UNCLASSIFIED

UNCLASSIFIED
AD NUMBER: AD0860933
LIMITATION CHANGES
TO:
Approved for public release; distribution is unlimited.
FROM:
Distribution authorized to DoD Components only;
Administrative/Operational Use; 1 Aug 1969. Other requests shall be
referred to Naval Ordnance Laboratory, Silver Spring, MD 20910.
_
AUTHORITY
USNSWC ltr dtd 4 Dec 1974

SAFE ARMING TIMES FOR MK 81, MK 82, MK 83, MK 84 AND M117 LOW DRAG BOMBS

By: Roy G. Saffold

1 August 1969

UNITED STATES NAVAL ORDNANCE LABORATORY, WHITE OAK, MARYLAND

NOLTR 69-135

ATTENTION

Each transmittal of this document outside the Department of Defense must have prior approval of NOL.

SAFE ARMING TIMES FOR MK 81, MK 82, MK 83, MK 84 AND M117 LOW DRAG BOMBS

Prepared by: Roy G. Saffold

ABSTRACT: This report presents results of a study conducted to determine the arming time that should be recommended for each combination of aircraft type, release condition, bomb type, and post-release maneuver, as well as discussion of the methods used to arrive at the recommended arming times. The aircraft types considered were A-4, A-6, A-7, and F-4. The release conditions considered were level attitude with no post-release maneuver, and dives followed by application of a 4G recovery force within two seconds after release of the last bomb. The tabulations presented do not replace the tactical manual recommendations, but rather present supplementary information for those interested.

Published 1 August 1969

U. S. NAVAL ORDNANCE LABORATORY WHITE OAK, MARYLAND

1 August 1969

Safe arming times for Mk 81, Mk 82, Mk 83, Mk 84, and Mll7 low drag bombs

This report contains tables of recommended arming times for Mark 81, Mark 82, Mark 83, Mark 84, and Mll7 low drag bombs. This work was performed under Naval Air Systems Command AIRTASK A05-532-009/292-4/00000, Engineering and Production Support of Unguided Air Launched Weapon Fuzing.

The valuable assistance of R. D. Cuddy, C. I. McGraw, D. Jones, and C. Phillips of the Naval Weapons Laboratory, Dahlgren, Virginia in obtaining hit probabilities is gratefully acknowledged.

G. G. Ball Captain, USN Commander

R. E. GRANTHAM By direction

CONTENTS

	Pages
INTRODUCTION	1
DEFINITION OF SAFE ARMING TIME	1
METHOD OF COMPUTATION	3
EXPLANATION OF APPENDICES	3
CONCLUSIONS	4
APPENDIX A	Al
APPENDIX B	Bl
APPENDIX C	Cl
APPENDIX D	Dl
APPENDIX E	El
APPENDIX F	Fl
APPENDIX G	Gl
APPENDIX H	Н1
APPENDIX I	Il
APPENDIX J	Jl
APPENDIX K	Kl
APPENDIX L	Ll

REFERENCES

- (a) NWL TR-2228 of Oct 68, The Path II Model for Assessing Fragment Hazards to Delivery Aircraft
 (b) NOL(WO) ltr 0431:RE:sw 8010 Ser 2540 of 3 May 68 to
- NASC

INTRODUCTION

l. Because explosive ordnance has been known to explode prior to the time intended by the user, the arming of the fuze, is delayed until after the launching of the munition. "Arming" of a fuze is usually the alignment of the explosive train. The delay is called the "arming time." The desired length of the arming time is such that the user of the munition is safe from early functioning of the munition. One problem in determining arming times to use with aircraft bombs is to arrive at a definition of the term "safe arming time" which lends itself to expression in quantitative terms.

DEFINITION OF SAFE ARMING TIME

- 2. From a somewhat philosophical point of view a safe arming time is one which would allow arming to occur only when there is no chance of the delivery aircraft being damaged should the fuze function at completion of the arming cycle. While such a definition is very satisfying philosophically, in practice it is quite restrictive. Simply, such a criterion would result in such long arming times that release altitudes sufficient to allow completion of the arming cycle would be too great for accurate bombing. Thus the words "no chance" in the above definition might be changed to read "an acceptable level of risk." This in turn presents two problems: how to determine the risk level and what constitutes an "acceptable" risk.
- 3. The commonly accepted measure of the risk has been taken to be the probability of at least one fragment penetrating the delivery aircraft. This probability is computed for a particular fuze-weapon combination in the following manner:

$$P_{H} = (P_{EB}) (P_{H}|_{EB})$$

where

- P_H is the probability of at least one fragment penetrating the delivery aircraft.
- PEB is the probability of the fuze functioning at or shortly after arming but prior to proper functioning on the target (otherwise known as the early burst rate).

- PH/EB is the probability of at least one fragment penetrating the delivery aircraft if the weapon has burst at the completion of the arming cycle.
- 4. The probability of an early burst of the fuze is determined by engineering judgment, test results, and historical data. The probability of a fragment hit on the delivery aircraft is computed using the complex mathematical model of reference (a). The Naval Weapons Laboratory, Dahlgren performs these calculations upon request. This data has been collected on magnetic tape at the Naval Ordnance Laboratory for use in making this type of recommendation.
- 5. In the past when determining safe arming times, the only criterion used was the value of P_H . The limiting value of P_H was 0.0001. However, this did not take into account the full importance of the factor $P_{H|EB}$. There is a great deal of difference between the effects of at least one fragment hit when $P_{H|EB} = 0.01$ and when $P_{H|EB} = 1.0$. As $P_{H|EB}$ increases from zero to one, the severity of the damage expected should an early burst occur increases dramatically. Thus, the advent of a fuze with a much improved early burst rate would lead to accepting a larger value for $P_{H|EB}$ while $P_{H|EB}$ remained constant. Thus, if one compares two fuzes with different early burst rates the two fuzes would result in aircraft damage at the same rate. However, the fuze with the lower early burst rate would result in more severe damage.
- 6. It was owing to the above consideration that reference (b) suggested a new set of criteria for safe arming times. These criteria are: P_H shall not exceed 0.0001 and $P_{H \mid EB}$ shall not exceed 0.1. These criteria adhere to the previously accepted rate at which damage to the aircraft may be expected to occur, while in effect limiting that damage in its severity.
- 7. The factors which must be considered when recommending a particular fuze/arming time combination are:
- a. The early burst rate has, of course, a direct bearing on the value of P_H and thus on the suitability of a fuze/arming time recommendation.
- b. The altitude at which use is expected to be made affects the $P_{H\mid EB}$, since at a higher altitude fragments experience less drag and travel farther and faster.
- c. The aircraft size has an effect, since a larger aircraft would be expected to encounter more fragments under the same circumstances than a small aircraft.

- d. The speed of the aircraft determines how long the aircraft stays in the volume that the fragments traverse.
- e. The post-release maneuver is critical in that it directly affects the relative positions of the bomb and aircraft.
- f. For much the same reason as above, the type of release (dive angle, straight and level, etc.) must be considered.

METHOD OF COMPUTATION

8. The method by which the recommended arming times in the appendices were determined is as follows. was requested to compute the probability of at least one fragment penetrating the delivery aircraft for a matrix of delivery conditions and times after release. These were transferred to magnetic tape. The magnetic tape was then used as input to a computer program for the IBM 7090 which computed the probability of at least one fragment penetrating the delivery aircraft as above. The early-burst rate of the particular fuze under consideration, and the arming times available with the fuze are also inputs. The program requires that, for a time to be chosen for a fuze, that time correspond to one of the times for which a P_{H|EB} has been computed and is on the tape. Owing to the nature of the probabilityversus-time curve as it has been plotted for various weapons, it was decided not to attempt an interpolation, since it would be in error by a large percentage in most cases. Thus the times after release for which probabilities are available are those found in current types of fuzes, i.e., 4.0, 4.5, 5.5, 6.0, 8.0, and 10.0 seconds. The capability exists to add more data to the existing tape as it becomes available. The program compared the value of P_{H} and P_{H} against the required values. The minimum time satisfying the criterion was then printed. If no time satisfied the criterion then a "N.A." was printed.

EXPLANATION OF APPENDICES

9. The appendices represent the output of the program spoken of in paragraph 8. The appendices are arranged by aircraft and by release condition considered. The aircraft considered were the A-4, A-6, A-7, and F-4. The variable by which the appendices for a particular aircraft are arranged is the length of the stick of bombs released. Thus, there is an appendix for each of

the following: single release (or "zero stick length ripples" of "salvo"), one-second stick release, and two-second stick release. Each appendix treats the whole range of speeds and dive angles. Thus appendices A thru C deal with the A-4 aircraft, appendices D thru F with the A-6 aircraft, appendices G thru I with the A-7 aircraft, and appendices J thru L with the F-4 aircraft.

- 10. In each appendix there may appear types of releases that are not possible with a particular model aircraft such as stick bombing with Mk 84 bombs from an A-4 aircraft. Such combinations appear only for completeness, and reference to the particular aircraft model tactical manual is neccessary to discover if a type of release is within the permissible envelope of the aircraft. In each appendix there appear columns headed with designations of particular fuzes. The recommendations in each of the columns are for not only that particular fuze but all fuzes of its type. In each case the arming time which appears is the minimum for the condition. If that time is not available the proper choice becomes the mext higher time available. In no case is the proper choice a time lower than that shown.
- ll. In each of the appendices, the recommendations for the Mk 84 bomb are marked as estimated. At this time the fragmentation pattern for the Mk 84 has not been satisfactorily established. Based on the assumption that the Mk 84 bomb fragments will have initial velocities of the same magnitude as the Mk 83 bomb but approximately twice the number of fragments, NWL supplied the following approximation for use in estimating $P_{\rm H\,I\,EB}$ values for the Mk 84 bomb.

$$P_{84} = 1. - (1. - P_{83})^2$$

where

- P₈₄ is the probability (estimated) of at least one fragment from the early burst of a Mk 84 bomb penetrating the delivery aircraft.
- P₈₃ is the probability (calculated by NWL) of at least one fragment from the early burst of a Mk 83 bomb penetrating the delivery aircraft.

Estimates of the $P_{\text{H} \mid \text{EB}}$ for the Mk 84 bomber were made for all release conditions and used to make the recommendations appearing in the appendices for the Mk 84.

CONCLUSIONS

- 12. A few general conclusions which may be made from a study of the appendices are:
- a. The slower the delivery speed the longer the safe arming time must be
- b. The choice of 5.5 seconds in the M990E series of fuzes and the Mk 344 is safe for most dive bombing
- c. The 10.0 seconds in the M990E series of fuzes and Mk 376 is safe for most level bombing.

APPENDIX A

SAFE ARMING TIMES A-4 AIRCRAFT SINGLE RELEASES

CONTENTS

	EVI	EL	R	EL	E/E	13		- A	7			0	Uli		•	ľ	м	S	١.										_		_																Δ		-
	E VI	EL	Ř	EL	E	• •		- 4	. 1			1)	υt	,	P 1		м		Ι.				_							_																	Α		a
	EVI	EL	R	EL	E/			-		L 3	, ,	ш	u u		r .		M		L.			_	_					_																			6		۲M
LI	EVI	EL	R	EL	E	15	E	A	T	10	,	Ū	Ų C		•		M	5	L													٠			_												Δ	- 8	H
1	EVI	EL	R	EL	E	IS	E	A	T	10	١,	0	0 0)	F		M	S	L	/ È	·	•	• •	:	•	:			•		• •	•	M (. : '	•		•	• •	• •	. •	•		* (, A , A		1(1)	001
LI	E VI	EL	R	EL	E	S	E	A	T	10) ,	0	00)	F'	7	M	S	L	•				•		-	•									•										A	4	1.0	2
	11: EVI	EL	R	EL	E/E/	15	E	A	T		,	0			F'		M M	S	L	•	•			_		•	٠.									٠.										Δ		1 6	4
N) T (E -		۸L	L	D	Ì١	/F	S	A F	۱E		4 G		RF	: C	n	V	EF	₹	F	S																											

BUNDLAU BRATTA

MINIMUM ACCEPTABLE ARMING TIMES

PH/EB= 0.00010 0.10000

A/C A-TARGET REL		SINGLE RELEASE BOMB MK 81 GPLD SEA LEVEL A XEGNERAL MINIMUM ARMING TIME / F	EJ VEL 7.2 REL ALT 100 UZE COMBINATI	OR FT
(DEG)	(KTAS)	M904E2 M990E M990D	VT/M990E	VT/M990D
0.		The Control of the State of		

300.0 325.0 350.0 400.0 450.0 500.0	8.0 8.0 8.0 6.0 6.0	8,0 8,0 8,0 8,0 5,5	N.A. 8.0 8.0 8.0 8.0	10.0 10.0 10.0 8.0 8.0	N.A. N.A. N.A. 8.0 8.0
		45			and the second

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010

PH/E8 0,10000

A/C A-4	ALTITUDE		RELEA:		EJ VEL 7. Rel alt 15	2 FT/SEC
REL ANG	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0.						
	300,0 325,0 350,0 400,0	8,0 8,0 8,0	8,0 8,0 8,0	N.A. N.A. N.A. 8.0	10.0 10.0 10.0	N.A. N.A.
	450.0 500.0	8,0	8.0	8.0 8.0	10.0 8.0 8.0	N.A. 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

	SINGL	E RELEASE		
REL REL Ang Vel	SEA LEVEL MINIMUM	ARMING TIME / FO	BOMB MK 81 EJ VEL 7.2 JZE COMBINATI	GPLD FT/SEC ONS
(DEG) (KTAS)	M904E2	M990E M990D	VT/M990E	VT/M990D
0, 300,0 325.0 350.0	8,0 8,0 6,0	8.0 8.0 8.0 8.0 8.0 8.0	8.0 8.0	8.0
400.0 450.0 500.0	6,0 6,0 6,0	8.0 8.0 5.5 8.0 5.5 8.0	8.0 8.0 8.0	8.0 8.0 8.0
300,0 325,0 350,0 400,0 450,0 500,0	6.0 6.0 4.0 4.0	5,5 8,0 5,5 8,0 5,5 8,0 5,5 4,5 5,5 4,5 5,5 4,5	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 4.5
-30.0 300.0 325.0 350.0 400.0 450.0 500.0	6.0 6.0 4.0 4.0 4.0	5.5 8.0 5.5 4.5 5.5 4.5 5.5 4.5 5.5 4.5 5.5 4.5	5,5 5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0
300.0 325.0 350.0 400.0 450.0 500.0	6.0 6.0 6.0 4.0	5.5 8.0 5.5 8.0 5.5 8.0 5.5 4.5 5.5 4.5 5.5 4.5	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0
300.0 325.0 350.0 400.0 450.0 500.0	6.0 6.0 6.0 6.0	5,5 8.0 5,5 8.0 5,5 8.0 5,5 8.0 5,5 4.5 5,5 4.5	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0

MINIHUM ACCEPTABLE ARMING TIMES

0.00010 PH . PH/E8=

	S	NGI	F	REL	EASE
--	---	-----	---	-----	------

			-1.40.01	- 11-5-14	, E		
A/C A-	4		BOMB MK 82	SPLD	8	J VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL	-		EL ALT 100	
REL	REL		MINIMUM	ARMING	TIME / FUZE		
ANG	VEL						
(DEG)	(KTAS)		MF04E2	M990E	M9900	VT/M990E	VT/M9900
0.							
	300.0		8.0	8.0	N.A.	10.0	N.A.
	325.0		8.0	8.0	N.A.	10.0	N.A.
	350,0		8,0	8.0	N.A.	10.0	N.A.
	400.0		8.0	8.0	8.0	10.0	N.A.
	450.0		8,0	8.0	8.0	10,0	N.A.
	500.0		8.0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010

PH/EB= 0,10000

-51	ΙN	G	LF	RF	IF	ASF

TARGET	ALTITUDE		OMB MK 82	GPLD		J VEL 6.0	
REL	REL VEL	JEA L	WINIWUW	ARMING	TIME / FUZE	COMBINATI	
(DEG)	(KTAS)		M904E2	M990E	M9900	VT/M990E	VT/M990D
0.							
	300,0		8 0	8.0	N.A.	N.A.	N.A.
	325,0		8,0	8.0	N.A.	10.0	N.A.
	350.0		8,0	8,0	N.A.	10.0	N.A.
	400.0		8.0	8.0	N.A.	10.0	N.A.
	450.0		8.0	8.0	N,A,	10,0	N.A.
	500.0		8.0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

	2 [140 년	E METEWASE			
A/C A-4			8	OMB MK 82	GPLD
TARGET ALTITUDE SEA	LEVEL		E	J VEL 6.0	FT/SEC
REL REL	MINTHUM	ARMING T	THE / FUZE	COMBINATI	ONS
ANG VEL	• • •		,	O () O ()	,,
(DEG) (KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
(DEG) (NING)	HANAES	MAANE	пууци	AINMAAAC	AINMAAAA
•					
0,					
300.0	8.0	8,0	N.A.	10.0	N.A.
325,0	8,0	8,0	8.0	10.0	N.A.
350.0	8,0	8.0	8,0	10.0	N.A.
400,6	8,0	8,0	8.0	8.0	N.A.
450.0	6.0	8.0	8.0	8.0	8.0
500.0	6.0	5.5	8.0	8.0	
	0.0	2.5	0.0	0.0	8.0
-10.0	4 4			0 •	0. •
300,0	6,0	5,5	8,0	8.0	8.0
325,0	6,0	5,5	8.0	5,5	8.0
350.0	6,0	5.5	8.0	5,5	8.0
400.0	6,0	5,5	8.0	5,5 5,5	8.0
450,0	6,0	5.5	4.5	5,5	8.0
500.0	4.0	5,5	4.5	5,5	8.0
-30.0				, -	• •
300,0	6.0	5.5	8.0	5,5	8,0
325.0	6.0		8,5	5.5	
350.0	4.0	5.5	8.0	5.5	8,0
	6,0	5,5		5,5	8.0
400.0	6,0	5,5	8.0	5,5	8.0
450,0	6,0	5.5	8.0	5,5	8.0
500,0	6.0	5,5	4.5	5,5	8,0
-45.0					
300.0	6,0	5,5	8.0	5,5	8.0
325,0	6.0	5,5	8.0	5,5	8.0
350,0	6,0	5,5	8.0	5,5	8,0
400.0	6.0	5,5	8.0	5,5	8.0
450.0	6,0	5,5	8.0	5,5	8,0
500.0	6,0	5,5	8.0	5,5	8.0
	0,0	2.2	0,0	2,5	0,0
-60,0	4 .		P 6	F c	1 0
300,0	6.0	5,5	8.0	5,5	d.0
325.0	6.0	5.5	8.9	5,5	8.0
350.0	6.0	5.5	8.0	5,5	8.0
400.0	6.0	5,5	8,5	5,5	8.0
450,0	6.0	5.5	8.9	5.5	8,0
500.0	6,0	5,5	8.0	5,5	8.0
	, •			· -	• •

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/E8= 0.10000

A/C A-			SINGLE	RELEAS	_	J VEL 4,8	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL			EL ALT 100	
REL	REL VEL			ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
С.							
• •	300.0		10,0	10.0	N.A.	N.A.	N.A.
	325.0		10.0	10.0	N.A.	10.0	N.A.
	350.0		8.0	8.0	N.A.		N.A.
	400.0		8.0	8.0	N.A.	10.0	N.A.
	450,0		8.0	8.0	N.A.	10.0	N.A.
	500,0		8,0	8,0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

A/C A-4 TARGET REL ANG	ALTITUDE SE REL VEL	BOMB MK 83	_	E	J VEL 4.8 EL ALT 15 Combinati	000 FT
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0,	300.0 325.0 350.0 400.0 450.0 500.0	10.0 10.0 10.0 10.0 8.0	10.0 10.0 10.0 10.0 10.0 8.0 8.0	N.A. N.A. N.A. N.A. N.A.	N.A. N.A. N.A. 10,0	N . A . N . A .

MINIMUM ACCEPTABLE ARMING TIMES
PH = 0.00010
PH/EB= 0.10000

SINGLE RELEASE

_	_		21400	E MEPEN	36		
	-4					IOMB MK 83	GPLD
TARGET	ALTITUDE	SEA	LEVEL		€	J VEL 4.8	FT/SEC
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL			•			
(DEG)	(KTAS)		M904E2	MOPDE	M990D	VT/M990E	VT/M9900
, ,	•			. , , ,		7 1 7 11 7 7 0 0	* * * * * * * * * * * * * * * * * * * *
O.							
• •	300.0		8,0	8.0	N.A.	10.0	N.A.
	325.0			8,0	N.A.	10,0	
	350.0		6,0	8.0	N.A.	10,0	N.A,
	400.0		9.0		N,A.	10.0	N.A.
	450.0		8,0	8.0		10.0	N . A .
	500.0		8.0	8.0	8,0	10.0	N.A.
40.0	500.0		8.0	8.0	8.0	8,0	8,0
-10.0	700 0						
	300.0		6,0	5.5	8.0	8.0	8,0
	325.0		6.0	5.5	8.0	8,0	8,0
	350.0		6.0	5.5	8.0	8.0	8.0
	400.0		6,0	5,5	8,0	5.5	8,0
	450.0		6,0	5.5	8.0	9,5	8.0
0.0.	500.0		6.0	5,5	8,0	5.5	8.0
-30,0							
	300,0		6.0	5,5	8.0	5,5	8.0
	325.0		6,0	5,5	8,0	5.5	8,0
	350.0		6.0	5.5	8.0	5,5 5,5	8.0
	400.0		6,0	5,5	8.0	5.5	8,0
	450.0		6.0	5,5	8.0	5,5	8.0
	500.0		6,0	5,5	8.0	5,5	8,0
-45.0			• •				-,•
. , .	300.0		6.0	5.5	8.0	5,5	8.0
	325,0		6.0	5,5	8.0	5,5	8,0
	350.0		6,0	5,5	8.0	5,5	8.0
	400.0		6.0	5,5	8.0	5,5	8,0
	450.0		6.0	5,5	8,0	5,5	8.0
	500.0		6,0	5,5	8.0	5,5	8.0
-60.0			910	313	• 1 •	-,,	0,0
-4910	300.0		6,0		8.0	5,5	Ω Λ
	325.0		4.0	5,5	8.0	5,5	8,0
	350.0		6,0	5,5	8.0	5,5	8,0
	400.0		4.0	5.5		5,5 5,5	8,0
	400.0		6,0	5,5	8,0	2,5	8,0
	450,0		6.0	5,5	8.0	5,5 5,5	8,0
	500.0		6.0	5.5	8.0	5,5	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-C TARGET	ALTITUDE	SEA LE	MB MK 84	GPLD (ES	ST) E	J VEL 4.8 EL ALT 100	
REL	REL VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	1	M904E2	MPPDE	M990D	VT/M990E	VT/M990D
0.							
• •	300,0		10,0	10.0	N.A.	N.A.	N.A.
	329.0		10,0 10,0 10,0	10.0	N.A.	N.A.	N.A.
	350,0			10.0	N.A.	N.A.	N,A,
	400.0		10.0	10.0	N.A.	N.A.	N.A.
	450,0		8.0	8.0	N.A.	10.0	N.A.
	500.0		8,0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-	ALTITUDE SEA	BOMB MK 84 (SINGLE RELEASE BOMB MK 84 GPLD (EST) EJ VEL 4.8 FT/SEC REL ALT 15000 FT MINIMUM ARMING TIME / FUZE COMBINATIONS				
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D	
0.	300.0 325.0 350.0 400.0 450.0	10.0 10.0 10.0 10.0	10.0 10.0 10.0 10.0 10.0	N.A. N.A. N.A. N.A. N.A.	N · A · N · A · N · A · N · A · 1 0 · 0	N.A. N.A. N.A. N.A.	

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB# 0.10000

SINGLE RELEASE

			SINGL	E RELEA	SE		
	• 4			_		30MB MK 84	GPLD (EST
TARGET	ALTITUDE	SEA	LEVEL			EJ VEL 4.8	
REL	REL			ARMING	TIME / FUZ	CAMBINAT	LONE
ANG	VEL			Aur. Line	11.6 1 .02	E COMBINAL	042
(DEG)	(KTAS)		M904E2	HOOOE	M990D		W.T W. T. C. T. D.
,	,		1170462	M990E	MYYUU	VT/M990E	VT/M990D
٥.							
м •	300.0		9 0	• •	A) A	. 0 .	
	325.0		8,0	8.0	N.A.	10,0	N.A.
	350.0		8.0	8.0	N.A.	10.0	N.A.
	400.0		8.0	8.0	N.A.	10.0	N.A.
	400.0		8,0	8.0	N.A.	10,0	N.A.
	450.0		8,0	8.0	8,0	10.0	N.A.
	500.0		8.0	8.0	8.0	10.0	N.A.
-10,0	-						
	300,0		6.0	5.5	8.0	8,0	8.0
	325.0		6,0	5,5	8.0	8.0	8,0
	350.0		6.0	5.5	8.0	8.0	8,0
	400.0		6.0	5.5	8.0	8.0	8.0
	450,0		6.0	5.5	8.0	8.0	8.0
	500.0		6.0	5.5	8,0	5,5	
-30.0			-,0	713	010	2,5	8,0
	300.0		6.0	5,5	8.0		
	325.0		6,0			8.0	8,0
	350.0			5.5	8.0	8.0	8.0
	400.0		6.0	5.5	8,0	8.0	8.0
	450.0		6.0	5.5	8.0	5.5	8,0
	500.0		6.0	5.5	8.0	5,5	8,0
-45.0	500.0		6.0	5.5	8,0	5.5	8,0
-45.0	700 0						
	300.0		6.0	5.5	8.0	8.0	8.0
	325.0		6.0	5,5	8,0	8,0	8,0
	350,0		6,0	5,5	8.0	8.0	8.0
	400.0		6,0	5,5	8.0	5,5	8.0
	450.0		6.0	5.5	8.0	5,5	8.0
	500.0		6,0	5,5	8.0	5,5	8.0
-60.0						, -	- •
	300.0		6,0	5.5	8.0	8.0	8 6
	325.0		6.0	5.5	8.0	8,0	8,0 8,0
	350.0		6.0	5.5	8.0	8,0	8 0
	400.0		6.0	5.5	8.0	8.0	8 6
	450.0		6.0	5 5	8.0	8.0	0,0
	500,0		6.0 6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0	8 6	8,0 8,0 8,0
			0,0	2+9	0,0	8.0	0,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C A-4 BOMB MK 81/SNAKEYE I/UNRET EJ VEL 7.2 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 MODOE MOODD VT/M990E VT/M990D 0. 300.0 8.0 8.0 N.A. 10.0 N.A. 325,0 8.0 8.0 8,0 10.0 N.A. 350.0 8,0 8,0 8.0 8.0 8.0 400.0 6,0 8.0 8.0 8,0 8.0 450.0 6.0 5.5 8.0 8.0 8.0 500.0 6,0 5.5 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C 4-4 BOMB MK 81/SNAKEYE I/UNRET EJ VEL 7.2 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 15000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL, ANG (DEG) (KTAS) M904E2 M990D M990E VT/M990E VT/M990D C. 300,0 8,0 8,0 N.A. 17.0 N.A. 325.0 8.0 8.0 N.A. 10.0 N.A. 8.0 350.0 N.A. 10,0 8.0 N.A. 400.0 8.0 8.0 8.0 8,0 8,0 450.0 6,0 8.0 8.0 8.0 8.0 500.0 6,0 8.0 5.5 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-4 TARGET ALTITUDE REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0. 300.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8				SINGL	E RELEAS	SE .		
TARGET ALTITUDE REL REL ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990E VT/M990D O, 300.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0					_		4K 81/SNI/	UNRETARDED
MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M9900 0. 300.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8	TARGET	ALTITUDE	SEA LEVI	L				
(DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0, 300.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 3.0 4.0 3.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0					ARMING	TIME / FUZE	COMBINATI	DNS
0,	ANG						DO TOTION !	0.15
0, 300.0	(DEG)	(KTAS)	M91	14E2	M990E	M990D	VT/M990E	VT/MOOND
300.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8								
325.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	Ū,	700 0						
359.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8		300.0					8.0	8.0
390.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 450.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		325,0			8.0		8,0	8.0
450.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 5.0 5.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0							8.0	
-10.0 -1					5.5	8.5		
-10.0 300.0 6.0 5.5 8.0 8.0 8.0 325.0 6.0 5.5 8.0 5.5 8.0 325.0 4.0 5.5 8.0 5.5 8.0 400.0 4.0 5.5 8.0 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 -30.0 6.0 5.5 8.0 5.5 8.0 -30.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 400.0 4.0 5.5 4.5 5.5 8.0 400.0 4.0 5.5 4.5 5.5 8.0 450.0 5.5 4.5 5.5 8.0 400.0 4.0 5.5 4.5 5.5 8.0 -450.0 5.5 8.0 5.5 8.0 300.0 5.5 8.0 5.5 8.0 300.0 5.5 8.0 5.5 8.0 300.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 400.0 4.0 5.5 4.5 5.5 8.0 300.0 5.5 8.0 5.5 8.0 300.0 5.5 8.0 5.5 8.0 300.0 5.5 8.0 5.5 8.0 300.0 5.5 8.0 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 450.0 6.0 5.5 8.0 5.5 8.0 450.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 350.0 6.0 5.5 8.0 5.5 8.0		450.0			5.5	8.0		
300.0 6.0 5.5 8.0 5.5 8.0 355.0 4.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 4.0 5.5 4.5 5.5 8.0 325.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 4.0 5.5 4.5 5.5 8.0 325.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 5.5 8.0 5.0 5.5 8.0		500,0	6	0	5.5	8.0		
325.0 6.0 5.5 8.0 5.5 8.0 4.0 4.0 4.0 5.5 4.5 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 4.5 5.5 8.0 4.5 5.5 8.0 4.5 5.5 8.0 5.0 8.0 4.0 5.5 4.5 5.5 8.0 5.0 8.0 5.5 8.0 5.0 8.0 6.0 5.5 8.0 5.5 8.0 6.0 6.0 5.5 8.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6	-10,0							
325.0 6.0 5.5 8.0 5.5 8.0 4.5 4.5 4.5 5.5 8.0 4.5 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.0 5.0 6.0 5.5 4.5 5.5 8.0 5.5 5.5 8.0 5.0 5.5 8.0 5.5 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0		300.0	6,	0	5.5	8.0	5.5	8.0
350.0 4.0 5.5 8.0 5.5 8.0 4.5 4.5 5.5 8.0 4.5 5.0 4.5 5.5 8.0 4.5 5.5 8.0 4.5 5.5 8.0 4.5 5.5 8.0 4.5 5.0 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 4.0 5.5 4.5 5.5 8.0 4.5 5.5 8.		325,0					5.5	
-30.0 -4.0 -30.0 -4.0 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3.5 -4.5 -3		350,0	4	0				
450.0 4.0 5.5 4.5 5.5 4.5 5.5 4.5 5.5 4.5 5.5 4.5 5.5 8.0 329.0 6.0 5.5 4.5 5.5 8.0 400.0 4.0 5.5 4.5 5.5 8.0 5.0 5.5 8.0 5.5		400.0					5 5	
-30.0 300.0 300.0 300.0 329.0 350.0 4.0 5.5 4.5 5.5 8.0 350.0 4.0 5.5 4.5 5.5 8.0 450.0 -450.0 300.0 6.0 5.5 8.0		450.0					5 5	
-30.0 300.0 300.0 300.0 325.0 4.0 5.5 4.9 5.5 8.0 400.0 4.0 5.5 4.5 5.5 8.0 450.0 5.0 4.0 5.5 4.5 5.5 8.0 5.5 4.5 5.5 8.0							5 8	
300.0 6.0 5.5 8.0 5.5 8.0 350.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 4.5 6.0 5.5 8.0 4.5 6.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 5.5 8.0 4.5 6.0 4.5 6.0 5.5 8.0 4.5 6.0 4.5 6.0 5.5 8.0 4.5 6.0 4.5 6.0 5.5 8.0 4.5 6.0 4.5 6.0 4.5 6.0 4.5 6.0 4.5 6.0 4.5 6.0 4.5 6.0 4.5 6.0 4.5 6.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	-30.0			•	2.2	• • • • • • • • • • • • • • • • • • • •	2,3	٠,٥
325,0 6,0 5,5 4,5 5,5 8,0 400,0 4,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 325,0 6,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 325,0 6,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 450,0 4,0 5,5 4,5 5,5 8,0 4,5 5,5 8,0 4,5 5,5 8,0 4,5 5,5 8,0 4,5 5,5 8,0 4,5 5,5 8,0 4,5 5,5 8,0 4,5 5,5 8,0 4,5 5,5 8,0 4,5 5,5 8,0 4,5 5,5 8,0 4,0 5,5 8,0 5,5 8,0 4,5 4,5 4,5 4,5 4,5 4,5 4,5 4,5 4,5 4,5		300.0	6.	n	5 5	8 6		
350.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 325.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 8.0 5.5 8.0 4.5 6.0 4.5 6.0		325.0					2,5	
400.0 4.0 5.5 4.5 5.5 8.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 4.5 5.5 8.0 4.5 5.5 8.0 4.5 5.5 8.0 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 4.5 5.5 8.0 4.5 5.5 8.0 5.5 8.0 4.0 5.5 4.5 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5		350.0					5,5	
450.0 4.0 5.5 4.5 5.5 8.0 325.0 6.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 5.0 8.0 5.5 8.0 450.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 5.0 6.0 5.5 4.5 5.5 8.0 450.0 5.5 4.5 5.5 8.0 5.0 6.0 5.5 4.5 5.5 8.0 5.0 6.0 5.5 4.5 5.5 8.0 6.0 5.5 6.0 5.5 6.0 5.5 6.0 5.5 6.0 5.5 6.0 5.5 6.0 5.5 6.0 5.5 6.0 5.5 6.0 5.5 6.0 5.5 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6		400.0						
-45.0 -45.0 300.0 300.0 6.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 350.0 4.0 5.5 4.5 5.5 8.0 4.0 6.0 5.5 4.5 5.5 8.0 4.0 6.0 5.5 4.5 5.5 8.0 4.5 6.0 5.5 4.5 5.5 8.0 6.0 6.0 5.5 8.0 5.5 8.0 6.0 6.0 5.5 8.0 5.5 8.0 6.0 6.0 5.5 8.0 5.5 8.0 6.0 6.0 5.5 8.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0		450.0					2,5	
-45.0 300.0 300.0 5.5 8.0 5.5 8.0 5.5 8.0 350.0 6.0 5.5 4.5 5.5 8.0 400.0 4.0 5.5 4.5 5.5 8.0 500.0 4.0 5.5 8.0								
300.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 5.5 8.0 5.0 6.0 5.5 4.5 5.5 8.0 6.0 5.5 4.5 5.5 8.0 6.0 5.5 4.5 5.5 8.0 6.0 5.5 4.5 5.5 8.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 5.5 8.0 6.0 6.0 5.5 8.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6	-45 0	200,0		U	3,3	7.7	7,5	4,5
325.0 6.0 5.5 8.0 5.5 8.0 4.5 4.5 5.5 8.0 4.5 5.5 8.0 5.0 4.5 5.5 8.0 5.5 8.0 5.0 6.0 5.5 8.0 5.0 5.5 8.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5	- 12,0	300 0	4.	•	F 6	0 4		0.2
350.0 6.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 500.0 4.0 5.5 4.5 5.5 8.0 500.0 4.0 5.5 4.5 5.5 8.0 500.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6		325 6						
400.0 4.0 5.5 4.5 5.5 8.0 450.0 4.0 5.5 4.5 5.5 8.0 500.0 4.0 5.5 4.5 5.5 8.0 300.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 350.0 6.0 5.5 8.0 5.5 8.0 400.0 6.0 5.5 8.0 5.5 8.0 400.0 6.0 5.5 8.0 5.5 8.0		350 0					5,5	
450.0 4.0 5.5 4.5 5.8 8.0 50.0 4.5 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 350.0 6.0 5.5 8.0 5.5 8.0 400.0 6.0 5.5 8.0 5.5 8.0 450.0 6.0 5.5 8.0 5.5 8.0 450.0 6.0 5.5 8.0 5.5 8.0		400.0					5,5	8,0
300.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 350.0 6.0 5.5 8.0 5.5 8.0 400.0 6.0 5.5 8.0 5.5 8.0 450.0 6.0 5.5 4.5 5.5 8.0		450.0					5,5	8,0
300.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 350.0 6.0 5.5 8.0 5.5 8.0 400.0 6.0 5.5 8.0 5.5 8.0 450.0 6.0 5.5 4.5 5.5 8.0							5,5	8,0
300.0 6.0 5.5 8.0 5.5 8.0 325.0 6.0 5.5 8.0 5.5 8.0 350.0 6.0 5.5 8.0 5.5 8.0 400.0 6.0 5.5 8.0 5.5 8.0 450.0 6.0 5.5 4.5 5.5 8.0	40.0	500,0	4,	0	5,5	4.5	5,5	4,5
325.0 6.0 5.5 8.0 5.5 8.0 350.0 6.0 5.5 8.0 5.5 8.0 400.0 6.0 5.5 8.0 5.5 8.0 450.0 6.0 5.5 4.5 5.5 8.0	-00.0	700						
450,0 6,0 5,5 8.0 5,5 8,0 450,0 6,0 5,5 4.5 5,5 8,0		300.0	6,	0	5.5		5,5	8.0
450,0 6,0 5,5 8.0 5,5 8,0 450,0 6,0 5,5 4.5 5,5 8,0		325,0	6	0	5,5		5,5	8.0
450,0 6,0 5,5 8.0 5,5 8,0 450,0 6,0 5,5 4.5 5,5 8,0		350,0	6	0	5.5	8.7	5,5	8.0
450.0 6,0 5.5 4.5 5.5 8.0 500.0 4,0 5.5 4.5 5.5 8.0		400.0	6,	0	5.5	8.0	5,5	8.0
500.0 4,0 5,5 4.5 5,5 8.0		450.0	6,	0	5.5	4.5	5,5	8.0
		500.0	4	0	5.5	4.5	5,5	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH/EB= 0.00010

A/C A-		BOMB MK 82/SNAP	RELEAS	UNRET E	J VEL 5.6	FT/SEC
TARGET REL ANG	REL	SEA LEVEL MINIMUM	ARMING	TIME / FUZE	EL ALT 100 COMBINATI	OO FT
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0,						
	300.0	8.0	8.0	N.A.	10.0	N.A.
	325.0	8.0	8.0	N.A.	10,0	N.A.
	350,0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8.0	8.0	8.0	10.0	N.A.
	450.0	6,0	8.0	8.0	8.0	8.0
	500.0	6,0	5.5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		SINGLE	RELEAS	SE		
A/C A-	4	BOMB MK 82/SNAF			J VEL 5.6	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 150	
REL	REL		ARMING	TIME / FUZE		
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
- •	300.0	8,0	8.0	N.A.	10.0	N.A.
	325.0	8.0	8,0	N.A.	10.0	N.A.
	350,0	8.0	8,0	N.A.	10.0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	N.A.	10.0	N.A.
	500.0	6,0	8,0	8,0	10,0	N.,

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

		SINGL	E RELEAS	SE .		
A/C A	4				MK 82/SNI	UNRETARDED
TARGET	ALTITUDE	SEA LEVEL			5.6 FT/S	:c
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINAT	LONS
ANG	VEL	NI NI NON	MULINO	11.5 / 1075	COMBINAL	LOMP
		M0045-	110000			
(DEG)	(KTAS)	M904E2	H990E	MOPOD	VT/M990E	VT/M9900
•						
0,	300 0	• •				
	300.0	8,0	8.0	8.0	10.0	N.A.
	325.0	8,0	6,0	8.0	10.0	N,A,
	350,0	8,0	8,0	8.0	10.0	N.A.
	400.0	6,0	8.0	8.0	8.0	8,0
	450.0	6,0	5,5	8.0	8,0	8.0
	500.0	6,0	5,5	8.0	8.0	8,0
-10.0		-10	713	-,0	9.0	0,0
-4010	300.0	4.0		8 6		
	725 0	6,0	5,5	8,0	5,5	8.0
	325.0	6,0	5.5	8.0	5,5 5,5	8,0
	350,0	6,0	5,5	8.0	5,5	8,0
	400.0	6.0	5,5	8.0	5.5	8,0
	450.0	4.0	5.5	4.5	5,5	8,0
	500.0	4,0	5,5	4,5	5,5	8.0
-30.0			- 10	• •	- 1 -	4,5
	300.0	6.0	5,5	8.0	8 6	
	325.0				5,5	8.0
	350.0	6,0	5,5	8,0	5,5	8,0
	350,0	6,0	5.5	8.0	5,5	8,0
	400.0	6,0	5,5	8,0	5,5	8,0
	450.0	6,0	5.5	4.5	5,5	8,0
	500,0	4.0	5,5	4,5	5,5	8,0
-45.0					•	
	300.0	6,0	5,5	8.0	5,5	8,0
	325,0	6,0	5,5	8.0		
	350.0	4.0		8.0	5,5	8,0
	400.0	6,0	5.5		5.5	8,0
	450.0	6,0	5,5	8.0	5.5	8,0
	450.0	0.0	5,5	4.5	5,5	8,0
	500.0	6.0	5,5	8.0	5,5	8,0
-60.0						
	300,0	6,0	5,5	8.0	5.5	8.0
	325.0	6,0	5 5	8.0	5 5	8,0 8,0
	350.0	4 0	3 5	8.0	5 8	8 0
	400.0	6,0 6,0 6,0	5 5	8.0	5 8	8.0
	450.0	4.0	2,2	8.6	2,7	8,0
		0,0	5,5 5,5 5,5 5,5	8.0	5,5 5,5 5,5 5,5 5,5 5,5	8,0
	500,0	6.0	5.5	8.5	0,5	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C A-4 BOMB H117A1 (H-6 LOADED)/H131 FIN FJ VEL 4.2 FT/SEC TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 10,000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 MODDE M990D VT/M990E VT/M990D 0. 300.0 8,0 8,0 N.A. 10.0 N.A. 325.0 8,0 N.A. 8.0 10.0 N.A. 350.0 N.A. 8.0 10.0 N.A. 400.0 8,0 N.A. 8,0 10.0 N.A. 450.0 8.0 8,0 N.A. N.A. 10.0 500.0 8.0 8.0 10.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C A-4 BOMB M117A1 (H-6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 15,000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 M990E M99nD VT/M990E VT/M990D 0, 300.0 10,0 N.A. 10.0 N.A. N.A. 325.0 10,0 N.A. 10.0 N.A. N.A. 350.0 10.0 N.A. 10.0 N.A. N.A. 400.0 N.A, 8.0 8.0 10,0 N.A. 450.0 N.A. 8,0 10,0 8.0 N.A. 500.0 8.0 8.0 N.A. 10.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

		SINGL	E RELEAS	SE .		
A/C A-		80	MB M117	A1 (H-6 LOAD!	FD)/M131 F	IN
TARGET	ALTITUDE SE				4.2 FT/SE	
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL					
(DEG)	(KTAS)	H904E2	M990E	M990D	VT/M990E	VT/M9900
0.						
u,	300,0	8,0	8.0	N.A.	10,0	N.A.
	325.0	8.0	8.0	N.A.	10.0	N.A.
	350.0			N.A.	10.0	N.A.
	400.0	8.0	8.0	8.5	10,0	
		8.0	8.0		10,0	N.A.
	450.0	8.0	8.0	8.0	8.0	8,0
4.0	500.0	6,0	8,0	8.0	8.0	8.0
-10.0	700 0				0 -	
	300.0	6,0	5,5	8.0	8,0	8.0
	325.0	6.0	5.5	8.0	8,0	8.0
	350,0	6.0	5.5	8,0	8,0	8.0
	400.0	6.0	5.5	8.0	5.5	8.0
	450.0	6,0	5.5	8.0	5,5	8.0
	500.0	6,0	5,5	8.0	5,5	8.0
-30.0						
	300.0	6,0	5,5	8.9	5,5	8,0
	325.0	6,0	5.5	8,0	5,5	8.0
	350,0	6,0	5.5	8.0	5,5	8.0
	400.0	6,0	5,5	8.0	5.5	8.0
	450.0	6,0	5.5	8.0	5,5	8.0
	500.0	6,0	5.5	8.0	5,5	8.0
-45.0					• •	
	300.0	6,0	5.5	8.0	5.5	8,0
	325,0	6,0	5.5	8.0	5.5	8.0
	350.0	6.0	5,5	8.0	5,5	8,0
	400.0	6,0	5,5	8.0	5.5	8.0
	450.0	6.0	5,5	8.0	5,5	8.0
	500.0	6,0	5.5	8.0	5.5	8.0
40.0	200,0	0,0	5,5	•••	2.5	0,0
-60.0	300 0	6 · A	5 5	8.0	5 6	я А
	300.0	4 4	5,5		5,5	8,0 8,0 8,0
	325.0	0,0	5.5 5.5	8.0	5,5	0,0
	350,0	6.0 6.0 6.0	2.5	8.0	2,5	0,0
	400.0	0,0	5.5	8.0	2,5	8.0
	450.0	6,0	5,5	8.0	5,5 5,5 5,5 5,5 5,5	8.0
	500.0	6.0	5,5	8.0	٥, 5	8.0

APPENDIX B

SAFE ARMING TIMES A-4 AIRCRAFT ONE SECOND STICK RELEASES

CONTENTS

MK 81 GPLD LEVEL RELEASE AT 10,000 FT MSL LEVEL RELEASE AT 15,000 FT MSL 0-60 DEGREE RELEASES WITH RECOVERY AT 3,000 FT MSL	
MK 82 GPLD LEVEL RELEASE AT 10,000 FT MSL LEVEL RELEASE AT 15,000 FT MSL 0-60 DEGREE RELEASES WITH RECOVERY AT 3,000 FT MSL	
MK 83 GPLD LEVEL RELEASE AT 10,000 FT MSL LEVEL RELEASE AT 15,000 FT MSL 0-60 DEGREE RELEASES WITH RECOVERY AT 3,000 FT MSL	ט
MK 84 GPLD (EST) LEVEL RELEASE AT 10,000 FT MSL	B 8
MK 81 / SNAKEYE 1 / UNRETARDED LEVEL RELEASE AT 10,000 FT MSL LEVEL RELEASE AT 15,000 FT MSL 0-60 DEGREE RELEASES WITH RECOVERY AT 3,000 FT MSL	D 1 A
MK 82 / SNAKEYE I / UNRETARDED LEVEL RELEASE AT 10,000 FT MSL LEVEL RELEASE AT 15,000 FT MSL	2 12
M117A1 (H-6 LOADED) / M131 FIN LEVEL RELEASE AT 10,000 FT MSL	
NOTE- ALL DIVES ARE 4G RECOVERIES	

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-		BOMB MK 81	COND ST	•	J VEL 7.2	FI/SEC
TARGET REL ANG	REL VEL	SEA LEVEL MINIMUM			EL ALT 100	00 FT
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	300.0 325.0 350.0 400.0 450.0 500.0	8,0 8,0 8,0 6,0 6,0	8.0 8.0 8.0 8.0	N.A. 5.0 8.0 8.0 8.0	10.0 10.0 10.0 8.0 8.0 8.0	N.A. N.A. 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-4 TARGET REL ANG	ALTITUDE REL VEL	SEA	BOMB MK 81	COND S'	1	REL ALT 15	2 FT/SEC 000 FT ONS
	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	300.0 325.0 350.0 400.0 450.0 500.0		8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0	N.A. N.A. N.A. 8.0 8.0 8.0	10.0 10.0 10.0 10.0 8.0 8.0	N.A. N.A. N.A. N.A. 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK

		UNE 3	FCOND 2	LICK		
A/C A					BOMB HK 81	GPLD
TARGET	ALTITUDE	SEA LEVEL			EJ VEL 7,2	
REL	REL	MINIMUM	ABMING	*1ME / 543	ED VEL /, Z	717320
ANG	VEL	wiwiwou	ARMING	TIME > FUZ	E COMBINATI	002
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0.						
٠.	300 0					
	300.0	8,0	8.0	8.0	8.0	8.0
	325.0	8,0	8.0	8.0	8.0	8.0
	350.0	5.0	8,0	8.0	8.0	8.0
	400.0	6,0	8.0	8.0	8.0	8.0
	450.0	6.0	5.5	8.0	8.0	
	500.0	6.0	5,5	8.0	0,0	8.0
-10.0	-40,0	0,0	3,5	0.0	8.0	8.0
-10.0	700 0					
	300.0	6,0	5.5	8.0	8.0	8,0
	325,0	6.0	5.5	8.0	5,5 5,5	8,0
	350.0	6,0	5.5	8.0	5.5	8,0
	400.0	6.0	5.5	8.0	5 5	8.0
	450.0	6,0	5,5	8.0	5,5 5,5	8,0
	500.0	6.0	5,5	8.5	5 6	0,0
-30.0	- 00 10	0,0	5,5	0.0	5,5	8,0
~00.0	300 0	4 - 4				
	300.0	6.0	5.5	8.0	5,5	8.0
	325.0	6,0	5,5	8.0	5,5	8,0
	350.0	6,0	5.5	8.0	5,5	8.0
	400.0	6.0	5.5	8.0	5,5	8.0
	450.0	6,0	5.5	8.0	5,5	8.0
	500.0	6.0	5,5	8.0	5,5	
-45.0		0,0	2.5	3,0	٥,٥	8,0
- 13 10	300.0	4.0			0 -	
		6.0	5.5	8.0	8,0	8,0
	325.0	6,0	5,5	8.0	8,0	8,0
	350.0	6,0	5.5	8.0	8.0	8,0
	400,0	6,0	5,5	8.0	5,5	8.0
	450.0	6,0	5,5	8.0	5.5	8.0
	500.0	6,0	5,5	8.0	5,5 5,5	8.0
-60,0		-,0	213	- 10	-,,	0.0
	300.0	6 0	8 6	8 0	9 6	
	328 6	6.0	5,5	8,0 8,0	8.0	8.0
	325,0	0,0	5.5	0,0	8.0	8,0
	350.0	6,0	5.5	8.0	8,0	8.0
	400.0	6,0	5,5	8.0	8.0	8.0
	450.0	6.0	5.5	8.0 8.0 8.0	8.0	8.0
	500,0	6,0 6,0 6,0 6,0 6,0	5.5 5.5	8.0	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0
		• •		* =		- , 0

NOLTR 694135

HINIMUM ACCEPTABLE ARMING TIMES PH 0.00010 PH/EB 0.10000

		ONE	SECOND ST	ICK		
A/C A-		BOMB HK 8		•	EJ VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			REL ALT 100	
ALG	REL VEL	MINIM	UM ARHING	TIME / FUZ	E COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	- M990D	VT/M990E	VT/H990D
٥,						
	300.0	8,0	8.0	N.A.	10.0	N.A.
	325.0	8,0	8.0	N.A.	10.0	N.A.
	350,0	8.0	8.0	N.A.	10.0	N.A.
	400.0	8.0	8.0	8.0	10.0	N.A.
	450.0	8,0	8.0	8.0	10,0	N.A.
	500.0	8,0	8.0	0.8	8,0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		ONE S	ECOND S'	TICK		
A/C A-	4	BOMB MK 82	GPLD		J VEL 6.0	FT/SFC
TARGET	ALTITUDE S		•		EL ALT 150	
REL	REL VEL	MINIMUM	ARHING	TIME / FUZE		
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
٥,						
	300.0	8,0	8.0	N.A.	N.A.	N.A.
	325.0	8,0	8.0	N.A.	iP,0	N.A.
	350.0	8,0	8.0	N.A.	10,0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.6	8,0	8.0	N.A.	10.0	N.A.
	500.0	8,0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010

ONE SECOND STICK

			ONE 9	FCOND 2	TICK		
TARGET	ALTITUDÉ	SEA	LEVEL			OMB MK 82 J VEL 6.0	FT/SEC
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL						
(DEG)	(KTAS)		M904E2	M990E	M9900	VT/M990E	VT/M990D
6.	700						
	300.0		8.0	8.0	N.A.	10.0	N.A.
	325,0 350,0		8,0	8.0	8.0	10.0	N.A.
	400.0		8.0	8.0	8.0	10.0	N.A.
	450.0		8.0	8.0	8.0	8,0	N.A.
	500.0		6.0	8,0 5,5	8.0	8,0	8,0
-10.0	200,0		0.0	919	0.0	0,0	8,0
	300.0		6.0	5,5	8.0	8,0	8,0
	325.0		6.0	5,5	8.0	8.0	8.0
	350,0		6.0	5,5	8.0	8,0	8.0
	400.0		6,0	5.5	8.0	5.5	8.0
	450.0		6,0	5.5	8,0	5,5	8.0
	500.0		6.0	5,5	8.0	5,5	8.0
-30.0	300 0		4.0		D 4	0 •	2 4
	300.0 325.0		6,0	5,5	8.0	8,0	8,0
	350,0		6.0	5.5 5.5	8,0 5,0	8,0	8.0
	400.0		6.0	5.5	8.0	8,0 8,0	8.0 8.0
	450,0		6,0	5,5	8.0	5,5	8,0
	500.0		6,0	5.5	8,0	5,5	8,0
-49.0			•				-,0
	300,0		6,0	5.5	8.0	8.0	8.0
	325.0		6.0	5,5	8.0	6.0	8,0
	350,0		6,0	5,5	8.0	8.0	8,0
	400.0		6,0	5.5	8.0	8,0	8,0
	450.0		6.0	5.5	8.0	8.0	8,0
-60.0	500.0		6.0	5.5	5.0	8,0	8.0
-00,0	300,0		6 0	5 5	8.0	8 6	φ Λ
	325,0		6,0 6,0	5.5	8.0	8,0 8,0 8,0 8,0 8,0	8,0 8,0 8,0 8,0 8,0
	350.0		6.0	5.5 5.5	8.0	8.0	8.0
	400.0		6.0	5.5	8.0	8.0	8.0
	450.0		6,0	5,5	8.0	8,0	8.0
	500.0		6,0 6,0 6,0	5.5 5.5 5.5	8.0	8.0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/ED# 0.10000

ONE SECOND STICK

A/C A-4

BOMB MK 83 GPLD

FEL ALT 10000 FT

REL REL

MINIMUM ARMING TIME / FUZE COMBINATIONS

ANG

VEL

(DEG) (KTAS)

M904E2

M990E

M990D

VT/M990E

VT/M9

0.

500.0

00

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK A/C A-4 BOMB MK 83 GPLO EJ VEL 4.8 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 15000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (KTAS) (DEG) M904E2 M99DE M990D VT/M990E VT/M990D 0. 300.0 10.0 N.A. 10.0 N.A. N.A. 325.0 N.A. 10,0 10.0 N.A. N.A. 10.0 350.0 N.A. 10.0 N.A. N.A. N.A. 400.0 N.A. N.A. 10.0 450.0 N.A. 10.0 N.A. 8.0

8.0

8,0

N.A.

10.0

N.A.

ONE SECOND STICK

TARGET ALTITUDE SEA LEVEL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0. 300.0 8.0 8.0 N.A. 10.0 N.A. 325.0 8.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	A/C A	4		0.172		10.0		
MEL ANG VEL (DEG) (KTAS) M904E2 M990E M990E VT/M990E VT/M990D 0. 300.0 8.0 8.0 N.A. 10.0 N.A. 325.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 10.0 N.A. 500.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0							BOMB MK 83	GPLD
MEL ANG VEL (DEG) (KTAS) M904E2 M990E M990E VT/M990E VT/M990D 0. 300.0 8.0 8.0 N.A. 10.0 N.A. 325.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 10.0 N.A. 500.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	TANGET	ALTITUDE	SEA	LEVEL			FJ VEL 4.8	FT/SEC
ANG (OEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0. 300.0 8.0 8.0 N.A. 10.0 N.A. 325.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	REL	REL		MINIMUM	ARMING	TIME / FIL	75 COMPINATI	ONS
OEG (KTAS)	ANG			• • • • • • • • • • • • • • • • • • • •	4	11.67.0	SE COURTHWEE	0.45
0. 300.0 300.0 8.0 8.0 8.0 8.0 8.				MANAFA	W0000	W0000		
300.0 8.0 8.0 N.A. 10.0 N.A. 325.0 8.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	(050)	(N M S)		M904E2	W990E	M9900	VT/M990E	VT/M990D
300.0 8.0 8.0 N.A. 10.0 N.A. 325.0 8.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0								
325.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	0,					`		
325.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		300.0		8.0	8.0	N.A.	40 n	N. A.
350.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 10.0 N.A. 500.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0							10.0	
400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0				9.0			10,0	
450.0 8.0 8.0 8.0 10.0 N.A. 500.0 8.0 8.0 8.0 10.0 N.A. 300.0 6.0 5.5 8.0 8.0 8.0 8.0 325.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 450.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 325.0 6.0 5.5 8.0 8.0 8.0 8.0 325.0 6.0 5.5 8.0 8.0 8.0 8.0 325.0 6.0 5.5 8.0 8.0 8.0 8.0 325.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 450.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0				0,0			10.0	
-10.0 -1		700.0		8.0	8,0		10.0	N.A.
-10.0 -1				8,0	8,0	8.0	10.0	
-10.0 300.0 300.0 325.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8		500.0		8.0		8.0	8 n	
300.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	-10.0			• •	• • •		- 10	0.0
325.0 6.0 5.5 8.0 8.0 8.0 8.0 40.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		30n n		6 0	5 E	8 6	P .	0. •
350.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		325 0			-		0.0	
400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 50.0 50.0 50.		329,0					Ø.0	8,0
-30.0 -3					5.5	8.0	8.0	8.0
450.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		400.0		6.0	5.5	8.0	8.0	
-30.0 -3		450.0				8.0		
-30.0 300.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		500.0					8.0	
300.0 6.0 5.5 8.0 8.0 8.0 8.0 325.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	-30 n			010	3.5	0,0	0,0	0.0
325.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	-00.0	300 6		4 .		0 •		
350.0 6.0 5.5 8.0 8.0 8.0 8.0 450.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		300,0		0,0			8.0	8.0
350.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 450.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		323.0					8.0	8.0
400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 500.0 500.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		350.0		6,0	5.5	8.0	8.0	
450.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		400.0			5.5	8.0	8 0	
-45.0 -45.0 300.0 6.0 5.5 8.0 8.0 8.0 8.0 325.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8		450.0					8 6	
-45.0 300.0 6.0 5.5 8.0 8.0 8.0 325.0 6.0 5.5 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 450.0 6.0 5.5 8.0 8.0 8.0 -60.0 300.0 6.0 5.5 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 8.0		500 0					0,0	
300.0 6.0 5.5 8.0 8.0 8.0 8.0 325.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	-48 0	200.0		0 1 0	2.2	0,0	0,0	8,0
325.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	-45,0	700 0		4 • .				
325.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		300.0					8,0	8,0
350.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		325,0		6.0	5.5	8.0	8.0	
400.0 6.0 5.5 8.0 8.0 8.0 450.0 6.0 5.5 8.0 8.0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 -60.0 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 350.0 6.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0		350.0					8 0	
450.0 6.0 5.5 8.0 8.0 8.0 8.0 -60.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		400.0		6.0			8 0	
500.0 6.0 5.5 8.0 8.0 8.0 -60.0 300.0 6.0 8.0 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 8.0 8.0 350.0 6.0 8.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 8.0				4 0			0,0	
-60.0 300.0 6.0 8.0 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 8.0 350.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0							0,0	
300.0 6.0 8.0 8.0 8.0 325.0 6.0 8.0 8.0 8.0 350.0 6.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0		200.0		٥, ٥	5.5	o. n	8,0	8.0
325,0 6,0 8.0 8.0 8.0 350.0 6,0 8.0 8.0 8.0 400.0 6,0 8.0 8.0 8.0	-00.0							
325,0 6,0 8.0 8.0 8.0 350.0 6,0 8.0 8.0 8.0 400.0 6,0 8.0 8.0 8.0		300.0		6,0	8.0	8.0	8.0	8.0
350.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0		325,0					8. ñ	
400.0 6.0 8.0 8.0 8.0		350.0		6.0			8 0	
APA							0,0	
							o , U	
450.0 6.0 5.5 8.0 8.0								
500.0 6.0 5.5 8.0 8.0 8.0		200.0		6,0	5.5	8.0	8.0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK A/C A-4 BOMB MK 84 GPLD (EST) EJ VEL 4.8 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 MOPOE M990D VT/M990E VT/M990D 0. 10,0 300.0 N.A. 10.0 N.A. N.A. 325.0 10,0 10.0 N.A. N.A. N.A. 350.0 10,0 10.0 N.A. N.A. N.A. 400.0 10,0 N.A. 10.0 N.A. N.A. 450.0 8,0 N.A. 8.0 10.0 N.A. 500.0 8.0 N.A. 10.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/E8= 0.10000

ONE SECOND STICK A/C 4-4 BOMB MK 84 GPLD (EST) EJ VEL 4.8 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 15000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 MOPOE M990D VT/M990E VT/M990D 0, 300.0 10.0 10.0 N.A. N.A. N.A. 325,0 N.A. 10.0 N.A. N.A. 350.0 10,0 N.A. 10.0 N.A. N.A. 400.0 N.A. 10,0 10.0 N.A. N.A. 450.0 10,0 N.A. 10.0 N.A. N.A. 500.0 8,0 N.A. 8.0 N.A. 10.0

MINIMUM ASCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

Γ)

ONE SECOND STICK

			OME 3	ECOMO 3	IICK		
A/C A	-4				A	OMB MK 84	GPLD (ES
TARGET	ALTITUDE	SEA	LEVEL		ž	J VEL 4.8	FT/CEC
REL	REL	34.		ADMING			
			utatuñu	ARMING	TIME / FUZE	COMBINALI	DN2
ANG	VEL						
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	300.0		8 0		- At A	. 0	
			8,0	8.0	N.A.	10.0	N.A.
	325.0		8.0	8.0	N.A.	10.0	N.A.
	350.0		8.0	8.0	N.A.	10.0	N.A.
	400.0		8.0 8.0 8.0	8.0	N.A.	10.0	N.A.
	450.0		8.0	8,0	8.0	10.0	N.A.
	500.0		8.0	8.0	8.0	10,0	
-10 0	-00,0		0.0	0.0	0,0	10.0	N.A.
-10.0	700 0						
	300.0		6,0	8.0	8.0	8,0	8,0
	325,0		6,0	8,0	8.0	8,0	8.0
	350.0		6,0	5,5	8.0	8.0	8.0
	400.0		6,0	5.5	8.0	8,0	
	450.0					0,0	8,0
			6,0	5.5	8.0	8.0	8,0
	500.0		6,0	5.5	8.0	8.0	8.0
-30.0							
	300.0		6,0	5.5	8.0	8.0	8.0
	325.0		6.0	5.5	8.0	8.0	8,0
	350.0		6,0	5,5	8.0	8.0	
	400.0		4 0			0,0	8,0
			6.0	5,5	8.0	8.0	8,0
	450.0		6,0	5.5	8.0	8,0	8,0
	500.0		6.0	5.5	8.0	8,0	8.0
-45.0							
	300,0		6,0	8.0	8.0	8.0	8.0
	325.0		6.0	8.0	8,0	9,0	
	350,0		4 0			8.0	8.0
	400,0		6.0	8.0	8.0	8.0	8.0
	400.0		6.0	8.0	8.C	8,0	8.0
	450.0		6,0	8.0	8.0	8,0	8,0
	500.0		6.0	5.5	8.0	8,0	8.0
-60.0			• •				
	300.0		6.0	A 0	8.0	8 0	Ω Α
	335 4			8.0		8,0	8,0
	325.0		6.0	8.0	8.0	8,0	8,0
	350.0		6.0	8.0	8.0	8.0	8,0
	400.0		6,0	8.0	8.0	8.0	8,0
	450.0		6.0	8.0	8.0	8.0	8,0
	500.0		6.0	8,0	8.0	8,0	8.0
			~ • v	0,0	- 10	5 ,0	0.0

NOLTR 69:135

MINIMUM ACCEPTABLE ARMING TIMES PM = 0.00010 PM/EB= 0.10000

ONE SECOND STICK A/C A-4 BOMB MK 81/SNAKEYE I/UNRET EJ VEL 7,2 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL MINIMUM ARMING TIME / FUZE COMBINATIONS REL ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0. 300.0 8,0 8.0 N.A. 10,0 N.A. 325.0 8,0 1,0 8.0 10.0 N.A. 350.0 8,0 8.0 8,0 8,0 8.0 400.0 6,0 .0 8.0 8.0 8,0 450,0 6,0 8.0 8,0 5,5 3,0 500.0 8.0 6,0 8.0 5.5 8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

			ONE SI	ECOND \$1	TICK		
A/C A-	•		BOMB HK 81/	SNAKEYE		J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL			EL ALT 150	
REL	REL			ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
•	300.0		8,0	8.0	N.A.	10.0	N.A.
	325,0		8.0	0.0	N.A.	10.0	N,A,
	350.0		8,0	8.0	N.A.	10.0	N.A.
	400.0		8,0	8.0	8.0	8,0	8,0
	450.0		6.0	8.0	8.0	8.0	8,0
	500.0		6.0	5.5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK

		ONE S	ECOND S'	TICK		
A/C A	-4	_		BOMR	MK 81/SNI	UNRETARDED
TARGET	ALTITUDE	SEA LEVEL			L 7.2 FT/S	
REL	REL		ABMING	TIME / FUZ	E COMPINAT	IONS
ANG	VEL	W. T. of M. O.	MANTIAR	11 / 102	E CO. DIAM	10110
		W00455		HOAAD		119
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0.						
	300,0	6.0	8.0	8.0	8,0	8.0
	325.0	6,0	8.0	8.0	8.0	8.0
	350.0			8.0		· ·
		6.0	8.0		8,0	8.0
	400.0	6,0	5.5	8.0	8.0	8.0
	450.0	6.0	5.5	8.0	8.0	8.0
	500.0	6.0	5.5	8.0	8.0	8.0
-10.0						
	300.0	6,0	5,5	8.0	8.0	8,0
	325.0	6.0	5.5	8.0	5,5	8.0
	350.0			8.0		
	400.0	6,0	5,5		5,5	8,0
	400.0	6.0	5.5	8.0	5.5	8.0
	450.0	6,0	5.5	8.0	5,5	8,0
	500.0	4.0	5,5	4.5	5,5 5,5	8,0
+30.0						
	300.0	6,0	5,5	8.0	5,5	8,0
	325.0	6.0	5.5	8.0	5.5	8.0
	350.0	6.0	5,5	8.0	5,5	
	400.0	4.0			5,5	8.0
		6,0	5.5	8.0	5,5	8,0
	450.0	6.0	5.5	8.0	5,5	8,0
	500.0	6,0	5.5	8.0	5,5	8,0
-45.0						
	300.0	6,0	5,5	8,0	8.0	8,0
	325,0	6.0	5,5	8.0	8.0	8,0
	350.0	6,0	5,5	8.0	5,5	8,0
	400.0			8.0	5 5	0,0
		6,0	5,5		5,5	8,0
	450.0	6.0	5.5	8.0	5,5	8,0
	500.0	6,0	5,5	8.0	5.5	8,0
-60.0						
-	300.0	6,0	5,5	8.0	8,0	8.0
	325.0	6,0	5.5	8.0	8,0	8.0
	350.0	6.0	5,5 5,5 5,5	8.0	8.0	8.0
	400.0	5.0	J 1 3	8.0	9,0	
		6,0	2.2		8,0	8,0
	450.0	6.0	5.5	8.0	8.0	8,0
	500,0	6,0	5.5	8.0	8,0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/E A-	4	ONE SI	ECOND S'			
TARGET	ALTITUDE	SEA LEVEL	KEYE I		EJ VEL 5,6 Rel alt 100	FT/SEC
REL	AEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0.						
	300.0	8,0	8.0	N.A.	10.0	N.A.
	325,0 350,0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8,0 8,0	8.0	N.A. 8.0	10.0	N.A.
	450.0 500.0	6.0	8.0	8.0	8.0	N.A.
	- 4410	3,0	5,5	8,0	8.0	8.0

	•	ONE S	ECOND S'	rick		
A/C A-		80MB MK 82/SNA	KEYE 1	UNRET 6	J VEL 5.6	ET /REC
TARGET	ALTITUDE	SEA LEVEL		F	REL ALT 150	OO FT
ANG	REL VEL	МІМІМИМ	ARHING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	300,0	8.0	8.0	N.A.	ï0.0	AJ A
	325,0	8;0 8;0 8;0	8.0	N.A.	10.0	N.A.
	350.0	8 0	8.0			N.A.
	400.0	9:0		N.A.	10.0	N.A.
	450.0	0,0	8.0	N.A.	10.0	N.A.
		8.0	8.0	N.A.	10.0	N.A.
	500,0	6,0	8.0	8,0	10.0	N.A.

NOLTR 49-135

MINIMUM ACCEPTABLE ARMING TIMES

PH/EB= 0.00010 PH/EB= 0.10000

ONE SECOND STICK

			ONE 3	FCOND 2	TICK		
A/C A-	• 4				BOMB	MK 82/SN1/	UNRETARDED
	ALTITUDE	SEA	LEVEL				
	WELL LAND	SEV			EN ACT	5.6 FT/SE	
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL						
(DEG)	(KTAS)		M904E2	MPPOE	M990D	VT/M990E	VT/M9900
(000)	111.107		1170462	MAAAE	***************************************	AILUAAAC	417113300
_							
0,							
	300.0		8,0	8.0	8.0	10,0	N.A.
	325.0		8,0	8.0	8.0	10,0	N.A.
	780					10,0	The state of the s
	350.0		8.0	8.0	8.0	10.0	N.A.
	400.0		6,0	8.0	8,0	8.0	8,0
	450.0		6,0	5,5	8.0	8,0	8.0
	500.0		6,0	5,5	5.0	8.0	8.0
-10.0	20010		w 1 U	212		0,0	0,0
-10.0	•••				• •		
	300.0		6.0	5,5	8.0	8,0	8.0
	325.0		6,0	5.5	8.0	8.0	8.0
	350.0			5.5	8.0	8.0	8.0
	400.0		6,0		8.0	5 6	
			6.0	5.5		5,5	8.0
	450.0		6.0	5.5	8.0	5,5	8.0
	500.0		6,0	5.5	8.0	5,5	8,0
-30.0						, ,	- 1
-0010	300.0		4 0		8.0	8 0	0 8
			6,0	5,5		8,0	8.0
	325.0		6.0	5.5	8.0	8.0	8.0
	350,0		6,0	5,5	8.0	8,0	8,0
	400.0		6.0	5.5	8.0	5,5	8.0
	450.0		6.0	5.5	8.0	5,5	8.0
				• •			
	500.0		6.0	5.5	8.0	5,5	8,0
-45.0							
	300.0		6.0	5.5	8,0	8.0	6,0
	325.0			5.5	8.0	8.0	
			6,0				8,0
	350.0		6,0	5.5	8.0	8.0	8,0
	400.0		6.0	5,5	8.0	8,0	8,0
	450.0		6.0	5.5	8.0	8.0	8.0
	500.0		6.0	5,5	8.0	5,5	8.0
-60.0			-10	-1-	- , ,	-13	5,0
-00,0	700 0		4 4			0 -	
	300.0		6,0	5,5	8.0	8,0	8,0
	325.0		6.0	5,5	8.0	8,0	8,0
	350,0		6.0	5.5	8.0	8.0	8,0
	400.0			5,5	8,0	8.0	
	400.0		6,0				8,0
	450.0		6,0	5.5	8.0	8.0	8.0
	500.0		6.0	5.5	8.0	8.0	8.0

MINIHUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/ED= 0.10000

		ONE SI	COND ST	TICK		
A/C A-4		M117A1 (H-6	LOADED		EJ VEL 4	.2 FT/SEC
TARGET	ALTITUDE SEA			RELEASE	ALTITUDE 1	0.000 FT
ANG	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	H904E2	M990E	M990D	VT/H990E	VT/M990D
0.						
	300.0	8,0	8.0	N.A.	10.0	N.A.
	325.0	8,0	8.0	N.A.	10.0	N.A.
	350.0	0.0	8.0	N.A.	10.0	N, A,
	400.0	8,0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	N.A.	10.0	N.A.
	500.0	8.0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

			ECOND ST			
A/C A-		M117A1 (H-6	LOADED	/M131 FIN	EJ VEL	.2 FT/SEC
TARGET	ALTITUDE SEA	LEVEL		RELEASE	ALTITUDE 1	5.000 FY
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	IONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0.						
	300.0	10.0	10.0	N.A.	N.A.	N.A.
	325,0	10,0	10.0	N.A.	N.A.	N.A.
	350.0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	8,0	8.0	N.A.		N.A.
	450.0	8,0	8.0	N.A.	10,0 10,0	N.A.
	500.0	8.0	8.0	N.A.	4 D D	N.A

A/C A-4	BOI	COND ST	11 (H-6 LOADS		
TARGET ALTITUDE SEA		ABMINE		4.2 FT/SE	
REL REL Ang Vel	MINIMUM	ARMING	TIME / FUZE	COMBINALI	ONS
(DEG) (KTAS)	M904E2	M990E	M990D	V1/H990E	VT/H990D
0,	1.00				
300,0	8.0	8.0	N.A.	10.0	N.A.
329.0	8,0	8.0	N.A.	10.0	N.A.
350.0 400.0	8.0	8.0	8.0	10.0	N.A.
450.0	8.0	8,0	8.0	8,0	8.0
500.0	6,0	8.0	8.0	8.0	8.0
-10.0				•	
300.0	6,0	5,5	8.0	8,0	8,0
325,0	6.0	5.5	8.0	8.0	8.0
350,0	6.0	5.5	8.0	8,0	8,0
400.0	6.0	5.5	8.0	8,0	8,0 8.0
450.0 500.0	6,0	5.5 5.5	8.0	8,0 5,5	8.0
-30. 0	4 1 0	2,2	0.0	,,,	0,0
300.0	6.0	5,5	8.0	8.0	8.0
325.0	6.0	5.5	8.0	8.0	8.0
350,0	6,0	5.5	8.0	8.0	8.0
400.0	6.0	5.5	8.0	8,0	8.0
450.0	6,0	5.5	8.0	6.0	8,0
500,0	6.0	5.5	8.0	8.0	8.0
-45.0	4.0		8.0	8,0	8.0
300.0 32 5.0	6.0	5,5 5,5	8.0	8.0	8,0
350,0	6.0	5,5	8.0	8.0	8,0
400.0	6,0	5,5	8.0	8.0	8.0
450,0	6,0	5.5	8.0	8.0	8.0
500.0	6,0	5,5	8,0	8.0	8,0
-60.0					
300.0	6.0	5.5	8.0	8.0	8.0
325.0	6,0	5,5	8.0	8,0	8.0
350.0 400.0	6.0	7,7	8.0	8.0	8,0 8,0
450.0	6.0	5,5 5,5 5,5	8.0	8,0	8.0
500.0	6.0 6.0 6.0	5.5	8.0	8.0	8.0

APPENDIX C

SAFE ARMING TIMES A-4 AIRCRAFT THO SECOND STICK RELEASES

CONTENTS

L	EVI	EL	R	EL	E	12	E	•	T.	-1	7	. C	90	0	F	T	- 1	15	L.																							_			. С		2
MI	K I	B2	GR	PL EL	O E	S	E		7	1	0	. 0	0 (0	F	Ŧ		15	L					-		•																			C	: 4	4
MLL	EVI	B3 EL	GR	PL EL	DEA	S	E	AA	T	1 1	0 5	. 0	0 0	0	F	T		15	L	•		•	•		. !		 	•	٠.	•			•	• ;		!	• •	•	• (• •	•	•	• •	 •	. c		666
L	E V I	EL	R	EL	E	15	E	A	T	1	0	, [) Q	Ū	F	T		1 S	L	•							 								,										. C		8
L	-4 EV	EL	R	EL	E	S	E	A	T	1	0	, (0 0	0	F	1	N	15	L							_																_		 . 1	r: -	-14	П
L	K EVI EVI	EL	R	EL	E	15	Ε	A	T	1	0	, (0 (0	F	T	ı	15	L		R	·			•	• • • • • • • • • • • • • • • • • • • •		•	· ·	•	•		•	• :	•	:	• •		• •	•••	•		• •	 • •	C C C	1:11:11:11:11:11:11:11:11:11:11:11:11:1	2 2 3
L	11 EV EV	EL	R	EL	E	S	E	A	T	1	0 5	, (0 0	0	F	T	P	15	L		• •	•					 					٠.												 . 1	C	10	4
N	0 T	F _		▲L	L	0	tv	/ F	5	Α	R	F	4	G	R	F	Cr	ı V	F	R 1	I F	S																									

MINIMUM ACCEPTABLE APMING TIMES PH/28= 0.00010

A/C A-	4	TWO S	ECOND S'	•		-T 1804
TARGET		SEA LEVEL	JP LU		J VEL 7.2	
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
• •	300.0	8;0	8,0	N.A.	10.0	N.A.
	329.0	8,0	8.0	8.0	30 n	N.A.
	350.0	8,0	8.0	8.0	10.0	N.A.
	400,0	8,0	8.0	8.0	8,0	8.0
	450.0	6.0	8.0	8.0	8.0	8.0
	500.0	8,0 8,0 6,0	5.5	8.0	8.0	8.0

TARGET	BOUTITAL	SEA	BOMB MK 8	ECOND \$1		REL ALT 15	2 FT/SEC
REL	REL VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	H990D	VT/M990E	VT/H990D
0.							
	300.0		8.0	8.0	N.A.	10.0	N.A.
	325,0		8,0	8.0	N.A.	10.0	N.A.
	350.0		8,0	8.0	N.A.	10.0	N.A.
	400.0		8.0	8.0	8.0	10.0	N.A.
	450.0		a.0	8.0	8.0	8.0	8,0
	500,0		6.0	8.0	8.0	8,0	8,6

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

	_	TWO	ECOND S	TICK		
	-4 Allique es	A			BOMR MK 81	GPLD
REL	ALTITUDE SE		ADMANA	TIME 4 FUR	EJ VEL 7.2	FT/SEC
ANG	VEL	ututunu	ANNING	TIME / FUZ	E COMBINATI	0.02
(DEG)	(KTÄS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
•	300.0	8.0	8.0	8.0	9 6	0 0
	325,0	8.0	8.0	8.0	8,0	8.0
	350.0	6,0	8.0	8.0	8,0	8.0
	400.0	6,0	8.0	8.0	8.0	8.0
	450.0	6,0	5.5	8.0	8.0	8.0
	500.0	6,0	5,5	8.0	8.0	8.0
-10.0			2.9	0.0	8.0	8.0
	300.0	6,0	5,5	8.0	, 8 0	0 0
	325.0	6,0	5,5	8.0	0,0	8.0
	350,0	6.0	5,5	8.0	8.0	8.0
	400.0	6.0	5,5	8.0	8.0	8,0
	450.0	6.0	5.5	8.0	8.0 8.0	8.0
	500.0	6,0	5,5	8.0	8,0	8.0
-30,0		-10	7,3	0,0	0,0	8,0
	300.0	6,0	5.5	8.0	8.0	9 0
	325.0	6.0	5,5	8.0		8.0
	350.0	6.0	5.5	8.0	8.0	8.0
	400.0	6.0	5,5	8.0	8.0	8.0
	450.0	6.0	5,5	8.0	8.0	8,0
	500.0	6.0	5.5	8.0	8.0	8,0
-45.0			- 1 -	• • •	0,0	8,0
	300.0	6,0	8.0	8.0	8,0	8,0
	325,0	6,0	8.0	8.0	8,0	8,0
	350,0	6,0	8,0	8.0	8.0	8.0
	400.0	6.0	8,0	8.0	8.0	8.0
	450.0	6.0	5.5	8.0	8.0	8.0
	500.0	6,0	5,5	8.0	8.0	8.0
-60.0			. , .	• •	0	9.0
	300.0	6.0	8.0	8.0	8,0	8,0
	325,0	6.0	8.0	8.0	8.0	8,0
	350,0	6.0	8.0	8,0	8.0	8.0
	400.0	6.0	8.0	8.0	8.0	8,0
	450.0	6,0	8.0	8.0	8,0	8.0
	500,0	6,0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-		BOMB MK 82	ECOND S'	7	J VEL 6.0	FT/SEC
TARGET	ALTITUDE S			R	EL ALT 100	DO FT
rel	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/H990E	VT/M990D
0,						
•	300.0	8.0	8.0	N.A.	10,0	N.A.
		8,0 8,0 8,0	8.0	N.A.	10.0	N.A.
	350.0	8,0	8.0	N.A.	10.0	N,A,
	400.0	8,0	8.0	8.0	10.0	N.A.
	450.0	8.0	8.0	8.0	10.0	N.A.
	500.0	8.0	8,0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK A/C A-4 BOMB MK 82 GPLD EJ VEL 6.0 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 15000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 MOSOE M9900 VT/M990E VT/M990D 0. 300.0 8,0 8.0 N.A. N.A. N.A. 8.0 325.0 8.0 N.A. 10.0 N.A. 350.0 N.A, 10,0 8,0 N.A. 400.0 N,A, 8,0 10,0 N.A. 450.0 8.0 N,A, 10.0 8,0 N.A. 500.0 8.0 8.0 10.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

A 46 A			1 WU 3	SCOND 3	IICK		
	• 4				8	OMB MK 82	GPLD
TARGET		SEA	LEVEL		E	J VEL 6.0	FI/SEC
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL			K	1	OD. OTHER	UNO
(DEG)	(KTAS)		M904E2	M990E	M990D	u ± 14000C	WT . WOODD
			117045	MAARE	MAAOD	VT/M990E	VT/M990D
0,							
υ,	300 0						
	300.0		8,0	8.0	N.A.	10,0	N.A.
	325,0		8,0	8.0	8.0	10.0	N,A,
	350.0		8.0	8,0	8.0	10.0	N.A.
	400.0		8,0	8.0	8.0	8.0	N.A.
	450.0		6.0	8.0	8.0	8.0	8.0
	500,0		6.0	5.5	8.0		
-10.0			0,0	212	0.0	8.0	8.0
	300,0		4.0		0 4	0 -	_
	726 0		6,0	8.0	8.0	8.0	8,0
	325.0		6.0	8.0	8.0	8.0	8.0
	350.0		6,0	5.5	8.0	8.0	8,0
	400,0		6.0	5,5	8.0	8.0	8.0
	450.0		6.0	5.5	8.0	8,0	8,0
	500.0		6.0	5.5	8.0	8,0	
-30.0			-10	212	J + 17	0,0	8,0
	300.0		6.0		9 A	0 •	
	325,0		6.0	8.0	8,5	8,0	8,0
	750		6,0	8.0	8.0	8.0	8,0
	350.0		6.0	8.0	8.0	8.0	8,0
	400.0		6,0	8.0	8,5	8.0	8.0
	450.0		6,0	8,0	8.0	8.0	8,0
	500.0		6,0	8.0	8.0	8.0	8.0
-45,0			•	- , •	• •	-10	0,0
	300,0		6,0	8.0	8.0	8.0	8.0
	325.0		6,0	8,0	8.0		
	350.0		4 0			8.0	8.0
	400.0		6.0	8.0	8.0	8.0	8,0
	450.0		6.0	8.0	8.0	8,0	8,0
	450.0		6,0	8.0	8.0	8.0	8,0
	500.0		6.0	8.0	8.0	8.0	8.0
-60.0							, ,
	300.0		8,0	8.0	8.0	8,0	8,0
	325.0		8,0	8.0	8.0	8,0	
	350,0		8.0	8,0	8.0	9,0	8,0
	400.0		9 0			8,0	8,0
	450.0		8,0	8.0	8.0	8,0	8.0
	77U.U		8.0	8.0	8.0	8,0	8,0
	500.0		8.0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EBF 0.10000

A/C A-			BONB MK 83 (THO SECOND STICK BONB MK 83 GPLD EJ VEL			
TARGET REL ANG	REL VEL	SEA		ARHING		FL ALT 100	no FT
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	300.0 325.0 350.0		10,0 10.0 8.0	10.0	N.A.	N.A. 10.0	N.A.
	400.0 450.0 500.0		8,0 8,0 8,0	8.0 8.0 8.0	N.A. N.A. N.A.	10.0 10.0 10.0 10.0	N.A. N.A. N.A.

A/C A-C	4 ALTITUDÊ	SEA	TWO SECOND STICK BOMB MK 83 GPLD EJ VEL 4.8 FT/ LEVEL REL ALT 15000				
AEL	REL	- • • •		ARMING	TIME / FUZE	COMBINATI	OOG FT
(DEG)	(KTAS)		M904E2	M990E	M9900	VT/M990E	VT/M9900
С.	300.0 325.0 350.0 400.0 450.0 500.0		10.0 10.0 10.0 10.0 8.0 8.0	10.0 10.0 10.0 10.0 6.0 8.0	N.A. N.A. N.A. N.A. N.A.	N.A. N.A. N.A. 10.0	N.A. N.A. N.A. N.A. N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB= 0.10000

TWO SECOND STICK

			INO SECOND S	1105		
A/C A-	- 4			8	OMB MK 83	GPLD
TARGET		SEA LEVEL			J VEL 4.8	
REL	REL	MI	NIHUM ARMING	TIME / FUZE	COMPINATI	ONS
		,,,	ALUAN MALITAR	III.E \ . OFE	COURTHWIT	UIVO
AND	VEL			MODED		W
(DEG)	(KTAS)	M904	1E2 M990E	M990D	VT/M990E	VT/M990D
0.	TOO O	9 6		At A	40.0	NI A
	300,0	8,0	8,0	N.A.	10.0	N.A.
	325.0	8,0	8,0	N.A.	10,0	N,A,
	350,0	8 0	8,0	N.A.	10.0	N.A.
	400.0	8 (8,0	N.A.	10.0	N.A.
	450.0	8,0	8,0	8.0	10.0	N.A.
	500.0	8,0	8.0	8.0	8,0	8,0
-10.0		•				
7000	300,0	6,0	8,0	8.0	8.0	8.0
	325,0	6.0		8.0	8.0	8.0
	350.0	6.0		8.0	8,0	8.0
				8.0		
	400.0	6,0			8.0	8,0
	450.0	6,0		8,0	8,0	8,0
	500,0	6,0	8,0	8.0	8,0	8,0
-30.0						
	300.0	6,0	8,0	8.0	8,0	8,0
	325,0	6,0	8,0	8.0	8.0	8,0
	350.0	6, 6	8.0	8.0	8.0	8,0
	400.0	6,0	8.0	8.0	8.0	8.0
	450.0	6,1	8.0	8.0	8,0	8.0
	500.0	6,1		8.0	8,0	8.0
-45.0	500.0		0,0	- • • •	-,0	-,0
448.0	300.0	8;		8.0	8.0	8,0
	325,0	8;1	8.0	8,0	8.0	8,0
	350.0	8 ;	8,0	8.0	8.0	8,0
	400.0	8,		8,0	8.0	8,0
	450.0	8,	0 8.0	8.0	8,0	8,0
	500.0	8,		8.0	8,0	8,0
-60.0						
	300.0	8.	0 8,0	8.0	8,0	8,0
	325.0	8	0 8,0	8.0	8,0	8.0
	350.0	A:	0 8.0	8.0	8 0	8.0
	400 0	٥	0.0	8.0	8,0	8.0
	400.0 450.0	9:	0 8.0	8.0	8 0	9 8
	500,0	8.8.8.8	0 0 0	8.0	8,0	8.0
	500.0	8,	0,8	0 , 0	8.0	0,0

MINIMUM ACCEPTABLE ARMING TIMES PH # 0.00010 PH/ED# 0.10000

A/C A-		BOMB MK 84	SECOND GPLD (ES		J VEL 4.8	FT/SEC
TARGET	ALTITUDE SEA	LEVEL MINIMUM	LEVEL REL ALT 1000			00 FT
ANG	VEL	ntatana	ANHING	1146 / 7026	COMBINATI	DN2
(DEG)	(KTAS)	M904#2	M990E	M990D	VT/M990E	VT/H9900
0.						
	300.0	10.0	10.0	N,A,	N.A.	N.A.
	325.0	10.0	10,0	N.A.	N.A.	N.A.
	350.0	10.0	10.0	N.A.	N.A.	N.A.
	400.0	10.0	10.0	N.A.	N.A.	N.A.
	450.0	8.0	8,0	N.A.	10.0	•
	500.0	8,0	8.0	N.A.	10.0	N.A.

			TWO	SECOND	STICK		
A/C A-4		BOMB MK 84	GPLD (E	ST) F	J VEL 4.8	FT/SEC	
TARGET	ALTITUDE REL	SEA	LEVEL		_	EL ALT 15	000 FT
ANG	VEL			Altri I i o	TINC > OFE	COURTHWIT	0.43
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/H990D
0.							
	300.0		10,0	10.0	N.A.	N.A.	N.A.
	325,0		10.0	10.0	N.A.	N.A.	N.A.
	350,0		10,0	10,0	N.A.	N.A.	N.A.
	400.0		10.0	10.0	N.A.	N.A.	N.A.
	450.0		10.0	10.0	N.A.	N.A.	N.A.
	500.0		8.0	8.0	N.A.	10 0	N.A

MINIMUM ACCEPTABLE ARMING YIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

		TWO DI	ECOND S	TICK		
	-4				BOMB MK 84	GPLD (EST
TARGET	ALTITUDE	SEA LEVEL			EJ VEL 4.8	
AEL	REL	MINIMUM	ARMING	TIME / FUZ	E COMBINATI	ONS
ANG	VEL				s oo aşıını	0
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
			, , ,		* * * * * * * * * * * * * * * * * * * *	***
0,						
	300.0	8.0	8.0	N.A.	10.0	N.A.
	325,0	8,0	8,0	N.A.	10.0	N.A.
	350.0	8,0	8.0	N.A.	0.0	N.A.
	400.0	8,0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8,0	8.0	10.0	N,A,
	500.0	8,0	8.0	8.0	10.0	N.A.
-10,0			-,0	- 10	10.0	17 1 7 1
	300,0	8,0	8.0	8.0	8,0	8,0
	325.0	8,0	8.0	8.0		
	350,0	8.0	8,0	8.0	8,0	8,0
	400.0	6,0	8.0	5.0	8,0	8.0
	450.0	6,0	8.0	8.0	8,0	8,0
	500.0	6,0		8.0	8.0	8,0
-30.0	200,0	0.0	8.0	0.0	8.0	8.0
	300,0	8,0			9 .	
	325,0	9 0	8.0	8,0	8.0	8.0
	350,0	8,0	8.0	8.0	8,0	8,0
	400.0	9,0	8.0	8.0	8.0	8,0
	450.0	8,0	8.0	8.0	8,0	8.0
	500.0	8,0	8.0	8.0	8.0	8,0
-45.0	200.0	6,0	8.0	8.0	8,0	8,0
445.0	700 0	0 0				
	300.0	8,0	8.0	8.0	8,0	8.0
	325,0	8,0	8,0	8.0	8.0	8,0
	350.0	8,0	8.0	8.0	8,0	8.0
	400.0	8,0	8.0	8.0	8,0	8,0
	450.0	8,0	8.0	8.0	8.0	8,0
4.0	500.0	8,0	8.0	8.0	8,0	8,0
-60.0						
	300,0	8,0 8,0 8,0 8,0 8,0	8.0 8.0 8.0	8.0	8.0 8.0 8.0	8,0
	325,0	8,0	8.0	8.0	8.0	8.0
	350.0	8,0	8.0	8.0	8.0	8.0
	400.0	8,0	8.0	8.0	8,0	8.0
	450,0	8,0	8.0	8.0	8.0	8.0
	500,0	8,0	8.0	8.0	8.0 8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

0.00010 PH . PH/EB= 0,10000

THO SECOND STICK A/C A-4 BOMB HK 81/SNAKEYE I/UNRET EJ VEL 7.2 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 M990D M990E VT/M990E VT/M990D 0. 300.0 8,0 8,0 N.A. 10.0 N.A. 325.0 8,0 8.0 6.0 10.0 N.A. 350.0 8.0 8.0 8.0 8,0 8,0 400.0 6,0 8.0 8.0 8.0 8.0 450,0 6.0 5,5 8,0 8.0 8.0 500.0

5.5

8.0

MINIMUM ACCEPTABLE ARMING TIMES

8.0

8.0

PH = 0.00010 PH/EB: 0.10000

6.0

TWO SECOND STICK A/C A-4 BOMB MK 81/SNAKEYE I/UNRET EJ VEL 7.2 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 15000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 MOODE M9903 VT/M990E VT/M990D 0, 300,0 8,0 N.A. 8.0 10,0 N.A. 325,0 8.0 10.0 8.0 N.A. N.A. 350.0 N.A. 8,0 N.A. 8.0 10.0 8,0 400.0 8.0 8.0 8.0 8.0 450.0 8,0 6.0 8.0 8.0 8.0 500,0 8.0 6.0 5.5 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010

PH/EB= 0,10000

TWO SECOND STICK

			TWO 5	FCOND 2	TICK		
A/C A	- 4					ME BA CHI	UNRETARDED
TARGET	ALTITUDE	SEA	LEVEL			MY OTYPATY	DIAMETARDED
REL	REL	2 E'V			EN AFF	7.2 FT/SE	C
			MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL						
(DEG)	(KTAS)		M904E2	HOOAE	MODED		
(000)	(11.40)		WANAES	M990E	M990D	VT/M990E	VT/M9900
0.							
	300.0		6,0	8.0	8.0	Q A	
	325.0					8,0	8.0
	025,0		6,0	8.0	8,0	8,0	8.0
	350,0		6,0	8.0	8,0	8.0	8.0
	400.0		6,0	5.5	8.0		
	450.0					8,0	8.0
	F 00.0		6,0	5.5	8.0	8.0	8.0
	500.0		6.0	5.5	8.0	8.0	8.0
-10.0						, -	
	300.0		6.0	5,5	8,0	Ω	
	325,0					8.0	8.0
	323,0		6.0	5.5	8.0	8.0	8.0
	350.0		6,0	5.5	8.0	8.0	8.0
	400.0		6,0	5.5	8.0	8.0	8,0
	450.0		6.0	5,5	8.0		
	500.0					8.0	8.0
74 -	700,0		6,0	5,5	8.0	8.0	8.0
-30,0	_						
	300.0		6,0	5,5	8.0	8.0	8.0
	325.0		6,0	5.5	8.0		
	350.0					8.0	8.0
	400.0		6,0	5.5	8.0	8.0	8.0
	400.0		6,0	5.5	8.0	8.0	8.0
	450.0		6,0	5.5	8.0	8,0	8.0
	500.0		6,0	5.5	8.0		
-45.0			0,0	2.3	0.0	8.0	8.0
-4210	700 0		4				
	300.0		6,0	8,0	8.0	8.0	8,0
	325.0		6,0	8,0	8.0	ຮ ູ້ ວ	8.0
	350,0		6,0	8.0	8.0	8.0	
	400.0						8,0
	450,0		6.0	5,5	8,0	8,0	8,0
	450.0		6,0	5,5	8.0	8.0	8.0
	500.0		6,0	5,5	8.0	8.0	8.0
-60.0			• •		, ,	- 0	0.0
	300.0		4 0		0 •	0 -	
	30E -		6.0	8.0	8.0	8.0	8,0
	325.0		6,0	8.0	8.0	8.0	8.0
	350,0		6.0	8.0	8.0	8 0	8 0
	400.0		6 0	8.0	8.0	- , 0	8.0 8.0 8.0
	450.0		6.0 6.0 6.0	0.0	9 6	0,0	0,0
	#00.0		0 1 0	8.0	8.0	5 ,0	8.0
	500.0		6.0	8.0	8.0	8.0 8.0 8.0 8.0	8,0 8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		Two Si	ECOND S'	FICK		
A/G A-4		BOMB MK 82/SNA	KEYE 1		1 451 8 4	ET /SEC
TARGET	ALTITUDE	SEA LEVEL		R	J VEL 5,6 El alt 100	AD FT
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
• •	300.0	8,0	8.0	N.A.	10,0	N.A.
	325,0 350.0	8.0	8.0	N.A.	10.0	N.A.
	400.0	8,0	8.0	N.A, 8.0	10.0	N.A.
	450.0	8,0	8.0	8.0	8.0	8.0
	500.0	6,0	5.5	8.0	8,0	8.0

		TWO S	ECOND S'	TICK		
A/C A-	4	BOMB MK 82/SNA	KEYE 1		J VEL 5.6	CT/SEC
TARGET	ALTITUME	SEA LEVEL	7 to 7 to 8	-		
REL	REL	MANAGEMENT	. 014 - 410	MI MANUEL AND THE PARTY OF THE	EL ALT 150	DUPT
ANG	VEL	minimum	AMMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
	300,0	8.0	8.0	N.A.	10.0	Al A
	325.0	8,0				N.A.
			8,0	N.A,	10.0	N.A.
	350.0	8.0	8.0	N.A.	10.0	N.A.
	400.0	8,0	8.0	N.A.	10,0	N.A.
	450.0	8.0	8.0	N.A.	70.0	
				•	10.0	N.A.
	500.0	6,0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

A/C A	- 4	TWO S	ECOND ST			
TARGET REL ANG		MINIMUM FEVEL	ARMING	BOMB EJ VEL TIME / FUZE	5.6 FT/SE	UNRETARDED C ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
~16. 0	300.0 325.0 350.0 400.0 450.0 500.0	8.0 8.0 6.0 6.0	8.0 8.0 8.0 8.0 5.5	8.0 8.0 8.0 8.0	10.0 10.0 10.0 8.0 8.0	N.A. N.A. 8.0 8.0 8.0
30 ,0	300.0 325.0 350.0 400.0 450.0	6.0	8,0 8,0 5,5 5,5 5,5	8,0 8,0 8,0 8,0	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0
-t _e	300.0 325.0 350.0 400.0 450.0 500.0	6 0 6 0 6 0 6 0 6 0	8.0 8.0 8.0 8.0 5.5	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0
	360.0 325.0 350.0 400.0 450.0	6 0 6 0 6 0 6 0 6 0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 6.0	8.0 8.0 8.0 8.0 8.0	8,0 8,0 8,0 8,0 8,0
	300,0 325,0 350.0 400.0 450.0	8 0 8 0 8 0 8 0	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0	8,0 8,0 8,0 8,0 8,0

MINIMUM ACCEPTABLE ARMING TIMES PH/E8= 0.00010

		TWO SI	ECOND ST	TICK		
A/C A-4		M117A1 (H-6	LOADED	/M131 FIN	EJ VEL 4	.2 FT/SEC
TARGET	ALTITUDE SEA	LEVEL			ALTITUDE 1	
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(086)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H990D
0.						
	300.0	8,0	8.0	N.A.	10.0	N.A.
	325,0	8.0	8.0	N.A.	10.0	N.A.
	350.0	8.0	8.0	N.A.	10,0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	N.A.	10.0	N.A.
	500.0	8.0 8.0 8.0 8.0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES

PH/EB: 0.00010

		TWO SI	ECOND ST	ICK		
A/C A-	BOMB	M117A1 (H-6			EJ VEL	. 2 FT/SEC
TARGET	ALTITUDE SEA	LEVEL			ALTITUDE :	
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINAT	IONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H990D
0.						
	300,0	10,0	10.0	N.A.	N.A.	N.A.
	325.0	10,0	10.0	N.A.	N.A.	N.A.
	350.0	10.0	10.0	N.A.	N.A.	N.A.
	400.0	8,0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	N.A.	10.0	N.A.
	500.0	8.0	8.0	N.A.	10.0	N.A.

	A/C A-TARGET		RO	ECOND ST MB M117A	1 (H-6 LOA	DED)/M131 F	IN
	REL	REL	SEA LEVEL MINIMUM		EJ VE	L 4.2 FT/SE E COMBINATI	~
	(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
	0,	300.0 325.0 350.0 400.0 450.0 500.0	8 0 8 0 8 0 8 0	8.0 8.0 8.0 8.0	N,A, N.A. N.A. 8.0 8.0	10.0 10.0 10.0 10.0 8.0 8.0	N.A. N.A. N.A. 8.0 B.0
	~30.0	300.0 325.0 350.0 400.0 450.0 500.0	6,0 6,0 6,0 6,0	8,0 8,0 8,0 5,5 5,5	8,0 8,0 8,0 8,0 8,0	8,0 8,0 8,0 8,0 8,0	8.0 8.0 8.0 8.0 8.0
	-45.0	300.0 325.0 350.0 400.0 450.0 500.0	6.0 6.0 6.0 6.0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0	8,0 8,0 8,0 8,0	8.0 8.0 8.0 8.0
•	- 60 ,0	300.0 325.0 350.0 400.0 450.0 500.0	8.0 6.0 6.0 6.0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0
		300.0 325.0 350.0 400.0 450.0 500.0	8 0 8 0 8 0 8 0 8 0	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0

APPENDIX D

SAFE ARMING TIMES A+6 AIRCRAFT SINGLE RELEASES

CONTENTS

MK LE	V	ËL		RE	L	E	A:	5 (A	TTE	A	1:3	5 .	0	MOOM	0 0 1	F	T	R	45	L	·	Ė	: !			- 2 -		3			0	•	•	•	M	Šį				•	: :	• •	• •	• •	• •			•				• •		000	2 2 3
MK LE 0=	V	EL		Ř (L	5	A	SI	E .	AALL	T	A	1!	5 4 5 5	0	MOOM	0	FH	T	R	45	SL SL	Ÿ	E	* · ·			•		3,			. 0		• •	•	: · M	Š	•			•	:	• •			, .	•				•	•	• •		000	4 4 5
HE LE	VI	ΕĹ		Ř	L	E	A S	3 8	E .	A	TE	A:	1!	5 4	0	MOOM	0	FH	T	R	15	L L	·	Ė	! !		: :	- + +		3,			0	•	• •	•	· • M	Si	• •	•		•		• •			•		•		•	•	•	• •	•	0 0 0	667
MK LE	VI	ĒL		RE	L	E	À S	SE		A			1 1	5,	0	MOOM	0	F	7	R	15	L	·V	Ė		•	: . A	: •	•	;		•	•	F	•	•	: K	Si		•		•	:	• •	• •			•	•	•	•		•	• •	•	000	8 9
MK LE	VI			RF	L	E	A 5	SF		4	7		1 /	١.	n	n	٨	C	•		4 6	1				•		•	•		•	·	•	•	• •	•	•	Si		•		•		• •	• •	• •	•	•	•	•		•	• •) o	0000	1 1	0 0
WEEL-	VE	2	1	7 8 8 8 8 8	SL	N.E.	AFAS	(E	Y	EAA	Ţ	1	10),	000	NI O	RE	FF	ATT	RC	E	D		• •		•	:	!	• •	• •	•	•	• '	• •	•	•	:	• •	•	•	:	• ;		. •	•	•	•		•		•	•	• •	l 1	D	1	5
M1 LE LE	17 VE	A	1	ξ E	L	H.	- 6 4 S	i	L	0	AT	0	E C))	n i	/	MF	1	3 1		F	11	٧				•																													,
ND																																																									

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C A-6 BOMB MK 81 GPLD EJ VEL 7.2 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 M990E M9900 VT/M990E VT/M990D 0. 300.0 8,0 10,0 8.0 N.A. N.A. 350.0 8,0 8.0 8.0 10,0 N.A. 400.0 8,0 8.0 8,0 10.0 N.A. 450.0 8,0 10,0 8,0 8.0 N.A. 500.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 5.5 8.0 8.0 8.0

A/C A-C TARGET REL ANG		SEA LEVEL	-	E	J VEL 7,2 EL ALT 150 COMBINATI	no FT
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	303,0 350.0 400.0 450.0 500.0	8 . 0 8 . 0 8 . 0 8 . 0 6 . 0	8.0 8.0 8.0 8.0	N.A. N.A. N.A. 8.0 8.0	10,0 10,0 10,0 10,0 10,0	N.A. N.A. N.A. N.A. N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

...........

		SINGL	E RELEAS	SE		
	ALTITUDE REL VEL	SEA LEVEL HINIMUM		B	DMB MK 81 J VEL 7,2 COMBINATI	FT/SEC
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
·10.0	300.0 350.0 400.0 450.0 500.0	8.0 8.0 8.0 6.0 6.0	8.0 8.0 8.0 5.5 5.5	8.0 8.0 8.0 8.0	10.0 10.0 8.0 8.0 8.0	N.A. N.A. 8.0 8.0 8.0
~30.0	300.0 350.0 400.0 451.0 500.0	6,0 6,0 4,0 4,0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 4.5 4.5 4.5	8.0 5.5 5.5 5.5 5.5 5.5	8,0 8,0 8,0 8,0 8,0
-45,0	300.0 350.0 400.0 450.0 500.0	6,0 6,0 6,0 4,0 6,0	5,5 5,5 5,5 5,5 5,5	8.0 4.5 4.5 4.5 4.5	5,5 5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0
-60.0	300.0 350.0 400.0 450.0 500.0	6,0 6,0 6,0 6,0 6,0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 4.5 4.5 4.5 8.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0
	300.0 350.0 400.0 450.0 500.0 550.0	6,0 6,0 6,0 6,0 6,0	5.5 5.5 5.5 5.5 5.5	8.0 8.0 8.0 8.0	5,5 5,5 5,5 5,5 5,5	8,0 8.0 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-6 TARGET	ALTITUDE	SINGLE BOMB MK 82 GI SEA LEVEL		E	EJ VEL 6.0 FT/SEC REL ALT 10000 FT				
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS			
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D			
0.									
	300.0 350.0	10,0	10.0	N , A ,	10,0	N,A,			
	400.0	8.0 8.0	8,0	N.A.	10,0	N.A.			
	450.0 500.0	8.0	8.0	N.A. 8.0	10.0	N.A. N.A.			
	550.0	8,0	8.0	8.0	8.0	N,A,			

A/C A-6 TARGET		SEA LEVEL MINIMUM	-	E	J VEL 6.0 EL ALT 150	no FT
ANG	VEL	of a Lucia	AMILING	TIME / FUZE	COMBINATI	DM2
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
• •	300.0	10,0	10.0	N.A.	N.A.	N.A.
	350,0	10,0	10.0	N.A.	10,0	N.A.
	400.0	8,0	8,0	N.A.	10.0	N.A.
	450,0	8,0	8.0	N.A.	10.0	N.A.
	500.0	8.0	8.0	N.A.	10,0	N.A.
	550.0	8.0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB= 0.10000

SINGLE RELEASE

A/C A	. 4		SINGL	RELEAS	SE .		
TARGET REL ANG	ALTITUDE REL VEL	SEA	MINIMUM	ARMING	TIME / FUZE	BOMB MK 82 J VEL 6.0 COMBINATI	FT/SEC
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M9900
0,	300.0 350.0 400.0 450.0 500.0		8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0	N,A, N,A, 8,0 8,0 8,0	10.0 10.0 10.0	N.A. N.A. N.A.
-10.0	550,0		6.0	8.0	8,0	8.0 8.0	8.0 8.0
-30,0	300.0 350.0 400.0 450.0 500.0		6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0	8.0 5.5 5.5 5.5 5.5	8.0 8.0 8.0 8.0
45. 0	300.0 350.0 400.0 450.0 500.0		6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0
-60,0	300.0 350.0 400.0 450.0 500.0		6,0 6,0 6,0 6,0 6,0	5,5 5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0	5,5 5,5 5,5 5,5 5,5 5,5	8.0 8,0 8,0 8,0 8,0
	300.0 350.0 400.0 450.0 500.0 550.0		6.0 6.0 6.0 6.0	5.5 5.5 5.5 5.5 5.5	8.0 8.0 8.0 8.0 8.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-		BOMB MK 83 G	RELEAS	1.5		
	REL	SEA LEVEL MINIMUM			J VEL 4.8 EL ALT 100 COMBINATI	OO FT
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	300.0 350.0 400.0 450.0 500.0	10.0 10.0 10.0 8.0 8.0	10.0 10.0 10.0 8.0 8.0 8.0	N.A. N.A. N.A. N.A. N.A.	N.A. N.A. 10.0 10.0	N.A. N.A. N.A. N.A.

	3	SINGL	E RELEA	SE		
A/C A-	6	BOMB MK 83 GI	PLD		J VEL 4.8	ET/SEC
TARGET	ALTITUDE	SEA LEVEL			FI ALT 150	AO FY
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL					
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0.						
	300.0	10.0	10.0	N.A.	N.A.	N.A.
	350.0	10.0	10.0	N.A.	N.A.	N.A.
	400.0	10.0	10.0	N.A.	N.A.	N.A.
	450.0	10.0	10.0	N.A.	N.A.	N.A.
	500.0	10.0	10.0	N.A.	10.0	N.A.
	550.0	8,0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EBP 0.10000

SINGLE RELEASE

4.40	4		21405	E MELENS	PE		
A/C A- TARGET REL ANG	REL VEL	SEA	MINIMUM	ARMING		OMB MK 83 J VEL 4,8 COMBINATI	FT/SEC
(DEG)	(KTAS)		M904E2	M990F	M990D	VT/M990E	VT/M9900
0.	300.0 350.0 400.0 450.0 500.0		10.0 8.0 8.0 8.0 8.0	10.0 8.0 8.0 6.0 8.0	N.A. N.A. N.A. N.A. 8.0	10.0 10.0 10.0 10.0 10.0	N.A. N.A. N.A. N.A. 8.0
-30.0	300.0 350.0 400.0 450.0 500.0		6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0	8.0 8.0 5.5 5.5	8.0 8.0 8.0 8.0 8.0
-45,0	300.0 350.0 400.0 450.0 500.0 550.0		6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0	8,0 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0
-60.0	300.0 350.0 400.0 450.0 500.0 550.0		6.0 6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8.0 5.5 5.5 5.5 5.5 5.5	8,0 8,0 8,0 8,0
- 4 4 4	300.0 350.0 400.0 450.0 500.0		6.0 6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8,0 8,0	8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C A-6 BOMB HK 84 GPLD (EST) EJ VEL 4.8 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DES) (KTAS) M904E2 M990E M9900 VT/M990E VT/M990D 0, 300,0 10,0 10.0 N.A. N.A. N.A. 350.0 N.A. 10.0 N.A. N.A. 400.0 N.A. 10.0 N.A. N.A. 450,0 10,0 N.A. 10.0 N.A. N.A. 500.0 10,0 N.A. 10.0 10,0 N.A. 550.0 8.0 N.A. 10.0 N.A.

A/C A-C TARGET REL ANG		BOMB MK 84 GF		() E	J VEL 4.8 EL ALT 150 COMBINATI	00 FT
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/M990E	VT/M9900
0.	300.0 350.0 400.0 450.0 500.0	10,0 10,0 10,0 10,0 10,0	10.0 10.0 10.0 10.0 10.0	N.A. N.A. N.A. N.A. N.A.	N.A. N.A. N.A. N.A. 10,0	N.A, N.A, N.A, N.A,

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB# 0.10000

SINGLE RELEASE

A/C A-	4	2140	E METEN	25		
TARGET REL ANG	REL VEL	SEA LEVEL MINÍMUM	ARMING	TIME / FUZE	BOMB MK 84 EJ VEL 4,8 E COMBINATI	FT/SEC
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/M990E	VT/M9900
-10.0	300.0 350.0 400.0 450.0 500.0 550.0	10.0 10.0 8.0 8.0 8.0	10.0 10.0 8.0 8.0 8.0	N.A. N.A. N.A. N.A. N.A.	N.A. 10.0 10.0 10.0 10.0	N , A , N , A , N , A , N , A , N , A ,
-30.0	300.0 350.0 400.0 450.0 500.0 550.0	6,0 6,0 6,0 6,0	8,0 5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 5.5 5.5	8,0 8,0 8,0 8,0 8,0
-45.0	300,0 350.0 400.0 450.0 500.0	6 0 6 0 6 0 6 0 6 0	5,5 5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0	8,0 8,0 5,5 5,5 5,5	8.0 8.0 8.0 8.0
-60,0	300.0 350,0 400.0 450.0 500.0	6,0 6,0 6,0 6,0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8.0 8.0 8.0 5.5 5.5	8.0 8.0 8.0 8.0
	300.0 390.0 400.0 450.0 500.0	6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8,0 8,0 8,0 8,0 8,0	8.0 8.0 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE 4/6 A-6 BONB MK 81/ SNAKEYE I/ UNRET EJ VEL 7.2 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL REL HINIMUM ARMING TIME / FUZE COMBINATIONS ANG YEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0. 300.0 8,0 N.A. 8.0 10,0 N.A. 350,0 8.0 8.0 8.0 10.0 N.A. 400.0 8.0 8.0 8.0 10.0 N.A.

8.0

5.5

5.5

6.0

6,0

6,0

450,0

500.0

550.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

8.0

8.0

8.0

8.0

8.0

8.0

8.0

8,0

8.0

SINGLE RELEASE A/C A-6 BOMB MK 81/ SNAKEYE I/ UNRET EJ VEL 7.2 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 15000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0, 300.0 N.A. 8,0 8,0 10,0 N.A. 350,0 8.0 N.A. 8.0 10.0 N.A. 8.0 400.0 8.0 8,0 10,0 N.A. 8.0 450.0 8.0 8.0 10.0 N.A. 500.0 8.0 6.0 8.0 5,5 8.0 550.0 6.0 8.0 8.0 5.5 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB= 0.10000

SINGLE RELEASE

	4		SINGL	E RELEA	2E		
A/C A- TARGET REL ANG	ALTITUDE REL	SEA	MINIMUM LEVEL	ARHING	BOMB MK 81, EJ VEL 7,2 TIME / FUZE	SNI/UNRETA FT/SEC COMBINATI	
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
-10,0	300.0 350.0 400.0 450.0 500.0		8 0 6 0 6 0 6 0	8,0 8,0 5,5 5,5 5,5	8,0 8,0 8,0 8,0	10.0 8.0 8.0 8.0 8.0	N.A. 8.0 8.0 8.0 8.0
-30.0	300.0 350.0 400.0 450.0 500.0		6 0 6 0 4 0 4 0 4 0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 4.5 4.5 4.5	8,0 5,5 5,5 5,5 5,5	8,0 8,0 8,0 8,0
-45.0	300.0 350.0 400.0 450.0 500.0 550.0		6.0 6.0 4.0 4.0	5,5 5,5 5,5 5,5 5,5 5,5	8,0 4,5 4,5 4,5 4,5	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0
-60.0	300.0 350.0 400.0 450.0 500.0		6 0 6 0 6 0 6 0 4 0	5.5 5.5 5.5 5.5 5.5	8.0 4.5 4.5 4.5	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0
	300.0 350.0 400.0 450.0 500.0		6 0 6 0 6 0 6 0 6 0	5.5 5.5 5.5 5.5 5.5	8.0 8.0 8.0 8.0	5,5 5,5 5,5 5,5 5,5 5,5	8,0 8,0 8,0 8,0 8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

AAC A-	ALTITUDE	BONB MK 82, SN.	E RELEAS AKEYE 1,	UNRET E	J VEL 5.6 El alt 100	FT/SEC
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/M990E	VT/M990D
0.	300.0 350.0 400.0 450.0 500.0	10.0 8.0 8.0 8.0 8.0	10.0 8.0 8.0 8.0 8.0	N.A, N.A, N.A. 8.0 8.0	10.0 10.0 10.0 10.0 8.0 8.0	N.A. N.A. N.A. 8.0 8.0

A/C A-6	BOMB MK 82/ 9	LE RELEAS			
TARGET ALT	TTUDE SEA LEVEL	MAKETE IV		EJ VEL 5.6 Rel Alt 150	
REL REI		M ARMING	TIME / FUZE	COMBINATI	ONS
(DEG) (KT	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,					
300		10.0	N.A.	N.A.	N.A.
35(40(10.0	N,A,	Ĩ0,0	N.A.
450		8.0	N.A.	10,0	N.A.
500	8,0 8,0 8,0	8.0 8,0	N.A. 8.0	10.0 10.0	N . A .
550	0,0	8.0	8.0	10.0	N.A. N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB= 0,10000

SINGLE PELEASE

		SINGL	E RELEA	SE		
A/C A-					SNI/UNRETA	PDED
TARGET		A LEVEL		EJ VEL 5:6	FT /SEC	NUCU
REL	REL	MINIMUM	ARMING	TIME / FUZI	CAMBINATI	ANS
ANG	VEL			1	E COURTMALT	UNS
(DEG)	(KTAS)	M904E2	H990E	M990D	UT /MOODE	WT .WOO.D
				117700	VT/M990E	VT/M990D
0.						
	300.0	A . U		AI A		
	350.0	8 0	8,0	N,A,	10,0	N.A.
	400.0	8.0	8.0	N.A.	10,0	N.A.
	450.0	0,0	8.0	8.0	8.0	8,0
	500.0	6,0	8.0	8.0	8.0	8,0
	550,0	0.0	8.0	8.0	8.0	8.0
-10 0	990,0	6.0	5.5	8.0	8.0	8.0
-10.0	700 0					• •
	300.0	6,0	5,5	8,0	8.0	8,0
	350.0	0,0	5,5	8,0	5,5	8,0
	400.0	6,0	5.5	8,0	5,5	8,0
	450.0	6.0	5,5	8.0	5,5	8,0
	500.0	6.0	5,5	4,5	5 4	
	550.0	6,0	5,5	4.5	5,5 5,5 5,5	8,0
-30.0		• •	- , -		-15	8,0
	300.0	6,0	5,5	8.0	5 K	9 0
	350.0	6.0	5,5	8.0	5,5	8,0
	400.0	6.0	5.5	8.0	2,7	8,0
	450.0	6.0	5,5		3,5	8.0
	500.0	6.0	3,3	8,0	212	8,0
	550.0	6,0	5,5	8,0	5,5 5,5 5,5	8.0
-45.0		010	5,5	8,0	5,5	8.0
	300.0	4.0			_	
	350.0	6,0	5,5	8.0	5,5	8.0
	400,0	010	5.5	8.0	5,5	8,0
	450.0	6.0	5,5	8,0	5,5 5,5	8,0
	500.0	0.0	5.5	8.0	5,5	8.0
	500.0	010	5,5 5,5	8,0	5,5	8.0
-60.0	550.0	6.0	5,5	8.0	5,5 5,5 5,5	8.0
-50.0	700 0	4.				
	300,0	6,0	5,5	8.0	5,5	8.0
	320,0	6,0	5,5	8.0	5.5	8.0
	400.0	6,0	5,5	8.0	5.5	8.0
	420,0	6.0	5,5	8.0	5.5	8.0
	350.0 400.0 450.0 500.0	6.0 6.0 6.0 6.0	5,5	8.0	5.5	8.0
	550.0	6,0	5,5 5,5 5,5 5,5 5,5	8.0	5,5 5,5 5,5 5,5 5,5	8,0 8,0 8,0 8,0 8,0
				• •	- 1 -	710

NOLTR 69+135

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE AJC A-6 BOMB M117A1 (H-6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 10,000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DBG) (KTAS) M904E2 MOSOE M990D VT/M990E VT/H990D Û. 300.0 10,0 10.0 N.A. N.A. N.A. 350.0 10,0 10.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10,0 N.A. 450.0 8.0 10.0 N.A. 8.0 N.A. 500.0 8,0 N.A. 8.0 10.0 N.A. 550.0 8,0 8.0 8.0 8.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C A-6 80M8 M117A1 (H=6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 15,000 FT REL MINIMUM ARMING TIME / FUZE COMBINATIONS REL ANG VEL (DEG) (KTAS) M904E2 MOPDE M990D VT/M990E VT/M990D 0. 300.0 10,0 10.0 N.A. N.A. N.A. 350,0 10,0 10.0 N.A. N.A. N.A. 400.0 10.0 N.A. 10.0 10.0 N.A. 450.0 8,0 N.A. 8.0 10.0 N.A. 500.0 8,0 N.A. 8.0 10.0 N.A. 550.0 8.0 8.0 N.A. 10.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH 0,00010 . PH/EBS 0,10000

SINGLE RELEASE A/C A-6 BONB M117A1 (H-6 LOADED)/M131 FIN TARGET ALTITUDE SEA LEVEL EJ VEL 4:2 FT/SEC REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 M990E M9900 VT/M99BE VT/M9900 0, 300.0 8,0 8,0 N.A. 10.0 N.A. 350.0 8.0 N.A. 8.0 N.A. 400.0 10,0 N.A. 8.0 N.A. 8,0 450.0 8,0 8.0 8.0 8,0 500.0 8.0 8,0 8.0 8.0 550,0 8.0 8.0 8.0 8,0 8,0 -10.0 300.0 6,0 8.0 5,5 8.0 8,0 350,0 6,0 8.0 5,5 5,5 8,0 400.0 6,0 8.0 5,5 5,5 8,0 6.0 450.0 5.5 8.0 5,5 8,0 6,0 900.0 8.0 5,5 5.5 8,0 550.0 6,0 8.0 5,5 5,5 8,0 -30.0 300.0 6.0 5,5 8,0 8.0 8,0 350,0 6,0 5,5 8.0 5,5 8,0 400.0 6.0 5,5 5,5 8,0 8.0 450,0 5,5 5,5 8.0 8.0 500,0 6.0 8.0 5,5 5,5 8,0 550,0 6.0 5,5 8.0 5,5 8,0 -45.0 306.0 6.0 8.0 5,5 8.0 8,0 350,0 6,0 5,5 8,0 5,5 8,0 400.0 6,0 5.5 5,5 8.0 8,0 450.0 6,0 8.0 5,5 5.5 8.0 500.0 6.0 5,5 8.0 5,5 8.0 550.0 6.0 5,5 8.0 5,5 8,0 -60.0 300.0 6.0 8.0 5,5 8.0 8,0 350,0 6.0 5,5 8,0 5,5 8,0 400.0 8,0 5,5 5,5 8.0 450.0 5,5 8,0 5,5 8.0 500.0 6.0 8.0 5,5 5.5 8,0 550.0

5,5

8.0

5,5

8.0

APPENDIX E

SAFE ARMING TIMES A-6 AIRCRAFT ONE SECOND STICK RELEASES

CONTENTS

WLLO	EV	E	Ī	Ř	EL	E	AS E	ER	E	ĀŢĀŢ	EA	115	0 5 E		MOOM	0 0 1	F	T	R	45	LLO	Ÿ		· • • • • • • • • • • • • • • • • • • •	•			: 3	: :		•	•	• •	•	M	 S L		•	- ' - '	• • •	•	• •	•	•	•	• •	, , , ,	•	•	• 1		8 2 2 2	2 2 3
M	K E V	8 5 4	2	GRR	PLEL	O.E.E.	AS	E		41	,	1	0	0	0	0	F	T	,	15	L	,	• •	•	•	: 1				. •	•	•		•				• ;	. •	-		. •	, ,	•	•			•	•	٠.		_	4
H	EV	E		R	EL	E	AS AS	EER	E	4 T	A	115	0 , 5 ,	0	MOOM	0	FF	7	R	15	LLO	VE	R	. • • •	• :	: :		•		00	•	•	•	•			:	• ;		: :	• •	•	•		•	••	· •			• •		E E E	667
MI LI	Ē۷			R	EL	E	49	F	1	1 7	,	4	۸.	0	O G W	0	FFH	T	RE	15	L	VE	R	, . Y	!!		. 1	· •			•	F	•	•				• ;		3 :	• •	• •		•		• •	1 4		* ·	• ,	•	EEE	8 9
MI LI LI	K EV	8	1	/ Ri	S	N.	AK	9	YE		1	1 (/	U	NO	RE	T	A	R	E	0								<u>.</u> .		•								,														
MILE D.	<	EL	2	RERE	S	N/E/E	K	田田田	YE	7	I	10	,	000	NI O	RE	FF	ATT	RC	ES	DL	•	•	•	' !		:	 4 :	 : !	•	•	• •	•	• ;	•	•			•			•	,	• ,	. •	, ,	•	•			E	1	. 2
MS LE LE	1	7 / E L	1	RE	L	H.	6	F		A	0	E)	0	/	HE	1	3 1		F	lN)			•		• •						,				_															
NC																																																					

MINIMUM ACCEPTABLE ARMING TIMES 0,00010 PH =

PH/EB=

		ONE SI	ECOND ST	TICK		
A/C A-6	•	BOMB MK 81 G		-	J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 100	
REL	REL		ARHING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
	300,0	8.0	8,0	N.A.	10,0	N.A.
	350.0	8.0	8.0	8,0	10.0	N.A.
	400.0	8.0	8.0	8.0	10.0	N.A.
	450.0	8.0	8.0	8.0	10,0	N.A.
	500.0	8,0 8,0 8,0 8,0 6,0	8.0	8.0	8.0	8,0
	550.0	6.0	5,5	8.0	8,0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH * 0,00010 PH/E8= 0,10000

À/C A-0	6	ONE SE	ECOND S		J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 150	
REL	REL		ARMING	TIME / FUZE		
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	300.0	8.0	8.0	N . A .	10.0	N.A.
		8.0		· · · · · · · · · · · · · · · · · · ·		
	400.0	0.0	8,0	N.A.	10.0	N.A.
			8.0		10,0	N,A,
		8,0	8.0		10,0	N,A,
0,	300,0 350,0 400.0 450.0 500.0 550.0	8.0 8.0 8.0 8.0	8.0	N.A. N.A. N.A. 8.0 8.0	10.0	N,A,

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK

A/C A	-6		ONE O	LCONU 3			
TARGET	ALTITUDE	SEA			E.	OMR MK 81 J VEL 7,2	FT/SEC
ANG	VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	300.0		8.0	8,0	8,0	40 0	M A
	350.0		8 0	8,0	8,0	10,0 10.0	N.A.
	400.0		8 0	8,3	8,0	8.0	8,0
	450.0		0,0	8.0	8,0	8,0	8,0
	500.0 550.0		0,0	5,5	8,0	8,0	8.0
-10.0	0,000		6.0	5.5	8.0	8,0	8.0
	300,0		6.0	5,5	8,0	P 6	
	350.0		6.0	5.5	8.0	8,0 8,0	8.0
	400.0		6.0	5,5	8,0	8.0	8,0 8,0
	450.0		6,0	5,5	8.0	5,5	8,0
	500.0		6.0	5.5	8.0	5,5	8.0
-30.0	550,0		6;0	5,5	8,0	5,5	8.0
4010	300.0		6,0	K &	8 6	D	
	350.0		6,0	5,5 5,5	8,0 8,0	8,0	8,0
	400.0		6,0	5,5	8.0	8.0	8.0 8.0
	450.0		6,0	5,5	8.0	8,0	8.0
	500,0		6.0	5,5	8.0	5.5	8.0
-45.0	550.0		6,0	5,5	8.0	5,5	8,0
443.0	300.0		6.0	5,5	8,0		
	350.0		6.0	5,5	8.0	8,0	8,0
	400.0		6.0	5,5	8,0	8.0 8.0	8,0
	450.0		6,0	5,5	8.0	8.0	8,0
	500.0		6,0	5,5	8.0	8,0	8,0
-60.0	550.0		6,0	5,5	8,0	8.0	8.0
	300.0		6.0	5,5	8.0	В о	0 -
	350.0		6,0	5.5	8,0	8,0	8.0
	400.0		6,0	5.5 5.5	8.0	8.0	8,0 8,0
	450.0		6,0	5,5	8,0	8.0	8.0
	500.0		6.0	5.5	8.0	8,0	8.0 8.0
	550,0		6,0	5,5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB® 0.10000

A/C A-		BOMB MK 82 G	COND S'	Ε.	J VEL 6.0 El alt 100	
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,	300.0 350.0	10.0	10.0	N.A. N.A.	10.0	N.A.
	400.0 450.0 500.0 550.0	8 0 8 0 8 0 8 0	8.0 8.0 8.0	N.A. N.A. 8.0 8.0	10.0 10.0 10.0 10.0	N.A. N.A. N.A.

A/C A-		SEY FEAFF BOMB WK 95 CI	ECOND S'	E	J VEL 6.0	
REL	REL		ARMING	TIME / FUZE	EL ALT 150 COMBINATI	OO FT ONS
(DEG)	(KTAS)	M904E2	H990E	H990D	VT/M990E	VT/H9900
0.	300.0 350.0 400.0 450.0 500.0	10.0 10.0 8.0 8.0 8.0	10.0 10.0 8.0 8.0 8.0	N.A. N.A. N.A. N.A. N.A.	N.A. 10.0 10.0 10.0 10.0	N.A. N.A. N.A. N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/ED= 0.10000

ONE SECOND STICK

1/6 1	-4		AME 26	ECOND 2	rick		
TARGET REL ANG	ALTITUDE REL VEL	SEA L	EVEL	ARMING		OMB MK 82 J vel 6.0 Combinati	FT/SEC
(REG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M996D
0,	300.0 350.0 400.0 450.0 500.0		8.0 8.0 8.0 8.0 6.0	8.0 8.0 8.0 8.0	N, A, N, A, 8, 0 8, 0 8, 0	10,0 10.0 10.0 8.0 8.0	N.A. N.A. N.A. 8.0 8.0 8.0
-10.0	300.0 350.0 400.0 450.0 500.0 550.0		6.0 6.0 6.0 6.0	5.5 5.5 5.5 5.5 5.5	8.0 8.0 8.0 8.0	8.0 8.0 5.5 5.5	8.0 8.0 8.0 8.0 8.0
-45.0	300,0 350.0 400.0 450.0 500.0 550.0		6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8,0 8,0 5,5 5,5	8.0 8.0 8.0 8.0
-60.0	300.0 350.0 400.0 450.0 500.0 550.0		6.0 6.0 6.0 6.0	8,0 5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0
	300.0 350.0 400.0 450.0 500.0 550.0		6,0 6,0 6,0 6,0 6,0	8.0 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		ONE S	ECOND 8	PICK		
A/C A-I	5	BOMB MK 83 GI	PLD	•	J VEL 4.8	PT /REC
TARGET		SEA LEVEL			EL ALT 100	
rel	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/H990E	VT/M990D
0.						
	300.0	10,0	10,0	N.A.	N.A.	N.A.
	350.0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10,0	10.0	N.A.	N.A.	N.A.
	450.0	8.0	8.0	N,A,	10.0	N.A.
	500.0	8,0	8,0	N.A.	10.0	N.A.
	550.0	8,0	8.0	N.A.	10,0	N.A.

A/C A-C		BOMB MK 83 GF SEA LEVEL	COND ST	E	J VEL 4.8	
REL	REL VEL	WINIWA	ARMING	TIME / FUZE	EL ALT 150 COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
	300.0	10,0	10.0	N,A,	N.A.	N.A.
	350.0	10,0	10.0	N.A.	N.A.	N,A,
	400.0		10.0	N.A.	N.A.	N.A.
	450.0	10,0 10,0	10.0	N.A,	-	N.A.
	500.0	10,0	10.0	N,A,	N.A. 10.0	N.A.
	550.0	8 0	8.0	N,A,	10,0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK

A 10 A	4		ONE 3	ECOMO 3	1100		
TARGET REL	ALTITUDE REL	SEA	LEVEL MINIMUM	ARMING		OMB MK 83 J VEL 4,8	FT/SEC
ANG	VEL			411.1110	1112 1 1026	COMPLINAL	T DIA 2
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	300.0		10.0	10.0	N.A.	10,0	N.A.
	350.0		8.0	8,0	N.A.	10.0	N.A.
	400.0		8.0	8.0	N.A.	10.0	N A
	450.0		8.0	8,0	N.A.	10.0	N,A,
	500.0		8,0	8,0	8.0		N.A.
	550,0		8.0	8,0	8,0	10,0	N.A.
-10.0	·			0,0	-,0	8.0	8.0
	300.0		6,0	8,0	8.0	8 0	0 .
	350.0		6,0	8.0	8.0	8.0	8.0
	400.0		6.0	5,5	8.0	8,0	8.0
	450.0		6.0	5,5	8.0	8,0	8.0
	500.0		6,0	5.5	8.0	8.0	8.0
	550.0		6,0	5,5	8.0	8.0	8.0
-30.0	- , ,		010	213	0.0	8.0	8.0
	300.0		6,0	8,0	8.0	0 .	6) 6
	350.0		6,0	5,5	8.0	8.0	8.0
	400.0		6.0	5,5	8.0	8.0	8,0
	450.0		6,0	5,5	8.0	8.0	8,0
	500.0		6.0	5,5	8.0	8,0	8.0
	550.0		6,0	5,5	8.0	8.0	8.0
-45.0			910	213	0.0	8.0	8,0
	300,0		6,0	8,0	8.0	0 0	
	350.0		6.0	8.0	8.0	8.0	8,0
	400.0		6,0	8,0	8.0	8.0	8,0
	450.0		6,0	8.0	8.0	8.0	8.0
	500.0		6,0	8.0	8.0	8,0	8.0
	550.0		6,0		8.0	8.0	8.0
-60.0			0,0	8,0	O , (i	8.0	8,0
	300.0		6,0	A 0	8 0	Ω =	0 4
	350.0		6.0	0.0	8,0	8.0	8,0
	400.0		6,0	8.0	8.0	8.0	8,0
	450.0			8.0	8.0	8.0	8,0
	500.0		6.0	8.0	8.0	8,0 8,0	8.0
	550.0		6.0	8.0	8.0	8,0	8.0
	410		6.0	0.0	8,5	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES 0,00010 PH

PH/E8=

A/C A-0	5	BOMB MK 84 GI	ECOND S'			
TARGET	ALTITUNE	SEA LEVEL	PM (29		J VEL 4.8	
REL	REL		ARMING	TIME / FUZE	EL ALT 100 COMBINATI	OU FT
(DEG)	VEL (KTAS)					
(400)	101441	M904E2	M990E	M9900	VT/M990E	VT/M990D
0.						
	300.0	10,0	10.0	N.A.	N.A.	N.A.
	350.0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10,0	10.0	N.A.	N.A.	N,A,
	450.0	10,0	10.0	N.A.	N.A.	N.A.
	500.0 550.0	10,0	10.0	N.A.	10.0	N.A.
	220,0	8,0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010

PH/EB= 0,10000

A/C A-6 TARGET ALTITUDE	ONE SI Bomb Mk 84 Gi Sea Level	ECOND S'	f) E.	J VEL 4,8 El Alt 150	
REL REL ANG VEL		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG) (KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,					
300.0	10,0	10.0	N.A.	N.A.	N.A.
350.0	10,0	10.0	N.A.	N.A.	N.A.
400.0	10,0	10.0	N.A.	N.A.	
450.0	10,0	10.0	N.A.	•	N.A.
500.0	10,0	10.0	-	N.A.	N.A.
550.0	10,0	10.0	N , A , N , A ,	N.A.	N,A,

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK

			ONE S	ECOND S	TICK		
TARGET	ALTITUDE	SEA	LEVEL		6	OMB MK 84	GPLD (EST)
HEL	REL			ARMING	TIME / FUZE	COMBINATI	IONS
ANG	VEL				,	. OU. DINA	0.10
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	2						
	300.0		10,0	10.0	N.A.	N.A.	N.A.
	350.0		10,0	10,0	N.A.	N.A.	N.A.
	400.0		8.0	8,0	N.A.	10.0	N, A,
	450.0		8,0	8,0	N.A.	10.0	N.A.
	500.0		8,0	8.0	N.A.	10.0	
	550.0		8.0	8,0	8.0	10.0	N.A.
-10.0			• • • • • • • • • • • • • • • • • • • •	9,0	- 10	10.0	N.A.
	300.0		8,0	8.0	8.0	8.0	ρ 6
	350,0		6,0	8,0	8.0	9,0	8.0
	400.0		6,0	8.0	8.0	8,0	8,0
	450.0		6,0	5,5	8.0	8,0	8.0
	500.0		6.0	5.5	8,0	8,0	8,0
	550.0		6,0	5,5	8.0	8.0	8.0
-30,0			910	2,5	0,0	8.0	8,0
	300,0		6.0	8,0	8.0	9 0	0 •
	350.0		6,0	8.0	8.0	8.0	8,0
	400.0		6.0	0.0	8,0	8.0	8.0
	450.0		6.0	8.0	8.0	8.0	8,0
	500.0		6.0	5.5	8.0	8.0	8.0
	550.0		6.0	8,0	8.0	8.0	8.0
-45.0			010	0,0	0,0	8.0	8.0
	300.0		8,0	8 0	8.0	υ	0.0
	350.0		6.0	8.0		8.0	8,0
	400.0		6,0	8.0	8.0	8.0	8,0
	450.0		6.0	8.0	8,0	8,0	8,0
	500.0		6,0	8.0	8.0	8.0	8,0
	550.0		6.0	8.0	8,0	8.0	8.0
-60.0			0,0	8.0	8,0	8.0	8.0
-010	300,0		9 0			0 .	
	350,0		8.0	8.0	8,0	8,0	8.0
	400.0		6.0	8.0	8.0	8.0	8.0
	450.0		6,0	8.0	8.0	8,0	8.0
	500.0		6 0	8.0	8.0	8.0	8,0
	550.0		0,0	0,0	8.0	8.0	8.0
			6.0	8.0	8.0	8.0	8.0

MINIHUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-	ALTITUDE	BOMB MK 81/ SN.	ECOND \$1	UNRET E	J VEL 7,2 EL ALT 100	FT/SEC
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/H990E	VT/M9900
0,	300.0 350.0 400.0 450.0 500.0	8,0 8,0 8,0 6,0 6,0	8.0 8.0 8.0 8.0 5.5	N.A. 8.0 8.0 8.0	10.0 10.0 10.0 8.0 8.0	N.A. N.A. N.A. 8.0 8.0

A/C A-C	ALTITUDE	BOMB MK 81/ SN/ SEA LEVEL		UNRET E.	J VEL 7.2 El alt 150	
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	300.0 350.0 400.0 450.0 500.0	8.0 8.0 8.0 6.0 6.0	8.0 8.0 8.0 5.5	N.A. N.A. 8.0 8.0 8.0	10,0 10.0 10.0 10.0 6.0	N.A. N.A. N.A. N.A.

ON	F 9	50	ON	In .	STI	CK
~ [4]		EL		ıu	20 1 1	LIN

			ONE 31	ECOND 2	TICK		
HEL	ALTITUDE REL	SEA			BOMB MK 81/ EJ VEL 7,2 TIME / FUZE	FT/SEC	
ANG (DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0,	300.0		8.0	8,0	8.0	10.0	N , A ,
	350,0 400,0 450,0		8,0 6,0 6,0	8,0 5,5 5,5	8,0 8,0 8,0	8.0 8.0 8.0	8,0 8,0 8,0
-10.0	500,0 550,0		6,0	5,5	8,0	8.0	8.0
	300.0 350.0 400.0 450.0 500.0 550.0		6,0 6,0 6,0 6,0 6,0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8,0 8.0 5,5 5.5 5.5	8.0 8.0 8.0 8.0
-30.0	300.0 350.0 400.0 450.0 500.0		6.0 6.0 6.0 6.0	5.5 5.5 5.5 5.5 5.5	8.0 8.0 8.0 8.0 8.0	5.5 8.0 5.5 5.5 5.5	8,0 8,0 8,0 8,0 8,0
-60,0	300.0 350.0 400.0 450.0 500.0		6,0 6,0 6,0 6,0	5,5 5,5 5,5 5,5 5,5	6.0 8.0 8.0 8.0	8.0 8.0 8.0 5.5	8,0 8,0 8,0 8,0 8,0
	300,0 350,0 400,0 450,0 500,0 550,0		6.0 6.0 6.0 6.0	5.5 5.5 5.5 5.5 5.5 5.5	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/ED= 0,10000

		ONE SI	COND S'	PICK		
A/C A-0	5	BOMB HK 82/ SN	KEYE I		J VEL 5,6	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 100	
REL	REL	мінінин	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M9C4E2	M990E	M990D	VT/M990E	VT/M9900
0,						
	300.0	10,0	10.0	N.A.	10.0	N.A.
	350.0	•	8,0	N.A.	10.0	N.A.
	400.0	8,0 8,0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	8,0	10.0	N.A.
	500.0	8.0	8.0	8.0	8.0	
	550.0	8,0	8,0	8.0	8.0	8,0

		ONE SI	ECOND S'	PICK		
A/C A-	6	BOMB MK 82/ SN/			J VEL 5.6	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		_	EL ALT 150	
REL	REL		ARMING	TIME / FUZE	COMBINATI	ONS
ANG (DEG)	VEL (KTAS)	H904E2	M990E	M996D	V†/M990E	VT/H990D
					V 1 / · · · / · · ·	, , , , ,
С.						
	300.0	10.0	10.0	N.A.	N.A.	N.A.
	350,0	10,0	10.0	N.A.	N.A. 10.0	N.A.
	400.0	8,0	8.0	N.A.	10,0	N.A.
	450.0	8,0	8.0	N,A,	10.0	N.A.
	500,0	8,0	8.0	8,0	10,0	N.A.
	550.0	6,0	8,0	8,0	10.0	N.A.

ONE SECOND STICK	ONE	31	20	OND		CK
------------------	-----	----	----	-----	--	----

	4		ONE 3	ECOND 5			
A/C A-C					BOMB HK 82	/SNI/UNRETA	RDED
REL	REL	SEV			EJ VEL 5.6	FT/SFC	
ANG	VEL		MINIMUM	ARMING	TIME / FUZI	E COMBINATI	ONS
(DEG)	(KTAS)		400450				
(000)	101491		M904E2	M990E	M990D	VT/H990E	VT/M990D
à.							
۷,	300.0		0 ' 0			_	
	350.0		8.0	8.0	N.A.	10.0	N.A.
	400.0		8,0	8.0	N.A.	10,0	N.A.
	450.0		8,0	8,0	8.0	8,0	8,0
	500.0		6.0	8,0	8.0	8.0	0,8
	550.0		6.0	8.0	8.0	8.0	8,0
-10,0	,,,,,		6.0	5.5	8.0	8.0	8,0
	300,0		6.0				
	350,0		610	5,5	8.0	8.0	8.0
	400.0		6.0	5,5	6,0	8,0	8,0
	450.0		6.0	5,5	8,0 8,0	8.0	8,0
	500,0		6 0	5,5	8.0	5,5	8.0
	550,0		6,0	5,5 5,5	8.0	5,5	8,0
-30,0			0,0	2.5	0,0	5,5	8,0
	300.0		6,0	5,5	8.0		
	350.0		6.0	5,5	8.0	8,0	8.0
	400.0		6.0	5,5	8,0	8.0	8,0
	450.0		6,0	5,5	8.0	8.0 5.5	8,0
	500.0		6.0	5,5	8.0	5,5	8,0
	550.0		6,0	5,5	8.0	5,5	8.0
-45.0						2,5	8,0
	300.0		6,0	8.0	8.0	8,0	8.0
	350.0		6.0	5,5	8.0	8.0	8,0
	400.0		6.0	5.5	8.0	8.0	8,0
	450.0		6,0	5,5	8.0	8.0	8,0
	500.0		6,0	5,5	8.0	8,0	8,0
	550,0		6,0	5,5	8,0	8.0	8.0
-60.0							-,0
	300.0		6;0 6;0 6;0 6;0 6;0	8.0	8,0	8,0	8.0
	350,0		6,0	5,5	8.0	8.0	8.0
	400.0		6,0	5.5	8.0	8.0	8.0
	450,0		6,0	5,5	8,0	8.0	8.0
	500.0		6.0	8,0 5,5 5,5 5,5 5,5	8,0	8,0 8,0	8.0
	550.0		6,0	5,5	8.0	8,0	8,0 8,0 8,0 8,0 8,0
						•	- • •

MINIMUM ACCEPTABLE ARMING TIMES PH . 0.00010 0.10000 PH/EB=

ONE SECOND STICK A/C A-6 BOMB M117A1 (H=6 LOADED)/M131 FIN FJ VEL 4.2 FT/SEC TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 10,000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 MOODE M990D VT/M990E VT/M990D 0. 300,0 10,0 10.0 N,A, N.A. N.A. 350.0 10,0 N.A. 10,0 10.0 N.A. 400.0 N.A. 8,0 8.0 10.0 N.A. 450,0 8,0 N.A. 8.0 10.0 N.A. 500.0 8,0 N.A. 8,0 10.0 N.A. 8.0 550.0 8.0 8.0 8.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES 0,00010 PH .

PH/EB= 0.10000

		ONE SI	COND ST	TICK		
A/C A-6	BOMB	M117A1 (H-6			EJ VEL 4	,2 FT/SEC
TARGET	ALTITUDE SEA	LEVEL			ALTITUDE 1	5.000 FT
REL	REL VEL		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0,						
• •	300.0	10,0	10,0	N.A.	N.A.	Ν,Δ,
	350.0	10.0	10,0	N.A.	N.A.	N.A.
	400,0	10.0	10.0	N.A.	10.0	N.A.
	450.0		8,0	N.A.	10.0	N.A.
	500.0	8,0	8,0	N.A.	10.0	N.A.
	550,0	8.0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH . 0,00010 PH/E8= 0.10000

ONE SECOND STICK A/C A-6 BOMB M117A1 (H-6 LOADED)/M131 FIN TARGET ALTITUDE SEA LEVEL EJ VEL 4.2 FT/SEC REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 M990E M9900 VT/M990E VT/M9900 0 . 300.0 8.0 8.0 N.A. 10.0 N.A. 350.0 8.0 N.A. 8.0 10.0 N.A. 400.0 8,0 N.A. 8.0 10.0 N.A. 450.0 8,0 8.0 8.0 8,0 8.0 500.0 8.0 8.0 8.0 8.0 8.0 550.0 8.0 8.0 8,0 8.0 8.0 -10.6 300.0 6.0 8.0 8.0 8.0 8.0 350,0 6,0 8,0 5,5 8,0 8.0 400.0 6.0 5,5 8,0 8.0 8.0 450.0 6.0 8,0 5,5 8.0 8.0 500.0 6.0 5.5 8.0 8,0 8,0 550.0 6,0 5.5 8.0 8.0 8.0 -30.0 300.0 6,0 8,0 8.0 8.0 8.0 350.0 6,0 5.5 8.0 8.0 8,0 400.0 6,0 5,5 8.0 8.0 8.0 450,0 6.0 5,5 8.0 8.0 8.0 500,0 6,0 5.5 8.0 8.0 8.0 550.0 6.0 5,5 8,0 8.0 8.0 -45,0 300.0 6,0 8.0 8.0 8.0 8.0 350.0 6,0 5.5 8.0 8.0 8,0 400.0 6,0 5.5 8.0 8.0 8.0 450.0 6.0 5.5 8.0 8,0 8.0 500.0 6.0 5.5 8.0 8.0 8.0 550.0 6,0 8.0 5,5 8.0 8.0 -60,0 300.0 6,0 8,0 8.0 8.0 8.0 350.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 450.0 6,0 8.0 8.0 8.0 8.0 500.0

8.0

8.0

8.0

8,0

8.0

8.0

8.0

8.0

6,0

6.0

550.0

APPENDIX F

SAFE ARMING TIMES A-6 AIRCRAFT THO SECOND STICK RELEASES

CONTENTS

MK 81 GPLD LEVEL RELEASE AT 10,000 FT MSL LEVEL RELEASE AT 15,000 FT MSL 0-60 DEGREE RELEASES WITH RECOVERY AT 3,000 FT MSL	· · · · · · · · · · · · · · · · · · ·
MK 82 GPLD LEVEL RELEASE AT 10,000 FT MSL LEVEL RELEASE AT 15,000 FT MSL 0-40 DEGREE RELEASES WITH RECOVERY AT 3,000 FT MSL	
MK 83 GPLD LEVEL RELEASE AT 10,000 FT MSL	
MK 84 GPLD (EST) LEVEL RELEASE AT 10,000 FT MSL	
MK 81 / SNAKEYE I / UNRETARDED LEVEL RELEASE AT 10,000 FT MSL	
MK 82 / SNAKEYE I / UNRETARDED LEVEL RELEASE AT 10,000 FT MSL LEVEL RELEASE AT 15,000 FT MSL 0-60 DEGREE RELEASES WITH RECOVERY AT 3,000 FT MSL	
M117A1 (H-6 LOADED) / M131 FIN LEVEL RELEASE AT 10,000 FT MSL	•
NOTE- ALL DIVES ARE 4G RECOVERIES	

MINIMUM ACCEPTABLE ARMING TIMES 0,00010

PH/EB=

		TWO SE	ECOND ST	TICK		
A/C A-C	5	BOMB MK 81 GF	חופ	5	J VEL 7.2	CT/SEC
TARGET		SEA LEVEL		R	EL ALT 100	00 FT
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/M990E	VT/M990D
0,						
	300,0	8,0	8.0	N.A.	10.0	N.A.
	350,0	8.0	8,0	8.0	10.0	N.A.
	400.0	8.0	8.0	8.0	10.0	N.A.
	450.0	8,0 8,0 8,0	8.0	8.0	10.0	N.A.
	500.0	6,0	8,0	8,0	8,0	8.0
	550,0	6,0	5.5	6.0	8.0	8.0

A/C A-		BOMB MK 81 GI	ECOND S'		J VEL 7.2	FT/SEC
TARGET		SEA LEVEL		R	EL ALT 150	OD FT
REL	REL VEL	WINIWIW	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H990D
Ο.						
	300.0	8,0	8.0	N.A.	10.0	N.A.
	350,0	8,0	8,0	N.A.	10,0	N.A.
	400.0	8,0	8.0	N.A.	10,0	N,A
	450.0	8.0	8.0	8.0	10.0	N.A.
	500.0	8.0	8,0	8,0	10.0	N.A.
	550.0	6.0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

		I WU 3	ECONO 2	rick		
A/C A-	ALTITUDE SEA			E	OMB MK 81 J VEL 7.2	FT/SEC
REL Ang	REL VEL	HINIHUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTÄS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,	300,0 350,0	8;0 8:n	8.0	8.0 8.0	10.0	N.A.
-10.0	400.0 450.0 500.0 550.0	8 0 6 0 6 0 6 0	8.0 8.0 5.5 5.5	8.0 8.0 8.0	8,0 8,0 8,0 8,0	8,0 8,0 8,0 8,0
-40.0	300.0 350.0 400.0 450.0 500.0	6,0 6,0 6,0	8.0 5.5 5.5	8.0 8.0 8.0	8,0 8,0 8,0	8.0 8.0 8.0
-30.0	550.0 300.0	6,0	5,5 5,5 8,0	8.0	8,0 8,0 8,0	8,0 8,0
-45.0	350,0 400,0 450,0 500,0 550,0	6,0 6,0 6,0 6,0	8,0 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8,0 8,0 8,0 8,0	8,0 8,0 8,0 8,0
	300.0 350.0 400.0 450.0 500.0 550.0	6,0 6,0 6,0 6,0 6,0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0 8.0	8,0 8,0 8,0 8,0 8,0	8,0 8,0 8,0 8,0 8,0
-60,0	300.0 350.0 400.0 450.0 500.0	8,0 6,0 6,0 6,0 6,0	8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0	8,0 8.0 8.0 8.0	8,0 8,0 8,0 8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		TWO S	ECOND S'	TICK		
A/C A-6		BOMB MK 82 G		•	J VEL 6.0	CT ISEC
TARGET	ALTITUDE	SEA LEVEL	7 60		EL ALT 100	
REL	REL		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H9900
0.						
	300.0	10.0	10,0	N.A.	10,0	N.A.
	350,0	8,0	8,0	N.A.	10,0	N.A.
	400.0	8.0 8.0	8.0	N.A.	10,0	N.A.
	450.0	8,0	8.0	N.A.	10.0	N.A.
	500.0	8,0	8.0	8.0	10.0	N.A.
	550.0	8,0	8.0	8.0	8.0	8.0

A/C A-0	5	TWO S	ECOND S'	•	J VEL 6.0	ET/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 150	
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
•	300.0	10,0	10,0	N.A.	N.A.	N.A.
	350,0	10.0	10,0	N.A.	10.0	N.A.
	400.0	6,0	8.0	N,A,	10,0	N.A.
	450.0	8.0	8.0	N.A.	10,0	N.A.
	500.0	8.0	8.0	N.A.	10.0	N.A.
	550.0	8.0	8.0	8,0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

A 20 A	- 4		TWO 2	ECOND S	TICK		
TARGET	ALTITUDE REL	SEA			8	OMB MK 82 J VEL 6.0	ET/SEC
ANG (DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	300.0		0.0				•
	350.0		8;0 8,0	8.0	N.A.	10.0	N.A.
	400.0		8,0	8.0	N, A, 8, n	10,0	N.A.
	450.0		8.0	8,0	8,0	10.0	N.A.
	500.0		8.0	8.0	8.0	8.0	8,0
44.	550,0		6.0	8,0	8.0	8,0	8,0 8,0
-10.0	700 0					-,0	0,0
	300.0		6,0	8,0	8,0	8.0	8,0
	350,0 400.0		6,0	8.0	8.0	8.0	8.0
	450.0		6.0	8.0	8,0	8,0	8.0
	500.0		6.0	5.5	8.0	8,0	8,0
	550.0		6.0	5,5 5,5	8.0	8,0	8.0
-30,0			-10	212	0,0	8.0	8,0
	300,0		8,0	8.0	8.0	8.0	0 0
	350.0		6,0	8,0	8.0	8,0	8.0
	400.0		6,0	8.0	8.0	8.0	8.0
	450.0		6.0	8.0	8,0	8.0	8,0
	500.0 550.0		6,0	8.0	8.0	8.0	8,0
-45.0	220.0		6,0	8.0	8,0	8.0	8,0
,,,,	300.0		8.0		0 4		
	350.0		6,0	8,0	8.0	8.0	8.0
	400.0		6,0	8,0	8,0 8,0	8,0	8,0
	450,0		6,0	8,0	8.0	8,0	8,0
	500.0		6,0	8.0	8.0	8,0 8,0	8,0
44.	550,0		6,0	8.0	8.0	8,0	8,0 8,0
-60.0	700 0						0.0
	300.0		8.0 8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0	8.0	8,0	8.0
	350.0 400.0		8,0	8.0	8,0	8.0 8.0 8.0 8.0	8.0
	450.0		0,0	8.0	8.0	8,0	8.0
	500.0		8 0	0.0	ö, 0	8,0	8,0
	550.0		8.0	8,0	8,0 8,0 8,0 8,0 8,0	8,0	8.0 8.0 8.0 8.0
	-		-,0	9,0	0,0	8.0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

THO SECOND STICK A/C A-6 BOMB MK 83 GPLD EJ VEL 4.8 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 M990D MOODE VT/M998E VT/H990D 0. 300.0 10,0 N.A. 10.0 N.A. N.A. 350.0 10,0 10.0 N.A. N.A. N.A. 10,0 400,0 N.A. 10.0 N.A. N.A. 450.0 8.0 N.A. 8.0 10.0 N.A. 500,0 8,0 N.A. 8.0 N.A. 550.0 8.0 N.A. 8.0 10.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK A/C A-6 BOMB MK 83 GPLD EJ VEL 4.8 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 15000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 M99nD MOODE VT/M990E VT/M990D 0, 10,0 300.0 10.0 N.A. N.A. N.A. 350.0 N.A. 10.0 N.A. N.A. 10,0 400.0 N.A. 10.0 N.A. N.A. 450.0 10.0 N.A. N.A. 10.0 N.A. 500.0 N.A. 10,0 10.0 10,0 N,A, 550.0 N.A. 8.0 10.0 8.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

THO SECOND STICK

		TWO 3	FCOND 2	TICK		
TARGET REL ANG	REL VEL	A LEVEL MINIMUM	ARMING		OMB MK 83 J VEL 4,8 COMBINAT	FT/SEC
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0,	300 0					
	300,0 350,0	10.0	10.0	N . A .	10.0	N.A.
	400.0	8,0 8,0	8,0	N,A,	10,0	N.A.
	450.0	8,0	8,0	N.A.	10.0	N,A,
	500.0	8,0	8,0	8.0	10.0	N.A. N.A.
	550.0	8,0	8,0	8.0	8,0	8,0
-10.0	•				• •	
	300.0	8,0	8.0	8.0	8.0	8,0
	350.0	8,0	8.0	8.0	8,0	8,0
	400,0 450,0	6,0	8.0	8.0	8,0	8.0
	500.0	6,0 6,0	8.0	8,0	8.0	8.0
	550.0	6.0	8.0	8.0	8.0 8.0	8,0
-30.0		-10	0,0	010	0.0	8.0
	300.0	8,0	8.0	8.0	8,0	8,0
	350.0	8.0	8.0	8.0	8,0	8.0
	400.0	8,0	8.0	8,0	8,0	8,0
	450.0 500.0	8,0	8,0	8.0	8.0	8,0
	550.0	8,0	8,0	8,0 8,0	8.0	8,0
-45.0		0,0	8,0	0,0	8.0	8,0
	300.0	8.0	8.0	8.0	8,0	8,0
	350,0	8,0	8.0	8,0	8,0	8.0
	400.0	8,0	8.0	8.0	8,0	8,0
	450,0	8,0	8.0	8,0	8,0	8,0
	500.0 550.0	8,0	8.0	8,0	8,0	8.0
-60.0	JJ0,0	8.0	8.0	8,0	8,0	8,0
	300,0	8.0	8.0	8,0	8.0	8,0
	350,0	8,0 8,0 8,0	8,0	8,0	8.0	8,0
	400.0	8.0	8.0	8.0	8.0	8,0
	450.0	8,0	8.0	8,0	8.0	8.0
	500.0	8.0	8.0	8,0	8,0	8,0
	550.0	8,0	8,0	8,0	8,0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB= 0.10000

A/C A=0		BOMB MK 84 G	SECOND (ES	7) E.	J VEL 4.8	
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/H990E	VT/H990D
0.	300.0 350.0 400.0 450.0 500.0	10.0 10.0 10.0 10.0 10.0	10.0 10.0 10.0 10.0 10.0	N.A. N.A. N.A. N.A.	N.A. N.A. N.A. 10.0	N.A. N.A. N.A. N.A.

A/C A-6		BOMB MK 84 GF	SECOND PLD (EST		J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		R	EL ALT 150	00 FT
REL	VEL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINAT	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
•	300.0	10,0	10.0	N.A.	N.A.	N.A.
	350.0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10,0	10.0	N.A.	N.A.	N.A.
	450.0	10,0	10.0	N.A.	N.A.	N.A.
	500.0	10,0	10.0	N.A.	N.A.	N.A.
	550.0	10.0	10.0	N.A.	4 D D	N.A

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

				TWO \$1	ECO	ND S	TICK				
A/C A-C	ALTITUDE	QFA I	EVEL						BOMA	MK 84	GPLD (EST)
REL	REL	SEA F				MINE			EJ VE	EL 4.8	FT/SEC
ANG	VEL		1,	Taluôu	AH	MING	TIME .	/ FU2	E CO	ABINAL	IONS
(DEG)	(KTAS)		M90	4E2	M9	90E	M9	900	VT	/M990E	VT/M990D
0,											
	300,0		10,	0	10	. 0	N. /	۸.	N.	Α,	N.A.
	350,0		10,		10		N.			A,	N.A.
	400.0		8,	0		, 0	N.			, 0	N.A.
	450,0		8,	0		, 0	N.		40	0.0	N.A.
	500.0		8	0		, 0	N.		10	0.0	
	550.0		8	Ď		. 0	8		10	1.0	N , A ,
-10.0				•	•	10	•	. 0	10	0,0	N.A,
	300.0		8,	0	А	. 0	8	n	0		0 4
	350.0		8			.0	8			.0	8,0
	400.0		8	0						.0	8,0
	450.0		8,			. 0	8.			.0	8.0
	500.0					. 0	8,			. 0	8.0
	550.0		6,			. 0	8.			. 0	8,0
-30.0	0.0		6	U	0	. 0	8,	0	8	. 0	8,0
-0010	300.0		۵.	•			•	_	_		
	350.0		8,			. 0	8.			.0	8,0
	400.0		8,			, 0	8.			. 0	8.0
			8,			, 0	8,		8	. 0	8.0
	450.0		8,			. 0	8,		8	. 0	8,0
	500,0		8,			. 0	8,		8	. 0	8,0
45 4	550,0		8,	0	8	. 0	8,	0	8	. 0	8.0
-45.0	700 0										
	300.0		8		8	. 0	8,	0	8	. 0	8,0
	350.0		8,	0	8	. 0	8,	0	8	. 0	8,0
	400.6		8,	0	8	. 0	8,	0	8	. 0	8,0
	450.0		8,	0	8	. 0	8,	0	8	.0	8.0
	500.0		8,	0	8	. 0	8,	Ō	8	. 0	8,0
	550.0		8,	0	8	. 0	8,	0	8	Ö	8.0
-60.0										••	910
	300.0		8,	0	8	. 0	8,	0	8	. 0	8,0
	350,0		8.	0		. 0	8.	Ď	8	, 0	
	400,0		8.	0	A	. 0	8,	Ô	A	, 0	8,0
	450.0		8.	0	8	. 0	8,	ñ	A	.0	8,0
	500.0		8	0	A	. 0	8,	ñ	8	. 0	8,0
	550,0		8	n	A	. 0	8,	n	<u>0</u>	. 0	8.0
			٠,		0		υ,	U	0	. 0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

THO SECOND STICK A/C A-6 BOMB MK 81/ SNAKEYE I/ UNRET EJ VEL 7,2 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 MOPOE M9900 VT/M990E VT/M990D 0, 8,0 300,0 10.0 8,0 N.A. N.A. 350.0 8.0 8.0 10.0 N.A. 400.0 8,0 10.0 8,0 8,0 N.A. 450.0 6,0 8,0 8.0 8.0 8,0 500.0 6,0 5,5 8.0 8.0 8,0 550.0 6,0 8.0 5,5 8.0 8.0

		TWO SE	ECOND S'	TICK	•	
A/C A-	•	BOMB MK 81/ SN	MEVE 1	UNRET E	1 451 9 9	ET ICES
TARGET	ALTITUDE	SEA LEVEL	ANETE I	-	J VEL 7,2 El ALT 150	
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H990D
0.						
	300.0	8 ,0	8,0	N.A.	10.0	N.A.
	350,0	8.0	8,0	N.A.	- O O	N.A.
	400.0	8,0	8,0	8.0	10.0	N,A,
	450.0	8.0	8.0	8.0	10.0	N.A.
	500.0	6.0	5,5	8.0	8,0	8,0
	550.0	6,0	5.5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

110 1-	4		TWO S	ECOND S			
A/C A- TARGET REL	ALTITUDE	SEA	LEVEL		BOMB MK 81/	CT SEC	
ANG	VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M9900
0.							
	300.0		8.0	8,0	8,0	.0.0	N
	350.0		8.0	8,0	8.0	10,0	N.A.
	400.0		6,0	5,5	8.5	8.0	8,0
	450.0		6.0	5,5	8.0	8,0	8,0
	500.0		6.0	5.5	8.0	8.0	8.0
	550,0		6.0	5,5	8.0	8.0	8.0
-10.0					V 5	0	8,0
	300.0		6,0	8,0	8.0	8.0	8.0
	350.0		6,0	5,5	8.0	8.0	8,0
	400.0		6.0	5,5	8.0	8.0	8,0
	450.0		6.0	5.5	8,0	8,0	8,0
	500.0		6.0	5.5	8.0	8,0	8.0
-30.0	550,0		6,0	5.5	8.0	8,0	8,0
-50.0	300.0				1		•
	350,0		6.0	8.0	8.0	8.0	8.0
	400.0		6,0	8.0	8.0	8,0	8,0
	450.0		6,0 6,0	5,5	8.0	8.0	8.0
	500.0		6,0	5,5	8.0	.8,0	8.0
	550.0		6.0	5,5 5,5	8.0	8,0	8,0
-45.0			010	212	8.0	8.0	8,0
	300.0		6.0	8,0	8,0	В .	
	350.0		6,0	8.0	8,0	8,0 8,0	8,0
	400.0		6,0	8.0	8.0	8,0	8,0
	450.0		6.0	8,0	8.0	8.0	8,0
	500.0		6,0	8.0	8, n	8,0	8,0 8,0
	550.0		6,0	5.5	8.0	8.0	8.0
-60.0	700						0,0
	300.0		8.0	8.0	8.0	8.0	8.0
	350,0		6.0	8.0	8,0	8,0	8.0
	400.0		6.0	8.0	8,0	8.0	8,0 8,0 8,0 8,0 8,0
	450.0		6,0	8.0	8.0	8.0	8.0
	500.0 550.0		6,0	8.0	8.0	8,0	8.0
	770.0		6.0	8.0	8.0	8,0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-C	ALTITUDE	TWO S BOMB MK 82/ SN SEA LEVEL	ECOND S'	UNRET E.	J VEL 5,6 EL ALT 100	FT/SEC
REL	VEL VEL	MINIMUM	ARHING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/M990E	VT/H990D
0.	300.0 350.0 400.0 450.0 500.0	10,0 8,0 8,0 8,0 8,0	10.0 8.0 8.0 8.0 8.0	N,A, N,A, N.A. 8.0 8.0	10.0 10.0 10.0 10.0 8.0	N.A. N.A. N.A. 8.0

A/C A-6 TARGET ALTITUDE	TWO SI BOMB MK 82, SN. SEA LEVEL	ECOND ST	UNRET E	J VEL 5,6 EL ALT 150	
REL REL ANG VEL		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG) (KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H990D
0,					
300.0 350.0 400.0 450.0 500.0 550.0	10,0 10,0 6,0 6,0 6,0	10.0 10.0 8.0 8.0 8.0	N.A. N.A. N.A. N.A.	N.A. 10.0 10.0 10.0 10.0	N.A. N.A. N.A. N.A.

TWO	SF	COND	STI	CK
		UUII		

A 15 A . A	I WU 3	ECOND 2			
A/C A-6			BOMB MK 82	SNI/UNRETA	RDED
TARGET ALTITUDE SE	A LEVEL		EJ VEL 5,6	FT/SEC	
KEL KEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG VEL			1	COMPTHALL	0.10
(DEG) (KTAS)	M904E2	MODOR	M990D	V= 44000F	WT
	1170402	61330E	113700	VT/M990E	VT/M990D
0.					
300,0	8.0	0 0	At A		
350.0		8.0	N . A .	10.0	N,A,
400.0	8,0	8,0	N.A.	10.0	N.A.
450.0	8,0	8.0	8,0	8.0	8.0
The state of the s	6,0	8.0	8,0	8.0	8,0
500.0	6.0	8.0	8,0	8,0	8.0
550.0	6,0	5.5	8.0	8.0	8.0
-10.0				•	
300,0	6,0	8,0	8.0	8,0	8,0
350,0	6.0	8.0	8.0	8.0	8,0
400.0	6,0	5,5	8,0	8.0	8.0
450.0	6,0	5.5	8.0	8.0	8.0
500.0	6,0	5,5	8.0	8,0	
550,0	6.0	5.5	8.0	8,0	8,0
-30.0		717		8.0	8,0
300,0	8,0	8.0	8.0	9 0	0 •
350.0	6,0			8.0	8,0
400.0	6,0	8.0	8.0	8,0	8.0
450.0	6.0	8.0	8.0	8.0	8.0
500,0	6,0	8,0	8,0	8.0	8.0
550,0	6,0	5.5	8.0	8.0	8.0
-45.0	6,0	5,5	8.0	8,0	8.0
700 0	412				
300.0	8,0	8.0	8.0	8,0	8,0
350,0	6,0	8.0	8,0	8,0	8,0
400.0	6,0	8.0	8.0	8,0	8,0
450.0	6,0	8.0	8.0	8,0	8,0
500.0	6,0	8.0	8.0	8.0	8.0
550.0	6,0	8.0	8.0	8,0	8.0
-60.0					
300.0	8.0	8.0	8.0	8,0	8,0
350,0	8.0	8.0	8.0	8,0	8.0
400.0	8.0	8.0	8.0	8 0	
450.0	8.0	8.0	8.0	8.0 8.0 8.0	8,0
500.0	8,0	8.0	8.0	8 0	8.0
550.0	8,0	8.0	8.0	0,0	8,0
	~ , u	0.0	0 , 0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB# 0.10000

TWO SECOND STICK A/C A-6 BOMB M117A1 (H-6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 10,000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 MODOE M990D VT/M990E VT/M9900 0 . 300.0 10.0 10.0 N.A. N.A. N.A. 350.0 10,0 N.A. 10.0 10.0 N.A. 400.0 N.A. 8.0 8.0 10.0 N.A. 450.0 N.A. 8.0 8.0 10.0 N.A. 500.0 8,0 8.0 N.A. 10,0 N.A. 550.0 8.0 8.0 8.0 8.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK A/C A-6 80M8 M117A1 (H=6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 15,000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 MODOE M990D VT/M990E VT/M990D 0. 300.0 10,0 10.0 N.A. N.A. N.A. 350.0 10,0 N.A. 10.0 N.A. N.A. 400.0 10,0 N.A. 10.0 10.0 N.A. 450.0 N.A. 8.0 8.0 10.0 N.A. 500.0 8,0 N.A. 8.0 10.0 N.A. 550.0 8.0 N.A. 8.0 10.0 N.A.

NOLTR 69=135

MINIMUM ACCEPTABLE ARMING TIMES PH/EB= 0.00010

A/C A-	6	TWO S	ECOND S	TICK	-	
TARGET		SEA LEVEL	no uliv	A1 (H-6 LOADI	0)/M131 F	IN
REL	REL	MINIMUM	APMING	TIME / FUZ	4.2 FT/SE	C
ANG	VEL	of Alumin	MAIITAG	TIME / FUZE	COMBINALI	ÛNZ
(DEG)	(KTAS)	M904E2	M990F	M99nD	VT/M990E	VT/M990D
0.						
•	300.0	8,0	8.0	N.A.	40 0	At A
	350.0	8,0	8.0	N,A,	10,0	N.A.
	400.0	8.0	8,0	N.A.	10.0	N.A.
	450.0	8.0	8.0	8.0	10.0	N.A.
	500.0	8,0	8.0	8,0	8.0	8.0
	550.0	8.0	8,0	8.0	8,0	8,0
-10.0		0,0	a , u	0,0	8,0	8.0
	300.0	8,0	8.0	8.0	B 6	0 4
	350.0	6,0	8.0	8.0	8.0	8,0
	400.0	6,0	8.0	8.0	8,0	8,0
	450,0	6,0	8,0	8.0	8,0	8.0
	500.0	6,0	8.0	8.0	8,0	8.0
	550.0	6,0	5,5	8.0	8,0	8,0
-30.0		0,0	2.5	0 . 0	8,0	8.0
•	300.0	8.0	8.0	8.0	4 0	
	350,0	8.0	8.0	8,0	8.0	8,0
	400.0	8.0	8.0	8,0	8,0	8.0
	450.0	6.0	8.0	8,0	8,0	8.0
	500.0	6,0	8,0	8.0	8,0	8.0
	550.0	6.0	8.0	8.0	8.0	8.0
-45,0	• • •	010	0.0	0.0	8.0	0,8
	300.0	8.0	8.0	8.0	A 0	0 0
	350.0	8.0	8.0	8.0	8,0	8,0
	400.0	8,0	8,0	8.0	8.0	8,0
	450.0	8,0	8,0	8.0	8,0	8.0
	500,0	8,0	8.0	8.0	8,0	8,0
	550.0	8.0	8.0	8.0	8,0	8,0
-60.0	• • •		0.0	0,0	8,0	8.0
	300.0	8.0	8.0	8.0	8 0	0 0
	350.0	8,0	8.0	8.0	8,0	8.0
	400.0	8.0	8.0	8.0	8,0	8,0
	450.0	8,0	8.0	8.0	8.0	8.0
	500.0	8,0	8.0	8.0	8,0	8.0
	550.0	8.0	8.0	8.0	8.0	8,0
	- , •	~ i 0	0,0	0.0	8,0	8,0

APPENDIX G

SAFE ARMING TIMES A-7 AIRCRAFT SINGLE RELEASES

CONTENTS

L	21	E	Ē	GRRDE	E	E	A!	SE	E	A'LE	T	115	0 5 F	5	000	0 0 1	F F	1	R	19.50	1	·	EF			;	3	::;		ŕi	 ·	Š		 		 	 				 	 	999	
MLL	KEL	8	2	GRR	FI	PE	AS	36		A 1		1	0	. (00	0	F	1		45	L				•	. ,					 :							•					GGG	
* LL	E /	8	3	GRR	FI		AS	56		41		1	0		00	0	F .	7		15	L				•		:				•		,						.,	. ,		 	999	•
MLL	EVEV	8	4	GRR	FL		AS	E	E	31		1	0	. 0	0	0		T		15	L				• •		:				•		:									 	666	
H	K	8	1	R	EL	N.E	AH	E	Y	=	1	1	/		N	RI	T	A	R	E	0																							
H	K	B	2	/ R	EL	NE	AK	E	46		1	1	/	0	No	RE	7	A	R	E	0														í								1 1 1	
L	11	FI E	41	RR	(LL	HEE	45	E	L	A	D	E	0	100	00	100	M F 6	1	31	S	FL	I N		•			:		•	 . ,												 G	1 1	4
																																									201			

MINIMUM ACCEPTABLE ARMING TIMES

PH/EB: 0.00010

	121			
31	NGL	. =	REL	 13E

		21406	MELEN!	96		
A/C A-	7	BOMB MK 81 GI	PLD	E	J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 100	The state of the s
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	H990E	M990D	VT/M990E	VT/H990D
0.						
• •	350.0	8,0	8.0	8.0	10.0	N.A.
	400.0	8,0	8.0	8.0	10,0	N.A.
	450.0	8.0	8.0	8.0	8.0	8.0
	500.0	6.0	8.0	8.0	8.0	8.0
	550,0	6.0	5.5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH # 0.00010 PH/EB= 0.10000

SINGLE RELEASE

		-1.40		26		
A/C A-	7	BOMB MK 81 GI	PLD	E	J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 150	
REL	REL	HINIHUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H990D
0.						
	350.0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8.0	8,0	N.A.	10.0	N.A.
	450.0	8,0	8.0	8.0	10.0	N.A.
	500.0	8,0	8.0	8.0	10.0	N.A.
	550.0	6.0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH # 0.00010 PH/EB= 0.10000

SINGLE RELEASE

			SINGL	E RELEAS	5 6		
A/C A-T					R	OMB MK 81	GPLD
TARGET	ALTITUDE	SEA	LEVEL			J VEL 7.2	
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINAT	IANS
ANG	VEL			Aut. 1 40	11.45 055	CO. DIMMI	1049
(DEG)	(KTAS)		M904E2	MOSOE	M990D	VT/M990E	VT/M990D
			-			*	*********
σ,	350.0		0.0				
	400.0		8,0	8.0	8,0	8,0	8,0
	400.0		6,0	8.0	8,0	8.0	8,0
	450.0		6,0	5,5	8,0	8.0	8,0
	500,0		6,0	5.5	8.0	8.0	8,0
	550,0		6.0	5.5	8,0	8.0	8.0
-10.0			•	- , -	•	- 10	0,0
	350.0		6,0	5,5	8.0	5,5	
	400.0		6.0	5,5	4,5	5 6	8,0
	450.0		4,0	5,5	4,5	2,5	8.0
	500.0		4.0	5,5		2,5	8,0
	550.0		4.0		4.5	5,5 5,5 5,5	8.0
-30.0	20.0		4.0	5,5	4,5	5.5	4,5
-00.0	350,0						
	400.0		6.0	5.5	8.0	5,5	8,0
	400.0		6,0	5.5	4,5	5,5	8,0
	450.0		4.0	5.5	4,5	5,5 5,5	8,0
	500.0		4.0	5,5	4,5	5.5	8,0
	550.0		4,0	5,5	4.5	5,5	8.0
-45.0							-,,
	350.0		6,0	5.5	8,0	5,5	8.0
	400.0		6.0	5,5	8.0	5,5	
	450.0		6,0	5,5	4,5	5 B	8,0
	500,0		6,0	5,5	4.5	5,5	8.0
	550.0		4,0	5,5	4,5	5,5	8,0
-60,0	0.0		7,0	2,2	7,7	5,5	8,0
-00,0	380 n						
	350.0		6,0	5,5	8,0	5,5	8,0
	400.0		6.0	5,5	8.0	5,5	8,0
	450.0		6.0	5,5	8,0	5.9	8,0
	500.0		6,0	5,5	8.0	5.5	8,0
	550,0		6.0	5.5	4,5	5,5	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

3	N	G	1 5	REL	
		ш		MEL	 36

		SINGE	MELEN	76		
A/C A-		BOMB MK 82 GI	LD	E	J VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		R	EL ALT 100	00 FT
ARL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(086)	(KTAS)	M904E2	H990E	M990D	VT/M990E	VT/H990D
0.						
	350.0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8.0	8.0	8.0	10.0	W.A.
	500.0	8,0	8.0	8.0	10,0	N.A.
	550.0	8,0	8.0	8.0	8.0	8.0

MINIHUM ACCEPTABLE ARMING TIMES

PH/E8= 0.00010

9	NGI		REL	= 4	SE.
		-	REL		

A/C A-	,	BOMB MK 82 GI	PLD		J VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 150	
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(086)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H9900
0.						
	350.0	8,0	8.0	N.A.	10.0	N.A.
	400.0		8.0	N.A.	10.0	N.A.
	450.0	8.0	8.0	N.A.	10.0	N.A.
	500.0	8,0	8.0	N.A.	10.0	N.A.
	550.0	8.0	8.0	8,0	10.0	N.A.

MINIHUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

4 40 4	7		21405	E WELFY	3 E		
A/C A- TARGET		65.4	. Fuel		8	OMB MK 82	GPLD
REL		JEY			E	J VEL 6.0	FT/SEC
	REL		MININUM	ARMING	TIME / FUZE	COMBINAT	IONS
ANG	VEL						
(DEG)	(KTAS)		H904E2	M990E	M990D	VT/M990E	VT/M9900
0.							
	350,0		8.0	8.0	8.0	40 0	M .
	400.0		8.0	8,0	8,0	10,0	N.A.
	450.0		8,0		8.0	10,0	N.A.
	500.0		6.0	8.0		8.0	8,0
	550.0		6,0	8.0	8.0	8,0	8.0
-10.0	010		0.0	8.0	8,0	8,0	8.0
	350,0		4				
	400.0		6,0	5.5	8,0	5,5	8.0
	450.0		6.0	5.5	8,0	5,5	8,0
	450.0		6.0	5,5	8.0	5,5	8.0
	500.0		6,0	5,5	8.0	5,5	8.0
	550,0		6,0	5,5	4,5	5.5	8.0
-30.0						- , ,	0,0
	350.0		6,0	5,5	8.0	5,5	8 0
	400.0		6.0	5,5	8.0	5,5	8.0
	450.0		6.0	5,5	8.0	5 6	8.0
	500.0		6,0	5,5	8.0	5,5	8,0
	550.0		6.0	5,5	8.0	5,5	8,0
-45.0			910	2,5	0,0	5,5	8,0
	350.0		6.0	5 5	0 4		2.0
	400.0			5,5	8.0	5,5	8,0
	450.0		6.0	5,5	8,0	5,5	8,0
	500.0		6,0	5,5	8.0	5,5	8.0
	500.0		6.0	5,5	8.0	5,5	8,0
40 -	550.0		6.0	5,5	8.0	5,5	8,0
-60,0	754 4						•
	350.0		6,0	5.5	8,0	5,5	8,0
	400.0		6.0	5,5	8.0	5,5	8.0
	450.0		6.0	5,5	8.0	5,5	8.0
	500.0		6,0	5,5	8.0	5,5	
	550.0		6.0	5,5	8.0	5,5	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB# 0,10000

			RELEAS							
A/C A-7		BOMB MK 83 GI	LD	E.	J VEL 4.8	FT/SEC				
TARGET	ALTITUDE	SEA LEVEL		RI	REL ALT 10000 PT					
REL	rel Vel	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS				
(DEG)	(KTAS)	H904E2	MODRE	H990D	VT/H990E	VT/H990D				
0.										
	350.0	10,0 8,0 8,0 8,0 8,0	10.0	N,A,	10.0	N.A.				
	400.0	8;0	8,0	N.A.	10,0	N.A.				
	450.0	8,0	8.0	N.A.	10.0	N.A.				
	500.0	8,0	8.0	N.A.	10,0	N.A.				
	550.0	8.0	8.0	N.A.	10.0	N.A.				

		SINGLE	RELEAS	SE .		
A/C A-	,	BOMB HK 83 G	PLO	E.	J VEL 4.8	FT/SEC
TARBET		SEA LEVEL		R	EL ALT 150	AD FT
REL	REL Vel	MINIMUM	ARHING	TIME / FUZE	COMBINATI	ÖNS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H990D
ø,						
	350.0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10,0	10,0	N.A.	N.A.	N.A.
	450.0	10.0	10.0	N.A.	10.0	N,A,
	500.0	8.0	8,0	N.A.	10.0	N.A.
	550.0	8.0	8.0	N.A.	10.0	N.A.

		SINGLE	E RELEA	SE		
A/C A-T TARGET REL ANG	ALTITUDE REL VEL	SEA LEVEL MINIMUM	ARMING	TIME / FUZE	OMB MK 83 J vel 4.8 Combinati	FT/SEC
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/H990E	VT/H990D
0.						
	350.0 400.0 450.0 500.0	3.0 8.0 8.0	8,0 8.0 8.0	N, A, N, A, 8, 0	10,0 10,0 10,0	N.A. N.A. N.A.
-10.0	550.0	8.0	8,0	8.0	8.0	8,0
-30.0	350.0 400.0 450.0 500.0 550.0	6,0	5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8,0 6,0 5,5 5,5	8.0 8.0 8.0 8.0
-45.0	350,0 400,0 450,0 500,0 550,0	6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8,0 5,5 5,5 5,5	8,0 8,0 8,0 8,0
-60,0	350.0 400.0 450.0 500.0 550.0	6,0 6,0 6,0 6,0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8,0 5,5 5,5 5,5 5,5	8,0 8,0 8,0 8,0
	350.0 400.0 450.0 500.0 550.0	6.0 6.0 6.0 6.0	5,5 5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8.0 8.0 5.5 5.5 5.5	8,0 8,0 8,0 8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		SI	WGLE RE	LEASE		
A/C A-		BOMB MK A4 GI			J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA LEVEL REL ALT 10000 FT				
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M90482	M990E	M9900	VT/M990E	VT/M990D
0.						
	350.0	10,0	10.0	N.A.	N.A.	N.A.
	450.0	10.0	10.0	N.A.	N.A. 10.0 10.0	N:A:
	500.0	8.0	8.0	N.A.	10.0	N.A.

		SI	IGLE REI	LEASE		
A/C A-7		BOMB HK 84 GI			J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA LEVEL REL ALT 15000 FT				
REL	REL		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0.						
	350.0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10,0	10.0	N.A.	N.A.	N.A.
	450.0	10,0	10.0	N.A.	N.A.	N.A.
	500.0	10,0	10.0	N.A.	N.A.	N.A.
	550.0	10.0	10.0	N,A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

		SING	E HELEA	2E		
REL	REL VEL	SEA LEVEL MINIMUN	4 ARMING		OMB MK 84 J VEL 4,8 Combinat	GPLD (EST) FT/SEC IONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0,						
	350.0	10,0	10.0	N.A.	10.0	N. A
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	N.A.	10.0	N, A, N, A,
	500.0	8,0	8.0	8.0	10.0	N,A,
	550.0	8.0	8.0	8.0	10.0	N,A,
-10.0					1410	77.7
	350.0	6,0	5,5	8.0	8,0	8,0
	400.0	6.0	5.5	8.0	8.0	8.0
	450.0	6.0	5.5	8.0	8.0	8.0
	500.0	6,0	5,5	8,0	5.5	8.0
-30.0	550,0	6,0	5.5	8.0	5,5	8.0
-30.0	350 0	4.4				
	350.0 400.0	6.0	5,5	8,0	8,0	8.0
	450.0	6,0	5.5	8.0	8.0	8,0
	500.0	6,0	5,5	8.0	5,5	8.0
	550.0	6,0	5,5	8,0	5,5	8,0
-45.0		0,0	5.5	8.0	5,5	8,0
	350,0	6.0	5,5	8,0		
	400.0	6.0	5,5	8.0	8,0	8,0
	450.0	6.0	5,5	8.0	8.0	8,0
	500,0	6,0	5,5	8.0	8,0 5,5	8,0
	350.0	6.0	5.5	8.0	5,5	8,0 8,0
-60.0					٠,٥	0,0
	350,0	6.0	5.5	8.0	8,0	8.0
	400.0	6,0	5,5	8,0	8,0	8.0
	450.0	6,0	5.5	8.0	8,0	8.0
	500.0	6,0	5.5	8.0	8.0	8,0
	550.0	6.0	5.5	8.0	8,0	8.0
						- 1 -

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE AJC A-7

TARGET	ALTITUDE	SEA LEVEL	VE 1 1 1		EL ALT 100	
rel	REL VEL	MINIMUM	ARMING		COMBINATI	ONS
(08G)	(KTAS)	M904E2	M990E	H990D	VT/M990E	VT/M9900
0.	350.0 400.0 450.0 500.0 550.0	8,0 6,0 6,0 6,0	8,0 8,5 5,5 5,5	8,0 8,0 8,0 8,0	10,0 8,0 8,0 8,0	N.A. 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH . 0.00010 0.10000

PH/EB#

A/C A+		BOMB MK 81/ SNA	E RELEAS		J VEL 7.2	FT/SEC
TARGET	REL	SEA LEVEL			EL ALT 150	no FT
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/H990E	VT/H990D
C .	350.0 400.0 450.0 500.0 550.0	8,0 8,0 6,0 6,0	8.0 8.0 5.5 5.5	N.A. 8.0 8.0 8.0 8.0	10.0 10.0 8.0 8.0	N.A, N.A, 8,0 8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

	_		2 1 140 6	E MELEN			
A/C A-					BOMB MI	81/5NI/U	NRETARDED
TARGET	ALTITUDE	SEA	LEVEL		EJ VEL	7.2 FT/SE	C
REL.	REL		MINIMIM	APHING	TIME / FUZE	CAMBINATI	ONE
ANG	VEL		17 14 1 11 11 11	MANITAG	11 1.056	COMPTIANT	UNS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/H990D
0.							
	350.0		6,0	8,0	8.0	8.0	8,0
	400.0		6,0	5.5	8.0	8.0	8,0
	450.0		6.0	5,5	8,0		0,0
	500.0					8,0	8.0
			6.0	5,5	8.0	8.0	8,0
4 .	550.0		6.0	5,5	8,0	8,0	8,0
-10.0							
	350,0		6,0	5,5	8,0	5,5	8,0
	400.0		4,0	5,5	4,5	5,5	8.0
	450.0		4.0	5,5	4,5	5,5	8.0
	500.0		4 . 0 4 . 0 4 . 0	5,5	4,5	5 5	
	550.0		4 0		4.5	5,5	8.0
70 0	220.0		4 . 0	5.5	7.5	5.5	4,5
-30.0	75.				2.5		
	350.0		6,0	5.5	8.0	5,5	8.0
	400.0		6,0	5,5	4,5	5,5	8.0
	450.0		4,0	5,5	4.5	5,5	8.0
	500.0		4.0	5,5	4,5	5,5	8.0
	550.0		4.0	5,5	4,5	5 .5	
-45.0	0,0		710	2.5	712	5.5	4,5
773,0	380 0				0 •	A1	_
	350.0		6,0	5,5	8.0	5,5	8,0
	400.0		6,0	5,5	4,5	5,5	8,0
	450.0		6,0	5.5	4,5	5,5	8.0
	500.0		4.0	5,5	4.5	5,5	8,0
	550.0		4.0	5,5	4,5	5,5	8,0
-60.0			- 10	717		2,3	0,0
-0010	360 0		4 0		9 •		
	350.0		6,0	5,5	8,0	5,5	8,0
	400.0		6,0	5,5	8,0	5,3	8,0
	450.0		6,0	5,5	4,5	5,5	8,0
	500.0		6,0	5,5	4,5	5,5	8,0
	550.0		4,0	5,5	4,5	5,5	8.0
	- 1 •		, ,	- 1 -		-, -	0,0

HINIMUM ACCEPTABLE ARMING TIMES PH # 0.00010 PH/EB# 0.10000

		SINGLI	E RELEAS	BE		
A/C A-7		BOMB MK 82/ SN/	AKEYE I		J VEL 5.6	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 100	
AEL	REL VEL	HINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	V†/H990E	VT/M990D
0.						
•	350.0	8,0	8.0	N,A,	10,0	N.A.
	400.0	8,0	8.0	N,A,	10,0	N.A.
	450.0	8.0	8,0	8,0	10,0	N,A,
	500.0	8.0 8.0 6.0	8.0	8.0	8,0	8,0
	550.0	6.0	8.0	8.0	8,0	8,0

		SINGLE	E RELEAS	SE		
A/C A+T	7	BOMB MK 82/ SN	AKEYE I	JUNRET E	J VEL 5.6	FT/SEC
TARGET		SEA LEVEL		R	EL ALT 150	no FT
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
•	350.0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8,0	8,0	N.A.		N.A.
	450.0	8.0	8,0	N,A,	10.0 10.0	N.A.
	500.0	8,0	8,0	8,0	10.0	
	550,0	8,0 6.0	5,5	8,0	10.0	N.A. 8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/E8= 0.10000

SINGLE RELEASE

	_		SINGE	E RELEAS	3E			
A/C A-						BOMB M	K 82/SNI/U	NRETARDED
TARGET	ALTITUDE	SEA	LEVEL			EJ VEL	5.6 FT/SE	C
REL	REL		MINIMUM	ARMING	TIME	/ FUZE	COMBINATI	ONE
ANG	VEL			Ministra	1 1	025	COMPTMAIL	0143
(DEG)	(KTAS)		M904E2	M990E	M	990D	U= 440.00F	V=
	,		MY0462	MAARE	m :	7700	VT/M990E	VT/M9900
0,								
•	350.0		8.0	8.0	1	3.0	10.0	NI A
	400.0		6.0					N.A.
	450.0			8.0		3.0	8.0	8,0
	500.0		6.0	8.0		3,0	8.0	8.0
	500.0		6,0	5,5		3,0	8.0	8.0
	550.0		6,0	5.5	- {	3.0	8,0	8.0
-10.0	2.5							•
	350.0		6.0	5,5	ŧ	3.0	5,5	8.0
	400,0		6.0	5.5		3.0	5,5	8.0
	450.0		6.0	5,5		3.0	5 5	
	500.0		4.0	5.5		1,5	5,5 5,5 5,5	8,0
	550.0		4.0	5,5		1.5	5,5	8,0
-30.0	0,0		4,0	212	_	1,5	2,3	8.0
-00.0	750 0							
	350.0		6,0	5,5		3.0	5,5	8,0
	400.0		6.0	5.5		3.0	5,5	8,0
	450.0		6,0	5,5	8	3.0	5.5	8,0
	500.0		4.0	5,5	3	3,n	5,5	8.0
	550.0		4.0	5.5		1.5	5,5	8.0
-45.0			•			•	- 10	0,0
	350,0		6,0	5.5	8	0.0	5,5	8,0
	400.0		6.0	5,5		3.0	5	
	450,0		6.0	5,5		3.0	5,5	8.0
	500.0			5,5			5.5	8.0
	550.0		6,0	5.5		.0	5,5	8,0
	950.0		6.0	5.5	•	1,5	5,5	8.0
-60.0								
	350.0		6,0	5.5		3.0	5,5	8,0
	400,0		6.0	5,5	8	0,0	5,5	8,0
	450.0		6.0	5.5	8	0	5,5	8.0
	500,0		6.0	5,5		0.0	5,5	8.0
	550.0		6.0	5.5		.0	5,5	
			-10	2.0	Ť		2.3	8,0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/E8= 0.10000

		SINGL	E RELEAS	BE		
AJC A-	BOMB	M117A1 (H-6	LOADED	M131 FIN	EJ VEL 4	,2 FT/SEC
TARGET	ALTITUDE SEA	LEVEL	00,,00		ALTITUDE 1	A. AAA FT
REL	REL VEL	HINIMA	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350.0	8.0	8.0	N.A.	10,0	N.A.
	400.0	8,0	8.0	N.A.	10.0	N.A.
*	450.0	8.0	8.0	N.A.	10,0	N.A.
	500.0	8.0	8.0	8.0	10.0	N.A.
	550.0	8.0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE BOMB M117A1 (H-6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC A/C A-7 TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 15,000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 M9900 M990E VT/M990E VT/M990D 0. 350.0 10,0 10.0 N.A. N.A. N.A. N.A. 400.0 8.0 8.0 10,0 N.A. 450.0 8,0 8.0 N.A. 10,0 N.A. 500.0 8,0 N.A. 8.0 10.0 N.A. 550.0 8.0 8.0 N.A. N.A. 10.0

A/C A-	7		SINGL	E RELEAS	E 1 (H-6 LOAD!	=0./M131 F	t N
TARGET	ALTITUDE	SEA L	EVEL		F.I. VFI	4.2 FT/SE	C
REL	REL			ARMING	TIME / FUZE	COMPINATI	ONS
ANG	VEL			4	11.00 / 1025	CIV. OTIAN 1	01.5
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	350.0		8.0	8.0	N.A.	10.0	N.A.
	400.0		8,0	8.0	8.0	10.0	N.A.
	450.0		8.0	8.0	8.0	8.0	8.0
	500.0		8.0	8.0	8.0	8.0	8.0
	550.0		8.0	8.0	8.0	8.0	8.0
-10.0			910	0,0	319	0,0	0.0
	350,0		6.0	5,5	8.0	8.0	9 0
	400,0		6.0	5,5	8.0	5,5	8,0
	450,0		6.0	5.5	8.0		8,0
	500,0		6.0		8.0	5.5	8.0
	550.0		6,0	5.5	8.0	5,5	8.0
-30,0	770,0		0,0	5,5	0 , 11	5,5	8,0
-50,0	350,0		4 0	E -			
	400.0		6,0	5,5	8.0	5,5	8,0
	450.0		6,0	5.5	8.0	5,5	8,0
	450.0		6,0	5.5	8.0	5,5	8.0
	500.0		6,0	5,5	8.0	5,5	8.0
48 4	550.0		6.0	5.5	8.0	5.5	8.0
-45.0	750 0						
	350.0		6.0	5,5	8,0	5.5	8,0
	400.0		6.0	5.5	8.0	5,5	8.0
	450.0		6.0	5.5	8.0	5,5	8.0
	500.0		6.0	5,5	8.0	5,5	8,0
	550.0		6,0	5.5	8.0	5.5	8,0
-60.0							
	350,0		6.0	5,5	8.0	5.5	8,0
	400.0		6,0	5.5	8.0	5,5	8,0
	450.0		6.0	5.5	8.0	5.5	8.0
	500.0		6.0	5.5	8.9	5.5	8,0
	550.0		6.0	5.5	8.0	5.5	8.0
							- , •

APPENDIX H

SAFE ARMING TIMES A-7 AIRCRAFT ONE SECOND STICK RELEASES

CONTENTS

MH LE U-	٧	EL		RE	LE	A:	SE	E	AT	A	1 1 5 1	5 .5	0	0 r 0 r W 1) T	F1 F1	R	M: M:	SL	v	Ė	· ·	•	· .		3	:	0 0	0	•	ŗ.	 ř	· · · · M	Šį	• :		: : :	• •	•	•	••		: :	• •	•	•	• •	• •	. 1	* * *	WW P
MK LE U-	۷	82 EL		SP RE	L D	A S	SF		4 7		1 1	n.	n	n n		FY		м	21																		_														
MK LE	V	83 EL		₹E	LD	A S	SE		4 T		1 (١.	0	0.0		F 9	,	. (21																																
LE O-	VI VI	EL O	DE	EG	LE	AS AS E	E	EL	T	A	1:5	5,5	0	000	7	F T F T	R	MS MS	SL SL	v	ĖF	Y	•		::	3	: :			•	FY	•	M	S L		•	: '	•	•	• •	• •	•	• •	•	•	•	• •	•		7 7 7	8 8 9
MK LE	VE	EL	F	IEI	. E	AS	E	1	T		10) , 5 .	01	0 0	1	7		M S	L		 E R	Y	•	. i	•	3		0	•	•	ř	•	: M:	ŠĹ	•	•	- · ·	:	• •	• •	•	•	• •		•	•	• •	•	H	1 1 1	001
MK LE	V E	Ļ	F	E	.E	AS	E	A	T		10		00	0 (5	7	1	45			· ·	•	•			: :			•	F	• •	•	M:	 5 L	•	•	- • • • • • • • • • • • • • • • • • • •	:	• •	•		•		•	•	• 1			H H H	1 1 1	223
M1 LE LE	17 VE	A	1 F	(EL	H.E.	- 6 4 S	6	LO	ATT	DE	10		0(000	F	11	3	15	F	I١	۷.	•		· ! !	•	•	• •	•	•	• •		•			•	• ;	: •	•			•	• •		•		٠,	, ,		Н	1	4
NO																																														•		•			

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010

PH/EB= 0.10000

		ONE SE	COND S'	TICK		
A/C A-T	7	BOMB MK 81 GF		•	J VEL 7,2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		RI	L ALT 100	00 FT
REL	REL Vel	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
•	350.0	8,0	8.0	8,0	10.0	N.A.
	400,0	8,0	8.0	8.0	10.0	N.A.
	450.0	8.0	8.0	8.0	8,0	8.0
	500.0	6.0	8.0	8,0	8.0	8,0
	550.0	6,0	5.5	8.0	8.0	8,0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

		ONE SE	COND S	TICK		
A/C A-		BOMB HK 81 GF			J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		Ř	EL ALT 150	00 FT
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350.0	8,0	8.0	N.A.	10,0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8.0	8.0	8.0	10.0	N.A.
	500.0		a, o	8.0	10.0	N.A.
	550.0	8.0	8.0	8.0	8 0	8 0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK

TARGET ALTITUDE SEA LEVEL REL REL REL ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990E VT/M990E VT/M990E VT/M990E O. 350.0 400.0 6.0 500.0 6.0 555 8.0 8.0 8.0 8.0 8.0 8.0 8	A/C A-7	7	ONE SI	ECOND 2	TICK		
350.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	TARGET	ALTITUDE S		ARMING	٤,	J VEL 7.2	FT/SEC
350.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M99nD
350.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	0.						
400.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 50.0 500.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	•	350.0	8 0	Α Λ	9 0		
450.0 6.0 5.5 8.0 8.0 8.0 8.0 5.0 8.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		400.0	6 0			0,0	
-10.0 -1			6.0			8,0	
-10.0 -10.0 350.0 6.0 5.5 8.0 8.0 8.0 8.0 400.0 6.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0			6.0			8,0	
-10.0 350.0 400.0 6.0 5.5 8.0 450.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0			6.0		0,0	8,0	
350.0 6.0 5.5 8.0 5.0 5.5 8.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5	-10.0		0,0	212	0,0	0,0	8.0
400.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 5.0 8.0 5.0 6.0 5.5 8.0 5.5 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 8.0 5.0 5.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8		350.0	6.0	8 5	8 6	0 0	
450.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		400.0	6 0			0,0	
-30.0		450.0	6.0			2.5	
-30.0 350.0 400.0 450.0 550.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8		500.0	6.0	5 5	8.0	2,5	
-30.0 350.0 400.0 400.0 450.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0		550.0				2,5	
350.0 6.0 5.5 8.0 8.0 8.0 400.0 6.0 5.5 8.0 8.0 8.0 450.0 6.0 5.5 8.0 5.5 8.0 500.0 6.0 5.5 8.0 5.5 8.0 550.0 6.0 5.5 8.0 5.5 8.0	-30.0		910	2,3	0,0	2,5	8,0
400.0 6.0 5.5 8.0 8.0 8.0 8.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5		350.0	6.0	5 5	8 6	9 6	2 4
450.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 550.0 6.0 5.5 8.0 5.0 5.5 8.0 5.0 5.5 8.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5		400.0	6.0			0,0	
500.0 550.0 6.0 5.5 8.0 5.5 8.0 5.5 8.0 5.5 8.0 6.0 5.5 8.0 6.0 5.5 8.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6		450.0		5 F		0,0	
550.0 6.0 5.5 8.0 5.5 8.0 350.0 6.0 5.5 8.0 8.0		500.0	6.0		8 6	2,5	
350.0 6.0 5.5 8.0 8.0 8.0		550.0	6.0			5,5	
350.0 6.0 5.5 8.0 8.0 8.0	-45.0		-10	7.7	0,0	2,5	8.0
400 0		350.0	6.0	5.5	8.0	8 0	
TVUIU DIII DE NO DE CE		400.0	6,0	5,5	8.0		
AMA A		450.0	6.0	5.5	8.0	8.0	8,0
500 0		500.0	6.0			8.0	
550,0 6.0 5.5 8.0 5.8		550.0	6.0			5 6	
-60,0	-60.0			213	410	4,5	0,0
350.0 6.0 5.5 8.0 8.0		350.0	6.0	5.5	8.6	8 0	ρ Λ
400.0 6.0 5.5 8.0 8.0		400.0	6.0				
450.0 6.0 5.5 8.0 8.0		450.0	6.0			8 0	0,0
500.0 6.0 5.5 8.0 8.0		500.0	6.0		8.0	8 0	0,0
550.0 6,0 5,5 8,0 8,0 8,0 550.0 6,0 5,5 8,0 8,0		550.0		5,5			8,0

HINIHUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		ONE SE	COND S'	TICK		
A/C A-		BOMB HK 82 GI			VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA LEVEL	-		L ALT 100	
REL	REL VEL	MINIMIM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/H990E	V7/H990D
0.						
	350.0	8.0	8.0	N.A.	10.0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	8.0	10.0	N.A.
	500.0	8.0	8.0	8.0	10.0	N.A.
	550.0	8.0	8.0	8.0	8,0	8.0

		ONE SE	ECOND S	TICK		
A/C A-	7	BOMB MK 82 GI			J VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA LEVEL	7.		EL ALT 150	
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL					
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M9900
0.						
7.	350.0	8.0	8.0	N.A.	10.0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8.0	8.0	N.A.	10.0	N.A.
	500.0	8.0	8.0	N.A.	10,0	N.A.
	550.0	8.0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK

			ONE 2	FCOND 2	TICK		
A/C A-					81	DMB MK 82	GPLD
TARGET	ALTITUDE	SEA	LEVEL			J VEL 6.0	
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL			4,	11.0	CO. BIMM	0.15
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
						, , , , , , , , , , , , , , , , , , ,	* 17.117700
0.							
	350,0		8;0	8,0	8.0	10.0	N,A,
	400.0		8,0	8,0	8.0	10.0	N.A.
	450.0		8,0	8,0	8.0	10,0	
	500.0		4.0			8,0	8,0
	550.0		6.0	8.0	8.0	8,0	8.0
18 6	220.0		6,0	8.0	8.0	8.0	8.0
-10.0	75.						
	350.0		6,0	5,5	8.0	8,0	8,0
	400.0		6.0	5,5	8.0	8.0	8.0
	450.0		6,0	5.5	8.0	5,5	8.0
	500.0		6,0	5.5	8.0	5,5	8.0
	550.0		6.0	5.5	8.0	5.5	8.0
-30.0			-10	2.5	-,0	7.5	0,0
	350.0		6.0	5,5	8.0		
	400.0					8.0	8,0
	450.0		6.0	5.5	8.0	8.0	8,0
	F00.0		6.0	5,5	8.0	5,5	8,0
	500.0		6.0	5,5	8,0	5,5	8,0
	550.0		6,0	5,5	8.0	5,5	8,0
~45.0							•
	350,0		6.0	5,5	8,0	8,0	8,0
	400.0		6.0	5.5	8.0	8.0	8,0
	450.0		6,0	5,5	8.0	8,0	8,0
	500.0		6,0	5,5	8.0	8 0	
	550.0		6,0		8,0	8,0	8,0
-60.0	720,0		0,0	5,5	٥, ٥	8.0	8,0
~00,0	350 0						
	350.0		6,0	5.5	8,0	8,0	8,0
	400,0		6,0	5.5	8.0	8,0	8,0
	450.0		6.0	5,5	8,0	8.0	8.0
	500,0		6,0	5.5	8,0	8,0	8.0
	550.0		6,0	5,5	8,0	8.0	8,0
	•		- , •	- 1 -		-,0	010

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		ONE SE	COND S'			
A/C A-		BOMB MK 83 GI	LD	€.	J VEL 4,8	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		R	EL ALT 100	00 FT
REL	REL	MINIMUM	ARMING	TIME / FUZE		
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H990D
0.						
	350.0	10.0	10.0	N.A.	10.0	N.A.
	400.0		8.0	N.A.		N.A.
	450.0	8.0 8.0 8.0	8.0	N.A.	10.0	N.A.
	500.0	8.0	8.0	N.A.	10.0	N.A.
	550,0	8.0	8,0	N.A.	10.0	N.A.

		ONE SI	ECOND S	TICK		
A/C A-	,	BOMB MK 83 GI	PLD	E.	J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			L ALT 150	
REL	REL	MINIMUM	ARMING	TIME / FUZE		
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350,0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10,0	10.0	N.A.	N.A.	N.A.
	450.0	10.0	10.0	N.A.	10.0	N.A.
	500.0	8.0	8.0	N.A.	10.0	N.A.
	550.0	8,0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK

			ONE S	ECOND S	TICK		
ANG	ALTITUDE REL VEL	SEA	MINIMUM	ARMING		OMB MK 83 J VEL 4.8 COMBINATI	FT/SEC
(DEG)	(KTAS)		M904E2	M99DE	M990D	VT/H990E	VT/M990D
0.							
	350.0 400.0 450.0 500.0		8,0 8,0 8,0	8.0 8.0 8.0	N,A, N,A, 8,0 8.0	10.0	N.A. N.A.
40.	550.0		8.0	8.0	8.0	10.0	N,A, 8,0
-10.0 -30.0	350.0 400.0 450,0 500.0 550.0		6,0 6,0 6,0 6,0	5,5 5,5 5,5 5,5	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0	8,0 8,0 8,0 8,0
-45.0	350.0 400.0 450.0 500.0 550.0		6,0 6,0 6,0 6,0	5.5 5.5 5.5 5.5	8.0 8.0 8.0 8.0	8,0 8,0 8,0 8,0	8,0 8,0 8,0 8,0
-60.0	350.0 400.0 450.0 500.0 550.0		6.0 6.0 6.0 5.0	8.0 5.5 5.5 5.5 5.5	8.0 8.0 8.0 8.0	8.0 8.0 8.0 8.0	8,0 8,0 8,0 8,0
	350.0 400.0 450.0 500.0 550.0		6.0 6.0 6.0 6.0	8.0 8.0 8.0 8.0	8,0 8,0 8.0 8,0	8,0 8,0 8,0 8,0	8.0 8.0 8.0 8.0

HININUM ACCEPTABLE ARMING TIMES PH # 0.00010 PH/EB# 0.10000

A/C A-	,	ONE SI	ECOND S	TICK		
TARGET	ALTITUDE	SEA LEVEL			J VEL 4.8 EL ALT 100	AN ET
ANG	VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H990D
0.	25.11					
	350.0 400.0 450.0 500.0 550.0	10.0 10.0 10.0 8.0 8.0	10.0 10.0 10.0 8.0 8.0	N.A. N.A. N.A.	N.A. 10.0 10.0 10.0	N.A. N.A. N.A. N.A.

		ONE SI	ECOND S	TICK		
A/C A-		BOMB MK 84 GI	PLD (FS	7 \ E	J VEL 4.8	PT/CEA
TARGET		SEA LEVEL		RI	FL ALT 150	OD FT
ANG	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350.0 400.0	10.0	10.0	N.A.	N.A.	N.A.
	450.0 500.0	10,0	10.0	N.A.	N.A.	N.A.
	550.0	10.0	10.0	N.A.	N.A.	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB= 0.10000

ONE SECOND STICK

TARGET ALTITUDE SEA LEVEL REL REL ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D O. 350.0 400.0 8.0 8.0 8.0 8.0 8.0 8.0
TARGET ALTITUDE SEA LEVEL REL REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL (DEG) (KTAS) M904E2 M990E M9900 VT/M990E VT/M990D O. 350.0 10.0 10.0 10.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.
REL ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0. 350.0 10.0 10.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 N.A. 10.0 N.A. 500.0 8.0 8.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 8.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0
(DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0. 350.0 10.0 10.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.A. 10
0. 350.0 10.0 10.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 N.A. 10.0 N.A. 500.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 10.0 N.A. -10.0 350.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0
350.0 10.0 10.0 N.A. 10.0 N.A. 400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 N.A. 10.0 N.A. 500.0 8.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 8.0 8.0 10.0 N.A. 550.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8
400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 N.A. 10.0 N.A. 500.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 10.0 N.A. -10.0 8.0 8.0 8.0 10.0 N.A. -10.0 8.0 8.0 8.0 8.0 8.0
400.0 8.0 8.0 N.A. 10.0 N.A. 450.0 8.0 8.0 N.A. 10.0 N.A. 500.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 10.0 N.A. -10.0 8.0 8.0 8.0 10.0 N.A. -10.0 8.0 8.0 8.0 8.0 8.0
450.0 8.0 8.0 N.A. 10.0 N.A. 500.0 8.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0
500.0 8.0 8.0 10.0 N.A. 550.0 8.0 8.0 10.0 N.A. -10.0 350.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0
-10,0 8,0 8,0 10,0 N.A, -10,0 350.0 6,0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0
-10,0 350,0 6,0 8,0 8,0 8,0 400,0 6,0 8,0 8,0 8,0
350.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0
400,0 6,0 8,0 8,0 8,0
ARA
470,0 6,0 5,5 8,0 8,0 8,0
500.0 6.0 5.5 8.0 8.0
220.0 6.0 5.5 8.0 8.0 8.0
-30,0
350.0 6,0 8,0 8,0 8,0
400.0 6.0 8.0 8.0 8.0
450.0 6.0 8.0 8.0 8.0
500.0 6.0 5.5 8.0 8.0
EEA A
-45.0 6,0 5,5 8,0 8,0 8,0 -45.0
550.0 6.0 8.0 8.0 8.0
-60.0
350.0 6.0 8.0 8.0 8,0
400,0 6,0 8,0 8,0 8 n A n
450,0 6,0 8,0 8,0 8,0 8,0
500.0 6.0 8.0 8.0 8.0
550.0 6.0 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		ONE S	ECOND S'	TICK		
A/C A-	7	BOMB MK 81/ SNA		The second second	J VEL 7.2	ET/SEC
TARGET		SEA LEVEL		R	EL ALT 100	DO FT
REL	REL	HINIMUM	ARHING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/H990E	VT/H990D
0.						
	350.0	8.0	8.0	8.0	10.0	N.A.
	400.0	6.0	8.0	8.0	8.0	8.0
	450.0	6.0	5,5	8.0	8.0	8,0
	500.0	6,0	5,5	8.0	8.0	8,0
	550.0	6.0	5,5	8.0	8.0	8,0

		ONE SE	COND S'	TICK		
A/C A-1		BOMB MK 81/ SNAP			J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		R	EL ALT 150	no FT
REL	REL VEL	HINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350.0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8.0	8.0	8.0	10.0	N.A.
	450.0	6.0	8.0	8.0	8.0	8.0
	500.0	6.0	5.5	8.0	8.0	8,0
	550.0	6,0	5.5	8.0	8.0	8,0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/E8= 0.10000

-	_			
DME	SECO	MIC	CTI	AU
OME	3 E L U	MIL	3 1 1	L

AZC A-	7		OME 2	ECOMD 3	IICK	0040		
TARGET		SEA	LEVEL			BOMR M	K WINZNIA	UNRETARDED
REL	REL	SEA	MINIONIM		- 0 M F0	ED AFF	7.2 FT/SE	EC
ANG	VEL		MINIMUM	ARMING	TIME	/ FUZE	COMBINAT	10N5
(DEG)	(KTAS)		W004F-					
(560)	((() ()		M904E2	M990E	M	9900	VT/M990E	VT/M990D
0.								
• •	350.0		6,0	8,0		8.0	0 0	0 0
	400.0		6.0	5,5		3.0	8.0	8,0
	450.0		6,0				8.0	8,0
	500.0			5,5		3.0	8,0	8,0
	550.0		6.0	5.5		3.0	8,0	8.0
-10,0	220.0		6,0	5.5	•	3.0	8.0	8.0
-1010	350.0							
	400.0		6,0	5,5		3.0	8,0	8.0
	400.0		6.0	5,5		3.0	5,5	8,0
	450.0		6,0	5,5		3.0	5,5	8.0
	500.0		6,0	5.5	8	3.0	5,5	8.0
4	550.0		4.0	5.5	8	3.0	5,5	8.0
-30.0	2.2						•	• • • •
	350.0		6,0	5,5	8	3.0	8.0	8.0
	400,0		6.0	5,5		3.0	5,5	8,0
	450.0		6,0	5.5		0.0	5,5	8,0
	500.0		6.0	5,5		3.0	5,5	8.0
	550.0		6.0	5.5		. 0	5,5	8,0
-45.0				- 1 -		• •	5,5	0,0
	350,0		6.0	5.5	5	. 0	8 0	
	400.0		6.0	5.5		0.0	8,0	8,0
	450.0		6,0	5,5		3.0	8.0	8,0
	500.0		6.0	J, J		3.0	8.0	8,0
	550.0		6.0	5.5			5,5	8,0
-60.0	0.0		0,0	5.5	C	.0	5,5	8,0
0310	350.0		4 6					
	400.0		6.0	5.5) , n	8.0	8,0
	450.0		6.0	5.5		.0	8,0	8,0
	450.0		6.0	5,5		.0	8,0	8.0
	500.0		6.0	5,5		.0	8,0	8.0
	550.0		6.0	5,5	8	. 0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		ONE SE	COND S'	rick		
A/C A-	7	BOMB MK 82/ SN/	KEYE I	JUNRET E.	J VEL 5,6	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 100	
REL	REL		ARMING	TIME / FUZE		
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
	350.0	8.0	8,0	N,A,	10.0	N.A.
	400.0	8,0 8,0	8.0	N.A.	10,0	N.A.
	450.0	8.0	8.0	8.0	10.0	N.A.
	500.0	8.0	8.0	8.0	8.0	
	550.0	6.0	8.0	8,0	8.0	8.0

1/C A-7	,	ONE SE	COND S'		J VEL 5,6	cT/Sec
TARGET		SEA LEVEL		R	EL ALT 150	OD FT
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	VEL (KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
•	350,0	8.0	8.0	N.A.	10.0	N,A,
	400.0	8.0	8.0	N.A.	10,0 10,0	N.A.
	450.0	8,0	8,0	N.A.	10,0	N.A.
	500.0	8.0	8,0	8,0	10.0	N,A,
	550.0	6.0	5.5	8,0	8.0	8,0

ONE	SE	CONI	ST	CK
O IA E	JE	CON	3 3 1	

			ONE 3	ECOND 2	TICK		
A/C A-					BOMB N	1K 82/5NI/U	NRETARDED
TANGET	ALTITUDE	SEA	LEVEL		EJ VEL	. 5.6 FT/SE	C
REL	REL		MINIMUM	ARHING	TIME / FUZE	COMPINATI	ONS
ANG	VEL		• •	,	,	COMPTHAIL	0.10
(DEG)	(KTAS)		M904E2	HOOGE	MODED	Wa 4440.05	117 .1100.0
,,			MANAES	M990F	M990D	VT/M990E	VT/M9900
0.							
٠,	350,0		0 4			100	
			8.0	8.0	8.0	10.0	N.A.
	400.0		6,0	8.0	8,0	8,0	8,0
	450.0		6.0	8,0	8.0	8.0	8,0
	500.0		6,0	5,5	8.0	8,0	8.0
	550.0		6.0	5.5	8.0	8,0	8.0
-10.0	•		• 1 •	213		0,0	0,0
	350,0		6,0	5,5	8.0	D .	0 0
	400.0					8.0	8,0
	450.0		6.0	5.5	8.0	8.0	8.0
	450.0		6,0	5.5	8,0	5,5	8,0
	500.0		6,0	5.5	8,0	5,5	8.0
	550,0		6,0	5.5	8.0	5,5	8.0
-30.0							
	350,0		6,0	5,5	8.0	8,0	8.0
	400.0		6.0	5,5	8.0	8.0	
	450.0		6,0	5,5	8.0	6,0	8.0
	500.0					5,5	8,0
	550.0		6,0	5.5	8,0	5,5	8,0
45 -	990.0		6,0	5.5	8.0	5,5	8,0
-45.0	75.						
	350,0		6,0	5.5	8.0	8.0	8,0
	400.0		6,0	5,5	8.0	8.0	8.0
	450.0		6,0	5.5	8.0	8,0	8.0
	500.0		6,0	5.5	8.0	8.0	8,0
	550.0		6.0	5.5	8.0	5.5	
-60.0			0,0	3.5	• • •	5,5	8,0
,0	350.0		4 0		g .	0 .	
	400.0		6,0	5,5	8,0	8.0	8,0
	400.0		6.0	5.5	8.0	8,0	8,0
	450.0		6.0	5.5	8.0	8.0	8,0
	500.0		6,0	5.5	8.0	8,0	8,0
	550,0		6,0	5,5	8.0	8.0	8.0
			•	- , -	- •	-,0	0,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK A/C A-7 BOMB H117A1 (H-6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 10,000 FT REL MINIMUM ARMING TIME / FUZE COMBINATIONS REL VEL ANG (KTAS) (DEG) M9900 M904E2 MODOE VT/MOODE VT/MOOD 0. 350.0 8.0 8.0 N.A. 10.0 N.A. 400.0 N.A. 8.0 N.A. 10.0 8.0 450.0 10.0 N.A. 8,0 N.A. 8.0 500.0 8.0 8,0 10.0 8.0 N.A.

8.6

8.0

550.0

MINIMUM ACCEPTABLE ARMING TIMES PH # 0.00010 PH/EB= 0.10000

8,0

6.0

8,0

ONE SECOND STICK BONB M117A1 (H-6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC RELEASE ALTITUDE 15,000 FT TARGET ALTITUDE SEA LEVEL REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M904E2 M990D VT/M990E VT/M990D M990E 0 . 350.0 N.A. 10,0 10.0 N.A. N.A. N.A. 400.0 8,0 10,0 N.A. 8.0 N,A, 450.0 8.0 10.0 8,0 N.A. 500.0 N.A. 0.8 8.0 10.0 N.A. 550.0 8.0 N.A. 10.0 N.A. 8.0

A/C A-7		ONE S	COND S	TICK		
		801	48 M117	A1 (H-6 LOADE	ED1/M131 F	IN
TARGET	WELLIAME	SEA LEVEL		EJ VEL	4.2 FT/SE	C
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL					
(DEG)	(KTAS)	M904E2	M990E	M990D	V7/M990E	VT/M990D
0.						
	350,0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8.0	8.0	8,0	10.0	N.A.
	450.0	8,0	8.0	8.0	8.0	8.0
	500.0	8,0	8.0	8.0	8.0	8.0
	550,0	8,0	8.0	8.0	8.0	8.0
-10.0			.,,	- • •	-,0	0.0
	350.0	6,0	5,5	8.0	8.0	8,0
	400.0	6.0	5.5	8.0	8.0	8,0
	450.0	6,0	5.5	8.0	8,0	8.0
	500.0	6,0	5,5	8.0	5,5	
	550.0	6,0	5,5	8.0	5,5	6,0
-30.0	22010	0,0	9,5	0.11	3,3	8.0
0010	350,0	6,0	5,5	8,0	8.0	9 0
	400.0	6,0	5,5	8.0	8.0	8.0
	450.0	6,0	5,5	8,0		8.0
	500.0	6,0	5,5	8,0	8,0	8.0
	550.0	6,0	5.5	8.0	8,0	8.0
-45.0	330,0	8,0	7.5	0,0	8.0	8.0
-45.0	350,0	4 0		Ω Α	0 •	
	400.0	6.0	5.5	8.0	8,0	8.0
	450.0	6,0	5.5	8.0	8.0	8.0
	450.0	6,0	5,5	8.0	8.0	8,0
	500.0	6,0	5,5	8.0	8.0	8,0
40.0	550.0	6,0	5.5	8,0	8.0	8,0
-60.0	75.0					
	350.0	6,0	8.0	8,0	8.0	8,0
	400.0	6,0	8.0	8,1	8.0	8,1
	450.0	6,0	8.0	8.0	8.0	8,1)
	500.0	6,0	8,0	8.0	8,0	8,3
	550.0	6,0	8.0	8,0	8,0	8.0

APPENDIX I

SAFE ARMING TIMES A-7 AIRCRAFT THO SECOND STICK RELEASES

CONTENTS

1	KEE-	VE	EL		R	EL	E	A :	SE	E	AAL	TTE		11	5,	0	KO0	0	H	T	2 2 2	S	1					3				ŕ	•	· · · ·	· S	 	- 4	 	:	 	 	 	 	:		1	
1	E E	VE	1		GIRE	-	DEE	A	SE		AA	Ţ		10		00	01	0	4 4	T	*	S	L	. ,	,		 				•			1		 										1	
1	KEE	VE	Ĺ		R	EL	E	A	SE	, E	AAL	TTE		1:	5.	0	000	0	444	T T	× × ×	S	110		•			3				ř		· · · M		 		 		 	 	 	 			1	
-	K E -	VE	L		RE	L	E	AS	SE			7		10	,	u	U	,		т.	м	18	_	 		-				 -																	- 1
1	KEE	VE	1		RE	S	NE	A	KE	٧	E	•	1	1	· .	U	NE	RE	T	A	20	E	0																								
	K E E	8	2	1	RE	S	NE	AF	KE	Y	E	•	I	,		U	NF	RE	T	AF	20	E	0						+																		
1	1:	17	ALL	1	(88	L		-	SE	L	0 4	ATT	DI	10		,00	00	,	M	13	3 1 M	S	FL					:		•				•											!	1	14
	0																																														

HINIMUM ACCEPTABLE ARMING TIMES PH # 0.00010 PH/EB= 0.10000

		IE OUT	ECOND S'	TICK		
A/C A-T		BOMB MK 81 GI	PLD	•	J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		RI	L ALT 100	AD FT
ANG	VEL	utatua	AMPING	TIME / FUZE	COMBINATI	DN2
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/M990E	VT/H990D
0,						
	350.0	8.0	8.0	8,0	10.0	N.A.
	400.0	8.0	8,0	8,0	10.0	N,A.
	450,0	8 0 8 0	8.0	8.0		8,0
	500.0	6.0	8.0	8.0	8,0	8.0
	550.0	6,0	5,5	8.0	8,0 8.0	8.0

		THO SI	ECOND S	TICK		
A/C A-	7	BOMB MK 81 GI		•	J VEL 7.2	ET /SEC
TARGET		SEA LEVEL		R	EL ALT 150	OO FT
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VŤ/M990E	VT/M990D
0.						
	350.0	8,0	8.0	N.A.	10,0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N,A.
	450.0	8,0	8,0	8.0		
	500.0	8,0	8.0	8,0	10,0	N,A,
	550.0	6,0	8.0	8.0	10,0	N,A,

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB= 0.10000

TWO SECOND STICK

			TWO S	ECOND S	TICK		
A/C A-T TARGET REL ANG		SEA	MIN! MUM	ARMING		OMB MK 81 J VEL 7.2 Combinati	FT/SEC
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	350.0		8,0	8,0	8,0	8,0	
	400.0		6,0	8.0	8.0	8.0	8.0
	450.0		6,0	5,5	8.0	8.0	8.0
	500.0		6.0	5.5	8.0	8,0	8,0
	550.0		6,0	5,5	8,0	8.0	8,0
-10.0			0,0	2.5	0,0	8,0	8.0
	350,0		6.0		р.		
	400.0			5,5	8.0	8.0	8,0
	450.0		6,0	5,5	8.0	8.0	8,0
	500,0		6.0	5.5	8.0	8.0	8,0
	550,0		6,0	5.5	8,0	8.0	8,0
-30.0	220.0		6:0	5,5	8.0	8.0	8,0
-00,0	350,0		4 0				
	400.0		6,0	5,5	8.0	8,0	8.0
	400.0		6,0	5.5	8.0	8,0	8,0
	450.0		6.0	5.5	8.0	8,0	8,0
	500.0		6,0	5,5	8.0	8.0	8.0
48 .	550.0		6,0	5,5	0.8	8,0	8.0
-45,0	75.		1 21				
	350.0		6.0	8.0	8.0	8,0	8,0
	400.0		6,0	8.0	8.0	8,0	8.0
	450.0		6.0	8.0	8.0	8.0	8.0
	500.0		6,0	8.0	8.0	8,0	8.0
	550,0		6,0	8.0	8.0	8.0	8,0
-60,0						• •	- 10
	350,0		6.0	8.0	8.0	8,0	8.0
	400.0		5.0	8.0	8.0	8.0	8.0
	450,0		6.0	8,0	8.0	8,0	8,0
	500.0		6.0	8.0	8.0	8,0	8,0
	550.0		6,0	8,0	8,0	8,0	8 0
	•			-,0	-, •	0,0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB# 0.10000

		TWO S	ECOND S'	TICK		
A/C A-	7	BOMB MK 82 G	O I I		J VEL 6.0	ET/SEC
TARGET	ALTITUDE	SEA LEVEL		RI	EL ALT 100	00 FT
ang	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTÅS)	M904E2	H990E	M990D	VT/M990E	VT/H990D
0.						
	350.0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	8.0	10.0	N.A.
	500.0	8,0	8.0	8,0	10.0	N.A.
	550.0	8,0	8.0	8.0	8.0	8.0

		Two Se	ECOND S'	TICK		
A/C A-	7	BOMB MK 82 GF		-	J VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 150	
REL Ang	REL VEL		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
•	350.0	8,0	8.0	N.A. N.A.	10.0 10.0	N.A. N.A.
	450.0 500.0 550.0	8,0 8,0 8,0	8,0	N.A.	10,0	N.A. N.A.
	770,0	0,0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB= 0.10000

THO SECOND STICK

	2		1M0 2	ECOND 2	-		
TARGET REL	ALTITUDE REL	SEA	LEVEL MINIMUM	ARMING		OMB MK 82 J VEL 6.0	FT/SEC
ANG	VEL			MILLION TO	11112 / 1025	COMPTANT	UNS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	350,0		8.0	6.0	8.0	10.0	N.A.
	400.0		8.0	8.0	8.0	10.0	N.A.
	450.0		8,0	8,0	8.0	8,0	8,0
	500.0		6.0	8.0	8.0	8.0	8,0
	550.0		6.0	8.0	8.0	8,0	8.0
-10.0			• 1 •	0.0	• • • • • • • • • • • • • • • • • • • •	0,0	0,0
	350.0		6,0	8.0	8,0	8,0	
	400.0		6.0	8.0	8.0	8,0	8,0
	450.0		6.0	5.5	8,0	8,0	8,0
	500.0		6.0	5,5	8.0	8,0	8.0
	550.0		6.0	5,5	8.0	9,0	8.0
-30.0			0.0	7.5	5,0	8,0	8.0
	350.0		6,0	8.0	8,0	8 0	
	400.0		6.0	8,0	8.0	8,0	8,0
	450,0		6.0	8.0	8.0	8.0	8,0
	500.0		6.0	8.0	8.0	8.0	8,0
	550.0		6,0		8,0	8.0	8,0
-45.0			0,0	8,0	0,0	8.0	8,0
	350,0		6,0	8,0	8.0	9 A	
	400.0		6,0		8,0	8,0	8,0
	450.0			8.0	8.0	8,0	8,0
	500.0		6,0	8.0	8.0	8.0	8,0
	550.0		6,0	8.0		8,0	8.0
-60,0	330,0		0,0	8.0	8,0	8.0	8,0
	350,0		8,0		8.0		0 6
	400.0		8.0	8.0	8,0	8,0	8,0
	450.0			8.0		8.0	8,0
	500.0		8.0	8.0	8.0	8.0	8,0
	550.0		8,0	8,0	8,0	8.0	8,0
	JJ0,0		8.0	8.0	8,0	8.0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C A-	,	TWO SI	COND S'	TICK		
		BOMP MK 83 GF	פוק	Ε.	J VEL 4.8	ET/REC
TARGET	ALTITUDE	SEA LEVEL		-	EL ALT 100	
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	VEL					
(086)	(KTAS)	M904E2	M990E	M990D	VT/H990E	VT/M9900
0,						
	350.0	10,0	10.0	N.A.	10.0	N.A.
	400.0	8,0 8,0 8,0	8.0	N.A.		N.A.
	450,0	8,0	8.0	N.A.	10.0	N.A.
	500.0 550.0	8,0	8.0	N.A.	10,0	N.A.
	330.0	8,0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH/EB= 0.00010

A/C A-7	,	TWO SE BOMB MK 83 GE	ECOND S'	•	1 WEL 4 0	rī iera
TARGET	ALTITUDE	SEA LEVEL	LU		J VEL 4,8 EL ALT 150	
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTĀS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350,0 400,0	10.0	10.0	N.A.	N.A.	N . A .
	450.0	10.0	10.0	N.A. N.A.	N.A.	N,A, N,A,
	500.0 550.0	8 0 8 0	8,0	N.A. N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

1.10 .	•		I WU 3	ECOND 2	IICK		
A/C A-					8	OMB MK 83	GPLD
TARGET	ALTITUDE	SEA	LEVEL		E	J VEL 4.8	FIZSEC
REL	REL		MINIMUM	ARHING	TIME / FUZE	COMPINATI	ONS
ANG	VEL			A	11	CONDIME	UNA
(DEG)	(KTAS)		H904E2	HODEE	MODED		
,	1		70462	M990E	M990D	VT/M990E	VT/M990D
0.							
٠,	350 0						
	350.0		8,0	8.0	N.A,	10,0	N,A,
	400.0		8.0	8,0	N.A.	10,0	N.A.
	450.0		8.0	8.0	8.0	10,0	N.A.
	500.0		8.0	8.0	8.0		N.A.
	550.0		8.0	8,0	8.0	10,0	
-10.0			-10	0,0	0,0	8.0	8,0
	350.0		4 .	0 .	0 0		
	400.0		6.0	8.0	8.0	8,0	8,0
	450.0		6.0	8.0	8.0	8,0	8.0
	450.0		6.0	8,0	8,0	8,0	8.0
	500.0		6,0	8.0	8.0	8.0	8,0
	550,0		6.0	8.0	8.0	8.0	8.0
-30.0					- • •	-,0	0,0
	350.0		8.0	8.0	8,0	8 0	0 6
	400.0		8.0	8.0	8.0	8.0	8,0
	450.0			-		8,0	8.0
	500.0		6,0	8.0	8.0	8,0	8,0
			6.0	8,0	8.0	8,0	8,0
48 .	550.0		6,0	8.0	8.0	8,0	8.0
-45.0							•
	350.0		8,0	8.0	8.0	8,0	8,0
	400.0		8,0	8.0	8.0	8,0	8,0
	450.0		8.0	8,0	8.0		
	500.0		8.0		8,0	8,0	8,0
	550.0		8 0	8.0		8,0	8,0
-60,0	550,0		8.0	8,0	8,0	8,0	8,0
-00,0	35 A A						
	350.0		8.0	8.0	8.0	8,0	8,0
	400.0		8,0	8.0	8,0	8.0	8.0
	450.0		8,0	8,0	8.0	8.0	8.0
	500.0		8,0	8.0	8.0	8,0	8,0
	550.0		8,0	8,0	8.0	8 0	
	- , ,		-,0	9,0	0,0	8,0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		TWO	SECOND	STICK		
AAC A-	7	BOMB MK 84 GF	LD (ES	f) E.	J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		•	EL ALT 100	
REL	REL	HINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
e.						4
	350.0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10.0	10.0	N.A.	N.A.	N.A.
	450.0	10.0	10.0	N.A.	N.A. 10.0	N.A.
	500.0	8.0	8.0	N.A.	10.0	N.A.
	550,0	8,0	8.0	N.A.	10,0	N.A.

		TWO	SECOND	STICK		
A/C A-7		BOMB MK 84 GF	LD (ES	7) E.	J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 150	
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL					
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/H990E	VT/M990D
0.						
	350.0	10.0	10.0	N.A.	N.A.	N.A.
	400.0	10.0	10.0	N.A.	N.A.	N.A.
	450.0	10.0	10.0	N,A,	N.A.	N.A.
	500,0	10,0	10,0	N.A.	N.A.	N.A.
	550.0	10,0	10.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

446 4		TWO S	ECOND S	TICK		
A/C A-				8	OMB MK 84	GPLD (EST
TARGET	ALTITUDE	SEA LEVEL		F	J VEL 4.A	FT/SEC
REL	REL	MINĪMUM	ARMING	TIME / FUZE	COMBINAT	IONS
ANG	VEL		•		5001MA1	. 0.10
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
	350.0	10.0	10.0	N,A,	40 0	A1 A
	400.0	8,0			10,0	N.A.
	450.0		8,0	N , A ,	10.0	N.A.
	500.0	8,0	8.0	N.A.	10.0	N.A.
	550,0	8,0	8,0	8.0	10.0	N.A.
-10.0	JJ0,0	8,0	8.0	8.0	10.0	N.A.
-10.0	750 0	0.7				
	350.0	8.0	8.0	8,0	8.0	8,0
	400.0	8.0	8.0	8.0	8.0	8,0
	450.0	8,0	8.0	8.0	8.0	8.0
	500.0	6.0	8.0	8.0	8.0	8.0
	550.0	6.0	8.0	6.0	8.0	8,0
-30.0				• • •	0,0	0,0
	350,0	8,0	8.0	8.0		0 0
	400.0	8,0	8.0	8,0	8,0	8,0
	450.0	8.0	8.0	8.0	8.0	8,0
	500.0	8.0	8.0		8,0	8,0
	550.0	8.0		8.0	8.0	8.0
-45.0		0,0	8,0	8.0	8.0	8.0
1510	350,0	9 4				
	400.0	8,0	8,0	8.0	8,0	8,0
	400.0	8,0	8.0	8.0	8,0	8,0
	450.0	8,0	8,0	8.0	8.0	8.0
	500.0	8,0	8.0	8.0	8,0	8,0
	550.0	8.0	8,0	8.0	8.0	8.0
-60,0						-,0
	350,0	8.0	8,0	8.0	8,0	8.0
	400.0	8,0	8.0	8,0	8.0	9.0
	450,0	8,0	8.0	a. o		8,0
	500.0	8,0	8.0	8.0	8,0	8,0
	550.0	8.0	8.0	8.0	8,0	8,0
		5,0	0,0	0.0	8,0	8,0

HININUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		THO SI	COND S'	TICK		
A/C A-7		BOMB MK 81/ SNAP	CEYE 1/		J VEL 7,2	ET/SEC
	TITUDE	SEA LEVEL		-	L ALT 100	
ANG	reļ Veļ	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG) ((TAS)	M904E2	M990E	M9900	VT/M990E	VT/M990D
0.						
	350.0 400.0 450.0 500.0	8,0 6,0 6,0 6,0	8.0 6.0 5.5 5.5	8.0 8.0 8.0 8.0 8.0	10.0 8.0 8.0 8.0 8.0	N.A, 8,0 8,0 8,0

		TWO SE	COND S'	TICK		
A/C A-		BOMB MK 81/ SNAP	KEYE 1/	UNRET E	J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 150	
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
	350.0 400.0	8.0 8.0	8.0	N, A, 8, 0	10.0	N.A.
	450.0	6.0	8.0	8.0	10,0 8,0	N.A. 8.0
	500.0	6,0	5.5	8.0	8.0	8,0
	550.0	6,0	5,5	8,0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

			, , , , ,	* ,			
			TWO	SECOND S'	TICK		
MEL	REL	SEA LE		M ARMING	BOMB MI EJ VEL TIME / FUZE	K 81/SNI/U 7.2 FT/SE COMBINATI	C
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0,							
	350,0		6,0	8.0	8.0	8,0	9 0
	400.0		6.0	5.5	8.0	8.0	8,0
	450.0		6.0	5,5	8.0	8,0	8,0
	500.0		6,0	5.5	5.0	8.0	8,0
	550.0		6.0	5,5	8.0	8.0	8,0
-10.0			, ,	- 1 -		0,0	8,0
	350,0		6,0	5,5	8,0	8.0	8,0
	400.0		6,0	5.5	8.0	8.0	8,6
	450.0		6,0	5,5	8.0	8,0	8,0
	500,0		6,0	5,5	8.0	8.0	8,0
	550.0		6.0	5,5	8.0	5.5	8.0
-30.0	_2-					- • •	0,0
	350,0		6,0	5,5	8.5	8.0	8.0
	400.0		6.0	5,5	8,0	8.0	8,0
	450.0		6,0	5.5	8.0	8.0	8,0
	500,0		6,0	5,5	8.0	8.0	8.0
40 4	550.0		6.0	5.5	8.0	8.0	8,0
-45,0	75A .						
	350,0		6,0	8,0	8.0	8,0	8.0
	400.0		6.0	8,0	8,0	8.0	8.0
	450.0		6.0	8.0	8.0	8,0	8,0
	500,0 550,0		6,0	5.5	8.0	8,0	8,0
-60.0	990.0		6,0	5.5	8,0	8.0	8,0
-00,0	350.0						
	400.0		6,0	8.0	8.0	8.0	8,0
	450,0		6,0	8.0	8,0	8.0	8,0
	500.0		6,0	8.0	8,0	8.0	8.0
	550.0		6,0	8,0 8,0	8.0 8.0	8.0 8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.0001D PH/EB= 0.10000

TWO SECOND STICK BOMB MK 82/ SNAKEYE I /UNRET EJ VEL 5.6 FT/SEC REL ALT 10000 FT A/C A-7 TARGET ALTITUDE SEA LEVEL MINIMUM ARMING TIME / FUZE COMBINATIONS REL REL VEL ANG (DEG) (KTAS) M904E2 MODDE MOODD VT/M990E VT/M990D 0. 350,0 N.A. 10,0 8,0 8.0 N.A. 400,0 10.0 8.0 8.0 N.A. N.A. 450,0 8.0 8,0 8,0 10.0 N.A. 500.0 8.0 6.0 8.0 8.0 8.0 550.0 8.0 8.0 6.0 8,0 8.0

		TWO S	ECOND S'	TICK		
A/C A-7		BOMB MK 82/ SN			J VEL 5.6	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		· -	EL ALT 150	
REL	REL		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350,0	8.0	8.0	N.A.	10.0	N.A.
	400.0		8.0	N.A.	10.0	N.A.
	450.0	8,0 8,0	8,0	N.A.	10,0	N.A.
	500.0	8.0	8.0	8.0	10.0	N.A.
	550,0	6,0	5,5	8,0	8.0	8.0

NOLTR 69+135

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

			TWO S	ECOND S	TICK		
A/C A-	7				BOMR M	K 82/SNI/U	MRETARDED
TARGET	ALTITUDE	SEA	LEVEL		F.I VEI	5.6 FT/SE	C ANDED
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMPINATI	CNE
ANG	VEL			AHIII WO	11.5 1.056	COMPTINAL	DN2
(DEG)	(KTAS)		M904E2	MODOF	MOGEO		
			W > 0 4 C S	M990E	M990D	VT/M990E	VT/M990D
0.							
Ο,	350,0		0 0				
	400.0		8.0	8.0	8.0	10.0	N.A.
	400.0		6,0	8.0	8.0	8.0	8,0
	450.0		6,0	8.0	8.0	8.0	8.0
	500,0		6.0	5.5	8.0	8.0	8.0
	550.0		4.0	5,5	8.0	8,0	8,0
-10.0			•	- (-		0,0	0,0
	350.0		6.0	8,0	8,0	9 0	0 •
	400.0		6,0			8,0	8.0
	450,0			5.5	8,0	8.0	8,0
	500.0		6.0	5.5	8.0	8.0	8,0
	550.0		6.0	5,5	8.0	8.0	8.0
-30.0	0.00		6.0	5.5	8,0	8.0	8,0
-30.0	75.						
	350.0		6,0	8,0	8.0	8.0	8,0
	400.0		6.0	8,0	8,0	8.0	8.0
	450,0		6,0	8,0	8,0	8.0	8,0
	500.0		6.0	5,5	8.0	8.0	8.5
	550,0		6.0	5.5	8.0		8.0
-45.0			- 10	7.7	0,0	8.0	8.0
	350,0		6,0	8,0	8 0	0 .	
	400.0		6,0		8.0	8.0	8,0
	450.0			8.0	8.0	8.0	8,0
	500.0		6.0	8.0	8.0	8.0	0,8
			6,0	8.0	8.0	8,0	8,0
40 0	550.0		6.0	8,0	8,0	8,0	8.0
-60.0	75.						
	350,0		8.0	8.0	8.0	8.0	8,0
	400.0		8,0	8.0	8.0	8.0	8,0
	450.0		8.0	8.0	8.0	8,0	8,0
	500.0		8,0	8.0	8.0	8.0	
	550.0		8.0	8.0	8.0		8.0
	- • -		- 1 0	0,0	0.0	8,0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/FB= 0.10000

TWO SECOND STICK							
A/C A-7	BOMB	M117A1 (H-6	LOADED)	/M131 FIN	EJ VEL 4	.2 FT/SEC	
TARGET AL	TITUDE SEA	LEVEL		RELEASE	LTITUDE 1	0.000 FT	
	EL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS	
(DEG) (K	(TAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D	
0,							
3	50.0	8.0	8,0	N.A.	10.0	N.A.	
4	00.0	8,0	8.0	N.A.	10.0	N.A.	
	50.0	8,0	8.0	N.A,		N.A.	
	00.0	8,0	8,0	8,0	10,0	N.A.	
5	50.0	8,0	8.0	8,0	8.0	8,0	

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 0.10000 PH/EB=

		TWO SE	ECOND ST	ICK		
A/C A-7	BOMB	M117A1 (H-6			EJ VEL 4	.2 FT/SEC
TARGET	ALTITUDE SEA				ALTITUDE 1	
REL	REL		ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL					
(DEG)	(KTAS)	M904E2	MODOE	M990D	VT/M990E	VT/M990D
		-				
0.	1					
	350.0	10.0	10.0	N.A.	N.A.	N.A.
	400.0	8,0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	N.A.	10.0	N.A.
	500.0	8.0	8.0	N.A.	10.0	N.A.
	550.0	8.0	8 0	N.A.	0.0	N A

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

THO SECOND STICK ### ACC A-7 ### BOMB #117A1 (H-6 LOADED)/#131 FIN TARGET ALTITUDE SEA LEVEL REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) ### M904E2 ### M990E ### M990D #### M990D ### M990D ### M
REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL M904E2 M990E M990D VT/M990E VT/M990D 0. 350.0 8.0 8.0 8.0 10.0 N.A. 400.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0
ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0. 350.0 8.0 8.0 8.0 10.0 N.A. 400.0 8.0 8.0 8.0 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 500.0 8.0 8.0 8.0 8.0 8.0 550.0 8.0 8.0 8.0 8.0 8.0 550.0 8.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0
(DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 0. 350.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 8.0 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0
0. 350.0 8.0 8.0 8.0 10.0 N.A. 400.0 8.0 8.0 8.0 10.0 N.A. 450.0 8.0 8.0 8.0 8.0 8.0 500.0 8.0 8.0 8.0 8.0 8.0 550.0 8.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 450.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 450.0 6.0 8.0 8.0 8.0 8.0 450.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0
350.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0
350.0 8.0 8.0 N.A. 10.0 N.A. 400.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0
400.0 8.0 8.0 8.0 10.0 N.A, 450.0 8.0 8.0 8.0 8.0 8.0 500.0 8.0 8.0 8.0 8.0 8.0 550.0 8.0 8.0 8.0 8.0 8.0 -10.0 350.0 6.0 8.0 8.0 8.0 8.0 8.0 450.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0
450.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0
-10.0 -1
-10.0 8.0 8.0 8.0 8.0 8.0 8.0 350.0 6.0 8.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 8.0 490.0 6.0 8.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 8.0 -30.0 6.0 8.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 8.0 450.0 6.0 8.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 8.0 -45.0 8.0 8.0 8.0 8.0 8.0 8.0
-10.0 350.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0
350.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8
400.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8
450.0 6.0 8.0 8.0 8.0 8.0 500.0 550.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8
500.0 6.0 8.0 8.0 8.0 8.0 -30.0 -30.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8
550.0 6.0 5.5 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0
-30.0 350.0 400.0 450.0 500.0 500.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0
350.0 6.0 8.0 8.0 8.0 8.0 400.0 6.0 8.0 8.0 8.0 8.0 450.0 6.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0
400.0 6,0 8.0 8.0 8.0 8.0 8.0 8.0 500.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8
450.0 6.0 8.0 8.0 8.0 8.0 8.0 500.0 550.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8
500.0 6.0 8.0 8.0 8.0 8.0 550.0 6.0 8.0 8.0 8.0 8.0 8.0 8.0
550.0 6.0 8.0 8.0 8.0 8.0 -45.0 -45.0
-45.0 6.0 8.0 8.0 8.0 8.0 -45.0

350.0 8.0 8.0 8.0 8.0
400.0 8.0 8.0 8.0 8.0
450.0 8.0 8.0 8.0 8.0
550,0 8.0 8.0 8.0 8.0
-60,0
350.0 8.0 8.0 8.0 8.0
400.0
ARA
550.0 8.0 8.0 8.0 8.0 550.0 8.0 8.0 8.0

APPENDIX J

SAFE ARMING TIMES F-4 AIRCRAFT SINGLE RELEASES

CONTENTS

ME LE	V	L	R	E	LE	A	S 6	E E	AAL	TTE	1	i o	S	0	0 (0 (W)	י נ	F'	r r	M M E	SI		É	· .	• • • • • • • • • • • • • • • • • • •	• •	•	:	:			•	F	• •	•	· M	Si	•		• • •	•		•	• •	• ·	•			•	•	• •	, . , .	•		2 2 3
ME LE 0-	V	L	R	E	LE	A	SE	? E	AAL	TTE	1	L S	S	0	0 (0 (W))) ! T	F	r	M M F	SI		·	· R	• •	٠.	. +	•	3		0	•	F	• •	•	· M	s i	•			•		•	•	• •	• •		•	•	•	• •	, . , .		してい	4 4 5
MH LE	VI	EL	R	E	LE	A	SE	₹ E	AAL	TE	1	SE	· · · · · · · · · · · · · · · · · · ·	0	0 (0 (W)) ! T	F	T T	M M M	SI	L	, E	·	•	· .	:	:	• • • • • • • • • • • • • • • • • • • •			•	F	• •	•	· M	Šį	•	•	: '		•		•	• •	• •			•	•	• •	, , , ,	•	777	6 6 7
MK LE O-	V	EL	R	E	LE	A	SE		A	T	1		S	0	0 t		F	r F	M M M	51 51	- 5 v	E	· · · R	•	· :	:	•	;			•	f	• •	•	M	s į	:		: : :	•			•	• •	• •				•	• •) •) •	•	777	8 8 9
MK LE 0-	VE	8 1 E L	R	E	SN	A	K E S E	Y	E	Ť	! 1	/	,	U	N F	RE	T	A F	м 0	El)					•		•											•	4														1 0
MK LE 0-	VE	12 L	R	E	SN	A	K E S E S E	Y	EAA	T	1	105		U	NF Oct	RE	F	A F	DM	E)	•		• •	• •	:	•	•	! •	•		• •	٠,	•	•	• •	:		- : '		\$		• (, ,	٠.	•	•	•			•	J	1	2
M1 LE 0	17	A	1 R	(E1	H	- A	6 SE	L	0	A () [0)	, O O	, 1	M;	3	1	Ş S	- 1	N							•																								•	. 4
NO																																																						

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

	NIC		RE			-
-	140	be.	T E	LE	ΑZ	

				- HEFEN	75		
A/C F-	•		BOMB MK 81 (SPLD	F	J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL		R	EL ALT 100	DO FT
REL	REL VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/H990E	VT/M9900
0.							
	350.0		8.0	8,0	8.0	10.0	N.A.
	400.0		8,0	8.0	8.0	10.0	N.A.
	450.0		8,0	8.0	8.0	10.0	N.A.
	500.0		6,0	8.0	8.0	8,0	8,0
	550.0		6.0	5.5	8,0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

			SINGE	E RELEAS	7 E		
A/C F-	4		BOMB MK 81	GPLD	£	J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL		R	EL ALT 150	no FT
REL	REL VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M9900	VT/M990E	VT/M990D
0.							
	350.0		8,0	8.0	N.A.	10.0	N.A.
	400.0		8.0	8.0	N.A.	10.0	N
	450.0		8,0	8.0	8.0	10.0	N.A.
	500.0		8,0	8.0	8.0	10.0	N.A.
	550.0		6.0	8.0	8.0	₹0 n	N A

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/FB= 0.10000

SINGLE RELEASE

A/C F-	A		21465	E MELEA	25		
						BOMP MK 81	GPLD
TARGET		SEA	LEVEL			EJ VEL 7.2	FTISEC
REL	REL		MINIMUM	ARMING	TIME / FUZ	COMPINAT	TONE
ANG	VEL			A11.1.1.10	111.6 7 1021	E COMPINAL	10142
(DEG)	(KTAS)		M00450				
(000)	(11149)		M904E2	MOPOE	M990D	VT/M990E	VT/M990D
0.							
	350,0		8.0	8.0	8,0	. 0 .	
	400.0		4 0			10,0	N.A.
	450.0		6.0	8,0	8.0	8.0	8.0
			0 • O	8.0	8.0	8.0	8,0
	500.0		6.0	5.5	8.0	8,0	8.0
	550.0		6.0	5.5	8.0	8 0	
-10,0				212	- 10	8.0	8,0
	350,0		6 0	F F	0 4		
	400.0		6.0	5.5	8.0	5,5	8,0
	400.0		6.0	5.5	4,5	5.5	8.0
	450.0		4.0	5.5	4.5	5.5	8.0
	500,0		4.0	5.5	4.5	5,5 5,5 5,5	
	550.0		4.0	5,5	4.5	5,5	8,0
-30,0			110	5,5	4.9	2,5	4,5
-4,0	350.0			_			
	400		6.0	5,5	8.0	5,5	8.0
	400.0		6,0	5,5	4,5	5,5	8.0
	450,0		6,0	5.5	4,5	5,5	
	500.0		4,0	5,5	4,5	5.5	8,0
	550.0		4.0			5,5	8.0
-45.0			4.0	5.5	4.5	5,5	8,0
~ 43.0	754 4						
	350.0		6,0	5.5	8.0	5.5	8,0
	400.0		6,0	5.5	8.0	5,5	
	450.0		6,0	5.5	4.5	5 5	8,0
	500.0					5.5	8.0
	550,0		6,0	5.5	4,5	5,5	8.0
44 4	0,000		4.0	5,5	4,5	5,5	8,0
-60.0							
	350.0		6,0	5,5	8.0	5,5	μ 6
	400.0		6.0	5,5	8.0	5 -	8,0
	450.0					5,5	8,0
	500.0		6,0	5,5	8.0	5,5	8,0
	500,0		6,0	5,5	8.0	5,5	8,0
	550.0		6,0	5.5	4,5	5,5	8.0
						• •	• , •

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

			SINGLI	E RELEAS	BE		
A/C F-	•		BOMB MK 82			J VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL			EL ALT 100	00 FT
ANG	VEL				11	0001HM11	0.10
(066)	(KTAS)		M904E2	M990E	H990D	VT/M990E	VT/M990D
0.							
	350.0		8.0	8.0	N.A.	10.0	N.A.
	400.0		8,0	8.0	N.A.	10.0	N.A.
	450,0		8,0	8.0	N.A.	10.0	N.A.
	500,0		8,0	8,0	8.0	10.0	N.A.
	550.0		8.0	8.0	8,0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

		0.04		E RELEAS	SE		
A/C F-		ROW	B MK 82	GPLD		EJ VEL 6.0	FT/SEC
	ALTITUDE					REL ALT 150	00 FT
REL	REL VEL		MINIMUM	ARMING	TIME / FL	ZE COMBINATI	ONS
(DEG)	(KTÁS)	м9	04E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	350,0	10	, 0	10,0	N,A,	10,0	N.A.
	400.0	8	. 0	8,0	N.A.	10.0	N.A.
	450.0	8	0	8,0	N.A.	10.0	N.A.
	500.0	8	. 0	8,0	N.A.	10.0	N,A,
	550,0	8	. 0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

A/C F-	4		01496	E MELEN			
TARGET	ALTITUDE					BOMB MK 82	GPLD
	ALTITUDE	SEA	LEVEL			J VEL 6.0	FT/SEC
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEĻ						
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0,							
	350.0		8.0	0 0	0 6	• •	
	400.0			8.0	8.0	10,0	N.A.
	450,0		8,0	8.0	8.0	10,0	N.A.
	450.0		8,0	0.8	8.0	8,0	8.0
	500.0		8,0	8.0	8.0	8,0	8.0
	550,0		6.0	8.0	8.0	8.0	8.0
-10.0			•		•	-10	0,0
	350.0		6,0	5,5	8.0	5 E	0 4
	400.0		6.0			5,5	8.0
	450.0		4.0	5.5	8.0	5,5	8,0
	500.0		6.0	5.5	8,0	5,5	8,0
	500.0		6.0	5.5	8.0	5,5	8,0
	550.0		4.0	5.5	4.5	5,5	8,0
-30,0							•
	350.0		6.0	5,5	8.0	5,5	8.0
	400.0		6,0	5,5	8.0	5 5	8,0
	450.0		6,0	5.5	8.0	5 5	
	500.0		6.0	5.5	8.0	5,5 5,5 5,5	8.0
	550.0		6,0			5,5	8,0
-45.0			0,0	5.5	4.5	5,5	8,0
- 43.0	350 0					11.20	
	350,0		6.0	5.5	8,0	5,5	8.0
	400.0		6.0	5.5	8,0	5,5 5,5 5,5 5,5	8,0
	450.0		6,0	5.5	8.0	5.5	8,0
	500.0		6,0	5,5	8.0	5.5	8.0
	550.0		6,0	5,5	8.0	5 5	
-60.0	•		- 1 0	213		2,3	8,0
. •	350.0		6.0	E =	8.0	5 e	0 4
	400.0			5.5		5,5	8,0
	450.0		6,0	5.5	8.0	5,5	8,0
	450.0		6,0	5.5	8.0	5,5 5,5	8,0
	500.0		6,0	5,5	8.0	5,5	8.0
	550,0		6,0	5,5	8,0	5,5	8.0
				• •	• •		- 1 -

NOLTR 69=135

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

			SINGL	E RELEAS	BE		
A/C F-	4		BOMB MK 83	GPLD	E	J VEL 4.8	ET/SEC
TARGET	ALTITUDE	SEA	LEVEL		R	EL ALT 100	DO FT
REL	NEL VEL		MINİMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	350,0		10,0	10.0	N.A.	N.A.	N.A.
	400.0		10,0	10.0	N.A.	10.0	N.A.
	450.0		8.0	8.0	N.A.	10.0	N.A.
	500.0		8.0	8,0	N.A.	10.0	N.A.
	550.0		8,0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C F=	ALTITUDE S	BOMB MK 83	E RELEAS	E	J VEL 4.8	
REL	REL VEL		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	350.0 400.0 450.0 500.0 550.0	10,0 10,0 10,0 10,0 8,0	10,0 10,0 10,0 10,0	N.A. N.A. N.A. N.A.	N.A. N.A. 10.0 10.0	N, A, N, A, N, A, N, A,

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

		51N	GLE RELEAS	SE		
A/C F-				A	OHB MK 83	CPID
TARGET	ALTITUDE	SEA LEVEL		5	J VEL 4,8	ET/SEC
REL	REL	MINIM	UM ARMING	TIME / FUZE	COMPINED	717360
ANG	VEL		Au Muntian	11 1.075	COMBINAL	CIRS
(DEG)	(KTAS)	400450				
(DEG)	(MIAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350.0	8.0	8,0	N,A,	10.0	N,A,
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	N.A.	10.0	
	500.0	8,0			10,0	N.A.
	550.0	0.0	8.0	8.0	10.0	N.A.
-10.0	220,0	8.0	8,0	8.0	8.0	8.0
-10,0	75.					
	350.0	6,0	5.5	8.0	8.0	8,0
	400.0	6,0	5.5	8.0	8.0	8,0
	450.0	6,0	5.5	8.0	5,5	
	500.0	6.0	5,5	8.0	5 5	8,0
	550.0	6.0	5.5	8.5	5,5	8.0
-30.0		0,0	2,3	0.9	5,5	8,0
	350.0	4		0 •		
	400.0	6.0	5,5	8,0	8,0	8,0
	400.0	6.0	5.5	0,8	5,5	8,0
	450.0	6,0	5,5	8.0	5,5	8,0
	500.0	6.0	5,5	8.0	5,5	8.0
	550,0	6.0	5,5	8.0	5,5	8.0
-45.0		•			- , -	0,0
	350.0	6,0	5.5	8.0	8.0	
	400.0	4.0		8.0	0,0	8,0
	450.0	6,0	5,5		8,0	6,0
	500.0	0,0	5,5	8.0	5,5	8,0
	500.0	6,0	5,5	8.0	5,5	8,0
4.	550.0	6.0	5.5	8,0	5,5	8,0
-60.0						•
	350.0	6,0	5,5	8.0	8.0	8.0
	400.0	6,0	5,5	8.0	8.0	8,0
	450.0	6,0	5,5	8.0	8.0	
	500.0	6,0	5,5	8.0	8.0	8,0
	550.0	4.0			5,5	8,0
		6,0	5.5	8,0	5,5	8.0

HINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

			\$11	NGLE RE	LEASE		
A/C F-			BOMB MK 84	GPLD (J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL		R	FI ALT 100	AO FT
REL	REL VEL		HINIHUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/H990E	VT/H990D
0.							
	350.0 400.0		10.0 10.0 10.0	10.0	N, A, N, A,	N.A.	N.A.
	450.0 500.0		10.0	10.0	N.A.	N.A. 10.0	N.A.
	550.0		8,0	10.0	N,A, N.A,	10.0	N.A. N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0,00010 PH/EB# 0.10000

				NGLE REI			
A/C F-	4	8	OMB NK 84	GPLD (EST) E	J VEL 4.8	ET/SEC
TARGET		SEA LE	VEL		R	EL ALT 150	no FT
REL	REL VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		H904E2	M990E	M990D	VT/M990E	VT/H990D
٥.							
	350.0		10.0	10.0	N.A.	N.A.	N.A.
	400.0		10,0	10.0	N,A,	N.A.	N.A.
	450.0		10,0	10.0	N,A,	N.A.	N,A,
	500.0	•	10.0	10.0	N.A.		N.A.
	550.0		10,0 10,0	10.0	N.A.	N.A. 10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

			SINGL	E METEV	5E		
A/C F-					B	DHB MK 84	GPLD (EST)
TARGET	ALTITUDE	SEA	LEVEL		2	J VEL 4.8	FT/SEC
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMPONIT	PIPEC
ANG	VEL		in that under	AKIITING	I the A . OSE	COMPINAL	049
	(KTAS)		MARAE .		Man 40		
(DEG)	(VIV2)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.	14						
	350.0		10.0	10.0	N.A.	N.A.	N.A.
	400.0		8,0	8.0	N.A.	10.0	N.A.
	450.0		8.0	8,0	N.A.	10.0	
	500.0		8,0		N,A.	10.0	N.A.
	550.0		0,0	8,0		10,0	N.A.
44 -	0.000		8,0	8,0	8.0	10.0	N.A.
-10.0							
	350.0		6,0	5,5	8.C	8,0	8.0
	400.0		6.0	5,5	8.0	8,0	8,0
	450,0		6,0	5.5	8.0	8.0	8,0
	500.0		6,0	5,5	8.0	5,5	8.0
	550.0		6.0	5.5	8.0	5,5	
-30.0			010	3.5	•••	2,3	8,0
-00.0	350,0		4.4		0 .		
			6,0	5.5	8.0	8.0	8,0
	400.0		6,0	5.5	8.0	8,0	8,0
	450.0		6,0	5.5	8.0	5,5	8,0
	500.0		6,0	5.5	8,0	5,5	8,0
	550.0		6.0	5.5	8.0	5,5	8.0
-45.0							-, -
	350,0		6,0	5,5	8.0	8,0	8,0
	400.0		6.0	5,5	8.0	9.0	
	450,0		6.0	5,5		8.0	8,0
	500.0		6,0 6,0	5,5	8.0	5,5 5,5	8,0
	500.0		0.0	5.5	8.0	2,5	8,0
	550.0		6,0	5.5	8.0	5,5	8,0
-60.0							
	350,0		6,0	5.5	8.0	8.0	8,0
	400.0		6,0	5,5	8.0	8,0	8,0
	450.0		6,0	5,5	8.0	8,0	8 0
	500.0		6.0	5.5	8.0	8 6	8,0
	550.0		4.0	9,9		8.0	8,0
	220.0		6.0	5.5	8,0	5,5	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0:00010

PH/EB= 0.10000

		SINGLE	RELEAS			
A/C F-	BOMB	MK 81/ SNAKEYE	I/ UN	RET E	J VEL 7.2	FT/SEC
TARGET	ALTITUDE SE	A LEVEL			EL ALT 100	
REL	REL		ABMING	TIME / FUTE	C-MOINITE	
		ufuluñu	MAMING	TIME / FUZE	COMRINALI	GNO
ANG	VEL					
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
•			,,,,		* * * * * * * * * * * * * * * * * * * *	* 1 7 11 9 9 0 0
0.						
	350.0	8,0	8.0	8,0	40 0	N,A,
	400.0	9 9			10.0	
		oin	8.0	8.0	10,0	N,A,
	450.0	8,0 6,0	5,5	8.0	8.0	8.0
	500.0	6,0	5,5	8.0	8,0	8.0
	550.0	7 ! 4				0,0
	0.00	6,0	5,5	8,0	8.0	8,0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

A/C F-	4 0040	SINGLE MK 81/ SNAKEYE	RELEA			mT .cro
TARGET	ALTITUDE S	EVIENCE SAMELE	E IN OIA		J VEI. 7.2	
					EL ALT 150	OUPT
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL					
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/H9900
0.						
	350.0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8,0	8.0	8.0	10.0	N.A.
	450.0	8.0		8,0	10.0	
			8.0		10.0	N.A,
	500.0	6,0	5.5	8.0	8,0	8,0
	550.0	6.0	5.5	8.0	8 0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

SI	IGL	E	REL	FA	SE
----	-----	---	-----	----	----

			2 1 40 17	- RELEAS	SE		
AJC F-						/SNI/UNRETA	BOER
TARGET	ALTITUDE	SEA	LEVEL			SHIT UNKE IN	RUED
REL	20111005	JEA	FEACE		EJ VEL 7,2	FT/SEC	
	REL		MINIMUM	ARMING	TIME / FUZ	E COMBINATI	ONS
ANG	VEL						
(DEG)	(KTAS)		M904E2	M990E	M990D	WO 44400 6F	
,,			MACAES	MAAAG	MAAAA	VT/M990E	VT/M990D
0.							
	350,0		6,0	8.0	8.0		
	400.0		4 0			8.0	8.0
			6.0	5.5	8.0	8,0	8,0
	450.0		6,0	5.5	8.0	8.0	8,0
	500.0		6.0	5.5	8.0	8.0	8.0
	550.0		6.0		8.0	0,0	
-10.0	0,0		0,0	5.5	0 , 1)	8,0	8.0
-10.0	26.						
	350,0		6.0	5,5	8.0	5,5	8.0
	400.0		6,0	5,5	4.5	5,5	8 0
	450.0		4 0			2,5	8.0
	500.0		4.0	5,5	4,5	5,5 5,5 5,5	8,0
	500.0		4.0	5,5	4.5	5.5	8,0
	550,0		4.0	5,5	4.5	5 5	4,5
-30.0			•		• •		712
- • • •	350.0		4 4			_	
	400.0		6.0	5,5	8.0	5,5	8.0
	400.0		6.0	5,5	4,5	5.5	8,0
	450.0		4.0	5,5	4,5	5,5 5,5 5,5 5,5	
	500.0		4.0	5,5	4,5	5	8,0
	550.0		7.0			2,5	8,0
	770.0		4.0	5.5	4.5	5,5	4,5
-45.0							
	350.0		6,0	5,5	8.0	5,5	8.0
	400.0		4 0			212	
	450.0		6,0	5,5	4.5	5,5	8,0
	450.0		6,0	5.5	4.5	5,5 5,5 5,5	8,0
	500.0		4.0	5,5	4.5	5.5	8.0
	550,0		4.0	5,5	4,5	5 B	
-60.0			. 1 0	212	117	2,3	8,0
-00,0	754 4						
	350.0		6,0	5,5	8.0	5,5	8,0
	400.0		6,0	5,5	8.0	5,5	8,0
	450.0		6.0	5,5	8.0	5 5	
	500.0		4.0			5.5	8.0
	500,0		6,0	5,5	4.5	5,5	8,0
	550.0		4,0	5,5	4.5	5,5 5,5	8.0
							- 1 -

HINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE BOMB MK 82 / SNAKEYE 1 / UNRET A/C F-4 EJ VEL 5.6 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 10000 FT REL MINIMUM ARMING TIME / FUZE COMBINATIONS REL VEL ANG (KTAS) (DEG) M904E2 MOSOE M990D VT/MOODE VT/MOODD 0 . 350.0 8,0 N.A. 8.0 10.0 N.A. 10.0 400.0 8.0 8.0 N.A. N.A. 450.0 8.0 8.0 8.0 10.0 N.A. 500.0 8.0 8.0 8.0 8.0 8.0 550.0 8.0 8.0 8.0 8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C F-4 BOMB MK 82 / SNAKEYE I / UNRET EJ VEL 5.6 FT/SEC TARGET ALTITUDE SEA LEVEL REL ALT 15000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS VEL ANG (DEG) (KTAS) M990D M904E2 M990E VT/M990E VT/H990D 0 . 10.0 N.A. 350.0 10.0 10,0 N.A. 400.0 N.A. N.A. 8.0 8.0 10,0 450.0 N.A. 8,0 N,A, 8.0 10.0 8,0 500.0 8.0 8.0 10,0 N,A, 550.0 8.0 6.0 8.0 10.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE

A/C F-	4		21405	C MELEA	2 F		
TARGET	ALTITUDE	SEA	LEVEL		BOHR MK 32/	SNI/UNRETA	RDED
HEL,	REL		MINIMUM	ARHING	TIME / FUZE	COMBINATI	ONS
ANG	VEL					COMBINALI	UNS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M9900
0.							
	350,0		8.0	8.0	8.0	40.0	
	400.0		8.0	8.0	8.0	10.0	N.A.
	450.0		6.0	8.0	8.0	8.0	8.0
	500.0		6.0			8.0	8,0
	550.0			8.0	8.0	8,0	8,0
-10.0	,0		6,0	5.5	8.0	8.0	8,0
00,0	350.0		4				
	400.0		6,0	5,5	8.0	5,5	8,0
	450.0		6.0	5,5	8.0	5.5	8.0
	450.0		6.0	5,5	8.0	5.5	8.0
	500.0		4,0	5,5	4.5	5.5	8,0
	550.0		4.0	5,5	4.5	5,5 5,5 5,5	4,5
-30.0	_1					. , .	412
	350,0		6.0	5.5	8.0	5,5	
	400.0		6.0	5.5	8.0	5 . 5	8.0
	450.0		6.0	5.5	8.0	5,5	8,0
	500.0		6,0	5.5	4.5	5,5	8.0
	550.0		4.0	5,5	4,5	5,5	8.0
-45.0			. 10	2,5	4.5	5,5	8.0
	350.0		6 0		0 •	3	
	400,0		6.0	5,5	8.0	5,5	8.0
	450,0		6.0	5.5	8.0	5,5	8,0
	500.0		6,0	5,5	8,0	5,5	8,0
	500.0		6,0	5,5	8.0	5,5	8,0
40 0	55C.C		6,0	5.5	8.0	5,5	8.0
-60.0	** E .						-10
	350.0		6.0	5,5	8, 7	5,5	8,0
	400.0		6,0	5.5	8.0	5,5	
	450.0		6.0	5,5	8.0	5,5	8,0
	500.0		6,0	5,5	8.6	5,5	8,0
	550.0		6,0	5.5	8.0	5,7	8,0
			- 10		0.0	5,5	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C F-4 BOMB M117A1 (H-6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 10,000 FT REL MINIMUM ARMING TIME / FUZE COMBINATIONS REL ANG VEL (DEG) (KTAS) M904E2 M990D MOSOE VT/M990E VT/M990D 0 . 350.0 10,0 10.0 N.A. 10.0 N.A. 400.0 N.A. 8,0 8.0 N.A. 10,0 450.0 N.A. 8.0 8.0 10.0 N.A. 500.0 8,0 N.A. 10.0 8.0 N.A. 550.0 8.0 8.0 8.0 8,0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

SINGLE RELEASE A/C F-4 BOMB M117A1 (H-6 LOADED)/M131 FIN EJ VEL 4.2 FT/SEC RELEASE ALTITUDE 15,000 FT TARGET ALTITUDE SEA LEVEL REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M990E M904E2 M990D VT/M990E VT/M990D 0, 350,0 10,0 10.0 N.A. N.A. N.A. 400.0 N.A. 10,0 10.0 10.0 N.A. 450.0 N.A. 8.0 10.0 8.0 N.A. 500,0 N.A. 10.0 8.0 8.0 N.A. 550.0 8,0 N.A. 0.0 10.0 N.A.

NOLTR 69#135

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A 45 B			E RELEAS			
A/C F-4		BON	MR M117	A1 (H-6 LOAD!	D 1/M131 F	IN
TANGET	ALTITUDE	SEA LEVEL		EJ VFI	A 2 FT/SE	_
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMPINATI	ONE
ANG	VEL			11.4	COMPTIANT	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350,0	8,0	8.0	N.A.	. 0 .	
	400.0	8.0	8.0		10.0	N.A.
	450.0	8,0		N.A.	10.0	N.A.
	500.0		8.0	8.0	8.0	8,0
	550.0	8,0	8.0	8,0	8.0	8.0
-10.0	0.00	8,0	8.0	8.0	8.0	8.0
-10.0	76.					
	350.0	6,0	5,5	8.0	8.0	8.0
	400.0	6.0	5.5	8.0	5,5	8.0
	450.0	6.0	5,5	8.0	5,5	
	500.0	6,0	5,5	8.0	5 5	8,0
	550,0	6.0	5.5	8.0	5,5	8,0
-30.0		0,0	2.5	0,0	5.5	8.0
	350.0	6,0		u .		
	400.0	• -	5.5	8,5	5,5	8,0
	450.0	6,0	5.5	8.0	5,5	8.0
		6,0	5.5	8.0	5,5	8,0
	500.0	6.0	5.5	8.0	5,5	8.0
	550.0	6,0	5.5	8,0	5,5	8,0
-45.0					• •	- , ,
	350.0	6,0	5,5	8.0	5,5	8,0
	400.0	6.0	5.5	8.0	5,5	
	450,0	6.0	5,5	8.0	5,5	8.0
	500.0	6,0	5.5	8.0	5,5	8,0
	550.0	6,0	5.5	8.7	5,5	8,0
-60.0		0,0	7.5	0.1	5,5	8,0
-0.0	350.0		_			
	400.0	6,0	5.5	8.0	8.0	8.0
	400.0	6.0	5.5	8.0	5,5	8.0
	450.0	6.0	5,5	8.0	5,5	8.0
	500.0	6,0	5,5	8.0	5,5	8,0
	550.0	6.0	5.5	8.0	5.5	8,0

APPENDIX K

SAFE ARMING TIMES F-4 AIRCRAFT ONE SECOND STICK RELEASES

CONTENTS

MH LE	۷	ΕĪ	F	ŧΕ	LE	A	SE	: ? ?	A A L	T	Δ .	i o	S	0	W 1) T	F1 F1	r R	MME	SL SL	į	Ė	÷	Y	A	:: †		3,		•		F	÷		·	·	•	: :	•		· ·	•	•				•		• •	•		K	(N N S
MH LE O-	(;	8 2 E L	F	SP RE	LE	A	SE		A	T	1	L n	١.	n	0 n		FI	•	м	S I							,											-															
MH LE LE	(93 EL	(iP RE	LC	A	SE	=	4	T	1	i n	١.	n	0.0		FI		M	SI																																1.0	
MK LE	V (3 4 E L	F	PE		A	(S	E	SAA	T T	1	10		0	0 0		F 1	•	M:	SL			•	, ,	•	-	: :		•	• 1	·	•		· •	•	•	•	:	•	, • •	•	•	•	• •	•	•	•	• (•	. !	K	8
THE LE	VE	B1 EL	F	E	SNLE	AAA	K E S E	Y	EAA	T	1	10		0	VR 0 0	E	TA	R	DI	EC SL)	•	•		•	:	!!		•	• •	•			-	•	•		:	•	• •	•			٠.	. •	•	•	• (•	K	1	. 0
MK LE	VE	2	F	E	SN LE	A	K E	Y	E	T	I 1	/ Ln		U1	N R	E	TA	R	D i	E D	1					-	•											-													L	4	2
MI LE LE	17	A	1 R	(El	H E	- A	6 SE	L	0	A [) E	D) ()	/ 1 n		41 F Y	3	1 M (F	1	N																															4
NO																																																					

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

			ONE SI	ECOND S'	TICK		
A/C F-	1		BOMB MK 81		=	J VEL 7.2	ET ASEC
TARGET	ALTITUDE	SEA	LEVEL		RI	EL ALT 100	OD FT
REL	REL VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E .	M990D	VT/M990E	VT/M990D
0.							
	350.0 400.0		8,0	8.0	8.0	10.0	N.A.
	450.0		8,0 8,0	8.0	8,0	10.0	N.A.
	500.0		8,0 6,0	8.0	8,0 8,0	10,0	N.A.
	550.0		6.0	5.5	8.0	8.0	8.0 8.0

MINIMUM ACCEPTABLE ARMING TIMES PH * 0.00010 PH/EB= 0.10000

A/C F-C		er.	BOMB MK 81 (ECOND S	E	J VEL 7.2	
REL	REL VEL	JEA		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M9900
0.	350.0 400.0 450.0 500.0 550.0		8,0 8,0 8,0 6,0	8,0 8,0 8,0 8,0	N.A. N.A. 8.0 8.0	10,0 10,0 10,0 10,0	N.A. N.A. N.A.

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

A/C F-	4	ONE S	ECOMO 3	_	040 44 84	CRID
TARGET		SEA LEVEL			IOMB MK 81	
REL	REL		ADMING	TIME / FUZE	J VEL 7.2	PIZZEC
ANG	VEL	it I w I to O to	AKHING	TIME / FUZE	COMBINATI	ÛN2
(DEG)	(KTAS)	M904E2	MODAT	MOOAD		
10207	(11,1,1,1)	M30465	MS90E	M9900	VT/M990E	VT/M990D
0.						
٠,	350.0	8.0	9 0	8.0	. 0 .	
	400,0		8.0		10.0	N,A,
	450.0	6,0	8.0	8.0	8,0	8,0
	500.0	6,0	8.0	8.0	8.0	8.0
		6,0	5,5	8.0	8,0	8.0
10 0	550.0	6.0	5.5	8.0	8.0	8,0
-10.0	750 0	4				
	350.0	6.0	5,5	8.0	8,0	8.0
	400.0	6.0	5.5	8.0	8.0	8.0
	450.0	6,0	5.5	8.0	5.5	8.0
	500.0	6,0	5,5	8.0	5,5	8.0
	550.0	6.0	5,5	8.0	5,5	8.0
-30.0						•
	350,0	6.0	5.5	8.0	8,0	8,0
	400.0	6,0	5,5	8.0	8,0	8.0
	450.0	6.0	5,5	8.0	5,5	8.0
	500.0	6.0	5.5	8.0	5,5	8.0
	550.0	6,0	5,5	8.0	5,5	8.0
-45.0		•	- , -		- 1 -	0,0
	350.0	6,0	5.5	8.0	8.0	8,0
	400.0	6,0	5.5	8.0	8,0	8,0
	450.0	6,0	5.5	8.7	8.0	8,0
	500.0	6,0	5.5	8.0	8.0	8,0
	550.0	6,0	5.5	8.0	8.0	8.0
-60.0		010	7.7	0,0	0,0	0,0
-0.0	350,0	6.0	5,5	8.0	4 0	0 0
	400.0			8.0	8.0	8.0
	450.0	6,0	5,5		8,0	8,0
	500.0	6.0	5,5	8.0	8.0	8,0
	550.0	6,0	5.5	8,0	8.0	8,0
	JJU, U	6,0	5.5	8,0	8,0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

ONE	SE	COND	CTI	CK
VILL	VE	LUITU	211	Un

			ONE SI	יכ טייטט:	ILUN		
4/C F-	4		BOMB MK 82	GPLD	E	J VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL			EL ALT 100	
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL		•	•			
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M9900
0,							
•	350.0		8,0	8.0	N,A.	10.0	N.A.
	400.0		8.0	8,0	N.A.	10.0	N.A.
	450.0		8,0	8.0	N,A.	10.0	N.A.
	500.0		8.0	8.0	8.0	10.0	N.A.
	550.0		8.0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH 0.00010 PH/EB= 0,10000

A/C F-	A/C F-4		BOMB MK 82	BOMB MK 82 GPLD		EJ VEL 6.0 FT/SEC			
TARGET	ALTITUDE	SEA	LEVEL			EL ALT 150			
REL	REL VEL			ARMING	TIME / FUZE				
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D		
0.									
	350,0		10,0	10.0	N,A,	10.0	N.A.		
	400.0		8,0	8,0	N.A.	10.0	N,A,		
	450.0		8.0	8,0	N,A,	10.0	N.A.		
	500.0		8.0	8.0	N.A.	10.0	N.A.		
	550.0		8.0	8.0	8.0	10.0	N.A.		

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

A/C F-	4	014E			BOMB MK 82	CRID
TARGET	REL SEL	SEA LEVEL Minimum	ARMING	TIME / FUZ	EJ VEL 6.0 E COMBINATI	FT/SEC
ANG (DEG)	(KTAS)	M9U4E2	M990E	M990Ü	VT/M990E	VT/M990D
0.						
	350,0	8.0	8,0	3.0	10.0	N.A.
	400.0	8.0	8.0	8.0	10.0	N.A.
	450.0	8.0	8.0	8.0	8,0	8.0
	500.0	8.0	8.0	8.0	8.0	8,0
	550.0	6,0	8.0	8.0	8.0	8.0
-10.0						
	350.0	6.0	5.5	8.0	8.0	8,0
	400.0	6.0	5.5	8.0	8.0	8.0
	450,0	6.0	5,5	8.0	5,5	8,0
	500.0	6.0	5.5	8.0	5.5	8,0
7.0	550,0	6,0	5.5	8.7	5.5	8,0
-30.0	75.4					
	350,0	6,0	5.5	8.0	8.0	8,0
	400.0	6,0	5,5	8.0	8.0	8.0
	450.0	6.0	5.5	8,0	5,5	8,0
	500.0	6,0	5.5	8.0	5.5	8,0
48 4	550.0	6,0	5,5	8.0	5.5	8.0
-45.0	350 0	6 0		0 4		
	350.0 400.0	6.0	5.5	8.0	8.0	8,0
	450.0	6,0	5.5	8.0	8.0	8.0
	500.0	6,0	5.5	8.0	8.0	8,0
	550.0	6.0	5.5	8.0	8.0	8.0
-60.0	220.0	6,0	5.5	8.0	8.0	0,8
-00.0	350.0	6 0	0 0	u a	0 4	0. 5
	400.0	6.0	8,0	8.5	8.0	8.0
	450.0	6.0	5.5	8.0	8.0	8,0
	500.0	6.0	5.5	8.0	8.0	8,0
	550.0	6,0	5,5	8.0	8.0	8,0
	J J U , U	6,0	5.5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		ONE S	ECOND S'	FICK		
A/C F-	•	BOMB MK 83	GPLD		J VEL 4.8	ET/SEC
TARGET	ALTITUDE !	SEA LEVEL		Ri	EL ALT 100	00 FT
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
	350,0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10,0	10.0	N.A.	10,0	N.A.
	450.0	8.0	8.0	N.A.	10.0	N.A.
	500.0	8.0	8.0	N.A.	10.0	N.A.
	550.0	8.0 8.0 8.0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES

0,00010 PH/EB=

		ONE	SECOND S'	ICK		
A/C F-	4	BOMB MK		•	J VEL 4.8	ET/SEC
TARGET		SEA LEVEL		6	REL ALT 150	no FT
REL	REL	MINIM	UM ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
	350,0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10,0	10.0	N.A.	N.A.	N.A.
	450.0	10.0	10.0	N.A.	N.A.	N.A.
	500.0	10.0	10.0	N.A.	10.0	N.A.
	550.0	8.0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C F-	4				6	OMB MK 83	GPLD
TARGET	ALTITUDE	SEA	LEVEL		E	J VEL 4.8	FT/SEC
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL						
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M9900
0.							
	350.0		8.0	8.0	N.A.	10.0	N.A.
	400.0		8.0	8.0	N.A.	10.0	N.A.
	450.0		8.0	8.0	N.A.	10.0	N.A.
	500.0		8.0	8.0	8.0	10.0	N.A.
	550.0		8.0	8.0	8.0	8.0	8.0
-10.0			-3.0				
	350.0		6.0	8.0	8.0	8.0	8.0
	400.0		6.0	5.5	8.0	8.0	8.0
	450.0		6,0	5.5	8.0	8.0	8.0
	500.0		6,0	5.5	8.0	8.0	8.0
	550.0		6.0	5.5	8.0	8.0	8.0
-30.0							
	350,0		6.0	8.0	8.0	8.0	8.0
	400.0		6.0	5.5	8.0	8.0	8.0
	450.0		6.0	5.5	8.0	8.0	8.0
	500.0		6.0	5.5	8.0	8.0	8.0
	550.0		6.0	5,5	8.0	8.0	8.0
-45.0							
	350.0		6.0	8.0	8.0	8.0	8.0
	400.0		6.0	8.0	8.0	8.0	8.0
	450,0		6.0	8.0	8.0	8.0	8.0
	500.0		6,0	5.5	8.0	8.0	8.0
	550.0		6.0	5,5	8.0	8.0	8,0
-60.0							
	350.0		6.0	8.0	8.0	8.0	8.0
	400.0		6.0	8.0	8.0	8.0	8.0
	450.0		6.0	8.0	8.0	8.0	8.0
	500.0		6.0	8.0	8.0	8.0	8.0
	550.0		6.0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH # 0.00010

PH/E8= 0,10000

			ONE SI	ECOND S'	TICK		
A/C F-	4		BOMB MK 84	GPLD (ST) E.	J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL		RI	EL ALT 100	DO FT
REL	REL VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/H990E	VT/M990D
0,							
	350,0		10,0	10.0	N.A.	N.A.	N.A.
	400,0		10,0	10.0	N.A.	N.A.	N.A.
	450.0		10,0	10,0	N.A.	N.A.	N.A.
	500,0		10.0	10.0	N.A.	10.0	N.A.
	550,0		8.0	8.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH * 0.00010 PH/E8* 0.10000

		ONE S	ECOND S'	TICK		
A/C F-4	l	BOMB MK 84	GPLD (EST) E.	J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA LEVEL		-	L ALT 150	
REL	REL		ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350.0	10,0	10,0	N.A.	N.A.	N.A.
	400.0	10,0	10.0	N.A.	N.A.	N.A.
	450.0	10,0	10,0	N,A,	N.A.	N.A.
	500.0	10,0	10.0	N.A.	N.A.	N.A.
	550,0	10.0	10.0	N.A.	10,0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C F-	4		OIAE 2	E 1. 0 10 3	-		
TARGET REL	REL	SEA	MINIMUM	ARMING	TIME / FUZE	J VEL 4.8	GPLD (EST) FT/SEC ONS
(DEG)	(KTAS)		M904E2	M990E	M990D		
					119900	VT/M990E	VT/M990D
0.							
	350.0		10.0	10.0	N.A,	N.A.	N.A.
	400.0		8,0	8.0	N.A.	10.0	N.A.
	450.0		8.0	8.0	N.A.	10.0	N.A.
	500.0		8,0	8.0	N.A.	10.0	N.A.
	550.0		8,0	8,0	8.0	10.0	N.A.
-10.0	75.					1.14	
	350.0		6.0	8.0	8.0	8.0	8.0
	400.0		6,0	8.0	8.0	8.0	8.0
	450.0		6,0	5.5	8.0	8,0	8.0
	500.0		6.0	5.5	8.0	8.0	8.0
70.0	550.0		6.0	5,5	8.0	8.0	8.0
-30,0	750 0						
	350.0		6.0	8.0	8.0	8.0	8.0
	400.0		6.0	8.0	8.0	8.0	8.0
	500.0		6.0	8.0	8,9	8.0	8.0
	550.0		6,0	5.5	8.0	8.0	8,0
-45,0	550.0		6.0	5.5	8.0	8.0	8.0
,,,,	350,0		6 0	0 •	4		
	400.0		6,0	8.0	8,0	8.0	8,0
	450,0		6,0	8.0	8,0	8.0	8.0
	500.0		6,0 6,0	8.0	8.0	8.0	8.0
	550.0		6,0	8.0	8.0	8.0	8,0
-60.0			0,0	8.0	8.0	8.0	8.0
	350.0		8.0	9 0	8 6	0	
	400.0		6.0	8,0	8,n 8,n	8,0	8.0
	450.0		6,0	8.0	8.5	8.0	8.0
	500.0		6.0	8.0	8,0	8.0	8,0
	550.0		6.0	8.0	8,0	8.0	8.0
	•		- 1 0	5.0	V 1 U	8.0	8,0

MINIMUM ACCEPTABLE ARMING TIMES
PH = 0.00010
PH/EB= 0.10000

ONE SECOND STICK

		ONE S	ECONO 3	IUN		
A/C F-	BOMB M	K 81/ SNAKEY	E I/ UNI	RET E	J VEL 7.2	FT/SEC
TARGET	ALTITUDE SEA	LEVEL		R	EL ALT 100	00 FT
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL		27 1.00			7//
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
٥.						
	350.0	8,0	8.0	8.0	10.0	N.A.
	400.0	8.0	8.0	8.0	10.0	N.A.
	450.0	6.0	5.5	8.0	8.0	8.0
	500.0	6.0	5.5	8.0	8.0	8,0
	550.0	6.0	5,5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES
PH = 0.00010
PH/EB= 0.10000

		ONE SE	COND S'	TICK		
A/C F-	4 801	HB MK 81/ SNAKEYE			J VEL 7.2	FT/SEC
TARGET		SEA LEVEL			EL ALT 150	60 FT
REL	REL		ARMING	TIME / FUZE		
ANG	VEL					
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/M990E	VT/M990D
0.						
12.	350.0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8,0	8.0	8.0	10.0	N.A.
	450.0	8,0	8.0	8.0	10.0	N.A.
	500.0	6,0	5.5	8.0	8.0	8.0
	550.0	6.0	5.5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB# 0.10000

			ONE 2	FCOND S	TICK		
A/C F-					BOMB MK 81/	CALL THANDET	DUED
TARGET	ALTITUDE	SEA	LEVEL		CI VEL 7 0	PHILLINGIA	KNED
REL	REL		Mellowik		EJ VEL 7,2	FT/SEC	
-			MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL						
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D

0,							
	350.0		6,0	8.0	8,0	8.0	u n
	400.0		6.0	5,5	8.0		8.0
	450.0		6.0			8,0	8.0
	500.0			5.5	8.0	8,0	8,0
			6,0	5.5	8.0	8,0	8.0
	550,0		6.0	5.5	8.0	8.0	8.0
-10.0						-,0	010
	350,0		6.0	5.5	8.0	8 0	0 •
	400.0		6.0			8.0	8.0
	450.0			5.5	8.0	5,5	8,0
			6,0	5.5	8.C	5,5	8.0
	500.0		6.0	5.5	8.0	5.5	8.0
	550.0		4.0	5.5	8.0	5.5	8.0
-30.0					•	- , ,	0,0
	350.0		6,0	5.5	8.0	0 -	
	400.0					8.0	8,0
	450.0		6,0	5.5	8.0	8,0	8.0
			6.0	5.5	8,0	5,5	8.0
	500.0		6,0	5.5	8.0	5,5	8.0
	550,0		6,0	5.5	8.0	5,5	8.0
-45.0						- , ,	0,0
	350.0		6.0	5 6	a o	4 -	
	400.0			5.5	8.0	8.0	8.0
	450.0		6.0	5,5	8.0	8.0	8,0
			6.0	5.5	8,0	8,0	8.0
	500.0		6,0	5.5	8.0	5,5	8,0
	550.0		6.0	5.5	8.0	5,5	
-60.0			•	- 1 -		2,3	8.0
	350,0		6,0	5 6	9 0	0 -	
	400.0			5,5	8.0	8.0	8,0
			6.0	5.5	8.0	8.0	8.0
	450.0		6,0	5,5	8.0	8.0	8.0
	500.0		6,0	5,5	8.0	8.0	8,0
	550,0		6,0	5.5	8.0		
			- 1 •	7 1 2	V + U	8,0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		ONE SE	COND ST	1CK		
A/C F-	BOMR	MK 82 / SNAP			J VEL 5.6	FT/SEC
TARGET	ALTITUDE SEA	LEVEL			EL ALT 100	
REL	REL		ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL,		•		••••••	
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
2.7	350,0	8.0	8,0	N.A.	10.0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8.0	8.0	8.0	10.0	N.A.
	500.0	8.0	8.0	8.0	8.0	8,0
	550.0	8,0	8.0	8.0	8.0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

		ONE S	ECOND ST	TICK		
A/C F-	4 BOMB	HK 82 / SNA			J VEL 5.6	FT/SEC
TARGET	ALTITUDE SEA				REL ALT 150	
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL	• •				•
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,	350.0 400.0	10.0 8.0 8.0	10.0	N.A.	10,0 10,0	N.A.
	450.0 500.0 550.0	8.0 6.0	8,0 8,0 8,0	N.A. 8.0 8.0	10.0 10.0 10.0	N.A, N.A, N.A,

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C F-	4		ONE O	20010	BOMB MK 82	SNIZUNRETA	RDED
TARGET	ALTITUDE	SEA	LEVEL		EJ VEL 5.6	FT/SEC	
REL	REL		MINIMUM	ARMING		COMBINATI	ONS
ANG	VEL						
(DEG)	(KTAS)		M904E2	M990F	M990D	VT/M990E	VT/M990D
0.							
	350.0		8.0	8.0	8.0	10.0	N.A.
	400.0		8.0	8.0	8.0	8.0	8.0
	450.0		6.0	8.0	8.0	8.0	8.0
	500.0		6.0	8.0	8.0	8.0	8.0
	550.0		6.0	5.5	8.0	8.0	8.0
+10.0							-,-
	350,0		6.0	5.5	8.0	8,0	8.0
	400.0		6.0	5.5	8.0	8.0	8.0
	450.0		6.0	5.5	8.0	5.5	8.0
	500.0		6.0	5,5	8.0	5,5	8.0
	550.0		6.0	5.5	8.0	5,5	8.0
-30.0			83.7				
	350.0		6.0	5.5	8.0	8.0	8,0
	400.0		6.0	5,5	8.0	8.0	8.0
	450.0		6.0	5.5	8.0	5.5	8.0
	500.0		6.0	5,5	8.0	5,5	8,0
	550.0		6.0	5.5	8.0	5,5	8.0
-45.0						12.5	
	350.0		6.0	5.5	8.0	8.0	8.0
	400.0		6,0	5.5	8.0	8.0	8.0
	450.0		6.0	5.5	8.0	8.0	8,0
	500.0		6.0	5,5	8.0	5,5	8.0
	550.0		6.0	5.5	8.0	5.5	8.0
-60.0			10.50	130.5			
	350.0		6.0	8.0	8.0	8.0	8.0
	400.0		6.0	5.5	8.0	8.0	8.0
	450.0		6.0	5,5	8.0	8.0	8.0
	500.0		6,0	5,5	8.0	8.0	8,0
	550.0		6.0	5.5	8.0	8.0	8.0
				100		1.4	

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010

PH/EB: 0,10000

		ONE SI	ECOND S'	TICK		
A/C F-	BOMB	M117A1 (H-6	LOADED	/H131 FIN	FJ VEL 4	.2 FT/SEC
TARGET	ALTITUDE SEA	LEVEL		RELEASE	ALTITUDE 1	0.000 FT
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINAT	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
٥.						
	350.0	10.0	10.0	N.A.	10.0	N.A.
	400.0		8.0	N.A.	10.0	N.A.
	450.0	8.0	8.0	N.A.	10.0	N.A.
	500.0	8,0	8.0	N.A.	10.0	N.A.
	550.0	8.0	8.0	8.0	8.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

ONE SECOND STICK A/C F-4 BOMB M117A1 (H-6 LOADED)/M131 FIN FJ VEL 4.2 FT/SEC RELEASE ALTITUDE 15,000 PT TARGET ALTITUDE SEA LEVEL REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 M990E M990D VT/M990E VT/M990D 6. 350.0 N.A. 10.0 N.A. 10.0 N.A. 400.0 10.0 N.A. 10.0 10.0 N.A. 8.0 N.A. 450.0 10.0 N.A. 8.0 10.0 500.0 8.0 N.A. 8.0 N.A. 550.0 N.A. 8.0 8.0 10.0 N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/FB= 0.10000

				•			
			ONE SE	COND S	TICK		
A/C F-4			801	1B M117	A1 (H-6 LOAD	FD 1/M131 F	IN
TARGET	ALT! TUDE	SEA	LEVEL			4.2 FT/SE	
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL					OU DIMMI	•
(DEG)	(KTAS)		M904E2	M990E	M9900	VT/M990E	VT
0.							
	350,0		8,0	8.0	N.A.	10.0	N
	400.0		8.0	8.0	N.A.	19.0	N
	450 0		8 0	8 0	8 6	8 0	

REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/M990E	VT/M990D
0,						
	350,0	8,0	8.0	N.A.	10,0	N.A.
	400.0	8,0	8.0	N.A.	19.0	N.A.
	450.0	8,0	8.0	8.0	8,0	8.0
	500.0	8,0	8.0	8.0	8.0	8,0
	550.0	8,0	8.0	8.5	8.0	8,0
-10.0		••				~, ~
	350.0	6,0	8.0	8.0	8.0	8.0
	400,0	6,0	5.5	8.0	8.0	8,0
	450.0	6,0	5.5	8.0	8,0	8,0
	500.0	6.0	5.5	8,0	8.0	8,0
	550.0	6,0	5,5	8.0	5,5	8.0
-30.0		510	212		-,,	0,0
	350.0	6,0	8.0	8,0	8,0	8,0
	400.0	6,0	5.5	8.0	8.0	8,0
	450.0	6,0	5,5	8.0	8,0	8.0
	500.0	6,0	5,5	8.0	8.0	
	550.0	6.0	5,5	8.0	8.0 8.0	8,0
-45.0	22010	0,0	7.5	0,0	0.0	8.0
473.0	350.0	6,0	8 0	8.0	a a	
	400.0		8.0		8.0	8,0
	450.0	6,0	5,5	8.0 8.0	8.0	8,0
	500.0	6.0	5.5		8.0	8,0
		6,0	5,5	8.0	0,8	8,0
40 0	550.0	6,0	5.5	8.0	0,6	8,0
-60.0	750 0	4 " *		0 •	0 0	
	350.0	6.0	8,0	8,0	8,0	8,0
	400.0	6,0	8.0	8.0	8.0	8,0
	450.0	6.0	8.0	8.0	8.0	8,0
	500.0	6,0	8.0	8,0	8.0	8,0
	550.0	6.0	8.0	8,0	8,0	8,0

APPENDIX L

SAFE ARMING TIMES F-4 AIRCRAFT TWO SECOND STICK RELEASES

CONTENTS

MK LE LE	VE	EL	R	E	LE	A	S E S E	₹ -	AAL	TTE	1	Lo Lo	S	0 0	000) T	F'	T T	₩ M	SSC	L	, ,		·	•	· :	•	: : 3	: '			•	· •	•	• M	S	• •		:	• •		•		•	• •	•	•	•	• •	•	•	. L . L	
MK LE 0+	VE	ĒL	R	E	LE	A	\$ E	: ₹E	AAL	TTE	1	1 0 1 5	5	0 0	0 C)) [T	F	T	M M R	SSC	LLO	VE		· •	•			3	. (F		M	· Si	. , L			• •	• •	•	•	•	• •	•	•	•	• •		•	, L , L	
MK LE 0-	V	EL	F	E	LE	A	SESE	= = = =	AAL	T	AS	1 0 1 5 8 F	, S	0	0 (0 (W))) ! T	FFH	T T	× ×	SC	L L 0	• E	R	· · Y	•			: : 3	:	0.0	0	•	Fi		· • • • • • • • • • • • • • • • • • • •	·	· :	•	:	•	: •	•	•	•	• •	, • , •	•	•	• •			. L . L	
MK LE U-	V (EL	F	E	LE	A	SE		A	T		10	,	0	O (7	F	T	- 1	15	L																									. ,						٠.	
MK LE LE	VI	EL	F	E	LE	A	SI		A	T	:	10	,	0	0 ()	F	T	2	15	L													. ,																	. 1	L	1
MK LE	VI	EL	F	∮E ∮E	LE	A	SE		A	T		10	,	0 0	0 ()	F F	T T	ļ.	IS IS	L													. ,																	٠.١	L	- 1
M1 LE LE	VI	EL	F	₹E	LE	A	SI		A	T		1 0) , ;	0	0 () ר	F	T	N	15	L			•	•	•																	_									l	1
NO	7 (E -		A	LL		D	١v	ΙE	5		ĄF	₹E		4 (5	R	E	C C	V	E	R	l F	S																													

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

			TWO SI	ECOND S'	FICK		
A/C F-	•		BOMB MK 81	GPLD		J VEL 7.2	PT/SEC
TARGET	ALTITUDE	SEA	LEVEL		RI	EL ALT 100	00 FT
REL	REL Vel		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M9900
٥.							
	350,0		8.0	8.0	8.0	10,0	N.A.
	400.0		8,0	8.0	8.0	10.0	N.A.
	450.0		8.0	8.0	8.0	10.0	N.A.
	500,0		6.0	8.0	8.0	8,0	8.0
	550,0		6.0	5,5	8.0	8,0	8,0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

			TWO SE	ECOND S'	TICK		
A/C F-			BOMB MK 81 (GPLD	E	J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL			EL ALT 150	•
REL	REL VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	350.0		8.0	8.0	N.A.	10,0	N.A.
	400.0		8,0	8.0	N.A.	10.0	N.A.
	450.0		8,0	8.0	8.0	10.0	N.A.
	500,0		8.0	8,0	8.0	10,0	N.A.
	550.0		6.0	8.0	8.0	10,0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

			1 W U 3	ECOMO 3	IICK		
A/C F-					В	OMB MK 81	GPLD
TARGET	ALTITUDE	SEA	LEVEL			J VEL 7.2	
REL	REL		MINIMUM	APMING	TIME / FUZE	COMPINATI	ANE
ANG	VEL			AIT ING	11 1075	Chaptidari	UNS
(DEG)	(KTAS)		W00450		1100 - D		
(050)	(CAIN		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
	350.0		8.0	8,0	8.0	10.0	N.A.
	400.0		6,0	8.0	8.0	8,0	8.0
	450.0		6.0	8.0	8.0	9,0	
	500.0		6,0			8,0	8.0
	550.0			5.5	8.0	8.0	8,0
40.0	770.0		6,0	5.5	8.0	8.0	8,0
-10.0	75.						
	350,0		6.0	5,5	8.0	8.0	8.0
	400.0		6.0	5.5	8.0	8.0	8.0
	450.0		6.0	5.5	8.0	8.0	8.0
	500.0		6.0	5.5	8.7	# . O	
	550.0		6,0	5,5	8.0	2.0	8.0
-30.0	220,0		0,0	2,5	u • ti	8,0	8.0
-00,0	350 0				0 -	_	
	350.0		6.0	8.0	8.0	8,0	8.0
	400.0		6.0	5,5	8.0	8.0	8.0
	450.0		6,0	5.5	8.0	8.0	8.0
	500.0		6,0	5.5	8.0	8.0	8,0
	550.0		6,0	5,5	8.0	8.0	8.0
-45.0				- , ,		0,0	0,0
	350.0		6.0	8,0	8.0	0 0	
	400.0					8.0	8,0
			6.0	8.0	8.0	8.0	8.0
	450.0		6,0	8.0	8.0	8,0	8.0
	500.0		6,0	8,0	8.0	8.0	8.0
	550.0		6,0	8,0	8.0	8.0	8.0
-60.0							- , -
	350,0		8.0	8.0	8.0	8.0	8.0
	400.0		6.0	8.0	8.0		
	450.0		6,0		8.0	8.0	8,0
	500.0			8.0		8.0	8,0
			6.0	8.0	8.0	8,0	8.0
	550.0		6,0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB# 0.10000

TUA	SECOND	CTICK

			1 110 01	ECOND 3	1 1 9 10		
A/C F-	4		BOMB MK 82	GPLD	E	J VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL		-	EL ALT 100	
REL	REL			ARMING	TIME / FUZE		
ANG	VEL			• • •			
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	D066K/1A
0.							
•	350.0		8.0	8,0	N.A.	10,0	N.A.
	400.0		8.0	8.0	N.A.	10.0	N.A.
	450.0		8.0	8.0	N.A.	10.0	N.A.
	500.0		8.0	8.0	8.0	10.0	N.A.
	550.0		8.0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

•	T	W	0	5	E	C	0	DN	ST	ICK

			1 W U 9	20010 3	1 1 0 "		
A/C F-	4		BOMB MK 82	GPLD	E	J VEL 6.0	FT/SEC
TARGET	ALTITUDE	SEA	LEVEL		R	EL ALT 150	OD FT
REL	REL			ARMING	TIME / FUZE		
ANG	VEL			•	_		
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
- •	350,0		10,0	10,0	N.A.	10.0	N.A.
	400.0		8.0	8.0	N.A.	10.0	N.A.
	450.0		8.0	8,0	N.A.	10.0	N.A.
	500.0		8.0	8,0	N.A.	10.0	N,A,
	550.0		8.0	8.0	8.0	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/FB= 0.10000

TWO SECOND STICK

A/C F-	4		. 40 -		. 10	0 M D M M 0 0	001.0
	ALTITUDE	864	LEVEL			OMB MK 82	
REL	REL	JEX			E	J VEL 6.0	FIZSEC
			WINIMUM	ARMING	TIME / FUTE	COMBINATI	ON5
ANG	VEL						
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0,							
	350.0		8.0	8.0	8.0	10.0	N.A.
	400.0		6,0	8.0	8.0	10.0	N,A,
	450.0		8,0	8.0	8.0	8,0	8.0
	500.0		8.0	8.0	8.0	8,0	8.0
	550.0		6.0	8.0	8.0	8.0	8.0
-10.0				-,0	- • •	-,0	0,0
	350,0		6,0	8,0	8.0	8,0	8.0
	400.0		6,0	8.0	8.0	8.0	8.0
	450.0		6,0	5.5	8.0	8.0	
	500.0		6,0	5.5	8.0		8.0
	550,0		6,0		8.0	8.0	8,0
-30.0	,,,		0,0	5.5	.	8.0	8,0
-50.0	350,0		6 0	9 0	8.n		0. •
	400,0		6.0	8.0		8.0	8,0
	450.0		6.0	8,0	8.0	8.0	8.0
			6.0	8.0	8.0	8.0	8.0
	500.0		6,0	8.0	8.0	8.0	8,0
48 4	550.0		6,0	8.0	8.0	8.0	8.0
-45.0	750 0						
	350.0		8.0	8,0	8.0	8.0	8,0
	400.0		6.0	8.0	8.0	8,0	8.0
	450.0		6,0	8.0	8.0	8,0	8.0
	500.0		6,0	8.0	8.0	8.0	8,0
	550,0		6,0	8.0	8.0	8.0	8.0
-60.0						, ,	•
	350.0		8.0	8.0	8.0	8.0	8.0
	400.0		8.0	8.0	8.0	8.0	8.0
	450.0		8.0	8.0	8.0	8.0	8,0
	500.0		8.0	8.0	8.0	8.0	8,0
	550.C		8.0	8.0	8,0	8.0	8.0
			• •		• -		- , •

MINIMUM ACCEPTABLE ARMING TIMES 0.00010 PH

PH/EB=

			TWO S	ECOND S'	TICK		
A/C F-	1	B	OMB MK 83		_	J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA LE	VEL		***	EL ALT 100	
REL	REL VEL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
0.							
•	350.0		10.0	10.0	N.A.	N.A.	N.A.
	400.0		10.0	10.0	N.A.		N.A.
	450.0		8.0	8.0	N.A.	10.0 10.0	N.A.
	500.0		8.0	8.0	N.A.	10.0	N.A.
	550.0		8,0	8.0	N,A,	10,0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES 0,00010 PH

PH/EB= 0,10000

		TWO	SECOND S'	TICK		***
A/C F-	1	BOMB MK &	3 GPLD		J VEL 4.8	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			EL ALT 150	
REL	REL VEL	MINÎMU	JM ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTÄS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350,0	10,0	10.0	N.A.	N.A.	N.A.
	400.0	10,0	10.0	N.A.	N.A.	N.A.
	450.0	10,0	10.0	, N.A.	N.A.	N.A.
	500.0	10,0	10.0	N.A.	10.0	N.A.
	550.0	8.0	8.0	N.A.	10,0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00016

PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

	4	1 WU 3	FLUND 2	IICK		
A/C F-				8	DMB MK 83	GPLU
TARGET		LEVEL		E	J VEL 4.8	FT/SFC
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
ANG	VEL			. OLL	COMPTINAL	0113
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350,0	8.0	8,0	N.A.	40.0	At A
	400.0	8.0			10,0	N.A.
	450.0	8.0	8,0	N . A .	10.0	N.A.
	500.0	8.0	8.0	N.A.	10,0	N.A.
	550.0	8.0	8,0	8.0	10.0	N.A.
-10 0	550,0	8.0	8,0	9,6	8.0	8.0
-10.0	754 4					
	350.0	8,0	8,0	8,n	8.0	8,0
	400.0	8.0	8,0	8.0	8.0	8.0
	450.0	6.0	8.0	8.0	8.0	8.0
	500.0	6,0	8,0	8.0	8.0	8,0
	550.0	6.0	8.0	8.0	8.0	8.0
-30,0		• •		- , ,	0,0	0.0
	350,0	8.0	8.0	9.6	8.0	н о
	400.0	8,0	8.0	8.0		и, o
	450.0	8.0	8.0	8.0	8.0	8.0
	500.0	8.0			8,0	8.0
	550,0		8.0	8,0	8,0	8.0
-45.0	,,,	6,0	8.0	8.0	8.0	8,0
-43.0	350,0	0 0		0 0		
	400.0	8,0	8.0	8,0	8.0	8,0
	400.0	8,0	8.0	8,0	8.0	8,0
	450.0	8,0	8.0	8.0	8.0	8.0
	500.0	8,0	8.0	8.0	8.0	8,0
	550.0	8,0	8.0	8.0	8.0	8.0
-60.0						
	350,0	8.0	8.0	8.0	8,0	8,0
	400,0	8,0	8,0	8.0	8.0	8,0
	450.0	8.0	8.0	8.0	8.0	
	500.0	8.0	8.0	8.0	8.0	8.0
	550.0	8,0	0 0	8.0		8.0
		010	8.0	• • 0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

			TWO SE	COND S'	TICK		
A/C F-			BOMB MK 84	GPLO (EST) F.	J VEL 4.8	ET/SEC
TARGET	ALTITUDE	SEA	LEVEL		R	L ALT 100	DO FT
REL	REL VEL		MINIHUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	M990E	M990D	V1/M990E	VT/M990D
0,							
·	350,0		10,0	10.0	N.A.	N.A.	N.A.
	400,0		10.0	10.0	N.A.	N.A.	N.A.
	450,0		10,0	10.0	N.A.	N.A.	N.A.
	500.0		10,0	10.0	N.A.	10.0	N.A.
	550.0		8.0	8,0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH = 0.10000

			ECOND S'			
A/C F-	•	BOMB MK 84	GPLD (EST) F	J VEL 4.8	FT/SFC
TARGET	ALTITUDE :	SEA LEVEL		R	EL ALT 150	00 FT
REL	REL VEL	WINIWUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
	350.0	10.0	10.0	N.A.	N.A.	N.A.
	400,0	10,0	10.0	N.A.	N.A.	N.A.
	450.0	10,0	10.0	N.A.	N.A.	N.A.
	500.0	10.0	10.0	. N.A.	N.A.	N.A.
	550.0	10,0	10.0	N.A.	10.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

		, M() 2	ECUMU 3	1100		
A/C F-				8	OMB MK 84	GPLD (EST)
TARGET		SEA LEVEL		E	J VEL 4.8	FT/SEC
REL	REL	MINIMUM	ARMING	TIME / FUZE		
ANG	VEL		•		0.0	•
(DEG)	(KTAS)	M904E2	M990E	M9900	VT/M990E	VT/M990D
0,	76.					
	350.0	10.0	10.0	N.A.	N.A.	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	N.A.	10.0	N.A.
	500.0	8.0	8,0	N.A.	10.0	N.A.
	550.0	8.0	8.0	8.0	10.0	N.A.
-10.0	•	• •	• • •	• •	1-14	
	350.0	8.0	8.0	8.0	8.0	8.0
	400.0	8,0	8.0	8.0	8.0	
	450.0	8,0	8.0	8.0	0.0	8.0
	500.0	6.0		8.0	8.0	8.0
	550.0		8.0		8,0	8.0
76 6	20.0	6,0	8.0	8,9	8.0	8,0
~30.0	750 0	0.0		0 0		
	350.0	8,0	8.0	8.0	8,0	8,0
	400.0	8.0	8.0	8.0	8.0	8.0
	450.0	8,0	8.0	8.0	8,0	8,0
	500.0	8.0	8.0	8.0	8.0	8,0
	550.0	8.0	8,0	8.0	8.0	8.0
-45.0					• •	
	350.0	8.0	8.0	8.0	8.0	8,0
	400.0	8,0	8.0	8.0	8.0	8,0
	450.0	8.0	8.0	8.1	8.0	8,0
	500.0	8,0	8.0	8.0	8.0	8,0
	550.0	8,0	8.0	8.0		
-60.0	20,0	0,0	0.0	0.0	8.0	0,8
-00,0	350.0	9 0	0 5	Ω 4	0 4	
	400.0	8.0	8,0	8.0	8,0	8,0
	400.0	8,0	8,0	8.0	8.0	8,0
	450.0	8.0	8,0	8.0	8.0	8.0
	500.0	8.0	8.0	8.0	8.0	8,0
	550,0	8.0	8.0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB=

0,10000

		TWO SE	COND S'	TICK		
A/C F-4		81/ SNAKEYE			J VEL 7.2	FT/SEC
TARGET	ALTITUDE SEA	LEVEL			L ALT 100	
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	H990D	VT/M990E	VT/M990D
0.						
	350.0	8,0	8.0	8.0	10,0	N.A.
	400.0	8,0	8,0	8.0	10.0	N.A.
	450.0	6,0	5,5	8.0	8.0	8.0
	500.0	6.0	5,5	8.0	8,0	8.0
	550.0	6,0	5,5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

0.00010 PH * PH/EB=

		TWO SE	COND S	TICK		
A/C F-	BOM	B MK 81/ SNAKEYE	I UNI	RET 1	J VEL 7.2	FT/SEC
TARGET	ALTITUDE	SEA LEVEL			REL ALT 150	
REL	REL		ARMING	TIME / FUZI		
ANG	VEL	•				
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0.						
•	350,0	8,0	8.0	N.A.	10.0	N.A.
	400.0	8,0	8.0	8.0	10.0	N.A.
	450.0	8,0	8,0	8.0	10,0	N.A.
	500.0	6,0	5.5	8.0	8.0	8,0
	550.0	6,0	5.5	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO	SECO	ND S	TICK
, , ,	961.0	411	1 1 4 1

			I WU 3	ECOND 5	TICK		
A/C F-	4				ROMB MK 81	/SNI/UNRETA	DUED
TARGET	ALTITUDE	SEA	LEVEL		CI VEL 7 2	SAT SEE	MUEU
REL	REL	- 6 17			EJ VEL 7.2	F 1/3EU	
			MINIMUM	ARMING	TIME / FUZ	E COMBINATI	ONS
ANG	VEL						
(DEG)	(KTAS)		M904E2	M990E	M990D	VT/M990E	VT/M990D
			•			AINMAAAC	AILWAAAA
0.							
٠,	75.						
	350,0		6,0	8.0	8.0	8,0	8.0
	400.0		6,0	5.5	8.0	8.0	
	450.0		6,0	5.5	8.0	0,0	8,0
	500.0		6.0			8.0	8,0
				5.5	8.0	8,0	8,0
	550,0		6.0	5.5	8.0	8.0	8.0
-10.0	6.1						
	350.0		6,0	5,5	8.0	8.0	0 6
	400.0		6.0			0,0	8,0
	450.0		4.0	5,5	8.0	8,0	8,0
	F20.0		6,0	5.5	8.0	8.0	8,0
	500.0		6,0	5,5	8.0	8.0	8.0
	550.0		6,0	5,5	8.0	5,5	
-30.0			•	5,5	- 10	2.3	8,0
	350.0		4.0		0 0		
	400.0		6.0	8.0	8.0	8.0	8,0
	400.0		6.0	5.5	8.0	8.0	8,0
	450.0		6,0	5.5	8.0	8.0	8.0
	500.0		6.0	5,5	8.0	8.0	
	550.0		6.0			8,0	8.0
-45.0	, -		0.0	5.5	8.0	8,0	8.0
442.0	75.0		0.0				
	350,0		6.0	8,0	8.0	8,0	8,0
	400.0		6,0	8.0	8.0	8,0	
	450.0		6,0	8.0	8.0	0,0	8,0
	500.0					8.0	8,0
	550,0		6.0	8,0	8.0	8,0	8,0
	550.0		6,0	5.5	8,0	8.0	8.0
-60.0						•	-,-
	350.0		8,0	8.0	8.0	9 0	0 4
	400.0		4.0			8,0	8,0
	450.0		6.0	8.0	8.0	8.0	8.0
	450.0		6.0	8.0	8.0	8,0	5,0
	500.0		6.0	8.0	8.0	8.0	8.0
	550.0		6,0	8.0	8.0	8 0	
	•		- 10	7.0	-10	8,0	8,0

HINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

	ALTITUDE SEA	MK 82 / SNAI LEVEL		UNRET E.	J VEL 5,6 FL ALT 100	no FT
REL	REL VEL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	ONS
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VT/M990D
0,						
•	350.0	8,0	8.0	N.A.	10,0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8,0	8.0	8.0	10.0	N.A.
	500.0	8.0	8,0	8.0	8.0	8,0
	550.0	8,0	8,0	8.0	8.0	8.0

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

A/C F-4 TARGET	BOMB ALTITUDE SEA	MK 82 / SNAI	COND ST	UNRET E	J VEL 5.6	
REL	REL		ARMING	TIME / FUZE	EL ALT 150	ONS
ANG	VEL			1 /	COMPTHATE	0.10
(DEG)	(KTAS)	M904E2	M990E	M990D	VY/M990E	VT/M990D
0.						
•	350,0	10.0	10.0	N.A.	10.0	N.A.
	400.0	8.0	8,0	N.A.	10.0	N.A.
	450,0	8,0	8,0	N.A.	10.0	N.A.
	500.0	8.0	8,0	8.0	10.0	N.A.
	550,0	6.0	8.0	8.0	40 0	N A

HINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

TWO SECOND STICK

			Two S	SECOND S	TICK		
A/C F-					BOMB WK 82/	SNIZHNDETA	PRED
TARGET	ALTITUDE	SEA	LEVEL		EJ VEL 5.6	ET SEP	RUCU
REL	REL		MINTMIN	APMING	TIME / FUZE	20401114	A N. C
ANG	VEL		11411101	. MMINTING	TIME > LOSE	COMBINATI	ONS
(DEG)	(KTAS)		M904E2	H990E	M990D	VT/M990E	VT/M990D
0.							
•	350.0		8,0	8.0			
	400.0				8.0	10.0	N.A.
	450.0		8,0	8.0	8.0	8.0	8.0
			6,0	8.0	8.0	8.0	8,0
	500.0		6.0	8.0	8.0	8,0	8.0
4.4	550,0		6.0	5.5	8,0	8.0	8.0
-10.0						•	-,,
	350.0		6,0	8.0	8,0	8.0	8,0
	400.0		6,0	5.5	8.0	8.0	8.0
	450.0		6.0	5.5	8.0		8,0
	500.0		6,0	5.5	8.0	8,0	8,0
	550.0		6.0	5.5		8,0	8,0
-30.0			0,0	2.5	8.0	8.0	8,0
0010	350.0		4 0				
	400.0		6.0	8.0	8.0	8.0	8,0
	450.0		6,0	8.0	8,0	8,0	8,0
	450.0		6.0	8.0	8.0	8,0	8.0
	500.0		6,0	5,5	8.0	8,0	8,0
	550.0		6.0	5,5	8.0	8,0	8,0
-45.0						- 10	9,0
	350.0		8,0	8.0	8.0	8,0	
	400.0		6,0	8.0	8.0	8.0	8,0
	450.0		6.0	8.0	8.0		8,0
	500.0		6,0	8.0	8.0	8.0	8.0
	550.0					8.0	8,0
-60,0	0,0		6.0	8.0	8.0	8,0	8.0
-00,0	350 0		0 0				
	350.0		8,0	8,0	8.0	8,0	8.0
	400.0		8,0	8.0	8,0	8,0	8.0
	450.0		8.0	8.0	8,0	8.0	8.0
	500.0		8,0	8.0	8.0	8.0	8.0
	550.0		8.0	8.0	8.0	8,0	
			• •	- , •	- • •	•,0	8.0

MINIMUM ACCEPTABLE ARMING TIMES

PH = 0.00010 PH/EB= 0.10000

		TWO SE	COND ST	TICK		
A/C F-4	BOMB	M117A1 (H#6	LOADED	/M131 FIN	EJ VEL 4	.2 FT/SEC
TARGET	ALTITUDE SEA	LEVEL			ALTITUDE 1	
REL	REL	MINIMUM	ARMING	TIME / FUZE	COMBINATI	013
(DEG)	(KTAS)	M904E2	M990E	M990D	VT/M990E	VY/M990D
0.						
	350.0	10.0	10.0	N.A.	10.0	N.A.
	400.0	8.0	8.0	N.A.	10.0	N.A.
	450.0	8.0	8.0	N.A.	10.0	N.A.
	500,0	8.0	8.0	N.A.	10.0	N.A.
	550.0	8,0	8.0	8,0	8.0	N.A.

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/FB= 0.10000

TWO SECOND STICK BOMB M117A1 (H-6 LOADED)/M131 FIN EJ VEL 4,2 FT/SEC A/C F-4 TARGET ALTITUDE SEA LEVEL RELEASE ALTITUDE 15.000 FT REL REL MINIMUM ARMING TIME / FUZE COMBINATIONS ANG VEL (DEG) (KTAS) M904E2 M990D M990E VT/M990E VT/M990D 0. 350,0 10.0 N.A. 10.0 N.A. N.A. 400.0 N,A, 10.0 10.0 10.0 N.A. 8.0 10,0 450.0 N.A. N,A, 8.0

8.0

8.0

8.0

8.0

500.0

550.0

N.A.

N.A.

10.0

10.0

N.A.

N.A.

NOLTR 69=135

MINIMUM ACCEPTABLE ARMING TIMES PH = 0.00010 PH/EB= 0.10000

			TWO S	ECOND S'	TICK		
A/C F-			BO	MB M117	A1 (H-6 LOADI	ED1/M131 F	t N
TARGET	ALTITUDE	SEA LEVE	L		F.I VEL	4.2 FT/SE	6
REL	REL		MINIMUM	ARMING	TIME / FUZE	COMBINATI	CAIS
ANG	VEL			**********	11.5 1.056	COURTNAIT	DIAP
(DEG)	(KTAS)	м9	04E2	M990E	M990D	VT/M990E	VT/M9900
0.							
	350,0	8	. 0	8,0	N.A.	10,0	N.A.
	400.0		.0	8.0	N.A.	10,0	
	450.0		.0	8.0	8.0	10.0	N.A.
	500.0		, 0			8.0	8,0
	550.0			8.0	8.0	8.0	8.0
-10.0	0.0	0	. 0	8.0	8.0	8.0	8,0
-10.0	350 0	•			200		
	350.0		. 0	8.0	8.0	8.0	8,0
	400.0	6	. 0	8.0	8.0	8.0	8.0
	450.0	6	, 0	8.0	8.0	8.0	8.0
	500.0		. 0	8.0	8.0	8.0	8,0
	550.0		. 0	5.5	8.0	8.0	
-30.0		_		3,3	-,0	0.0	8,0
	350.0	8	. 0	8.0	8.0	0 •	
	400.0					8,0	8,0
	450,0		. 0	8.0	8.0	8.0	8,0
	500.0		. 0	8.0	8.0	8.0	8.0
			, 0	8.0	8.0	8.0	8,0
4.	550.0	6	. 0	8.0	8.0	8,0	8.0
-45.0							
	350.0	8	, 0	8,0	8.0	8.0	8,0
	400.0		. 0	8.0	8,0	8.0	8,0
	450.0		0	8.0	8.0	8.0	8.0
	500.0		0	8,0	8.0	8.0	
	550.0	A	0	8.0	8.0	8.0	8,0
-60,0		•	. 0	B • 0	0.0	8,0	8,0
00,0	350,0	٥	•	•			
	400.0		0	8.0	8.0	8,0	8,0
	400.0		0	8.0	8.0	8.0	8,0
	450.0	8	0	8.0	8.0	8.0	8.0
	500.0	8	, 0	8,0	8.0	8,0	8.0
	550.0	8	0	8.0	8,0	8,0	8.0
						- 1 4	0,0

Security Classification			
	TROL DATA - R & D		
(Security classification of title, body of abstract and indexi	ng annotation must be entered	d when the	overall report is classified)
ORIGINATING ACTIVITY (Corporate author)	2a. R	REPORTS	ECURITY CLASSIFICATION
U. S. Naval Ordnance Laborator	v	Un	classified
Silver Spring, Maryland 20910	The second secon	GROUP	
		NO	NF:
REPORT TITLE			
SAFE ARMING TIMES FOR MK 81, M DRAG BOMBS	K 82, MK 83, MI	K 84	AND M117 LOW
DESCRIPTIVE NOTES (Type of report and inclusive dates)			
. AUTHOR(S) (First name, middle initial, last name)			
Roy G Saffold			
Roy G. Saffold	78. TOTAL NO. OF PAG	ES	7b. NO. OF REES
Roy G. Saffold	78. FOTAL NO. OF PAG	SES	7b. NO. OF REFS
ROY G. Saffold REPORT DATE			2
REPORT DATE	78. TOTAL NO. OF PAG		2
REPORT DATE			2
B. CONTRACT CR GRANT NO.			2
B. CONTRACT CR GRANT NO.	98. ORIGINATOR'S REP	ORT NUM	2 (BER(5)
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000	94. ORIGINATOR'S REP	ORT NUM	2
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000	98. ORIGINATOR'S REP	ORT NUM	2 (BER(5)
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000	98. ORIGINATOR'S REP	ORT NUM	2 (BER(5)
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000 c. d.	98. ORIGINATOR'S REP 9b. OTHER REPORT NO this report)	PORT NUM	2 Distance of the stance of th
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000 c. d. 0. DISTRIBUTION STATEMENT Each transmittal of this document	98. ORIGINATOR'S REP 9b. OTHER REPORT NO (his report)	Depar	2 Other numbers that may be assigned tment of Defense
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000 c. d.	98. ORIGINATOR'S REP 9b. OTHER REPORT NO (his report)	Depar	2 Other numbers that may be assigned tment of Defense
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000 c. d. 0. DISTRIBUTION STATEMENT Each transmittal of this document	98. ORIGINATOR'S REP 9b. OTHER REPORT NO (his report)	Depar	other numbers that may be assigned the state of Defense ratory.
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000 c. d. O. DISTRIBUTION STATEMENT Each transmittal of this document must have prior approval of the leach transmitted approval of t	96. ORIGINATOR'S REP 96. OTHER REPORT NO this report) t outside the I Naval Ordnance	Depar Labo	tment of Defense ratory.
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000 c. d. O. DISTRIBUTION STATEMENT Each transmittal of this document must have prior approval of the leach transmitted approval of t	98. ORIGINATOR'S REP 9b. OTHER REPORT NO this report) t outside the I	Depar Labo	tment of Defense ratory.
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000 d. DISTRIBUTION STATEMENT Each transmittal of this document must have prior approval of the interpretation	94. ORIGINATOR'S REP 9b. OTHER REPORT NO this report) t outside the I Naval Ordnance 12. SPONSORING MILIT. Naval Air S	Depar Labo	tment of Defense ratory.
b. PROJECT NO. AIRTASK A05-532-009/292-4/00000 c. d. O. DISTRIBUTION STATEMENT Each transmittal of this document must have prior approval of the leach transmitted approval of t	96. ORIGINATOR'S REP 96. OTHER REPORT NO this report) t outside the I Naval Ordnance	Depar Labo	tment of Defense ratory.

This report presents results of a study conducted to determine the arming time that should be recommended for each combination of aircraft type, release condition, bomb type, and post-release maneuver, as well as discussion of the methods used to arrive at the recommended arming times. The aircraft types considered were A-4, A-6, A-7, and F-4. The release conditions considered were level attitude with no post-release maneuver, the dives followed by application of a 4G recovery force within two seconds after release of the last bomb. The tabulations presented do not replace the tactical manual recommendations, but rather present supplementary information for those intereste

Security Classification

KEY WORDS	LIN		LIN	КВ	LINI	< c
	ROLE	WT	ROLE	WT	ROLE	w
Safe Arming Times						
Safe Arming Times Arming Times Safe Escape						
Safe Escape						
- 420 Lboupe						
	}					
			-			
	= = 4					
			1			
500H 4.4 = 0					1	

DD FORM 1 1473 (BACK)
(PAGE 2)

Security Classification

DISTRIBUTION

	Copie
Commander U. S. Naval Air Systems Command Washington, D. C. 20360 AIR532 AIR5323 AIR413 Library	5 1 1 1 2
Commander Naval Weapons Center China Lake, California 93555 Code 40 Code 45 Code 55 Code 403 Library	1 1 1 1
Air Development Squadron 5 VX-5, Naval Air Facilities China Lake, California 93557	-2
Air Development Squadron 4 VX-4, Naval Missle Center Point Magu, California	1
Commander Operational Test and Evaluation Force Norfolk, Virginia 23511 (CDR. Zacharrias, LCDR E. P. Lund) Commander Naval Air Test Center Patuxent, Maryland (WST)	3
Commander U. S. Naval Weapons Laboratory Dahlgren, Virginia (R. Cuddy) (C. Philips) (D. Jones) (Library)	1 1 1 2
Commander in Chief, Atlantic Fleet Forfolk, Virginia 23511	•

		Copie
Commander, Naval Air Force U. S. Pacific Fleet		
Box 1210		
Naval Air Station		
North Island, San Diego, California	92135	1
Commander in Chief		
U. S. Pacific Fleet		2
F. P. O., San Francisco, California	96610	1
Commander		
Naval Missle Center		
Point Magu, California		
(Mr. T. Ranines)		1
Library		1
Naval Weapons Evaluation Facility		
Kirtland AFB		
Albuquerque, New Mexico 87117		1
Commanding Officer		
Headquarters, Tactical Air Command		
Nellis AFB, Nevada 89110		1
Commanding Officer		
Headquarters, Stratigic Air Command		
Offutt AFB, Nebraska 69153		1
Commanding Officer		
Eglin AFB, Florida 32542		2
Commanding Officer		
Air Force Systems Command, Andrews		
Andrews AFB, Maryland 29331		1
Commanding Officer		
Wright Patterson AFB		
Paylon, Ohio 45433		1
Commanding Officer		
Harry Diamond Laboratories		
Conneticut Avenue & Van Ness Street,	N. W.	
Washington, D. C. 20438		1
Defense Documentation Center		
Cameron Station		
Alexandria, Virginia 21314		20