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

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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File Nos. 54-DSS-P/L-90
55-DSS-P-90
OFFICE OF THE
DOMESTIC FACILITIES
COMMON CARRIER BUREAU

In the Matter of the)
Licensed approval of)
NORRIS SATELLITE)
COMMUNICATIONS, INC.)
Licensed to Construct,)
Launch and Operate Communications)
Satellites in the Ka-Band)

Licensee's Statement of Compliance and
Request for Extension of Milestone Dates

COMES NOW licensee Norris Satellite Communications, Inc.
("Norris") through counsel Hartke & Hartke, pursuant to the Rules
of Practice and Procedure, stating as follows:

1. Licensee Norris is the only licensee for geo-synchronous
satellite services in the KA Band, and there is no other applicant
currently before the FCC for such service. Whether technically
recognized as pioneer status or not, the practical fact is that
Norris is the fixed satellite pioneer in the KA Band with virtually
no competition. There is no other application before the FCC for
similar authority, and that fact is dispositive with regard to the
request for extension of time contained in this submission.

2. NASA's launch of its ACTS (Advanced Communications
Technology Satellite) satellite has resulted in the practical,
space-based confirmation of the Norris technology. The Commission
recognizes that **Norstar I** is the first commercial venture following
up on NASA's ACTS satellite. The rain attenuation tests conducted

by NASA have already confirmed that the KA Band spot beams (identical to licensee Norris' KA Band spot beams) perform accurately through adverse weather conditions as represented by the pioneer licensee Norris. Technical capability and performance is not in dispute. Licensee Norris has been required to modify its originally submitted plans as contained in its application due to the limited bandwidth granted, but there is no technical dispute about the satellite's ability to perform in the KA Band.

3. NASA supports the use of the KA Band for satellite services, and all engineering arguments validate the NASA perspective. NASA has requested a 5 year moratorium on non-space-based utilization of the KA Band to provide the Commission with continuing demonstrations of what all engineers and technocrats already recognize as a reality of physics: The most efficient and technically productive use of the KA Band will be the utilization of satellite based systems.

The international community recognizes this reality.

NASA's moratorium request must be given great weight since NASA has no personal profit motive in its suggestion. Any contrary suggestion from any private business must be weighed in light of such private business's interest in its own personal profit. NASA is acting in the public interest, and its suggestions should be accorded great weight.

4. The most financially lucrative utilization of the KA Band is by designating and allocating it for satellite services.

5. In this regard, licensee Norris is not attempting to

address all of the land-based (LMDS) issues; however, it is respectfully suggested that LMDS can utilize higher frequencies (e.g. the 36GHz+ range) merely by adding ground-based power which it is capable of doing, while satellite service in that frequency would require additional weight if it were to add the necessary power to satellites, and that added weight would be prohibitive to satellites as an engineering fact of life. This is merely one of the arguments which justifies allocation of the spectrum for satellite services. Regardless of the land-based/satellite arguments, satellite services can only use the 19-30 GHz bandwidth, while the land-based, LMDS systems can add power to use the 36 GHz+ band without conflict with satellite services. The FCC can obtain the best services for the public by not excluding satellite services in the only bandwidth they can technically use.

6. In this submission, licensee Norris is not asserting a financial analysis to demonstrate the benefits of satellite versus land-based communications systems.

Licensee Norris believes they can demonstrate financial benefits from space-based systems such as those which will be provided by licensee Norris which far surpass the land-based alternatives. This is particularly true when one considers the 8 mile radius of LMDS (versus the 300 mile radius of licensee Norris's satellite), and the enormous costs of the reflectors and repeaters required to meet the LMDS engineering requirements in all high-rise areas such as New York versus no physical limitations from licensee Norris's satellite system.

However, at this time, licensee Norris submits that there is

room for the LMDS approach as well as the licensee Norris approach without conflict, since there are alternative frequencies available (e.g. 36+ GHz) for the land-based systems which are perfectly viable, and which NASA agrees are perfectly viable.

Licensee Norris asserts that its authority will provide cost-benefits which would be approximately 1% of the cost of existing data transmission services. Such cost-benefits are unknown in business except in state-of-the-art technology such as that which will be provided by licensee Norris. There can be no dispute that the services which will be available by virtue of **Norstar I** will provide a quantum leap in reduced financial cost, that is, cost reductions by "orders of magnitude." Licensee Norris is engaged in a process that constitutes revolutionary changes in the systems. It is the establishment of the entire space-based infrastructure, including the most cost-productive supercomputer data transmission service available in the world (provided sufficient bandwidth is authorized). Current technology confirms that licensee Norris will be able to transmit 1 Gigabit per second, with anticipated improvements already being engineered. The practical impact of this data transmission rate can be seen by comparing the operating costs of supercomputer networks in a single specific project: Expenditure of \$100 million in fiber-optic hardware connections plus additional annual users fees could be replaced by this space-based technology costing less than \$1 million annually. It is in the public interest to allocate frequencies in a manner that encourages the availability of these types of cost-benefits, but

the decision must be made by the Commission. It is beyond the control of licensee Norris to provide these supercomputer data transmission services unless the necessary bandwidth is authorized by the Commission.

7. There is no engineering argument that disputes the validity of the NASA perspective regarding at least a moratorium on the spectrum allocation or the alternative availability of frequency to meet the LMDS needs, and there is no engineering argument that disputes the engineering or technical capabilities of Norris' licensed satellite services. There has been no dispute regarding the significant financial benefits to be derived from licensee Norris' KA Band satellites.

8. Norris recognizes the concerns of the FCC with regard to timely milestone compliance. Those traditional concerns do not apply in this unique circumstance. Norris is engaged in diligent efforts to accelerate the launch of **Norstar I**. Norris has made a substantial financial payment for the construction of its licensed satellite.

It is respectfully submitted that the Commission itself has placed licensee Norris in a "holding pattern" on final resolution of the spacecraft's utilization, and finalized financing commitments depend in part upon the resolution of whether the FCC will grant the extra 200 MHz for which Norris applied.

Under these circumstances, licensee Norris has not, at this time, obtained guaranteed assurances of the financial commitment for the complete and final funding of its licensed **Norstar I**

satellite, particularly since it remains unresolved whether **Norstar I** will be permitted to utilize the extra 200 MHz. While Norris has met the financial commitments pursuant to its irrevocable construction contract to date, licensee Norris cannot state to the Commission that it has fully secured the full funding requirements to meet the license requirements as Ordered by the Commission.

It is not conceded that the launch schedule cannot still be met as licensed by the Commission. However, at this time, and given the fact that this is the premier venture into the KA Band, preceded only by NASA's experimental satellite (ACTS) to confirm the technical capabilities, licensee Norris requests an extension of all milestone dates for a period of six (6) months from this date with all subsequent milestones to be extended proportionately thereafter.

9. Licensee Norris requested 700 MHz of bandwidth in the KA Band in its application. The Commission granted the license in accordance with applicant's technical specifications - with the technical specifications including 700 MHz of requested authority. Yet the FCC only designated 500 MHz instead of the requested 700 MHz. The FCC Order adopted Norris' plan for "24 transponders, with 24 MHz bandwidth each." However, having granted only 500 MHz of bandwidth, only 14 transponders could be utilized. The Order was internally inconsistent in its language, and a Petition for Reconsideration was filed.

After the milestone timetables had been set by the FCC's granting of a license for 500 MHz, there was a period of nearly a

year in which there was no action taken on licensee Norris' Petition for Reconsideration to add the extra 200 MHz as requested in its original application. The action, or lack of action, on licensee Norris' Petition for Reconsideration was beyond the control of Norris. Of course, in order to proceed with construction one must know what one is constructing and selling. Therefore, the implementation of the construction contract for a satellite that licensee did not know how to properly define (due to the FCC's confusing grant of the license and inaction on the Petition for Reconsideration) meant that there was bound to be a structural impediment to milestone compliance. Nevertheless, licensee Norris has been moving forward even though they are unable to totally confirm the ultimate parameters that will define the construction activities of the satellite. It is obvious that if Norris can utilize the extra 200 MHz, it will want to do so immediately, selling the services for the extra bandwidth on **Norstar I**, and providing the substantial public benefit of commercial utilization of the KA Band with its enormous savings to the public for these services.

In short, the FCC's action has left licensee Norris in a position of uncertainty. Can Norris configure a satellite utilizing 700 MHz or not? Can licensee Norris execute contracts for supercomputer data transmission relying on required bandwidth exceeding 500 MHz or not? In addition to engineering factors, there are revenue factors impacted by the continuing unresolved nature of the allocation of the KA Band. While financial

considerations may ordinarily be within the control of licensees, in this case the financial considerations were held up awaiting action by the Commission on licensee's Petition for Reconsideration. Licensee Norris must be able to rely on a definitive ruling of its specifically authorized bandwidth. At this time, there is still no definitive ruling by the FCC. Licensee Norris is not complaining about this situation; it is merely reciting these facts to show that, due to the unresolved allocation of the spectrum, the FCC itself should be ruling sua sponte that the milestone compliance should be extended for at least six (6) months, or for such period as the FCC takes to resolve the LMDS issue or other international conflicts in the KA Band.

Licensee Norris can generate substantial profits in the KA Band, but it has been engaged in many discussions for aggregate financing which depend on a final resolution by the FCC of the allocation of the KA Band. Delays in financing arrangements were inherent in the long delay by the Commission in ruling on the licensee's Petition for Reconsideration. The Commission has still not fully and finally resolved the spectrum allocation issue. Accordingly, it is entirely proper for the FCC to grant licensee Norris at least a six (6) month extension on meeting its milestones of construction and launch.

10. It should be recognized that under ordinary conditions, the granting of the license in accordance with the plans as submitted in the application would not require the applicant to

make basic changes in its plans. However, in this case, the Commission's actions required licensee Norris to change its frequency plan. Since the full 700 MHz was not granted by the Commission, there have been substantial changes that have been imposed on licensee which has caused unanticipated delays. Since Norris filed its application and intended to be able to perform in timely manner if the license was granted without requiring modifications to its plans, the Commission's unexpected reduction of the requested bandwidth imposed unanticipated extra work on the licensee. This is an additional justification for the granting of an extension of the time frames. These changes in plans have collateral impacts on the services that can be offered, and it has caused extra time to be spent to tailor the satellite's services to the user's requirements based on the Commission's reduction of authorized bandwidth.

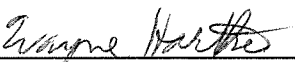
11. There has been no previous request for an extension of the milestone compliance dates. There is no concern in this particular instance over whether this authority is being "warehoused." The granting of this request for extension does not hinder any other entity from utilization of this frequency; indeed, the unresolved nature of the allocation of the KA Band places every potential competitor in the same position of licensee Norris. It is certainly clear that the unresolved allocation of the frequency is beyond the control of licensee Norris. Licensee Norris is not seeking more time in order to refine the technology. This application, and the Order itself involve unique circumstances. It

is reasonable to conclude that the extended time taken for the pending Petition for Reconsideration justifies an extension of the milestones for the period during which the Commission is considering the Petition for Reconsideration. However, in this case, licensee is seeking an extension of only about half the time taken by the Commission in determining the meaning of the Commission's internally inconsistent Order.

WHEREFORE, licensee Norris Satellite Communications, Inc. respectfully requests an extension of all milestones recited in the Order of the Commission, with the first date recited in paragraph 25 of the Commission's Order being extended six months from this date, or until May 1994, with all other dates being extended by equal time periods as granted in the Commission's Order.

Respectfully submitted,

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Certificate of Service

I hereby certify that a copy of the foregoing Statement and Request for Extension was mailed by first class mail, postage prepaid on this 5th day of November, 1993 to the following:

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