LIBERTY CABLE TELEVISION
Madison Avenue, New York, New York 10022
(212) 891-7777 Fax (212) 891-7214

June 30, 1995

Mr. Duy Duong
Comsearch
2002 Edmund Halley Drive
Reston, Virginia 22091

EXHIBIT
Duong 1
Date: 6/5/96
Reporter: David A. Kasdan

Sub: 10 day prior coordination path

Dear Duy,

Please prior coordinate the following 12 paths, today, on a ten day basis and provide me with a written confirmation and accompanying the data sheets:

1 - 205 East 64th Street	to	East 56th Street
2 - 205 East 64th Street	to	20 Sutton Place
3 - 205 East 64th Street	to	Sutton Place South
4 - Third Avenue	to	38 East 85th Street (passive)
38 East 85th Street (passive)	to	East 85th Street
5 - Third Avenue	to	East 86th Street
6 - Third Avenue	to	1036 Park Avenue
7 - Third Avenue	to	East 92nd Street
8 - Third Avenue	to	East 93rd Street
9 - Third Avenue	to	1310 Madison Avenue
10 - 99 Battery	to	Battery Point
11 - 99 Battery	to	Liberty Tower
12 - 99 Battery	to	House Tower

Thank you very much for your effort and if there is a question with regard to this coordination please call me at (212)735-6700.

Sincerely yours,

Behrooz Nouraln
Director of Engineering

Federal Communications Commission
Docket 96-41
Proceeding TWCV
Disposition: Identified ✓ Received ___ Rejected ___
Reporter
Date 1-10-97

001

1

Federal Communications Commission

Docket 96-41 Exhibit 23

Proceeding TWCV

Disposition: Identified ✓ Received ✓ Rejected

Reporter

1808 corr

EXHIBIT Vol 2

Date: 5/28/94

Reporter: David A. Kasdan

Memorandum

To: 1-10-97 John Tenety
Tony Ontiveros
Behrooz Nourain

From: Peter O. Price 7/13/95

Subject: FCC Compliance

To insure full FCC compliance we are conducting both an audit of compliance with field procedures as well as an audit of license applications. John Tenety will supervise the field exercise governed by the FCC guidelines from Henry Rivera and Lloyd Constantine's offices. Howard Barr and Mike Lemkuhl have prepared "Application Tracking" reports to govern the license process.

In order to reconcile buildings on the tracking report with those on our Marketing and Installation Reports, I have extrapolated the information into four categories which are generally appraised separately for management purposes:

A. Activated Buildings with flawed licenses due to the administrative foul-up which require new licenses;
B. Activated Buildings served by hardwire where we have applied for back-up licenses;
C. Non-Activated Buildings Under Contract delayed by the FCC proceedings with pending FCC applications; and
D. Non-Activated Buildings Pending Contract where we intend to apply in advance for FCC licenses.

My data is simplified for management purposes, so I do not cite every relevant date in the chain, but merely note key dates such as when our applications mature after notice periods have run. This document is not the formal report we will use to assure FCC compliance but represents an effort to reconcile where we stand and what requires attention.

Let's start by auditing my data for its accuracy. I occasionally see different dates for filings in different documents due perhaps to amendments. Let's be sure we are reading from the same page before we act on the information. Next, let's examine each category of building to determine what action is required.

On the "B" list we may want to apply two paths to all commercial, as well as residential sites, in order to be absolutely safe even though no commercial building literally possesses cable "subscribers." Two buildings appear to lack any coordination initiative. One was coordinated but lacks follow-up and the New Jersey site was not part of our lawsuit which encompasses only New York sites but a path should still be filed. I gather you have initiated coordination for all of them.

0002

REDACTED

Note, for example, that is under contract but was not included in the "C" list for licensing because we were denied entry for a survey. I have written to the Board Chairman to request access so we can initiate the survey and proceed with path coordination. It is not prudent to rely upon winning our court case or a change in the law to facilitate hard-wire connections.

The "D" list is perhaps most important to avert any future foul-ups. I want to make sure that Marketing has submitted, and Operations has inventoried, a full and updated account of any residential or commercial buildings under negotiation where we expect a contract in the next six months including, for example, . That list may change weekly and needs constant scrutiny.

REDACTED

Let's proceed with this preliminary exercise, revise the data and format as required, and begin to get our act in order. Note that Mike Lehmkuhl has already responded to my draft with the attached additions and corrections.

BCC: Henry Rivera
Mike Lemkuhl
Howard Barr
Lloyd Constantine
Bertina Ceccarelli
Howard P. Milstein
Edward L. Milstein

ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

A List
ACTIVATED BUILDINGS WITH FLAWED LICENSES
Submitted for FCC License and Special Temporary Authority

Building	Units	Contract Date	Path Coordination Date	License Application Date	STA Application Date
440 East 56th Street	93	03/02/94	07/03/95		
35 East 85th Street	109	03/31/94	07/03/95		
Hotel Wales	83	05/12/94	07/03/95		
30 Waterside Plaza	334	06/07/94	02/16/95	02/21/95	05/04/95
Liberty Terrace	136	08/04/94	07/03/95		
New York University (Res)	56	08/08/94	10/31/94	11/07/94	05/04/95
New York University (Green)	36	08/08/94	10/31/94	11/07/94	05/04/95
524 East 72 Street	57	09/03/94	10/31/94	11/07/94	05/04/95
767 Fifth Avenue	32	09/19/94	10/31/94	11/07/94	05/04/95
114 East 72nd Street	40	09/24/94	11/17/94	11/23/94	05/04/95
25 West 54th Street	45	10/03/94	11/17/94	11/23/94	05/04/95
433 East 56th Street	58	10/06/94	12/21/94	01/31/95	05/04/95
639 West End Avenue	53	10/13/94	12/21/94	12/22/94	05/04/95
16 West 16th Street	213	12/07/94	02/21/95	03/31/95	05/04/95
1775 York Avenue	80	01/14/95	02/16/95	02/21/95	05/04/95
200 East 32nd Street	111	01/19/95	03/21/95	03/23/95	05/04/95
2727 Palisade Avenue	97	02/03/95	03/21/95	03/24/95	05/19/95
6 East 44th Street	50	02/15/95	02/16/95	02/21/95	05/04/95
55 West End Avenue	335		12/21/94	12/22/94	05/04/95
TOTAL	2,018				

Federal Communications Commission
Docket No. 96-41 Exhibit 24
Presented by TWCV
Identified ✓
Disposition Received ✓
Rejected
Reporter
Date 1-10-97

EXHIBIT 3
Page
Date: 5/06/96
Reporter: David A. Kasdan

A List
ACTIVATED BUILDINGS WITH FLAWED LICENSES
Submitted for FCC License and Special Temporary Authority

Building	Units	Contract Date	Path Coordination Date	License Application Date	STA Application Date
440 East 56th Street	93	03/02/94	07/03/95		
35 East 85th Street	109	03/31/94	07/03/95		
Hotel Wales	83	05/12/94	07/03/95		
30 Waterside Plaza	334	06/07/94	02/16/95	02/21/95	05/04/95
Liberty Terrace	136	08/04/94	07/03/95		
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524 East 72 Street	57	09/03/94	10/31/94	11/07/94	05/04/95
767 Fifth Avenue	32	09/19/94	10/31/94	11/07/94	05/04/95
114 East 72nd Street	40	09/24/94	11/17/94	11/23/94	05/04/95
25 West 54th Street	45	10/03/94	11/17/94	11/23/94	05/04/95
433 East 56th Street	58	10/06/94	12/21/94	01/31/95	05/04/95
639 West End Avenue	53	10/13/94	12/21/94	12/22/94	05/04/95
16 West 16th Street	213	12/07/94	02/21/95	03/31/95	05/04/95
1775 York Avenue	80	01/14/95	02/16/95	02/21/95	05/04/95
200 East 32nd Street	111	01/19/95	03/21/95	03/23/95	05/04/95
2727 Palisade Avenue	97	02/03/95	03/21/95	03/24/95	05/19/95
6 East 44th Street	50	02/15/95	02/16/95	02/21/95	05/04/95
55 West End Avenue	335		12/21/94	12/22/94	05/04/95
TOTAL	2,018				

B List
ACTIVATED BUILDINGS SERVED BY HARDWIRE
Submitted for FCC License and Special Temporary Authority

Building	Units	Contract Date	Path Coordination Date	License Application Date	STA Application Date
60 Sutton Place South	360	02/16/92	10/31/94	11/07/94	05/04/95
44 West 96th Street	25	01/06/93	10/31/94	11/07/94	05/04/95
150 West 57th Street	4 (sets)	03/22/93			
220 East 52nd Street	40	05/06/93	10/31/94	11/07/94	05/04/95
164 East 87th Street	46	09/28/93			
152 West 57th Street	160/23*	01/31/94	06/15/95	06/21/95	07/12/95
239 East 79th Street	200	02/10/94	10/31/94	11/07/94	05/04/95
525 East 86th Street	130	02/14/94	10/31/94	11/07/94	05/04/95
170 West End Avenue	139	03/06/94	10/31/94	11/07/94	05/04/95
425 East 58th Street	300	03/15/94	10/31/94	11/07/94	05/04/95
120 East End Avenue	42	03/31/94	10/31/94	11/07/94	07/12/95
Lincoln Harbor Yacht Club	150	04/01/95			
55 Central Park West	99	05/27/94	10/31/94	11/07/94	05/04/95
225 East 74th Street	70	12/20/94			
TOTAL	1,765				

* 160 sets for 23 clients

C List
NON-ACTIVATED BUILDINGS UNDER CONTRACT
Submitted for FCC License and Special Temporary Authority

Building	Units	Contract Date	Path Coordination Date	License Application Date	STA Application Date
REDACTED			REDACTED		REDACTED
REDACTED			REDACTED		REDACTED
REDACTED			REDACTED		REDACTED

D List
NON-ACTIVATED BUILDINGS PENDING CONTRACT
Submitted for Path Coordination and FCC License

Address	Units	Contract Date	Path Coordination Date	License Application Date	STA Application Date
REDACTED		REDACTED		REDACTED	
REDACTED		REDACTED		REDACTED	
REDACTED		REDACTED		REDACTED	

Non-Activated Buildings Pending Contract

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

FCC/CP 15709

0009

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REDACTED

REDACTED

REDACTED

ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

PEPPER & CORAZZINI
L. L. P.
ATTORNEYS AT LAW
200 MONTGOMERY BUILDING
1776 K STREET, NORTHWEST
WASHINGTON, D. C. 20006
(202) 296-0600

VINCENT A. PEPPER
ROBERT F. CORAZZINI
PETER GUTMANN
JOHN F. GARZIGLIA
NEAL J. FRIEDMAN
ELLEN S. MANDELL
HOWARD J. BARR
L. CHARLES KELLER *
MICHAEL J. LEHMKUHL *
SUZANNE C. SPINK *
* NOT ADMITTED IN D.C.

GREGG P. SKALL
E. THEODORE MALLYCK
OF COUNSEL
FREDERICK W. FORD
1909-1986

TELECOPIER (202) 296-5572
INTERNET PEPCOR@COMMLAW.COM

July 17, 1995

JUL 1995 RECEIVED WIRELESS GBU

VIA FEDERAL EXPRESS

Federal Communications Commission
Wireless Telecommunications Bureau
Private Microwave Branch
1720 Fairfield Road
Gettysburg, PA 17352-7245

Re: Liberty Cable Co., Inc.
Amendment of Modification Application
FCC Call Sign WNTW782; File No. 712203
99 Battery, NYC (Battery)

Dear Sir or Madam:

Submitted herewith, on behalf of Liberty Cable Co., Inc. ("Liberty") is an application on FCC Form 402 requesting the addition of three (3) paths to the modification application referenced above.

As this is an amendment to a pending modification, no processing fee has been associated with this application.

Questions with respect to this matter should be referred to the undersigned.

001

Sincerely,

Michael J. Lehmkuhl
Attorney for
Liberty Cable Co., Inc.

Enclosures

cc: Behrooz Nourain

Date 96-41 25
Pr... TWCV
Disposition: Identified ✓ Received ✓ Recycled

Approved by OMB
3060-0064
Expires 5/31/95
See Instructions for Public Burden Estimate

FEDERAL COMMUNICATIONS COMMISSION

APPLICATION FOR STATION AUTHORIZATION IN THE PRIVATE OPERATIONAL FIXED MICROWAVE RADIO SERVICE

FCC USE ONLY: 712203
7/17/95 Amend.
Fee Amount Received $

SECTION I - IDENTIFICATION INFORMATION

1. NAME AND MAILING ADDRESS OF APPLICANT: (No., street, city, state, ZIP code)

Liberty Cable Co., Inc.
215 East 95th Street, Suite 1A
New York, NY 10128
Attn: Behrooz Nourain

☐ Check here if you are a current Part 94 licensee and your mailing address above is NOT the address on file

2. APPLICANT'S PART 94 CALL SIGN: WNTW782

3. PAYMENT TYPE CODE:

4. LICENSEE IDENTIFICATION NUMBER: (If previously assigned by the Commission) 005203-200

5A. NAME OF PERSON TO CONTACT REGARDING APPLICATION: Michael J. Lehmkuhl, Esquire

5B. TELEPHONE NUMBER OF THE CONTACT: (202) 296-0600

6. TYPE OF APPLICANT: ☐ GOVERNMENTAL ENTITY ☐ INDIVIDUAL ☒ CORPORATION ☐ ASSOCIATION ☐ PARTNERSHIP

7. CLASS OF STATION: (enter code) FXO

8. ELIGIBILITY RULE SECTION: §90.75(a)(1)

9A. PURPOSE OF APPLICATION: ☐ NEW STATION ☐ MODIFICATION (SEE 9B & C) ☐ MODIFICATION WITH RENEWAL ☐ ASSIGNMENT OF AUTHORIZATION ☒ OTHER (SPECIFY) → Amendment File No.712203

9B.

PATH	ACTION			OLD VALUE OF KEY ITEMS CHANGED							
A	☒ ADD	☐ CHANGE	☐ DELETE	20		30		31		32	
B	☒ ADD	☐ CHANGE	☐ DELETE	20		30		31		32	
C	☒ ADD	☐ CHANGE	☐ DELETE	20		30		31		32	
D	☐ ADD	☐ CHANGE	☐ DELETE	20		30		31		32	
E	☐ ADD	☐ CHANGE	☐ DELETE	20		30		31		32	

9C. DESCRIBE ANY OTHER CHANGES:

10. WILL THIS SYSTEM BE USED TO PROVIDE A COMMUNICATIONS PRIVATE CARRIER SERVICE TO OTHERS? ☐ YES ☒ NO

SECTION II - ANTENNA INFORMATION

11. LOCATION OF TRANSMITTING ANTENNA STRUCTURE.

A. NUMBER AND STREET: (or other specific indication) 99 Battery

B. CITY: New York

C. COUNTY: New York

D. STATE: NY

E. COORDINATES (Degrees, Minutes, Seconds): LATITUDE: 40° 42' 26.0" N LONGITUDE: 073° 01' 01.0" W

12A. IS THE ANTENNA TO BE MOUNTED ON AN EXISTING ANTENNA STRUCTURE? IF YES, ANSWER ITEMS 12B, C, D, AND E. ☐ YES ☒ NO

12B. WILL THE ANTENNA INCREASE THE HEIGHT OF THE EXISTING STRUCTURE? IF YES, BY HOW MANY FEET? _____ FEET N/A ☐ YES ☐ NO

12C. NAME OF CURRENT LICENSEE USING STRUCTURE: N/A

FOR COMMISSION USE ONLY
ASB:

12D. CURRENT LICENSEE'S RADIO SERVICE: N/A

12E. CURRENT LICENSEE'S CALL SIGN: N/A

13. FOR ANTENNA TOWERS (OR POLES) MOUNTED ON THE GROUND: ENTER THE OVERALL HEIGHT ABOVE GROUND OF THE ENTIRE ANTENNA (OR POLE) INCLUDING ALL ANTENNAS, DISHES, LIGHTNING RODS, OBSTRUCTION LIGHTING, ETC. MOUNTED ON IT: → N/A FT

14. FOR ANTENNAS OR ANTENNA TOWERS (OR POLES) MOUNTED ON A SUPPORTING STRUCTURE SUCH AS A BUILDING, WATER TOWER, SMOKE STACK, ETC.:

14A. WHAT IS THE OVERALL HEIGHT ABOVE GROUND OF THIS SUPPORTING STRUCTURE? INCLUDE IN THIS HEIGHT ANY ELEVATOR SHAFTS, PENTHOUSES, LIGHTNING RODS, LIGHTS, ETC., WHICH ARE NOT PART OF THE ANTENNA TOWER (OR POLE): → 325.0 FT

14B. HOW MANY FEET DOES THE ANTENNA TOWER (OR POLE) (INCLUDING ALL ANTENNAS, DISHES, LIGHTNING RODS, LIGHTS, ETC.) INCREASE THE HEIGHT OF THE SUPPORTING STRUCTURE IN ITEM 14A? IF THIS ANTENNA OR ANTENNA TOWER (OR POLE) DOES NOT INCREASE THE HEIGHT OF THE SUPPORTING STRUCTURE, ENTER ZERO (0): → 0 FT

15. WHAT IS THE OVERALL HEIGHT ABOVE GROUND OF THIS SUPPORTING STRUCTURE PLUS THE ANTENNA TOWER (OR POLE)? → 325.0 FT

16. GIVE THE GROUND ELEVATION ABOVE MEAN SEA LEVEL AT THE ANTENNA SITE: → 10.0 FT

16A. NAME OF NEAREST AIRCRAFT LANDING AREA: LaGuardia

16B. DIRECTION AND DISTANCE TO NEAREST RUNWAY: NE 8.99mi

17A. Has notice of construction been filed with the FAA on FAA Form 7460-1? If yes, answer items 17B, C, and D		☐ YES ☒ NO
17B. Name Construction Notice was filed under:	17C. FAA Regional Office (City):	17D. Date Filed

18. Would a Commission grant of your application be an action which may have a significant environmental effect as defined by Section 1.1307 of the Commission's Rules? See Instruction 18. If you answer yes, submit the statement as required by Sections 1.1308 and 1.1311. ☐ YES ☒ NO

19. If this is an existing station, enter the year it was first licensed: 1994

SECTION III - TECHNICAL INFORMATION SEE ATTACHED

NAME OF ITEM	A	B	C	D	E
20. Frequency (MHz)					
21. Bandwidth (kHz) and Emission Type					
22. Type of Message Service					
23. Initial Baseband Channel Loading					
24. 10 Year Projected Baseband Channel Loading					

TRANSMITTER INFORMATION

NAME OF ITEM	A	B	C	D	E
25. Transmitter Operating Frequency Tolerance (%)					
26. Antenna Gain (dBi)					
27. Effective Isotropic Radiated Power (dBm)					
28. Beamwidth (Degrees)					
29. Height to Center of Final Radiating Element (Ft)					
30. Polarization					
31. Azimuth to Receive Site or Passive Repeater (PR) No.1 (Degrees)					

RECEIVE SITE INFORMATION

NAME OF ITEM	A	B	C	D	E
32. Receiving Station's Call Sign					
33. Receiving Antenna Gain (dBi)					
34. Median Received Signal Level at Input to the Receiver (dBm)					
35. Latitude N (Degrees, Minutes, Seconds)					
36. Longitude W (Degrees, Minutes, Seconds)					
37. Ground Elevation AMSL (Ft)					
38. Height to Center of Receiving Antenna (Ft)					

PASSIVE REPEATER NO.1 INFORMATION (IF ANY)

☐ If you have two or more passive repeaters on the same transmission path, check this box and answer items 39-46 on an additional FCC Form 402 or a separate sheet of paper for the second and successive passive repeaters.

NAME OF ITEM	A	B	C	D	E
39. Latitude N (Degrees, Minutes, Seconds)					
40. Longitude W (Degrees, Minutes, Seconds)					
41. Ground Elevation AMSL (Ft)					
42. Overall Height of PR Structure Above Ground (Ft)					
43. Dimensions (Ft X Ft) or Beamwidth (for dishes) (Degrees)					
44. Height Above Ground to Center of PR (Ft)					
45. Polarization					
46. Azimuth to Receive Site or Next PR (Degrees)					

SECTION IV - CERTIFICATION

003

- Applicant certifies that a copy of CFR 47, Part 94 has been retained for reference.
- Applicant waives any claim to the use of any particular frequency regardless of prior use by licensee or otherwise.
- Applicant will have unlimited access to the radio equipment and will control access and exclude unauthorized persons.
- Neither applicant nor any member thereof is a foreign government or representative thereof.
- Applicant will utilize type accepted radio equipment and antenna of correct specifications.
- Applicant certifies that all statements made in this application and attachments are true and complete.

By checking "YES", the applicant certifies that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits, that includes FC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S. Code Section 862, or, in the case of a non-individual applicant (e.g. corporatio partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits, that includes FCC benefits, pursuant t that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b).

47. DOES APPLICANT SO CERTIFY? ☒ YES ☐ NO

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT, (U.S. CODE, TITLE 18, SEC. 1001), AND/OR REVOCATION OF AN STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SEC. 312(A)(1)) AND/OR FORFEITURE (U.S. CODE, TITLE 47, SEC. 503).

TYPED NAME: Behrooz Nourain	TITLE: Director of Engineering
SIGNATURE of individual, partner, official of a governmental entity, officer or authorized employee of a corporation, or officer who is also a member of the association.	DATE: 7-17-95

COMSEARCH
2002 Edmund Halley Drive
Reston, Virginia 22091
(703) 620-6300

LIBERTY CABLE TV 07/03/95

MICROWAVE PATH DATA

STATION NAME		99 BATTERY NY		BATTERY PT NY
PATH STATUS		PROPOSED OR PRIOR COORDINATED		
CALL SIGN				
LATITUDE	(D-M-S)	40 42 26.0		40 42 25.5
LONGITUDE	(D-M-S)	74 1 1.0		74 1 0.0
GROUND ELEV	(Ft-AMSL)	10		10
PATH AZIMUTH	(Deg)	123.305		303.305
PATH DISTANCE	(Miles)		0.017	
	(Km)		0.028	
ANTENNA				
PRIMARY	TX	CABLEWAVE SYSTEMS		NOT APPLICABLE
		PA4-190		
ANT CODE		CB0082		
GAIN	(dBi)	44.7		
C/L	(Ft-AGL)	319		
PRIMARY	RX	NOT APPLICABLE		CABLEWAVE SYSTEMS
				PA6-190
ANT CODE				CB0093
GAIN	(dBi)			48.2
C/L	(Ft-AGL)			120
DIVERSITY				
ANT CODE				
GAIN	(dBi)			
C/L	(Ft-AGL)			
EQUIPMENT		HUGHES AIRCRAFT CO		RECEIVE
		DO063QAMLMOT18120		ONLY
EQP CODE		TEM169		
EMISSION		5M75C3F/250KF3E/100KNON		
LOADING		VIDEO		VIDEO
STABILITY	(%)	0.000500		0.000500
POWER	(dBm)/(Watts)	-10.0/0.000		
RECEIVED LEVEL	(dBm)			-16.0
EIRP	(dBm)/(Watts)	22.7/0.2		
FIXED LOSSES	(dB)	12.0		0.0
FREE SPACE LOSS	(dB)		86.9	

TRANSMIT FREQUENCIES (MHZ)

18145.0V,18151.0V,18157.0V,18163.0V,18169.0V,18175.0V,18181.0V,
18187.0V,18193.0V,18199.0V,18205.0V,18211.0V,18217.0V,18223.0V,
18229.0V,18235.0V,18241.0V,18247.0V,18253.0V,18259.0V,18265.0V,
18271.0V,18277.0V,18283.0V,18289.0V,18295.0V,18301.0V,18307.0V,
18313.0V,18319.0V,18325.0V,18331.0V,18337.0V,18343.0V,18349.0V,
18355.0V,18361.0V,18367.0V,18373.0V,18379.0V,18385.0V,18391.0V,
18397.0V,18403.0V,18409.0V,18415.0V,18421.0V,18427.0V,18433.0V,
18439.0V,18445.0V,18451.0V,18457.0V,18463.0V,18469.0V,18475.0V,
18481.0V,18487.0V,18493.0V,18499.0V,18505.0V,18511.0V,18517.0V,
18523.0V,18529.0V,18535.0V,18541.0V,18547.0V,18553.0V,18559.0V,
18565.0V,18571.0V,18577.0V

COMSEARCH
2002 Edmund Halley Drive
Reston, Virginia 22091
(703) 620-6300

LIBERTY CABLE TV 07/03/95

MICROWAVE PATH DATA

STATION NAME		99 BATTERY NY		LIBERTY TOW NY
PATH STATUS		PROPOSED OR PRIOR COORDINATED		
CALL SIGN				
LATITUDE	(D-M-S)	40 42 26.0		40 42 31.5
LONGITUDE	(D-M-S)	74 1 1.0		74 1 8.0
GROUND ELEV	(Ft-AMSL)	10		10
PATH AZIMUTH	(Deg)	315.915		135.914
PATH DISTANCE	(Miles)		0.147	
	(Km)		0.236	
ANTENNA				
PRIMARY	TX	CABLEWAVE SYSTEMS		NOT APPLICABLE
		PA4-190		
ANT CODE		CB0082		
GAIN	(dBi)	44.7		
C/L	(Ft-AGL)	319		
PRIMARY	RX	NOT APPLICABLE		CABLEWAVE SYSTEMS
				PA6-190
ANT CODE				CB0093
GAIN	(dBi)			48.2
C/L	(Ft-AGL)			265
DIVERSITY				
ANT CODE				
GAIN	(dBi)			
C/L	(Ft-AGL)			
EQUIPMENT		HUGHES AIRCRAFT CO		RECEIVE
		DO063QAMLMOT18120		ONLY
EQP CODE		TEM169		
EMISSION		5M75C3F/250KF3E/100KNON		
LOADING		VIDEO		VIDEO
STABILITY (%)		0.000500		0.000500
POWER	(dBm)/(Watts)	-10.0/0.000		
RECEIVED LEVEL	(dBm)			-31.5
EIRP	(dBm)/(Watts)	25.7/0.4		
FIXED LOSSES	(dB)	9.0		0.0
FREE SPACE LOSS	(dB)		105.4	

TRANSMIT FREQUENCIES (MHZ)

18145.0V,18151.0V,18157.0V,18163.0V,18169.0V,18175.0V,18181.0V,
18187.0V,18193.0V,18199.0V,18205.0V,18211.0V,18217.0V,18223.0V,
18229.0V,18235.0V,18241.0V,18247.0V,18253.0V,18259.0V,18265.0V,
18271.0V,18277.0V,18283.0V,18289.0V,18295.0V,18301.0V,18307.0V,
18313.0V,18319.0V,18325.0V,18331.0V,18337.0V,18343.0V,18349.0V,
18355.0V,18361.0V,18367.0V,18373.0V,18379.0V,18385.0V,18391.0V,
18397.0V,18403.0V,18409.0V,18415.0V,18421.0V,18427.0V,18433.0V,
18439.0V,18445.0V,18451.0V,18457.0V,18463.0V,18469.0V,18475.0V,
18481.0V,18487.0V,18493.0V,18499.0V,18505.0V,18511.0V,18517.0V,
18523.0V,18529.0V,18535.0V,18541.0V,18547.0V,18553.0V,18559.0V,
18565.0V,18571.0V,18577.0V

COMSEARCH
2002 Edmund Halley Drive
Reston, Virginia 22091
(703) 620-6300

LIBERTY CABLE TV 07/03/95

MICROWAVE PATH DATA

STATION NAME		99 BATTERY NY		HOUSE TOWER NY
PATH STATUS		PROPOSED OR PRIOR COORDINATED		
CALL SIGN				
LATITUDE	(D-M-S)	40 42 26.0		40 42 36.0
LONGITUDE	(D-M-S)	74 1 1.0		74 1 7.0
GROUND ELEV	(Ft-AMSL)	30		10
PATH AZIMUTH	(Deg)	335.459		155.458
PATH DISTANCE	(Miles)		0.211	
	(Km)		0.339	
ANTENNA				
PRIMARY	TX	CABLEWAVE SYSTEMS		NOT APPLICABLE
		PA4-190		
ANT CODE		CB0082		
GAIN	(dBi)	44.7		
C/L	(Ft-AGL)	315		
PRIMARY	RX	NOT APPLICABLE		CABLEWAVE SYSTEMS
				PA6-190
ANT CODE				CB0093
GAIN	(dBi)			48.2
C/L	(Ft-AGL)			254
DIVERSITY				
ANT CODE				
GAIN	(dBi)			
C/L	(Ft-AGL)			
EQUIPMENT		HUGHES AIRCRAFT CO		RECEIVE
		DOO63QAMLMOT18120		ONLY
EQP CODE		TEM169		
EMISSION		5M75C3F/250KF3E/100KNON		
LOADING		VIDEO		VIDEO
STABILITY (%)		0.000500		0.000500
POWER	(dBm)/(Watts)	-10.0/0.000		
RECEIVED LEVEL	(dBm)			-34.6
EIRP	(dBm)/(Watts)	25.7/0.4		
FIXED LOSSES	(dB)	9.0		0.0
FREE SPACE LOSS	(dB)		108.5	

TRANSMIT FREQUENCIES (MHZ)

18145.0V,18151.0V,18157.0V,18163.0V,18169.0V,18175.0V,18181.0V,
18187.0V,18193.0V,18199.0V,18205.0V,18211.0V,18217.0V,18223.0V,
18229.0V,18235.0V,18241.0V,18247.0V,18253.0V,18259.0V,18265.0V,
18271.0V,18277.0V,18283.0V,18289.0V,18295.0V,18301.0V,18307.0V,
18313.0V,18319.0V,18325.0V,18331.0V,18337.0V,18343.0V,18349.0V,
18355.0V,18361.0V,18367.0V,18373.0V,18379.0V,18385.0V,18391.0V,
18397.0V,18403.0V,18409.0V,18415.0V,18421.0V,18427.0V,18433.0V,
18439.0V,18445.0V,18451.0V,18457.0V,18463.0V,18469.0V,18475.0V,
18481.0V,18487.0V,18493.0V,18499.0V,18505.0V,18511.0V,18517.0V,
18523.0V,18529.0V,18535.0V,18541.0V,18547.0V,18553.0V,18559.0V,
18565.0V,18571.0V,18577.0V

FCC FORM 402 ENGINEERING DATA

SECTION III-TECHNICAL INFORMATION

TRANSMITTER SITE NAME : 99 BATTERY , NY
TRANSMITTER COORDINATES : 40 42 26.0 N
74 1 1.0 W

20. FREQUENCY (MHz):	SEE EXHIBIT #1
21. EMISSION:	SEE EXHIBIT #1
22. TYPE OF MESSAGE SERVICE:	VIDEO
23. INITIAL BASEBAND CHANNEL LOADING:	1
24. 10 YR PROJ. BASEBAND CHANNEL LOAD:	1

TRANSMITTER INFORMATION

25. OPERATING FREQ. TOL(%):	0.000500
26. ANTENNA GAIN (dBi):	44.7
27. EFFECTIVE RADIATED POWER (dBm):	22.7
28. BEAM WIDTH (DEGREES):	0.9
29. CENTER OF RADIATING ELEMENT (Ft):	319.0
30. POLARIZATION:	V
31. AZIMUTH TO NEXT STATION OR PR1(Deg):	99.936

RECEIVER INFORMATION
RECEIVER SITE NAME : 61 BROADWAY , NY

32. CALL SIGN:	
33. RECEIVING ANTENNA GAIN (dBi):	48.2
34. MEDIAN RECEIVED SIGNAL LEVEL (dBm):	-38.1
35. LATITUDE N. (D-M-S):	40 42 24.0
36. LONGITUDE W. (D-M-S):	74 0 46.0
37. GROUND ELEVATION AMSL (Ft):	30.0
38. HT. TO RECEIVING ANTENNA (Ft):	420.0

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SUPPLEMENTAL INFORMATION

TRANSMITTER INFORMATION

TRANSMITTER ANTENNA MAKE:	CABLEWAVE SYSTEMS
TRANSMITTER ANTENNA MODEL:	PA4-190
EQUIPMENT MAKE:	HUGHES AIRCRAFT CO
EQUIPMENT MODEL:	DOO63QAMLMOT18120

RECEIVER INFORMATION

RECEIVING ANTENNA MAKE:	CABLEWAVE SYSTEMS
RECEIVING ANTENNA MODEL:	PA6-190

*** COMSEARCH ***

FCC FORM 402 ENGINEERING DATA

SECTION III-TECHNICAL INFORMATION

TRANSMITTER SITE NAME : 99 BATTERY , NY
TRANSMITTER COORDINATES : 40 42 26.0 N
74 1 1.0 W

20.	FREQUENCY (MHz):	SEE EXHIBIT #1
21.	EMISSION:	SEE EXHIBIT #1
22.	TYPE OF MESSAGE SERVICE:	VIDEO
23.	INITIAL BASEBAND CHANNEL LOADING:	1
24.	10 YR PROJ. BASEBAND CHANNEL LOAD:	1

TRANSMITTER INFORMATION

25.	OPERATING FREQ. TOL(%):	0.000500
26.	ANTENNA GAIN (dBi):	44.7
27.	EFFECTIVE RADIATED POWER (dBm):	22.7
28.	BEAM WIDTH (DEGREES):	0.9
29.	CENTER OF RADIATING ELEMENT (Ft):	319.0
30.	POLARIZATION:	V
31.	AZIMUTH TO NEXT STATION OR PR1(Deg):	123.305

RECEIVER INFORMATION

RECEIVER SITE NAME : BATTERY PT , NY

32.	CALL SIGN:	
33.	RECEIVING ANTENNA GAIN (dBi):	48.2
34.	MEDIAN RECEIVED SIGNAL LEVEL (dBm):	-16.0
35.	LATITUDE N. (D-M-S):	40 42 25.5
36.	LONGITUDE W. (D-M-S):	74 1 0.0
37.	GROUND ELEVATION AMSL (Ft):	10.0
38.	HT. TO RECEIVING ANTENNA (Ft):	120.0

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SUPPLEMENTAL INFORMATION

TRANSMITTER INFORMATION

TRANSMITTER ANTENNA MAKE:	CABLEWAVE SYSTEMS
TRANSMITTER ANTENNA MODEL:	PA4-190
EQUIPMENT MAKE:	HUGHES AIRCRAFT CO
EQUIPMENT MODEL:	DO063QAMLMOT18120

RECEIVER INFORMATION

RECEIVING ANTENNA MAKE:	CABLEWAVE SYSTEMS
RECEIVING ANTENNA MODEL:	PA6-190

*** COMSEARCH ***

FCC FORM 402 ENGINEERING DATA

SECTION III-TECHNICAL INFORMATION

TRANSMITTER SITE NAME : 99 BATTERY , NY
TRANSMITTER COORDINATES : 40 42 26.0 N
74 1 1.0 W

20.	FREQUENCY (MHz):	SEE EXHIBIT #1
21.	EMISSION:	SEE EXHIBIT #1
22.	TYPE OF MESSAGE SERVICE:	VIDEO
23.	INITIAL BASEBAND CHANNEL LOADING:	1
24.	10 YR PROJ. BASEBAND CHANNEL LOAD:	1

TRANSMITTER INFORMATION

25.	OPERATING FREQ. TOL(%):	0.000500
26.	ANTENNA GAIN (dBi):	44.7
27.	EFFECTIVE RADIATED POWER (dBm):	25.7
28.	BEAM WIDTH (DEGREES):	0.9
29.	CENTER OF RADIATING ELEMENT (Ft):	319.0
30.	POLARIZATION:	V
31.	AZIMUTH TO NEXT STATION OR PR1(Deg):	315.915

RECEIVER INFORMATION

RECEIVER SITE NAME : LIBERTY TOW , NY

32.	CALL SIGN:	
33.	RECEIVING ANTENNA GAIN (dBi):	48.2
34.	MEDIAN RECEIVED SIGNAL LEVEL (dBm):	-31.5
35.	LATITUDE N. (D-M-S):	40 42 31.5
36.	LONGITUDE W. (D-M-S):	74 1 8.0
37.	GROUND ELEVATION AMSL (Ft):	10.0
38.	HT. TO RECEIVING ANTENNA (Ft):	265.0

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SUPPLEMENTAL INFORMATION

TRANSMITTER INFORMATION

TRANSMITTER ANTENNA MAKE:	CABLEWAVE SYSTEMS
TRANSMITTER ANTENNA MODEL:	PA4-190
EQUIPMENT MAKE:	HUGHES AIRCRAFT CO
EQUIPMENT MODEL:	DOO63QAMLMOT18120

RECEIVER INFORMATION

RECEIVING ANTENNA MAKE:	CABLEWAVE SYSTEMS
RECEIVING ANTENNA MODEL:	PA6-190

*** COMSEARCH ***