EXHIBIT 1

ANALYSIS OF PHOTOGRAPHS

KENNEDY ASSASSINATION USED AND NOT USED BY THE WARREN COMMISSION

GENERAL

Exhibits 1A & B show all known photographers and photographs as of August 1, 1967 taken at the Kennedy assassination site on November 22, 1963. A few photos are included in the list which were taken at other locations on November 22 or at the site at times other than on the day of the assassination. These are included only because of their importance in determining what happened during the assassination.

Exhibit IA shows in chart form a list of objects or people of importance to an analysis of what happened as they appear or do not appear in each of the photographs.

Exhibit 1B shows in table form a list of all photographers, the type of photographs they took, and what each one shows. In the case of still cameras each photo of importance taken by the same photographer is listed separately. In the case of movies or television footage, each sequence of importance taken by the same photographer is listed separately. A sequence is defined as a continuous series of frames unbroken by stopping and starting the movie camera. In a few cases, where only a short break occurs (less than a few seconds) with the camera pointed in the same direction, it is considered to be one sequence.

TOTAL NUMBER OF PHOTOGRAPHS

As of August 1, 1967 the author has found evidence of a total of 224 photographs taken by a total of 57 photographers. Of this total, 39 where movie sequences taken by 11 photographers, 13 were television sequences taken by 8 TV cameramen, and 166 were still photos taken by 32 photographers. The balance of 6 photographs taken by 6 photographers are not identifiable as to type. The photographers appear in other photographs taking pictures. However, the type of camera cannot be determined.

Of the 57 photographers, all but 14 can be identified by name. In six of these cases, the photographs are available even though the photographer remains unknown.

WHAT THE PHOTOGRAPHS SHOW

As stated before, nearly all of the 224 photographs were taken in Dealey Plaza on November 22, 1963 prior to 5 p.m. Twenty eight photographs were taken at the time of the shots or within a few seconds before the first shot or after the last shot. Forty five photographs show the grassy knoll area all within minutes of the time the shots were fired. Thirty two photographs show the TSBD building within minutes of the shots. One shows the building the morning of November 22.

WARREN COMMISSION USAGE

The Warren Commission used 21 of the 224 photographs; about 9%. They were taken by seven of the 57 photographers; about 12%. In addition, the Commission looked at four more photographers' pictures which were published in sources other than the 26 volumes.

The FBI saw less than half of those unseen or unused by the Commission. About 40 to 45% of the photographs were never examined by any official investigating body including the Commission, the FBI, the Secret Service, or the Dallas Police.

Legend-Type of Photo M-Movie P-Still Photo

T-Television Footage

C-Color B-Black & White

EXHIBIT 1B

LIST OF PHOTOGRAPHS AND PHOTOGRAPHERS

Ph	oto	Photographer		Seq.	
#	Type	Name	#	##	Photo Shows
1	MC	Zapruder	1	1	JFK on Elm-Houston St. to Overpass
2	MC	Nix	2	1	JFK on Houston St. before shots
3	MC	Nix		2A	JFK on Elm St. just before, during & after head shot
4	MC	Nix		2B	Grassy knoll and cars on Elm just after head shot
5	MC	Muchmore	3	1	JFK on Houston St.
6	MC	Muchmore		2	JFK on Elm Just before, during & after head shot
7	MC	Hughes	4	0	JFK on Houston from Main St. 2/3 of way to Elm
8	MC	Hughes		1	JFK on Houston & Elm & Depository 6th Floor window
9	MC	Hughes		2	Camera cars on Houston St Man on Dal Tex fire escape
10	MC	Hughes		3	Grassy knoll after shots
11	MC	Hughes		4	Grassy knoll after shots
12	MC	Hughes		5	County Courts Bldg., Dal Tex & Main & Houston
13	MC	Hughes		6	Parking Lot
14	MC	Hughes		7	Plaza looking south from arcade
15	MC	Hughes		8	Parking Lot
16	MC	Hughes		9	Depository Bldg - top
17	MC	Hughes		10	Depository Doorway & Dal Tex
18	MC	Martin	5	0	JFK on Houston St.
19	MC	Martin		1	JFK in front of Depository Bldg
20	MC	Martin		2A	Grassy knoll & Elm St. after shots
21	MC	Martin		2B	Gras sy knoll & Elm St. after shots
22	MC	Martin		3	Parking Lot
23	MC	Martin		4	Depository Bldg. entrance-Swarthy man
24	MC	Mentesana	6	1	Top of Depository - 2 cops on 7th floor
25	MC	Mentesana		2	Front of Depository - gun on street
26	MC	Bell	7	1	JFK on Houston St.
27	MC	Bell		2	JFK in front of TSBD
28	MC	Bell		3	JFK approaching triple overpass on Elm
29	MC	Bell		4	Grassy knoll area just after shots
30	MC	Bell		5	Grassy knoll area after shots
31	MC	Bell		6	Center of Plaza after shots
32	MC	Bell		7	Grassy knoll area
33	MC	Bell		8	Plaza from building on south later in day
34	MC	Bell	_	9	Plaza from building on south later in day
35	PC	Bond	8	1	Motorcycles rounding Houston & Main
36	PC	Bond		2	JFK rounding Houston & Main
37	PC	Bond		3	JFK on Houston
38	PC	Bond		4	Grassy knoll & Elm St. after shots
39	PC	Bond		5	Grassy knoll & Elm St. after shots
40	PC	Bond		6	Grassy knoll & Elm St. after shots
41	PC	Bond		7	Grassy knoll after shots
42	PC	Bond		8	Grassy knoll after shots

Dh.	oto	Photograph	ographer Seq.		
				#	Dhataa Chive
#	Type	Name	#	<u> </u>	Photos Show
43	PC	Bond		9	Grassy knoll after shots
44	PB	Moorman	9	1	Motorcycle cop rounding corner Elm & Houston
45	PB	Moorman	J	2	Grassy knoll & JFK at time of head shot
46	PB	Altgens	10	1	JFK on Houston Street
47	PB	Altgens	10	2	JFK after second shot hit & before head shot
48	PB	Altgens		3	JFK after head shot. Overpass & people on it
49	PB	Altgens		4	Arcade after shots. Two people on floor
50	PC	Willis	11	1	JFK on Main Street
51	PC	Willis		2	JFK on Houston Street
52	PC	Willis		3	JFK on Houston Street
53	PC	Willis		4	JFK in front of TSBD
54	PC	Willis		5	JFK after first shot
55	PC	Willis		6	Elm Street & grassy knoll after shots
56	PC	Willis		7	Elm Street & grassy knoll after shots
57	PC	Willis		8	TSBD Doorway
58	PC	Willis		9	Houston St. looking north from Elm, TSBD & Dal Tex
59	PC	Willis		10	TSBD front. Doorway & 5 eastern windows
60	PC	Willis		11	Houston St. looking north from elm
61	PC	Willis		12	TSBD (all of it) from Houston & Main
62	PC	Willis		13	Man arrested outside Dal Tex Bldg
63	PC	Willis		14	White station wagon on Elm about 12:45
64	PB	Betzner	12	1	JFK on Houston
65	PB	Betzner		2	JFK in front of TSBD
66	PB	Betzner		3	JFK on Elm about time of first shot
67	PB	Bothun	13	1	Arcade after shots
68	PB	Assoc. Press	14	1	JFK on Houston St. (Photog may be in Much 1)
69	PB	Assoc. Press	15	2	Group of photos taken outside Parkland Hosp.
70	PB	Assoc. Press		3	Copy of Moorman 2-Clearer than published
71	T	Ron Reiland	16	1	Inside Texas Theatre before & during Oswald arrest
72	PB	Rickerby	17	1	Arcade & West Cupola (Life) after shots (3 people)
73	PB	Rickerby		2	Arcade & Photographers taking pictures (Cam 2)
74	PB	Dillard	18	1&2	TSBD 6th floor window from Cam 3
75	PB	Dillard		3	Overpass & camera cars on Elm
76	T	Darnell	19	1	Near TSBD (Channel 5 Dallas) in Cam 3
77	PB	Beers	20	1	Outside TSBD afterward (Dallas Morn News)
78	PB	Beers		2	Outside TSBD afterward
79	T	Underwood	21	1	Outside TSBD afterward (CBS)
80	T	Weigman	22	1	Scene on Elm grassy knoll, TSBD doorway from Cam l
81	T	Weigman		2	Newmans on ground Cong 1&2 on Elm
82	T	Couch	23	1	Grassy knoll after shots from Cam 3
83	T	Couch		2	Cop with revolver south of Elm
84	T	Couch	0.4	3	Grassy knoll - Cop with cycle at curb
85	PB	Murray	24	1*	(Black Star) In front of TSBD 12:33 p.m. Nov. 22
86	PB	Murray		2	Parking lot 12:34 North section
87	PB	Murray		3	Parking Lot 12:34 South section
88	PB	Murray		4	Elm Street ext. looking toward TSBD 12:34
89	PB	Murray		5	Center of Plaza from knoll 12:35

^{*} James Murray, Black Star photographer took a total of 215 black and white photos during the Nov. 22-24 period. 93 of these are listed herein because they were all taken in Dealey Plaza on Nov. 22, prior to 5 p.m. The rest were taken the evening of Nov. 22 in Dealey Plaza and

* (cont.) on Nov. 23 & 24 in Dealey Plaza, also at the Police Station and at the Trade Mart. They show Oswald's arrival at the station, activity around the station and at the Trade Mart, and at Parkland Hospital when Oswald was shot.

Pho	oto	Photogra	pher	Seq.	
#	Type	Name	#	#	Photos Show
				•	Cr.
90	PB	Murray		6	Closeup of large group on north curb of Elm 12:35
91	PB	Murray		7	Closeup of couple on north side Elm Tooking to TSBD 12:36
92	PB	Murray		8	Looking toward Overpass from corner Elm & Houston 12:37
93	PB	Murray		9	Arcade & knoll from center of Plaza 12:38
94	PB	Murray		10	Police examining shot on gnd. S of Elm 12:39 (Hertz clock shows time)
95	PB	Murray		11	Official in suit lighting cigarette. Spot on ground 12:39
96	PB	Murray		12	Official in suit picking up something from ground 12:39
97	PB	Murray		13	Official in suit holding something in hand 12:39
98	PB	Murray		14	Second official in suit touching spot on ground 12:39
99	PB	Murray		15	Police standing around spot on ground 12:39
100	PB	Murray		16	Police picking up other objects from spot & another spot 12:40
101	PB	Murray		17	TSBD, Plaza & knoll from Commerce St. (Hertz clock shows time) 12:40
102	PB	Murray		18	TSBD, Plaza & knoll from Commerce St. 12:40
102		Murray		19	Front door of TSBD from south of Elm 12:42
103		Murray		20	Front door of TSBD from south of Elm 12:42
104		Murray		21	Front door of TSBD closeup 12:42
103		Murray		22	Front door of TSBD closeup 12:43
107		Murray		23	Negro boy in police car - front of TSBD
107		Murray		24	Front door TSBD closeup
109		Murray		25	View east on Elm St. from Houston & Elm, Dal Tex. & Co. Records
110	PB	Murray		26	County Records Bldg - northwest corner
111		Murray		27	View north on Houston from south of Elm
112		Murray		28	TSBD from Houston & Main
113		Murray		29	TSBD front & doorway from Houston & Elm
114		Murray		30	TSBD front & doorway from Houston & Elm
115		Murray		31	TSBD doorway - crowd in front
116		Murray		32	Cop with rifle. Dal Tex Bldg in background
117		Murray		33	View north on Houston from Elm
118		Murray		34	View of overpass from Elm
119		Murray		35	Crowd on Elm & eastern cupola from south of elm
120		Murray		36	
121		Murray		37	TSBD front door
122		Murray		38	TSBD front door
123		Murray		39	Official being interviewed in front of TSBD
124		Murray		40	Official being interviewed in front of TSBD
125		Murray		41	Policeman or newsman on sixth floor of TSBD yelling
		-			down and pointing to SE corner
126	PB	Murray		42	Policeman or newsman on sixth floor waving hat out window

Photo		Photographe	_	
#	Type	Na me	##	Photos Show
127	PB	Murray	43	Three ladies on top floor fire escape landing of Dal Tex
128	PB	Murray	44	Cops with rifles in front of Dal Tex (Famous Photo)
129	PB	Murray	45	Cops with rifles in front of Dal Tex (ramous Photo)
130	PB	Murray	46	Cops with rifles in front of Dal Tex (Famous Photo)
131	PB	Murray	47	Cops with rifles in front of Dal Tex (Famous Photo)
132	PB	Murray	48	Man being interviewed in Sheriff's office - possibly
102	10	-		Larry Flora
133	PB	Murray	49	Man being interviewed in Sheriff's office - possibly Larry Flora
134	PB	Murray	50	Four men in Sheriff's office
135	PB	Murray	51	Man being interviewed
136	PB	Murray	52	Man being interviewed
137	PB	Murray	53	Man being interviewed
138	PB	Murray	54	Cops beside Dal Tex Bldg - Houston St. side
139	PB	Murray	55	Cops beside Dal Tex Bldg - Houston St. side
140	PB	Murray	56	Group in front of Dal Tex - closeup
141	PB	Murray	57	Barb B Q place near Dal Tex
142	PB	Murray	58	Barb B Q place near Dal Tex
143	PB	Murray	59	Barb B Q place near Dal Tex
144	PB	Murray	60	Man waiting inside Sheriff's office
145	PB	Murray	61	Man waiting inside Sheriff's office
146	PB	Murray	62	Group outside Dal Tex - arrest
147	PB	Murray	63	Front of TSBD & Elm Street ext looking west
148	PB	Murray	64	View south on Houston from Elm - arrest
149	PB	Murray	65	View south on Houston from Elm - arrest
150	PB	Murray	66	In Sheriff's office
151	PB	Murray	67	In Sheriff's office
152	PB	Murray	68	In Sheriff's office
153	PB	Murray	69	In Sheriff's office
154	PB	Murray	70	Girl on phone in Sheriff's office
155	PB	Murray	71	View across Plaza from Houston
156	PB	Murray	72	Switchboard in Sheriff's office
157	PB	Murray	73	Switchboard in Sheriff's office
158	PB	Murray	74	Cab driver in cab by Plaza
159	PB	Murray	75	In Sheriff's office
160	PB	Murray	76	Overpass from Elm & Houston
161	PB	Murray	77	Overpass from Elm & Houston
162	PB	Murray	78	Overpass from Elm & Houston
163	PB	Murray	79	TSBD West end - top floor
164	PB	Murray	80	TSBD west end - all floors
165	PB	Murray	81	Houston & Elm activity
166	PB	Murray	82	Houston & Elm activity
167	PB	Murray	83	Houston & Elm activity
168	PB	Murray	84	Houston & Elm activity
169	PB	Murray	85	Houston & Elm activity - Arrest?
170	PB	Murray	86	TSBD East end top floors - no clock
171	PB	Murray	87	TSBD East end top floors - no clock

Ph	oto	Photographer		Seq.	•
#	Type		#	#	Photos Show
172	PB	Murray		88	TSBD East end top floors - no clock
173	PB	Murray		89	TSBD East end top floors - clock shows
174	PB	Murray		90	TSBD East end top floors - no clock
175	PB	Murray		91	TSBD East end top floors - no clock
176	PB	Murray		92	TSBD East end top floors - no clock
177	PB	Murray		93	TSBD East end top floors - no clock
178	T	•	25	• •	Not sure he took anything - Cam 1
179	PB		26	1	Newmans on ground - Weigman, Craven, Altgens
180	PB	Cancellare	20	2	Newmans on ground - closeup
181	PB	Cancellare		3	Parking lot
182	PB	Cancellare		4	Plaza & Elm Street from knoll
183	PB		27	T	Not sure he took anything Cam 2
184	PB		28	1	Camera cars on Houston St. from Cam 2
185	PB	Burrows	20	2	Camera cars on Houston St. from Cam 2
186	PB		29	2	
				1	Not sure he took anything Cam 2
187	MC		30	1	JFK on Houston - glimpses on Elm before & after shots
188	PC		31	1	TSBD on a.m. of Nov. 22 - 6th flr. window
100	140	(Foley)	0.0		
189	MC		32	_	Not sure film exists - taken during shots
190	PB		33	1	TSBD 6th floor window before first shot
191	PB		34	_	Cannot find him
192	PB		35	1	JFK on Stemmons Freeway - back of TSBD & Parking lot
193	MC		36	_	10 other sequences in addition to Martin & Mentesana
194	M	Wise (Anon)		1	7
195	PB		38	1**	Oswald's room - landlady & man hanging curtains Nov. 23
196	T	•	39	1	Houston St. outside & inside TSBD after shots
197	T	Couch		4	Outside and inside TSBD after shots
198	PB		40	1	Grassy knoll after shots
199	PB	Cablack		2	Grassy knoll after shots
200	PB		41	4	JFK on Stemmon-rifleman in background
		Press		_	
201	PB	Associated	42	5	Officers & newsmen inside TSBD at 6th Flr. window
		Press			0.44
202	PB	United Press		1	Officers carrying "paper bag" out of TSBD
203	PC	MacCammon		l -	Oswald being arrested inside Texas Theatre
204	PC	MacCammon		2	
205	PC	MacCammon		3	
206	PC	MacCammon		4	
207	PC	MacCammon		5	
208	PC	MacCammon		6	
209	PC	MacCammon		7	
210	PC	MacCammon		8	
211	T	Craven CBS	45	1	Houston St. from Cam 1 before shots
212	T	Craven		2	Grassy knoll area after shots

^{**}Gene Daniels, Black Star photographer, took a total of 260 black and white, 35 mm still photos during the Nov 22-24 period. A few of these were taken the afternoon and evening of Nov. 22 and the rest on Nov. 23 & 24. There are scenes at Dealey Plaza, TSBD, Sheriffs

**(cont.) office, police station, police press conferences, Oswald's rooming house and room, Oswald's public appearances, and views of Elm St eet from Dal Tex Bldg. through telescopic sight.

Ph	oto	Photographer		Seq.	
#	Type	Name	#	#	Photos Show
213	PB	Shulke Black Star	46	1	
214	PB	Herron Black Star	47	1	
215	PB	Hershorn Black Star	48	1	
216	PB	Jackson Times Herald	49	1	
217	?	Babushka Lady	50		Cannot find her. Appears in many pictures S. of Elm
218	?	Unidentified Man	51	•	Appears in Muchmore 1
219	M	Unidentified Man	52		Appears in Martin 3
220	?	Overpass Man	53		Policeman says he saw someone on overpass taking pictures
221	?	Unidentified Woman	54		Brennan says he saw her taking pictures
222	?	Unidentified Woman	55		Appears in Altgens 1. Original negative at AP
223	?	Unidentified Woman	56		Appears in Altgens 2
224	PC	Similas	57		Not sure he took anything