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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 8

Complete if Known

Application Number	
Filing Date	
First Named Inventor	Brad A. Armstrong
Group Art Unit	
Examiner Name	
Attorney Docket Number	

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
mjm		5565891		Armstrong	10/1996	
		5589828		Armstrong	10/1996	
		5999084		Armstrong	12/1999	
		6102802		Armstrong	8/2000	
		6135886		Armstrong	10/2000	
		6198473		Armstrong	3/2001	
		6208271		Armstrong	3/2001	
		6222525		Armstrong	4/2001	
		3611068		Fujita	10/1971	
		3806471		Mitchell	4/1974	
		3952173		Tsuji	7/1976	
		3988556		Hyodo	10/1976	
		4224602		Anderson	4/1980	
		4313113		Thornburg	1/1982	
		4315238		Eventoff	2/1982	
		4552360		Bromley	11/1985	
		4673919		Kataoka	6/1987	
		4786895		Castaneda	11/1988	
		4866542		Shimada	7/1989	
	mjm		5164697		Kramer	11/1992

FOREIGN PATENT DOCUMENTS

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
mjm			wo9532776		Namco	12/1995		
			ep1080753		Namco	3/2001		
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			jp9218737		Namco	8/1997		
			ep1080753		Namco	6/2001		
			ep0337458		Namco	10/1989		
			ep0337458		Namco	10/1989		
			jp7281824		Namco	10/1995		
			ep0470615		Nintendo	2/1992		
	mjh			ep0579448		Texas Instruments	1/1994	

Examiner Signature	<i>Michael J. Myers</i>	Date Considered	12/1/02
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Sheet 4 of 8

Complete If Known

Application Number	
Filing Date	
First Named Inventor	Brad A. Armstrong
Group Art Unit	
Examiner Name	
Attorney Docket Number	

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U.S. PATENT DOCUMENTS						
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		Number	Kind Code ² (if known)			
WJ		5200597		Eastman	4/1993	
		5207426		Inoue	5/1993	
		5287089		Parsons	2/1994	
		5311779		Teruo	5/1994	
		5315204		Park	5/1994	
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		5457478		Frank	10/1995	
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		5689285		Asher	11/1997	
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		5778404		Capps	7/1998	
		5790102		Nassimā	8/1998	
		5847305		Yoshikawa	12/1998	

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WJ			DE3031484		Gurndig	11/1982		
			DE3543890		Thomson-Brant	6/1987		
			GB2113920		Alps Electric	8/1983		
			GB058462		Shin-Etsu Polymer	4/1981		
MJ			wo9957630		Schneider	11/1999		

Examiner Signature	<i>Michael J. May</i>	Date Considered	<i>12/1/02</i>
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	Filing Date
	First Named Inventor Brad A. Armstrong
	Group Art Unit
	Examiner Name
	Attorney Docket Number

Sheet 5 of 8

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U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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<i>mlh</i>		5854624		Grant	12/1998	
		5883619		Ho	3/1999	
		5889236		Gillespie	3/1999	
		5895471		King	4/1999	
		5948066		Whalen	9/1999	
		5910798		Kim	6/1999	
		5943044		Martinelli	8/1999	
		5974238		Chase	10/1999	
		5995026		Sellers	11/1999	
		6020884		MacNaughton	2/2000	
		6049812		Bertram	4/2000	
		6118979		Powell	9/2000	
		6157935		Tran	12/2000	
		6185158		Ito	2/2001	
<i>mlv</i>		Des. 342740		Parker	12/1993	

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner Signature <i>Michael J. Meyer</i>	Date Considered <i>12/16/02</i>
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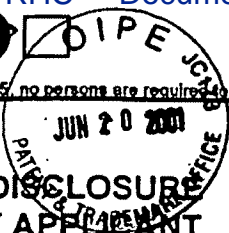
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Substitute for form 1449A/PTO		Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	
		Filing Date	
		First Named Inventor	Brad A. Armstrong
		Group Art Unit	
		Examiner Name	
Sheet	7	of	8
		Attorney Docket Number	

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U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.†	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code‡ (if known)			
		THE BELOW LISTED DISCLOSURES FROM Questel-Orbit QWEB 1-24 pages (hereto attached)				
mjr		5898359		Decca Ellis	4 1999	
		5550339		CTS Corp. Haugk	8 1996	
		5847639		Interlink YAM/Orbit	1998	
		5867808		IBM Kamentser	2 1999	
		5287089		Parsons PARSONS	2 1994	
		5132658		Sensym Duenhauser	7 1992	
		5196782		Luntron LOWEN	1993 3/1993	
		4975676		Spectra Greenhalgh	12/1990	
		4694231		Alvite Joseph	9 1987	
		4615252		Asahi Asahi	10 1986	
		4301337		Eventoff	11 1981	
		4314228		Eventoff	2 1982	
		4315238		Eventoff	2 1982	
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FOREIGN PATENT DOCUMENTS							
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		Office‡	Number‡	Kind Code‡ (if known)			
mjr			jp11031606		Teikoku	2/1999	
			jp09223607		Teikoku	8/1997	
			jp09213168		Teikoku	8/1997	
			DE19606408		Contelec	8/1997	
			GB2308448		Samsung	6/1997	
			RU2010369		Smyslov	3/1994	
			GB2267392		Collins	12/1993	
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			jp04155707		Yokohama	5/1992	
mjr			jp03108701		Canon	5/1991	

Questel-Orbit data continued on next sheet

Examiner Signature	<i>Michael J. Meyer</i>	Date Considered	1/2/01
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 10

Complete If Known	
Application Number	09/715,532
Filing Date	11/16/00
First Named Inventor	Brad A. Armstrong
Group Art Unit	
Examiner Name	
Attorney Docket Number	

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
mm	5200597	5200597		Eastman	1993	generally all
	5207426	5207426		Inoue	1993	"
	5282089	5282089		Parsons	1994	"
	5311779	5311779		Teruo	1994	"
	5915204	5915204		Park	1994	"
	5364108	5364108		Esnouf	1994	"
	5365494	5365494		Lynch	1994	"
	5276913	5276913		Pine	1994	"
	5296235	5296235		Maeshima	1995	"
	5440237	5440237		Brown	1995	"
	5457478	5457478		Frank	1995	"
	5640566	5640566		Victor	1997	"
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	5673237	5673237		Blank	1997	"
	5675329	5675329		Barker	1997	"
	5689285	5689285		Asher	1997	"
	5764219	5764219		Rutledge	1998	"
	5778404	5778404		Capps	1998	"
	5790102	5790102		Nassima	1998	"
mm	5847305	5847305		Yoshikawa	1998	"

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		Office ³	Number ⁴	Kind Code ² (if known)				
mm	DE3031484		DE3031484		Gurndig	1982	generally all	
	DE3543890		DE3543890		Thomson-Brant	1987	"	
	GB2113920		GB2113920		Alps Electric	1983	"	
	GE2058462		GE2058462		Shin-Etsu Polymer	1981	"	
	wo9957630		wo9957630		Schneider	1999	"	
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	JP7302159		JP7302159		Sega Enterprise	1995	"	
	EP0470615		EP0470615		Nintendo Co.	3/1992	"	
	0 470 615 A1		0 470 615 A1		Nintendo Co.	3/1992	"	
mm	DE4013227		DE4013227		Poulsom	5/1991	"	

Examiner Signature <i>Michael J. O'Neil</i>	Date Considered <u>12/10/02</u>
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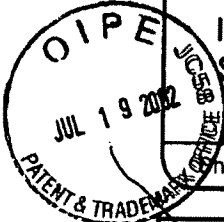
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Sheet **2** of **10**

Complete if Known

Application Number	09/715,532
Filing Date	11-16-00
First Named Inventor	Brad A. Armstrong
Group Art Unit	
Examiner Name	
Attorney Docket Number	

duplicate to IDS for G/6/6/01
 12/21/02 mjm

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mjm			wo9532776		Namco	1995	generally all	
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Examiner Signature	<i>Michael J. May</i>	Date Considered	12/21/02
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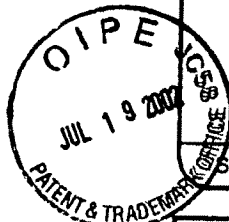
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		5924238		Chase	1999	" "
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		6157935		Tran	2000	" "
		6185158		Ito	2001	" "
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		4246452		Chandler	1981	" "
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Examiner Signature	<i>Michael J. Moran</i>	Date Considered	11/16/02
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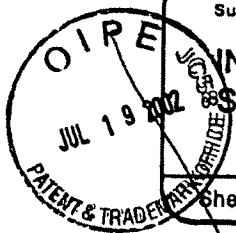
² Unique citation designation number. ³ See attached Kinds of U.S. Patent Documents. ⁴ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁵ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁷ Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO		Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/715532
		Filing Date	11-16-00
Sheet <u>4</u> of <u>10</u>		First Named Inventor	Brad A. Armstrong
		Group Art Unit	
		Examiner Name	
		Attorney Docket Number	

*dupl. back to I.D.s
 to be done 6/26/01
 ps 7/19
 mpa*

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		THE BELOW LISTED DISCLOSURES FROM Questel-Orbit QWEB 1-24 pages				(hereto attached)
		5898359		Delco	1999	generally all
		5550339		CTS Corp.	1996	" "
		5847839		Interlink	1998	" "
		5867808		IBM	1999	" "
		5287089		Parsons	1994	" "
		5132658		Sensym INC.	1992	" "
		5196782		Luntron	1991	" "
		4975676		Spectra	1990	" "
		4694231		Alvite	1987	" "
		4615252		Asahi	1986	" "
		4301337		Eventoff	1981	" "
		4314228		Eventoff	1982	" "
		4315238		Eventoff	1982	" "
		4268815		Eventoff	1981	" "
		4276538		Eventoff	1981	" "

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
			jp11031606		Teikoku	1999	generally all	
			jp09223607		Teikoku	1997	" "	
			jp09213168		Teikoku	1997	" "	
			DE19606408		Contelec	1997	" "	
			GB2308448		Samsung	1997	" "	
			RU2010369		Smyslov	1994	" "	
			GB2267392		Collins	1993	" "	
			jp05151828		Yokohama	1993	" "	
			jp04155707		Yokohama	1992	" "	
			jp03108701		Canon	1991	" "	

Questel-Orbit data continued on next sheet

Examiner Signature	<i>Michael J. Meyer</i>	Date Considered	11/16/02
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet **6** of **10**

Complete If Known

Application Number	09/715532
Filing Date	11-16-00
First Named Inventor	Brad A. Armstrong
Group Art Unit	
Examiner Name	
Attorney Docket Number	

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		3771037		Bailey	1973	generally all
		4733214		Andersen	1988	" "
		5103404		McIntosh	1992	" "
		5189355		Larkins	1993	" "
		5203563		Loper	1993	" "
<i>deleted 12/16/01 mjm</i>						
<i>to PDS filed 6/11/01 p41018</i>						

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	TS
		Office ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner Signature	<i>Michael J. Moran</i>	Date Considered	<i>12/16/01</i>
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Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	09/715 532
		Filing Date	11-16-00
		First Named Inventor	Brad A. Armstrong
		Group Art Unit	
		Examiner Name	
Attorney Docket Number			
Number of sheets	8	of	10

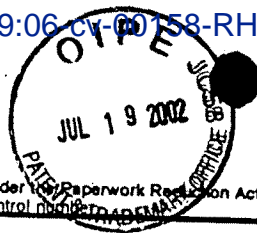
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>WJm</i>		IBM TECHNICAL DISCLOSURE BULLETIN pp230-235 Feb. 1990 Mouse Ball-Actuating Device With Force And Tactile Feedback (generally all relevant)	
<i>WJm</i>		RESEARCH DISCLOSURE November 1987 28373 Joystick with Tactile Feedback (generally all relevant)	
<i>dup ltr to filed IAS filed 6/21/01</i>			
<i>pg 2/8</i>			
<i>dup ltr to filed IAS filed 6/21/01</i>			
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<i>dup ltr to filed IAS filed 6/21/01</i>			
<i>pg 2/8</i>			

Examiner Signature	<i>Michael J. Quinn</i>	Date Considered	12/6/02
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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	091715532
		Filing Date	11-16-00
		First Named Inventor	Brad A. Armstrong
		Art Unit	
		Examiner Name	
Attorney Docket Number			
Sheet	9	of	10

U.S. PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)				
m/a		us-5510812		1996	O'Mara	Generally all
		us-4469330	9	1984	Asher	generally all
		us-4246452	1	1981	Chandler	generally all
		us-5565891	10	1996	Armstrong	generally all
		us-D355901	2	1995	Bradley	generally all
		us-4555960	12	1985	King	generally all
		us-4924216	5	1990	Leung	generally all
		us-4933670	6	1990	Wislocki	generally all
		us-5065146	4	1991	Garrett	generally all
		us-5128671	7	1992	Thomas, Jr.	generally all
		us-5237311	8	1993	Wislocki	generally all
		us-5293158	3	1994	Soma	generally all
		us-5298919	3	1994	Chang	generally all
		us-5329276	7	1994	Hirabayashi	generally all
		us-2430284	11	1947	Evers	generally all
		us-3693425	9	1972	Starita et al	generally all
		us-3921445	11	1975	Hill et al	generally all
		us-4099409	7	1978	Edmond	generally all
		us-4216467	8	1980	Colston	generally all
		us-4297542	10	1981	Shumway	generally all

FOREIGN PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴ - Kind Code ⁵ (if known)			
m/a			5-87760 (Japan)	12/1993	Mitsumi Elec.	generally all
			7-302159 (Japan)	11/1995	Sega Enter.	generally all
			0 470 615 A1 (EP)	3/1992	Nintendo	generally all
			0205726 (EP)	12/1986	Hal Lab INC	generally all
			739505 (SU)	6/1980	Baranov	generally all
m/a			2205941 (GB)	12/1988	Garrett	generally all
			2240614 (GB)	8/1991	Dzholdasbekov	generally all

Examiner Signature	<i>[Signature]</i>	Date Considered	12/16/02
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Substitute for form 1449 A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/715532
		Filing Date	11-16-00
		First Named Inventor	Brad A. Armstrong
		Art Unit	
		Examiner Name	
Attorney Docket Number			
Sheet	10	of	10

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
MA		us4348142	9	1982	Figour	generally all
		us4369663	1	1983	Venturello et al	generally all
		us4414537	11	1983	Grimes	" "
		us4536746	8	1985	Gobeli	" "
		us4555960	12	1985	King	" "
		us4670743	6	1987	Zemke	" "
		us4684089	8	1987	van der Lely	" "
		us4811608	3	1989	Hilton	" "
		us4855204	8	1989	Betz	" "
		us4910503	3	1990	Broadsky	" "
		us4935728	6	1990	Kley	" "
		us-5128671	7	1992	Thomas, Jr.	" "
		us-5142931	9	1992	Menahem	" "
		us-5168221	12	1992	Houston	" "
		us-5189355	2	1993	Larkins et al	" "
	us-5252952	10	1993	Frank et al	" "	
	us-5329276	7	1994	Hirabayashi	" "	
	us-					
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FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
MA		0205726	(EP)	12/	1986		generally all
		739505	(SU)		1977 G/1980		generally all
		2205941	(GB)	W/	1988		generally all
		2240614	(GB)	S/	1991		generally all

Examiner Signature	<i>Michael J. Meyer</i>	Date Considered	11/16/02
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