

~~SECRET~~
~~SECURITY INFORMATION~~

CLASSIFICATION CANCELLED
WITH DELETIONS
BY AUTHORITY OF DOE/OC

REVIEWED BY: [Signature] DATE: 11/2/87

Shot	Date/Time	Height	Cloud	Height	KT
Trinity (T)					19.3(23.8)
Crossroads					
Able (A)					19.6(22)
Baker (UW)					20.6(23)
Sandstone		DELETED VERSION ONLY			
XRay (T)		56100 ⁽⁵⁶⁾		56000 ✓	36.5
Yoke (T)		54190 ⁽⁵⁴⁾		56000 ✓	48.7
Zebra (T)		n.a.		28000(33000)	18.2
Ranger					
Able (A)		not applicable		16000 - 5	1.27
Baker-1 (A)		n.a.		35000 - 5	7.83
Easy (A)		n.a.		12500 - 5	1.00
Baker-2 (A)		n.a.		28000 - 5	7.95
Freddie (A)		39230 ⁽³⁹⁾		42000 - 5 ✓	22.2
Greenhouse					
Dog (T)		56420 ⁽⁵⁶⁾		57000	
Easy (T)		52450 ⁽⁵²⁾		45000 ✓	
George (T)		54900 ⁽⁵⁵⁾		(80-90000) PPTC 62000 ✓	
Item (T)		52260 ⁽⁵²⁾		43000 ✓	
Buster					
Baker (A)	28 Oct 51	n.a.		(27000) 32000 - 5	3.9
Charlie (A)	30 Oct 51	38200		41000 - 5 ✓	14.0
Doc (A)				50000 - 5 ✓	20.0

DELETED

Shot		Date / Time	Tropopause Height	Cloud Height	KT
Buster	(A)				
Easy		5 Nov 51		54000 - 5 ✓	31
Jangle				(15500) ↓	
Sugar	(S)	19 Nov 51	n.a.	14000 - 4	1.19
Nucle	(UG)	29 Nov 51	n.a.	(10500) - 4 9500 - 4	1.22
Tumbler Snapper					
I	(A)	1 Apr 52		16000 (-5)	1.05
II	(A)	15 Apr 52		15500 (-5.5)	1.26
III	(A)	22 Apr 52	27000	42000 (-7.5)	30.7
IV	(A)	1 May 52	25000	43500 (-5.5)	19.2
V	(T)	7 May 52 ✓	41,500	34000 (-4.5)	12.0
VI	(T)	25 May 52 ✓	35000	41000 (-4.5)	11.1
VII	(T)	1 June 52	37000	37000 (-4.5)	14.6
VIII	(T)	5 June 52	?	41500 (-4.5)	13.9
Joy					
Mike			CLO. HT (EGG)		
King			99,000	120-130,000	12 M ₂
			65,000	65-75,000? (90,000-100,000)	10 M ₂
GEO				80-90,000'	213

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July 16, 1945 - 0530M

57

1800-2057M
151°-170°
HI-LB-2 P18
18 ps
WORKING PAPERS

TRINITY - 0555	BASE	1440 Meters		
PRESS	ALT - M	TEMP	HUMIDITY	
860	1440	19.4		
812	1930	17.4		
748	2630	12.3		
716	3000	12.0		
688	3330	9.0		
633	4000	6.2		
540	5290	-2.5		
484	6150	-9.2		
476	6290	-8.9		
400	7610	-18.1		
357	8460	-24.0		
333	8950	-30.5		
310	9460	-34.5		
279	10190	-39.7		
170	13330	-70.4		

TRINITY	1355			
860	1440	29.5		
812	1940	22.1		
763	2480	18.9		
678	3490	11.3		
653	3800	9.5		
614	4310	5.2		
602	4470	5.5		
562	5030	2.0		
524	5590	-2.5		
512	5780	-2.6		
453	6730	-8.6		
424	7250	-10.5		
400	7680	-12.5		
326	9200	-20.5		
218	12090	-40.4		
140	15000	-57.2		
106	16700	-66.3		
70	19200	-68.7		

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97
3

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1800-2059M
071°-090°

Crossroads Able - 1 July 1946

"0900" (5)

Shangri-La - 1020

Press	Alt (ft)	Temp	R. Humidity	S. Humidity (tenths omitted)
1009	(safe)	28	80	
1000	33	28	85	0.0
872		21	85	5.3
850	4970	21	85	4.5
720		14	65	8.3
700	10450	12	65	7.6
600		04	65	5.6
500	19410	-05	—	—
449		-10	—	—
428		-10	—	—
400		-12	—	—
384		-04		
330		-22		

Kuzalein - 1400

1008	(safe)	29	76	
1000	23	29	75	9.5
960		25	35	6.8
927		22	85	6.3
882		20	85	4.7
850	4920	20	65	0.7
816		19	35	6.2
750		14	45	5.5
700	10340	11	45	5.4
661		08	25	2.7
592		02	75	5.5
528		-02	55	3.5
500	19250	-06	85	3.9
453		-10	45	1.8
400		-14	65	2.0
313		-28	35	0.4
300	31820	-39	15	9.9?
251		-38	15	9.9?
200	40950	-50	—	—
140		-67	—	—
100	54860	-74	—	—

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4 98

Crossroads "Able" - 1 July 1946

(cont)

"0900"

54

Caiwetok - 0200

Press	Alt (ft) (sfc)	Temp	R. Hum	S. Hum	Clens on w/h
1010		27	83		
1000		26	92	9.9	
960	81400	25	97	0.2	
925	82500	22	92	7.9	
850	4890	20	65	1.7	
750	88500	16	35	6.9	
730	89200	14	35	4.3	
700	10350	12	45	5.3	
625	13400	05	85	7.2	
590	15000	02	35	3.0	
555	16600	00	65	4.2	
516	18400	-04	25	1.2	
500	19300	-06	15	9.9(?)	
400		-14	---	---	
300	31700	-32	---	---	
280	33400	-36	---	---	
200	40800	-55	---	---	
130	49100	-76	---	---	
100	54100	-80	---	---	
097	54600	-80	---	---	

Crossroads "Baker" - 26 July 1946

Shengri Sa 0130

Press	Alt (ft) (sfc)	Temp	R. Hum	S. Hum	Clens on w/h
1027		27	83		
1000	26	27	85	8.5	
850	4950	18	85	3.5	
810		16	85	2.1	
782		16	85	1.6	
700	10340	10	65	6.7	
592		02	35	2.8	
558		-02	65	3.6	
508		-06	25	1.0	
500	19210	-07	25	1.0	
432		-15	25	0.7	
400		-18	25	0.6	
344		-25	45	0.7	
306		-31	45	0.4	
300	31700	-32	---	---	
240		-50	---	---	
200	40640	-54	---	---	
154		-65	---	---	
106		-76	---	---	
100			---	---	

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1800 - 2059 M

351° - 010°

Crossroads Baker 25/1946

55

Shangri-La - 1445

Press	Alt (ft)	Temp	R Hum.	S. Hum.	(less unit)
1006	(afe)	28	74		
1000	23	27	75	7.3	
938		22	85	4.4	
850	4900	18	75	1.3	
810		17	65	0.0	
726		12	75	9.0	
700	10280	10	55	6.5	
653		08	25	2.4	
630		06	35	3.6	
500	19220	-04	25	1.4	
445		-09	25	1.0	
400		-16	25	0.8	
320		-29	25	0.6	
300	31850	-29	—	—	
200	40920	-52	—	—	
148		-68	—	—	

EDIDGE
1946

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6 100

1200-1459M
071°-090°

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Sandstone XRay

15 April 1948 "O"

067
56

0300 M

Pressure	Height Sfe	Temp.	Rel Hum
7012		27	83
1000		26	90
862		19	70
850		19	60
820	5000	18	30
805		16	50
740		14	20
700		11	40
675		9	50
570	15900	0	40
508		-6	60
500		-6	50
446		-11	20
423		-13	?
400	24900	-16	20
375		-18	10
300	32400	-32	X
292		-32	
275		-36	
200		-54	
175		-61	
135	48800	-72	



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7 101

SECRET

~~SECURITY INFORMATION~~

57

1200-18597

091°-110°

Sandstone X-Ray

15 April 1948 "O"

0617

0900 M

Pressure	Height	Temp	Rel Hum
1013		26	
1000		26	
960		23	
936		23	
865		18	
850		18	
825	5800	18	
730		11	
700	10490	10	
684		8	
605		2	
580	15400	1	
542		-4	
500		-6	
482		-7	
400	24900	-16	
375		-20	
300	31810	-30	
275		-35	
200		-54	
135	48700	-72	
100		-78	
97	56100	-79	
25 (?)	62700 (?)	-46 (?)	doubtful point

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Sandstone

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"0609"

58

0300

Pressure	Height (ft)	Temp	Rel Hum	Spec. Hum
1011		26	81	17.2
1000	320	26	80	16.7
850	4950	16	80	11.9
814	6300	12	70	8.2
792	6900	13	20	3.4
732	9100	12	10	2.2
700	10300	10	10	X
674	11300	08	10	X
659	11900	08	20	2.6
610	14000	04	10	1.6
574	15600	01	10	X
545	16500	-01	20	1.5
537	17300	-02	30	2.2
500	19220	-05	20	2.5 (?)
480	20200	-07	20	1.1
400	24800	-17	10	X
300	31690	-32	X	X
258	34900	-40	X	X
200	40680	-53	X	X
100	54190	-84	X	X
095	55100	-84	X	X

1000 hours

1011	000	27	77	17.
1000	320	26	70	16.
952		22	80	15.
860		17	70	10.
850	4950	16	70	9.
780		14	30	3.
753		14	50	7.
740		13	10	
700	10290	11	X	
670		09		
662		10		
500	19260	-03		
460		-06		
446		-06		
400		-14		
300	32020	-28		
200	41240	-48		
140		-66		
128		-73		

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9/10/23

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1500-1759M

011°-030°

Sandstone - Lebra - 15 May 1948 "0604" (59)

0300

Pressure	Height (ft)	Temp	Rel. Hum.	Spec. Hum.
1008		27	84	19.0
1000	240	26	80	17.9
889	3600	20	70	12.3
850	4880	18	50	9.2
745	8600	12	30	4.6
700	10240	10	50	6.2
677	11200	08	60	6.7
650	12200	06	50	5.5
635	12900	07	20	1.9
510	18700	-05	20	1.3
500	19170	-05	10	X
400	24800	-15	X	↓
300	31790	-30	↓	↓
264	34700	-37	↓	
200	40850	-52		
100	54420	-83		
088	56800	-78		

0600 hours

1008		27	81	18.4
1000	X	26	80	17.8
850	4850	18	50	8.7
766	7800	15	50	7.7
700	10240	10	40	5.1
675	11200	08	60	6.7
534	17400	-01	40	3.1
500	19170	-05	50	2.9
465	21300	-08	50	2.6
450	21900	-08	20	1.2
400	24800	-15	10	X
335	29100	-25	X	↓
324	29900	-24	↓	
300	31700	-29		
263	34700	-37		
200	40750	-52		
128	49700	-74		

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10 104

Sandstone - "Lebra" - 15 May 1948

"0604"
60

0900

Pressure	Height (ft)	Temp	Rel Hum	Spec. Hum.
1010		29	76	19.
1000	300	28	70	18.
850	4970	19	60	9.
746	8600	14	20	3.
700	10370	11	50	5.
673	11400	09	60	7.
626	13400	05	40	4.
599	14600	05	20	1.
531	17700	-01	50	3.
500	19340	-04	60	3.
400	25000	-14	20	0.
300	32010	-27	X	X
269	34100	-34	↓	↓
200	40700	-52		
106	43400	-80		

1105

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171°-190°

Ranger "Able"

27 January 1951

0600"

(64)

Pressure	Height (ft)	Temp	Dew Point
891		011	-06
21000	420		
850	4750	08	-05
765		06	-11
700	10300	01	-13
589		-09	-17
559		-11	-20
535		-11	-30
500	18540	-16	x
487		-17	↓
400	24900	-28	
345		-37	
300	30440	-43	
225		-55	
208		-52	
200	39110	-53	
185		-54	
167		-54	
150	45140	-57	
100	54680	-66	
083		-68	
070		-65	
063		-66	
040		-69	

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Ranger "Baker" 28 January 1951 "0600"

62

Pressure	Height (ft)	Temp	Dew Point
890	380	01	-02
1000	380		
853		04	01
850	4800	04	01
793		01	-02
716		00	-15
700	9940	00	x
568		-12	-26
500	18450	-19	-27
441		-27	-37
400	23750	-33	x
300	30120	-48	x
237		-54	x
200	38710	-54	x
150	44700	-56	
141		-56	
113		-64	
105		-64	
<i>Beatty</i> 0500			
888		02	-01
1000	320		
850	4650	x	x
815		04	-02
773		02	-05
762		02	-05
735		01	-08
723		01	-13
700	9810	+00	-17
607		-08	-23
500	18350	-18	x
475		-21	x
469		-21	x
400	23670	-32	x
352		-40	x
300	30100	-47	
263		-53	

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1200-14574
031°-050°

~~SECRET~~

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Ranger Charlie

February 1951

"0600"

63

Beatty - 0700 P

Pressure	Height	Temp.	Dew Point
1000			
904		-07	-11
890		-05	-11
850	5060	-07	-13
815		-10	-15
806		-09	-14
735		-10	-16
710		-08	-15
700	10310	-09	-17
676		-09	-25
613		-11	-28
551		-17	-28
500	18360	-21	-30
400	23630	-33	-42
370		-37	-47
300	30060	-47	x
200	38520	-62	
193		-63	
150	44380	-58	
188		-61	
134		-57	

Beatty - 0400 P

Pressure	Height	Temp.	Dew Point
1000	840		
904		-02	-09
850	5090	-05	-11
794		-07	-14
725		-12	-14
700	10020	-10	-14
670		-08	-14
634		-09	-23
600		-12	x
530		-18	x
500	18420	-21	-31
400	23670	-34	-40
363		-37	-48
300	30100	-47	x
226		-59	
213		-58	
200	38580	-53	
170		-56	

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~~SECURITY INFORMATION~~

14 10'

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Ranger "Dog" February 1950 0600

64

Beatty 0400

Pressure	Height	Temperature	Dew Point
1000	1000		
908		-08	-11
882		-02	-07
858		-03	-10
850	5200	-03	-10
842		-02	-09
809		-04	-10
766		00	-13
752		00	-13
730		02	-18
700	10280	00	-16
520		-17	-22
512		-17	-23
500	18800	-18	-26
458		-22	-35
443		-22	-35
418		-25	-38
400	24020	-27	
322		-40	
300	30740	-44	
236		-57	

Beatty 0700

1000	329		
909		-08	-10
879		-02	-06
850	5220	-02	-09
835		-02	-10
808		-04	-11
796		-02	-15
728		02	-18
700	10310	01	-18
550		-13	-20
500	18850	-17	-26
441		-21	-30
400	24210	-27	-34
322		-40	-50
300	30750	-44	x
285		-46	x

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15 186

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Greenhouse - Data and soundings

George Shot

Item Shot

65

0900 M

9 MAX

1500 M

MAX

Pressure	Height	Temp	Pressure	Height	Temp
1000		27	1000		31
910		21	920		23
850	4840	18	850	5000	21
700	10240	10	820		18
650		7	730		14
570		0	705		11
500	19170	-5	700	10410	10.5
400	24730	-15	660		7.5
395		-15	600		4
300		-30	500	19360	-4
200	40810	-51	400	25020	-14
150	46730	-67	300	31970	-26
103		-78	200	41020	-52
100	54340	-78	150	46940	-66
97		-81	114		-76 ← T
78		-80	102		-77
			100	54720	-77
			86		-75

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160
16

1500-1759M
091°-110°

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Ranger "Dog" 2 February 1951 0600

Pressure	Height	Temperature	Dew Point
1000	020		
910	(afe)	03	-06
888		00	-08
860		-01	-06
850	5280	-01	-07
830		-02	-10
817		-01	-12
792		00	-09
762		00	-17
747		03	-14
700	11050	01	-13
578		-10	-18
543		-15	-27
500	18970	-16	-25
484		-17	-23
400	24370	-27	-35
325		-40	-42
300	30590	-44	x
200	39030	-65	x
178		-71	x
165		-70	x
145		-58	
116		-65	
100	49920		
150	44700	-60	x
100	52870	-66	x
093		-62	x

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11

Ranger "Easy" 6 February 1951 "0530"

67

Pressure	Height	Temperature	Dew Point
1000	620		
898	(pf)	-02	-21
874		08	00
850	4970	08	00
734		03	-16
700	10080	01	-07
697		01	-03
564		-08	-12
500	18730	-13	-21
462		-18	-23
400	24150	-25	-33
313		-40	-48
300	30760	-42	x
200	39300	-63	x
188		-65	x
Beatty - 0700			
1000	630		
898		(25)?	-04
888		05	-05
874		07	-03
850	4970	06	-03
778		05	-05
740		00	-04
724		02	-04
700	10150	01	-06
550		-08	-18
500	18810	-14	-24
424		-23	-34
407		-24	-36
400	24230	-26	x
320		-40	x
300	30810	-43	x
215		-60	x
200	39230	-62	x
204		-62	x
140		-63	x
130		-65	

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Ranger Easy

6 February 1951

"0530"

68

Las Vegas - 0100

Pressure	Height	Temperature	Dew Point
1000	510		
940	(afe)	04	-02
933		13	00
914		13	-02
885		12	-02
850	4940	12	-01
736		03	-04
700	10180	02	-17
662		01	-22
545		-08	-18
500	18890	-11	-24
-400	24410	-23	-38
356		-30	-44
309		-40	x
300	31060	-41	x
200	39620	-63	x
165		-70	x
155		-64	x
150	45330	-64	x
100	53380	-69	x
085		-73	
045		-62	
036		-65	
033		-61	

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113
19

~~SECRET~~

1500-1759M
051°-070°

~~SECURITY INFORMATION~~

Greenhouse - Dog Shot - Data read from ^{ascending} Easy Shot 21.11.15

0900 M			0600 M		
Pressure	Height (ft)	Temp	Pressure	Height (ft)	Temp
1000		26	1000		25
850	4970	14	940		20
810		12	850	4890	16
800		16	725		8
780		16	700	10220	10
750		15	690		11
720		10	660		9
700	10320	9	560		-1
670 ?		7	555		0
660 ?		8	500	19170	-5
650 ?		4	440		-10
580 ?		1	400	24830	-18
555 ?		-5	300	31690	-33
550 ?		-1	200		-51
500 ?	19230	-6	150	46620	-67
450		-10	160		-81 ←
400	24890	-16	100	54340	-77
300	31820	-30	78		-82
260		-40	60		-70
250		-40	56		-70
200	40790	-54	42		-56
150	46650	-68	40		-56
140		-71			
100	54450	-79			
90		-82 ←			
76		-76			

(69)

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~~SECURITY INFORMATION~~

114
20