the sufficiently strong the later and the second spratter at the way

- 2. Mes the help of maj allres and others, I me able to set attractes by 115 hours 15 April and arrived an Morrect of 1340 mours. By rivet yigh of the Mathilian had rounted up a G-54 alleredt, a grey of twelve men and written competent orders for dispatching place and orev to the other side of the world.
- 3. He departed Morrett MAS at 1545 hours and landed at Momette Island, Alaska at 2325 hours, 15 April 1959. Our next stop, after Amette, was Elpenders All Force Base, Anchorage, Alaska. Certain over matter changes were made and the plane made recty for the 2000 mile flight over Patrbanks, the ice pack, Resolute Bay, to Boile, Greenland, our ment refueling stop. Our stay at Dule lested eight hours. This long stop was decided by struckt mechanical failure; as engine oil acoler had to be replaced. I as happy to relate that this fallure occurred on
- A. I will digress here a moment to offer a "well done" to our alrerest. Flight Regimeer, 7/8gt M.G. McClvisky and Standardization Flight Engineer, 5/8gt B.M. Stendifer, for soing a very good job on the repair work in less than chairable conditions. The temperature was about mary degrees F, the wind speed about 15 anote; the simuret was outside, fating East at the Greenland icepark. I never dease to marval at the defication and loyalty which derives this effort, without desplaint, is such a hostile environment. I as sure that these men will not scon forget Thule and the 24 libure spent with ungloved haude and unprotected faces:
 - 5. Three choices are offered for a flight plan to Calo from Thule;
 - straight East over the ice cap and glaciers,
 - b. streight South over the foe cap and glaciers,
- C. straight Worth over the ice cap and placiers. The northern route was the wisning candidate because of less flight hazards. I am not sure what this manne -- to the uninitiated, like myself, any direction wasy from Thomas, relative to safety, is a very sober caper. Artic survival tosomes you "notite think about it"; it should perhaps be phrased, "A swan sone to oblivior" in the event of scuident.

VDEY- : IL cy // st a The state of the s

Manual Company of the Company of the

The following manifest of the property of the

The females of two best at the seasons of the relication

	4	. 1	-		11	4.	1	1			7.5			۷.						: 6		ં _			.,*	5	200	آنہ	4.0	- 1
١.	φ,	Ç.				Jan.	100	4						477		24	LC.	Z.	4		a //		111	10		17.	- 1	84	1	3
1		1		1	100	7.21	31			37	٠, F.			4 12			1	$\mathcal{L}_{\mathcal{L}}$	ΔF)	1	7.	2.		4.7		. 70				- :
3	Ω	3	\mathbf{a}	9.5		127		. 7 4	51.75			r				Že:	- 64		3	1		ů.						. V	5	6
Z		6	1	44	* 27 Fr		200	1		10	1		.	è k	***										- 1		27.5		- 51	
			10.60	77	ريهامو	3.0	2.0	7 7		300			定"	ak 4	5	.):		48.	No.	44.5		-			1					
	Ż.			34	4.4				11	i#:	(15)	11.0	971		e V	1	n.	200		, v.				Ţ	1500	# I			7	4
•	X.	1.1		Sec.			e de la	2.4	27.	4.4		4	Υ	Attri	26	e e	117	A .	1	27.0	1.1	ونقري		15.				Z. T.		3.
	ь.	4		``		3 1	43	13	3 .	4	: 1		البناة				32	: C:11				4.		240	110		: 17	C	4	n.
	A 11			". S	411	1.4	10	1.3	2.7	34		60	8	redi,	3 ,19	20.19	W.	-Air	34.7H	12	12.00	÷.					3	. <u>T</u>	120	7.
	ž.	27		3	ز. دروس	12	1	360	1		. 3	1								7 1	31			Y.	140 8			. Q .	5)	N.
	Ø,	ΥŢ		~ ;;		7.7				XX.			¥.,	W.	A.C.	\mathbf{T}^{n_j}	26.3	37		yá.,		À.		110	40	بنت	-	•		
	₩:	7-04	٠.	(*				20	12.04	75.1					, ,	44.			2	-		100	٠.		2 14		Ω1.			

The property of the property o

WEH-234

Line It etc.

The state of the s

- 4. "To Lighting price man be the Shares and so se
- A COMPANY AND ADDRESS OF THE PARTY OF THE PA estion; further, surveying termelie were later brought to the steerest southing to determine the engle.
- CONTRACTOR OF THE PROPERTY OF
- 17. Besults of the emplete operations in terms of Aircraft figure bins interest the following possible:

 - 0. Total hours flown -- 196 hours and 15 minutes b. Whil Moure search -- 124 hours and 35 minutes c. Total hallosyter time. 26 hours and 37 minutes

The time required to return to statute will be in satition to that reflect

100-21

It is the opinion of all non-smed that the Air Rescue Service and Catries att a splendid job. The coverage of the alleged langer t area was elatiarly to an artual resour mission and could not be more thought Terms and responsible friend the capethe to under the sace of the state of the sace of the the now in the area which the end alleged to have fallent the mas conducts. absending that best effort was more, but I was found were the

SIGNED

ROLLING, PRODE TR. CAP ALL HUSAR

- L. Airprett Les ent Suepat Sheets. 17 Apr. thro 22 Apr.
- 2. Sample briefing and
- dabriering shears 3., USAF Pilitage Chart 164/ahr
- D showing Search Area
- Search Arms by Coordings

Action Them Sor Many | Deals / Calai parts' a lie to ment a des of miscellaneous or the South Turing Station of mentants. THE RESERVE OF THE PARTY OF THE

ACKAT LOS AND SELECTION OF THE SELECTION

C-170	ATHORNY				THE					T.	
C-170 Fart lerigae : :007 1020 :720 1730 a-; 4:; 378 187 6. C-136 14. Bounds SC-54 14. Bounds SC-54 14. Cundiff 1020 :000 :000 :000 :000 f3 f1 SA-16 Lt. Cundiff 118 Strip	W.DOREN	177P.	FILM	E	ł	t	1	A SEL	A PANA	DE S	
C-170		•				. !					
C-136 Lt. Bounds. SC-54 Mad. Firegeral A 1020 13-6 (0040 0000 C-3 C-3 Lt. Candiffer 118 Stripe	36-05 3 6	0.1-0	"art leriga:	.00:	Ser.	Ş			ž		Very think true
30-54 Maj.Pitzgerala 1020 13-5 (040 0030 C-3 6-3 EN 34-15 Lt. Canadite	19-0461	×.7-0	Lt. Bounds	•			3		- -		E court of Flore
SA-16 Lt. Cubliffs 1000 10-5 000 0000 1-5 0-3 IN Strifts allege		3-5	i					. •	. 43	r r	Cantelled for fight
At any afternation of the state	51-715	24-16		1050	\$ \$\frac{\phi}{2} \text{.}	8	8		200	*	•
				et (·. •				Strike Liest at

IATE: 17 April 1959

	FILE		APP. PER	B	TO WAY	78	The second
	all part of	×	125. 15.7	2.3	The factor	A PARTY TA	
	•	i v		u ·	Months Ages	# F	:
	apac _e	<u></u>				2	
10.18	Ä	•					Ancelled to
			10 R	.•	**************************************	*	#.# +.5a.3.2.4
	Merella Legitor	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4				
· · · · · · · · · · · · · · · · · · ·		¢.	10. XX:	*	in a	5 6	A CONTRACTOR
30-16 Cand	•	•			*		
	L A	i. vicy		Ş	***	ţ.	
16 Art. 1:22	•	•		•••	·• ·		

	Per r	Ser les	Pitout 9		Borted		•
	5	007 00332	a	ğ	1		
\$ \$	\$ 8	4-10	278		V /	•	•
* \$	\$ 3	9.	37	•	14	•	
1138	•	*	9				
87	5 1016 2 1600	9000	00	8	}		
0090 0090 0012	okoo osss	1 2 3 3 3 3 3 3 3 3 3 3	0 0759				
N 8	8 8	8	8				
			•	•			
11		1	it agent	See ton	भ्रम	t d	
8 3		į	1 78		Lt. Cambirt		
8 8	878	# 3	* 1	K K S	84- 16	3	
~ 0		5			3 :		

•				
#/A #/A	Paris Care	11.8 S. 11.8 S. 11.8 S. 11.9 S	1	
			1036 2128 2139	
11.000		8 8	9	
		8 8		
			•	
8 8		<i>i</i>	3	
	3 3 3	\$ \$ \$	31-48	

The state of the s

egg sairi igia 11 \$ 11 7 7 i i 1615 2037 **S S** 0.71 000 000 27. 2008 2009 1730 8 8 111 3 3 3 * * * * * * *

3 2 3 2 2 2 2 3 3 3 3

A 100	10.0		1.00	- 4 Car 2	Annual Control	
		100	Maria I		,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
40.00	- 7	A SHOW	10.00		S DATE:	-4 - A 14 -
4500				S 17		4.3.25
		1. 14.5	3.0	2.5 (4) (4)		1.0
	-			1 Table 1	N. 14 1 1 1 1	

5 Y] (1	Mail Dames	A. 321.36	17-22	O				2	v. * 7.	100		3.5	
		ST 18		(2.50g)	1.78	A. S. C. S. C.		an an angelië (4.00 11	76 15		4.72	
76.5		1000		A 146-14			建		ACT ()	10.77	7.0		354
140		*	Control of	4.0	40.0		44.64		2	F. E	*	24	10
300	3	THE STREET	100		3. 1. 1.	1	ALC:		10	9. T			UE.
1	P. 165 (7.5)	4	**************************************	03200	A 10			S. 7		10 to	7.75	100	4.4
70					4.7	100	4/2-74	2.7	100	- 10 m	100	100	7 7-1 7
					A 2 84 7		200		0.44	1 1		.: II.	
* X *	1	4 TO S			34 ·			2.2 4.4		14.		27.1	45.4

ĸ.	435	223	2.2	75	1.00	16	œ	8.1	71	L'ébb		14.4	CN:	3.7	40	74.		-		٠,					7	3.5) ·	
ы	100	114	40	14.2	ĊΚ.	P T.	÷	7.5	40.7	144	ÌΩ.		è÷	44	- 7	XV:	-	34	Ž.,	Ζ1.	1.5	11	3.7	Œ,	. ¥.	44.4	7.5	4.1	
P	π_{C}			577			63		111		11	SE	æ.	ıΩ	dia.	1	TO	€.,	<i>!</i> *-4		Яρ	7	7.7	17	10	13	34	J.	1:
ч	-	154	.771	î٠.	1:00	90			J				ODP		20	33.5	42.	:Ni	20.	5.7	(E)	423		غان			ÍN	72	Я.
- 3	100	7	÷		77-					br in		7.7	71.	æ	6.50	77	78	\mathcal{P}_{I}	á.	4.5		ΔH	53		87.5		1	100	31
g.	413	li es		78-L		-20			100		5.5	-2		in.	105	14	34		100	\sim	3.5	- 1		ጉብ	17.	44	2.	γ_{i} +	1
-3	<i>7</i> %	15.5	4.8	77.	, a	2.5	100		14.9	7.0		1.0	E 1	55		Иγ	-					23		W.		:11	12	H	-17
		36	7.6	4/4		1	10	74.0	(*) is	777	1		2:1:		12.5	Mar.	6.0	×	Α.		: 11	26.	22	14		£#	30	Shi.	2

F.	150		4		4.2	204		Telesco.	10 m	125.5	100	-	200		100	23.5	1
ч	1.4		100		A 1	cide:	(1) V	0.00	9. (7			接下"1	. 463	4, 3	1.	16.15	-
Ľ,	100			21			X		16.7	407	4			24:6	1.0	风压	15
Z,			2117	e digital		68.5	X PE	1 400	20.5		发展		585	110.0			
t	av i		12.4			75	Par and	12.			74-75	A. C. Y.	7.7	有声 点	1	4	
¥	(3)×,	1	100		4.5	1	39.号		200	0.733	444.		12.3	1111	.157	统法	×

	4- 4535	7 THE W. P.		A SHAPE OF THE PARTY OF		A	1000 - N-100	J			
50.0	to the second	Marin Control	Z 1 M 2 1	41.4	C. Markey	Charles design	100	7	- Page 44	6.14	
ditto	a5€ls auch	7.0	774 × 4774		40.0		M-981.48+	1. 1. 2. 1. 22	12 A 14	- Table 1	
200		2 W W	10.00	17. 12. 18. 19.		4-1 % CA	4		· Property		
		100			0.43	722 60		STATE OF THE SECOND	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100	7
THE R		CC TO SE	对对"对"为"自由		CAT TOTAL	100	ALTER AND			1 1	ALC: Y
223	100	A SECTION AND ADDRESS.	75 July 10			100	C	22.23/2/		111	
130	200			540 54	THE NO.	1.346.63	THE THE PARTY	designation and		1.	
		100	0.00		J 64	() ()	A STATE OF	17.7	4.1	F	建筑原 河南東
33 5	-1200	100		APPENDED.	10 mg		100 100 100	FE 1-1-1-		J. 197 W.	The said of the

4.6.5				14 - 1 All - 1 All - 1	to Tradesia in the		1,000
19201	1	17.1		For 229,12	对人们是		100
100 M			2.0	A THE US	数据证据	17 m 3-1	44-1
	Secretary of the	and the same of the same		ASSET COL		1	D
1341	水色沙树 杂	A		Constitution (建设设施工程	《一种》	
				A Comment	27.5	200	111
** ******							400
77.20	Charles F.		A		A PAR	1 7 Car 12	130.30
			The state of the s	1404 7437		123.3	全国
N. Carlot	Circle Male	Albert W. S. P. Land	Janes Santa	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 2	* 14 TO 45 45	A

'n.	476		34.	1	17.	0.4		14.3	44.	122.7	40.00	36.0	-	-	1.0	7 14	1		1
4		1	10	14.			1.4	2011	1	1	1		1.00	17.1	100	4 .4	286	13	ķ
4	2.12	5.0	-	1	1.00				F. 17	144	10		- 6		1		114	7:	삒
2.	100		-	1			35.	7	,	10 40	577	r :		The C			77	'熟	ú
	1.0	4.4	. T.	400		12.75	7.77.11	7.7	7 11.5						- 5.		-		Ž.
	7	100	72	4	W.	1	17	\mathcal{A}_{i}						\mathbf{x}	1		347	di	ľ
ąτ	7 F.	rio Fi			12,20	71	ČO:	4.4	1		. 1	100		180		. 4	3	*	ŀ
ж	No.	13.7	Tit y		-			323-	V:×:	1.5	-,, 1	2.1.4	17.7		4		11.	454	٠

	200	record	illi.	4.00	4	et. v	Market &	6.	2.0			2.00			بهتبوه	-							٠.
12	334		- 39	100	4.5		3.	211 2	319	. 13.4	M.	1	7 77	14		- 3	W			- 23	3	40.	٢
×.	400		200	14.73	7. P	5.7.7	X:4	-			7 41		22		49.4	TO T							÷
и			28.4	100 0	447	1000	Щ. Ч	100	: T	11.5		A 13	100	-47		1	7	14.3	3.1		-37		Ľ.
					100	T IN	10 11	100	400	i i	TXA	111	44		117.0	t Til	W.	- K	·		3.	1:1	
٠,	200	x > 0	Hite:	100		44.7		1	200			-		714		77					244		•
		1.4		10.76	生4:2:	100	1	307			.34	1.5	- C 2	10		45	36.0	107		31.S	-	-	ř
	OM:	1	æ.	113	200	526.2		- ite.	-		137		4			200		#:	A STATE	::)	24		
72	5	10.00	S 2	2.0	14.5	1.	12.0		PS.	10.0	414		3.4	<i>9</i> 24	2.0		3.7	7.7	1.5	10	A.16		6
81		-			4.	146	16.7	6 . 7.	3.3	1	8 22	120		3 74		1977 3			- 7	H.	49		ij
Ų,	e su	100		7.4		SIA: C			-	400 D	100	1.3.		. 3	-	1	7.7.	100	. 124	£Υ	13	7.54	

Ø\$	1.6		: (a)	197	74					101	100	e de l	-	20.	X75.	34.	1.3.		3.4	27	*	7.	1	4 150	T.	130	
¥	۸T			201	1	44.05		200	3.7	£.		43	SE.	2.4	i ii	1	100	Ψ.	10.		7	1 1	27.5	1.27	1	V.J.	-
Ť	43	Ю.	38	WE	0.00	3.7			10 P.	WAR.	X.	1.3		410	6 7		7				75		1		374	70	10.1
$\frac{1}{2}$	15/1	Ж,						60		7.7°			1			Ē.	2.7		1	ंत			2	17	74		111
12	17	77	33	12		0.00		7.3	4.3			10.	3	1		11,774		1.7	347	-	46	بيو	1	4.7	$\pm i$	3	
1	4			14	1	6.0	100		, 127	12. 3.	14	123	$S_{i,j}$	513	Ž/1 %	- 4	14	4 14	4.		17	10	1 = 1	1994		7	
Ų,		13	430	100	.÷°				7.	1	XXX	έ'n	40	1	14.5	7	1	3	1	* .	3.7		17		1	\sim	167
- 4		3	100		7		44	34	7 Y	4	AXX			4.4	\$13.		A-3		77.5	12	3			X.	77	14	1 . I
1	3.2	色	23			W		1		43			7.1		20	72.0	2 1	1	100			-ing	77	- 74			Ť.
÷		4.5	112		77.5		7.35	6	264	77.	1	4%,		100	4	***	. .	٦.1	7	. 3	17.3		200	3	-73	126.	###

· · · · · · · · · · · · · · · · · · ·	18 15 13 172-54 17 78 08 18 18 18 18 18 18 18 18 18 18 18 18 18	
	78-05 77-52 N 77-51	
	8-05 1 14 70 A 70 70 70 70 70 70 70 70 70 70 70 70 70	
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	15-30 F-1/2-17	
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.00-	7
77.02	2-99 1 1446 1 4 1 15-50 H	
16-00 F B F	7.60 14.40 14.15	A
In a second		
en la	5-350 - 12-40 - 12-43	
t in the second of	12 14 76 4 15 6	
1.25 E	250 17.45 2 77.52 15.35	
14.35	2.54 2.18 77:11 4 78:15 7.00 11:15 5 1840	
14-50 6	2500 7 703 6-50 7 700 E 12-50	
16-00 5	1:00; \$19.78.09 * 78.15 1:00; 15.00; 1 15-34	
16 CO A THE !	20 55 1 75 03 1 2 75 07 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	
	1 20 77 you 77 75 #	X
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	为五十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二	
	23 77-33	
E-12 77 55 6 EM		
74.22 美量学	-00	
	- Sec 71-18 6 78 78 78 78 78 78 78 78 78 78 78 78 78	
wat The Edward	74.00 6 73.7	1,

P Y

023863

1012991

E006

GO3

PPOJWX88

2212142 DE RJEZHQ 363 FM HQUSAF

22 Dec 1959

TO PJZFFARDC ANDREWS AFB MD

INFO RJUZBK/AFBMD LOS ANGELES CALIF

RJNXBR/SAC OFFUTT AFB NEBR

RJ DSQ/AMC WRIGHT PATTERSON AFB OHIO

RJWFAL/ADC ENT AFB COLO

SECRET//FROM AFDAT 93212

THIS MESSAGE IN THREE PARTS. PART I. FOLLOWING GUIDANCE IS BEING

PROVIDED FROM AFBMC MEETINGS 14 AND 17 DECEMBER ON DISCOVERER, SAMOS

AND MIDAS PROGRAMS: (1) THE CURRENT STATUS OF FY 60 AND 61 FUNDS

ARE IN MILLIONS:

RDT&E FUNDS:

FY 60

FY 61

DISCOVEREFR

SAMOS

159.50

MIDAS

46.90

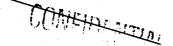
81.0

DOWNGRADED AT 12 YEAR INTERVALS: NOT AUTOMATICALLY **DECLASSIFIED. DOD DIR 5200.10**

CLASSIFICATION CHANGED TO







PAGE TWO RJEZHQ 365

MCP FUNDS:

FY 60

FY 61

SAMOS

30.8

MIDAS

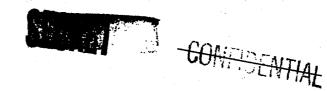
12.8

11.0

FUNDS FLEXIBILITY AS BETWEEN SYSTEMS IS AUTHORIZED WITHIN APPROPRIATIONS. (2) ANY FUNDS REQUIRED IN EXCESS OF THE ABOVE AMOUNTS MUST BE OBTAINED BY INTERNAL AIR FORCE REPROGRAMMING ACTION. THESE REQUIRED ADDITIONAL FUNDS SHOULD BE DIRECTLY IDENTIFIED WITH THE R&D TASKS WHICH THEY BUY. (3) DISCOVERER PROGRAM SHOULD PROCEED ESSENTIALLY AS NOW PLANNED (29 SHOTS). (4) MIDAS PROGRAM SHOULD PLACE HEAVY EMPHASIS ON RELIABILITY. (5) SAMOS PROGRAM SHOULD EMPHASIZE PHOTO OVER FERRET AND SHOULD PRESS FOR EARLIEST FLIGHT DEMONSTRATION OF BOTH READOUT AND RECOVERY, WITH PREFERENTIAL EMPHASIS ON RECOVERY. DEVELOPMENT OF BASIC PAYLOADS AND BASIC R&D EQUIPMENT SHOULD NOT BE COMPROMISED. NECESSARY COMPROMISES SHOULD BE MADE BY REDUCING THE SOPHISTICATION AND SCOPE OF THE PLANNED OPERATIONAL PHASE OF THE PROGRAM SUCH AS REDUCTION IN T&A STATIONS, DATA LINKS, AND SUBSYSTEM I. PLANNED FIRING SCHEDULES FOR PHOTO RECOVERY AND READOUT SHOULD BE MAINTAINED TO THE DEGREE POSSIBLE WITHIN THIS REDUCED SCOPE, AND PROGRAMMING RATE OF FULL OPERATIONAL GROUND EQUIPMENTS SHOULD BE



CONFIDENTIAL



PAGE THREE RJEZHQ 365

REDUCED. FIRST LAUNCHINGS FOR RESULTS SHOULD BE CALLED DEVELOPMENT/OPERATIONAL PHASE RATHER THAN OPERATIONAL PHASE.

PART II. WITHIN THIS GENERAL GUIDANCE ARDC IS DIRECTED TO PREPARE REVISED DEVELOPMENT PLANS FOR THESE PROGRAMS, AND TO MAKE APPROPRIATE DOWNWARD ADJUSTMENTS TO THE EXISTING FUNDING RATE IN ACCORDANCE WITH AFBMC DISCUSSIONS PENDING REVIEW AND APPROVAL OF THE RESULTING DEVELOPMENT PLANS BY THE AFBMC.

PART III. ADVISE THIS HEADQUARTERS ASAP THE EARLIEST DATE THAT AFEMD CAN BRIEF AIR STAFF FOR PURPOSE OF POSSIBLE INTERNAL REPROGRAMMING TO INCREASE PRESENTLY AVAILABLE FUNDS PRIOR TO NEXT AFEMC MEETING ON THESE PROGRAMS. ANY NECESSARY CHANGE TO SCHEDULE IN AFDAT MESSAGE 95614, DATED 7 DECEMBER, WILL BE UNDERTAKEN AFTER YOUR REPLY.

BT

21/2143Z DEC RJEZHQ



OFFICE OF INFORMATION

TEL. ORCHARD 0-1444, SPRING 6-1444

EXT. 1149 - 2261 - 2269

NEWS RELEASE

RELEASED 1720 16 Dec 61

DISCOVERER 36

Three Air Force pararescuemen of the 76th Air Rescue Squadron,
Hickam AFB, Hawaii, parachuted into the Pacific Ocean near the Hawaiian
Islands at 4:14 PM PST to recover the capsule of Discoverer 36 which
landed in the water earlier this afternoon.

First to jump was SSgt Leote V. Vigare, 30, of North Hollywood, California, followed immediately by SSgt Ray E. McClure, 31, Mt Sterling, Kentucky, and TSgt Myran Shepherd, 33, also of North Hollywood, California.

The airmen inflated rubber rafts and secured the capsule aboard for safe keeping. They are awaiting the arrival of the Navy Destroyer Escort U.S.S. Renshaw which will take the men and the capsule back to Hawaii. The Renshaw should reach Hawaii sometime early Sunday morning.

A new record in space travel was established today when the instrumented capsule of Discoverer 36 returned to earth near the Hawaiian Islands. The event marked the completion of a trip of 1,682,672 miles, the greatest round-trip distance ever travelled by a spacecraft. Total time from launch to impact was 98 hours and 29 minutes.

- 30 -

Objerna 36

OFFICE OF THE DEPUTY COMMANDER, AFSC FOR AEROSPACE SYSTEMS AIR FORCE UNIT POST OFFICE LOS ANGELES 45 CALIFORNIA

OFFICE OF INFORMATION

TEL. ORCHARD 0-1444, SPRING 6-1444

EXT. 1149 - 2261 - 2269

NEWS RELEASE

(This is to follow usual lead giving details of recovery)

The capsule contained a device to measure the time history of radiation; an experiment to determine the radiation shielding properties of various materials; a School of Aviation Medicine biopack containing human and animal tiesues, spores, molds and algae; nuclear track plating; dozimeters and samples of silicon, bismuth, magnesium, gold, titanium and nickel.

Still aboard the orbiting agena is a payload of radiation-measuring instruments flown in support of the VELA HOTEL program sponsored by the Advance Research Project Agency of the DOD. The purpose of the program is to develop the state of technology for detecting nuclear explosions in space using satellite-borne detectors. The results of the experiments will be used in the design of subsequent VELA HOTEL experimental instrumentation.

In addition to the VELA HOTEL package, the orbiting agena is carrying cosmic ray monitors, an impedance probe and a radio propagation experiment for the University of Illinois; operating on frequencies of 20.005 and 40 megacycles.

The project OSCAR amateur radio experiment was ejected from the Discoverer shortly after it achieved orbit, and the OSCAR Association reports that its signals have been received from a number of amateur operators throughout the world.

NEWS RELEASE PLEASE NOTE DATE



DEPARTMENT OF DEFENSE OFFICE OF PUBLIC AFFAIRS Washington 25, D. C.

FOR THE PRESS

December 13, 1961

MO 1445-61 OXford 75131

The following information was released December 12, at Vandenberg AFB, California, concerning the launch and orbit of DISCOVERER XXXVI:

DISCOVERER XXXVI was successfully launched by the Air Force at 3:41 P.M. (EST) today from Vandenberg AFB, California.

The vehicle consists of the Douglas THOR IRBM as the booster or first stage and the AGENA, a second stage produced by the Lockheed Aircraft Corporation.

The Air Force DISCOVERER XXXVI satellite, weighing approximately 2,100 pounds, is now in orbit, according to reports received from tracking stations.

The orbital period is approximately 91 minutes; apogee is approximately 267 nautical miles and perigee is approximately 121 nautical miles.

The OSCAR amateur radio experiment package, carried on a space available basis on the AGENA, was separated as planned and is transmitting.

END

NEWS RELEASE PLEASE NOTE DATE



DEPARTMENT OF DEFENSE OFFICE OF PUBLIC AFFAIRS Washington 25 D. C

HOLD FOR RELEASE UNTIL LAUNCH

NO. 1426-61 OXford 75131

FACT SHEET
DISCOVERER XXXVI

CONFIGURATION:

Standard DISCOVERER THOR-AGENA B

DEC 1 2 1961

FIRST STAGE:

Air Force THOR Space Vehicle (DM-21)

SECOND STAGE:

Standard DISCOVERER AGENA B

TEST OBJECTIVES:

To further develop and test various space vehicle components and to improve the reliability of the basic AGENA vehicle and the recovery system.

DISCOVERER XXXVI will carry the OSCAR amateur radio experiment. The OSCAR package will be separated from the AGENA after injection into orbit has been achieved. The OSCAR transmitter continuously broadcasts four dots followed by two dots at a frequency of 145 megacycles. The signals will be used by thousands of the world's amateur operators to make Doppler recordings, signal strength and orbital determinations and conduct various receiver experiments. In addition, the signal dot spacing will indicate the package internal temperature. The battery powered radio beacon is expected to run down in approximately three weeks.

A University of Illinois radio propagation experiment, consisting of a 100 milliwatt transmitter operating on frequencies of 20.005 and 40 megacycles will again be carried on this vehicle. This is an experiment to study radio wave propagation in the upper atmosphere.

RECOVERY:

DISCOVERER XXXVI is scheduled to eject its capsule in from one to four days after launch.

END



Ltr, WDGEH, Subject: AFEMD Chronology - Calendar Year 1929

lst Ind (WDZP/Maj Ford/1316)

MAR 4

TO: WDGEH

The following space items are recommended for insertion in the Air Force Ballistic Missile Division Chronology for calendar year 1959:

- By ARPA Order 38-59, Amendment No. 3, Phase I of the MIDAS 16 Apr 59 Development Plan (FY 59 \$20.2M) was approved. Program objective strongly reoriented to give priority to quantitative scientific and engineering data, with objective to predict success or failure of an operational alarm system, improvement and design.
- 1 May 59 AFEMD submitted DISCOVERER Development Plan dated 30 April to Mr. Malcolm A. MacIntyre, Under Secretary of the Air Force. Major change over earlier 1 January plan was addition of ten flights, making a total of 25 flights.
- 8 May 59 Mr. M. A. MacIntyre, Under Secretary of the Air Force, requested that the Secretary of Defense disignate the Air Force as service responsible for operational employment and utilization of the MIDAS system.
- 20 May 59 Amendment No. 4, ARPA Order 48-59 approved DISCOVERER Development and Funding plan dated 30 April 1959, on the A5-Wahiele program. Funds were increased from
- 15 Aug 59 OSD ARPA Msg, DEF 963871, estabilshed 10 flight MIDAS R&D program with FY 60 ceiling of \$46.9 million.
- 20 Oct 59 ARDC mag, RDRRB-20-10-1-E, quotes Memo from Sec of AF to Chief of Staff, 13 Oct 59, directing that all SAMOS/MIDAS and DISCOVERER actions be handled in AFBMC framework.

Merrin ROBERT W. HOFFMAN

Colonel, USAF

Director of Programming

Deputy Commander, Space Programs

1 Atch n/c

CLASSIFICATION OF THIS DOCUMENT WILL BE LOWN COULD TO LINE UPON REMOVAL OF ENCLOSURES



DEPARTMENT OF THE AIR FORCE HEADQUARTERS SPACE AND MISSILE SYSTEMS ORGANIZATION (AFSC) AF UNIT FOST OFFICE, LOS ANGECES, CALIFORNIA 90045



REPLY TO ATTN OF: SMEH

2 November 1967

susject: Questions reference Discoverer

To: Dr. Don McVeigh (SCEH)

1. Q. When did Discoverer network become operational? A. Not all at once. A primitive, by current standards, command-tracking network included Hawaii, Vandenberg AFB and a Development Control Center located in Lockheed Missiles and Space Division's Scientific Research Laboratory at Palo Alto, California, which was put together in time to command the first eight Discoverer launches beginning with the first one launched on 28 February 1959. A larger Satellite Control Center possessing advanced equipment and increased capacity took over flight operations on 4 February 1960, the date of the 9th Discoverer launch. The network later included tracking stations at Vandenberg AFB and Point Mugu, California; Kodiak, Alaska; New Boston, New Hampshire; and Kaena Point; Hawaii.

ille.

- 2. Q. Was there a computation center associated with the Discoverer network?

 A. Yes-as noted above the main computation center was located in the Development Control Center and later the Satellite Control Center, located at Sunnyvale, California, adjacent to the Lockheed Missiles and Space Division complex on land Lockheed donated to the government on 11 November 1959. Iaunch-flight computations and related data were, of course, processed by computers at Vandenberg AFB. But command and control of Discoverer satellites, primarily a computation and data reduction function, was performed at the Satellite Control Center through the use of a CDC 1604 computer at Sunnyvale.
- 3. Q. What sort of communications network was employed for the Discoverer network? A. Discoverer communications facilities were continually improved during the life of the program. During flights men in the Sunnyvale control room were not in direct electronic contact with the satellites. Controllers commanded the tracking and acquisition stations to make contact. Voice lines ran to all stations in addition to teletype. As the system's capacity increased it included voice lines, voice with alternate 100 words per minute (wpm) teletype, 100 wpm teletype, 60 wpm teletype, single side band radio, and high frequency radio. An additional link was run to the then Air Force Ballistic Missile Division (later Space Systems Division) Space Activities Information Center at Inglewood, California, from Sunnyvale.
- 4. Sources for the above information: FACT Sheet, Satellite Test Center, 6594th Test Wing (Satellite), Sunnyvale, California, Circa 1960; and News Release, Office of the Deputy Commander, AFSC, for Aerospace Systems, Los Angeles, Circa 1961.

ROBERT F. PEPER

Chief, SAMSO Historical Division

Ltr, WDGEH, 29 Jun 60, AFBMD Chronology for First Half of CY 1960

1st Ind (WDZYD/Maj R. R. Moore/2914)

TO: WDGEH

JUL 18 1960

- 1. A complete history of the Discoverer Satellite System from 1 January to 30 June 1960 can be obtained from the "Summary of AFBMD Activities in Space". This report contains the important accomplishments and milestones achieved, program actions and changes, launches, etc. for the above period.
- 2. During this time there were no new or cancelled programs, no major policy changes, no mission or organization changes and no major key personnel changes.
- 3. The funding changes for Discoverer are as follows:

USAF message AFABF and AFDDP 73993 "Cat AC" received <u>27 Feb 60 provided</u> 5 million dollars to initiate procurement of 4 additional Agena vehicles and boosters. This increased the Discoverer Program from twenty-nine to thirty-three launches.

C. L. BATTLE

Colonel, USAF

DISCOVERER Satellite Systems

COLOED AT 3 YEAR INTERVALS USCLAGSIFIED AFTER 12 YEARS. DOD' DIR 5200.10

i may and 9 per

Pallouing Systalic, to survey to be t as to afforts and seconders required to a course the 25 and 25 M, an estimate was m WE 1171. AND pointed out that a la of funds would be needed to regula lost time : to fund strictures and lack of fire program proval. With \$99.500 PT 18 and \$1.21.70 FT 59 funds progress could be advanced it assists to coyear if priority is given effort.

January 1958

liffi mikalthod a progrem asselerative plan for Will? (Lieth-19132) as requested by 300 in Nov 17. Based on Mich-buosted marky flight with a successsale especie on proposed by NATO. Flights to begin in late 1958. Increase assufactors of Dilly vehicles. AllAl-booted flights to begin in early 1959. General Schriever aggrered in principle, subject to review of special areas.

Man for Record, aphil: Betab-Lishmant of TEOH-boost of Force of WillyL at 8 Il also 35 ber Col Offer

* 22 January 1958

Program acceleration plan submitted. Flea included a photographic recumulanames suclimies tion of a 1904-bussed respressible resonatesante peckage.

Margarent & Boyort A. (June to System Detailingment Plan **MI 1177.**

3 Pobresty 1958

President Dright D. Risenbewer directed tint highest and equal national priority be given to ballistic mission, satelliton and defense progress. (ICDH, 1984, HELLYL, MINEAA)

of Talkette with \$15 Count And, Ather-Age 7 34W.

24 Pohrunry 1958

Secretary of Defense Reil McElscy engraved in principle the proposed anceleration of Willy. to be conducted under direction of ARPA. His to minuit a development plan.

Mand for AP, midding Inton 1832. Program: Contract accesses gangers Uin of Dist. 24 Fob 🛒

Sti Petruary 1958

Mr. Roy Johansin, ARTA, 10 mans to the Gen/Ar condinged that:

Stranger Hauce Sate

a. ATLAN/MILYL Project should be accelerated and given highest national priority is order to attain IOO at earliest date.

b. THOR-brosted interim recommissence system with light weight recoverable expense was a daplication of h. Do not parses.

Libra und Hanned Open telegraphism of the conand of that, dea si in W. /s/Roy L. Johns. Mr. Aut

thus fur sit, subje

d. To attain outly flights of Lockhest second stage, AF any find it dontroble to use TENA-boosted test Firings. THOR-bornted escent and available source than ATLAS, also can be week with accord sings inchined methods for aspert mental recovery filther with animals.

338H-13

Activety in intents visual phenometers program (IIA) tendented in constance with its

4 March 1950

CED approved eventoretion of MS 1172 to include limiteding establish test rubiales bound on TRAN booster.

Minches of little meroing of All Bellistic Mostle Countton, li-Mar 50, lFCRC Cout #551849

12 Mayet, 1956

Laddhard notified that he WAP had disapproved the We 117L recoverable reconnectedness perford program. (WE 117L Program LIA). IMED notified to recrient Divis-bourter his Littl Program for sometime mateg Divis-termined flights for early his littl hands — ordered flights for entraine of ground-agram normalization entraint, compare for manufacture appears normalization extends.

THE, METE BALL IT. Country AFTER SA LINED, LE May 90

19 May 1958

Cogniscent over His Life, analysed to Alth.

Maretine He. 1200.5 did 19 bing 55

30 Jane 1956

ARPA Coder 9-13 Leaved. Accommond the Def and approved the assemption of responsibility for the Advanced Anomalian to Applie (WE 1171) to ARPA. BED to continue the project: to minit a detailed development and figuratial plan to ARPA 122.72 made evaluable initially.

After Grove Doffie Denn Logic

1 July 1958

APMO Advanced Referentiaments System (ME 1171.)

"Here Revision" Development Flow published. Fond— ment Plant, 1 Paly 50 ing program FT 25, 460M; FT 59, 641M, labor seviced to FT 58, 467M; FT 59, 645Mt. Flow contained both THES-bonated version for component toro and demonstration of orbital cognitality, and ATLAS-bonated resonant penason program.

July 1938

Initial arrangements made by DND to expende a unit ANDC Germent Order in capable of equial recovery to 1171 especies. 9/ Cliff algority to be used. "derial durish" called Frances for Bank. Alrevest to come from SAC, 69934 Test Equation (Special) metivated by ANDC 00 13, effective 1 Aug 10. Unit to be based at Eleben AFR.

90 July 1956

Remeter APPA, informed for Air Porce \$21% was programmed for WB 1176 in FT 59. \$30.78 evallable to MMD. Belance subject to Congruencemal metion, BCB apportionment. Notal included biomedical project. BKD informally requested to

New for the of the mbj: ATA Pleak Yes: 1995-1959 belget, std 11 July 1956



an July 1930

ANNO 00 36 designment and impendent 69936 That Squadown (Special). (In place of AFFET for training, Ang-Dec 16, there to Michan AND, Breakle) Squadown nonligeof to Dat 18, ANDI, AFFER, for administrative and operational control.

MOE OD 35

6 August 1958

Procurement of long lead time items enthorised. 2008-98 1177. which procurement increased an additional 9 ever the 10 enthorised to a total of 19. Intent to whiles these for bio-medical and other necessaries of opens phenomen. Proper new development plus board on \$21,76 FT 59 AFFA Progress.

CHARDO APORE SALGI CHARDO APORE SALGI CHA G AUG 5d

15 Sep 1958

AFMID published Advanced Reconnelations drybon (ME 1171.) Servicement Floor, Contained both TRUE and ATAS-becated phones of program. Finding program, FY 59, \$231M; FY 60, \$890M. Floor in profession this interpretable and emphasishery in Cotail.

ANS(NS 1171) Developmark Flan, 15 Sep 58

25 Sep 1938

Mirestor, AMPA informed AMP he was not able to approve derivate AMPERS hivelepant Flow. Benesias FS 39 finding plan accorde celling of AMPA and evenests of major program objectives have been substantially delayed in epite of proposed funding level increases; FY 60 bedget in in enems of a sensidered realistic funding level. AMPA evaling as Al Nos Project Group out to investigate, evaluate and recommend as APPA AMPERS and follow-on program. (Canaso, Lind, Ervine, Truss)

Mose for Gondr, 200, ARDC, fr. AdPA, subji ARMA Ad live up on Project Similis and Pollor on Protein, and 25 Sep 26

85 New 1958

AND directed to eliminate two of the small primate shots from the <u>NACOVER</u> test series. Two seems, one small primate shot are entherized. The two consulted small primate beautous are to be resoulded.

her so Condr Albi five And, did 25 Nov 55 /a/ R.V.Johnson

4 December 1958

Mr. May V. Jukassa, Director, APA, informed the Moder Secretary of the Air Force that a progress to develop a meeter of system and techniques which will be exployed in the opposition of system which will be exployed in the opposition of system vehicles had been interpretated. This progress, to be known as DIRCOTERN, was to include 1908 ignoring associated with Wi LAM, plus other similar

News for SAF, emblets 1176 Program, ARPA, 418 & Bay 50; Samo Rpt for Streeter ARPA fr 030, 516 1 Inc. 50

DECLASSIFIED AFTER 12 YEARS.

DOD DIR 5200.10

SOMFIDENTIAL

T) FX 79, 40 "for t to Albi

until final disertives are detain tive "employs" for the program will be on

Mr. May V. Johannus, Marestor, APPA, Lafusand W Secretary of the Air Perce that recylementation of the DECOVERN and SUITE Programs were proposed, and a study and review until be made. For this serior, AF was to assure that the sale in FT 50. AFT most throng through the property of the p with weathpourvier. In exists these capcellations with contemplated, up procurements beyond those abcaladely accepancy should be said

Home for Contar SAF, and J. Diskipping - Takes Project out service Program, ARPA, dated. 5 Doz 50

r 1955

Mr. A. V. Johnson revised his 23 Nov 58 Letter concerning biomedical particula for Discovered Program now to provide for one measurable priande recovery, up to a total of 3 attempts should be planned, with 2 additional attempts, if necesouty and declared to be in lies of payings in the derice of 13 flight vehicles.

THE IT ORD to Comer MING MEP 354003 dated 7 Doe 55

the bodystod AP and AUTA on the 1175 poortentertion in man mae to 3-5 Becamber AMIA Electives. attenues unigne promete lettle olan mi otions.

1938

JUA finder 46-59 to See AF. Regiseted See AF to continue study, accompant, not lound operathous originally conserved with the MIR phone of Market Program woder Airk Order 9-50, as an me project jentified as mangoverne-room ejost. Frepare a new financial plea by 15

AREA Greer 45-20

Mr. B. W. Johnson, Riverton ARM, receivate Shenky Progress. The successful included PI to funde included the 13 221get BIRCOVINSE program of Calendar Year 1059.

Man for the Under SAF malija Beroskspratices of SERVET Progress, JESA, and 17 Dog 15



CONCIDENT The state of the s

Po Summery 1970 - Print State State

My Unit - ARRY and ARRA bylofed on REPROVERING, SENSEL and CARDINE, Development Flows. The proposed Cardines, Progress was sureved from Surther consideration.

Associated So. 1 to ASTA Order 4td 16 July, No. 48-59 Amend No. 1 to ASTA approved, "in general" the DIRECTION Program on Order 46-59 presented to the ASTA on 4 July 59. The approval outhorized a 13 vehicle program and node problems.

AMPA Order 60-39 makes available \$1.12 to defray the cost of modification and operation of the democracy telescopy thip, Fvi Jon R. Hem, then 30 Jun 35. The enter encourses that affective I Jul 39 operational and funding responsibility for the ship will be transferred to the Pacific Minetic Range.

Discovers I (163-1082) suppostedly launched.

the development and fraction plan, and 30 Jun 30 for the Milke Man Property. The appeared provides

PERSONNEL II (170-1015) associately launched from WARE at 1516E bears. PERSONNEL II was successfully placed in orbit.

CONFIDENTIAL

APPA CONSESS 60-59

Order Mi-10.



× 13 April 1979

adel

Contract of

25 Jul 59 Amendment No. 6 to ANNA Coder be 40 desire 20 July 1959 instrument the Disservator Freques to a 15 vehicle series from a 15 vehicle series.

17 Nov 59

The Discoverer program was transferred from ARPA to USAF cognitions. Meno for Secair From Gates, Jury, Transfer OF Discoverer Procedum to Duft of AF. 17Nous?

2 New 59 Two new Development plans were proposed due to termedor of Discoverer program from ARM to MAF. The Street plan detect 1 too 59 descripted a 59 vehicle program. (AFBAT 1390/99)

15 Day 59 Second Devalopment plan was proposed providing for a 22 vehicle progress (April 1306/36) based on possible tend limits.

14-15 her 59 heterings to by user on the two Development Plane.

23 300 99 By UNIT applicant of 29 register plan as a reduced supplied to the second states of 29 to 191.

15 Jan 60 Nor development plan which restaurant changes desired by My 1867 was proposed for a 25 vehicle progress.

S ron 60 and 100 and 2.

17 Pals 60 15 Jan 60 Development price maintained fine Call. (AFDAN 66936) -

27 Feb 60 He HEAF approval of 15 Jun 65 plan - included funding for 12 Additional Show/Bincoverse and Star Agent vehicles (AFARF and AFARF Mag 73093), totaling 33 final Riscoverse vehicles.

14 Mar 60 Action by Affect to browning & additional Agree vehicles in accordance with #7 Pub 10 memorys.

25 Apr 60 DER and R Approved 15 Top 40 plan in principal. (AFRET.AT letter to less subj. Replythation of Initial Sense Data
dated 1 Jun 60.)

20 Jul 60 Dispurpose program acted by Mg may to primit provided 15 Jan 66 Development plan to reflect an increase from 29 vehicles to 37 vehicles, including two Dispurpose Mt Investors for Midne program. (APRID-AN 70037 Setest SO Jul 60) Yested instructions from ARREST upon received to include in seviales on increase to 51 vehicles rether than 37.

Aug 60 Action by AFMS to preserve four additional Agence retinine to 14 total 37 Minorporter relation. (AFMS-AS 70634) Eq. ARCC informed of this action by WEED Manage cite MEED 3-8-34 dated 4 Aug 60.

WDZYD 154

1 19

CONFIDENTIAL

these type meetings had not been convened. Decision was made to provide one heavy skinned booster anticipating that the wind tunnel program might prove it a requirement for the next launch. At the same time the decision was also made to beef-up the MAC Adapter for the next launch.

26 Sep 60

Atlas Booster 77D scheduled to support the MA-3 launch was accepted at Convair Astronautics, San Diego, as the culmination of the Factory Roll-Out Inspection effort for that booster.

11 Oct 60

Message received by AFRAD from Hq USAF, thru ARDC, informing of the forthcoming investigation of the Mercury program by the House Committee on Science and Astronautics, (Brooks' Committee).

Oct & Nov 60

Investigations continued throughout this period to determine the cause of the MA-1 malfunction and initiate the necessary fixes prior to the launch of MA-2.

16 Nov 60

NASA Space Task Group concurred with recommendations of AFPMD/Aerospace/SFL/CV-A to proceed with the launch of MA-2, with re-inforced adapter, production capsule with escape tower installed and the existing thin skin booster (67D). Recommendations were made after analysis was completed on the 1/3 scale wind tunnel test on Mercury vehicle front and assembly. Tests showed satisfactory margin of safety for gross bending moment loads on both the MA-1 and MA-2 configurations. Wind tunnel test also identified localized stresses, however, techniques do not exist that will allow conclusive analysis of their effects. Because of the pressurized condition of the Atlas these stresses were not believed to present a problem.



Sally, amy & mol, three Coase miles made page store on RVI-2A news, come atop attimes into miles into rockett 650 miles into page pictured for my harmand impact plungs with miles miles into aniquest plungs with miles miles iniquest areas, our see miles iniquesticange areas, our see miles iniquesticange.

Crant JEUNE

DISCOVERER PROGRAM CHRONOLOGY

July 56	WS117L Development plan approved.
Aug 56 .	Development Directive No. 85
10 Dec 56	Funds increased to
6 Nar 57	Slow down ordered 77 57 funds available.
16 Sep 57	Air Council approval. use unt ad of
10 Oct 57	Sec of Air Force approval.
15 Oct 57	Times authorized. we but add
19 Oct 57	Ordered to limit obligations to through Jan 58.
23 Jun 58	Chief of Staff approved WS117L program acceleration.
28 Feb 58	ARPA recommended Thor boosted program for engineering testing:
4 Mar 58	Recoverable (biomedical) capsule capability added to Thor program.
Hay 58	-WELLTL assigned to ARPA.
Jun 58	ARPA order 9-58 issued management available Funds increased to purchase 4 Agens vehicles.
Jul 58	The state of the s
Aug 58	
5 Aug 58	.9 additional Thor shots authorized for total of 19.
25 Aug 58	ARPA order 9-58 fund increased to
25 Sep 58	ARPA order 9-58 fund increased to
29 Sep 58	Responsibility for ARPA order No. 9-58 transferred from AFRIC to ARDC.
1 Nov 58	APMIC Atlas launches cancelled.
25 Nov 58	DCS/D suthorized 58 p 244 funds for WS117L.
	ARPA directed ARDC to fly 2 mouse and one small primate shots
4 Dec 58	In the Thor boosted program.
	PY 60 Program separated from WELLTL funding PY 50
	DOWNGRADED AT 3 YEAR INTERVALS
	DECLASSIFIED AFTER 12 YEARS. DOD DIR 5200.10
	SS2D7-621



ARPA directed up to 3 attempts be made to

\$\squall primate.

Responsibility for ARPA order 9-58 transferred from ARDO to Secretary of the Air Force.

ARPA order/48-59 confirmed separation of Discoverer from WS117L

21 Jan 59

First Discoverer launch attempt. Damage experienced due to premature firing of Ullage rockets.

28 Feb 59 Discoverer I successfully launched on polar orbit. shot.

2 Har 59

Amendment No. 1 to ARPA Order 38-59 approved, subject to review, Phase I only of the MIDAS program and increased available funds under the order from Instructions were given to AFBHD to submit plan for the procurement of ATLAS boosters and space vehicles for Phases II and III, long lead time items

24 Mar 59

Amendment No. 2 to ARPA Order 48-59 approved the development and funding plan deted 30 Jan 1959 for the DISCOVERER Program. The approval provided for a 13-vehicle program.

Discoverer II launched orbital timer proble Capsule requered over Spitzbergen

1 May 59.

AFEND submitted DISCOVERER Development Flan dated 30 April to Mr. Malcolm A. MacIntyre, Under Secretary of the Air Force. Major change over earlier 1 January plan was addition of ten flights, making a total of 25 flights.

DOWNGRADED AT 3 YEAR INTERVALS DECLASSIFIED AFTER 12 YEARS. DOD DIR 5200.10

FLORE



COMPRESSION OF THE PARTY OF THE

18 May 59 AFBMD informed by AFDAT that WS 117L had been removed from Master Urgency List, and DISCOVERER and SERVERY put on it:

with DX ratings. Action was underway to obtain (from MSC or MASC) a DX rating for MIDAS. AF priority for all three programs remained as 1-A with 1-1 precedence.

20 May 59 Amendment was

Amendment No. 4, ARPA Order 48-59 approved DISCOVERER

Development and Funding Plan dated 30 April 1959, on the

25-vehicle program. Funds were increased from

Discoverer III launched. No orbit due to insufficient velocity.

AFRED was informed that ARPA had laid down ground rules

for the initial PY 1960 budget determination. These veres

SEMPRY \$135.M, with SEMPRY recovery program (\$25M) to be

deferred pending review; DISCOVERER, for extension

and completion of the series; MIDAS \$18.M ARPA funds,

with assumption Air Force will fund \$28.9M when Phase II

was approved. No increments to the above funds were avail
able. AFBAD was to submit revised development plans based

on the above instructions. Until FY 1960 appropriations

word was received, funds would be on a monthly basis.

Discoverer IV. No orbit due to insufficient velocity.

Revised DISCOVERER, SEMPRY, MIDAS development plans

submitted to ARPA, as required in 24 June instructions.

20 Jul 59 ARPA, USAF, ARDC, briefed on progress cutlined in the revised development plans.

SSZDT-621

DOWNGRADED AT 3 YEAR INTERVALS.
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

DOD DIR 5200.10

BONE TO THE STATE OF THE STATE

3 Jun 59.

24 Jun 59

25 Jun 59

15 Jul 59



cotion.

13 Aug 59 Discoverer V. Capsule ejected in wrong direction.

19 Aug 59 Discoverer VI. Capsule not recovered.

7 Nov 59 Discoverer VII. Auxilliary power invertor failed. No stabilization or capsule separation possible.

17 Nov 59 The Discoverer program was transferred from ARPA to USAF cognizance. Memo for Sec. Air from Gates. Subj: Transfer of Discoverer program to Dept. of Air Force, 17 Nov 59.

20 Nov 59 Discoverer VIII. Engine not cut off at proper time.

Highly elliptical orbit caused premature exhaustion of stabilization gas.

1 Dec 59 Two new Development plans were prepared due to transfer of Discoverer program from ARPA to USAF. The first plan dated 1 Dec 59 described a 29 vehicle program. (AFDAT 1328/59)

15 Dec 59 Second Development plan was prepared providing for a
22 vehicle program (AFDAT 1328/59) based on possible
fund limit.

14-15 Dec 59 Briefings to Hq USAF on the two Bevelopment Plens.

21 Dec 59 Hq USAF approval of 29 vehicle plan at a reduced funding rate. (AFDAT 98212 dated 21 Dec 59).

15 Jan 60 New development plan which reflected changes desired by

No USAF was prepared for a 29 vehicle program.

4 Feb 60 Discoverer IX. No orbit.

Week of 8 Feb 60 15 Jan 60 Development Plan briefings presented to AFBAC and DDR and E. PARTER PROPERTY.

CONTRACTOR IN

552D7 621

DOWNGRADED AT 3 YEAR INTERVALS, DECLASSIFIED AFTER 12 YEARS.

DOD DIR 5200.10

\$\$2.DT-6.21

SEAT

4

317 Feb 60 15 Jan 60 Development plan submitted for OSD. 19 Feb 60 Discoverer X. Thor guidance malfunction caused pitch oscillations. Vehicle destroyed by range safety officer. 27 Feb 60: Hq USAF approval of 15 Jan 60 plan - uncluded funding for 12 additional Thor/Discoverer and four Agena vehicles (AFABF and AFDDP msg 73993), totaling 33 final Discoverer vehicles. 14 Mar Action by AFBND to procure 4 additional Agena vehicles in accordance with 27 Feb 60 message. Discoverer XI. Capsule not recovered due to improper retro-15 Apr 60 rocket trajectory. 20 Apr 60 DDR and E Approved 15 Jan 60 plan in principal. AT letter to ARDC Subj: Exploitation of Initial Senos Data dated 1 Jun 60.) 29° Jun 60 Discoverer XII. Agena atitude control malfunction caused the Agena to be pointed in wrong direction during second stage firing. Orbit not achieved. 1 Jul 60 Authorization granted for a tracking station at New Boston, New Hampshire. This station will be an addition to the Discoverer tracking network, and will give additional coverage for the ground station\tracking of orbiting Discoverer vehicles. The new Boston station is programmed as a Discoverer/MIDAS/ SAMOS ground tracking station. 20 Jul 60 Discoverer program asked by Eq USAF to submit revised 15 Jan 60 Development plan to reflect an increased from 29 vehicles to 37 vehicles, including two Discoverer RM launches for Midas program. (AFDSD-AT 70837 dated 20 Jul 60) Verbal instructions from AFDFD-MS were received to include in revision an increase

to 41 vehicles rather than 37.

- Jan 61 Two vehicles transferred to another program.
- Jan 61 Six additional vehicles authorized. Development Plan to be revised upon authorization of USAF.
- Jan 61 Point Mugu Tracking Station de-activated.
- 30 Mar 61 First BTL Guidance Launch.
- 2 May 61 Change #3 to 15 Jan 60 Development Plan submitted. Calls for 45 vehicle program and additional funding.
- 16 Jun 61 First SCUBA team recovery of capsule Discoverer 25.
- 7 Sep 61 Change #3 to 15 Jan 60 Development Plan approved by Hq USAF,
 per memo for USAF Attn: AFSDC, Subject: Discoverer Development Plan signed by Joseph Charyk, Under Secretary Air Force.
- 14 Sep 61 First air recovery by JC-130B.
- 12 Dec 61 OSCAR II Amateur radio transmitter placed in orbit.
 Final VELA HOTEL piggyback test.
- 5 Feb 62 Change #4 to 15 Jan 60 Development Plan submitted.
- 19 Mar 62 Change #4 to 15 Jan 60 Development Plan approved by Hq USAF, per AFSDC-11 71135, 19 Mar 62 for FY 62 118.9M and FY 63 33.3M
- 27 Jun 62 First Agena D launch. Attained orbit successfully and was aerial recovered on Pass 63, 1 July 62.
- 10 Jul 62 Change #5 to the 622A, 15 Jan 60 Development Plan was submitted to Hq USAF. Plan calls for a 65 vehicle program through CY 63.





SSZDT- 621

HEADQUARTERS 6565TH TEST WING (DEVELOPMENT) (ALSC)

UNITED STATES AIR FORCE Vandenberg Air Force Base, California

REPLY TO

SUBJECT :

Office Discourse of the second of the second

To: General Ritland
Commander, SSD
Air Force Unit Post Office
Los Angeles 45, Calif

Dear General:

The problems discussed in your letter of 8 August relative to performance of Douglas Aircraft personnel at Vandenberg continue to receive close scrutiny by this organization. At this time it is most difficult to specifically tie in problems encountered with personnel deficiency.

Subsequent to the previous letter on this subject, local Douglas field management has been very active in efforts to improve total field management as well as technical supervision in connection with the operation. Engineering leadership has been moved into the complex, and combinations, deletions and regrouping has occurred, which should improve overall efficiency. The local manager is very aggressive in the management area and makes frequent reports of his efforts in this direction to the undersigned.

These reorganization efforts have also been aimed to upgrade the company classification of key personnel thus affording some offset to the pay and departure problems discussed in our previous correspondence. There has been a decrease in total Douglas strength at Vandenberg, but this appears in line with the diminution of their efforts in other areas. Two personnel, possibly considered as key personnel have departed in the last six months, and they remained with the Douglas Company at other locations and in better jobs. Such action would not appear inordinate. The remainder of the losses occurred because of several causes, better pay, reorganization, normal attrition, unsatisfactory performance, etc. Altogether the Douglas, Vandenberg strength was reduced from 520 to 440 personnel since last December. Generally speaking their efforts for the Discoverer program show no significant reduction in quality or quantity during this period.

The specific individual associated with the Discoverer XXVII incident has been with Douglas since March 1960. He was working in the CEA area for about six months. Prior to working with Douglas he was a USAF radar technician from 1956. The engineer in supervisory and approval position had been with Douglas at Vandenberg since March of 1960. Local management and engineers considered him the best qualified at Vandenberg in this area. The Douglas technicians generally have an average of 22.5 months at Vandenberg and an average of 38 months with the Company.

Several prepatory type problems and their diagnosis have not shown a specific personnel cause due to inexperience, yet we must admit that the possibility of personnel error is always present. It is my personal belief that the losses, reported earlier, have had their effect. It does not seem reasonable to completely discount the loss of a relatively large number of key individuals in the past two years.

In general, management is aggressive in general improvement efforts for supervision and technical adequacy. Personnel numbers and quality appear adequate, however, many key individuals of the original program have departed.

The current environment in the Douglas Field Group is one of extreme caution in the validation process. Generally, this is of course always desirable, but at this point tends to be somewhat delaying in arriving at technical conclusions during validation runs. This also, because of Santa Monica participation is making technical certification sometimes late, or raises problems very late, causing schedule difficulties. Whether this environment is created by personnel deficiency or pressure from the XXVII incident is difficult to evaluate.

No specific recommendation as to headquarters action is made, however, personal pressure of the Commander SS/D on management level is believed wise and conducive to the kind of attention we think the program merits.

JOSEPH J CODY, Colones, USAF

Commander

SSID/ Cal Batclo

8 AUG 1961

Mr. Elmer Wheaton Vice President Dougles Aircraft Company 3000 Ocean Park Doulevard Santa Monica, California

Dear Elmer

- 1. I have reviewed the results of the investigation of the failure of the booster on Discoverer 27. The conclusions reached from this investigation again bring into focus the problem of personnel training and discipline at the Douglas Vandenberg Field Station.
- 2. This situation was brought to your attention in the past, and I was assured by your letter, G-25-AM-3 dated 25 Jan 61, that action was being taken to correct the situation. Of particular concern to me is the fact that three instances of this nature have occurred within the past three months.
- 3. I am unaware of what specific actions have been or are being taken in the matter of personnel discipline as a result of the Discoverer 27 investigation nor in my of the other instances of human error. It appears, however, that very definite action at Vandenberg is indicated if these very costly missource are to be eliminated.
- 4. The Price System Servicion is indeed gratified by the excellent reliability record established to date by the Thor as a space booster. I am therefore root empioes to see its reliability continue to improve.

Sinceroly

Original Signed O. J. Rifland

O. J. RITEAND MAICR GENTIME, USAS COMMANDER HAW CAL 4142 V ARL VA 418 2120Z JUN FM SAFMS TO SAFSP BT COALE

UNCLAS EFTO SAFMS PRO 61-71.
THE FOLLOWING MEMO FOR

THE FOLLOWING MEMO FOR DIR OF DEFENSE RESEARCH AND ENGINEERING DTD 15 JUN 61 SIGNED BY J V CHARYK IS QUOTED FOR YOUR INFORMATION. "QUOTE" DURING THE PAST WEEKS WE HAVE GIVEN SUBSTANTIVE ATTENTION TO THE TECHNICAL AND ORGANIZATIONAL PROBLEMS ASSOCIATED WITH THE SPACE PROGRAM DEVELOPMENTS UNDER THE COGNIZANCE OF THE LOSKHEED MISSILE AND SPACE DEVISION IN SUNNYVALE, CALIFORNIA. AS A RESULT OF THESE STUDIES AND MEETINGS, A MAJOR REORGANIZATION INSULVE THE ESTABLISHMENT OF THE LOCKHEED MISSILE AND SPACE COMPARY AND THE APPOUNTMENT OF MR. EUGENE ROOT AS PRESIDENT OF THE NEW COMPANY. IT IS THE AIR FORCE BELIEF THAT THE THEORY.

NEW COMPANY. IT IS THE AIR FORCE BELIEF THAT THE IMPLEMENTATION OF THE PROPOSED CHANGES WILL HAVE A SALUTARY EFFECT ON THE PROGRESS OF THE SPACE PROGRAMS BEING CARRIED ON BY LOCKHEED.

DURING THE NEXT FEW CRITICAL MONTHS, WE HAVE CONCLUDED THAT IT WOULD BE HIGHLY UNDESIRABLE TO DEVERT ANY OF THEIR ENERGY OR ATTENTION INTO NEW AREAS. ACCORDINGLY, I HAVE DIRECTED THE COMMANDER OF THE AIR FORCE SYSTEMS COMMAND THAT THEY SHOULD BE EXCLUDED FROM ANY BIDDERS LIST WHICH WOULD INVOLBE WORK REQUIRING THE TYPES OF TALENTS NECESSARY FOR THESE SPECIFIC SPACE SYSTEMS PROGRAMS. WE HAVE ALSO MARKED INPROVEMENT IN EVIDENT AT THAT TIME, WE WILL TAKE ACTION TO REVOVE THESE RESTRICTIONS.

THE PURPOSE OF THIS MEMORANDUM IS TO INFORM YOU OF THESE ACTIONS AND TO PROVIDE A BASIS FOR ANY ADDITIONAL ACTIONS WHICH BT

DOWNGRADED AT 3 FEAR 12 FEARS.

DOWNGRADED AFTER 12 FEARS.

DOWNGRADED AFTER 12 FEARS.

DOWNGRADED AT 3 FEAR 12 FEARS.

U, THE ABOVE MESSAGE IS CONFIDENTIAL NOT UNCL

R529

RECD ONE CONF MSG

SW LOW SW LOW

COMPREHENTIAL





GENERAL OFFICE BARTA MONICA, CALIFORNIA

28 August 1961 G25-AN-16

To:

Major General O. J. Ritland, USAF Air Force Space Systems Division Air Force Systems Command Air Force Unit Post Office Los Angeles 45, California

Dear Ozzie:

In response to your letter of 8 August 1961, and in confirmation of our recent discussion in your office, I have established that the following action shall be taken:

- 1. That the negligent personnel in this failure, two engineers, two technicians and an inspector, be given written, personal corrective interviews by their supervisors.
- 2. That a complete and detailed review be made of all checkout procedures at both Vandenberg and AMR to insure that in all cases at least two checks are made of every element in the system prior to launch.
- 3. That the review described above be conducted on a regular periodic basis.
- 4. That the checkout procedures and checkout equipment be reviewed as they affect the test technicians capabilities, to eliminate further possibilities of human error.
- 5. That a review board consisting of senior engineers be established for the purpose of examining all changes made to the vehicle affecting interchangeability the day before launch.
- 6. That a system of recrientation and cross-training be instituted to further improve personnel efficiency, to keep techniques continuously up to date, and to insure consistent adherence to the special and standard practices and procedures used in the preparation, checkout and launching of the vehicle.

Page 2 G25-AN-16 28 August 1961

Through this course of action, I am confident that the fine reliability record of the Thor booster will continue to increase.

As I explained at our recent meeting, I feel that the personnel situation which existed at the time of your 12 January 1961 letter has been completely corrected. Since that time, there have been very few changes in key personnel.

Please be assured that the Thor booster in its role as the work-horse of the Air Force space programs will continue to receive

Sincerely yours,

E. P. Wheaton

Vice President, Engineering

EPW:dmc

Kly, K,

HEADQUARTERS SPACE SYSTEMS DIVISION

AIR FORCE SYSTEMS COMMAND UNITED STATES AIR FORCE

Air Force Unit Post Office, Los Angeles 45, California

REPLY TO ATTN OF:

SSZN/Lt Gerber/OS 5-0351 Ext 76

SUBJECT :

AFSC Annual Progress Report to Chief of Staff, USAF

DCAH (Dr. Rockefeller) TO:

> 1. Reference IOC dated 22 June 1961, subject as above. On 21 June 1961, the Secretary of Defense approved and funded the VELA HOTEL Program. The objective of the MELA HOTEL Project is to conduct a research and development program including experiments and prototype testing to gain information leading to the definition of an operational space-based program for high altitude nuclear detection.

- 2. The far earth portion of the VELA HOTEL Program will consist of five launches of Atlas D/Agena B launch vehicles from AMR. Each vehicle will place two spacecraft into a single highly elliptical orbit. Each spacecraft will be transferred into a minimum circular orbit of 50,000 nautical miles by means of self contained propulsion units. The instrumentation aboard the spacecraft will be furnished by the AEC and will consist of I-ray, gamma ray, and neutron detectors and Geiger Mueller tubes.
- 3. In addition to the far earth program, six DISCOVERER Piggyback low altitude polar orbit flights are being accomplished which will obtain background radiation data below the Van Allen belts. These flights will carry Lawrence Radiation Laboratory experiments consisting of X-ray, gamma ray and neutron detectors, PENG (protonelectron-neutron gamma ray) detectors and solid state spectrometers.

The Aerospece Corporation has established a VELA HOTEL Program Office to work in conjunction with the Space Systems Division VELA

WILLIAM CA KESTER

Major, USAF

Director, VELA HOTEL

Deputy for Satellite Systems

Moul,