constitutes an impermissible attempt by Motorola to circumvent the requirements of the Communications Act and Commission procedures in order to begin premature construction of the private commercial Iridium satellite system and gain an improper and unfair licensing and competitive advantage over its competitors.[10/]

As a result, the issues TRW and other mutually exclusive applicants have raised about Motorola's technical proposal and basic qualifications to implement its proposed Iridium system are also presented by Motorola's experimental applications. Clearly the Commission cannot dispose of the issues raised by Motorola's experimental application without substantially impacting upon the merits of the other pending applications.

C. The Commission's Policies Suggest That Petitions to Deny Lie Against Experimental Radio Service Applications.

The Commission has stated that an application for a license in the Experimental Radio Services is an adjudicative proceeding for the purpose of its *ex parte* rules, and that the filing of a formal opposition pursuant to Section 1.1202(e)

10/ In fact, it is incredible to believe that Motorola would expend such sizeable amounts on a mere experiment if it did not believe that the construction and launch of seven satellites of its proposed Iridium system would virtually guarantee the success of its full service applications without regard to its comparative merits vis a vis rival proposals.

will render the proceeding restricted. Establishment of Pioneer's Preference Procedures, 69 R.R. 2d 141, 148 (1991). A "formal opposition" is defined in the Commission's Rules as a timely filed pleading opposing the grant of an application that is served upon the other parties to a proceeding, and which, by its caption and text, makes it unmistakably clear that it is intended as a formal opposition. 47 C.F.R. § 1.1202(e). It is thus clear that the Commission envisions that a petition to deny will lie against an experimental application filed pursuant to Part 5.

Indeed, in November of 1991, the Commission released a public notice concerning an application filed by Satellite CD Radio, Inc. ("Satellite CD Radio"), seeking an experimental authorization to construct, launch, and operate a digital audio radio satellite system. In its public notice, the Commission noted that formal oppositions and competing applications had been filed against virtually identical full-service applications Satellite CD Radio had pending before the Common Carrier Bureau. The Commission concluded:

> Because many of the issues raised in this request for experimental authority so closely overlap those in the above-mentioned restricted proceedings, presentations directed to the ultimate disposition of one inevitably would relate to the merits of all the applications. Accordingly, the parties in all of the related proceedings will also be deemed to be parties to this experimental proceeding.

Ex Parte Status of Request for New Experimental License Filed by Satellite CD Radio, Inc., DA 91-1494, released November 27, 1991.

This action suggests that where issues in experimental proceedings significantly overlap with those raised in closely related full-service proceedings, the Commission will consider the proceeding contested and will consider the formally presented arguments of other parties in interest before taking action on the application for experimental authority. On the basis of the Commission's decision to consolidate Satellite CD Radio's similar experimental application with the pending full-service proposals, and in view of the opposition rights granted by Section 309(e) of the Act, TRW and other interested parties must be made parties to this experimental proceeding, and their formal oppositions to Motorola's experimental application must be fully and fairly considered by the Commission before any action thereon is taken. See 47 U.S.C. § 309(e).[11/]

11/ If Motorola's experimental applications are not denied as clearly contrary to the public interest (see 47 U.S.C. § 309(a)), the substantial and material questions raised by its proposed seven-satellite experiment, and the potential impact that a grant thereof could have on the related full-service proceedings, require that Motorola's experimental satellite applications be designated for hearing pursuant to Section 309(e).

III. Phase Four of Motorola's Proposed Experiment Would Be So Prejudicial to Other Parties to The Related Ongoing Rulemaking And Licensing Proceedings That Motorola's Experimental Applications Must Be Denied.

Both the Commission and the U.S. Court of Appeals for the District of Columbia Circuit have long recognized that premature construction, and the sizeable monetary expenditures that accompany it, can have a prejudicial impact on the Commission's decisionmaking processes in related licensing proceedings. Similarly, prior case law supports the conclusion that the grant of an experimental authorization can have a prejudicial effect on the Commission's decisionmaking processes. Because the grant of Motorola's experimental applications pose a great danger of significant prejudice to related ongoing proceedings, the Commission must deny Motorola's request that it be permitted to expend $1.3 billion in order to construct, launch and operate seven of its Iridium system satellites.

In numerous contexts, the FCC has found that temporary or experimental authorizations, or premature construction of radio stations, can have a significant prejudicial effect on a pending proceeding for permanent full-service authorization. In Community Broadcasting Co. v. FCC, the U.S. Court of Appeals for the District of Columbia Circuit instructed the Commission to consider the prejudicial effects of a grant of interim operating authority to one of several competing applicants for

a permanent television broadcast authorization. The court held that notwithstanding the interim operator's expression of willingness to risk the cost of temporary construction, its expenditure of sizable funds would inevitably influence the Commission's final decision, no matter how much the Commission tried to eliminate consideration of that factor. 247 F.2d 753, 759 (D.C. Cir. 1960). The court specifically noted that the Commission was able to identify only one instance where it had awarded a party special temporary authority and then had failed to award a construction permit to that same party after a comparative hearing.[12/]

The same fear that grantees of temporary authority would use their efforts or expenditures of funds as leverage in subsequent final authorization proceedings is evident in premature construction and construction permit waiver cases as well. For example, in Telestar, Inc., the Review Board noted that premature construction of common carrier microwave radio facilities could be used to pressure the Commission in its decision to grant permits or licenses.[13/] The Review Board found Telestar's arguments of enormous expense, hardship and the possible dissolution of the company to be precisely the kind of pressure which Congress had sought to prevent with the

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12/ Id. at 759 n.5. It is also instructive that in that one case the temporary grantee had committed fraud on the Commission.

13/ 61 R.R. 2d 1418, 1440 (1987), aff'd 64 R.R. 2d 1444 (1988) (citing WJIV, Inc. v. FCC, 231 F.2d 725 (D.C. Cir. 1956)).

enactment of Section 319(a) of the Communications Act. Similarly, in Southern California Rapid Transit District, the Commission denied a request for special temporary authorization under its private land mobile rules, finding that the large construction expenditures often associated therewith could result in a prejudicial impact on any subsequent proceeding for a full-service authorization.[14/]

The Commission's cases confirm that the fear that parties will rely on their expenditures to provide leverage in a later licensing proceeding applies with equal vigor in cases involving waivers of Section 319(d), temporary authorizations, or experimental applications. In Southern California Rapid Transit District, the Commission stated that "experience teaches that the very act of constructing and operating even a temporary or experimental facility often creates equities in its retention." 67 R.R. 2d at 330 (emphasis added).[15/]

14/ 67 R.R. 2d 328, 330 (1989) (citing with approval Community Broadcasting Co. v. FCC, 247 F.2d 753 (D.C. Cir. 1960)).

15/ Compare Micro-Cable Communications Corp., 41 R.R. 2d 1565 (1977). In Micro-Cable, the Commission rejected an argument that a Part 5 authorization was used to prematurely construct a CARS system and resulted in the exertion of undue influence on the franchising authority. In making its determination, however, the Commission specifically noted that any prematurely constructed facilities had been removed and had not been operated. Id. at 1576. Thus, in cases where facilities constructed pursuant to Part 5 authorizations are in place or have been operated, the potential for impermissible influence clearly exists.

In each of the preceding cases, the large expenditure of funds associated with premature construction was found to be the potentially prejudicial factor. However, in each of those cases the total expenditures involved would only have amounted to a few million dollars. Clearly, the inevitable influence which the Court of Appeals recognized that such expenditures would have on the Commission's decisionmaking processes would be magnified into a compelling decisive factor if the monetary amounts involved were exponentially increased hundreds if not thousands of times, as would be the case if Motorola were authorized to construct and launch a billion-dollar experimental system consisting of seven satellites.[16/]

16/ Due to the probable prejudicial effect of an experimental application involving such large expenditures, TRW believes it is appropriate for the Chief Engineer to refer the matter to the full Commission for consideration. Such an approach, for example, is mandated by the Commission's Rules for full service licensing decisions involving noncommon carrier satellite systems undertaken by the Common Carrier Bureau pursuant to delegated authority. Section 0.291(d) specifically states:

> The Chief of the Common Carrier Bureau shall not have authority to determine whether a construction permit shall be granted for a noncommon carrier satellite system, or any part thereof, where the construction costs are in excess of $10 million.

47 C.F.R. § 0.291(d). While the rules do not similarly restrict the authority delegated to the Chief Engineer, many of the same policy considerations are present, and are perhaps more compelling because of the potential prejudicial impact that such large expenditures might have on the Commission's decisionmaking process in related full service proceedings. Furthermore, it is clear that the

(Footnote continued on next page)

Such potential for undue pressure on administrative decision makers is not a mere academic question where Motorola is concerned. Motorola has already established its propensity to resort to such tactics with regard to its Iridium satellite proposal. Just last December, Motorola sought to enlist the assistance of the Secretary of State to pressure WARC participants with respect to international spectrum allocations. In a December 10, 1991 letter, Motorola attempted to persuade the Secretary of State by arguing, "Motorola and its industrial partners have expended millions of dollars of their own money and tens of thousands of hours of staff time to develop and validate the Iridium system." One can obviously expect similar arguments to be used to place intense pressure on the Commission itself to grant Motorola a license for Iridium -- particularly if Motorola were allowed to spend over a billion dollars (rather than mere millions) on its alleged "experiment."

Another factor to be considered is the permanent nature of a satellite once in orbit. Motorola's satellites would have a useful lifetime which would extend well beyond any experimental tests currently proposed by Motorola. The presence of a partially constructed satellite system would

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(Footnote continued from previous page)

16/ Commission is particularly concerned where, as here, private non-common carrier applicants propose to construct such satellite systems at a cost of over $10,000,000.

certainly become a factor in the Commission's decisionmaking process.

In fact, there is already case precedent that the existence of unused and wasting satellite resources can be a weighty factor in the Commission's decisionmaking process. In 1977, the Commission authorized certain non-developmental and questionably experimental earth stations in order to allow use of a NASA satellite after the government had finished with its program of study. The Commission observed "we do have a tremendous communications resource in ATS-6 that could go to waste if not made use of. The Commission feels that it would be in the public interest to let valid public service groups and local governments use this low cost, short-term resource for evaluation and study purposes." Experimental Earth Stations, 39 R.R. 2d 979, 982 (1977).

In Experimental Earth Stations, the Commission was able to justify public, nonprofit use of a single government satellite. At the conclusion of Motorola's proposed experiment, the circumstances will be very different. The Commission would be presented with a small constellation of privately-owned, limited-purpose satellites. The very existence of such satellites, and their compatibility with Motorola's proposed Iridium system, would almost by necessity be urged upon the Commission in any full-service decision subsequently reached.

The recent Commission consideration of air-to-ground radiotelephone services provides a good example of the influence that experimental applications can have on subsequently issued full-service decisions. In 1981, the Commission granted Airphone, Inc. experimental authority to develop an air-to-ground radiotelephone service. That experimental authorization was renewed several times.[17/] In all, Airphone and its subsequent purchaser, GTE, managed to develop and operate an air-to-ground system pursuant to experimental authority and permissible limited market studies for over eight years.

In 1990, when the Commission finally allocated spectrum and adopted rules for air-to-ground radiotelephone service, it was not surprising that it adopted GTE's basic ground station plan and technical structure. The Commission stated:

> [W]e note that the GTE Airphone system appears to be operating on a workable site location plan. In order to avoid confusion and disputes over site locations that could disrupt or delay the initiation of licensed service, we believe it is desirable to preserve the GTE Airphone plan as the starting site location plan for the licensed service, even if GTE Airphone is not ultimately granted a license.

Air-to-Ground Telephone Service, 67 R.R. 2d 1329, 1349 (1990).

17/ The authorization was even renewed in 1985 after a rulemaking proceeding in which the Commission failed to allocate spectrum for the service. See Airphone, Inc., 60 R.R. 2d 1489 (1986).

GTE ultimately did receive a license from the Commission. In fact, GTE's eight years of experimental operation had given it such a clear advantage that its competitors were forced to enlist the Commission's assistance to level the playing field. See Air-to-Ground Telephone Service, 69 R.R. 2d 630 (1991). During the term of its experimental authorization, GTE had negotiated service contracts with most of the major airlines. These contracts contained restrictive exclusivity provisions which extended beyond the term of GTE's experimental license and provided for substantial contract-termination penalties which severely limited an airline's ability to switch service providers. While the Commission noted that experimental authorizations do not confer any right to conduct activity of a continuing nature, and that any obligations undertaken by GTE to provide services beyond its experimental term were taken at its own risk, it was forced to place restrictions on GTE's full-service licenses in order to prevent GTE from enforcing its restrictive contractual provisions. Id. at 634.

Thus, despite limitations contained in Section 5.68(a) of the Commission's Rules, regarding licensee acceptance of the nonpermanent nature of activities initiated under experimental authorizations, the award of an experimental authorization to GTE had in practice resulted in a sizable advantage which necessitated remedial actions to allow for the normal development of a competitive air-to-ground telephone industry.

However, even with the recognition that remedial action was necessary, the Commission could not bring itself to completely undo the competitive advantage conferred on GTE through its experimental tenure. Therefore, the Commission noted "at the same time we are cognizant that disruption of existing air-to-ground service might occur were we to void GTE's [pre-license] contracts in their entirety." Id. at 633.

A grant of Motorola's Phase Four experimental proposal would create prejudice far greater than that found in the air-to-ground telephone proceeding. Because Motorola's Iridium system proposal requires exclusive use of a majority of the RDSS-band uplink frequencies, it is mutually exclusive with every other RDSS proposal currently pending before the Commission. Thus, in the event that Motorola is allowed to launch seven of its satellites under an experimental authorization, any advantage it would gain over its competitors would not just be one of early entry into a competitive industry, but would effectively preclude the entry of any competition at all. Neither the Communications Act, extant case law,[18/] nor reasonable public policy permits such a result.

IV. CONCLUSION

On the basis of the foregoing, TRW respectfully urges the Commission to find that Motorola's application for

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18/ See Ashbacker Radio Corp. v. FCC, 326 U.S. 327 (1945).

experimental authority to construct, launch, and operate a substantial portion of its proposed full-service Iridium satellite system exceeds the bounds of reasonable experimentation; constitutes premature construction in contravention of Section 319 of the Communications Act; and poses too great a risk of pressure or prejudicial influence on Commission decision makers with regard to pending multi-party rulemaking and licensing proceedings. TRW, therefore, urges the Commission to deny Motorola's applications for Part 5 experimental authority only insofar as they relate to the construction, launch, and operation of Iridium satellites.

Respectfully submitted,

TRW INC.

By: _____

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March 5, 1992

Its Attorneys

ATTACHMENT B

FILE COPY

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In re Application of	)	
	)	
MOTOROLA SATELLITE COMMUNICATIONS, INC.	)	File No. 2306-EX-PL-91
	)	
For Experimental Authority to Test Certain Technologies Related to Its IRIDIUM Satellite System and to Construct, Launch, And Operate Low-Earth Orbit Satellites	)	

RECEIVED
SEP 4 1992
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

To: The Chief Engineer

PETITION FOR RECONSIDERATION

TRW Inc. ("TRW"), by its attorneys and pursuant to Section 1.106 of the Commission's Rules, hereby files this Petition For Reconsideration of the Chief Engineer's action of August 5, 1992 granting Motorola Satellite Communications, Inc. ("Motorola") a license for the satellite phase of its experimental program (Call Sign KM2XEV). As shown below, the Chief Engineer treated TRW's formal petition to deny as an "informal objection," and declined to provide a reasoned analysis of TRW's compelling demonstration that grant of this license -- with Motorola's attendant expenditure of hundreds of millions of dollars -- would inevitably and impermissibly prejudice later Commission action on Motorola's pending application to establish a multi-billion dollar system of 75 satellites in the 1616-1626.5 MHz band.

Even assuming arguendo that the satellite phase of Motorola's experimental program could somehow be reconciled with longstanding precedent concerning the evils of expensive experimental programs, the Chief Engineer erred in failing expressly to admonish Motorola that any expenditures it makes on the experimental program will not be considered in the full-service licensing proceeding. If the grant to Motorola is to be affirmed, the Chief Engineer should, at the very least, add the following "special condition" to Motorola's experimental satellite license: "3. Any investment the licensee makes in connection with this license is completely at its own risk, and does not necessitate or mandate any particular course of action by the Commission in ongoing or future licensing proceedings or create any obligation by the Commission to allocate spectrum permanently to grant licenses."[1/]

1/ The Chief Engineer also has issued to Motorola experimental licenses bearing the call signs KM2XEW, KM2XEX, KM2XEY, and KM2XEZ, corresponding to applications bearing the File Nos. 2303-EX-PL-91, 2304-EX-PL-91, 2305-EX-PL-91 and 2307-EX-PL-91. Although TRW does not seek reconsideration of these grants, it believes that these licenses, as well as those granted to Constellation Communications, Ellipsat Corporation and TRW itself, should be subject to the same condition.

I. INTRODUCTION

On March 5, 1992, TRW formally petitioned to deny the in-orbit satellite phase of Motorola's experimental applications. TRW opposed Phase Four of the Iridium experimental program on the grounds that grant of authority to construct, launch and operate seven LEO satellites, at a minimum cost of one hundred and twenty-six million dollars,[2/] would violate longstanding policies designed to prevent applicants from using expenditures of funds to influence the outcome of subsequent Commission licensing proceedings, and would irremediably prejudice the rights of the other applicants for satellite systems in the 1610-1626.5 MHz and 2483.5-2500 MHz bands.[3/] TRW also demonstrated that all of Motorola's professed experimental objectives could be attained through the experiments to be conducted in the first three phases of the program -- applications to which TRW did not object.

Despite these objections, the Chief Engineer granted Motorola's request for experimental authority in its entirety on August 5, 1992. In addition, in a scant four-paragraph letter dated the following day, the Chief Engineer "responded"

2/ TRW believes that this figure (asserted by Motorola to be the satellite construction cost of Phase 4) may be seriously understated and that the true cost may reach, or exceed, one billion dollars. See TRW Petition to Deny at 5-6 (estimates based on launch of seven satellites).

3/ Pursuant to Commission action in ET Docket No. 92-28, the 1610-1626.5 MHz and 2483.5-2500 MHz bands are now proposed for domestic allocation to the radiodetermination satellite service ("RDSS") and the mobile satellite service ("MSS") on a co-primary basis.

to TRW's Petition to Deny. See Letter from Thomas P. Stanley to Norman P. Leventhal, dated August 6, 1992 ("August 6 Letter"). TRW now seeks reconsideration of these actions.

II. DISCUSSION

A. The Chief Engineer's Treatment of TRW's Petition To Deny As An Informal Objection Violates The Communications Act And Commission Policy.

As an initial matter, the Chief Engineer stated in the introductory paragraph of the August 6 Letter that TRW's Petition to Deny was being treated as "an informal objection." This determination ignores the fact that licensing proceedings in the Experimental Radio Services are adjudicative proceedings, and that the Commission has expressly stated that formal oppositions to experimental license applications will render the proceeding restricted under the Commission's ex parte rules. See Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, 6 FCC Rcd 3488, 3493 (1991), recon. in part, 7 FCC Rcd 1808 (1992), further recon. pending.[4/]

Because a formal opposition, such as the Petition to Deny filed by TRW, will lie against an application filed for an

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4/ A "formal opposition" is a timely-filed pleading opposing the grant of an application that is served upon the other parties to a proceeding, and which, by its caption and text, makes it unmistakably clear that it is intended as a formal opposition. 47 C.F.R. § 1.1202(e).

Experimental Radio Services license,[5] the Chief Engineer's summary disposition of TRW's Petition to Deny contravened the requirements of Section 309(d)(2) of the Communications Act. This statute states that the rejection of a petition to deny must be accompanied by "a concise statement of the reasons for denying the petition, which statement shall dispose of all substantial issues raised by the petition." 47 U.S.C. § 309(d)(2) (emphasis added). Inasmuch as the Chief Engineer did not explain his decision to treat TRW's Petition as a mere "informal objection," he thereby denied TRW the reasoned consideration required under the Act and Commission rules and policy.[6]

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[5] Indeed, as TRW explained in its Petition, Commission policy and rules clearly contemplate formal oppositions to experimental applications in situations where, as here, such applications raise issues that "closely overlap" those raised in connection with pending, contested full-service applications. See TRW Petition to Deny at 10-12. See also Ex Parte Status of Request for New Experimental License Filed By Satellite CD Radio, Inc., DA 91-1494, released November 27, 1991 (Commission concludes that because issues raised in experimental applications overlap those in restricted full-service proceeding, "presentations directed to the ultimate disposition of one inevitably would relate to the merits of all the applications"; makes all opponents parties to the experimental proceeding).

[6] Although TRW did deliver a letter to the Chief of the Frequency Liason Branch exposing some of Motorola's most significant inaccuracies (see Letter from Raul R. Rodriguez to H. Frank Wright, dated August 4, 1992 (August 4 Letter)) -- a response that was filed within the time limit specified in Section 1.45(a) of the Commission's rules -- it is clear that this letter was given no consideration by the Chief Engineer. Just a day after it was delivered,

(Footnote continued on next page)

B. The Chief Engineer Did Not Address The Substance Of TRW's Showing That Grant Of Motorola's Experimental Application Would Result In Inherent Prejudice To Other Mutually Exclusive Applicants.

Apart from matters of procedure, the Chief Engineer responded with only a single sentence to TRW's well-supported showing that temporary authorizations that permit large expenditures of money on permanent facilities are prone to unduly influence Commission actions in subsequent or ongoing licensing proceedings, and are also inherently prejudicial to the Ashbacker rights of mutually-exclusive applicants. See TRW Petition to Deny at 13-21; Ashbacker Radio Corporation v. FCC, 326 U.S. 327 (1945). He stated simply that the recent Commission Policy Statement regarding experimental satellite applications (Policy Statement on Experimental Satellite Applications, FCC 92-324, released July 21, 1992 ("Policy Statement")) emphasizes "that grant of a license permitting experimental satellite service would not create any future obligation by the Commission" to give any special treatment to the underlying full-service application. August 6 Letter at 1 (emphasis added).

(Footnote continued from previous page)

6/ Motorola's application was granted, trailed one day later by the Chief Engineer's August 6 Letter denying TRW's Petition. A copy of the August 4 Letter is attached hereto as Attachment A.

This response misses the point. Historically, the concern expressed by the Commission and the courts has not been that grants of temporary authority will result in the actual award of a decisional preference, but that the time, effort, and/or money spent by an interim or experimental operator will prejudice decisionmakers in more subtle ways. See Consolidated Nine, Inc. v. FCC, 403 F.2d 585, 594-95 (D.C. Cir. 1968); Community Broadcasting Co. v. FCC, 274 F.2d 753, 759 (D.C. Cir. 1960)("Community"). This concern recognizes that decisionmakers are human beings who may be unconsciously swayed by these factors despite sincere efforts to avoid prejudgment.7/ Indeed, the Commission itself has observed that "experience teaches that the very act of constructing and operating even a temporary or experimental facility often creates equities in its retention." Southern California Rapid Transmit District, 67 R.R.2d 328, 330 (1990).

In light of this clear precedent, the Chief Engineer's conclusory assertion that grant of Motorola's experimental

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7/ In Community, the court squarely rejected contentions that a grant of interim authority to one mutually-exclusive applicant would not prejudice the rights of the other applicants. The Commission and the interim operator of a broadcast station had contended that, in the absence of any decisional weight given to the interim operator's investment and successful operation, suggestions of prejudice questioned the agency's good faith. Rejecting this argument, the court concluded that more than good faith was involved: "Ordinary human experience tells us that these factors have a force which cannot always be set aside by [decisionmakers] no matter how sincere their effort or intent." Community, 274 F.2d at 759.

satellite application "will not create any future obligation by the Commission" fails to address the substance of TRW's concern that the huge sums of money that Motorola intends to spend will influence the Commission's decision-making processes and cause subtle, yet unavoidable, prejudice to the other applicants.

C. The Chief Engineer Should Have Considered TRW's August 4 Letter.

TRW showed in its August 4 Letter that Motorola has not demonstrated that the in-orbit satellite tests it proposes are necessary to prove its system concept. Thus, its proposal fails to comport with the first two guidelines contained in the Commission's recent Policy Statement. Specifically, Motorola failed to show that "the technical parameters to be tested" require the sorts of testing proposed, and it did not demonstrate that the proposed tests are "limited to what is necessary to the conduct of the experiment." See Policy Statement at 1.

TRW explained how the experimental goals professed by Motorola were at odds with the current state of scientific knowledge concerning satellite functions. For example, while Motorola claims that ". . . computer simulations . . . cannot be relied upon exclusively for such a large and complex satellite system as the Iridium system," such large and complex government communications satellite programs as NASA's Tracking

and Data Relay Satellite System have relied successfully on simulations of key parameters for all testing prior to launch. See August 4 Letter at 2. There also is no valid technical reason why the data necessary for frequency coordination cannot be established through Motorola's authorized aircraft and ground tests, as filters and antennas operate no differently in these environments than they do in space.

Finally, the Chief Engineer's letter does not even address point four of the Policy Statement, which indicates that the monetary investment in experimental testing will be "limited." As described in the preceding section, Motorola's proposed expenditure on experimental satellites is so immense that prejudice to the pending MSS/RDSS licensing proceedings cannot be avoided if it is permitted to proceed.

In sum, Motorola's justifications for in-orbit satellite experimentation are mere camouflage for its real objective of beginning construction of its Iridium system prior to Commission licensing, and thereby gaining a decisive advantage over its potential competitors, including TRW, who would be shut out of the MSS/RDSS bands by an ultimate license grant to the spectrum-monopolizing Iridium system. The Chief Engineer's failure to consider TRW's August 4 letter, with its refutation of Motorola's claims, was an error that should be corrected on reconsideration. At the very least, the Chief Engineer should act to guarantee the integrity of the

Commission's MSS/RDSS band licensing process by adding the special condition requested above to the face of each license.

III. CONCLUSION

For the foregoing reasons, TRW urges the Chief Engineer to reconsider a portion of the experimental authority granted to Motorola on August 5, 1992. The Iridium experimental program is a threat to the Commission's licensing processes and to the rights of the other applicants, as it combines the negative impact of huge premature capital investment and construction of permanent in-orbit facilities for a system that would exclude all others proposed.

Respectfully submitted,

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September 4, 1992

Its Attorneys

ATTACHMENT A