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April 16, 1985

Robert L. Ebe, Esq.  
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Re: Magnavox v. Activision

Dear Bob:

Enclosed for filing are the following documents:

PLAINTIFFS' PRETRIAL PROPOSED CONCLUSIONS OF  
LAW

PLAINTIFFS' PRETRIAL PROPOSED FINDINGS OF  
FACT

PLAINTIFFS' PRETRIAL DEPOSITION AND INTER-  
ROGATORY DESIGNATIONS FOR THEIR PRIMA FACIE  
CASE

Please call when you receive these.

Very truly yours,

NEUMAN, WILLIAMS, ANDERSON & OLSON

By James T. Williams

JTW:de  
Enclosures

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Thomas A. Briody, Esq. - w/o encls.  
Louis Etlinger, Esq. - w/encls. ←←←  
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The Magnavox Company and  
Sanders Associates, Inc.

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United States District Court For The  
Northern District Of California

THE MAGNAVOX COMPANY, a corporation, )  
and SANDERS ASSOCIATES, INC., )  
a corporation, ) No. C 82 5270 CAL  
Plaintiffs, )  
v. ) PLAINTIFFS' PRETRIAL  
ACTIVISION, INC., a corporation, ) PROPOSED FINDINGS  
Defendant. ) OF FACT

1. This case is an action for infringement of United  
States Letters Patent Re. 28,507 (hereinafter "the '507 patent").

PLAINTIFFS' PRETRIAL PROPOSED FINDINGS OF FACT

1           2. The '507 patent is a reissue patent. It was  
2 originally issued on April 25, 1972 as United States patent  
3 3,659,284 entitled "Television Gaming Apparatus" to the plaintiff  
4 Sanders Associates, Inc., as assignee of the named inventor  
5 William T. Rusch from application Serial No. 828,154 filed on May  
6 27, 1969. The application for reissue, Serial No. 464,256, was  
7 filed on April 25, 1974. The '507 patent, upon reissue, has the  
8 same effect as if it had been originally granted on April 25, 1972  
9 in its amended reissue form.

10           3. The '507 patent relates in general to apparatus for  
11 playing games on television receivers.

12           4. The plaintiffs in this action are The Magnavox Company  
13 (hereinafter "Magnavox") and Sanders Associates, Inc.,  
14 (hereinafter "Sanders"). At all times relevant here Sanders is  
15 and has been a corporation of the state of Delaware and the owner  
16 of the '507 patent and corresponding patents in foreign countries.  
17 At all times relevant here Magnavox is and has been a corporation  
18 of the state of Delaware and the exclusive licensee of Sanders  
19 under the '507 patent and the corresponding patents in foreign  
20 countries.

21           5. This is the third action for infringement of the '507  
22 patent to be litigated and decided. The opinions in the two  
23 previously decided actions are The Magnavox Co. v. Chicago Dynamic  
24 Industries, 201 U.S.P.Q. 25 (N.D. Ill. 1977) and The Magnavox Co.  
25 v. Mattel, Inc., 216 U.S.P.Q. 28 (N.D. Ill. 1982). There have  
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1 been approximately ten other actions concerning infringement of  
2 that patent, all of which were settled or otherwise disposed of  
3 prior to trial.

4 6. In the Chicago Dynamic Industries case, the Honorable  
5 John F. Grady of the Northern District of Illinois decided the  
6 issue of validity of the '507 patent over the prior art presented  
7 to him and found infringement of that patent by the television  
8 games there involved. Trial of that case commenced on November 4,  
9 1976 and terminated on January 10, 1977.

10 7. At the trial of the Chicago Dynamic Industries case,  
11 Judge Grady received factual and expert testimony offered by the  
12 parties on the issues of validity and infringement of the '507  
13 patent as well as memoranda of the parties on the issues. The  
14 testimony was both live, trial testimony and by deposition.

15 8. At the conclusion of the trial of the Chicago Dynamic  
16 Industries case, Judge Grady entered an opinion and judgment  
17 holding the '507 patent to be valid and enforceable and to have  
18 been infringed by all of the accused television games.

19 9. In the Mattel case, the Honorable George N. Leighton  
20 explicitly found infringement of the '507 patent by the television  
21 games there involved. The defendants in Mattel did not explicitly  
22 challenge the validity of the '507 patent, but they did present  
23 evidence of prior art against the '507 patent to support their  
24 argument of noninfringement. Trial of that case commenced on June  
25 22, 1982 and terminated on July 14, 1982.

1           10. At the trial of the Mattel case, Judge Leighton received  
2 factual and expert testimony offered by the parties on the issue  
3 of infringement of the '507 patent as well as memoranda of the  
4 parties on the issues. The testimony was both live, trial  
5 testimony and by deposition.

6           11. At the conclusion of the trial of the Mattel case,  
7 Judge Leighton entered an opinion, findings of fact, conclusions  
8 of law, and judgment holding the '507 patent to be enforceable and  
9 to have been infringed by all of the games accused in that action.  
10 Judge Leighton found that the subject matter of that patent was  
11 neither shown nor suggested by the prior art.

12           12. The defendant Activision, Inc., (hereinafter  
13 "Activision") is a corporation of the state of California.

14           13. Activision is in the business of designing,  
15 manufacturing, and selling television game cartridges.

16           14. A television game cartridge is a device which is used  
17 in combination with a television game console to permit the  
18 playing of a television game. The nature and play of the game is  
19 defined by the configuration of and information contained in the  
20 television game cartridge.

21           15. Activision has manufactured and sold in the United  
22 States the television game cartridges known by the titles Tennis,  
23 Ice Hockey, Boxing, Fishing Derby, Stampede, Pressure Cooker,  
24 Dolphin, Grand Prix, Barnstorming, Sky Jinks, Enduro, Keystone  
25 Kapers, and Decathlon, among others.

1           16. Plaintiffs allege that the manufacture, use, and/or  
2 sale of the combination of any one of the Activision television  
3 game cartridges listed in the following table and a television  
4 game console capable of using that cartridge constitutes an act of  
5 infringement of the stated claims of the '507 patent, and  
6 plaintiffs further allege that the sale of any one of said  
7 cartridges listed in the following table constitutes an act of  
8 contributory infringement of, and inducement to infringe, the  
9 stated claims of that same patent:

10	<u>Cartridge Title</u>	<u>Claims</u>
11	Tennis	25,26,51,52,60,61,62
12	Ice Hockey	25,26,51,52,60,61,62
13	Boxing	25,26,51,52,60
14	Fishing Derby	25,26,51,52,60,61
15	Stampede	25,51,60
16	Pressure Cooker	25,26,51,52,60
17	Dolphin	25,51,60
18	Grand Prix	60
19	Barnstorming	60
20	Sky Jinks	60
21	Enduro	60
22	Keystone Kapers	60
23	Decathlon	60

24           17. The '507 patent resulted from work done by William T.  
25 Rusch while Rusch was an employee of the plaintiff Sanders in the  
26 period beginning in the Spring of 1967.

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1 screen. When the player symbol intercepted the ball symbol, i.e.,  
2 two symbols appeared to be coincident on the screen, the motion of  
3 the ball was changed.

4 22. In the television game apparatus operated in January,  
5 1968, and embodying some of Rusch's work, upon interception the  
6 horizontal motion of the ball was reversed so that it traveled  
7 back toward the other player. Each player had an "English"  
8 control which permitted him to alter the vertical motion of the  
9 ball after he had intercepted it.

10 23. Apparatus such as described in paragraphs 21 and 22  
11 hereof is described in the '507 patent.

12 24. From 1968 through 1971, Sanders demonstrated under  
13 agreements of confidence television game apparatus using various  
14 pieces of equipment and playing various games to parties it  
15 thought might be interested in entering into some type of  
16 arrangement to further develop and commercialize the work it had  
17 done. Demonstrations of that work were made to representatives of  
18 Teleprompter Corporation, RCA Corporation, Zenith Radio  
19 Corporation, General Electric Company, Motorola, Inc., Warwick  
20 Electronics, Inc., The Magnavox Company, and others.

21 25. In March, 1971, Sanders and Magnavox entered into an  
22 agreement under which Magnavox received an option for an exclusive  
23 license under the pending United States patent application which  
24 eventually resulted in the '507 patent, other Sanders United  
25 States patent applications relating to television games, and  
26 corresponding applications in foreign countries.

1           41. During the Summer of 1972 Atari was formed and some  
2 time after June 26, 1972, Allen Alcorn became an employee of Atari  
3 and Bushnell gave Alcorn the assignment of developing a video game  
4 which would simulate a tennis game.

5           42. The arcade video game Pong resulted from the efforts  
6 at Atari and was first manufactured and sold by Atari in 1973.

7           43. In the Pong television game, the display shown on the  
8 picture tube screen included a white rectangular symbol on the  
9 right side of the screen representing a first player, a white  
10 rectangular symbol on the left side of the screen representing a  
11 second player, and a symbol which moved across the screen repre-  
12 senting a ball. Player controls were provided so that each human  
13 player could move his corresponding player symbol on the face of  
14 the screen. Each human player manipulated his corresponding  
15 symbol to intercept the path of the ball as it moved across the  
16 screen. When the player symbol intercepted the ball symbol, i.e.,  
17 two symbols appeared to be coincident on the screen, the motion of  
18 the ball was changed and, in particular, the horizontal motion of  
19 the ball was reversed so that it traveled back toward the other  
20 player. Games of this general type subsequently became known as  
21 "ball and paddle" games irrespective of what the symbols were to  
22 represent or the number of player symbols involved.

23           44. Following the commercial introduction of the Atari  
24 arcade Pong game, many other manufacturers commercially introduced  
25 similar "ball and paddle" arcade games having a display  
26 substantially the same as Pong. Those games included the games TV  
27 Ping Pong, TV Tennis, Olympic TV Hockey, and TV Goalee by Chicago

1 Dynamic Industries, Inc., the games Paddle Ball, Pro Hockey, Pro  
2 Tennis, and Olympic Tennis by Seeburg Industries, Inc., Paddle  
3 Battle and Tennis Tourney by Allied Leisure Industries, Inc., and  
4 Winner and Playtime by Midway Mfg. Co.

5 45. The Atari arcade Pong game was the first arcade  
6 television game to be sold in large quantities.

7 46. The Atari arcade Pong game and games like it were  
8 responsible for the creation of the arcade television game  
9 industry.

10 47. In 1975, Atari commercially introduced a Pong game for  
11 use by consumers in the home which was intended to be attached to  
12 a broadcast television receiver; it was a ball and paddle game.

13 48. In 1975, Magnavox commercially introduced the ODYSSEY  
14 100 and ODYSSEY 200 home television games, the Models YF7010 and  
15 7015, respectively.

16 49. In 1976, General Instrument Corporation, New York, New  
17 York (hereinafter "General Instrument") commercially introduced an  
18 electronic integrated circuit component which included in a single  
19 integrated circuit device the great majority of electrical  
20 components previously needed to manufacture a television game.  
21 That integrated circuit component was designated by General  
22 Instrument as the AY-3-8500 component.

23 50. The presence on the market of the General Instrument  
24 AY-3-8500 integrated circuit component permitted the manufacture  
25 of television games with many fewer components, and, thus, at a  
26 much lower cost, than was previously possible.

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1           51. The General Instrument AY-3-8500 integrated circuit  
2 component included within it a read only memory. The read only  
3 memory was used in part to define the size and shape of the  
4 symbols which were displayed on the television screen. A read  
5 only memory is generally referred to as a ROM.

6           52. The television games which could be constructed using  
7 the General Instrument AY-3-8500 integrated circuit component were  
8 capable of playing multiple ball and paddle games.

9           53. In 1976, Magnavox commercially introduced the ODYSSEY  
10 300, ODYSSEY 400, ODYSSEY 500, and ODYSSEY 3000 television games,  
11 the Models BG 7500, BG 7516, BG 7520, BH 7514, respectively, and  
12 the Model BG 4305, a television receiver having a built-in  
13 television game. Each were capable of playing multiple ball and  
14 paddle games.

15           54. In 1977, Magnavox commercially introduced the ODYSSEY  
16 2000 and ODYSSEY 4000 television games, the Models BG 7510 and BH  
17 7511, respectively. Each were capable of playing multiple ball  
18 and paddle games.

19           55. The Magnavox ODYSSEY 300, ODYSSEY 2000, ODYSSEY 3000,  
20 and ODYSSEY 4000 television games utilized the General Instrument  
21 AY-3-8500 component. The Magnavox ODYSSEY 300 is a typical one of  
22 the games using that component.

23           56. Prior to the commercial introduction of television  
24 games including microprocessors, most of the television games sold  
25 for use in the home were of the type known as "ball and paddle"  
26 games. The 1972 ODYSSEY, ODYSSEY 100, ODYSSEY 200, ODYSSEY 300,  
27  
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1 ODYSSEY 400, ODYSSEY 500, ODYSSEY 2000, ODYSSEY 3000, ODYSSEY  
2 4000, and Atari's consumer Pong television games are examples of  
3 such games.

4 57. Ball and paddle television games formed the basis for  
5 the establishment of the home television game industry and this  
6 occurred prior to the commercial introduction of home television  
7 games incorporating microprocessors.

8 58. Commencing in 1977, various manufacturers commercially  
9 introduced television games which included microprocessors. Those  
10 manufacturers included Atari, Fairchild, and Bally.

11 59. The use of a microprocessor in conjunction with plug-  
12 in ROM cartridges in a television game permitted construction of a  
13 television game console which could be readily made to play a  
14 wider variety of television games. Cartridges are provided which  
15 can be plugged into the television game console and thereby  
16 connected to the circuitry within the console. Different  
17 cartridges are provided for different games. Each cartridge  
18 contains a ROM.

19 60. The ROM included within a television game cartridge  
20 includes a particular configuration and information used by the  
21 circuitry of the television game console to define the game to be  
22 played when that cartridge is plugged into the console. The  
23 cartridge manufacturer defines the game to be played when using a  
24 particular cartridge by the configuration and information placed  
25 into the ROM used in that cartridge when the cartridge is  
26 manufactured.

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1           61. The consumer user of a television game console is  
2 unable to alter the configuration of or the information stored in  
3 the read only memory of the game cartridge and thus is unable to  
4 alter the definition of the game which is played when that  
5 cartridge is placed in use.

6           62. Atari was a party in the Chicago Dynamic Industries  
7 action which came to trial in 1976 and 1977 and has taken a  
8 license under the '507 patent.

9           63. Bally and Fairchild were defendants in the Mattel  
10 action but settled out prior to trial. Fairchild took a license  
11 under the '507 patent. Bally, having stopped manufacturing and/or  
12 selling the television games which formed the basis for the charge  
13 of infringement of the '507 patent, settled for its past  
14 infringements and took an option for a license under the '507  
15 patent if it should resume those activities. Judgments on consent  
16 of the parties thereto were entered as to both Fairchild and Bally  
17 that television games that they manufactured and that included a  
18 microprocessor infringed the '507 patent, and that the patent was  
19 valid.

20           64. In 1978, Magnavox commercially introduced the ODYSSEY<sup>2</sup>  
21 television game which included a microprocessor.

22           65. Activision was incorporated in October, 1979 to  
23 design, manufacture, and market video game cartridges. Activision  
24 was founded by Mr. James H. Levy and Messrs. David Crane, Alan  
25 Miller, and Bob Whitehead; Messrs. Crane, Miller and Whitehead had  
26 previously been employed as video game designers by Atari, Inc.  
27 where they had designed and programmed video game cartridges.

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1           66. From October, 1979 through at least June 1, 1984,  
2 Activision was represented in patent matters by the law firm of  
3 Flehr, Hohbach, Test, Albritton and Herbert, San Francisco,  
4 California; in the fall of 1979 Activision consulted with the  
5 Flehr, Hohbach, et al. firm concerning patents in the area of  
6 video games. In 1979, the Flehr, Hohbach, et al. firm informed  
7 Activision of the Magnavox television game patents.

8           67. During 1974-76 the Flehr, Hohbach, et al. firm  
9 represented Atari, Inc. in litigation relating to the assertion by  
10 Magnavox and Sanders that Atari had infringed the '507 patent.

11           68. During May, 1980 through December, 1981 Activision was  
12 involved in litigation with Atari, Inc. relating to allegations by  
13 Atari of theft of trade secrets, copyright infringement, and  
14 unfair competition by Activision. That litigation was settled in  
15 December, 1981. As a part of that settlement, Activision was  
16 given access to the files of the Flehr, Hohbach firm relating to  
17 the '507 patent.

18           69. At least as early as the period November, 1980 -  
19 January, 1981 Activision was aware of the litigation between  
20 Magnavox and other members of the television game industry on its  
21 television game patents. By letter dated March 23, 1981, Magnavox  
22 specifically advised Activision of the '507 patent and the  
23 Magnavox position that video game cartridges Activision had  
24 marketed used the subject matter of that patent.

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1           70. During discovery in this action, Activision took the  
2 position that any opinions it obtained from counsel regarding the  
3 '507 patent were subject to the attorney/client privilege, and no  
4 such opinions were disclosed to plaintiffs.

5           71. The 13 Activision television game cartridges alleged  
6 to be covered by the '507 patent have no substantial use other  
7 than to be combined with a television game console and a  
8 television receiver to play the television game for which that  
9 cartridge is programmed and configured. Activision knew this  
10 throughout the period it designed, used, manufactured, and/or sold  
11 each of such television game cartridges.

12           72. Each of the 13 Activision television game cartridges  
13 alleged to be covered by the '507 patent is especially made and  
14 configured and especially adapted by Activision to be combined  
15 with a television game console and a television receiver to play  
16 the television game for which that cartridge is programmed and  
17 configured. Activision knew this throughout the period it  
18 designed, used, manufactured, and/or sold each of such television  
19 game cartridges.

20           73. None of the 13 Activision television game cartridges  
21 alleged to be covered by the '507 patent is a staple article or  
22 commodity of commerce. Activision knew this throughout the period  
23 it designed, used, manufactured, and/or sold each of such  
24 television game cartridges.

1 apparatus. When the player controlled symbol and the game  
2 controlled symbol become coincident, the motion of the game  
3 controlled symbol is changed.

4 79. The accused Activision television game cartridges are  
5 used primarily with the VCS Model 2600 television game console  
6 manufactured by Atari, Inc. and other television game consoles  
7 which, for the purposes of this action, are virtually identical to  
8 the Atari VCS Model 2600. Those other television game consoles  
9 include the Sears Tele-Game Video Arcade manufactured by Atari,  
10 Inc., the combination of the Model 5200 television game console  
11 and the Model 2600 adapter both manufactured by Atari, Inc., the  
12 Gemini television game console manufactured by Coleco, Inc., and  
13 the combination of the Colecovision television game console and  
14 the Expansion Model 1 both manufactured by Coleco, Inc. No  
15 differences significant to the issues of this action exist between  
16 the Model 2600 console and the other consoles referred to. Only  
17 the Model 2600 console will be dealt with hereafter.

18 80. The Model 2600 television game console includes three  
19 principal components, a microprocessor, a peripheral interface  
20 adapter, and a television interface adapter. It also includes an  
21 oscillator circuit, a radio frequency modulator circuit, and a  
22 socket or connector to receive a television game cartridge. The  
23 Model 2600 is incapable of playing any television game without an  
24 appropriate cartridge being plugged into the cartridge connector.  
25 Hand controllers or "joysticks" are connected to the console to  
26 permit human players to manipulate the symbols shown on the  
27 television screen.

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1           81. In principal, the microprocessor in the Model 2600,  
2 acting under control of the program in the television game  
3 cartridge, determines the location on the television screen at  
4 which the various symbols involved in a particular television game  
5 are to be displayed.

6           82. In principal, the peripheral interface adapter  
7 includes circuitry permitting the microprocessor to "read" the  
8 joysticks, i.e., to determine in what direction, if any, the  
9 player has moved the hand controller. The peripheral interface  
10 adapter also includes a timer which is typically used to time the  
11 vertical blanking interval and the time period between vertical  
12 blanking signals.

13           83. In principal, the television interface adapter places  
14 symbols on the television screen at horizontal and vertical  
15 locations determined by the microprocessor, it generates the  
16 horizontal blanking and synchronization signals at times  
17 determined by its own internal counting circuitry, and it  
18 generates the vertical blanking and synchronization signals under  
19 command of signals from the microprocessor. The television  
20 interface adapter additionally includes a set of collision  
21 detection registers. The collision detection registers provide  
22 signals to the microprocessor indicating when two symbols on the  
23 screen have collided or become coincident. The collision  
24 detection registers additionally indicate which symbols have  
25 collided. The information provided by the collision detection  
26 registers is utilized in some of the accused Activision television  
27 game cartridges.

1           84. The oscillator circuit in the Model 2600 provides the  
2 basic timing information for the operation of the other  
3 components. The oscillator output signal is used to generate the  
4 "clock" signal for the microprocessor without which the  
5 microprocessor would not operate. The oscillator output signal is  
6 used by the television interface adapter to generate the  
7 horizontal synchronization and blanking signals. The oscillator  
8 output signal is used by the peripheral interface adapter and,  
9 although somewhat indirectly, the microprocessor, to generate the  
10 vertical synchronization and blanking signals.

11           85. The apparatus described in the '507 patent are  
12 basically analog circuits for games of the type there described.  
13 In contrast, the combination of the Model 2600 television game  
14 console and one of the accused television game cartridges is  
15 basically a microprocessor controlled digital circuit.

16           86. As to claims 25, 26, 51 and 52 and television game  
17 cartridge combinations accused of embodying those claims, the  
18 result of the apparatus described in the '507 patent is to permit  
19 the playing on a television receiver or monitor games in which  
20 play is achieved by a human player manipulating a player  
21 controlled or hitting symbol on the face of the television screen  
22 so as to intercept, catch, hit, or come into coincidence with a  
23 hit symbol which is under control of the game in an attempt to  
24 cause a change in the motion of the hit symbol.

25           87. In each of the Activision television games Tennis, Ice  
26 Hockey, Boxing, Fishing Derby, Stampede, Pressure Cooker, and  
27 Dolphin, the result of the combination of the television cartridge  
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1 and game console is to permit the playing on a television receiver  
2 of a game in which play is achieved by a human player manipulating  
3 a player controlled or hitting symbol on the face of the  
4 television screen so as to intercept, catch, hit, or come into  
5 coincidence with a hit symbol which is under control of the game  
6 in an attempt to cause a change in the motion of the hit symbol.

7 88. As to claims 25, 26, 51 and 52 and the television game  
8 cartridge combinations accused of embodying those claims, the  
9 function of the apparatus described in the '507 patent is to  
10 generate the electrical signals necessary for application to a  
11 television receiver or monitor to permit playing on the television  
12 receiver or monitor of games in which play is achieved by a human  
13 player manipulating a player controlled or hitting symbol on the  
14 face of the television screen so as to intercept, catch, hit, or  
15 come into coincidence with a hit symbol which is under control of  
16 the game in an attempt to cause a change in the motion of the hit  
17 symbol.

18 89. In each of the Activision television games Tennis, Ice  
19 Hockey, Boxing, Fishing Derby, Stampede, Pressure Cooker, and  
20 Dolphin, the function of the combination of the television game  
21 cartridge and console is to generate the electrical signals  
22 necessary for application to a television receiver or monitor to  
23 permit playing on the television receiver or monitor of games in  
24 which play is achieved by a human player manipulating a player  
25 controlled or hitting symbol on the face of the television screen

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1 so as to intercept, catch, hit, or come into coincidence with a  
2 hit symbol which is under control of the game in an attempt to  
3 cause a change in the motion of the hit symbol.

4 90. As to claims 25, 26, 51 and 52 and the television game  
5 cartridges accused of embodying those claims, the way in which the  
6 apparatus described in the '507 patent performs the stated  
7 function is to generate signals representing the hit and hitting  
8 game symbols in timed relationship to the horizontal and vertical  
9 synchronization signals, determine when signals representing the  
10 hit and hitting game symbols appear coincidentally in time, and  
11 alter the time relationship of the signals representing the hit  
12 symbol and the synchronization signals in response to such  
13 determination.

14 91. In each of the Activision television games Tennis, Ice  
15 Hockey, Boxing, Fishing Derby, Stampede, Pressure Cooker, and  
16 Dolphin, the way in which the combination of the television game  
17 cartridge and console perform the stated function is to generate  
18 signals representing the hit and hitting game symbols in timed  
19 relationship to the horizontal and vertical synchronization  
20 signals, determine when the signals representing hit and hitting  
21 game symbols appear coincidentally in time, and alter the time  
22 relationship of the signals representing the hit symbol and the  
23 synchronization signals in response to such determination. In  
24 Stampede, Pressure Cooker, and Dolphin, the television interface  
25 adapter collision detection registers are used to determine when  
26 signals representing the hit and hitting game symbols appear  
27 coincidentally in time; in Tennis, Ice Hockey, Boxing and Fishing

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1 Derby, the microprocessor itself determines when signals  
2 representing the hit and hitting game symbols appear approximately  
3 coincident in time without use of the television interface adapter  
4 collision detection registers. This difference is irrelevant for  
5 determining infringement of the '507 patent claims.

6 92. As to claims 60, 61 and 62 and the accused television  
7 game-cartridge combinations, the result of the apparatus described  
8 in the '507 patent is to permit the playing on a television  
9 receiver or monitor of games in which a human player controls the  
10 position at which a first symbol is displayed, the game circuitry  
11 substantially controls the position at which a second and movable  
12 symbol is displayed, and when the first and second symbol come  
13 into coincidence, the motion on the screen of the second symbol is  
14 changed.

15 93. In each of the accused Activision television games,  
16 the result of the combination of the television game cartridge and  
17 console is to permit playing on a television receiver or monitor  
18 of games in which a human player controls the position at which a  
19 first symbol is displayed, the game circuit substantially controls  
20 the position at which a second and movable symbol is displayed,  
21 and when the first and second symbols come into coincidence, the  
22 motion on the screen of the second symbol is changed.

23 94. As to claims 60, 61 and 62 and the accused television  
24 game cartridge-combinations, the function of the apparatus  
25 disclosed in the '507 patent is to generate the electrical signals  
26 necessary for application to a television receiver or monitor to  
27 permit playing on a television receiver or monitor games in which

1 a human player controls the position at which a first symbol is  
2 displayed, the game circuit substantially controls the position at  
3 which a second and movable symbol is displayed, and, when the  
4 first and second symbols come into coincidence the motion of the  
5 second symbol is changed.

6           95. In each of the accused Activision television games,  
7 the function of the combination of the television game cartridge  
8 and console is to generate the electrical signals necessary for  
9 application to a television receiver to permit playing on a  
10 television receiver a game in which a human player controls the  
11 position at which a first symbol is displayed, the game circuit  
12 substantially controls the position at which a second and movable  
13 symbol is displayed, and when the first and second symbols come  
14 into coincidence, the motion on the screen of the second symbol is  
15 changed.

16           96. As to claims 60-62 and the accused television game  
17 cartridge-combinations, the way in which the apparatus disclosed  
18 in the '507 patent performs the stated function is to generate  
19 signals representing the first and second game symbols in timed  
20 relationship to the horizontal and vertical synchronization  
21 signals, determine when the signals representing the first and  
22 second game symbols appear coincidentally in time, and alter the  
23 time relationship of the signals representing the second signal  
24 and the synchronization signals in response to such determination.

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1           97. In each of the accused Activision television games,  
2 the way in which the combination of the television game cartridge  
3 and console performs the stated function is to generate signals  
4 representing the first and second symbols in timed relationship to  
5 the horizontal and vertical synchronization signals, determine  
6 when the signals representing the first and second symbols appear  
7 approximately coincident in time, and alter the time relationship  
8 of the signals representing the second signal and the  
9 synchronization signals in response to such determination. In  
10 Stampede, Pressure Cooker, Dolphin, Grand Prix, Barnstorming, Sky  
11 Jinks, Enduro, Decathlon, and Keystone Kapers, the television  
12 interface adapter collision detection registers are used to  
13 determine when signals representing the first and second game  
14 symbols appear coincidentally in time; whereas in Tennis, Ice  
15 Hockey, Boxing, and Fishing Derby, the microprocessor itself  
16 determines when signals representing the hit and hitting game  
17 symbols appear approximately coincident in time without use of the  
18 television interface adapter collision detection registers. This  
19 difference is irrelevant for determining infringement of the '507  
20 patent claims.

21           98. Because of the advances in technology which have  
22 occurred since Rusch invented the subject matter of the '507  
23 patent in 1967 and filed his original patent application in 1969,  
24 it is now possible to achieve at relatively low cost games of much  
25 greater complexity and variety than those achieved by the  
26 apparatus disclosed in the '507 patent. The technology available  
27 today for the manufacture of television games was simply not  
28

1 available in the 1967 time frame. However, the use of current  
2 available technology to implement television games does not alter  
3 the basic nature of those games or avoid the Rusch '507 patent.

4 99. There are many differences between the electrical  
5 circuits disclosed in the '507 patent and the electrical circuitry  
6 of the Model 2600 in combination with each of the accused  
7 Activision television game cartridges. The most evident  
8 difference is referred to above, that the circuitry described in  
9 the '507 patent was basically analog circuitry while the Mattel  
10 television game uses basically digital circuitry including a  
11 microprocessor.

12 100. In the Chicago Dynamic Industries case, it was held  
13 that the claims of the '507 patent could not be avoided by  
14 utilizing digital circuitry in the accused apparatus.

15 101. In the Mattel case, it was held that the claims of  
16 the '507 patent could not be avoided by utilizing microprocessor  
17 circuitry and a cartridge in the accused apparatus.

18 102. In the Mattel case, it was held that the manufacture,  
19 use, and sale of a television game cartridge can be an act of  
20 contributory infringement, and/or inducement to infringe, the '507  
21 patent.

22 103. The accused Activision television game cartridge  
23 combinations fall within the literal terms of the claims of the  
24 '507 patent.

25 104. The accused Activision television game cartridge  
26 combinations and the apparatus described in the '507 patent  
27 perform substantially the same function in substantially the same  
28

1 way to obtain substantially the same result; they are equivalent  
2 to each other in the context of claims 25, 26, 51, 52, 60, 61, and  
3 62 of the '507 both when considering the claimed subject matter as  
4 a whole and when considering the individual claim elements.

5 105. In the Chicago Dynamic Industries case, Judge Grady  
6 specifically considered the Baer '480 patent, the Michigan pool  
7 demonstration, Space War, and the RCA pool demonstration as  
8 potential prior art against the '507 patent.

9 106. In the Chicago Dynamic Industries case, the Baer '480  
10 patent, the Althouse patent, the Higgenbotham tennis  
11 demonstration, Space War, the NASA scene generator, the Rand  
12 Corporation handball or jai alai game, the Michigan pool  
13 demonstration, the Mullarky pool demonstration, the Rand  
14 Corporation and MIT "bouncing ball" demonstration, the Control  
15 Data Corporation baseball demonstration, the alleged offer for  
16 sale to Teleprompter, the 1964 and 1967 sales by General Electric  
17 to NASA, and the RCA pool demonstration were all identified as  
18 potential items of prior art prior to trial.

19 107. In the Mattel case, Judge Leighton specifically  
20 considered the Spiegel patent, Space War, and the RCA pool  
21 demonstration as potential prior art against the '507 patent.

22 108. The items of prior art identified in the Chicago  
23 Dynamic Industries case were available to the defendants in the  
24 Mattel case.

1           109. The prior art against the '507 patent relied upon by  
2 Activision in this action is not different in any material way  
3 from the prior art of record in the Chicago Dynamic Industries and  
4 Mattel cases.

5           110. Activision has not presented any persuasive new  
6 evidence of patent invalidity not present in the Chicago Dynamic  
7 Industries and Mattel cases.

8           111. Activision has not demonstrated that there is a  
9 material distinction on the issue of validity of the '507 patent  
10 between this case and the Chicago Dynamic Industries and Mattel  
11 cases.

12           112. Magnavox has extensively licensed the '507 patent and  
13 its foreign counterpart patents throughout the world.  
14 Approximately 65 parties have entered into such licenses.

15           113. Magnavox has received large amounts of royalty income  
16 under the '507 patent and its foreign counterpart patents.  
17 Magnavox has collected approximately \$25,000,000 in royalty  
18 payments from sublicensees under the '507 patent and in settlement  
19 of infringement charges of the '507 patent from 1976 to the time  
20 of trial of this action.

21           114. The subject matter of the '507 patent has been very  
22 successful commercially.

23           115. The Re. 28,507 patent is infringed by the use, in  
24 combination, of a television receiver, a television game console,  
25 and each of the Activision television game cartridges Tennis, Ice  
26  
27  
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1 Hockey, Boxing, Fishing Derby, Stampede, Pressure Cooker, Dolphin,  
2 Grand Prix, Barnstorming, Sky Jinks, Enduro, Keystone Kapers, and  
3 Decathlon.

4 116. Activision has contributed to the infringement, and  
5 induced infringement, of the Re. 28,507 Patent by the manufacture  
6 and sale of its Tennis, Ice Hockey, Boxing, Fishing Derby,  
7 Stampede, Pressure Cooker, Dolphin, Grand Prix, Barnstorming, Sky  
8 Jinks, Enduro, Keystone Kapers, and Decathlon television game  
9 cartridges. Activision has directly infringed the Re. 28,507  
10 patent by the use and display of those game cartridges.

11 117. Activision's infringement of the Re. 28,507 patent  
12 has been willful; the damages which this Court ultimately  
13 determines is due to plaintiffs because of that infringement shall  
14 be trebled pursuant to 35 U.S.C. §284.

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