Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	File Nos. 43-DSS-MP/ML-90,
	)	44-DSS-MP//ML-90, 45-DSS-
	)	MP/ML-90, 46-DSS-P/LA-90,
	)	48-DSS-P/LA-90, 51 DSS-EXT-90,
GEOSTAR POSITIONING	)	52-DSS-EXT-90, 53-DSS-EXT-90,
CORPORATION	)	CSS-90-012 (ML), CSS-90-013 (ML),
	)	CSS-90-014 (ML), CSS-90-015 (ML)
	)	
For Modification of the	)	
Geostar RDSS Space	)	
Station Authorizations	)	

OPPOSITION TO PETITION TO DENY

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SUMMARY

Geostar is a fully viable, operational company which is ready and willing to be the first provider via dedicated satellite of RDSS service to the public and that grant of Geostar's applications is in the public interest.

Grant of the applications will serve the public interest by allowing Geostar to pursue a technically and economically rational approach to the full implementation of its RDSS system. Also, because Geostar's application in no way prohibits others from seeking an RDSS license, no harm would result to other parties from grant of Geostar's applications.

The Commission has traditionally shown a significant amount of flexibility in its proceedings to ensure that new services continue to reach the public. In pursuit of this goal, the Commission has granted extensions of time in other new satellite service areas when such extensions are consistent with the public interest. In addition, the Commission has consistently encouraged new start-up companies seeking to provide new and innovative services to the public. Indeed, with the Commission's support, many of these companies have gone on to financially flourish.

Geostar has met the Commission's imposed deadlines for beginning construction of its RDSS system. Moreover, Geostar has devoted significant amounts of capital and human resources to development of a viable RDSS system. For the

foregoing reasons, grant of Geostar's application is in the public interest.

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OPPOSITION TO PETITION TO DENY

Geostar Positioning Corporation ("Geostar"), by its attorneys, hereby files its Opposition to the Petition to Deny Geostar's above-referenced applications filed by Qualcomm, Inc. on October 10, 1990.[1]

I. INTRODUCTION

Geostar has begun construction of three space stations in the radiodetermination satellite service ("RDSS") as authorized by the Commission.[2] Geostar also operates an interim RDSS system using special RDSS relays carried on host domestic fixed satellites together with conventional 4/6 GHz

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[1] Petition to Deny of Qualcomm, Inc., filed October 10, 1990 ("Qualcomm Petition").

[2] Geostar Corp., for Authority to Construct, Launch and Operate Space Stations in the Radiodetermination Satellite Service, 60 R.R.2d 1725 (1986) ("Geostar Construction Order").

transponders.[3] The applications under consideration here propose technical modifications to two of Geostar's currently authorized RDSS satellites, the construction and launch of two new ones, and a modest delay in their launch and operation.

As described in more detail below, Geostar has made substantial and demonstrable progress in the implementation of its RDSS service and is today providing valuable services to its customers. In its Petition to Deny, Qualcomm describes itself as "a competitor of Geostar in the provision of satellite services to mobile users."[4] However, Qualcomm does not utilize frequencies allocated to RDSS, nor does it propose to utilize such frequencies.[5]

It is easy for a petitioner such as Qualcomm, who only leases existing transponder capacity for resale as a low speed mobile data service, to criticize the progress being made by Geostar towards the much more ambitious objective of establishing a new satellite system. However, Geostar has

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[3] See GTE Spacenet Corporation, 1 FCC Rcd 1163 (1986), Mimeo 5175 (June 16, 1986), DA 88-1265 (August 15, 1988) and DA 89-1506 (December 6, 1989), and Geostar Positioning Corporation, FCC 89-142 (May 25, 1989).

[4] Petition to Deny at 2.

[5] While Omninet Corporation, the predecessor in interest to the OmniTracs service provided by Qualcomm, did hold an RDSS system authorization at one point, it never began system construction and allowed its authorization to expire.

successfully made the transition from a start-up venture to a fully operational company. To grant Qualcomm's Petition would only give Qualcomm what it could not achieve in the marketplace.

Geostar urges the Commission to evaluate these applications in light of the substantial interim benefits and progress in establishing RDSS that have in fact been demonstrated in practice by Geostar. It would be incongruous for the Commission, in its encouragement of new services and technology, to cut off the development of RDSS by Geostar in midstream and waste the efforts that have already been expended by Geostar in developing its full RDSS system. The proposed modifications and extensions of Geostar's satellite construction plan constitute a technically and financially prudent approach towards the development of an RDSS system with all of the capabilities envisioned by the Commission when it created this new satellite service in 1985. For these reasons, the Commission should deny Qualcomm's Petition and promptly grant Geostar's applications.

II. GEOSTAR HAS MADE SUBSTANTIAL AND DEMONSTRABLE PROGRESS IN THE IMPLEMENTATION OF ITS RDSS SYSTEM

A. Geostar Has Successfully Made the Transition from a Start-Up Venture to a Fully Operational Company

When the Commission issued Geostar its authorizations in 1986, it was clear that Geostar was a start-up company, and

that Geostar did not then have the financial assets of a large corporation that could redily afford to construct and launch a new satellite system. As Qualcomm observes, the financing of Geostar's full RDSS system was, and still is, ultimately dependent on the revenues to be received from investors and on-going operations. However, as Qualcomm also notes, the Commission's regulatory response to applications can change with time and changed circumstances.[6] In particular, the Commission should take into account the substantial progress made by Geostar since 1986.

When Geostar filed its application and petition for rulemaking in 1983, Geostar was in a similar financial status to many other satellite applicants. Like many earlier and later satellite system applicants, Geostar could demonstrate innovative technical and service concepts, but not the cash on hand for full system implementation. Nevertheless, the Commission has consistently issued satellite system authorizations to such start-up companies allowing them to proceed subject to a series of milestone requirements in order to demonstrate due diligence in system implementation.

Geostar started out with seed capital of just over $100,000 from initial shareholders and was conducting a first round private placement to raise an additional $500,000.[7]

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[6] Qualcomm Petition at 14.

[7] See Geostar's March 31, 1983 Application at 9.

Since then, Geostar has obtained $125 million in funds from service revenues, debt and equity placements, and other revenue and income. These funds have been expended towards the construction of both the interim[8] and dedicated RDSS facilities, including the funding of losses from operations since 1983.

It is notable that, within 2 years of the grant of Geostar's system authorization, Geostar began receiving revenue from an interim service using an RDSS relay operating in the 1610-1626.5 MHz band allocated by the Commission to RDSS.[9] In developing its interim service, Geostar has made effective use of the frequencies allocated to RDSS in a manner that will allow efficient implementation of its full RDSS system architecture and transmission format.

Geostar's ability to raise these funds and develop its interim and dedicated RDSS facilities did not rely on any form of Commission regulatory preference or protection. Geostar pioneered the concept of a multiple entry policy for

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[8] The RDSS relays were an integral part of Geostar's interim RDSS system since 1985 since the authorization for the GSTAR II relay, which failed in orbit in 1986, was released in 1985. See GTE Satellite Corporation, Mimeo No. 1181 (released December 2, 1985).

[9] Geostar could have begun operations two years earlier in 1986 had the RDSS relay on GSTAR II not failed in orbit. Launch of the next RDSS relay on board the Spacenet III satellite was delayed until 1988 because of the launch problems encountered during the 1986-1987 period by the Ariane program.

RDSS, which allowed the Commission to grant four initial RDSS system authorizations without comparative evaluations. Even today, the Commission's Rules provide for the routine processing of new RDSS system applications.

Thus, Geostar agrees with Qualcomm's claim that "[t]here can be no question of changes [in Geostar's financial circumstances] since the Commission's initial public interest finding in 1986."[10] However, while Qualcomm tries to paint a gloomy picture based only on Geostar's current filings with the Security and Exchange Commission (SEC), a more accurate assessment is that Geostar has made the difficult passage from a start-up venture with no tangible assets to a fully operational company currently providing a valuable service to the public.

B. Geostar Has an Established Customer Base Who Rely on Geostar's Interim and Full RDSS System

Geostar is currently providing an interim RDSS service using RDSS relays installed at Geostar's expense on board the GTE Spacenet III and GSTAR III satellites. These RDSS relays operate in the 1610-1626.6 MHz band allocated to RDSS and use the same transmission format that will be used in Geostar's full RDSS system. These inbound relays are currently being used together with conventional 4/6 GHz transponder capacity

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[10] Qualcomm Petition at 14.

to provide a two-way interim service that provides much of the functionality that Geostar's full RDSS system will provide.

Even today, users of Geostar's interim system are obtaining valuable benefits. For example, use of the Geostar system in the long-haul trucking industry can save from $3,400 to $5,500 per year per truck in increased asset utilization, reduction of deadhead miles, shortened billing cycles, reduced communications costs to track vehicle location and status, reduced driver recruitment and retention costs, and reduction of insurance rates and premiums. In addition to these quantifiable benefits, use of Geostar's service provides improved help in emergency conditions and allows trucking companies to improve the reliability and efficiency of the service they provide their customers.

Geostar is developing many other applications of its service, particularly in the maritime and aeronautical areas.[11] For example, Geostar's current system is being used by the Coast Guard to track some of its vessels, the

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[11] Standards have been adopted for RDSS use in the maritime and aeronautical areas by the Radio Technical Commission for Maritime Services (RTCM) and the Radio Technical Commission for Aeronautics (RTCA). See RTCM Recommended Standards for Maritime Applications of the Radiodetermination Satellite Service (RDSS), RTCM Special Committee No. 108, August 1, 1990; and Minimum Aviation System Performance Standards for Radiodetermination Satellite Service (RDSS), Document No. RTCA/DO-206, March 21, 1990 (Prepared by SC-161).

Bureau of Land Management for aircraft tracking and emergency reporting, and the Pan Am Shuttle for tracking the location of some of its planes for administrative support purposes.

Geostar's system has already provided examples of life saving messages. For example, in June 1989, Geostar's system was the only reliable means of monitoring the status of the Gentry Eagle speedboat in the North Atlantic after a storm knocked out all of its other radio equipment. Geostar's system has also been used to summon help in life threatening situations. In February 1990, a student driver was pinned underneath a Geostar-equipped truck as a result of an accident. The Geostar system was used to summon an ambulance which arrived within minutes of the call for help.[12]

Geostar's success in providing service to the long-haul trucking industry, which comprises the bulk of Geostar's current customer base today, as well as its efforts to develop new markets, has been a necessary step in the development of its full RDSS system. Grant of these applications will allow Geostar to provide satellite ranging with better than 50 meter accuracy within the system, as well as increased satellite capacity and the satellite power to support handheld user terminals. With the lower cost of such user

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[12] Additional details of these incidents are provided in Appendix A to Geostar's March 20, 1990 Comments filed in PR Docket No. 89-599.

terminals the market for Geostar's RDSS services will of course expand.

In summary, today, Geostar has over 130 customers and close to 4,000 units in operation, with another 6,000 on backlog order. Geostar provides over 155,000 position fixes per day (59 million since beginning service) and any messaging is and will remain ancillary to the positioning function. In fact, current and prospective customers demand positioning as an integral part of the service. Geostar has two RDSS relays in orbit and leases redundant 4/6 GHz transponders to provide service to these customers. Geostar's own staff currently consists of 68 personnel, while another 100 people are directly involved with Geostar's service in various vendor organizations manufacturing, installing and supporting user terminals in the field.

The satellite facilities under consideration in these applications are needed in order for Geostar to continue to serve these customers, to meet growth in service requirements, and to extend the applications to the full range possible with RDSS.[13]

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[13] Qualcomm also urges the Commission to revoke Geostar's authorizations for these interim facilities. Qualcomm Petition at 21-22. Only a competitor seeking to use the regulatory mechanism to achieve what it cannot in the marketplace would be so callous as to ignore the impact that such action would have on the customers currently being served by Geostar.

C. Geostar Has Made Substantial Progress Towards the Implementation of Its Full RDSS System

Geostar has made substantial progress in its dedicated satellite construction program. Detailed engineering and design work has been completed with respect to its multibeam satellites.[14] One of the outgrowths of this work was the modified design proposal that provides switchable spot beams to cover virtually all of the western hemisphere and to extend coverage to other countries for both commercial and government customers.[15]

Geostar has constructed an operational hub facility at its Washington, D.C. operating center consisting of two 5.5 meter antennas, a radio frequency hub facility comprised of sophisticated spread spectrum acquisition and demodulation equipment built to Geostar's unique specifications, uninterruptable power supplies and backup generator capacity, and redundant computer networking facilities to assemble, route, and process position reports and ancillary messages within

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[14] Over $10 million has been expended to date on these satellites. Tasks completed include the System Definition Review to establish the final baseline design requirements, definition of preliminary spacecraft configurations and subsystem interfaces, trade-off studies to optimize S/L-band antennas and power amplifiers, preliminary launch vehicle (shuttle/PAM-D-II) interfaces, and vendor selection for the power amplifiers and S/L-band antennas.

[15] See Application of Geostar Positioning Corporation, filed on April 4, 1989, File Nos. CSS-89-003(3) and 1145/1146/1147-DSS-MP-89.

Geostar's operating center, and sophisticated data terminal equipment to provide a variety of interfaces with its customers. Appendix A provides photographic evidence of the extent of Geostar's currently operational central earth station facilities. Most of the facilities now in operation form a necessary part of the central earth station facilities that will be required for operation with Geostar's dedicated RDSS satellites.

Geostar has made other technical progress in achieving the implementation of its RDSS service. One of the key benefits and premises of RDSS as originally envisioned was the ability of RDSS satellites to provide positioning and ancillary two-way messaging to handheld RDSS terminals.[16] Geostar has already demonstrated a working, engineering model of a handheld RDSS user terminal to various government agencies.[17] This transceiver is 22 cubic inches and weighs 22 ounces including a keyboard/display and integrated antennas, but not including battery pack, and is the result of an R&D

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[16] Policies and Procedures for the Licensing of Space and Earth Stations in the Radiodetermination Satellite Service, Gen. Docket No. 84-690, 60 R.R.2d 298, 304 (1986) ("Licensing Order").

[17] This unit transmits signals that are received at Geostar's central earth station facilities over Geostar's in-orbit RDSS relays at 1618.25 MHz. Since the receivers in these units are tuned to the 2491.75 MHz RDSS downlink frequency, two-way transmissions are not currently possible. However, all of this development effort will be wasted if Geostar is not permitted to construct and launch its dedicated RDSS satellites in these bands.

investment of more than $20 million. All of the dedicated RDSS satellites proposed in the applications under consideration, including the single beam satellites, will support these handheld user terminals.[18]

Moreover, during January 1990, Geostar conducted a demonstration -- using its interim system -- of the satellite ranging techniques it will use in its full RDSS system. This demonstration tracked a van as it drove across Florida. The results of that demonstration show that Geostar will be able to provide an accuracy of 50 meters or better once its full RDSS system is in operation.[19]

Geostar's activities have not been limited to the United States. It has expended extensive efforts to support the Commission and other government agencies to obtain international recognition of the Commission's domestic allocation of frequencies to RDSS at the 1987 Mobile World Administrative Radio Conference ("WARC"). RDSS was considered one of

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[18] The link budgets presented in the May 18, 1990 applications are premised on serving these handheld terminals.

[19] Geostar has not yet published an account of this demonstration, but will be glad to provide a copy of its internal proprietary report to the Commission on a nondisclosure basis.

the successes of the United States delegation to that conference.[20]

Geostar has licensed its patented technology overseas to enable the development of a European RDSS system known as Locstar. In addition, Geostar currently holds an 8.9% interest in Locstar whose first two satellites will be capable of providing RDSS service in Europe, northern Africa, and the Middle East. Locstar has already entered into contracts for the construction and launch of these satellites, the construction of central earth station facilities, and user terminal manufacture. The Locstar system will be interoperable with the Geostar RDSS system to provide the same level of RDSS service within the combined coverage areas of the two systems. Geostar's experience with its interim RDSS system and its efforts to develop its dedicated RDSS satellites are contributing directly to the development of the Locstar system.

Geostar is also working to extend the scope of its system coverage throughout the western hemisphere. These activities include the addition of a Caribbean coverage beam to its GSTAR III RDSS relay, the establishment of Canadian

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[20] See e.g., Notice of Proposed Rulemaking, Gen. Docket No. 89-103, FCC 89-125 (released May 5, 1989), at paragraph 13.

and Mexican affiliates to resell Geostar's services, and marketing efforts throughout Latin America.[21]

These accomplishments and ongoing activities are not a sign of a company that is about to cease operations. Rather, they are part of a comprehensive program to develop RDSS technology and services in both the United States and throughout the world. Grant of the applications under consideration here is necessary for Geostar to continue these developments in a practical and prudent manner.

III. GEOSTAR'S SEC FILINGS ARE TYPICAL OF COMPANIES MAKING THE TRANSITION FROM START-UP TO OPERATIONAL STATUS

A. Geostar Has Overcome Significant Operational and Financial Obstacles in the Development of its RDSS System

Despite Geostar's current status as an operational company providing valuable services to the public, its growth from a start-up venture has been fraught with risk. A number of events which could not be controlled by Geostar have hindered Geostar's development.

At an early date in 1986, the first RDSS relay launched on board the GSTAR II satellite failed after only six weeks in orbit. Launches of the back-up relay on board the Spacenet III satellite was delayed some two years as a result

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[21] Additional details on Geostar's activities to extend the coverage of RDSS services are provided in Geostar's international service application, note 15, supra.

Spacenet III satellite was delayed some two years as a result of the problems with the Shuttle and Ariane launch programs. Difficulties also occurred with the GSTAR III satellite, which carried an RDSS relay. Because of an anomalous firing of its apogee kick motor, it took over a year of complex satellite maneuvering using the on-board thrusters normally used for on-station attitude control and stationkeeping to raise the satellite to geosynchronous orbit. As a result, the satellite lifetime was reduced from ten to five years, and Geostar was delayed a year in the expansion of its coverage of the Caribbean, Mexico, Central America, and the northern part of South America.

In addition to these technical and operational obstacles, which could not have been foreseen by Geostar, the difficulties in creating an operational company from a start-up venture in a capital intensive industry such as satellite communications have also proven to be much greater than initially expected.[22] Nevertheless, as described in Section IIA, Geostar has in fact raised over $125 million, including revenues and other income, towards the construction and operation of its current RDSS facilities, and has made

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[22] One only has to consider the failure of Omninet, Qualcomm's predecessor in interest of the OmniTracs service, to pursue its RDSS authorization and option to participate in the initial mobile satellite consortium (now known as the American Mobile Satellite Corporation) to get a view of the difficulties facing a start-up company in this area.

the difficult transition from a start-up venture to an operational satellite company.

Geostar recognizes that the SEC filings referenced by Qualcomm reflect Geostar's current financial struggles. Nevertheless, Geostar is an ongoing company that has in fact met and overcome a series of peaks and valleys in its financial statements. This is because Geostar has had to finance its construction and operations through a series of debt and equity placements over several years. The SEC filings show only a static picture of Geostar's financial situation at particular moments in time but do not adequately reflect Geostar's full operating capabilities and ability to raise additional funds.

Since Geostar has been building its asset base from equity and debt placements, Geostar's balance sheet will show a relatively large net worth immediately after a placement which gets reduced as payment for construction and operation are presented against the account. When Geostar's current assets become low, Geostar raises additional capital to finance the next round of construction and financing.

Qualcomm has relied on SEC filings only since 1989, which placed Geostar in one of the downtrends of this cyclical financial performance.[23] Geostar's current

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[23] All of Geostar's equity financing have been through private placements and not public offerings. Geostar has been subject to public SEC disclosures since 1989 only

financial situation reported in its SEC filings therefore represents a valley in the current cycle since it raised approximately $30 million in its May 1988 placement. Because of its technology, Commission licenses and current customer base, Geostar believes it will be able to raise the necessary funds needed to continue its operations.[24] Indeed, the failure of Qualcomm's latest prediction, that "there is significant doubt as to whether [Geostar] can continue operation in this, the fourth quarter of 1990," should finally put this matter to rest.

B. Other Companies Have Faced Similar Obstacles and Have Become Financially Successful

In its Petition to Deny, Qualcomm discusses its concerns regarding whether Geostar is "financially qualified pursuant to the RDSS Licensing Order."[25] According to Qualcomm, Geostar's licenses should be revoked because of its "questionable" financial status. In making these statements,

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because the number of stockholders exceeded 500 not because of any public stock offering.

[24] Geostar is in the process of completing a long-term financial arrangement for the funding of its RDSS system. However, the current status of these negotiations and SEC regulations preclude Geostar from disclosing additional details to the Commission at this time except on a confidential basis pursuant to Section 0.457 of the Rules. Geostar will supplement its applications pursuant to Section 1.65 of the Rules as soon as it is able to disclose such information publicly.

[25] Qualcomm Petition at 13.

Qualcomm relies only on Geostar's most recent SEC filings. However, as demonstrated above, Geostar has begun construction of its dedicated RDSS satellites and has placed into operation an interim system using frequencies allocated to RDSS. Moreover, it has made the transition from a start-up to a fully operational company. Furthermore, reliance solely on these SEC filings does not present a clear picture of Geostar's financial situation.

This type of financial picture should not look unfamiliar to the Commission. The Commission has, in the past, been faced with numerous corporations whose financial success may have looked -- at least on paper -- somewhat dim. Nevertheless, it has recognized the difficulties faced by entrepreneurs, especially those in high-cost service areas such as satellite system operation, and has continued to allow permittees considerable leeway in demonstrating due diligence in constructing their systems.[26] Indeed, because of the Commission's encouragement, many start-up companies have eventually flourished, and are now providing valuable service to the public.

Perhaps the best example of the Commission's refusing to give up its belief in start-up innovative companies has resulted in what is now the second largest long-distance carrier in the country, MCI Communications Corporation ("MCI").

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[26] See e.g., cases cited in Section V, infra.

While the Commission is well aware of this success story, Geostar cannot emphasize enough the Commission's role in bringing interLATA competition to the public.[27] For years, MCI continued to lose revenues and gain significant debt. Today, MCI is a thriving company, with revenues of $558 million for 1989.[28]

Another example is that of Telesphere, which consistently showed a net loss until as recently as 1989.[29] However, in its most recent 10Q Report filed for the second quarter, Telesphere is, for the first time, showing a small profit.

Clearly, these and many other success stories are directly related to the Commission's commitment to ensure that new services continue to reach the public. The Commission should not base its decision on whether to grant the applications under consideration here only on Geostar's recent SEC filings. As history has demonstrated, financially struggling companies can eventually become economically sound service

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[27] See "Make Some Damn Mistakes," Washingtonian, October, 1990 (wherein William McGowan, Chairman of MCI, credits the growth in the telecommunications industry to the staff of the FCC).

[28] "MCI Targets Exploding Data Market," Washington Business Journal, June 4, 1990 at 1.

[29] See Annual Report for Telesphere Communications, Inc., for fiscal year ending December 31, 1989 at 11.

providers in a competitive market if given sufficient time to prove themselves and their ability to serve the public.

IV. THE COMMISSION SHOULD APPLY FLEXIBLE STANDARDS TO EXTENSION OF TIME AS IT HAS IN OTHER NEW SATELLITE SERVICES

Indeed, the Commission has recognized the "huge costs and long lead time involved in constructing and launching a satellite system."[30] In addition, "RDSS remains a new, innovative and as yet unproven service" and licensees "without substantial internal assets may have difficulty obtaining the large amounts of financing necessary to construct, launch and operate these systems."[31]

Despite these obstacles to the success of a start-up company recognized by the Commission, Geostar has been able to obtain adequate financing to begin satellite construction and implement an interim RDSS system. Because these difficulties are routinely experienced by applicants in many new service areas, the Commission has traditionally shown a significant amount of flexibility in its proceedings to ensure that new services reach the public in the quickest and most cost effective manner. The public interest is best served by allowing Geostar to continue its efforts to bring RDSS service to the public, not by the Commission suddenly applying a

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[30] Licensing Order at 308.

[31] Id.

rigid and dogmatic approach when addressing the requests of new satellite service providers for modified facilities and extensions of time to complete system implementation.

The Commission has continuously pursued a policy which ensures that the public will benefit from new and enhanced services. In order to promote these goals, the Commission has traditionally been generous and patient with licensees seeking to bring these new satellite services to the public. Whatever the case, the Commission has always balanced the needs of the public interest with that of providing licensees with sufficient latitude to ensure successful development of a new service.

One example of this Commission's policy toward encouraging new services is in the area of international fixed satellites (separate systems). In 1985, the Commission "determined that the public interest would be served by grant . . . of authorizations for international satellite systems separate from INTELSAT.[32] "Recognizing the huge costs to be incurred in building such a separate satellite system, and the difficulties in arranging financing for new services generally, the Commission adopted a two-part financial qualifications test[33] similar to that adopted for RDSS service.[34]

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[32] Establishment of Satellite Systems Providing International Communications, 101 FCC 2d 1046 (1985).

[33] Id.

The Commission soon found out, however, that the initial milestones adopted in its Order could not be met by any of the permittees. While the Commission directed applicants to demonstrate their permanent financial qualifications to construct and operate their systems by 1987, every one of the initial permittees has asked for at least one extension of time to demonstrate its financial resources.[35] Indeed, two of the permittees have requested extensions from the Commission on three separate occasions.[36] In each instance, the Commission found that the applicants demonstrated that they were making all reasonable efforts to establish their systems (as is Geostar) and that good cause existed for grant of the extensions. In each instance, the Commission has been attentive to the demands placed on satellite permittees, and adopted a flexible approach to ensure service is made available to the public. In the case of these separate international satellite systems, this flexible stance has resulted in one carrier already providing service, with another

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[34] Licensing Order at 308, n.46.

[35] See McCaw Space Technologies, Inc., 3 FCC Rcd 1625 (1988); Columbia Communications Corporation, 3 FCC Rcd 523 (1988); International Satellite, Inc., Orion Satellite Corp., Cygnus Satellite Corp., Financial Satellite Corp., 2 FCC Rcd 4209 (1987).

[36] International Satellite, Inc. and Financial Satellite Corp., 2 FCC Rcd 4209 (1987), 3 FCC Rcd 5839 (1988), 5 FCC Rcd (1990).

carrier expected to be initiating a competing service in the near future.

Another example of the Commission's flexibility towards licensees initiating new services is in the area of direct broadcast satellite ("DBS"). When the Commission initially authorized DBS systems, it required permittees 1) to begin construction or complete contracting for construction within one year of the grant of the permit and 2) to use due diligence to ensure that their satellite station be in operation within six years of the construction permit grant.[37]

While the Commission strictly applied the first requirement,[38] it has been very lenient in granting extensions of time to complete system implementation. In 1988, United States Satellite Broadcasting Company and Dominion Video Satellite filed applications for extensions of time to complete construction and begin operation of their DBS systems. The Commission granted both permittees a four year extension of time, finding that the requests could be "justified on the basis of interpretation of the rule, prevailing

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[37] United States Satellite Broadcasting Company, Inc. and Dominion Video Satellite, Inc., 3 FCC Rcd 6858 (1988). See also 47 C.F.R. § 100.19(b) (1989).

[38] The Commission denied several requests for extensions of time to begin construction. See RCA American Communications, Inc., 62 R.R.2d 554, Tempo Enterprises, Inc., 1 FCC Rcd 20 (1986).

circumstances, and [the applicants] considerable efforts to comply."[39]

In its decision, the Commission held that its second DBS requirement to complete the system "stands in stark contrast" to the first requirement to begin construction in that it "specifically contemplat[es] the need for possible additional judgments by the Commission at the much later dates at which performance completion would be due."[40] The Commission acknowledged that failure to attract investors or an unfavorable business climate do not ordinarily constitute acceptable excuses for failure to meet construction timetables. However, in the case of DBS "there are other factors which render [the applicants'] situations more compelling."[41] The Commission continued on to acknowledge that DBS is "unproven as a technology and as a commercial enterprise" which has "advance[d] explosively in the[] first several years"[42] making proceeding with the Commission's original construction plan imprudent. The Commission also took into consideration the fact that the permittees have pursued their DBS systems with due diligence, in accordance with the Commission's

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[39] United States Satellite Broadcasting Co., 3 FCC Rcd at 6860.

[40] Id.

[41] Id. at 6859.

[42] Id.

Rules, continually redesigning their systems and expending large amounts of time and money on marketing their systems. In essence, the Commission found that

> "each of [the applicants] appears to have made every reasonable effort to complete a DBS system in the period of time which has elapsed since their permits were granted" and that "[w]hile these potential difficulties may have been perceived, that were obviously not fully accounted for when the due diligence rules was set for DBS."[43]

It has been eight years since frequencies have been allocated to DBS; yet no DBS satellite is in orbit, no interim facilities are in operation using the frequencies allocated to DBS,[44] and at least another two to three years will pass before any DBS satellite is launched. In contrast, it took less than three years from the allocation of frequencies to RDSS for Geostar to begin an interim service using frequencies allocated to RDSS. Moreover, Geostar has demonstrated concrete progress towards the full implementation of RDSS technology.

In its Order granting Geostar its initial application, the Commission specifically contemplated, as with DBS, that the construction dates might be extended by the Commission if good cause is shown.[45] Unlike the authorizations for

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[43] Id. at 6860.

[44] See Comsat Tentatively Agrees to Invest in Direct Broadcast TV, Wash. Post, Oct. 30, 1990 at D-1.

[45] Geostar Construction Order at 1730.

separate international and DBS systems, where an extension of time precludes new applicants from filing for previously assigned orbital locations and frequencies, extension of Geostar's required date for complete system implementation does not preclude new RDSS applicants from receiving authorizations under the Commission's multiple entry licensing policies for RDSS. This is a further compelling reason for the Commission to be liberal in granting extensions of time to complete RDSS system implementation. At a minimum, the Commission should apply the same standards for such a showing to RDSS as it has to separate international satellite systems and DBS with respect to extensions of time to complete system implementation.

V. GRANT OF GEOSTAR'S APPLICATIONS WILL SERVE THE PUBLIC INTEREST

A. Geostar's Applications Represent a Technically and Economically Rational Approach to the Implementation of a Full RDSS System

Geostar has fully pursued the implementation of its RDSS system to the best of its ability and has made the transition from a start-up venture to an operational company. However, even as an operational company, Geostar must continue to exercise financial and technical prudence in the implementation of its full RDSS system.

In the course of the engineering design and review studies of its multibeam satellites, the concept of a dual launch satellite for the first two Geostar launches was conceived as a means of deploying a full capability RDSS system at lower cost than the original multibeam design.

The key feature of this plan is that it better matches RDSS capacity (and investment in in-orbit facilities) to the expected size of the initial market, maximizes utilization of the RDSS relays already in orbit, and allows capacity to be expanded in smaller increments. Each of the single beam RDSS satellites makes full use of the spectrum allocated by the Commission for RDSS, fully supports all of the applications originally envisioned for RDSS including service to handheld user terminals, and causes no more interference to other users of the RDSS spectrum than the multibeam design. Moreover, a dual-launch capability of the modified satellite design[46] gives Geostar the flexibility of configuring its system as a fully redundant system covering the continental U.S. or as an extended coverage system providing service throughout the continental United States, the Caribbean and large portions of Latin America. The underlying technical means of access to these bands provided under the

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[46] Two of the modified satellites can be stacked together and a single PAM D-II transfer stage can boost this pair of satellites from the low earth orbit of the shuttle to geostationary orbit altitude. Only one of the multibeam satellites can be carried by the PAM D-II transfer stage.

Commission's Rules remain unchanged and allow the Commission to authorize additional RDSS systems subject to coordination with other users.[47]

B. No Harm Will Result from the Commission's Grant of Geostar's Application

In its petition, Qualcomm paints a picture of a beleaguered Geostar replete with financial and competitive difficulties, seeking to hold onto its RDSS license with no hope of ever actually constructing its system and bringing this new service to the public. This scenario, as demonstrated herein, is far from reality. Geostar has in fact made substantial progress in the implementation of its RDSS system and is today providing a valuable service to the public using frequencies allocated to RDSS.

Furthermore, the existence of Geostar's license does not squander use of valuable spectrum space by prohibiting other parties from obtaining an authorization to provide RDSS service. Geostar has begun satellite construction by the required dates and has placed into service an interim RDSS system providing a valuable service to the public.

The Commission believed that the marketplace for RDSS service would be "a competitive industry with minimal

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[47] See 47 C.F.R. § 25.392(f) (1989).

regulation."[48] The Commission established a multiple entry policy for RDSS which remains in effect today. Indeed, the Commission noted that several parties had filed applications to provide this new service.[49] While no harm would result from a grant of Geostar's application, significant harm to Geostar's current customers will result if Qualcomm's petition is granted. Moreover, such an adverse action would waste the significant investment already made by Geostar towards provision of the full RDSS service originally contemplated by the Commission.

Qualcomm objects to Geostar's application also on the basis of its "recognition that frequencies available for the burgeoning mobile radio field are limited and should not be wasted on services that are not commercially viable."[50] However, nowhere in its petition does Qualcomm explain how it is specifically harmed by this alleged "waste of frequency." Moreover, Title III licensing proceedings are not the place for parties to express their disagreements with the

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[48] Id. at 311.

[49] Id. at 299. Other parties receiving RDSS authorizations were Omninet Corporation, MCCA American Radiodetermination Corporation and McCaw Space Technologies, Inc.

[50] Qualcomm Petition at 2. It is interesting to note that Qualcomm is now providing a radiodetermination service using two satellites, submicrosecond timing in the round-trip-delay, and delta-time measurements. See "A Description of Qualcomm Automatic Position Reporting (QASPR) for Mobile Communications," William G. Ames, Proceedings of the International Mobile Satellite Conference, Ottawa, 1990 at 285.

Commission's spectrum allocation plans.[51] There will always be parties who believe that the public interest would be better served by a different allocation of the frequencies involved. The regulatory process simply cannot withstand attacks on every application filed at the Commission because parties desire the spectrum for other purposes.

Qualcomm has failed to show that any injury will befall it as a result of the Commission's grant of the Geostar applications. Furthermore, Qualcomm's attempt to have spectrum space reallocated for purposes which it believes are more desirable than the Commission's current judgment and to have Geostar's interim authorizations revoked are both misplaced in this proceeding.

Geostar is not attempting to "warehouse" spectrum for some later use by constantly filing applications for extensions of its various deadlines. As the Commission itself has previously told Qualcomm, "Geostar has fully conformed with all conditions of its licenses" and there has been no reason to believe that Geostar is not "vigorously proceeding with implementation of its dedicated system."[52] In light of the

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[51] The Commission is already considering the possibility of adding additional services to the RDSS bands on a compatible basis to increase the flexibility and efficiency of spectrum use. See Second Notice of Inquiry in Gen. Docket No. 89-554, FCC 90-316 (released October 1, 1990) at paragraphs 70-72.

[52] See Letter of James R. Keegan to Veronica M. Ahern, June 13, 1989.

concrete progress made to date in implementing its RDSS system, Geostar should be granted its extension of time in order to continue construction of the nation's first RDSS system.

VI. CONCLUSION

The Commission has always been sensitive to the needs of licensees initiating new services which it has found to be in the public interest. Geostar has shown through its multiple efforts that it has risen to the challenge during the last four years of attempting to overcome the significant barriers of providing a new service. In addition, Geostar remains committed and optimistic about the future of RDSS service, and its proposed system.

For the foregoing reasons, grant of Geostar's application would be in the public interest, and Qualcomm's Petition to Deny should be denied.

Respectfully submitted,

GEOSTAR POSITIONING COMPANY

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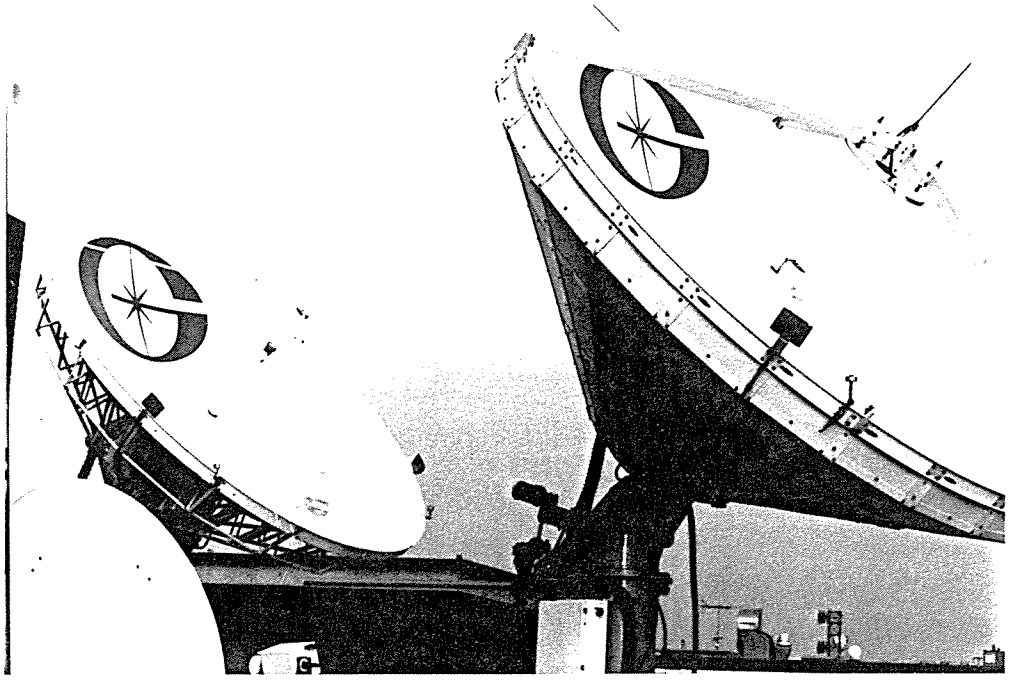
Its Attorneys

November 7, 1990

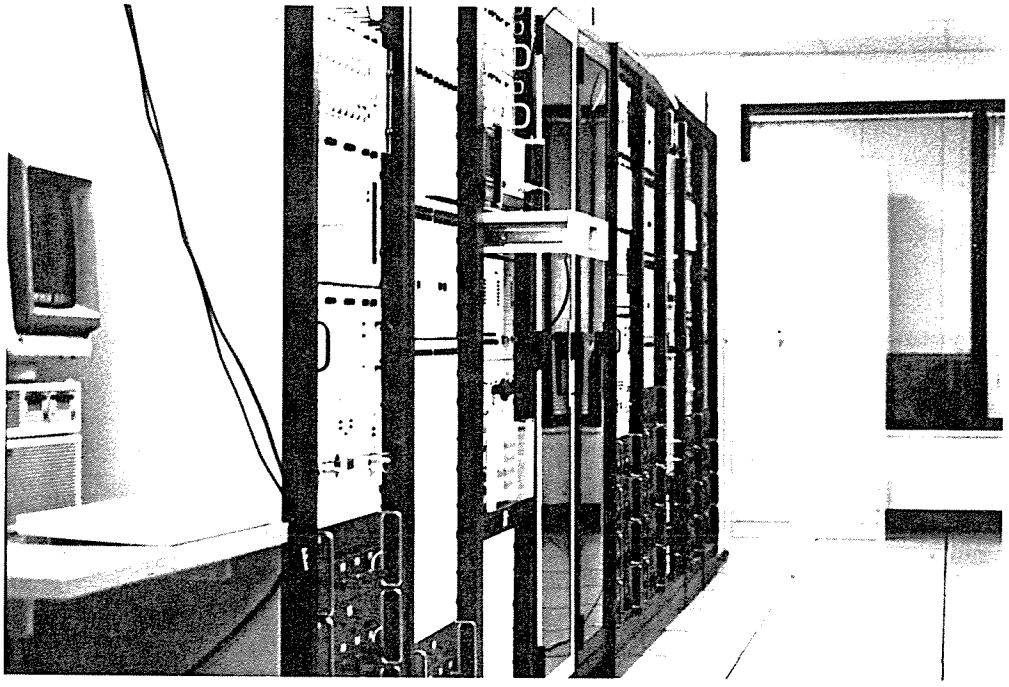
APPENDIX A

GEOSTAR OPERATIONAL FACILITIES

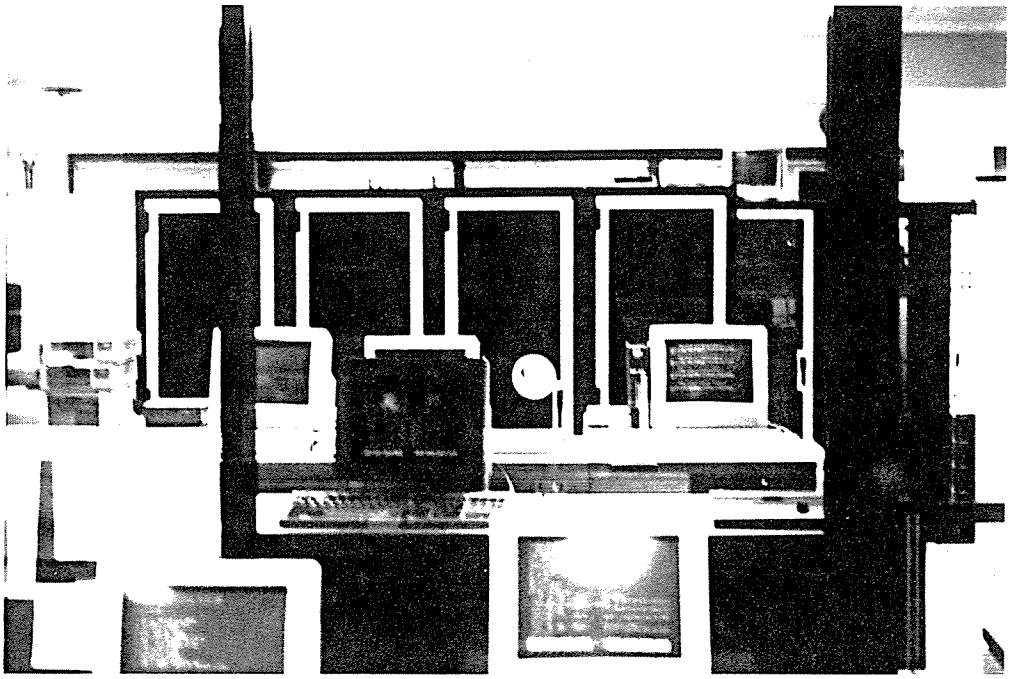
WASHINGTON, D.C. HEADQUARTERS



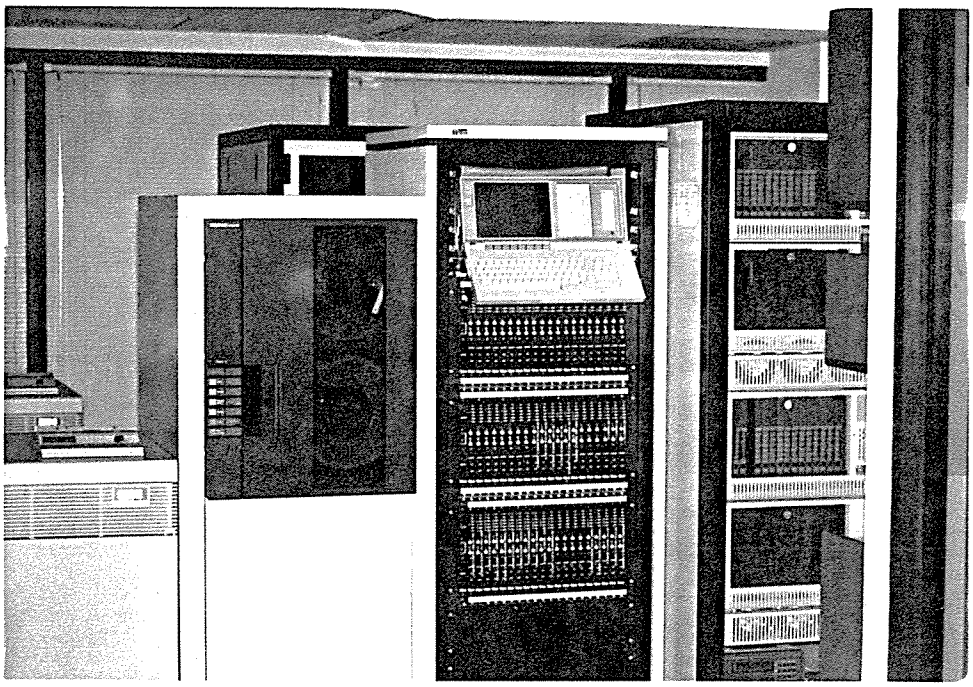
Antenna Farm at Geostar Headquarters



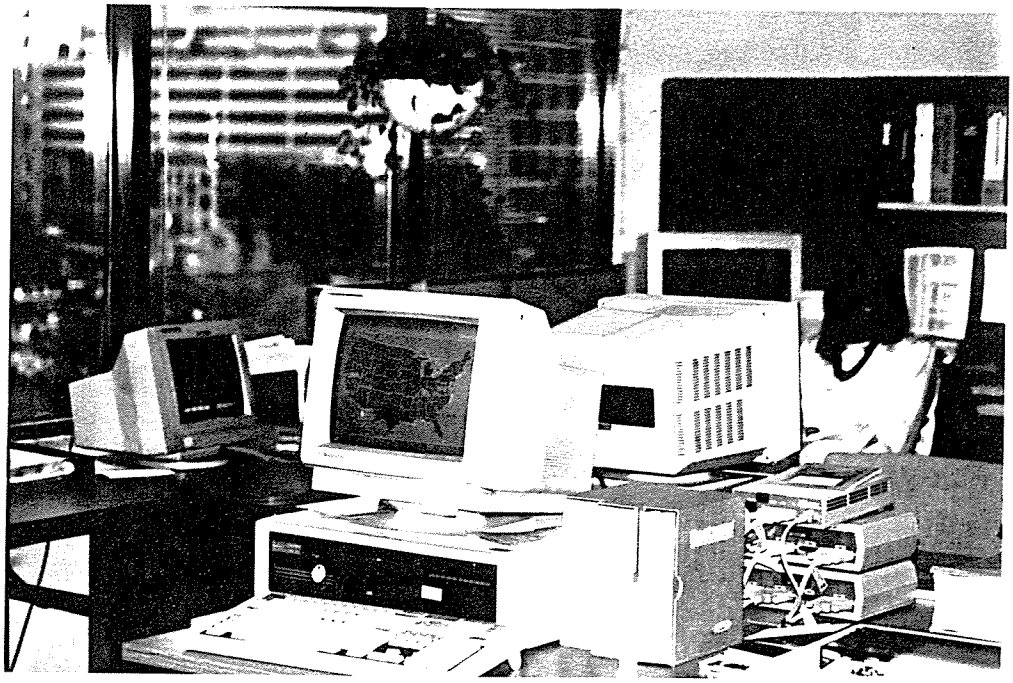
Redundant RF Hub Equipment



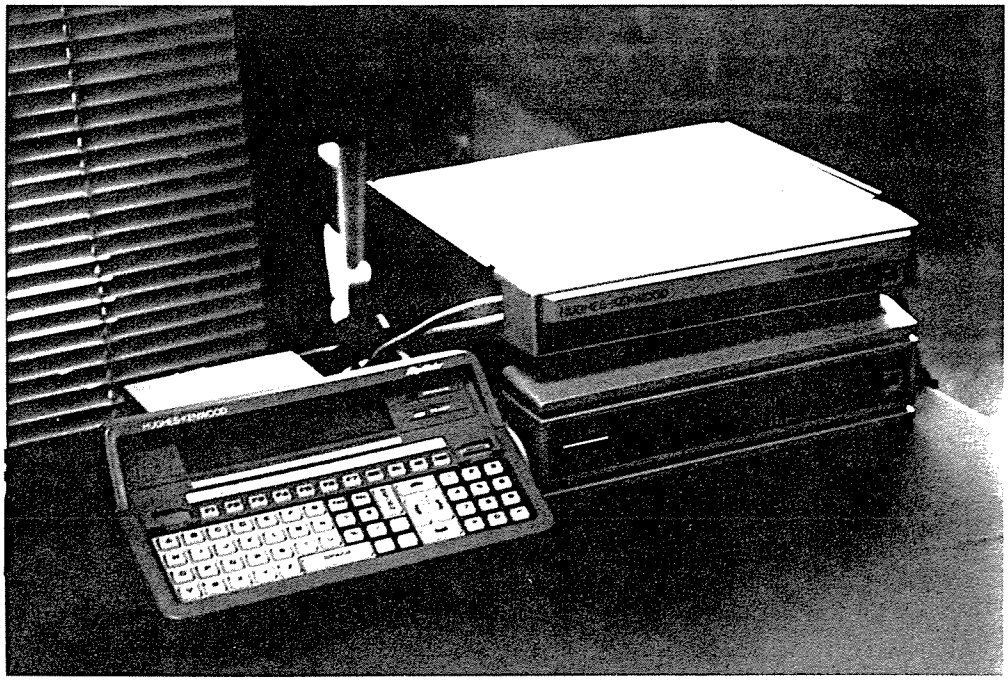
Transaction Computers Viewed From Operations Technician Station



Customer Interface Equipment



Geostar Customer Service Center



Customer Mobile Transceiver Unit

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	File Nos. 43-DSS-MP/ML-90
	)	44-DSS-MP/ML-90, 45-DSS-
	)	MP/ML-90, 46-DSS-P/LA-90,
	)	48-DSS-P/LA-90, 51-DSS-
GEOSTAR POSITIONING	)	EXT-90, 52-DSS-EXT-90, 53-
CORPORATION	)	DSS-EXT-90, CSS-90-012
	)	(ML), CSS-90-013 (ML),
For Modification of the	)	CSS-90-014 (ML), CSS-90-
Geostar RDSS Space Station	)	015 (ML)
Authorizations	)	
	)	
City of Washington	)	
	)	ss:
District of Columbia	)	

AFFIDAVIT OF ROBERT D. BRISKMAN

I, Robert D. Briskman, being duly sworn, depose and state:

1. I am the General Manager of Geostar Positioning Company.

2. I make this affidavit in support of Geostar's Opposition to QUALCOMM's Petition to Deny in the above-referenced proceeding.

3. I have read the attached Opposition and state that all the facts contained therein are true to the best of my knowledge and belief.

DATED this 7 day of November, 1990

Robert D. Briskman
General Manager
Geostar Positioning Corporation

Sworn to before me
this 7 day of November, 1990

Notary Public

Cheryl A. Simpson
Notary Public, District of Columbia
My Commission Expires June 30, 1992

CERTIFICATE OF SERVICE

I hereby certify that on this 7th day of November, 1990, caused copies of the foregoing "Opposition of Petition To Deny" to be mailed via first-class postage prepaid mail to the following:

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Albert Shuldiner
Nixon, Hargrave, Devans & Doyle
One Thomas Circle, N.W.
Suite 800
Washington, D.C. 20005

Fern Jarmulnek
Federal Communications Commission
2025 M Street, N.W.
Room 6324
Washington, D.C. 20554

Nancy A. Betters
Nancy A. Betters

CERTIFICATE OF SERVICE

I, Philip L. Malet, hereby certify that copies of the foregoing Comments of Motorola, Inc. have been served via first-class mail, postage prepaid, on this 5th day of November, 1990, to the following parties:

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