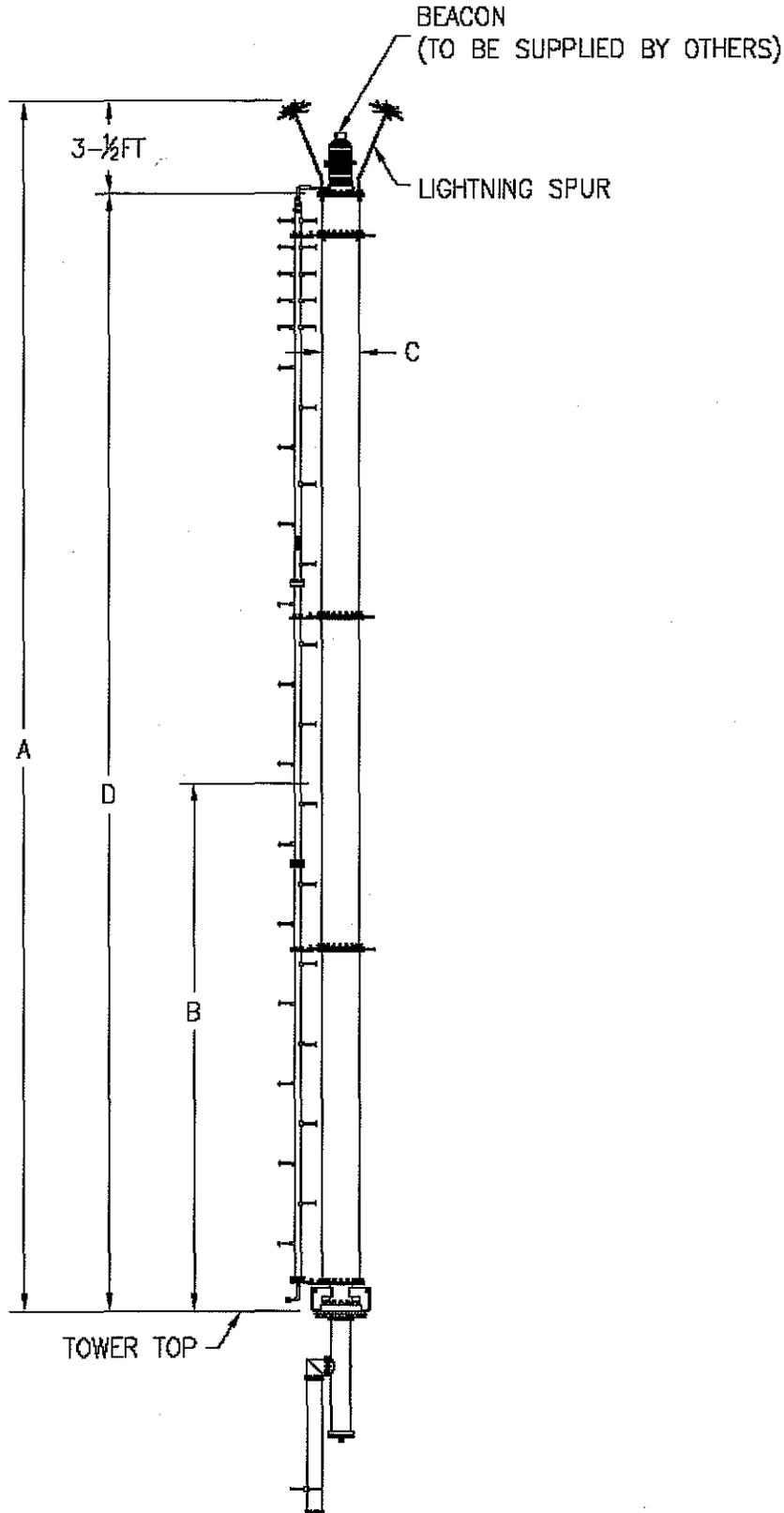
LINE LOSS :

kW : 0.69
dB : 1.65

**TRANSMITTER
POWER :**

kW : 2.19
dBk : 3.41

TYPICAL MOUNTING CONFIGURATION SHOWN. ACTUAL CONFIGURATION MAY VARY.

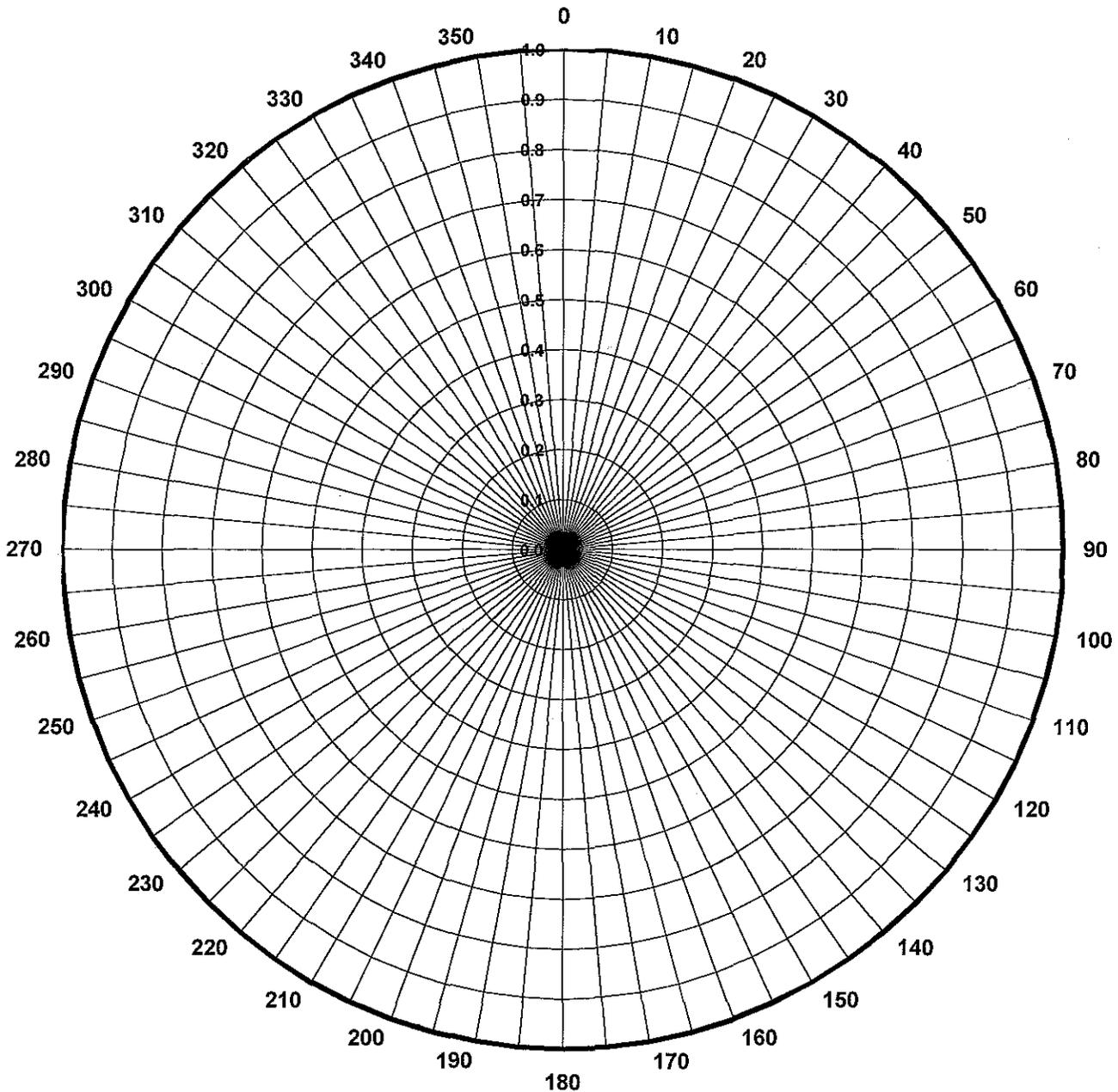


AZIMUTH PATTERN

TYPE: ATW-O
Numeric 1.00 dB 0.00
Directivity:
Peak(s) at:

Frequency: 13 (ATSC)
Location: Alliance, NE
Polarization: Horizontal

Note: Pattern shape and directivity may vary with channel and mounting configuration.



TABULATED DATA FOR AZIMUTH PATTERN

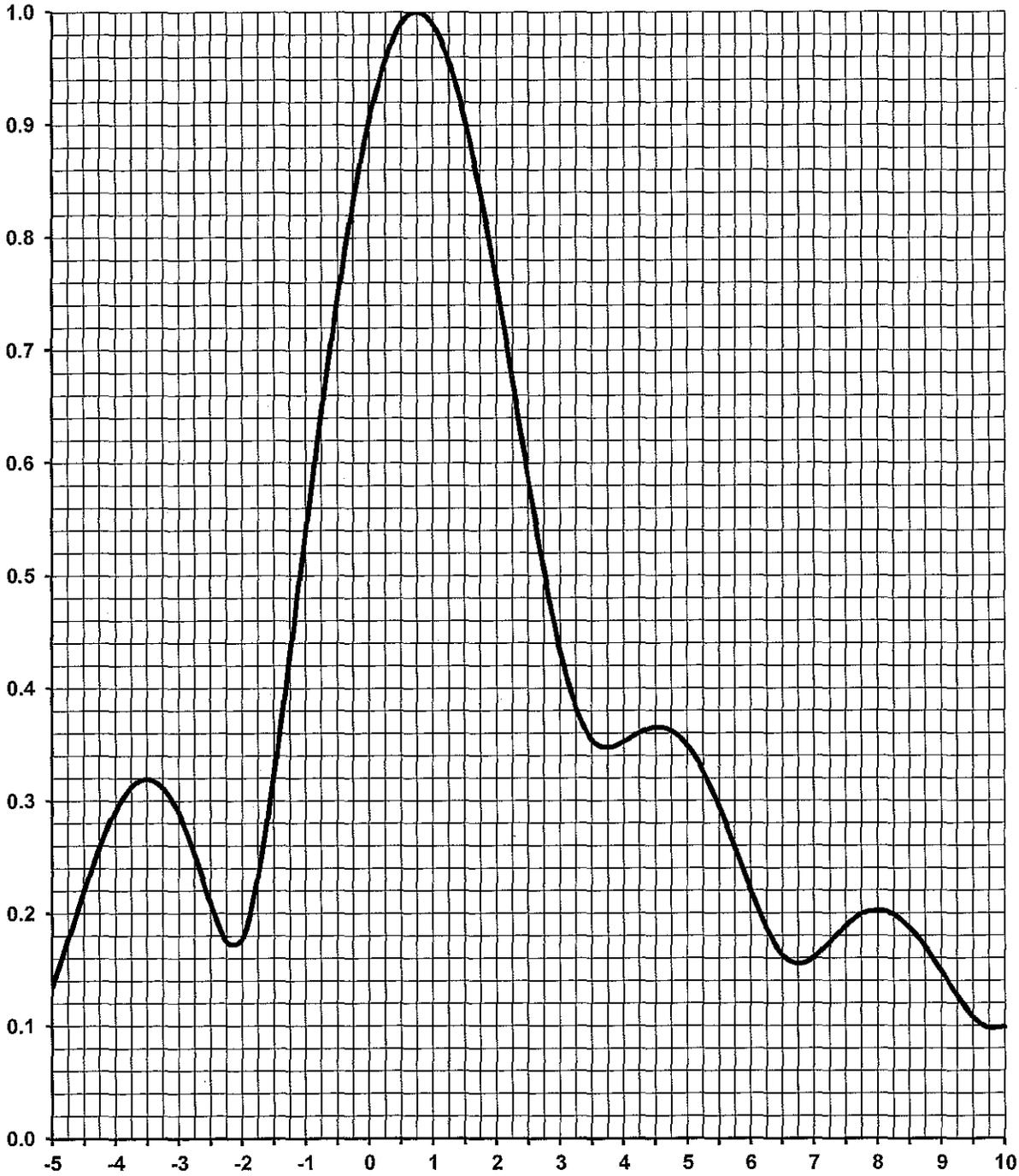
TYPE: ATW-O

ANGLE	FIELD	dB									
0	1.000	0.00	92	1.000	0.00	184	1.000	0.00	276	1.000	0.00
2	1.000	0.00	94	1.000	0.00	186	1.000	0.00	278	1.000	0.00
4	1.000	0.00	96	1.000	0.00	188	1.000	0.00	280	1.000	0.00
6	1.000	0.00	98	1.000	0.00	190	1.000	0.00	282	1.000	0.00
8	1.000	0.00	100	1.000	0.00	192	1.000	0.00	284	1.000	0.00
10	1.000	0.00	102	1.000	0.00	194	1.000	0.00	286	1.000	0.00
12	1.000	0.00	104	1.000	0.00	196	1.000	0.00	288	1.000	0.00
14	1.000	0.00	106	1.000	0.00	198	1.000	0.00	290	1.000	0.00
16	1.000	0.00	108	1.000	0.00	200	1.000	0.00	292	1.000	0.00
18	1.000	0.00	110	1.000	0.00	202	1.000	0.00	294	1.000	0.00
20	1.000	0.00	112	1.000	0.00	204	1.000	0.00	296	1.000	0.00
22	1.000	0.00	114	1.000	0.00	206	1.000	0.00	298	1.000	0.00
24	1.000	0.00	116	1.000	0.00	208	1.000	0.00	300	1.000	0.00
26	1.000	0.00	118	1.000	0.00	210	1.000	0.00	302	1.000	0.00
28	1.000	0.00	120	1.000	0.00	212	1.000	0.00	304	1.000	0.00
30	1.000	0.00	122	1.000	0.00	214	1.000	0.00	306	1.000	0.00
32	1.000	0.00	124	1.000	0.00	216	1.000	0.00	308	1.000	0.00
34	1.000	0.00	126	1.000	0.00	218	1.000	0.00	310	1.000	0.00
36	1.000	0.00	128	1.000	0.00	220	1.000	0.00	312	1.000	0.00
38	1.000	0.00	130	1.000	0.00	222	1.000	0.00	314	1.000	0.00
40	1.000	0.00	132	1.000	0.00	224	1.000	0.00	316	1.000	0.00
42	1.000	0.00	134	1.000	0.00	226	1.000	0.00	318	1.000	0.00
44	1.000	0.00	136	1.000	0.00	228	1.000	0.00	320	1.000	0.00
46	1.000	0.00	138	1.000	0.00	230	1.000	0.00	322	1.000	0.00
48	1.000	0.00	140	1.000	0.00	232	1.000	0.00	324	1.000	0.00
50	1.000	0.00	142	1.000	0.00	234	1.000	0.00	326	1.000	0.00
52	1.000	0.00	144	1.000	0.00	236	1.000	0.00	328	1.000	0.00
54	1.000	0.00	146	1.000	0.00	238	1.000	0.00	330	1.000	0.00
56	1.000	0.00	148	1.000	0.00	240	1.000	0.00	332	1.000	0.00
58	1.000	0.00	150	1.000	0.00	242	1.000	0.00	334	1.000	0.00
60	1.000	0.00	152	1.000	0.00	244	1.000	0.00	336	1.000	0.00
62	1.000	0.00	154	1.000	0.00	246	1.000	0.00	338	1.000	0.00
64	1.000	0.00	156	1.000	0.00	248	1.000	0.00	340	1.000	0.00
66	1.000	0.00	158	1.000	0.00	250	1.000	0.00	342	1.000	0.00
68	1.000	0.00	160	1.000	0.00	252	1.000	0.00	344	1.000	0.00
70	1.000	0.00	162	1.000	0.00	254	1.000	0.00	346	1.000	0.00
72	1.000	0.00	164	1.000	0.00	256	1.000	0.00	348	1.000	0.00
74	1.000	0.00	166	1.000	0.00	258	1.000	0.00	350	1.000	0.00
76	1.000	0.00	168	1.000	0.00	260	1.000	0.00	352	1.000	0.00
78	1.000	0.00	170	1.000	0.00	262	1.000	0.00	354	1.000	0.00
80	1.000	0.00	172	1.000	0.00	264	1.000	0.00	356	1.000	0.00
82	1.000	0.00	174	1.000	0.00	266	1.000	0.00	358	1.000	0.00
84	1.000	0.00	176	1.000	0.00	268	1.000	0.00	360	1.000	0.00
86	1.000	0.00	178	1.000	0.00	270	1.000	0.00			
88	1.000	0.00	180	1.000	0.00	272	1.000	0.00			
90	1.000	0.00	182	1.000	0.00	274	1.000	0.00			

ELEVATION PATTERN

TYPE:	ATW18V3H	
Directivity:	<u>Numeric</u>	<u>dBd</u>
Main Lobe:	<u>18.00</u>	<u>12.55</u>
Horizontal:	<u>14.71</u>	<u>11.68</u>

Frequency:	<u>13 (ATSC)</u>
Location:	<u>Alliance, NE</u>
Beam Tilt:	<u>0.75</u>
Polarization:	<u>Horizontal</u>



TABULATED DATA FOR ELEVATION PATTERN

ATW18V3H

-5 to 10 degrees in 0.25 increments 10 to 90 degrees in 0.50 increments

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-5.000	0.135	-17.39	6.75	0.155	-16.19	27.00	0.058	-24.73	50.50	0.045	-26.94	74.00	0.063	-24.01
-4.750	0.176	-15.09	7.00	0.160	-15.92	27.50	0.064	-23.88	51.00	0.054	-25.35	74.50	0.056	-25.04
-4.500	0.219	-13.19	7.25	0.174	-15.19	28.00	0.062	-24.15	51.50	0.058	-24.73	75.00	0.049	-26.20
-4.250	0.259	-11.73	7.50	0.188	-14.52	28.50	0.051	-25.85	52.00	0.057	-24.88	75.50	0.041	-27.74
-4.000	0.291	-10.72	7.75	0.199	-14.02	29.00	0.038	-28.40	52.50	0.052	-25.68	76.00	0.034	-29.37
-3.750	0.312	-10.12	8.00	0.202	-13.89	29.50	0.034	-29.37	53.00	0.044	-27.13	76.50	0.026	-31.70
-3.500	0.319	-9.92	8.25	0.199	-14.02	30.00	0.043	-27.33	53.50	0.033	-29.63	77.00	0.019	-34.42
-3.250	0.311	-10.14	8.50	0.187	-14.56	30.50	0.054	-25.35	54.00	0.025	-32.04	77.50	0.012	-38.42
-3.000	0.289	-10.78	8.75	0.170	-15.39	31.00	0.060	-24.44	54.50	0.026	-31.70	78.00	0.008	-41.94
-2.750	0.252	-11.97	9.00	0.149	-16.54	31.50	0.058	-24.73	55.00	0.034	-29.37	78.50	0.008	-41.94
-2.500	0.209	-13.60	9.25	0.127	-17.92	32.00	0.049	-26.20	55.50	0.045	-26.94	79.00	0.012	-38.42
-2.250	0.175	-15.14	9.50	0.108	-19.33	32.50	0.037	-28.64	56.00	0.054	-25.35	79.50	0.017	-35.39
-2.000	0.177	-15.04	9.75	0.098	-20.18	33.00	0.031	-30.17	56.50	0.060	-24.44	80.00	0.021	-33.56
-1.750	0.233	-12.65	10.00	0.099	-20.09	33.50	0.038	-28.40	57.00	0.062	-24.15	80.50	0.025	-32.04
-1.500	0.321	-9.87	10.50	0.121	-18.34	34.00	0.049	-26.20	57.50	0.060	-24.44	81.00	0.028	-31.06
-1.250	0.427	-7.39	11.00	0.139	-17.14	34.50	0.057	-24.88	58.00	0.054	-25.35	81.50	0.030	-30.46
-1.000	0.536	-5.42	11.50	0.137	-17.27	35.00	0.057	-24.88	58.50	0.045	-26.94	82.00	0.032	-29.90
-0.750	0.644	-3.82	12.00	0.115	-18.79	35.50	0.051	-25.85	59.00	0.035	-29.12	82.50	0.033	-29.63
-0.500	0.744	-2.57	12.50	0.085	-21.41	36.00	0.039	-28.18	59.50	0.025	-32.04	83.00	0.034	-29.37
-0.250	0.831	-1.61	13.00	0.071	-22.97	36.50	0.030	-30.46	60.00	0.022	-33.15	83.50	0.034	-29.37
0.000	0.904	-0.88	13.50	0.086	-21.31	37.00	0.031	-30.17	60.50	0.029	-30.75	84.00	0.033	-29.63
0.250	0.956	-0.39	14.00	0.105	-19.58	37.50	0.042	-27.54	61.00	0.039	-28.18	84.50	0.032	-29.90
0.500	0.990	-0.09	14.50	0.110	-19.17	38.00	0.051	-25.85	61.50	0.050	-26.02	85.00	0.031	-30.17
0.750	1.000	0.00	15.00	0.098	-20.18	38.50	0.056	-25.04	62.00	0.058	-24.73	85.50	0.029	-30.75
1.000	0.989	-0.10	15.50	0.075	-22.50	39.00	0.054	-25.35	62.50	0.065	-23.74	86.00	0.027	-31.37
1.250	0.957	-0.38	16.00	0.058	-24.73	39.50	0.046	-26.74	63.00	0.068	-23.35	86.50	0.024	-32.40
1.500	0.906	-0.86	16.50	0.063	-24.01	40.00	0.035	-29.12	63.50	0.068	-23.35	87.00	0.021	-33.56
1.750	0.839	-1.52	17.00	0.081	-21.83	40.50	0.028	-31.06	64.00	0.065	-23.74	87.50	0.018	-34.89
2.000	0.761	-2.37	17.50	0.091	-20.82	41.00	0.031	-30.17	64.50	0.059	-24.58	88.00	0.015	-36.48
2.250	0.675	-3.41	18.00	0.087	-21.21	41.50	0.041	-27.74	65.00	0.051	-25.85	88.50	0.011	-39.17
2.500	0.587	-4.63	18.50	0.071	-22.97	42.00	0.051	-25.85	65.50	0.041	-27.74	89.00	0.007	-43.10
2.750	0.504	-5.95	19.00	0.052	-25.68	42.50	0.056	-25.04	66.00	0.030	-30.46	89.50	0.004	-47.96
3.000	0.434	-7.25	19.50	0.049	-26.20	43.00	0.054	-25.35	66.50	0.021	-33.56	90.00	0.000	---
3.250	0.383	-8.34	20.00	0.062	-24.15	43.50	0.048	-26.38	67.00	0.017	-35.39			
3.500	0.354	-9.02	20.50	0.076	-22.38	44.00	0.037	-28.64	67.50	0.023	-32.77			
3.750	0.347	-9.19	21.00	0.079	-22.05	44.50	0.028	-31.06	68.00	0.033	-29.63			
4.000	0.352	-9.07	21.50	0.070	-23.10	45.00	0.027	-31.37	68.50	0.044	-27.13			
4.250	0.360	-8.87	22.00	0.054	-25.35	45.50	0.036	-28.87	69.00	0.054	-25.35			
4.500	0.365	-8.75	22.50	0.041	-27.74	46.00	0.046	-26.74	69.50	0.062	-24.15			
4.750	0.362	-8.83	23.00	0.047	-26.56	46.50	0.054	-25.35	70.00	0.069	-23.22			
5.000	0.349	-9.14	23.50	0.061	-24.29	47.00	0.056	-25.04	70.50	0.074	-22.62			
5.250	0.326	-9.74	24.00	0.070	-23.10	47.50	0.053	-25.51	71.00	0.078	-22.16			
5.500	0.295	-10.60	24.50	0.069	-23.22	48.00	0.046	-26.74	71.50	0.079	-22.05			
5.750	0.259	-11.73	25.00	0.058	-24.73	48.50	0.036	-28.87	72.00	0.079	-22.05			
6.000	0.221	-13.11	25.50	0.043	-27.33	49.00	0.027	-31.37	72.50	0.077	-22.27			
6.250	0.187	-14.56	26.00	0.037	-28.64	49.50	0.027	-31.37	73.00	0.073	-22.73			
6.500	0.163	-15.76	26.50	0.045	-26.94	50.00	0.035	-29.12	73.50	0.069	-23.22			



Proposal

Submitted to:

State of Nebraska
State Purchasing Bureau
1526 K Street
Suite 130
Lincoln, NE 68508

Attn: Ms. Julie Dabydeen (AS)

by:

Electronics Research, Inc.

Scott Martin
Director of Television Sales

PHONE: 812-925-6000
CELL: 812-589-4755
FAX: 812-925-4030

samartin@eriinc.com

This document includes pages 1 of 10 and is governed by the terms and conditions contained herein. Upon customer acceptance, order is subject to final review and written acceptance by ERI at our main business office. Unless otherwise stated in the body of this quotation, freight charges are not included and will be added to the final invoice. Also, unless listed separately in the body of this quotation, prices do not include any state, local, or other taxes or duties.

NOTE: Any conflicts between Electronics Research, Inc. Terms and Conditions of Sale and Nebraska Purchasing Regulation or State Law will be waived.

Proposal Number: 20150618-429

Date: July 14, 2015
Valid Through: September 14, 2015
FOB Destination
Reference: ITB Number 5048 OF KTNE-DT

Payment Terms: Net 45 Days as specified

Please **complete** the Purchaser's Acceptance block, **scan** this document along with your deposit check and **e-mail** to: peggy@eriinc.com or **FAX** to: 812-925-4030. Please **remit** down payment to the address below, attn: Accounts Receivable.

Purchaser's Acceptance:

Please accept our order for the products and services contained in this proposal.

Signature _____

Name _____

Title _____

P.O. Number _____

Item	Qty	Part #	Description	Unit Price	Extended
001	1	ATW18V3-HTO-13	<p>TRASAR Top Mounted High Band VHF Television Antenna</p> <p>ERI Model ATW18V3-HTO-13 top mounted, horizontally polarized high band VHF television antenna for RF Channel 13 (210 to 216 MHz). Rated for 50 kW, average 8VSB, input power. 4-1/16-inch, 50 ohm, flanged male RF input. Described in ERI Preliminary Specification 20150618-429 dated July 10, 2014.</p>	233,900.00	233,900.00
001 Alt.	1	ATW18V3-HTO-13	<p>Optional Alternate Offer for Item 001</p> <p>TRASAR Top Mounted High Band VHF Television Antenna</p> <p>ERI Model ATW18V3-HTO-13 top mounted, horizontally polarized high band VHF television antenna for RF Channel 13 (210 to 216 MHz). Rated for 50 kW, average 8VSB, input power. 4-1/16-inch, 50 ohm, flanged male RF input. Described in ERI Preliminary Specification 20150618-429 dated July 10, 2014.</p> <p>With Payment Terms: 30% payment with order 30% payment 30 days ARO 30% prior to shipment 10% net invoice</p>	225,900.00	225,900.00
002	1	TST-001	<p>TV System Sweep (Tune and Test)</p> <p>One (1) ERI Technician to field match television antenna after installation. Price includes travel, local living expense, and daily field service rate for one (1) day on site.</p> <p>ERI field service price includes a single (per project) mobilization and indicated number of days on site, for one person. Additional days if required will be charged for at the rate of \$1,800.00 per day. Price includes test equipment usage. Field service prices are net to ERI and not discountable. Customer to provide tower crew to assist antenna field matching. Price valid for the location within the contiguous forty-eight (48) United States only. Contact ERI for pricing in other locations.</p>	6,250.00	6,250.00
				Delivery of Product	\$8,236.00
				Total Base Bid with Net 45 Day Payment Terms	\$248,386.00
				Total with Optional Alternate Offer for Item 001with Standard ERI Payment Terms Listed	\$240,386.00

Purchaser Information Page

Mail to Address:

Name: Julie Dabydeen (AS)
Company: State of Nebraska
State Purchasing Bureau
Address: 1526 K Street
Suite 130
City, ST Zip: Lincoln NE 68508
Country: United States
Phone: +1 (402) 470-6282
FAX: +1 (407) 471-2089
E-Mail: as.materialpurchasing@nebraska.gov

Ship to Address:

Name:
Company: Nebraska Educational Telecommunications
KTNE - Angora NE Transmitter Site
Address: 11660 Road 103
4 M East on County Rd 118
City, ST Zip: Angora NE 69331-9608
Country: United States
Phone:
FAX:
E-Mail:

Submit to Address:

Name: Julie Dabydeen (AS)
Company: State of Nebraska
State Purchasing Bureau
Address: 1526 K Street
Suite 130
City, ST Zip: Lincoln NE 68508
Country: United States
Phone: +1 (402) 470-6282
FAX: +1 (407) 471-2089
E-Mail: as.materialpurchasing@nebraska.gov

Consultant Address:

Name:
Company:
Address:
City, ST Zip:
Country:
Phone:
FAX:
E-Mail:

Ship Via:

ERI selected method, unless otherwise specified.

Special Shipping Method:

Final CP Received? Not Required

Comments:

1. Applicable to All Orders

1.1 Acceptance of Proposal: When the Proposal is signed by Buyer, returned to Electronics Research, Inc. (hereinafter called "ERI"), and accepted by ERI at its offices in Chandler, Indiana, USA, the Proposal shall become a binding agreement for the purchase by buyer from ERI of the Products and/or Services described therein, upon the terms specified, including these Terms and Conditions of Sale, attached to the Proposal. Refundable deposits are charged for some skids and large size cable reels. All orders are subject to a minimum charge of \$50.00 net.

1.2 Acknowledgement of Terms: By signing the Proposal, Buyer represents and acknowledges that it has fully read, understands, and accepts the terms of the Proposal, including these "Terms and Conditions of Sale" included therein, that the Proposal contains the complete and final agreement of Buyer and ERI with respect to the Products and/or Services described therein; that all other agreements, representations, and warranties, whether oral or in writing, made prior to or at the time of the signing of the Proposal, are merged and replaced therein; and that no change or addition to the Proposal shall be valid and enforceable unless made in writing and signed by an authorized representative of ERI.

1.3 Buyer's Terms and Conditions: ERI desires to provide its customers with prompt and efficient service. However, to negotiate individually the terms and conditions of each sales contract would substantially impair ERI's ability to provide such service. Accordingly, Products and Services furnished by ERI are sold only on the terms and conditions stated herein, any terms or conditions on Buyer's order to the contrary notwithstanding. ERI's performance of any contract is expressly made conditional on Buyer's agreement to ERI's Terms and Conditions of Sale unless otherwise specifically agreed to, in writing, by ERI. In the absence of such agreement, commencement of performance and/or delivery shall be for Buyer's convenience only and shall not be deemed or construed to be acceptance of Buyer's terms and conditions. If a contract is not earlier formed by mutual agreement, in writing, acceptance of any Product or Service shall be deemed acceptance of the terms and conditions stated herein. In the case of a conflict between the terms and conditions stated herein and those appearing on the face of this Proposal, the latter shall control. All contracts for the sale of Products and/or Services shall be construed under and governed by the laws of the State of Indiana, the location of ERI's primary manufacturing facilities and its corporate headquarters.

1.4 Conditions of Proposal: ERI's Proposal is subject to the following:

1.4.1 The Buyer warrants that all information supplied by it to ERI for the preparation by ERI of the Proposal, including oral and written correspondence, reports, plans, and specifications are adequate, accurate, workable, and practicable of design, and, if the supplied information is followed, a sufficient and satisfactory result will be achieved. Buyer shall be responsible for all costs incurred by ERI by reason of any inaccurate or incomplete information supplied by Buyer.

1.4.2 Unless otherwise stated in the Proposal, the Buyer is responsible for obtaining any necessary permits and/or approvals (FCC, FAA, local, etc.) needed to install and use the Products included in the Proposal. If the Proposal includes Installation Services, the necessary permits must be obtained prior to mobilization.

1.4.3 UNLESS OTHERWISE SPECIFIED, IN WRITING, ALL PROPOSALS ARE FIRM FOR, AND EXPIRE, THIRTY (30) DAYS AFTER DATE THEREOF AND CONSTITUTE OFFERS, provided, however, that budgetary Proposals and estimates are for preliminary information only and shall neither constitute offers, nor impose any responsibility or liability upon ERI.

1.4.4 Unless otherwise stated in writing by ERI in the Proposal, all prices in a Proposal shall be exclusive of transportation, insurance, taxes (including, without limitation, any sales, use or similar tax, and any tax levied on or assessed to ERI after Product delivery by reason of ERI's security interest in Products), license fees, customs fees, duties and other charges related thereto, and Buyer shall report and pay any and all such shipping charges, premiums, taxes, fees, duties and other charges related thereto, and shall hold ERI harmless there from, provided, however, that if ERI, in its sole discretion, chooses to make any such payment, Buyer shall reimburse ERI in full upon demand.

1.4.5 Stenographical, typographical and clerical errors contained in the Proposal are subject to correction.

1.4.6 Prices set forth in a Proposal are for Products and/or Services only and do not include technical data, proprietary rights of any kind, patent rights, qualification, environmental or other than ERI's standard product performance tests, and other than ERI's normal domestic commercial packaging, unless expressly agreed to in writing by ERI.

1.4.7 Published weights and dimensions are approximate only. Certified dimension drawings can be obtained upon request. Manuals, programs, listings, drawings, or other documentation required hereunder must be referenced specifically.

1.5 Terms of Payment: Unless otherwise stated in the Proposal, payment is due upon delivery. All payments for Products released and shipped on approved credit accounts shall be due in upon receipt of invoice therefore. Past due balances shall be subject to a late charge of 1.8% per month. Partial shipments will be billed as made and payments therefore are subject to the above terms. Payment shall not be withheld for delay in delivery of required documentation unless a separate price is stated therefore, and then only to the extent of the price stated for such undelivered documentation. ERI may cancel or delay delivery of Products in the event Buyer fails to make prompt payment therefore or in the event of an arrearage in Buyer's account with ERI.

1.6 Performance: ERI will make all reasonable effort to observe its dates indicated for delivery or other performance. However, ERI shall not be liable in any way because of any delay in performance hereunder due to acceptance of prior orders; technical difficulties; strike; lockout; riot; war; fire; act of God; accident; failure or breakdown of components necessary to complete an order; subcontractor, supplier or Buyer caused delays; inability to obtain or constrain substantial rises in the price of labor, materials or manufacturing facilities; curtailment of or failure too obtain sufficient electrical or other energy supplies; or compliance with any law, or regulation or order, whether valid or invalid, of any cognizant governmental body or any instrumentality thereof now existing or hereafter created; or due to any unforeseen circumstances or causes beyond ERI's control, provided such delay is neither material nor indefinite. ERI's performance shall be deemed suspended during and extended for such time as it is so delayed, and thereafter Buyer shall accept performance hereunder. Delay in performance shall not be considered material or indefinite unless it exceeds or is reasonably estimated by ERI to exceed a period of six (6) months. ERI reserves the right, in its sole discretion, to allocate inventories and current production and substitute suitable materials when, in its opinion, such allocation or substitution is necessary due to such circumstances or causes in the interest of conservation of scarce materials and efficient utilization of high value parts and components. ERI's products may contain remanufactured parts and components. Such parts and components are covered by the same warranty and are subject to the same high standards of quality control applied to other parts and components. No penalty clause for delay in performance contained in any Buyer-originated documents of any kind shall be effective. As used herein, "performance" shall include, without limitation, fabrication, shipment, delivery, assembly, installation,

testing and warranty repair or replacement, as applicable.

1.7 Change Orders: Buyer change orders must be in writing and no change shall be made pursuant to this clause unless agreed to in writing and signed by duly authorized representatives of ERI and Buyer. If any such change causes an increase or decrease in the cost or the time required for the performance of any part of the work, an equitable adjustment shall be made in the contract price and schedule. ERI shall have no obligation to commence any extra or changed work without written agreement as to adjustments to contract price and delivery schedules affected thereby.

1.8 Assignments and Terminations: Any assignment by Buyer of any contract created by the Proposal without the express written consent of ERI is void. No order may be terminated by Buyer except by mutual agreement in writing. Terminations by mutual agreement are subject to the following conditions: (a) Buyer will pay, at applicable contract prices, for all Products which are completely manufactured and allocable to Buyer at the time of ERI's receipt of a request for mutual termination; (b) Buyer will pay all costs, direct and indirect, which have been incurred by ERI with regard to Products which have not been completely manufactured at the time of ERI's receipt of a request for mutual termination, plus a pro rata portion of normal profit on the contract; (c) Buyer will pay a termination charge on all other Products affected by the termination. (d) Orders for standard catalog products may be canceled prior shipment, however any order that has been cut, filled or packaged prior to Seller's receipt of cancellation notice shall be subject to a 20% re-stocking charge. (e) Orders for non-standard products or specially manufactured products may be canceled prior to the start of manufacture provided Buyer reimburses ERI for any actual costs incurred on the order prior to the effective cancellation date. After manufacture commences, orders for non-standard products or specially manufactured products may not be canceled. In the event Buyer terminates such orders, Buyer shall be liable to ERI for termination charges, including, but not limited to, reasonable profits. ERI's normal accounting practices shall be used to determine costs and other charges. To reduce termination charges, ERI will divert completed parts, material or work in process from terminated contracts to other Buyers whenever, in ERI's sole discretion, it is practicable to do so.

1.9 Damages and Liability: ERI'S AGGREGATE LIABILITY IN DAMAGES OR OTHERWISE SHALL NOT EXCEED THE PAYMENT, IF ANY, RECEIVED BY ERI FOR THE UNIT OF PRODUCT OR SERVICE FURNISHED OR TO BE FURNISHED, AS THE CASE MAY BE, WHICH IS THE SUBJECT OF CLAIM OR DISPUTE. IN NO EVENT SHALL ERI BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, LIQUIDATED, OR SPECIAL DAMAGES, HOWSOEVER CAUSED. Liability to third parties for bodily injury, including death, resulting from ERI's performance shall be determined in accordance with applicable law and shall not be affected by the liability limitations stated above in this paragraph.

1.10 Disputes: All disputes under any contract concerning Products and/or Services not otherwise resolved between ERI and Buyer shall be resolved in a court of competent jurisdiction in the County of Warrick in the State of Indiana or the United States District Court for the Southern District of Indiana, Evansville Division, and in no other place. Provided, that in ERI's sole discretion, such action may be heard in some other place designated by ERI if necessary to acquire jurisdiction over third persons so that the dispute can be resolved in one action. Buyer hereby consents to the jurisdiction of such court or courts and agrees to appear in any such action upon written notice thereof. No action, regardless of form, arising out of, or in any way connected with, the Products or Services furnished by ERI, may be brought by Buyer more than one (1) year after the cause of action has occurred. If any part, provision or clause of these Terms and Conditions of sale, or the application thereof to any person or circumstances, is held invalid, void or unenforceable, such holding shall not affect and shall leave valid all other parts, provisions, clauses or applications of these Terms and Conditions remaining, and to this end these Terms and Conditions shall be treated as severable.

1.11 General Conditions:

1.11.1 No delay or failure on the part of ERI in exercising any right or remedy under any contract resulting from, and/or partial or single exercise thereof, shall constitute a waiver of such right or any other remedy. ERI's rights and remedies under any contract resulting here from are cumulative and not alternative.

1.11.2 If any term of any contract resulting here from or the application thereof shall be illegal, such illegality shall not affect any other term or condition thereof, and such shall continue in full force and effect.

1.11.3 Any contract resulting here from shall be binding upon the heirs, personal representative, successors and permitted assigns of the parties.

2. Applicable to Orders for Products

2.1 Transportation and Risk of Loss: Transportation will normally follow Buyer's shipping instructions, but ERI reserves the right to ship Products freight collect and to select the means of transportation and routing when Buyer's instructions are deemed unsuitable in ERI's judgment. Unless otherwise advised, ERI may, but shall be under no obligation to, insure to full value of the Products or declare full value thereof to the transportation company at the time of delivery, and all freight and insurance costs shall be for Buyer's account. Risk of loss and/or damage shall pass to Buyer upon delivery of the Products to the transportation company at the FOB point whether or not installation is provided by or under supervision of ERI. Confiscation or destruction of, or damage to Products shall not release, reduce or in any way affect the liability of Buyer therefore. Notwithstanding any defect or nonconformity, or any other matter, such risk of loss and/or damage shall remain in Buyer until the Products are returned at Buyer's expense to such place as ERI may designate, in writing. Buyer, at its expense, shall fully insure Products against all loss and/or damage until ERI has been paid in full or the Products have been returned for whatever reason to ERI. All Products must be inspected upon receipt and claims should be filed with the transportation company when there is evidence of shipping damage, either concealed or external. As used in the clauses appearing herein or attached hereto, "delivery" shall occur when the Product is delivered at the FOB point which shall be the point of manufacture or such other place as ERI shall specify, in writing, notwithstanding installation by or under supervision of ERI.

2.2 Acceptance: The shipment by ERI of a Product to the Buyer shall constitute acceptance of that Product by Buyer, unless notice of defect or nonconformity is received by ERI within thirty (30) days of receipt of the Product at Buyer's designated receiving address, provided, that for Products for which ERI agrees, in writing, to perform acceptance testing after installation, the completion of ERI's applicable acceptance test, or execution of ERI's acceptance form by Buyer, shall constitute acceptance of the Product by Buyer. Notwithstanding the foregoing, any use of a Product by Buyer, its agents, employees, contractors or licensees, for any purpose, after receipt thereof, shall constitute acceptance of that Product by Buyer. ERI may repair or, at its option, replace defective or nonconforming parts after receipt of notice of defect or nonconformity.

2.3 Shipment Delays/Billing in Place: Upon completion of Buyer's order, any delay in shipment attributable to Buyer, including, but not limited to, Buyer's request to defer the delivery date, shall cause the following to occur: Thirty (30) days after the original shipment date, a storage charge of 1½% of the invoice price per month will be billed to Buyer and title to the shipment will automatically pass to Buyer. ERI will invoice Buyer for completed goods and Buyer will pay in accordance with the terms of the original sale, as the goods will be deemed to have shipped in place. ERI will

insure against risk of loss until physical shipment of the goods to a common carrier. A tower shipment date is contingent upon receipt by ERI of all necessary site specific information. This information must be included with the signed Proposal and tower order. Depending upon the nature of the project, site specific information may include, but is not limited to: a site survey showing plot dimensions, topography, and possible obstructions; a geotechnical report; the desired tower orientation; the desired antenna orientation; and a complete shipping address.

2.4 Returns: Standard catalog products may be returned for credit provided such products are returned within six (6) months after the original shipment date. The minimum value accepted for return from each purchase order is \$50.00. The amount of credit issued for any returned product shall be determined solely by ERI based on the resalable condition of the product. Non-standard products, including products specially manufactured in accordance with Buyer's specifications or tuned to one or more specified operating frequencies may not be returned for credit. Buyer shall obtain ERI's written return goods authorization prior to returning any Product for credit.

2.5 Servicing Warning: The Products may be dangerous if improperly installed, handled, serviced, refurbished, or reinforced. In the event that repair, maintenance or servicing need to be performed on the Products, Buyer should contact ERI immediately. ERI shall not be liable for any damages or injuries occurring in connection with maintenance, servicing or repair work on the Products done by persons other than ERI or its duly authorized representatives.

2.6 Installation: Unless this Proposal includes installation services, Buyer is responsible for installation of the Products, including preparation and maintenance of all Products, materials, or services necessary for the operation of the Products not provided by ERI. All installations should be performed by qualified tower climbers and electricians. All OSHA, state and local safety regulations should be observed. Any photos or drawings in product literature, installation manuals, or drawings are used to illustrate a specific point and are not intended to supersede any OSHA, state or local safety regulations.

2.7 Patents and Other Intellectual Property Rights: ERI will, at its own expense and as set forth herein, defend any action brought against Buyer in respect to any claim that the design or manufacture of any Product in ERI's commercial line of Products or manufactured to specifications set by ERI and furnished hereunder, constitutes an infringement of any patents or other intellectual property rights of the United States. Subject to the provisions in the DAMAGES AND LIABILITY section hereof, ERI will pay all damages and costs either awarded in a suit or paid, in ERI's sole discretion, by way of settlement, which are based on such claim of infringement, provided, that Buyer promptly notifies ERI, in writing, of such claim or infringement and gives ERI full authority, information and assistance in settling or defending such claim, or ERI will, in its sole discretion and at its own expense, either procure a license which will protect Buyer against such claim without cost to Buyer, replace said Product with a non-infringing Product or remove said Product and refund an equitable portion of the price paid by the Buyer to ERI for said Product. ERI shall have no liability whatsoever hereunder with respect to any claims settled by Buyer without ERI's prior written consent. ERI EXPRESSLY EXCLUDES from any liability hereunder, and Buyer shall hold ERI harmless from and against, any expense, loss, costs, damages or liability resulting from claimed infringement of patents, trademarks, copyrights or other intellectual property rights: (a) arising from a use of or a combination of a Product with other equipment, processes, programming applications or materials not furnished under the Proposal; (b) based on items made with the Products furnished under the Proposal; (c) arising out of compliance by ERI with Buyer's designs, specifications or instructions; and/or (d) arising from use or manufacture by anyone of inventions in connection with Products or services sold, used or intended for sale or use in performing contracts with the United States or related subcontracts. The foregoing states ERI's entire liability for any claim based upon or related to any alleged Infringement of any patent or other intellectual property rights.

2.8 Standard Two (2) Year Product Limited Warranty: Electronics Research, Inc. (ERI) warrants to the original Buyer that its Product is free from defects in material or workmanship

2.8.1 existing at the time of shipment from the factory or

2.8.2 that develop under normal use in a properly installed and maintained system for a period of twenty-four (24) months following the date of shipment, ex-works.

2.8.3 ERI Exclusions: Expressly excluded from the terms of this limited warranty are defects caused by:

2.8.3.1 faulty installation;

2.8.3.2 all minor system leakage ("leakage" is defined in paragraph 2.8.15), below);

2.8.3.3 equipment leaks and detuning if caused by rough handling or installation;

2.8.3.4 lack of proper inspection and maintenance;

2.8.3.5 unusually severe weather, lightning, icing, acts of God; such events require inspection for, and correction of, such damage;

2.8.3.6 water intrusion, foreign materials in the system;

2.8.3.7 vandalism, physical abuse, tampering, or unauthorized disassembly, repair or modification without explicit written approval of ERI;

2.8.3.8 operation not in accordance with published ratings, specifications, or instructions.

2.8.4 ERI Products are delivered Ex-Works. Unless ERI supervises the transportation, delivery, and/or installation of the product, ERI is not responsible for damage that may result from incorrect or improper transportation, storage, handling or installation of Products.

2.8.5 Buyer shall regularly inspect and maintain all ERI manufactured parts and Resale parts in accordance with ERI's and/or manufacturer's inspection and maintenance guidelines and in accordance with all regulations and recommendations of any government agency or body and in accordance with generally accepted industry maintenance standards. An initial inspection shall be conducted promptly after installation to verify that the installation is properly performed in accordance with ERI's and/or the manufacturer's installation instructions and procedures. Such inspections shall be performed at Buyer's expense by qualified personnel, and inspection summary report(s) shall be prepared immediately upon inspection completion. Reports of initial inspections shall be submitted to ERI Customer Service. Buyer shall forever protect, defend, indemnify, and hold ERI free and harmless against all claims, demands, liabilities, cause of action (including, without limitation, legal costs and expenses and reasonable attorney's fees) arising out

of, or relating to Buyer's failure to completely discharge its obligations hereunder.

2.8.6 Buyer shall follow promptly all recommendations from qualified inspectors and/or ERI regarding the maintenance of all ERI manufactured and Resale structural Products.

2.8.7 Upon making a warranty claim, make copies of all preceding inspection reports and dispositions available to ERI for review.

2.8.8 Any defective warranted component of an ERI product will be repaired or replaced at the place of manufacture, ex-works, without charge if all defective components are returned by the Buyer to ERI, and ERI inspection discloses that such defects are as reported and are not the result of ERI Exclusions.

2.8.9 Under some circumstances, continuity of service may necessitate immediate shipment of repair parts before ERI inspection of defective parts. Under these conditions, ERI requires that Buyer place an order for replacement parts and will require that all defective parts be packaged and returned for factory inspection and determination of warranty status. If failure is determined to be covered by this warranty, credit will be issued for parts ordered by Buyer to expedite replacement.

2.8.10 Other than the replacement of defective Products or components ex-works, ERI shall not be responsible for any costs or expenses incurred by the Buyer arising from the identification, removal, and replacement of defective products.

2.8.11 ERI, at its sole discretion, may choose to supply warranty parts for repairs on site. In such cases, materials shall be shipped free of additional charge to the site. Losses arising from repair or replacement activities, including those for delays, rigging, and additional installation or maintenance crew time, are not covered under this warranty.

2.8.12 Warranty repairs/replacements, whether at factory or on site, will fulfill the term of the original warranty. No extension of the original warranty term will be allowed.

2.8.13 "Resale equipment/parts/components" are defined as equipment, parts, or components purchased from another manufacturer or supplier and resold by ERI, shall only carry such manufacturer's or supplier's standard warranty in effect at the time of Product shipment from the supplier.

2.8.14 Antenna warranties shall be void if Buyer does not (i) purge and pressurize the antenna system with dry nitrogen or dry air furnished by the Buyer immediately following the installation of the system to initially check for installation leaks and (ii) maintain the antenna under a positive pressure of approximately 2 to 5 pounds per square inch at all times, including prior to installation, using either dry nitrogen or dry air. This warranty is void in the event that the system is pressurized above ERI's published instructions.

2.8.15 Minor leakage in a large system can be difficult if not impossible to detect, especially since temperature variations can mask their extent. ERI recommends the installation of dehydration equipment in any significant pressurized system. Minor leakage is beneficial because it causes occasional cycling the dehydration equipment and provides a fresh purge to the system. ERI regards any leak resulting in a system pressure drop of 0.5 PSI per day or less, temperature compensated, as an acceptable leak rate not actionable under these warranty terms.

2.8.16 For the scope and purposes of this warranty with regard to ERI manufactured structural towers/parts and resale structural parts, the phrase "Current Standard" is defined as the most current revision of ANSI/TIA-222 Standard including, but not limited to, all relevant appendices and annexes thereof, and all relevant documents incorporated by reference therefrom. This warranty shall be void if the Buyer does not:

2.8.16.1 follow all relevant and applicable directives as set forth in the Current Standard;

2.8.16.2 consult and obtain explicit approval from ERI regarding the qualifications of the tower crew chosen to implement/install any structural repairs and/or modifications;

2.8.16.3 consult and obtain explicit approval from ERI prior to implementing changes to the structure serviceability requirements, structure classification, and/or tower appurtenance loading (such as antennas, transmission lines, mounts, ice shields, platforms, ladders, etc.) which varies significantly from the original design parameters as determined by ERI.

2.8.17 Adequate VSWR monitoring and protection equipment must be installed and properly maintained in the transmission system to prevent system damage from ice, lightning, and other natural phenomena. Failure to properly install, maintain, or observe the warnings of the VSWR protection equipment voids this warranty, and subsequent damage caused by such failure is not covered under this warranty. ERI recommends purchase of an ERI manufactured or approved VSWR protection unit at time of antenna purchase.

2.8.18 If warranty site service is requested, it will be provided pursuant to a Buyer issued purchase order. If defects are not found to be the result of a valid warranty claim an invoice for such service will be issued at prevailing rates.

2.8.19 Notification of warranty claim must be provided to ERI within 30 days of the triggering event or detection of the failure.

2.8.20 In no case may the value of the warranty claim exceed the purchase price of the Product.

2.8.21 Warranty services will be provided and valid claims will be honored as long as Buyer is current on all accounts due and owing to ERI.

2.8.22 The foregoing warranty is and shall be in lieu of all other warranties, express or implied, including any implied warranty of merchantability and any implied warranty of fitness for a particular application or purpose. There are no warranties, representations of fact, or promises with respect to signal coverage or strength.

2.8.23 Under no circumstances shall ERI be obligated or liable for special incidental, indirect, consequential or other damages, losses, or expenses in connection with or by reason of the foregoing warranty or by reason of some other type of express or implied warranty found to exist notwithstanding the foregoing disclaimers.

2.9 Warranty Replacement and Adjustment: All claims under warranty must be made promptly after occurrence of circumstances giving rise thereto and must be received within the applicable warranty period by ERI or its authorized representative. Such claims should include the Product

type and serial numbers and a full description of the circumstances giving rise to the claim. Before any Products are returned for repair and/or adjustment, written authorization from ERI or its authorized representative for the return and instructions as to how and where such Products should be shipped must be obtained. Any Product returned to ERI for examination shall be sent prepaid via the means of transportation indicated as acceptable by ERI. ERI reserves the right to reject any warranty claim not promptly reported and any warranty claim on any item that has been altered or has been shipped by non acceptable means of transportation. When any Product is returned for examination and inspection, or for any other reason Buyer shall be responsible for all damage resulting from improper packing or handling, and for loss in transit notwithstanding any defect or non conformity in the Product. In all cases ERI has sole responsibility for determining the cause and nature of failure, and ERI's determination with regard thereto shall be final. If it is found that ERI's Product has been returned without cause and is still serviceable, Buyer will be notified and the Product returned at its expense; in addition, a charge for testing and examination may, in ERI's sole discretion, be made on Products so returned.

2.10 General Conditions:

2.10.1 ERI reserves the right to change or modify its design and construction of the Products and/or to substitute materials equal to or superior to or functional equivalents to that originally specified herein provided, however, that any substitution, change or modification shall not materially and adversely affect Buyer's ability to use the Products.

2.10.2 ERI reserves the right to make changes in design and construction of the Products it manufactures for others and to make and/or add improvements in such Products at any time without incurring any obligation to install the same in the products sold herein.

2.10.3 The Buyer shall at its expense engage any qualified engineer necessary to approve ERI's design, obtain building permits, and insure structural integrity of existing structure considering any ERI addition or appurtenance unless otherwise specified in the Proposal. ERI shall furnish construction and installation drawings and engineering data for its Products upon request.

2.10.4 The Proposal is submitted in accordance with the ANSI/EIA/TIA-222 standard in effect as of the date of the Proposal, unless otherwise stated in the body of the Proposal. This standard is intended to set the minimum criteria for the structural design, fabrication and construction of antennas and antenna support structures. It is the responsibility of the Buyer to provide site specific data and design requirements and any requirements differing from those contained in this standard to ERI prior to accepting the Proposal. Please refer to the applicable edition of the ANSI/EIA/TIA-222 standard for further information.

2.10.5 Buyer is responsible for any and all disposal and recycling of Products, packaging, reels, shipping crates, and other items associated with the fulfillment of order, as well as for compliance with any mandated "green" initiatives.

3. Special Terms and Conditions Applied to Field and Installation Services

3.1 The Proposal is based on work carried out in one mobilization and continuous operation without interruption or delays due to Buyer supplied missing materials, such as, but not limited to antennas, transmission lines, transmission line hangers, installation drawings, tower components, or electrical power. All material necessary for completing installation to be furnished by Buyer, must be on the tower site prior to starting of installation or scheduled in such a manner as to avoid delaying crew. Proposal is also based upon the following conditions:

3.1.1 Painting of the tower components (i.e. antenna or line) is not included in Proposal unless specified in Proposal.

3.1.2 Antenna feed line system will end just inside the transmitter facility (max 20'). Purchaser to have existing port for the line to enter. ERI is not responsible for installation inside the transmitter facility, such as, but not limited to inside line runs, hangers, wall feed through plates, etc. ERI can perform these tasks at our standard daily rate if so desired.

3.1.3 This Proposal is subject to mutually negotiated scheduling and availability of resources and personnel.

3.1.4 No guy wires interlaced or overhead power lines in working areas.

3.1.5 No tower, antenna, feed line, and/or bracket modifications required unless specified in Proposal.

3.1.6 No onsite transmission line field cuts required. If necessary, additional charges will be billed.

3.1.7 Antennas are assumed to have no more than 2 parasitic directors per bay. Each additional will be billed as necessary.

3.1.8 Taxes, bond or permit costs/fees have been paid by buyer/customer.

3.1.9 All antennas to be non-radiating or reduced to a safe power level while ERI personnel are in the immediate RF zones.

3.2 Downtime resulting from situations beyond the control of ERI or its subsidiary ERI Installations, Inc. as described above, will be billed at normal labor rates.

3.3 The Proposal on labor to install tower and/or antenna and other related equipment is based upon weather and time of day suitable for outdoor construction. Installation, field services and hazardous operations shall not be performed under adverse weather conditions for the safety of ERI personnel. Adverse weather delays shall be charged to Buyer at normal day rates and will be added to the construction schedule as time extensions. Certain operations may be performed under adverse weather conditions by mutual agreement and shall be billed at special rates provided in the Proposal. The ERI representative is the sole determinant of suitable and safe conditions while ERI personnel are on site.

3.4 In the event adverse weather causes a delay, ERI will notify the Buyer of those conditions and charges immediately. The responsibility for determine this condition rests with the ERI supervisor on site.

3.5 The tower site shall be accessible to workman and installation equipment, using two wheel drive vehicles (under their own power) and heavy construction equipment such as, but not limited to cranes, concrete trucks, semi tractor trailers, forklifts, etc.

3.6 All labor is based upon non-union wages. Should any conditions exist such that the use of union trades for installation of the tower, accessories and/or foundations is necessary, the prices stated in the Proposal are subject to adjustment unless a union stipulation has been specifically noted in

the Proposal. Unless provided by ERI, the foundations must be completed so as to permit continuous work from time ERI's crew reports on the job, and must be finished in accordance with ERI's specifications.

3.7 The Buyer assumes all liability resulting from site conditions differing from those specified or agreed to by the Buyer.

3.8 Unless otherwise specified in the Proposal, it is also Buyer's responsibility to:

3.8.1 To provide one (1) tagline path (75 feet wide and equal in length to the height of the tower) at the work face, cleared of all obstructions in order to permit a truck to be driven thereon.

3.8.2 Clear a guy path alley and fire lane down each guy radial 25 feet wide on each side of the guy line; and extend this lane 50 feet beyond the outer guy anchor, a 10 foot width of this 50 foot lane must be cleared of all obstructions in order to permit a truck to be driven thereon.

3.8.3 So grade the area immediately surrounding the tower site so as to permit the movement of trucks, cranes and/or other equipment required to handle and install the tower or related appurtenances.

3.8.4 Clear an area a minimum of 200 feet x 200 feet adjacent to the center of the tower to permit unloading, sorting, assembling, working space, and shall provide a hoist and equipment area 20 feet x 50 feet with capabilities for anchoring.

3.8.5 Provide a free and clear radius of 100 feet at the tower base for construction equipment and to allow staging and landing during tower construction and for future service work. This area shall have a rock/gravel surface bedding to support heavy equipment.

3.8.6 Provide fittings and gas required in pressure checking all of the antennas and transmission lines, if required.

3.8.7 A safe and secure work site to prevent theft and vandalism of contractor provided equipment and materials and Buyer delivered materials.

3.8.8 Provide electric power to the base of the tower suitable for powering construction equipment and tools. This also includes permanent electric power for the tower lighting system, if required, in accordance with the current revision of FAA circular AC 70/7460-1.

3.8.9 Provide the police service to direct traffic, if in the event the guy lines should cross a public or private road and secure the site from theft or vandalism of ERI equipment.

3.8.10 Provide toilet facilities, water, and trash containers for waste disposal. If sufficient trash receptacles are not provided, all trash and removed steel, antennas, mounts, lines, etc. shall be neatly left on site.

3.8.11 Provide scaled site survey of proposed tower location specifying tower location and orientation, property boundaries, site topography, overhead or buried utility service lines, or any other construction hazards or obstructions. Also provide survey required for antenna location and/or directional proof.

3.8.12 Provide a cleared and level area suitable for and capable of anchoring a hoist with a minimum area of 30' x 25'.

3.8.13 Obtain a tower structural analysis from a licensed Professional Engineer appropriate to the scope of work being requested.

3.8.14 Obtain any necessary rights of way and/or easements to allow access to work sites.

3.8.15 Provide a local certified electrical worker to make final connections. ERI's responsibility for lighting conduit and electrical wiring ends at the base of the tower.

3.8.16 Coordinate any required RF reductions or off air time to allow ERI to perform necessary work in a safe and acceptable RF environment without any work flow interruption. If this cannot be accomplished, standby charges will apply at standard rates. ERI is NOT responsible for any consequential damages or loss of revenue or audience as a result of having to reduce transmitter power or go off air in order to accomplish a safe working environment.

3.8.17 Provide surveyed and staked locations for utilities, foundations, and directional proof prior to arrival of tower installation and/or foundation installation crews. Surveys must be coordinated with ERI.

3.9 When foundations are specified as a part of the Proposal, the Proposal for such work is based upon such work being undertaken and completed under "assumed normal" soil conditions as described by the latest revision of the ANSI/EIA-222 code. It shall be the responsibility of the Buyer to supply specific soil descriptive parameters, and ERI shall have an absolute right to rely on written test reports furnished by Buyer in the preparation of foundation drawings and in the installation of foundations. Normal soil conditions do not include rock, saturated soil, frozen soil, peat, or other soil variations similar or dissimilar. If subsurface soil conditions differ from geotechnical report and delay foundation work, the project schedule will be increased accordingly and additional charges will be billed.

3.10 The installation price does not include work such as clearing or grading of tower site; installing, re-locating or repairing utility services; obtaining profiles or surveys; installing grounding systems unless specified; blasting; rock removal; water evacuation; cribbing; installing fill; removal of obstructions; snow removal, installation of planking; road building; clearance for site access; clearing of guy anchor paths; or any other kind of site preparation or site maintenance work.

3.11 If necessity dictates non-included labor or materials to be expended resulting from but not limited to, compliance to OSHA or local safety standards, inadequate site accessibility, non-included specified soil conditions, non-included labor or material requirements, then ERI shall be allowed to increase the installation and materials price to include any additional cost incurred, plus a reasonable profit.

3.12 ERI has the right to complete installation work early and be compensated for delay damages if other segments of the project, not in ERI control, affect an early completion of any part of ERI's work if ERI submits a reasonable plan to place the Buyer on notice of the intent to finish early and submits documentation of delays.

3.13 If requested or approved by the Buyer, ERI may provide accelerated services including overtime and/or multiple crews, as required to maintain the schedule or provide other services, and Buyer agrees to compensate ERI for such services.

Revised November 24, 2014

Electronics Research, Inc.
Response to
INVITATION TO BID ONE TIME
PURCHASE

State of Nebraska

Broadcast Television Antenna Replacement for KTNE-TV

Solicitation Number: 5048 OF

Opening Date and Time: July 14, 2015 2:00 PM

ERI Company and General Product Information

Table of Contents

ERI Company Information.....	2
Primary Business and Services	2
Company Background.....	2
Product Information.....	4
TRASAR® Product Information.....	4
High Band VHF Television Antennas.....	4
Pressurized Antennas.....	5
Array Antenna Pattern Measurement Techniques.....	7
ERI Standard Two (2) Year Limited Product Warranty.....	10

Created July 8, 2015

ERI Company Information

Primary Business and Services

Electronics Research, Inc. is a company focused on serving the needs of the terrestrial radio and television broadcasters with antennas, transmission line, RF components, and structural products. The company is focused on providing high quality and sophisticated engineering solutions to customer problems. ERI Products and Services include:

- UHF and VHF Television Broadcast Antennas
 - TRASAR[®] VHF and UHF Antennas
 - ALP Series UHF Antennas
 - AL PLUS Series UHF Antennas
 - AL Series UHF Antennas
 - MANTIS VHF and UHF Antennas
 - VHF and UHF Panel Antennas
 - Batwing VHF Antennas
- iBOX[™] Digital Radio Systems
- Single and Multi-Station FM antennas
 - ROTOTILLER[®] FM Antennas
 - 1180 and 1190 Series FM Panel Antennas
- Filters and Combiners
- Rigid Coaxial Transmission Line
 - MACXLine[®]
- Rectangular and Circular Waveguide
 - GUIDELine[®]
- Broadcast Master Distributor for Andrew HELIAX^{®1} products and accessories
- Guyed and Self-Supporting Towers
- Grounding and Lightning Protection Products
- Turnkey Installation Services
- After-Sales Maintenance and Inspection Services
- Structural Analysis
- Tower Reinforcement, regardless of tower origin
- Tower Rescue and Repair Assistance

ERI has continuously served the broadcast industry with a dedicated team of engineering professionals, supported by experienced and meticulous craftsman for product fabrication and dedicated project management to insure on time and on budget project delivery, installation, and commissioning.

Company Background

Electronics Research, Inc. (ERI) is a company that has provided state-of-the-art telecommunications and broadcast products since 1943. ERI's products and services include: television and FM antennas; RF filters and combiners; self-supporting and guyed towers; grounding and lightning protection products; installation, maintenance, structural analysis and inspection services; rigid coaxial transmission line and UHF waveguide transmission line systems. ERI is also the Broadcast Master Distributor for Andrew HELIAX, HELIAX accessories, pressurization products, and terrestrial microwave products.

¹ HELIAX[®] is registered trademark of Andrew Corporation.

In November 2003, ERI completed the acquisition of selected assets that comprised Andrew Corporation's television broadcast antenna business. The acquisition included Andrew's MACXLine and GUIDELine transmission line products and the company's complete line of television transmitting antennas. In addition, to purchasing these assets ERI has also entered into an agreement to serve as an Andrew Master Distributor of HELIAX products and accessories to the broadcast market.

Electronics Research corporate headquarters and main manufacturing facility is located in Chandler, Indiana. Our Midwest location provides the benefit of the most convenient, cost effective, product transportation to any part of North America. The ERI facility is located on 100 acres and includes a total of more than 200,000 square feet of indoor manufacturing space. The company takes full advantage of innovative technology, which includes the latest computer modeling, design, and drafting tools; as well as the latest computer controlled machining and milling equipment. ERI's main manufacturing facility also includes an advanced acid cleaning facility and an in-house silver-plating operation. This high degree of vertical integration allows control of product quality at every step during fabrication and final assembly. ERI has 132 employees, including four (4) registered professional engineers.

Electronics Research, Inc. is officially certified under the Steel Building Standard of the American Institute of Steel Construction (AISC). This designation reaffirms ERI's dedication to the quality-control process and our on-going effort to ensure our customers receive the highest quality structural systems.

ERI began manufacturing towers and providing structural analysis services in 1990. We manufacture guyed and self-supporting towers and produce a line of monopole towers. ERI also has registered structural engineers on staff to provide structural analysis and reinforcement design services to tower owners. ERI has manufactured and installed towers ranging in height from less than 100-feet to 2000-feet. The structural division of ERI also provides a complete line of grounding and lightning protection products.

The company maintains two fulltime tower crews each with a full set of equipment, trucks, and winches. All tower crews undergo rigorous safety training and the company's training regime is considered one of the industry's best. The company also maintains a separate crew that focuses on tower inspections. The company is compliant with all current OSHA regulations, maintains liability and workmen's compensation insurance at or above minimum requirement levels and can provide performance and payment bonds, for specific projects if required.



ERI Headquarters and Manufacturing Facility.

Product Information

TRASAR[®] Product Information

High Band VHF Television Antennas

Electronics Research, Inc. proposes to supply a top mounted TRASAR[®] High Band VHF television antenna. The antenna proposed is an elliptically polarized, traveling wave antenna equipped with four lightning rods, designed to be mounted on the top of a suitably designed, customer supplied, transmission tower.

The antenna proposed is a, slotted cylinder, enclosed in a pressurized radome. The TRASAR[®] offers significant benefits:

- The antenna proposed is a center fed design and provides the specified electrical beam tilt of 0.75 degrees.
- The pressurized radome enclosure protects the antenna from harsh environments and provides adequate clearance so the ice formation does not effect operation.
- The radome includes strakes molded into the top 26 feet of the radome to eliminate vortex shedding.
- To further enhance reliability TRASAR antennas incorporates fixed shorts and a patented bellows section in the inner conductor to compensate for the differential expansion between the inner and outer conductor.
- The fixed DC short across the internal feed line also protects the antenna against lightning damage.
- The antenna proposed has an omnidirectional horizontally polarized horizontal plane (azimuth) pattern.

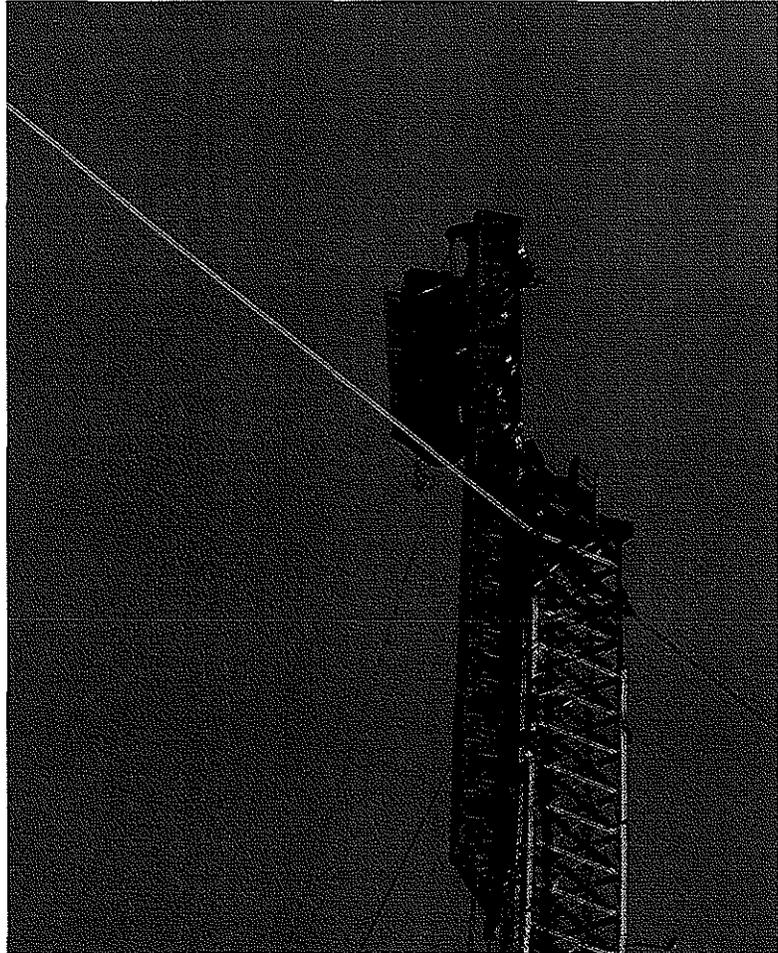


Figure 1 Top Mounted Channel 7 Circularly Polarized TRASAR VHF Television Antenna in the final stage of placement at the top of the WEHT-TV Tower.

If the antenna and transmission line pressurization is maintained there should be no need to break open the radome and access the antenna inner or outer conductor. The fixed DC shorts between the inner and

outer conductor has no finger stock or sliding contacts and so there is no periodic inspection or maintenance associated with these elements.

Pressurized Antennas

Broadcast television antennas have critical components that would be impaired greatly in the presence of water or other contaminants. Many antennas have flange junctions nearly identical to those critical junctions found in the transmission lines mentioned above. In addition, the performance of radiating elements, coupling devices, and power dividing components suffers if subjected to corrosive or contaminated environments. Without the use of pressurization equipment to eliminate the ingress of contaminants, periodic maintenance is required to clean and repair the damaged surfaces.

Ingress protected antenna equipment, with IP67 or better ratings, requires no periodic maintenance. No dust or debris from the harsh external environment will contaminate critical conducting surfaces and points of conductor contact. No water will be pumped into the antenna by passing storms and pressure changes. After 30 years of service, critical components (Figure 5) will still be shiny and undamaged.

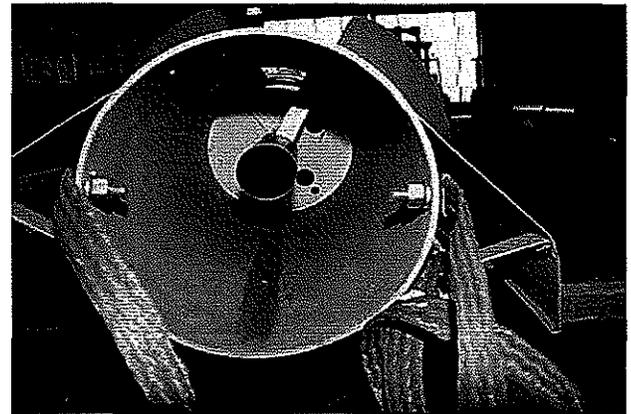


Figure 2 Pressure Protected Antenna After 30 Years of Service in Chicago

Analysis of Pressurized Radome Enclosures

Pressurized radome enclosures eliminate the effects of the environment on the internal components of the antenna. This reduces the maintenance involved on a pressurized antenna to external damage to the radome, such as a lightning strike -- a very unlikely occurrence. In contrast, the likelihood of damage to the internal components of a non-pressurized antenna is great, as well as the probability that it will go unnoticed until catastrophic failure occurs.

Creating Enclosures

Waveguide and coaxial transmission lines contain many joints sealed with O-rings around the flanges. Terrestrial and satellite microwave transmission lines are similarly sealed and pressurized². All such transmission lines contain critical junctions that would corrode or otherwise degrade in the presence of contaminants, and for this reason that almost all high-power broadcast transmission facilities have pressurization equipment supplying dry gas to transmission lines. These systems contain o-rings and high-pressure flanges providing a seal, and they are pressurized as well. With a sealed volume of air, or any other gas, a pressure vessel exists. Such volumes are created in an effort to eliminate ingress of water or other contaminants. A small amount of gas is leaked in every seal, and over time a pressure differential will not exist between the sealed volume of gas and the environment surrounding it (Figure 6).

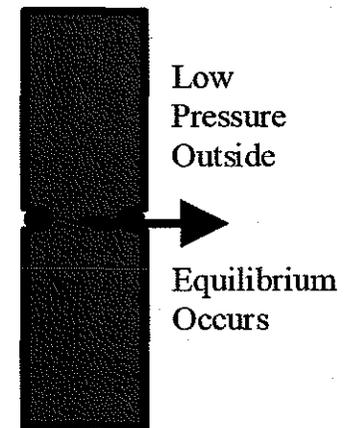


Figure 3 Pressure Equilibrium in Low-Pressure Storm

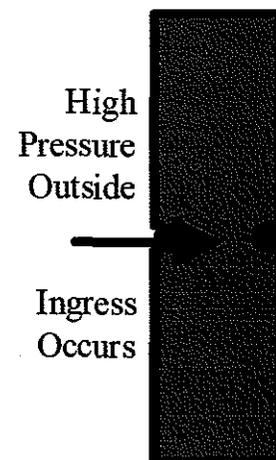


Figure 4 High Pressure System Moves In

² Wittaker, Jerry, ed., *NAB Engineering Handbook*, 9th Edition, Washington, DC, 1999

Efforts to create volumes sealed from environments that include the passage of weather systems are often thwarted by the pressure changes. A situation where the outside pressure rises above the pressure of the sealed environment is inevitable and accompanied by moisture (Figure 7). The moisture and other contaminants are ultimately pumped into the sealed volume. Without equipment to constantly provide greater pressure in the enclosure, water and other contaminants would be pumped into the sealed line every time a front passes.

Ingress Protection Ratings

		1st Digit	2nd Digit
Levels of Protection	0	No special protection	
	1	Objects greater than 50mm in diameter.	Protection from dripping water.
	2	Object not greater than 80mm in length and 12mm in diameter.	Protection from vertically dripping water.
	3	Tools, wire, etc., of thickness greater than 1.0mm.	Protection from sprayed water.
	4	Any object with a diameter or thickness greater than 1.0mm	Protection from splashed water.
	5	Volume of dust that would interfere with operation	Protection from water projected from a nozzle
	6	Dust tight.	Protection against heavy seas, or powerful jets of water.
	7	NA	Protection against immersion.
	8	NA	Protection against complete, continuous submersion in water.

Table 1 Ingress Protection (IP) Ratings

The IEC Test Standard EN 60529³ outlines an international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign objects (i.e. tools, dust, fingers) and moisture. This classification system uses the letters "IP" ("Ingress Protection") followed by two digits.

The first digit of the IP code indicates the degree that persons are protected against contact with moving parts (other than smooth rotating shafts, etc.) and the degree that equipment is protected against solid foreign bodies intruding into an enclosure. The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.).

³ IEC 60529, Edition 2.1, Degrees of protection provided by enclosures (IP Code), Geneva, Switzerland, 2001.

Array Antenna Pattern Measurement Techniques

Measurement of antenna patterns on a far-field test range, in a near-field environment, or in an anechoic chamber has been studied and standardized⁴. The correlation between measurements made in the far-field and those made in an anechoic chamber is also an active field of study⁵. Independent radiation pattern measurements of two UHF broadcast antenna arrays are compared and discussed.

Two major areas of interest when specifying performance parameters for television transmitting antennas are elevation pattern and azimuth pattern. For proper coverage, a great deal of time, money and effort are usually expended to determine not only the ideal azimuth and elevation patterns but also their relationship to available transmitter power configurations and limitations. The final radiation pattern of any antenna is determined by the amplitude and phase distribution over the antenna aperture [4]. The aperture effects can be divided into two separate and independent radiation characteristics: the azimuth pattern and the elevation pattern. The product of these two patterns gives the total radiation pattern for the antenna.

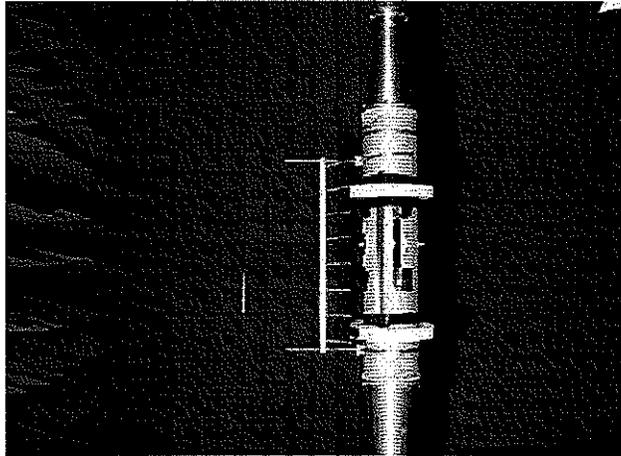


Figure 5 ERI's Anechoic Chamber

Azimuth Pattern Measurement

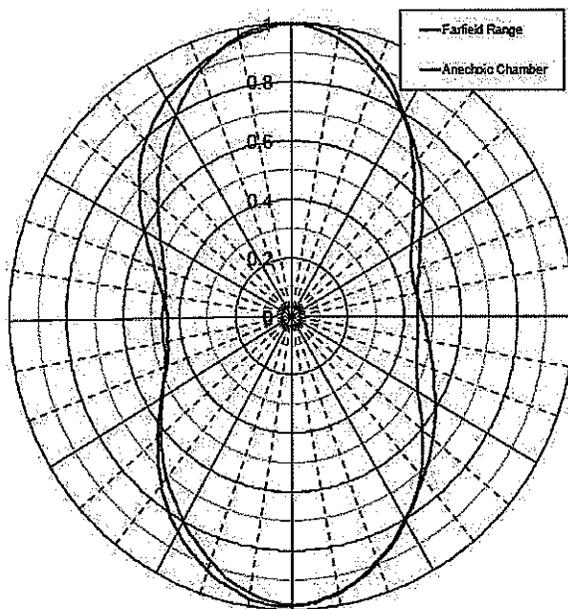


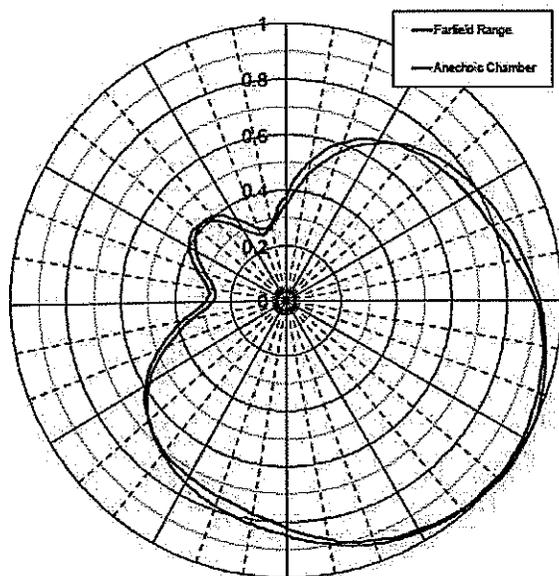
Figure 6 Channel 32 Azimuth Pattern Comparison

For UHF antennas, directional azimuth patterns are often chosen to optimize the coverage of the viewing area and to maximize the Effective Radiated Power (ERP) of the antenna by using the higher azimuth gains [5]. It is very important to eliminate all extraneous signals from the measurements or significant error can be introduced.

The appropriate conditions are accomplished by using an anechoic chamber (see Figure 8) for azimuth pattern testing. The anechoic chamber is designed with absorbing material that covers the walls, ceiling and floor to prevent any unwanted reflections during the measurement procedure. The anechoic chamber is a controlled measurement environment. It aims to represent the free space condition of the design criteria because it minimizes reflections and, at the same time, allows direct measurement of the azimuth pattern. It is not subject to the dynamic environmental influences that affect measurements on a far-field test range, reflections from buildings, vegetation, seasonal changes, rain, snow or ice. This assures both very accurate measurement results and repeatability of the results

⁴ Kummer, W.H., ed., IEEE Standard Test Procedures for Antennas – IEEE Std 149-1979, John Wiley & Sons, Inc., New York, 1979
⁵ Fourestie, B., et al, "On the Use of the Matrix-Pencil Method to Correlate Measurements at Different Test Sites," IEEE Trans. Antennas and Propagation, vol. 47, pp. 1569-1573, Oct. 1999.

at any time.



If the geometry of the antenna array is the same at any cross section, it is only necessary to measure a full-scale segment of the array to determine the azimuth pattern of the full antenna. The factorization of the antenna pattern into an element pattern and array factor allows model studies and other investigations to be carried out where only the azimuth pattern is of interest. In order to provide the most accurate measurements possible and to ensure that the antenna is in strict conformance with the design requirements, an anechoic chamber is employed for antenna model measurements and production testing of broadcast antenna azimuth patterns. A full-scale, one-bay model for two antenna arrays was measured in an anechoic chamber and compared with patterns measured on the full array on a far field test range (see Figure 9 and Figure 10).

Figure 7 Channel 26 Azimuth Pattern Comparison

Elevation Pattern Measurement

To determine the elevation pattern of the antenna requires that the entire array be assembled and that the phase and amplitude distribution across the aperture be measured. Because reflections and extraneous signals can cause significant error in this measurement, ideally the antenna should be placed inside an anechoic chamber and the elevation pattern measured in the same manner as the azimuth pattern. However, the physical size and cost of such a structure prohibits this in the UHF band.

An alternate method of measurement was developed to simulate the "free space" condition of the anechoic chamber. This near-field method uses an isolated probe to measure the slot excitation (amplitude and phase) of each slot in the array.

With the measured data, α_i , β_i , and the known array geometry, d_i , the array factor may be computed by the following equation:

$$E(\theta) = \sum \alpha_i e^{j(kd_i \cos \theta + \beta_i)}$$

where k is the propagation constant and θ is the elevation angle. The product of the array factor and the pattern of the one-bay element produce the elevation pattern. The measured data and pattern are compared with the design data for conformance to design specifications.

There are two major advantages of this measurement technique. Because the measurements are made in the nearfield, the effects of reflections and other unwanted signals are greatly reduced. Also, because the elevation pattern specifications are based on a particular phase and amplitude distribution across the aperture, a direct comparison between predicted and measured patterns and distributions is possible. This greatly accelerates the test program by eliminating the need to determine if any variances are caused by interference in the measurements. Any adjustments that are necessary are immediately visible as well as what corrective action is required. Again, this technique is a measurement of the radiation pattern near-field method for improving accuracy when comparing to the design criteria.

The elevation patterns of two UHF arrays were measured using the near-field sampling method and are compared with the direct far-field measurements (Figure 11 and Figure 12).

Pattern Comparisons

To better understand the ability to accurately measure the radiation patterns of a broadcast transmitting antenna, a comparison with traditional far-field measurements is shown. Variations in the azimuth pattern are less than 1dB, and variations in the main beam region of the elevation pattern are also less than 1dB. The differences may be attributed to undesirable reflections in the far-field test environment. The pattern data from the near-field probe measurement (for the elevation pattern) and the anechoic chamber (for the azimuth pattern) show excellent correlation with far-field test range results.

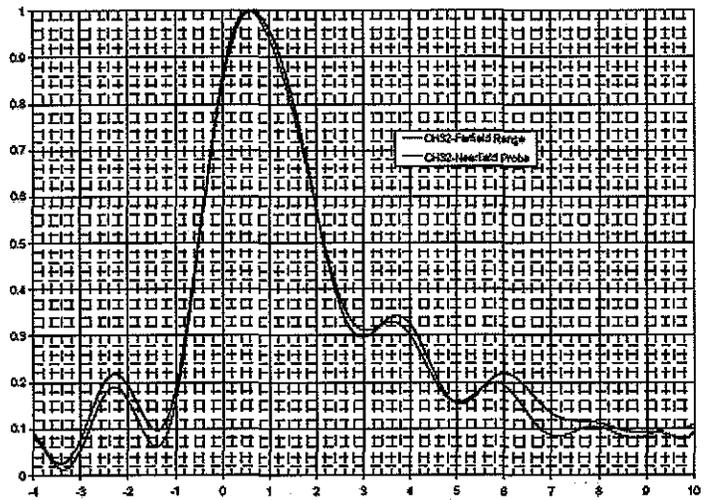


Figure 8 Channel 32 Elevation Pattern Comparison

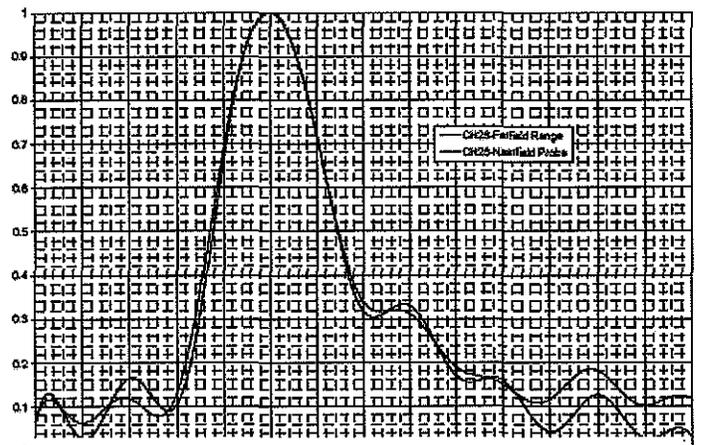


Figure 9 Channel 26 Elevation Pattern Comparison

ERI Standard Two (2) Year Limited Product Warranty

- 2.8. **Standard Two (2) Year Product Limited Warranty:** Electronics Research, Inc. (ERI) warrants to the original Buyer that its Product is free from defects in material or workmanship
- 2.8.1. existing at the time of shipment from the factory or
 - 2.8.2. that develop under normal use in a properly installed and maintained system for a period of twenty-four (24) months following the date of shipment, ex-works.
 - 2.8.3. ERI Exclusions: Expressly excluded from the terms of this limited warranty are defects caused by:
 - 2.8.3.1. faulty installation;
 - 2.8.3.2. all minor system leakage ("leakage" is defined in paragraph 2.8.15), below);
 - 2.8.3.3. equipment leaks and detuning if caused by rough handling or installation;
 - 2.8.3.4. lack of proper inspection and maintenance;
 - 2.8.3.5. unusually severe weather, lightning, icing, acts of God; such events require inspection for, and correction of, such damage;
 - 2.8.3.6. water intrusion, foreign materials in the system;
 - 2.8.3.7. vandalism, physical abuse, tampering, or unauthorized disassembly, repair or modification without explicit written approval of ERI;
 - 2.8.3.8. operation not in accordance with published ratings, specifications, or instructions.
 - 2.8.4. ERI Products are delivered Ex-Works. Unless ERI supervises the transportation, delivery, and/or installation of the product, ERI is not responsible for damage that may result from incorrect or improper transportation, storage, handling or installation of Products.
 - 2.8.5. Buyer shall regularly inspect and maintain all ERI manufactured parts and Resale parts in accordance with ERI's and/or manufacturer's inspection and maintenance guidelines and in accordance with all regulations and recommendations of any government agency or body and in accordance with generally accepted industry maintenance standards. An initial inspection shall be conducted promptly after installation to verify that the installation is properly performed in accordance with ERI's and/or the manufacturer's installation instructions and procedures. Such inspections shall be performed at Buyer's expense by qualified personnel, and inspection summary report(s) shall be prepared immediately upon inspection completion. Reports of initial inspections shall be submitted to ERI Customer Service. Buyer shall forever protect, defend, indemnify, and hold ERI free and harmless against all claims, demands, liabilities, cause of action (including, without limitation, legal costs and expenses and reasonable attorney's fees) arising out of, or relating to Buyer's failure to completely discharge its obligations hereunder.
 - 2.8.6. Buyer shall follow promptly all recommendations from qualified inspectors and/or ERI regarding the maintenance of all ERI manufactured and Resale structural Products.
 - 2.8.7. Upon making a warranty claim, make copies of all preceding inspection reports and dispositions available to ERI for review.

State of Nebraska

Broadcast Television Antenna Replacement for KTNE-TV

Solicitation Number: 5048 OF

ERI Company and General Product Information

- 2.8.8. Any defective warranted component of an ERI product will be repaired or replaced at the place of manufacture, ex-works, without charge if all defective components are returned by the Buyer to ERI, and ERI inspection discloses that such defects are as reported and are not the result of ERI Exclusions.
- 2.8.9. Under some circumstances, continuity of service may necessitate immediate shipment of repair parts before ERI inspection of defective parts. Under these conditions, ERI requires that Buyer place an order for replacement parts and will require that all defective parts be packaged and returned for factory inspection and determination of warranty status. If failure is determined to be covered by this warranty, credit will be issued for parts ordered by Buyer to expedite replacement.
- 2.8.10. Other than the replacement of defective Products or components ex-works, ERI shall not be responsible for any costs or expenses incurred by the Buyer arising from the identification, removal, and replacement of defective products.
- 2.8.11. ERI, at its sole discretion, may chose to supply warranty parts for repairs on site. In such cases, materials shall be shipped free of additional charge to the site. Losses arising from repair or replacement activities, including those for delays, rigging, and additional installation or maintenance crew time, are not be covered under this warranty.
- 2.8.12. Warranty repairs/replacements, whether at factory or on site, will fulfill the term of the original warranty. No extension of the original warranty term will be allowed.
- 2.8.13. "Resale equipment/parts/components" are defined as equipment, parts, or components purchased from another manufacturer or supplier and resold by ERI, shall only carry such manufacturer's or supplier's standard warranty in effect at the time of Product shipment from the supplier.
- 2.8.14. Antenna warranties shall be void if Buyer does not (i) purge and pressurize the antenna system with dry nitrogen or dry air furnished by the Buyer immediately following the installation of the system to initially check for installation leaks and (ii) maintain the antenna under a positive pressure of approximately 2 to 5 pounds per square inch at all times, including prior to installation, using either dry nitrogen or dry air. This warranty is void in the event that the system is pressurized above ERI's published instructions.
- 2.8.15. Minor leakage in a large system can be difficult if not impossible to detect, especially since temperature variations can mask their extent. ERI recommends the installation of dehydration equipment in any significant pressurized system. Minor leakage is beneficial because it causes occasional cycling the dehydration equipment and provides a fresh purge to the system. ERI regards any leak resulting in a system pressure drop of 0.5 PSI per day or less, temperature compensated, as an acceptable leak rate not actionable under these warranty terms.
- 2.8.16. For the scope and purposes of this warranty with regard to ERI manufactured structural towers/parts and resale structural parts, the phrase "Current Standard" is defined as the most current revision of ANSI/TIA-222 Standard including, but not limited to, all relevant appendices and annexes thereof, and all relevant documents incorporated by reference there from. This warranty shall be void if the Buyer does not:
- 2.8.16.1. follow all relevant and applicable directives as set forth in the Current Standard;
 - 2.8.16.2. consult and obtain explicit approval from ERI regarding the qualifications of the tower crew chosen to implement/install any structural repairs and/or modifications;
 - 2.8.16.3. consult and obtain explicit approval from ERI prior to implementing changes to the structure serviceability requirements, structure classification, and/or tower appurtenance loading (such as antennas, transmission lines, mounts, ice

shields, platforms, ladders, etc.) which varies significantly from the original design parameters as determined by ERI.

- 2.8.17. Adequate VSWR monitoring and protection equipment must be installed and properly maintained in the transmission system to prevent system damage from ice, lightning, and other natural phenomena. Failure to properly install, maintain, or observe the warnings of the VSWR protection equipment voids this warranty, and subsequent damage caused by such failure is not covered under this warranty. ERI recommends purchase of an ERI manufactured or approved VSWR protection unit at time of antenna purchase.
- 2.8.18. If warranty site service is requested, it will be provided pursuant to a Buyer issued purchase order. If defects are not found to be the result of a valid warranty claim an invoice for such service will be issued at prevailing rates.
- 2.8.19. Notification of warranty claim must be provided to ERI within 30 days of the triggering event or detection of the failure.
- 2.8.20. In no case may the value of the warranty claim exceed the purchase price of the Product.
- 2.8.21. Warranty services will be provided and valid claims will be honored as long as Buyer is current on all accounts due and owing to ERI.
- 2.8.22. The foregoing warranty is and shall be In lieu of all other warranties, express or implied, including any implied warranty of merchantability and any implied warranty of fitness for a particular application or purpose. There are no warranties, representations of fact, or promises with respect to signal coverage or strength.
- 2.8.23. Under no circumstances shall ERI be obligated or liable for special incidental, indirect, consequential or other damages, losses, or expenses in connection with or by reason of the foregoing warranty or by reason of some other type of express or implied warranty found to exist notwithstanding the foregoing disclaimers.
- 2.9. **Warranty Replacement and Adjustment:** All claims under warranty must be made promptly after occurrence of circumstances giving rise thereto and must be received within the applicable warranty period by ERI or its authorized representative. Such claims should include the Product type and serial numbers and a full description of the circumstances giving rise to the claim. Before any Products are returned for repair and/or adjustment, written authorization from ERI or its authorized representative for the return and instructions as to how and where such Products should be shipped must be obtained. Any Product returned to ERI for examination shall be sent prepaid via the means of transportation indicated as acceptable by ERI. ERI reserves the right to reject any warranty claim not promptly reported and any warranty claim on any item that has been altered or has been shipped by non acceptable means of transportation. When any Product is returned for examination and inspection, or for any other reason Buyer shall be responsible for all damage resulting from improper packing or handling, and for loss in transit notwithstanding any defect or non conformity in the Product. In all cases ERI has sole responsibility for determining the cause and nature of failure, and ERI's determination with regard thereto shall be final. If it is found that ERI's Product has been returned without cause and is still serviceable, Buyer will be notified and the Product returned at its expense; in addition, a charge for testing and examination may, in ERI's sole discretion, be made on Products so returned.