UNITED STATES OF AMERICA FEDERAL COMMUNICATIONS COMMISSION

RADIO STATION AUTHORIZATION

(page 1)

CALL SIGN: E960250 FILE NO.: 1018-DSE-P/L-96

NAME: BLR COMMUNICATIONS, INC.

CONSTRUCTION PERMIT AND LICENSE

DATE OF GRANT: JULY 5, 1996 COMMON CARRIER EXPIRATION DATE: JULY 5, 2006 NATURE OF SERVICE: DOMESTIC FIXED SATELLITE SERVICE NATURE OF SERVICE: INTERNATIONAL FIXED SATELLITE SERVICE CLASS OF STATION: TEMPORARY FIXED EARTH STATION

LATITUDE LONGITUDE

LOCATION OF STATION: STATION ADDRESS:

VARIOUS (County),

SUBJECT TO THE PROVISIONS OF THE COMMUNICATIONS ACT OF 1934, THE COMMUNICATIONS SATELLITE ACT OF 1962, SUBSEQUENT ACTS AND TREATIES, AND ALL PRESENT AND FUTURE REGULATIONS MADE BY THIS COMMISSION, AND FURTHER SUBJECT TO THE CONDITIONS AND REQUIREMENTS SET FORTH IN THIS PERMIT AND LICENSE, THE GRANTEE IS AUTHORIZED TO CONSTRUCT, USE AND OPERATE THE RADIO FACILITIES DESCRIBED BELOW FOR RADIO COMMUNICATIONS FOR THE TERM BEGINNING JULY 5, 1996 (3 A.M. EASTERN STANDARD TIME) AND ENDING JULY 5, 2006 (3 A.M. EASTERN STANDARD TIME). THE REQUIRED DATE OF COMPLETION OF CONSTRUCTION IS JULY 5, 1997. GRANTEE MUST FILE WITH THE COMMISSION A CERTIFICATION UPON COMPLETION OF CONSTRUCTION.

1. PARTICULARS OF OPERATIONS

		:	EIRP DENSITY		SPECIAL PROVISIONS
FREQUENCIES (MHz)		EIRP	(dBW/	ASSOCIATED	(REFER TO FCC
AND POLARIZATION	EMISSION	(dBW)	4kHz)	ANTENNA (S)	FORM 488-A)
1.14000.000-14500.000 H,V	36M0F3F	70.10	43.11	VIDEO	1900 5630
2.14000.000-14500.000 H,V	3 M0 0G7D	69.40	40.65	DIGITAL	1900 5630
3.10950.000-11200.000 H,V	36M0F3F			VIDEO	1010 5630
4.10950.000-11200.000 H,V	3M00G7D			DIGITAL	1010 5630
5.11450.000-12000.000 H,V	36M0F3F			VIDEO	1010 5630
6.11450.000-12000.000 H,V	3M00G7D			DIGITAL	1010 5630

2. FREQUENCY COORDINATION LIMITS

	Satellite Arc (Deg. Long.)			Max. EIRP Density to	
Frequency Limits (MHz)	East West Limit Limit		East West Limit Limit		
1.14000.000-14500.000	W- W	<i>i</i> 0	0	-3.0	
2.10950.000-11200.000 3.11450.000-12000.000			-		

FCC Form 488

UNITED STATES OF AMERICA FEDERAL COMMUNICATIONS COMMISSION

RADIO STATION AUTHORIZATION

(page 2)

CALL SIGN: E960250 FILE NO.: 1018-DSE-P/L-96

RECEIVING SYSTEM NOISE TEMP: (NOT APPLICABLE TO TRANSMIT-ONLY OPERATIONS)

RECEIVING SYSTEM NOISE TEMPERATURE (Continued): 120 KELVIN AT 10.0 DEGREES ELEVATION AND 11,950 MHz

3. POINTS OF COMMUNICATIONS -- THE FOLLOWING SPACE STATIONS LOCATED IN THE GEO-STATIONARY SATELLITE ORBIT CONSISTENT WITH SECTIONS 1 AND 2 OF THIS LICENSE:

- a. ALL AUTHORIZED U.S. DOMESTIC (ALSAT) satellite(s)
- b. INTELSAT ATLANTIC OCEAN REGION (AOR) satellite(s) of the INTELSAT system
- c. PACIFIC OCEAN REGION (INTELSAT POR) satellite(s) of the INTELSAT system
- d. PANAMSAT ATLANTIC OCEAN REGION satellite(s)
- e. ORION F1 (ORION F1 @ 37.5 W.) satellite(s) of the ORION system

f. PANAMSAT PACIFIC OCEAN REGION satellite(s) of the PANAMSAT system

4. TRANSMITTING EQUIPMENT

		OUTPUT
UNITS MANUFACTURER	MODEL NUMBER	POWER-WATTS
1. 2 MCL	10999	280.0

5. ANTENNA FACILITIES SITE/ELEVATION: METERS AMSL The antenna sidelobe pattern(s) meet(s) the requirements of Section 25.209 of FCC Rules and Regulations as amended for 2 degree spacing.

DIAMETER

			MAX. ANT. HT.
UNIT	S (Meters) FEED MANUFACTURER	MODEL NUMBER	(Meters)
1.	1 2.40 PRIM ANDREW	ESA24VSMKU1	AMSL
	MAXIMUM GAIN(S): 50.1 dBi	at 14 GHz	3.9 AGL
	Total input power at anten	na flange = 100.0 Watt	58
	Aggregate output EIRP for	all carriers = 70.10 dBW	maximum

6. REMOTE CONTROL POINT: NONE

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7. ANTENNA STRUCTURE MARKING AND LIGHTING REQUIREMENTS: NONE

ATTACHED FCC FORMS 488-A AND 488-B (STANDARD PROVISIONS) ARE INCORPORATED INTO THIS AUTHORIZATION. SPECIAL PROVISION REFERENCE NUMBERS ARE AS FOLLOWS: IN SECTION 1 ABOVE; GENERAL PROVISION REFERENCE NUMBERS ARE AS FOLLOWS:

(1): 2010(2): 2079(3): 2454(4): 2810(5): 2916(6): 2938(7): 5012(8): 5013(9): 5017(10): 5018(11): 5028(12): 5202(13): 5203(14): 5215(15): 5223(16): 5225(17): 2605

FCC Form 488

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SPECIAL AND GENERAL PROVISIONS FOR RADIO STATION AUTHORIZATION

The radio station authorization granted on FCC Form 488 for File No. 1018-DSE-P/L -96, CALL SIGN: E960250 is subject to additional terms and conditions specified by code numbers on that form. The text of these special and general provisions is given below:

- 1010 Receive frequency band. Emission designator indicates the maximum bandwidth of transmission received at this station. Maximum E.I.R.P. and maximum E.I.R.P. density are not applicable to receive operations.
- 1900 Authority is granted to transmit any number of r.f. carriers with the specified parameters on any discrete frequencies within this band in accordance with the other terms and conditions of this authorization, subject to any additional limitations that may be required to avoid unacceptable levels of inter-satellite interference.
- 2010 This authorization is issued pursuant to the Commission's Second Report and Order adopted June 16, 1972 (35 FCC 2d 844) and Memorandum, Opinion and Order adopted December 21, 1972 (38 FCC 2d 665) in Docket No. 16495 and is subject to the policies adopted in that proceeding.
- 2079 (a) Operation of this station is limited to locations within the territory of the United States.
 - (b) All operations shall be in accordance with the applicable provisions of Sections 21.707 & 21.708 of the Rules.
 - (c) Unless separate authorization is granted by the Commission for International communications, operations herein are limited to communication with earth stations within the United States via U.S. domestic satellites.
- 2454 All satellite uplink transmissions carrying broadband video information shall comply with the Automatic Transmitter Identification System (ATIS) requirements of Section 25.308 of the Rules, as modified by FCC Report No. DS-1066, released on April 3, 1991.
- 2605 Licensee is authorized to provide services between the United States and Foreign countries listed in its underlying application via the authorized non-U.S. satellites.
- 2810 The grantee shall maintain on file with the Commission a current list or plan of the precise frequencies in actual use at this station, specifying for each such frequency: the r.f. center frequency, polarization, emission designator, EIRP (dBW), EIRP density (dBW/4 kHz), and receiving earth station(s). This list or plan may be submitted either on a station-by-station basis or on a system-wide basis, and shall be updated within seven days of any changes in frequency usage at this station. Temporary usage of

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frequencies for periods of less than seven days need not be notified to the Commission if accurate station records are maintained of the times and particulars of such temporary frequency usage.

- 2916 The transmitter(s) must be turned off during antenna maintenance so that the FCC-specified safety guidelines for human exposure to radiofrequency radiation are complied with in the region between the feed and the reflector. Appropriate measures must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines.
- 2938 Upon completion of construction, each licensee must file with the Commission a certification including the following information: name of the licensee, file number of the application, call sign of the antenna, date of the license and certification that the facility as authorized has been completed, that each antenna facility has been tested and is within 2 dB of the pattern specified in Section 25.209 and that the station is operational including the date of commencement of service and will remain operational during the license period unless the license is submitted for cancellation.
- 5012 The authority granted here is limited to the operation of the facilities described above and does not include any authority to install and operate channelizing equipment or any other authority under Section 214 of the Communications Act of 1934, as amended, to establish channels of communication.
- 5013 In the event of the failure of a satellite with which operations are authorized in Section 3 of this license, operations are authorized in conjunction with any INTELSAT satellite in the affected Ocean Region that provides the services authorized herein in order to maintain the continuity of commercial service; provided that the licensee(s) immediately notify the Commission of the nature of this emergency and its expected duration; and provided that the operational limits of elevation angle and azimuth range specified in Section 2 of this license are not exceeded. In the event that such emergency operations require emissions not specified in Section 1 of this license, such emissions may be utilized provided that the EIRPs of such emissions do not exceed the limits set forth in this license.
- 5017 Operation of this station is governed by the terms, conditions and limitations in Part 25 of the Commission's Rules and Regulations and the following additional conditions:
 1. This license shall not vest in the Licensee(s) any right to operate the station or any right in the use of the

frequencies designated in the license beyond its term or in any other manner than authorized in the license; 2. Neither the license nor the right granted under it shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended, or the Commission's Rules and Regulations issued under it; and 3. This station is subject to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended.

- 5018 This license shall be forfeited automatically if this station is not ready for operation within the time specified unless, prior to the expiration date of this license, the Commission receives an Application for Additional Time to Construct a Radio Station (FCC Form 701) filed by the Licensee(s) showing good cause why the Licensee(s) could not complete construction on time.
- 5028 All operations via ORION satellite system are restricted to the provision of capacity through the sale or lease of transponder capacity for communications not interconnected with the public-switched message networks (except for emergency restoration service) and shall be in accordance with the technical parameters summarized and conditions described in Attachments No. 1 and 2 to BG-80-33 and Attachments No. 1 and 2 to Addendum No. 1 to BG-80-33, "Technical Consultation Concerning the ORION Satellite System" (May 1989). This authorization is subject to all terms and conditions imposed on the ORION satellite system by the Commission. This authorization is not to be construed as including any uplink or downlink authority in other countries, and all communications via ORION satellite system shall be between the U.S. and those countries authorized in the above-referenced application which ORION satellite system is authorized by the Commission to serve.
- 5202 Use of this facility to provide service on a common carrier basis will require appropriate authorization under Section 214 of the Communication Act of 1934, as amended.
- 5203 All communications shall be in accordance with the satellites and services which have completed consultations under Article XIV(d) of the INTELSAT Agreement and which the Commission has approved.
- 5215 All operations shall be on a common carrier basis.

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5223 - All operations via the PANAMSAT satellite system are restricted to the provision of capacity through the sale or lease of transponder capacity for communications not interconnected to the public switched network. This authorization is subject to all terms and conditions imposed on the PANAMSAT satellite system by the Commission. This

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authorization is not to be construed as including any uplink or downlink authority in other countries, and all communications via the PANAMSAT satellite system shall be between the United States and those countries authorized in the above-referenced application which the PANAMSAT satellite system is authorized by the Commission to serve.

- 5225 This action constitutes the final step with respect to the provision of the services only insofar as the U.S. regulatory process is concerned. However, this authority shall not be construed as authorizing the distribution of programming where the appropriate copyright clearances have not been obtained or where the U.S. Government has determined that appropriate copyright protection does not otherwise exist.
- 5630 International services shall be consistent with this emission designator, the underlying title III application(s) and the acquisition of any necessary Section 214 authority.

COMMUNICATIONS SATELLITE EARTH STATION STANDARD PROVISIONS

THIS AUTHORIZATION IS SUBJECT TO THE FOLLOWING CONDITIONS:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303 (q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F. R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R. § 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station:

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of construction permit for additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

FCC Form 488-B

EDEPAL COMMUNICATIONS COMMISSI Vashington, D.C. 20554	Ex	proved by OMB 3060-0480 pires 05/31/97	FOR FCC USE ONLY	19199	6 1015-055-871 6 1960250
FCC 493 - APPLICATION	•	r Response: 24 Hrs. ON AUTHORIZATI		SMOULAR	
SECTION I (FEE PORTION)	OF STAT READ INSTRUCTIO	FION LICENSE	Hacton	Maria Maria	ORIGINAL
PART I				900000	·····
APPLICANT NAME (Last, first, middle	initial)				
BLR Communications, Inc.					
MAILING ADDRESS (Line 1) (Maximur	n 35 characters - n	refer to Instruct	ons for C	mpleting Sec	ion I, no. 2.
8624 Frederick Road			G	atoliite and	
MAILING ADDRESS (Line 2) (if requir	red) (Maximum 35	characters)	Radinoom	munications D	
CITY Ellicott City		·······		<u> </u>	<u>. </u>
STATE OR COUNTRY (if foreign addre	ess) ZIP CODE	CA	LL SIGN	OTHER H	FCC IDENTIFIER
Maryland	21043				
Enter in Column (A) the correct Fee Typ Common Carrier Services Fee Filing Guid	de. Enter in Column	(B) the Fee Multi	ole, if appli	cable. Enter in	Column (C) the result
obtained from multiplying the value of th (A)	ne Fee Type Code in (B)	n Column (A) by		entered in Col	umn (B), if any.
FF		FEE DUE	(C)	YPE	
FEE TYPE CODE	if required)		I COLUMN		FOR FCC USE ONLY
		\$1,755.	00		
	1	\$ 1,755.	00		
		\$1,755.	00		
	u are requesting co			It in a require	ment to list more
B A X PART II – To be used only when you than one Fee Type Code.			which resu	It in a require	ment to list more
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE	(B) MULTIPLE required)	FEE DUE		YPE	FOR FCC USE ONLY
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE	(B) MULTIPLE	FEE DUE	which resu (C) FOR FEE T	YPE	
B A X PART II – To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (If	(B) MULTIPLE	FEE DUE	which resu (C) FOR FEE T	YPE	
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if	(B) MULTIPLE	FEE DUE	which resu (C) FOR FEE T	YPE	
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if	(B) MULTIPLE	FEE DUE	which resu (C) FOR FEE T	YPE	
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if (2)	(B) MULTIPLE	FEE DUE	which resu (C) FOR FEE T	YPE	
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if (2)	(B) MULTIPLE	FEE DUE CODE IN	which resu (C) FOR FEE T	YPE	
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if (2)	(B) MULTIPLE	FEE DUE CODE IN	which resu (C) FOR FEE T	YPE	
B A PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if (2) (3)	(B) MULTIPLE	FEE DUE CODE IN	which resu (C) FOR FEE T	YPE	
B A X PART II – To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if (2) (3)	(B) MULTIPLE	FEE DUE CODE IN	which resu (C) FOR FEE T	YPE	
PART II – To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if (2)	(B) MULTIPLE	FEE DUE CODE IN	which resu (C) FOR FEE T	YPE	
B A X PART II – To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if	(B) MULTIPLE	FEE DUE CODE IN	which resu (C) FOR FEE T	YPE	
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE	(B) MULTIPLE	s	which resu (C) FOR FEE T	YPE	
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if (2) (3) (4) (5) ADD ALL AMOUNTS SHOWN IN COLUM	(B) MULTIPLE required)	s	which resu (C) FOR FEE T I COLUMN	YPE (A)	
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE (if (2) (3) (4) (5) ADD ALL AMOUNTS SHOWN IN COLUM THROUGH (5), AND ENTER THE TOTAL	(B) MULTIPLE required)	s TOTAL AN	Which resu (C) FOR FEE T COLUMN		
B A X PART II - To be used only when you than one Fee Type Code. (A) FEE TYPE CODE FEE [if (2) (3) (4) (5) ADD ALL AMOUNTS SHOWN IN COLUM	(B) MULTIPLE required)	s TOTAL AN	which resu (C) FOR FEE T I COLUMN		FOR FCC USE ONLY

FCC 493 - Page 1 MAY 1994

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12. Frequency Coordination	n Limits						
(a)	(b) Range of	Satellite Arc	(c) Antenna E	levation Angle	(d) Earth Sta	(e) Maximum EIRP	
Frequency Limits	(i) Eastern Limit	(ii) Western L im it	(i) Eastern Limit	(ii) Western Limit	(i) Eastern Limit	(ii) Western Limit	Density Toward the Horizon (dBW/4kHz)
14 to 14.5GHz	Varies	Varies	Varies	Varies	Varies	Varies	-3.02

13. Transmitting Equipment

(a) No. of HPA's	(b) Manufacturer	(c) Model No.	(d) Maximum Power Output (watts)
2	MCL	10999	280 Watts
			· · · · · · · · · · · · · · · · · · ·

14. Antenna Facilities (Corresponding line number in items 14 and 15 applies to same antenna)

Line No.	(a) Quantity	(b) TT&C*	(c) Manufacturer	(d) Model	(e) Size (meters)	(f) Type of Feed	(g) Gain Transmit and/or Receive (dBi at GHz)
1	1		Andrew	ESA24VSMKU1	2.4	Prime	50.1dBi @ 14.25GHz
-3							
4							

15. Antenna Heights (Measurements to be given in English and metric units)

Line	(h) Maximum Antenna Height			(i) Building Height**		(j) Maximum Antenna Height**			
No.	Above Ground L	evel	Above Mean S	Sea Level	Above Groun	d Level		Above Roc	oftop
1	12 feet 3.9	meters	N/A feet	meters	N/A feet	meters	N/A	feet	meters
2	feet	meters	feet	meters	feet	meters		feet	meters
3	feet	meters	feet	meters	feet	meters		feet	meters
4	feet	meters	feet	meters	feet	meters		feet	meters

16. Particulars of Operation (Full particulars are required for each r.f. carrier)

(a) Frequency Bands (MHz)	(b) Antenna Polariza- tion (H,V,L,R)	(c) Emission Designator	(d) Maximum EIRP (dBW)	(e) Maximum EIRP Density (d8W/4kHz)		
14000-14500	H,V	36MOF3F	74-07	47-08	Video	
14000-14500	H,V	3M00G7D	69.4	40.65	Digital	
10950-11200	H,V	36MOF3F	_		Video	
10950-11200	H,V	3M00G7D	=		Digital	
11450-12000	H,V	36MOF3F	-	-	Video	
11450-12000	H,V	3M00G7D		·	Digita1	
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		<u></u>				
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					L	
17. Receiving System Noise Temperature: (in kelvin with applicable antenna elevation angle and frequency) $120 \text{ Deg/K} = 10 \text{ Deg E1}$ and 11950MHz						
*Check only for antennas used for sa	tellite Tel	emetry, Tracking and	Control (TT&C			

**Attach sketch of site or exemption. See 47 CFR Part 17.

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ja .		Place an "X" in the appropriate column.	YES	NO	
27. Rule Waivers an	d Exceptions				
Is this application	inconsistent with any of the Commission's Rules?	►	{	X	
If "YES", attach a copy of requests for waivers or exceptions with supporting documents.					
28. Eligibility (a) is the applican	t a foreign government or a representative thereof?	•		x	
	icant meet the requirements of Section 310(bX1), (2) and (3)) of the Communications Act			
	(1), (2) and (3))?		x		
	icant meet the requirements of Section 310(b)(4) of the Con tach an exhibit explaining why grant is in the public interest.		x		
29. Will the station	be used to provide common carrier services?		x		
	be used for developmental purposes?			x	
It "YES", a	ttach an exhibit detailing the developmental plan.				
corporation) act If "NO",	tenna, will individual applicant, partner (in case of partnership wely participate in the day-to-day management and operation submit an exhibit providing an explanation, and including a de over the facility will be retained.	of proposed facility?	x		
accurate FCC 4	antennas that provide domestic or international service, attach 30 form is already on file with the FCC give date filed:				
•	30 form attached?	•	X	l	
33. Exhibits. Identify Exhibit No.	the exhibits that are attached to this application.		<u> </u>		
1	Radiation Hazard Analysis				
2	Specification of Foreign Destinati	on Points			
3	opecification of foreign vestimati	on points			
4					
5				<u> </u>	
this application, that	of Person Responsible for Preparing Engine I am the technically qualified person responsible for prepar am familiar with Part 25 of the Commission's Rules, that I in this application, and that it is complete and accurate to th	ation of the engineering information con have either prepared or reviewed the en		in	
Date	Typed Name of Person Signing	Signature			
3/12/96	Gordon L. Robertson		>		
subject to a denial the case of a nonin is subject to a denia 1.2002. X YES The applicant waives power of the Unite struction permit, if hereof and are inco	any claim to the use of any particular frequency or of the ed d States because of the previous use of the same, whethe necessary, in accordance with this application. All statements inporated herein as if set out in full in this application. The the statements made in this application are true, complete ar	Drug Abuse Act of 1988, 21 U.S.C. 853 orporated association), no party to the ap tion of a "party" for these purposes, see electromagnetic spectrum as against the re- ter by license or otherwise, and requests made in the attached exhibits are a mate he undersigned, individually and for the a	a, or, oplication 47 Cf egulato a cor erial pa application	in on FR ory n- art nt,	
Date 3-14-96	Typed Name of Person Signing Robert D. Lehson	Signature			
WILLFUL FALSE STA Section 1001), and/o (U.S. Code, Title 47,	TEMENTS MADE ON THIS APPLICATION ARE PUNISHABLE REVOCATION OF ANY AUTHORIZATION (U.S. Code, Title	BY FINE AND IMPRISONMENT (U.S. Cod 47, Section 312(a)(1)), and/or FORFEITL	le, Title JRE	e 18,	
Commission will use reaching that determin this form to another information requested without action pur Public reporting burd reviewing instructions collection of informa cluding suggestions	Tails Required by the Privacy Act of 1974 and ersonal information requested in this form is authorized by the the information provided in this form to determine whether hation, or for law enforcement purposes, it may become ne government agency. In addition, all information provided in to on the form is not provided, processing of the application suant to the Commission rules. Your response is en for this collection of information is estimated to average searching existing data sources, gathering and maintaining to ion. Send comments regarding this burden estimate or any or reducing this burden to Federal Communications Comm 154, and to Office of Management and Budget, Paperwork 1	he Communications Act of 1934, as ame grant of this application is in the public in pressary to refer personal information co- this form will be available for public insp may be delayed or the application may be required to obtain the requested ge 24 hours per response, including the the data needed, and completing and revie other aspect of this collection of inform- ission, Records Management Division, Ro	nded, nterest intained bection eretur autho time ewing ation, oom 2	t. In d in h. If rned ority. for the in-	

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<u>EXHIBIT 1</u>

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DATE: 03/12/96

CLIENT: BLR Comm, Inc.

SITE: Varies

This report analyzes the non-ionizing radiation levels for the above earth station. The purpose of this report is to determine the power flux densities in the Far Field, Near Field, Transition Region, between the Subreflector and the Main Reflector surface (if applicable), at the Main Reflector surface, and between the Antenna edge and the ground.

The supporting calculations that are submitted as a part of this exhibit show that the proposed earth station is environmentally safe, not only based on the criteria published by OSHA, but also in light of recent recommendations for stricter control of RF radiation as published in the ANSI Radio Frequency Guide (C95.1-1982) and within the meaning of Part 1.1307(b) of the Commission's Rules.

Earth Station Parameters:

Antenna Diameter(D):	2.4	Meters
Antenna Surface Area (Sa):	4.52	SqMeters
Subreflector Diameter(Ds):	0.0	cm
Subreflector Area(As):	0.00	Sqcm
Transmit Freq:	14250.0	MHz
WaveLenght(lambda):	0.021	Meters
Transmit Power @ Flange(P):	100.00	Watts
Antenna Gain(dBi):	50.1	dBi
Antenna Gain Isotropic(Ges):	102329.3	
Antenna Efficiency(n):	55.0	%

1. Far Field Calculations:

The distance to the Far Field region can be found by using the following equation: 0.6(D**2)

lambda

Dist. to Far Field Region(Rf):

164.3 Meters

alement from the processor

The maximum On-Axis power density in the F found by using the following equation:	ar Field ca	Ges * P
		 4*pi*(Rf**2)
On-Axis Power Density in the Far Field Region(Wf):	30.17	W/SqMeter
	3.02	mW/Sqcm
2. Near Field Calculations		
Power Flux Density is considered to be at a m throughout the entire length of the Near Field is contained within a cylindrical volumn having as the antenna. Past the extent of the Near F the power density decreases with the distance transmitting antenna.	region. Tl g the same Field region	ne region diameter
The distance to the end of the Near Field can the following equation:	be found i	oy using D**2
		4(lambda)
Extent of Near Field(Rn):	68.46	Meters
The maximum On-Axis power density in the N found by using the following equation:	Near Field c	16.0(n)P
		pi(D**2)
On-Axis Power Density in the Near Field Region(Wn):	48.63	W/SqMeter
	4.86	mW/Sqcm
3. Transition Region		
The Transition region is located between the Field regions. As stated above, the power de		

Field regions. As stated above, the power desity begins to decrease with distance in the Transition Region. While the power density decreases inversely with distance in the Transition Region, the power desity decreases inversely with the square of the distance in the Far Field Region. The maximum power density in the Transition Region will not exceed that calculated for the Near Field Region. As shown above, the power density in the Near Field will not exceed :

4.86 mW/Sqcm

angederate a desired state

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4. Region Between Main Reflector and Subreflector

Transmissions from the Feed Horn are directed toward the Subreflector surface. They are then reflected back toward the Main Reflector. The Energy between the Subreflector and Main Reflector surfaces can be calculated by determining the power density at the Subreflector surface. This can be acomplished by using the following equation:

Power Density @ Subreflector(Ws):		2(P)
		As
	N/A	mW/Sqcm
5. Main Reflector Region		
The power density in the Main Reflector r in the same manner as above, but the are the Main Reflector aperture(Wm):	-	
Power Density @ Main Reflector(Wm):	44.21	W/SqMeter
	4.42	mW/Sqcm
6. Region Between Main Reflector and Gro	ound	
Based on an assumption of uniform illumi surface, the power density between the a be determined using the following equatio	antenna and gro	
Power density between Reflector and Ground(Wg):	22.10	W/SqMeter
	2.21	mW/Sqcm

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TABLE 1

Summary of Expected Radiation Levels

Region	Distance (Meters)	Calculated Maximum Radiation Level (mW/Sqcm)	Hazard Assessment
1. Far Field:	164.30	3.02	SATISFIES ANSI
2. Extent of Near Field:	68.46	4.86	SATISFIES ANSI
3. Transition Region:		4.86	SATISFIES ANSI
4. Between Main Reflector and Subreflector:		N/A	SATISFIES ANSI
5. Main Reflector Surface:		4.42	SATISFIES ANSI
6. Between Antenna and Ground:		2.21	SATISFIES ANSI

7. Conclusions

Based on the above analysis, it is concluded that harmful radiation hazards are not in the region normally occupied by the Earth Station personnel or the general public. In every case that technical personnel are required to work on the antenna, the RF transmitters will be turned off.

8. CERTIFICATION

I hereby certify that I am the technically qualified person responsible for the preparation of the engineering information contained in this Exhibit; that I am familiar with Parts 21 and 25 fo the Commission's Rules; that I have either prepared or reviewed the engineering information submitted in this Exhibit; and, that it is complete and accurate to the best of my knowledge.

Gordon L. Robertson

Dated this day: 3/12/96

EXHIBIT 2

ATTACHMENT A

Countries To Be Served Via Intelsat (Other Than IBS, DataNet and ITS)*

Up to one hundred 64 Kbps voice-grade circuits both interconnected and non-interconnected between the United States and each of the countries listed:

Afghanistan Algeria Angola Argentina Armenia Australia Austria Azerbaijan Bahamas Bahrain Bangladesh Barbados Belgium Benin Bhutan Bolivia Bosnia-Herzegovina Botswana Brazil Brunei Darussalam Burkina Faso Cameroon Cape Verde Central African Republic Chad Chile China, People's Republic of Columbia Congo Costa Rica Cote d'Ivoire Croatia Cyprus Czech Republic Denmark Dominican Republic Ecuador Egypt El Salvador Ethiopia Fiji Finland France

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Gabon Ghana Greece Guatemala Guinea Haiti Honduras Hungary Iceland India Indonesia Iran, Islamic Republic of Iraq Ireland Israel Italy Jamaica Japan Jordan Kazakhstan Kenya Korea, Republic Of Kuwait Kyrgyzstan Lebanon Libva Liechtenstein Luxembourg Macedonia, FYRO Madagascar Malawi Malaysia Mali Malta Mauritania Mauritius Mexico Micronesia Monaco Morocco Mozambique Namibia Nepal Netherlands

New Zealand Nicaragua Niger Nigeria Norway Oman Pakistan Panama Papua New Guinea Paraguay Peru Philippines Poland Portugal Oatar Romania Rwanda Saudi Arabia Senegal Serbia & Montenegro Singapore Somalia Slovenia South Africa Spain Sri Lanka Sudan Swaziland Sweden Switzerland Syria Tanzania Thailand Togo Trinidad Tunisia Turkey Uganda United Arab Emirates United Kingdom Uruguay Vatican City State Venezuela Vietnam

ATTACHMENT A (Continued)

Countries To Be Serviced Via Intelsat

Yemen Zaire Zambia Zimbabwe

*Blanket authority is being requested for IBS, DataNet and ITS service to all Intelsat countries

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ATTACHMENT B

Countries To Be Served Via PAS-1

Up to ten 64 Kbps non-interconnected voice-grade circuits between the United States and each of the countries listed below:

Ku-band Countries

Anguilla Austria Azerbaijan Bahamas Belgium Bermuda Bosnia-Herzegovina British Virgin Is. Cayman Islands Croatia Czech Republic Denmark France Germany Greece Ireland

Italy Luxembourg Monaco Montserrat Netherlands Portugal Romania Serbia & Montenegro Slovenia Spain Sweden Switzerland Turks & Caicos Is. United Kingdom Macedonia, FYRO

C-band Countries

Anguilla Argentina Aruba Bahamas Barbados Bermuda Bolivia Brazil British Virgin Is. Cayman Islands Chile Colombia Costa Rica Dominican Rep. Ecuador

Guatemala Haiti Honduras Jamaica Mexico Montserrat Netherlands Antilles Panama Paraguay Peru Trinidad and Tobago Turks & Caicos Is. Uruguay Venezuela

ATTACHMENT B (Continued)

Countries To Be Served Via PAS-1

Up to six 64 Kbps interconnected voice-grade circuits between the United States and each of the countries listed below:

Ku-band Countries

C-band Countries

Azerbaijan Bahamas Bosnia-Herzegovina Czech Republic Portugal Romania Serbia & Montenegro United Kingdom Macedonia, FYRO

Bahamas Costa Rica Dominican Republic Netherlands Antilles Panama Peru

Countries To Be Served Via PAS-2

Up to ten 64 Kbps non-interconnected voice-grade circuits between the United States and the following countries:

United Kingdom

Up to six 64 Kbps interconnected voice-grade circuits between the United States and the following countries:

United Kingdom

Countries To Be Served Via PAS-4

Up to ten 64 Kbps non-interconnected voice-grade circuits between the United States and each of the countries listed below:

Australia Hong Kong New Zealand

Up to six 64 Kbps interconnected voice-grade circuits between the Untied States and the following countries:

Australia Hong Kong New Zealand

ATTACHMENT C

Countries To Be Served Via The Orion F1 Satellite

Up to six 64 Kbps interconnected voice-grade circuits between the United States and each of the countries listed below:

Bosnia-Herzegovina Germany Ireland The Netherlands Poland Sweden

Up to ten 64 Kbps non-interconnected voice-grade circuits between the United States and each of the countries listed below:

Austria Belgium Bosnia-Herzegovina Denmark France Germany Ireland Italy Luxembourg

Norway Poland Serbia & Montenegro Sweden The Netherlands United Kingdom Macedonia, FYRO

LICENSEE QUALIFICATION REPORT

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(FCC FORM 430)

	FEDERAL COMMUNICATIONS COMMISSION Washington, DC 20554					
LICENSEE	QUALFICATION REPORT	See reverse side for information regarding public burden statement.				
INS	TRUCTIONS					
A. The "Filer" of this report is defined to include: (1) An appli- carrier and satellite radio authority as required for such appli- Commission's Rules to be submitted on an annual basis,	cant, where this report is submitted lications; or (2) A licensee or perm	in connection with applications for common ittee, where this report is required by the				
3. Submit an original and one copy (sign original only) to the Feasiervice is listed in Item 6, submit an additional copy for each application for radio authority, attach it to that application. 3. Do not submit a fee with this report.	deral Communications Commission, Wa n such additional service. If this repo	shington, DC 20554. If more than one radio rt is being submitted in connection with an				
1. Business Name and Address (Number, Street, Code) of Filer's Principal Office:		Code) Telephone Number: 750-1400				
BLR Communications, Inc. 8624 Frederick Road		report supercedes a previously eport, specify its date:				
Ellicott City, Maryland 21043	N/A					
4. Filer Is (check one): Individual Partnership 🔽		the laws of what State (or other tion) is the Filer organized?				
 Other (Specify): List the common carrier and satellite radio ser or permittee: 	vices in which Filer has ap	plied or is a current licensee				
BLR Communications, Inc. will very shor Application for Earth Station Authoriza	tly be filing a Section tion (FCC Form 493).	1 214 Application and an				
7(a) Has the Filer or any party to this application permit revoked or had any application for perturbation this Commission? If "YES", attach as Exhibit I a state of license or permit revoked and relating circumstances.	ermit, license or renewal d	enled by				
(b) Has any court finally adjudged the Filer, or a controlling the Filer, guilty of unlawfully mo to monopolize radio communication, directly manufacture or sale of radio apparatus, excl means of unfair methods of competition? If the facts.	nopolizing or attempting ur or indirectly, through cont lusive traffic arrangement,	niawfully Lifes Lyno rol of or other				
(c) Has the Filer, or any party to this application controlling the Filer ever been convicted of Court? If "YES", attach as Exhibit III a statement relat	a felony by any state or f	I YPS I XI NG				
(d) Is the Filer, or any person directly or indirect a party in any matter referred to items 7(b) Exhibit IV a statement relating the facts.		esently 🗌 Yes 🖾 No				
. Is the Filer, directly or indirectly, through stock currently interested in the ownership or contr licensed by this Commission? If "YES", submit as Ex the licenses's relation to the Filer.	ol of any other radio static					
Filer is an individual (sole proprietorship) or partnersh	ip, answer the following and I	tem 11: N/A				
	(b) is individual or each	member				
(a) Full Legal Name and Residential Address (Number, Street, State and ZIP Code) of Individual or Partners:	of a partnership a cit the United States?	Yes No				
		Yes No ember of a ntative of an				

If Filer is a corporation, answer the following and item 11:

10(a) Attach as Exhibit VI the names, addresses, and citizenship of those stockholders owning of record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(les) or class of beneficiaries.

See E	xhib	bit V	Ί
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(b) List below, or attach as Exhibit VII the names and addresses of the officers and directors of the Filer.

See Exhibit VII

(c) is the Filer directly or indirectly controlled by any other corporation?
 If "YES", attach as Exhibit VIII a statement (including organizational diagrams where appropriate) which fully and completely identifies the nature and extent of control. Include the following: (1) the address and primary business of the controlling corporation and any intermediate subsidiaries; (2) the names, addresses, and citizenship of those stockholders holding 10 percent or more of the controlling corporation's voting stock;
 (3) the approximate percentage of total voting stock held by each such stockholder; and (4) the names and any addresses for the president and directors of the controlling corporation.

(d) Is any officer or director of the Filer an allen?
 (e) Is more than one-fifth of the capital stock of the Filer owned of record or voted by allens or their representatives, or by a foreign government or representative tive(s) thereof, or by a corporation organized under the laws of a foreign country?

(f) is the Filer directly or indirectly controlled: (1) by any other corporation of which	Yes	
any officer or more than one-fourth of the directors are allens, or (2) by any.		
foreign corporation or corporation of which more than one-fourth of the capital		
stock is owned or voted by allens or their representatives, or by a foreign		
government or representatives thereof.		

(g) If any	answer to	questions	s (d),	(e) or	(f) is	YE:	S", attach	85	Exhibit	: IX a	stat	emer	nt Identifying	g the
allens	or foreign	entities,	their	nationa	llty,	their	relationsh	lp t	to the	Filer,	and	the	percentage	of stack
they o	wn ar vat	8.		. N/	A									

11. CERTIFICATION

This report constitutes a material part of any application which cross-references it, and all statements made in the attached exhibits are a material part thereof. The ownership information contained in this report does not constitute an application for, or Commission approval of, any transfer of control or assignment of radio facilities. The undersigned, individually and for the Filer, hereby certifies that the statements made herein are true, complete and correct to the best of Filer's knowledge and belief, and are made in good faith.

WILLFUL FALSE STATEMENTS MADE ON THIS APPLICATION	Oare	Filer (Must correspond with that shown in item)	Typed or Printed Name
ARE PUNISHABLE BY FINE AND IMPRISONMENT (U.S. Code, Title 18, Section 1001) and/or	3/16/96	BLR Communications, Inc.	Robert D. Lehson
REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION	Signatura		Title
PERMIT (U.S. Code, Title 47, Section 312(aX1)).	Λ		Vice-President

NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT OF 1974 AND THE PAPERWORK REDUCTION ACT OF 1980

The solicitation of personal information requested in this form is to determine if you are qualified to become or remain a licensee- in a common carrier or satellite radio service pursuant to the Communications Act of 1934, as amended. No authorization can be granted unless, all information requested is provided. Your response is required to obtain the requested authorization or retain an authorization.

Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other espect of this collection of information, including suggestions for reducing this burden to Federal Communications Commission. Office of Managing Director, Washington, OC 20554, and to Office of Management and Budget, Paperwork Reduction Project (3060-0105), Washington, OC 20503.

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BLR Communications, Inc. Form 430 Licensee Qualification Report

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Exhibit VI

EXHIBIT VI

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EXHIBIT VI

Stockholders owning of record 10 percent or more of the Filer's voting stock:

Name and Address	<u>% Held</u>	<u>Citizenship</u>
Robert Coates 2301 Leaman Lane Germantown, Maryland	50%	U.S.
Robert D. Lehson 8231 Main Street	50%	U.S.

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Ellicott City, Maryland

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BLR Communications, Inc. Form 430 Licensee Qualification Report

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Exhibit VII

EXHIBIT VII

EXHIBIT VII

Robert Coates President, Treasurer, Director 2301 Leaman Lane Germantown, Maryland

Robert D. Lehson Vice-President, Secretary, Director 8231 Main Street Ellicott City, Maryland 21043

ORIGINAL

Allen & Harold

A PROFESSIONAL LIMITED LIABILITY COMPANY INCLUDING A PROFESSIONAL CORPORATION

> IOGIO-A CRESTWOOD DRIVE POST OFFICE BOX 2126 MANASSAS, VIRGINIA 22110

> > (703) 361-2278 FAX (703) 361-0594

April 11, 1996

SUITE 200 2000 L STREET, N.W. WASHINGTON, D.C. 20036

5413 MAIN STREET STEPHENS CITY, VIRGINIA 22655

Received

APR 79 190.

Satollite and Radincorre unications Division Indou under Perpau

ROBERT G. ALLEN, P.C. DOUGLAS W. HAROLD, JR. ELDRED D. INGRAHAM*

W. BRUCE WEINROD** OF COUNSEL

*ADMITTED IN PENNSYLVANIA ONLY PRACTICE RESTRICTED TO MATTERS BEFORE FCC, WASHINGTON, D.C. **ADMITTED IN D.C. ONLY

> Mr. William F. Caton Acting Secretary Federal Communications Commission Common Carrier Dom. Earth Stations P.O. Box 358160 Pittsburgh, Pennsylvania 15251-5160

BY HAND

Re: BLR Communications, Inc. Application for Domestic and International Title III Authority Temporary Fixed Earth Station (Transportable) A&H #13118

Dear Mr. Caton:

Transmitted herewith, in triplicate, on behalf of BLR Communications, Inc. ("BLR"), is an Application for Earth Station Authorization (FCC Form 493) requesting Domestic and International Title III Authority to construct and operate a Temporary Fixed Earth Station. Also please find submitted a check in the amount of \$1,755.00 in payment of the requisite filing fee (Filing Code: BAX).

Attached, for ease of reference, is a copy of the Licensee Qualification Report (FCC Form 430) recently submitted by BLR in connection with its pending Application for Section 214 Authority, filed April 4, 1996.

Should there be any questions, please contact the undersigned.

RGA:edi Attachments