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NORTHERN DISTRICT OF CALIFORNIA

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The Magnavox Company and
Sanders Associates, Inc.

United States District Court For The
Northern District Of California

13 THE MAGNAVOX COMPANY, a corporation,)
 14 and SANDERS ASSOCIATES, INC.,)
 15 a corporation,)
 16 Plaintiffs,)
 17 v.)
 18 ACTIVISION, INC., a corporation,)
 19 Defendant.)

No. C 82 5270 CAL
PLAINTIFFS' PRETRIAL
PROPOSED FINDINGS
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:

	<u>Cartridge Title</u>	<u>Claims</u>
10		
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 18. Rusch's work leading to the '507 patent was performed
2 while Rusch was a member of a group of Sanders employees working
3 on television games. That group included primarily, besides
4 Rusch, Ralph H. Baer and William L. Harrison.

5 19. The Sanders television game group was started by Baer
6 in early 1967. Baer started the group as a result of early ideas
7 he had concerning television games in September, 1966. By June,
8 1967, the first television game by the group had been completed.
9 That work led to United States patent 3,728,480 entitled
10 "Television Gaming and Training Apparatus" showing Baer as the
11 inventor.

12 20. Rusch joined the Sanders television game group in
13 April or May, 1967; he commenced work on the project by the end of
14 October, 1967. His work resulted in the '507 patent.

15 21. By January, 1968, an apparatus had been constructed
16 and successfully operated embodying some of Rusch's work. That
17 apparatus generated a display on the screen comprising a televi-
18 sion picture including a symbol on the right side of the screen
19 representing a first player, a symbol on the left side of the
20 screen representing a second player, and a symbol which moved
21 across the screen representing a game piece such as a ball.
22 Player controls were provided so that each human player could move
23 his corresponding player symbol on the face of the television
24 screen. Each human player manipulated his corresponding player
25 symbol to intercept the path of the ball as it moved across the

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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 26. Magnavox made a limited number of television games and
2 market tested them at a few locations around the country following
3 the March, 1971 agreement. After these market tests, Magnavox
4 commercially introduced the product.

5 27. By an agreement effective January 27, 1972, Magnavox
6 exercised its option and became the exclusive licensee of Sanders
7 under the United States patent application which eventually
8 resulted in the '507 patent, other Sanders United States patent
9 applications relating to television games, corresponding
10 applications in foreign countries, and the patents to issue
11 therefrom.

12 28. Since entering into the exclusive license agreement
13 referred to in paragraph 27 hereof, Magnavox has manufactured and
14 sold television games in the United States under the trademark
15 "ODYSSEY." The ODYSSEY television games are intended for use by
16 consumers with their home television receivers.

17 29. The first model ODYSSEY television game commercially
18 introduced by Magnavox was the Model 1TL 200; the Model 1TL 200
19 ODYSSEY television game was first placed on sale by Magnavox in
20 the Spring of 1972.

21 30. In the 1972 Magnavox ODYSSEY television game, the
22 display shown on the television picture tube screen included a
23 white rectangular symbol on the right side of the screen
24 representing a first player, a white rectangular symbol on the
25 left side of the screen representing a second player, and a symbol
26 which moved across the screen representing a playing piece such as
27 a ball, which for convenience will be called the "ball symbol".

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1 Player controls were provided so that each human player could move
2 his corresponding player symbol on the face of the television
3 screen both horizontally and vertically. Each human player
4 manipulated his corresponding player symbol to intercept the path
5 of the ball as it moved across the screen. When the player symbol
6 intercepted the ball symbol, i.e., two symbols appeared to be
7 coincident on the screen, the motion of the ball was changed and,
8 in particular, the horizontal motion of the ball was reversed so
9 that it traveled back toward the other player. Each player had an
10 "English" control which permitted him to alter the vertical motion
11 of the ball after he had intercepted it.

12 31. The 1972 Magnavox ODYSSEY television game could be
13 made to play one of several different games by inserting a game
14 card for the particular game selected into the game unit. Thus,
15 it was a programmable game.

16 32. The Magnavox ODYSSEY television game Model 1TL 200 was
17 nationally demonstrated to Magnavox dealers, distributors, sales
18 personnel, and other persons at shows around the country during
19 May, 1972. The first such show began on May 3, 1972, in Phoenix,
20 Arizona. One such show occurred on May 23-25, 1972, in
21 Burlingame, California.

22 33. The first television game manufactured by any party
23 other than Magnavox that infringed the '507 patent in suit was the
24 game known as "Pong" which was manufactured and sold by Atari,
25 Inc. (hereinafter "Atari").

26 34. Pong was designed and built by Nolan K. Bushnell and
27 Allen Alcorn of Atari.

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1 35. Prior to August 21, 1969, Nolan K. Bushnell had gained
2 extensive experience in the field of coin-operated amusement
3 games, had been employed as a television technician, and had
4 gained experience in the programming of general purpose, stored
5 program, digital computers operated in conjunction with cathode
6 ray tube displays.

7 36. Prior to August 21, 1969, Bushnell had not invented,
8 designed, built, or constructed any apparatus for playing games
9 using a television type, raster scan display.

10 37. Prior to August 21, 1969, Bushnell had no knowledge of
11 the existence of any apparatus for playing games using a
12 television type, raster scan display.

13 38. Prior to August 21, 1969, Bushnell had no knowledge of
14 the existence of any apparatus using a cathode ray tube display
15 for simulating the playing of the game table tennis or ping pong.

16 39. On May 24, 1972, while employed by Nutting Associates,
17 Inc., Mountain View, California, Bushnell attended the
18 demonstration of the Magnavox ODYSSEY television game in
19 Burlingame, California, and saw a demonstration of the game.
20 Bushnell went to that show for the specific purpose of seeing the
21 Magnavox ODYSSEY television game.

22 40. At the May 24, 1972 show, Bushnell saw the ODYSSEY
23 television game in use to play a game simulating ping pong and
24 actually played that game.

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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
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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,
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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.

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 ODYSSEY²
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 74. Activision has used each of the 13 Activision
2 television game cartridges alleged to be covered by the '507
3 patent in combination with a television game console and a
4 television receiver to play the game programmed into that
5 cartridge within the United States.

6 75. Magnavox has demonstrated each of the 13 Activision
7 television game cartridges alleged to be covered by the '507
8 patent in combination with a television game console and a
9 television receiver to prospective customers within the United
10 States.

11 76. Magnavox has demonstrated and shown each of the 13
12 Activision television game cartridges alleged to be covered by the
13 '507 patent both in combination with a television game console and
14 a television receiver to prospective customers at Consumer
15 Electronic Shows held in Las Vegas, Nevada and Chicago, Illinois.

16 77. In each of the Activision television games Tennis, Ice
17 Hockey, Boxing, Fishing Derby, Stampede, Pressure Cooker and
18 Dolphin, a human player manipulates a symbol on the television
19 screen to attempt to intercept or achieve coincidence with another
20 symbol on the screen which moves under the control of the game
21 apparatus. When the human player is successful in intercepting or
22 achieving coincidence with the game controlled symbol, the motion
23 of the game controlled symbol is changed.

24 78. In each of the Activision television games Grand Prix,
25 Barnstorming, Sky Jinks, Enduro, Keystone Kaper and Decathlon, a
26 human player manipulates a symbol on the television screen and
27 another symbol moves on the screen under the control of the game

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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.

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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
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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

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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
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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.

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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 wor'd.
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
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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
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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PROOF OF SERVICE BY HAND

I, Mary A. Buller, hereby certify under penalty of perjury that:

I am employed in the County of San Francisco, California. I am over the age of 18 years and not a party to the within cause. My business address is Three Embarcadero Center, 27th Floor, San Francisco, California, 94111.

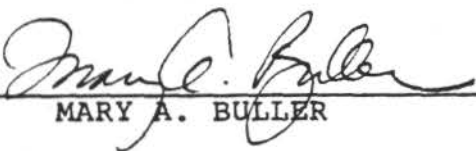
On April 17, 1985, I served a copy of

PLAINTIFFS' PRETRIAL PROPOSED FINDINGS OF FACT; PLAINTIFFS' PRETRIAL PROPOSED CONCLUSIONS OF LAW; and PLAINTIFFS' PRETRIAL DEPOSITION AND INTERROGATORY DESIGNATIONS FOR THEIR PRIMA FACIE CASE

upon the following named persons by causing an envelope to be addressed as follows, a copy of the document(s) described above to be enclosed and sealed in it, and to have the envelope delivered by hand to:

Martin R. Glick
H. Joseph Escher III
Marla J. Miller
Howard, Rice, Nemerovski,
Canady, Robertson & Falk
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Executed on April 17, 1985 at San Francisco, California.



MARY A. BULLER