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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

May 21, 1993

Ms. Donna R. Searcy
Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: Comments of LOCAL-DBS, INC.
MM Docket No. 93-25
NPRM 93-91

Dear Ms. Searcy:

Transmitted herewith on behalf of LOCAL-DBS, INC., are an original and nine (9) copies of its Comments in MM Docket No. 93-25, NPRM 93-91. It is requested that a copy of the Comments be forwarded to each Commissioner.

Should there be any questions in connection with this matter, kindly communicate directly with the undersigned.

Very truly yours,

Robert F. Corazzini
Counsel for LOCAL-DBS, INC.

Enclosure

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FEDERAL COMMUNICATIONS COMMISSION
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BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON. D.C.

In the Matter of	)	MM Docket No. 93-25
	)	
Implementation of Section 25 of the Cable Television Consumer Protection and Competition Act of 1992 Direct Broadcast Satellite Public Service Obligations	)	NPRM 93-91

COMMENTS OF

LOCAL-DBS, INC.

EDWARD L. TAYLOR
CHAIRMAN
LOCAL-DBS, INC.
7130 S. LEWIS
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(918)496-7444
May 21, 1993

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MAY 21 1993

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C.

In the Matter of	)	MM Docket No. 93-25
	)	
Implementation of Section 25	)	NPRM 93-91
of the Cable Television Consumer	)	
Protection and Competition	)	
Act of 1992	)	
Direct Broadcast Satellite	)	
Public Service Obligations	)	

COMMENTS OF

LOCAL-DBS, INC.

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SUMMARY

The comments of LOCAL-DBS, INC. in this filing are directed to that portion of Section 25(a) of the Cable Television Consumer Protection and Competition Act of 1992 that requires the Commission to ".....examine the opportunities that the establishment of direct broadcast satellite service provides for the principle of localism under this Act, and the methods by which such principle may be served through technological and other developments in, or regulation of, such service."[1/] LOCAL-DBS, INC. is a corporation conceived in mid-1990 and formed in early 1991 to address (by satellite) this very principle of localism in Broadcasting.

A business and technology plan has been developed such that every local television Broadcast station in the USA can transmit programs to its 200 or 300 mile diameter local coverage area (without interfering with or eliminating National DBS service). Should more than one market be served by a given spot beam, a blackout feature in software will preserve market integrity. The technical and financial feasibility of the LOCAL-DBS, INC. plan is summarized herein.

From a technical standpoint, there is minimal outage risk compared to the National (CONUS) systems currently authorized by the Commission. The LOCAL-DBS transponders utilize low power (7 to 15 watt) solid state amplifiers as opposed to the 120 or 240 watt tube

---

[1/] Section 25, Cable Television Consumer Protection and Competition Act of 1992, enacted by Congress on October 5, 1992.

amplifiers for the National systems. The antenna to produce the spot beams is a 12 ft. diameter dish with a very simple feed. By utilizing the inherent geographic isolation in the beams, a frequency re-use factor of 16 is obtained, yielding a very spectrally efficient system. The channel capacity of the system is enhanced by using digital compression technology. Four to eight TV channels of broadcast quality NTSC video, with near CD quality audio, can be accommodated in each transponder. Assuming that the HDTV standard adopted by the Commission has a data rate of 15 to 20 Mb/s, two signals could be accommodated per transponder.

The cost of a satellite to provide the LOCAL-DBS function is only nominally more expensive than a high power National coverage satellite. The added cost lies in the fact that many more transponders are on-board. This cost is partially offset by the fact that the amplifiers and their power supplies are less costly. The basic bus (power and weight capacity), propulsion subsystem, and T&C subsystem are virtually the same as the high power National coverage satellites.

In brief, the technical and financial feasibility of localism in DBS does exist and business plans are in motion to provide this service.

I. INTRODUCTION

1. LOCAL-DBS, INC., pursuant to Section 1.415 of the rules of the Federal Communications Commission (the Commission), hereby submits its comments in response to the Notice of Proposed Rule Making (NPRM) which was released in the above captioned

3. The main thrust of these comments addresses the technical, marketing and financial feasibility of providing localism in DBS.[4/] By including in the existing DBS arc the local ATV Broadcaster along with the new National television DBS services, the best of both worlds will have been obtained. This complementary "tower-in-the-sky" arrangement should serve the public interest better than the terrestrial Broadcast system. The nations' present TV Broadcast system, with the able assistance of Cable TV, has served the public interest extremely well until now. Because the digital world is closing in rapidly and ATV is nearing its release a totally different transmission system is required. Every citizen needs the ability to receive what he or she wants, when they want it and without waiting decades for a new transmission "railroad" to be constructed, one that will probably never be able to reach the millions of true rural dwellers.

4. As witness the present "you pay me" controversy between Cable TV and Broadcasting, TV Broadcasters should, in the public interest, have their own means of reaching the TV viewer without being at the mercy or dependence of a benevolent third party territorial-extension provider. It is LOCAL-DBS' position that a direct-to-the-home local and national transmission system is now feasible through DBS and that such a system should be established. LOCAL-DBS, INC. has been attempting to accomplish this with the existing DBS licensees and local TV Broadcasters. The uncertainty of what will be contained in the Commission's ultimate Rules and Regulations governing the Broadcasters' use of ATV and the selection of the United States' ATV standard are what appear to be holding back the local DBS plan already formulated by LOCAL-DBS, INC.

[4/] NPRM at 20, and 31 through 36.

II. INTEREST OF LOCAL-DBS, INC.

5. By submission of these comments, LOCAL-DBS, INC. would like the record in these proceedings to show that localism as currently exists in terrestrial broadcast of television[5/] is technically and financially feasible in the DBS service. In the NPRM, the Commission stated that no proposals for local coverage spot beams were known for Ku Band facilities.[6/] It is true that LOCAL-DBS, INC. has not gone forward with a formal proposal and application to the Commission because final business plans cannot be formulated until the Commission's ATV issues are resolved. Nonetheless, the trade press has presented several articles on the Company's general plans.[7/] In addition, Mr. Norman Weinhouse presented a technical paper at the 1992 NAB Convention.[8/] I, the undersigned Edward L. Taylor, also presented a paper to the 1992 NAB convention.[9/] To support LOCAL-DBS, INC. in presentations to the Broadcast industry, Space Systems/Loral[10/] has generated technical material relating to the satellites to be used in the LOCAL-DBS service.

[5/] CFR 47, Part 73.

[6/] NPRM at 34.

[7/] Attachment 2 herein:

III. TECHNICAL FEASIBILITY

SPOT BEAMS

6. At the DBS frequencies (12.2 to 12.7 GHz), a 12 ft. diameter parabolic antenna will have a gain of approximately 50 db and a beam width of approximately 0.5 degrees. At synchronous altitude this beam will produce half power coverage of approximately 200 miles in diameter on the earth. Furthermore, it fits very nicely on modern launch vehicles.[11/] Directional pointing of the beam(s) is accomplished by displacement of the feed from the parabolic axis of revolution.[12/] Because each beam has a separate feed, efficient transfer of power to the antenna is obtained in the spacecraft. It is possible to build spacecraft that contain transponders for both Local beam and National beam applications.

7. Because the power of a transponder is concentrated in a narrow beam, a low power amplifier can be used as the transmitter in the satellite. The effective isotropic power from a satellite transmission is the product of the power into the antenna and the antenna gain. A comparison with a National system (230 watt transmitter) indicates more useful power will be transmitted to the ground (coverage area) with a 7.6 watt transmitter in the LOCAL-DBS system.[13/] This higher available power will provide a better reliability since the DBS frequencies are subject to fading due to atmospheric conditions, especially rain.

[11/] Weinhouse, OpCit, at p. 36 and figure 2.

[12/] Id, at p. 36 and figure 4.

[13/] Id, at table 2.

8. The beams produced in the satellite are isolated from each other. Alternate beams can be used to transmit the same frequencies. A frequency re-use factor of 16 is achieved in a fully developed system, which yields a very spectrally efficient system.[14/]

LOCAL MARKET INTEGRITY

9. In some cases a beam with 200 to 300 mile diameter can encompass more than a single Area of Dominant Influence (ADI). To preserve the integrity of program exclusivity, the LOCAL-DBS service will include a secure conditional access feature. In addition to program specific features, a geographic blackout feature will also be included.[15/]

10. This conditional access and blackout system will have negligible incremental cost to the consumer hardware and no added cost to the satellite. Digital source coding and transmission is planned for the program material. The blackout feature is included as a software enhancement with an infinitesimal added overhead to the channel data stream.

[14/] Id, at page 36.

[15/] Id, at p. 38 and figure 7.

IV. MARKETING AND ECONOMIC FEASIBILITY

11. One of the more compelling reasons for the Nation to embrace DPS is that substantial

13. The inclusion of local Broadcasting in the DBS satellite slots along with National signals will indeed provide the USA TV viewer with the best of all reception options. DBS without local Broadcasting will be just another splinter service, forcing every viewer to connect to a cabled system or a local wireless system or an over-the-air receiving antenna or a C-band dish or a DBS dish or any combination thereof, making it ultimately a nightmare for the viewer who desires some programming from each delivery method or causing self-denial in order to prevent creating an antenna farm in a viewer's dwelling. By combining all National and local Broadcast services in one eloquent DBS delivery system, each TV viewer would be able to pick only those services he or she has an interest in without being forced to pay for programs of no interest simply because they are bundled in a basic delivery package.

14. A comprehensive DBS delivery system would eventually produce economies of scale for the TV viewer, the advertiser and the programmer who will find it beneficial to reach only those that want to watch its programs.

15. With the recent technological developments that will marry compression and spot beams to DBS, there appears to be adequate spectrum to accommodate every licensed TV Broadcast station (VHF & UHF) from the DBS arc. In addition to transmitting ATV, each Broadcaster could also transmit digital NTSC and/or DATA. These three services can exist simultaneously with the hundreds of planned National channels in the DBS arc -- probably accommodating as many of the National channels as were originally contemplated in the various pre-compression DBS plans.

16. Attached hereto is a copy of the Executive Summary[16/] from the original LOCAL-DBS, INC. Business Plan which shows the major financial aspects of a service which would provide an ATV Broadcast channel for every existing local TV station. The ***total*** delivery cost per home for a DBS delivery system to provide multiple channels of local Broadcasting appears to be less than $12 per home. No other delivery method can begin to compare to such an inexpensive cost for placing local multiple TV signals within easy reach of every USA dwelling place.

17. To the best of LOCAL-DBS management's knowledge, no Broadcaster or Broadcaster

CONCLUSION

18. Localism in DBS service is technically and economically feasible. LOCAL-DBS, INC. has been established for this express purpose. A great deal of effort and the concomitant expense has gone into the planning to realize this desirable end result. We feel that the public will be well served by the implementation of the service.

Date: May 21, 1993

Respectfully submitted,

LOCAL-DBS, INC.

By: Edward L. Taylor

Edward L. Taylor
Chairman

ATTACHMENT 1

BACKGROUNDS OF COMPANY OFFICERS

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EDWARD L. TAYLOR
Chairman, Taylor Communications Corporation

Ed Taylor is a leader in the world of satellite communications as well as one of the foremost entrepreneurs in the cable television industry. In 1976, he became part of cable history when he founded Southern Satellite Systems, Inc. and began transmitting Atlanta UHF television station WTCG nationwide via satellite. Today that station is known as SuperStation TBS and is one of the most widely distributed satellite services in the country. The original resale common carrier, Southern Satellite Systems is now a wholly-owned subsidiary of TEMPO Enterprises, Inc., also founded by Taylor, a multi-faceted company engaged in many areas of the cable industry. TEMPO was publicly-held (AMEX:TPO) until its December 1988 acquisition by Tele-Communications, Inc.

In 1979, Taylor founded TEMPO Television (formerly Satellite Program Network) a national cable television network which was transmitted twenty-four hours daily until the network was leased to NBC in 1988.

While under Taylor's direction, TEMPO Enterprises continued to expand. In addition to the transmission of SuperStation TBS and the programming of TEMPO Television, TEMPO Enterprises was involved in the acquisition and management of cable television systems via it TEMPO Cable subsidiary and the sale of scrambled programming services to the backyard dish (TVRO) market through TEMPO Development Corporation. The company also pioneered the cable audio segment of the industry with the first multiple-format cable audio package, which was marketed under the title of TEMPO Sound, and transmitted various teletext and data services under the umbrella heading of TEMPO Data.

Taylor began his career with AT&T after graduating with a bachelor's degree in

SELMAN M. KREMER
President, Taylor Communications Corporation

Sel Kremer is responsible for day-to-day operations and investigations of potential investments for Taylor Communications. Kremer has been promoting and distributing cable television products, services and equipment since 1950. He is accurately described as a cable TV veteran and pioneer.

Shortly after forming Southern Satellite Systems in 1976, Edward L. Taylor hired Kremer to market SuperStation TBS and assist in the development of new services for cable systems utilizing satellite technology. From that point on, Kremer

GARY W. BURNELL
Vice President, Taylor Communications Corporation

Gary Burnell joined TEMPO Enterprises, Inc. in January, 1987 and served as vice president, chief financial officer, secretary and treasurer until mid-1989. Burnell was responsible for all SEC, tax, budgeting, forecasting, treasury and other accounting matters for the multi-faceted and publicly-held satellite communications company. Reporting to the president, he was also responsible for numerous administrative responsibilities, served as coordinator with outside attorneys on many of the corporate and all SEC matters, as an advisor to the human resources department and as vice president in charge of the contracts and customer service portions of TEMPO's common carrier operations. He was instrumental in the drafting of the merger agreement between TEMPO and Tele-Communications, Inc., and was active in the coordination efforts leading up to and the transition work subsequent to the December 1988 merger.

Burnell's background includes over twenty years of diversified financial management and administrative experience. Prior to joining TEMPO, he was vice president of finance for Clyde Petroleum, Inc., the United States subsidiary of a publicly-held United Kingdom corporation. While there, he directed all financial reporting and accounting activities, and was responsible for budgeting,

NORMAN P. WEINHOUSE
Founder/owner of Norman Weinhouse Associates, an engineering consulting firm.

Norm Weinhouse is a prominent consultant to users and operators in the satellite and terrestrial communications industry with a specialty in the television field. He has served on many industry committees establishing standards for microwave and satellite transmissions. He is currently chairman of the Satellite Practices subcommittee of the NCTA Engineering Committee. Weinhouse Associates' client list includes many programmers and satellite operators as well as important users of satellite and microwave for data, voice, audio and television services. In recent years the firm's work involves digital technologies utilizing compression and spectrally efficient modulation techniques.

Prior to establishing his own firm in 1984, Weinhouse was with Hughes Aircraft Company for 16 years. He had various engineering management positions including design responsibility for a wide variety of satellite earth stations including TT&C, as well as general purpose communication stations and TVRO's. Weinhouse joined Hughes Communications, Inc. (a subsidiary of Hughes Aircraft) in 1981 and was Systems Engineering Manager, and Technology Manager for the Galaxy satellite fleet.

Previous employment included eight years (1960-1968) at Rantec Corporation where Weinhouse had responsibility for a sophisticated microwave test equipment product line. From 1953 to 1960 Weinhouse was with Collins Radio where he was a key designer and system engineer for a terrestrial microwave product line. From 1949 to 1953 he was a microwave circuit design engineer at Motorola, Inc.

Weinhouse is a graduate of the University of Illinois (with honors) and holds a MSEE from Northwestern University. He is a senior member of IEEE, a member of SMPTE, and SCTE.

STEPHEN ROBERTS
Founder and President of the S. Roberts Company, the prestigious entertainment industry consulting firm.

Roberts was the former president of Twentieth Century Fox Telecommunications, and member of the boards of Twentieth Century Fox Film Corporation and the CBS/FOX Company. He began his career more than twenty-five years ago.

After working for Columbia Pictures in New York and Twentieth Century Fox, in international marketing and distribution, Mr. Roberts was appointed president of International Theatres at Fox. This division was responsible for more than 130 theatres throughout the world. During that period Roberts helped design and develop the Hoyts Theatre Complex in Sydney, Australia, a concept revolutionary in its time, and still considered one of the world's premium entertainment centers.

From 1977 to 1981, Roberts was also president of the Twentieth Century Licensing Corporation, the division responsible for all of the company's merchandising operations. Among his achievements while president, Roberts was responsible for the breakthrough licensing campaign of "STAR WARS", whose merchandising success has proved unprecedented in sales and profits.

In April, 1976, Roberts was asked to head up the newly-created Telecommunications Division, the division responsible for Fox's expanding operations in pay television, home entertainment and worldwide television syndication markets. Shortly after his appointment, Roberts was instrumental in creating PRISM, which is now the most successful, regional, (Philadelphia) pay-television network in the country.

In September, 1982, under Robert's auspices, Fox was the first company to release a major motion picture, "STAR WARS", on pay-per-view. He also executed the exhibition of the final concert of the 1982 tour of The Who on pay-per-view. Both of these programs achieved tremendous financial success and paved the way for the current development of pay-per-view.

Under Robert's leadership, Fox was the first major studio to produce original programming for pay television, including the award-winning series "PAPER CHASE".

In 1977, Roberts launched Fox into the prerecorded home video business, becoming the first studio to license motion pictures for home video--two years ahead of the other major studios. Roberts' vision established Fox as a leader in prerecorded home video, which today is an eight billion dollar business--and growing.

In 1982, Roberts was instrumental in the merger between Fox and CBS, creating CBS/FOX Video. This company is engaged in the creation, marketing and distribution of cassette products and, today, is one of the world's leading home video companies. Roberts served as a member of the CBS/FOX board of

ATTACHMENT 2

LOCAL-DBS NEWS ARTICLES REPRINTS

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Via Satellite Magazine
World Satellite Directory
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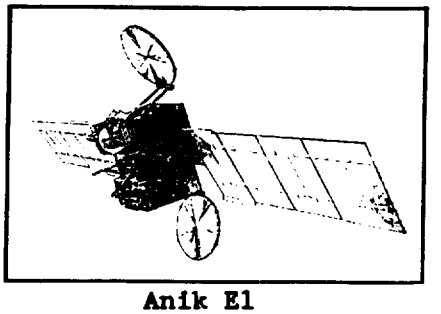
Covering Technology, Regulation & Emerging Applications

September 23, 1991
Washington, D.C.
Vol. 14, No. 38

Dear Executive:

The next launch of an Arianespace rocket (V46) tentatively is scheduled for this Thursday, between 7:43 p.m.-9:52 p.m. EDT. The booster, an Ariane 44P, will carry into orbit the Spar Aerospace-built Anik E1 satellite for Telesat Canada. The telecommunications satellite is the twin of Anik E2, which Ariane launched successfully last April 4 (SN, April 8, p. 1), but it subsequently experienced in-orbit problems when the stubborn C-band antenna refused to deploy. Engineers, however, were able to get the problem antenna to actuate on July 3 (SN, July 8, p. 1). Anik E1, which is based on a GE Astro-Space Division 5000-series platform, will orbit at 111.1°W. It will serve the national Canadian telecommunications network which includes TV distribution, with some overlap into the United States. The satellite has a design life of roughly 13 years.



Anik E1

FIRM PROPOSES NEW SPOT-BEAM DBS SERVICE FOR LOCAL BROADCASTING

SATELLITE NEWS has learned that a group of Tulsa, Okla.-based entrepreneurs, using the name Local-DBS Inc., plans to launch a high-powered direct broadcast satellite (DBS) service in 1995 aimed at providing locally originated, digital television signals to consumers via spot-beam technology.

In an exclusive interview with SATELLITE NEWS associate editor Britton Manasco, Selman Kremer, vice president of marketing for Local-DBS, said that the proposed service will enable local broadcasters to uplink digital NTSC and high-definition television (HDTV) signals to a satellite and then downlink them to consumers within its particular coverage area at costs below those of upgrading their terrestrial systems. Eventually, the company hopes to launch three 30-beam DBS spacecraft in three different orbital positions spanning the contiguous United States.

LDBS

(Local-DBS)

Beams will range between 200-300 miles in diameter. Smaller beams will be aimed at more populous regions while the larger patterns will be reserved for sparsely populated areas. The company intends to launch the first satellite in 1995 and the second and third spacecraft at one-year intervals thereafter. Palo Alto, Calif.-based Space Systems/Loral, which has gained experience designing spot-beam services for Intelsat, will serve as the prime contractor for the satellites, Kremer added.

- **GE Aerospace Laying Off 2,000 Employees; Is Astro-Space for Sale? 4**
- **Satellite Spotlight: School Days Via Satellite 4**
- **Japan to Build Experimental Communications Satellite 5**
- ****Special Report--Part Two of Our Interview With Dr. Arthur C. Clarke 6-7**
- **Candidates Narrow for Intelsat Top Job 10**

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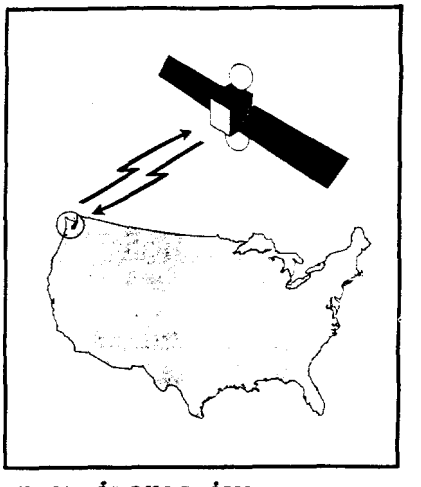
Local-DBS, however, which is not a DBS licensee, has not yet secured an arrangement to offer services in any orbital slot, said Kremer.

Local broadcasters now will have an effective method of competing with cable TV and establishing their independence as media outlets, Kremer said.



Presently, he added, broadcasters are dependent on cable companies for expansion of their coverage and on the networks for a large amount of programming.

This service, he said, will enable local broadcasters "to break the shackles" that currently restrict them by: directly addressing the demands of their regional markets; inserting more local advertising; delivering higher quality signals; and offering new forms of targeted programming. Niche programming, pay-per-view and subscriber-based services are among the new possibilities that Local-DBS will offer broadcasters, he added.

Local-DBS plans to align itself with complementary, national, direct-to-home ventures, such as those planned by Stanley Hubbard's United States Satellite Broadcasting and Hughes Communications Inc., to offer the consumer an impressive alternative to cable, said Kremer. Indeed, Local-DBS plans to adopt the standards for compression, encryption and reception equipment that eventually will be used by the national DBS licensees.

...With Localism Comes Ownership Rights

Receiving equipment, Kremer said, will enable users to watch any regional programming provided within their area as well as any other national services. For that purpose, he added, consumers will need to purchase an actuating antenna mount or "a few tiny dishes" to direct at multiple satellites. Dishes, which he estimated to average 12-18 inches in diameter, could be window or roof mounted.

TV stations, which will gain ownership rights of their own channel in a transmitted beam, will be able to uplink from their studio sites or from shared regional hubs, said Kremer. The average local broadcast coverage area will have 12 frequencies, allowing for 36 channels of NTSC programming at a 3:1 compression ratio (1:1 for HDTV). The service is "an outgrowth of years of searching for a way to combine local and national TV services from satellites," said company founder Edward Taylor. "This will eliminate the disparities in signal quality inherent with terrestrial TV broadcasting due to channel frequency, power, geographic obstructions or distance from the transmitter."

Ideally, said Kremer, Local-DBS will finance the estimated $1 billion project through private investment and the advanced purchase of channel space by

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