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CLASSIFICATION: SECRET

DATE: 15 JULY 58

REPORT NO. 9 (ISSUE 2)

ROYAL CANADIAN AIR FORCE
AIR MEMBER FOR TECHNICAL SERVICES
CHIEF OF AERONAUTICAL ENGINEERING
REPORT ON THE
STATUS OF THE ARROW WEAPON SYSTEM

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ROYAL CANADIAN AIR FORCE

AIR MEMBER FOR TECHNICAL SERVICES

CHIEF OF AERONAUTICAL ENGINEERING

REPORT ON THE

STATUS OF THE ARROW WEAPON SYSTEM

PREPARED BY AWS 4 STAFF

RECOMMENDED BY G/C H.R. Foottit

APPROVED BY A/C G.G. Truscott

FILE NUMBER S1038CN-180

(11)

P R E F A C E

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INTRODUCTION

- 1 This report is intended to fulfill the need for periodic progress reporting and guidance to project phasing with respect to certain aspects of the Arrow Weapon System Programme. Additionally, it is intended to indicate the existence and calendar timing of key decisions and documents necessary for successful implementation of this programme.
- 2 The information contained in the first issue (1 April 58) was reported essentially in its original form as obtained from various sources and consequently revealed certain incompatibilities. Since that time many of the incompatibilities have been resolved and the results are reflected in the contents of this report. Hence, it should be understood that Directorates are working to the schedules shown at the time of issue. All schedule amendments are passed through AAWS/AWS 4 who should be consulted regarding the currency of schedules shown.
- 3 The existence of two plans should be noted as indicated on page (5), "Arrow Aircraft Allocation Chart". The AVRoE schedule terminates with delivery of the 38th aircraft in Jan 61, whereas the RCAF planning base line terminates with delivery of the 38th aircraft to ADC in June 61. The gap between the two plans is representative of allowance for program slippages, adverse attrition, retrofit programs and delays in aircraft acceptance. Generally, the Arrow programs are being planned and implemented on the basis of the AVRoE schedule. However, RCAF personnel should recognize the possibility of slippage to the RCAF schedule. As an illustration, in this report the personnel requirements are scheduled to the RCAF planning base line. Also, in certain instances compromise is necessary between the two plans where an early design freeze date would result in extensive retrofit to equipment.

SUMMARY
OF KEY DECISIONS AND
DOCUMENTS REQUIRED WITHIN REPORTING PERIOD

D E C I S I O N S			D O C U M E N T S		
DUE DATE	I T E M	ACTION REQ'D BY	DUE DATE	I T E M	ACTION REQ'D BY
JULY	Resolve Allocation of Astra Sets (Ref. P.14 - Item 7)	AAWS	JULY	Canadair S of W (Sparrow 2 Mk 1) (Ref. P.18 - Item 1)	Darme AAWS
JULY	Contractual coverage for O.E.L., Canadair and RCA PRD Study (Ref. P.'s 18, 23 and 25).	AAWS	JULY	Issue of OFTT Contract (Ref. P.35 - Item 5)	CAE DDP
JULY	Determine Missile Training Aid Requirements. (Ref. P.45)	Darme DTA	AUG	Issue of AST (Airframe Contract) (Ref. P.37 - Item 6)	CAE DDP
JULY	Confirmation of Construction Requirements. (Ref. P.50 - Item 2)	CAE	AUG	Flight Test Policy - CAE Report. (Ref. P.8 - Item 3)	AAWS
AUG	Determine GSE Training Aids Requirements. (Ref. P.45)	AAWS DTA	SEPT	AAWS Operation - CAE Report. (Ref. P.8 - Item 10)	AAWS
AUG	Approval to proceed with Missile Improvements. (Ref. P.18)	AIR COUNCIL	SEPT	Finalize ECP Procedure. (Ref. P.8 - Item 11)	AAWS
AUG	Procurement of GSE for 37 A/C Program. (Ref. P.'s 21, 24)	AAWS	SEPT	Prepare 1959/60 Budget Estimates. (Ref. P.24 - Item 1)	AAWS
AUG	Air Transport Requirements for Cold Lake Operations. (Ref. P.29)	CAE CMat	NOV	Issue of AST (Missile) Contract (Ref. P.43 - Item 5)	CAE DDP
AUG	Supply Concept. (Ref. P.25 - Item 2)	CMat CAE			

* Item Overdue Since Last Issue of Report.

NARRATIVE

ARROW WEAPON SYSTEM

- 1 Because of its late phasing relative to the other major components, the limiting component in development of the Arrow Weapon System is the Electronic System (ASTRA). Hence, subsequent to the initial issue of this report the contractors associated with the program were requested to define the composition of the Arrow Weapon System with a "proven" capability by Jan 61. The word "proven" implies flight testing of components to the point where major inconsistencies and errors in design have been eradicated.

- 2 A.V.Roe Report No. 1, "Initial Operational Arrow Weapon System", defined the weapon system capability in Jan 1961 as follows:
 - (a) An aircraft capability which is substantially in agreement with the interim performance required in accordance with Air Specs.
 - (b) A basic fire control capability in conjunction with Sparrow 2 Mk 1 missiles using manual attack methods.
 - (c) A dead reckoning navigation computer, with manual inputs, together with UHF communication and homing, intercomm, air to ground IFF and radio compass.

The electronic system described above has been termed the Complete Mission Manual Mode Systems (ASTRA 1A).

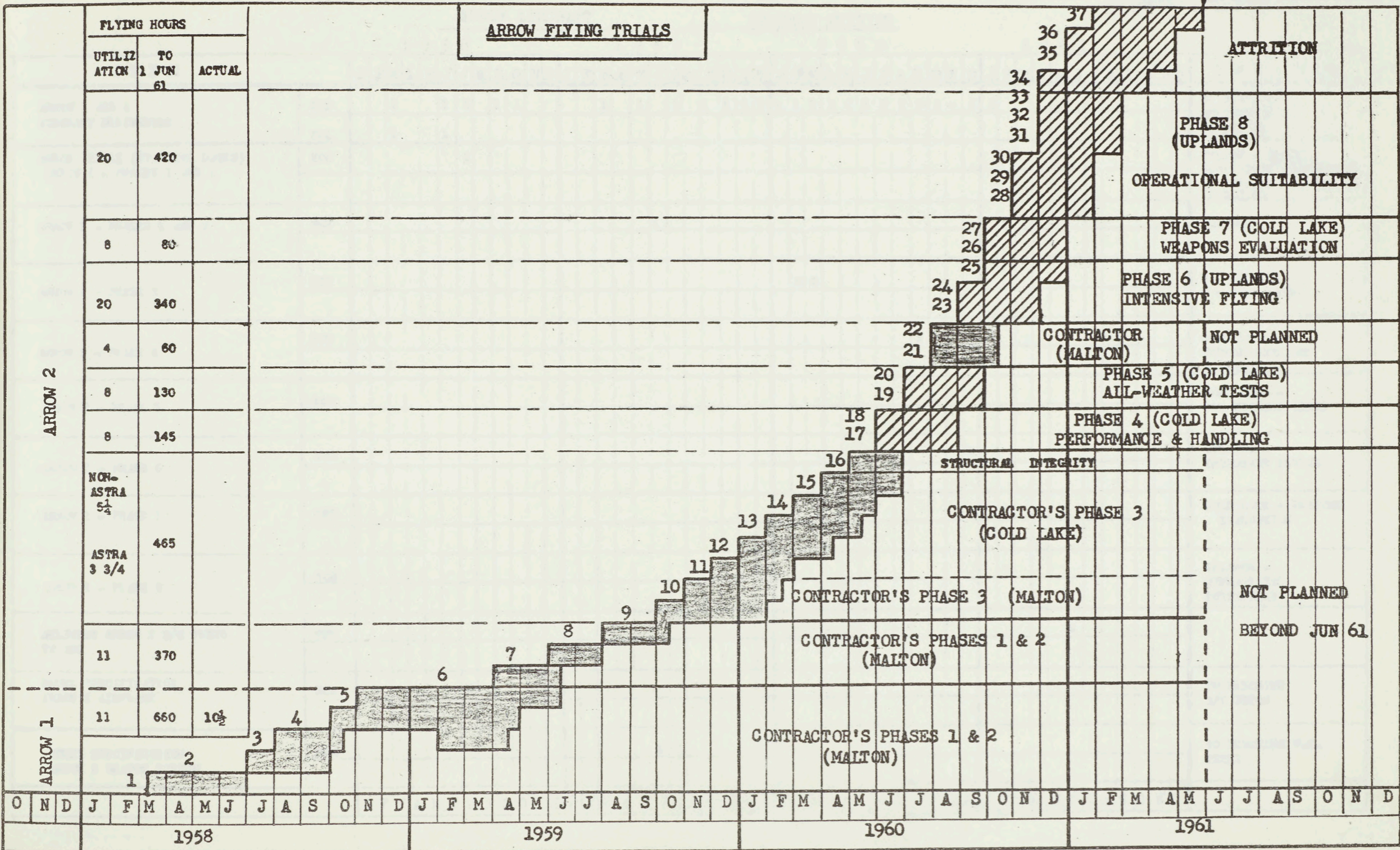
- 3 The contractors were requested to extend the scope of the original investigation to consider development of the complete weapon system. AVRoe Report No. 3, "Program leading to Complete Arrow W.S. Capability", is the result of this investigation and establishes the timing of "proven" components leading to the complete weapon system.

CONTINUED

- (a) Full Magnetron Power - Feb/Mar 61
- (b) Pilot Assist and Stable Platform - May/June 61
- (c) Quasi Passive Ranging - July/Aug 61
- (d) Infra Red - Sept/Oct 61
- (e) Data Link and AFCS - Feb/Mar 62

The fully proven electronic system has been termed the Complete Mission Automatic Mode System (ASTRA 1B).

- 4 The requirement for additional support to the contractors has resulted in the allocation of three Arrow A/C from Phase 6 trials to the contractors' portion of the 37 aircraft program. Based on further support (acquisition of two F101B a/c) there is basis for optimism that the "proven" capability of the complete weapon system will be achieved on schedule.



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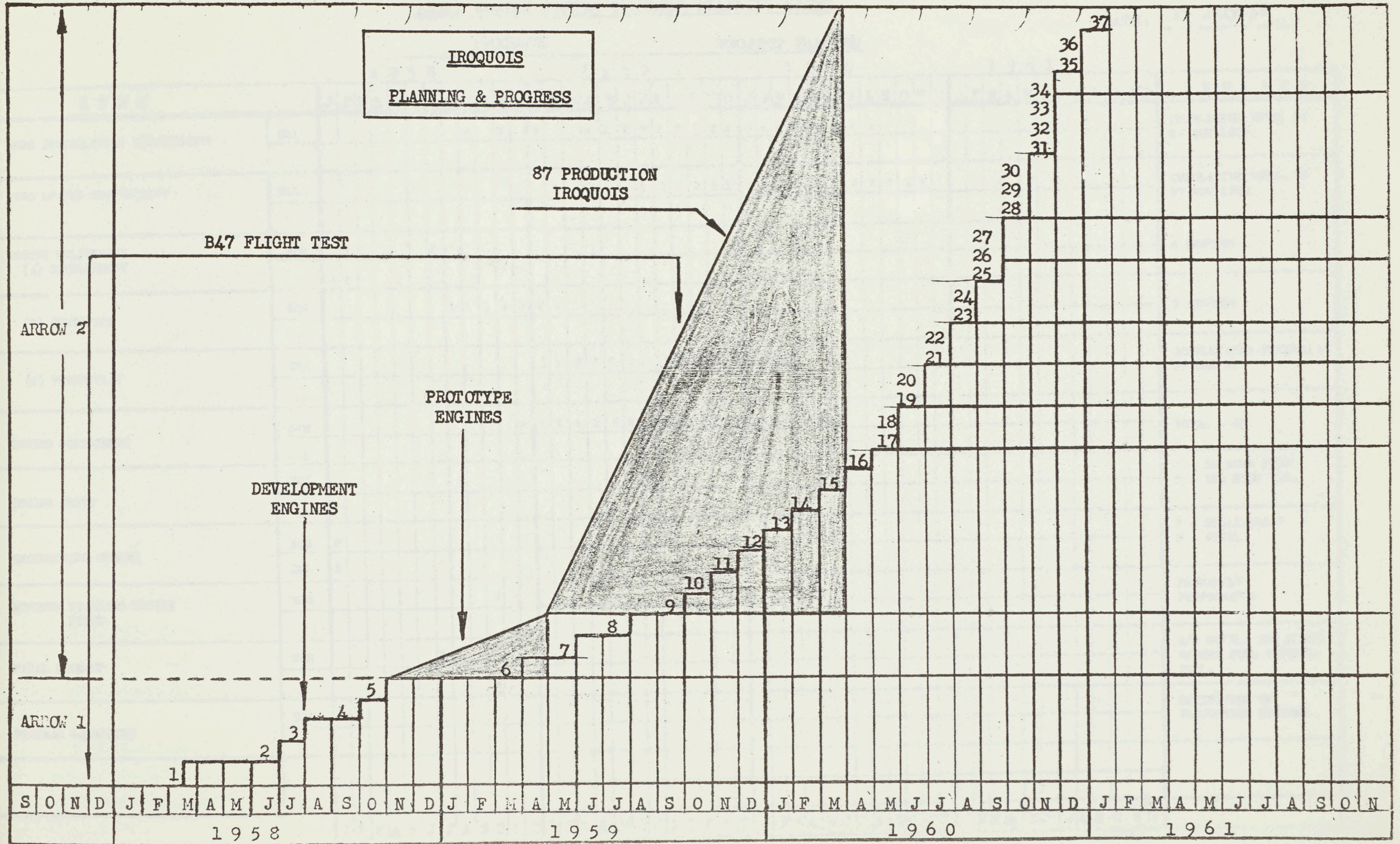
ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

AAWS

DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1				X									AAWS	FINALIZATION OF NEGOTIATION WITH AVRO FOR INCLUSION OF RCAF TECHNICAL COMMENT
2				X									AVRO	TO INCLUDE CONTRACTORS' SCHEDULING OF A/C, ASTRA, ENGINES, MISSILES, PRD STUDIES ASTS AND GSE.
3				X									AAWS	PUBLICATION OF CAE REPORT.
4				X									AVRO	AVRO PROPOSAL
5					X								AVRO	
6					X								AVRO	
7				X									AAWS	DRAFT SPEC WSC 1 PUBLISHED APR 58. ISSUE 1 PREPARED FOR PRINTING.
8					X								AAWS	ISSUE 2 PREPARED FOR PRINTING
9					X								AAWS	DESCRIBES ARROW W.S. COMMITTEE STRUCTURE
10					X								AAWS	PUBLICATION OF CAE REPORT
11					X								AAWS	(1) FINALIZATION OF PROC 100-14 SUPPLEMENT APPLICABLE TO AVRO (2) FINALIZATION OF INTERNAL PROCEDURE
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

BASELINE - AVRO DELIVERY SCHEDULE



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I T E M	1 9 5 8						1 9 5 9						ACTION BY	R E M A R K S	
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND			
1				X										AWS	AWS REVIEWED WITH ORENDA 2 JUL 58 AND CEL IS TO SUBMIT OFFICIAL COPIES THROUGH DDP TO AFHQ BY 21 JUL 58.
2					X									AWS 3	REQUIRED TO ENABLE PROCUREMENT TO PROCEED
3					X									AWS 3	REQUIRED TO ENABLE PROCUREMENT TO PROCEED.
4					X									AWS 3	REQUIRED TO ENABLE PROCUREMENT TO PROCEED.
5						X								AWS/MP2	TARGET DATE IS DATE OF CD ISSUE
6				T X			D X							AWS 3	T - TESTS COMMENCED AT NOBEL D - DECISION DATE AS TO A/B CONFIGURATION
7				T X			M X		C X					AWS 3	T - PROGRAM ESTABLISHED AT AEDC TULLAHOMA - 17 JUN 58 M - CEL TO SUBMIT MALTON TUNNEL PROGRAM FOR 1959. C - TEST TO BE COMPLETE 30 JAN 58 AT TULLAHOMA
8				A X			B X			C X				AWS	A - DATA SUBMITTED TO AVRO - CEL OFFICIAL SUBMISSION REQ'D. B - SPEC'N FOR IROQUOIS INSTALLED IN 11TH A/C C - SPEC'N TO DEFINE IROQUOIS INSTALLED IN 37TH A/C
9									R X		D X			AWS 3	R - CEL REPORT ON PORTABLE SUPPRESSOR REQUIRED. D - DECISION FOR PROTOTYPE PROCUREMENT PROD'N DECISION TO BE MADE BY MAR 60.
10					X									AWS 3	VIBRATION ANALYSIS TO BE SUBMITTED AT THE SAME TIME OR WITHIN 2 WEEKS OF 50 HR PFRT FOR FLIGHT APPROVAL AND ACCEPTANCE OF ENGINE X115 PLUS
11										X				AWS	AWS 4 TO DETERMINE PROGRAM FOR A/C'S 25238 AND BEYOND 12 MONTHS LEAD TIME REQUIRED.

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

ELECTRONIC SYSTEM (ASTRA) DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S	
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND			
1				X										COMPLETED	NOW ALLOTTED.
2					X									AWS 2 RCA	TO DESCRIBE COMPLETE MISSION AUTOMATIC MODE SYSTEM.
3					X									AWS 2 RCA	
4					X									AWS 2 RCA	PART I OF STUDY.
5					X									AWS 2	DETERMINE TIMING OF INTRODUCTION INTO PROGRAM.
6						X								RCA AWS 2	TO DESCRIBE PARTIAL ASTRA INSTALLATIONS.
7					X									AWS	RESOLVE ALLOCATION OF ASTRA SETS TO AIRCRAFT, TRAINING AIDS, F101B _s AND TEST EQUIPMENT.
8															
9															
10															
11															
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND			

BASELINE - AVRO DELIVERY SCHEDULE

UNCLASSIFIED SECRET

SPARROW 2 MK 1 PROGRAM

COLD LAKE - CONTRACTOR'S DEMONSTRATION

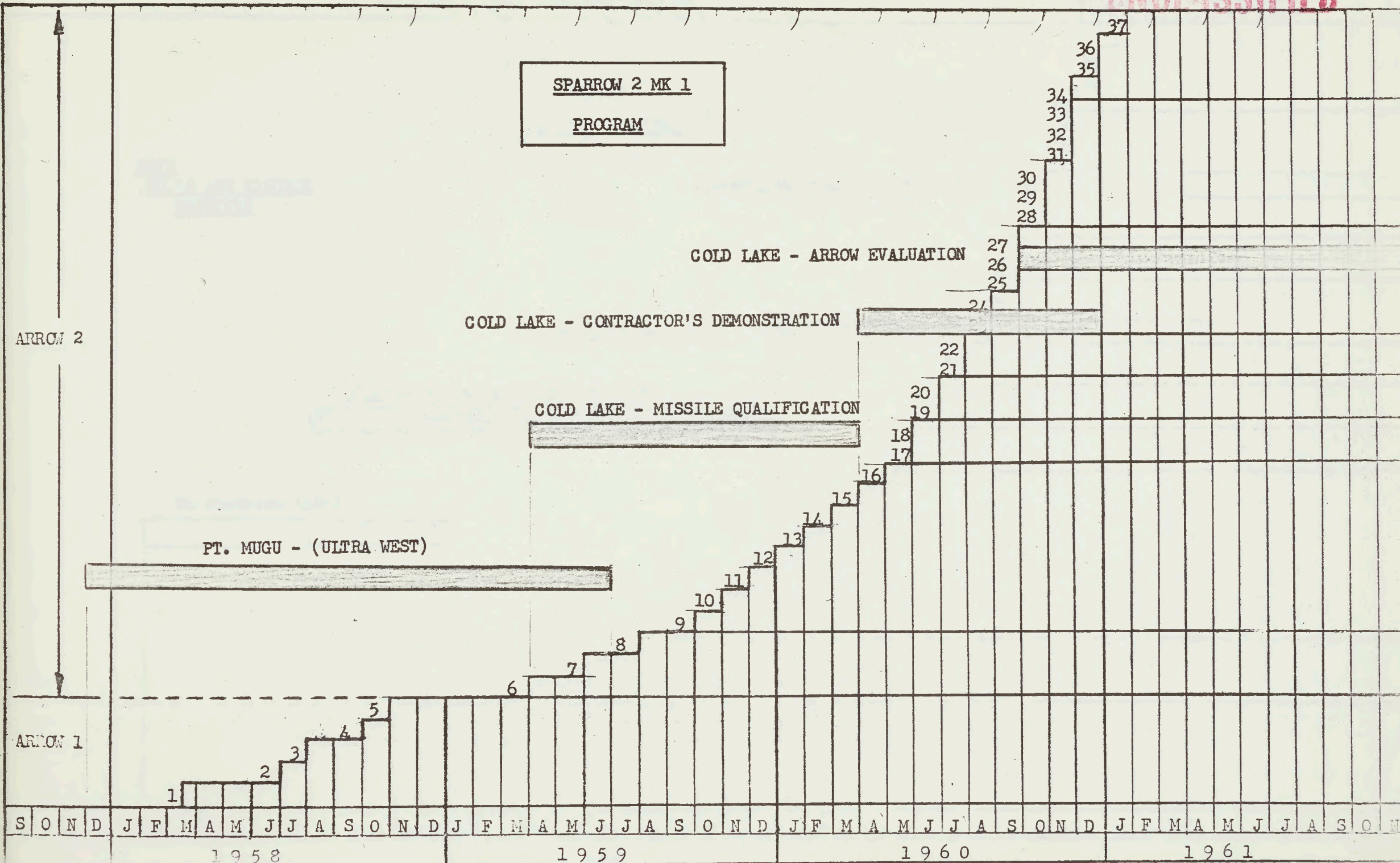
COLD LAKE - ARROW EVALUATION

COLD LAKE - MISSILE QUALIFICATION

PT. MUGU - (ULTRA WEST)

ARROW 2

ARROW 1



BASELINE - AVRO DELIVERY SCHEDULE

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SPARROW 2
MISSILES DELIVERY

NOTE
NO. 'S ARE MISSILE
QUANTITY

PRODUCTION COMBAT STOCK (183)

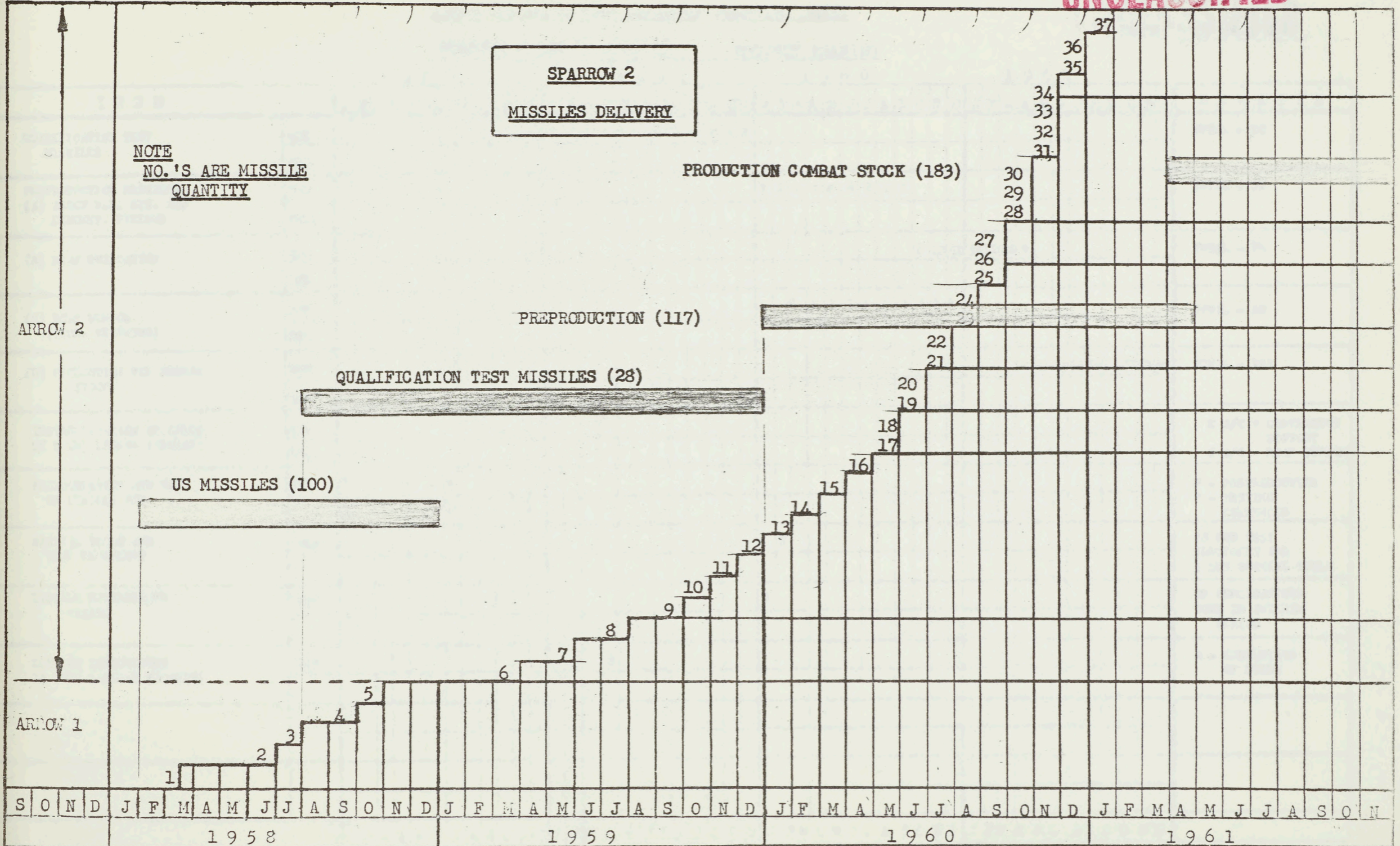
PREPRODUCTION (117)

QUALIFICATION TEST MISSILES (28)

US MISSILES (100)

ARROW 2

ARROW 1



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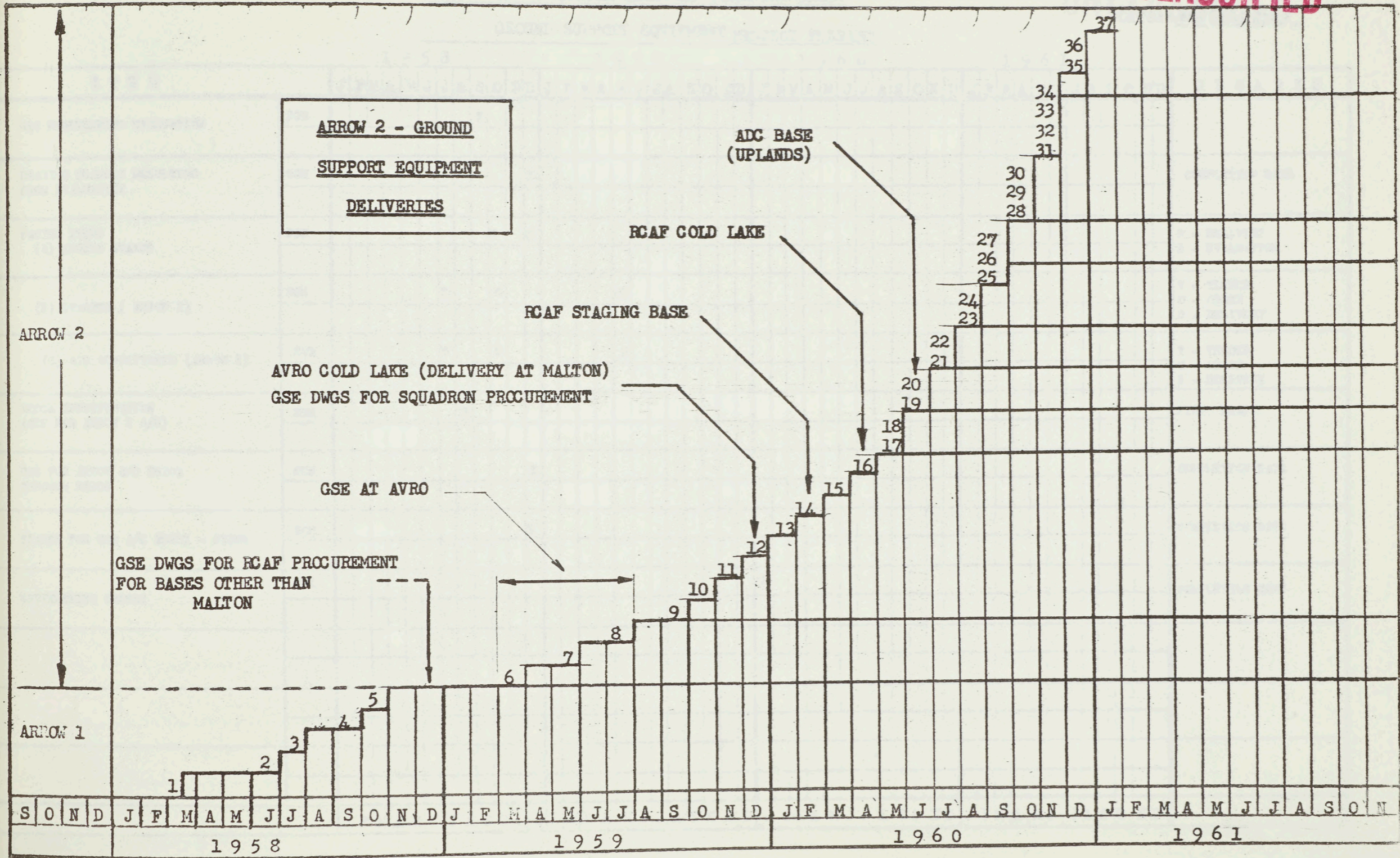
ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

SPARROW 2 MK 1 MISSILE DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S	
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND			
1				X										DARBE A&WS	
2				X										DARBE	REVISION OF POLICY APPLICABLE TO CP-100 A/C ISSUE OF 1 JUN 57.
3				X										CANADAIR DARBE	MODEL SPECIFICATION TO DESCRIBE PRODUCTION MISSILE
4				A B										COMPLETED	A - REISSUE OF 58/20) APPLICABLE TO ULTRA WEST B - REISSUE OF 58/21) PROGRAM
5				X										A&WS/MP2	
6				X										AIR COUNCIL	COVERS CONTINUOUS ROD WARHEAD AND GUIDANCE ACTIVATED FUSE. (OTHER IMPROVEMENTS ASSOCIATED WITH USN PROJECT 5)
7				X										CANADAIR DDP DARBE	
8				X										DARBE	DETERMINE REQUIREMENT FOR ADDITIONAL SETS TO SUPPORT SPARROW PROGRAM.
9				X										DARBE DGT	RESOLVE SELECTION OF TRADESMEN, TYPE OF TRAINING, AND ESTABLISHMENTS.
10				X										DARBE	INFORMATION RE SCHEDULING AND DATA AVAILABILITY REQUIRED.
11						X								CANADAIR DARBE	SCHEDULE SHOULD EVOLVE FROM S OF W NEGOTIATIONS.
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND			

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BASELINE - AVRO DELIVERY SCHEDULE



ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

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GROUND SUPPORT EQUIPMENT PROJECT PHASING

I T E M	SCH	1958				1959				1960				1961				REMARKS										
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A		M	J	J	A	S	O	N	D		
GSE ENGINEERING EVALUATION	SCH				X																							
DRAWING CHANGES RESULTING FROM EVALUATION	SCH								X																			COMPLETION DATE
PAGING ITEMS (A) ENGINE STANDS	SCH								D				E															D - DELIVERY E - EVALUATION
(B) STARTER (ARROW 2)	SCH				T				O										D									T - TENDER O - ORDER D - DELIVERY
(C) AIR CONDITIONER (ARROW 2)	SCH				T				O										D									T - TENDER O - ORDER D - DELIVERY
MODEL SPECIFICATION (GSE FOR ARROW 2 A/C)	SCH								X																			FIRST DRAFT
GSE FOR ARROW A/C 25201 THROUGH 25208	SCH												X															COMPLETION DATE
SPARES FOR GSE A/C 25201 - 25208	SCH												X															COMPLETION DATE
ENGINEERING ORDERS	SCH																		X									COMPLETION DATE

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

GROUND SUPPORT EQUIPMENT DECISION AND DOCUMENT REQUIREMENTS

1958 1959

I T E M	1958						1959						ACTION BY	REMARKS
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1				X									AAWS AMC	ISSUE 10 COVERS GSE FOR 37 A/C PROGRAM
2				X									AAWS AMC	
3				X									AWP/MP2	CONTRACTUAL COVERAGE.
4				X									AAWS AVRO	NEGOTIATE DELIVERY DATES (SEE AVRO S OF W ITEM 10.3, PAGE 46) BROCHURE AD-51
5				X									AAWS AVRO	NEGOTIATE DELIVERY DATES (SEE AVRO S OF W ITEM 10.5, PAGE 46) BROCHURE AD-51.
6											X		AAWS	WILL SET MINIMUM STANDARDS FOR PERFORMANCE, RELIABILITY, AND DESIGN.
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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PERSONNEL REQUIREMENTS DATA DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1				X									MP2	TO COVER PRD STUDIES AT ORENDA AND CANADAIR.
2				X									AWS/DDP	TO COVER PRD STUDIES AT RCA, ORENDA AND CANADAIR.
3														
4														
5														
6														
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

FINANCIAL AND SUPPLY DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1					X								AWS/MP2	BASIC DATA BEING OBTAINED THROUGH DDP. DECISION REQUIRED ON CONTINUATION OF ARROW PROGRAMME.
2				X	X				X				AWS/MP2	MR REQUIRED TO COMMIT BALANCE OF FUNDS APPROVED BY CABINET IN OCT 57 AND COMMIT 1959/60 FUNDS WHEN APPROVED.
3				X		X			X				AWS/MP2	TO DEFINE AND IMPLEMENT PROGRAMS REFERRED TO IN ITEM 2.
4					X	X				X			DDP	
5				X					X				AMC	
6					X								AMC	
7													AMC	PROGRESSIVE PROVISIONING IN PROGRESS
8				X									AWS/MP2	
9					X								AWS 2 AWS/MP2 AMC DDP	
10				X									AWS 3 AWS/MP2	APPROVAL OF AVRO RECOMMENDED LISTS REQUIRED
11					X								DDP	
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

FINANCIAL AND SUPPLY

DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1				X									AAWS/MP2	
2				X									CAE CMAT	FINALIZATION OF SUPPLY CONCEPT.
3														
4														
5														
6														
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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COLD LAKE OPERATIONS DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1				X									CAE CMAT	REF. MINUTES CPC 3/58 (FOR SPARROW AND ARROW TRIALS).
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

COLD LAKE EVALUATION SYSTEM DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1							X						AMC	INCORPORATION OF RADAR SLAVING.
2													DRDP	STUDY RE EXTENSION TO INCORPORATE AUTO DATA EXTRACTION
3													DRDP	STUDY TO CONFIRM INSTALLATION BY REQUIRED DATE
4														
5														
6														
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

TARGET DRONES DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1					X								AAWS DAENG	SELECTION OF DRONE COMPATIBLE WITH ARROW TRIALS
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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ARROW OFTT

PROJECT PHASING

I T E M		1958				1959				1960				1961				R E M A R K S								
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A		M	J	J	A	S	O	N	D
TARGET DATE (IN SITU AT UPLANDS)	RQD																									SUPPORT PHASE 6 ARROW TRIALS.
MOCK UP APPROVAL	SCH						X																			
PROVISION OF GSM	SCH							X																		BULK REQUIRED AT TIME SHOWN
DESIGN AND DEVELOPMENT ENGINEERING	SCH											X														
MANUFACTURE AND ASSEMBLY	SCH											X														
TRAINING TECHNICIANS INSTRUCTORS	RQD											X														STARTING DATE
	RQD												X													
CALIBRATION AND TEST	SCH												X													
HOUSING - UPLANDS	RQD												X													COMPLETION DATE
TEST EQUIPMENT	SCH												X													COMPLETION DATE
PUBLICATIONS	SCH																X									COMPLETION DATE
INSTALLATION	SCH																				X					COMPLETION DATE

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ARROW OFTT

DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8					1 9 5 9					A C T I O N B Y	R E M A R K S		
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA			SO	ND
1	X												COMPLETED	MODIFIED BY DELETION OF MULTIPLE TARGETS IN APR 58
2		X											DIEENG	SPECIFICATION APPROVED BY CAE 10 APR 58
3			X										DIEENG	COMPLETED. DEFINES THE PROGRAM.
4			X										DRB	ISSUED (JUNE)
5				X									DDP	
6				S X			C X						RCA DIEENG AAWS AVRO	REQUIRES URGENT ACTION. (AVRO S OF W SHOWS NO SCHEDULE). RCA REQUIRES CONTRACTUAL COVERAGE. S - DATA COMMENCED C - DATA COMPLETED
7							X						CONTRACTOR	
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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ARROW-WEAPON SYSTEM CALENDAR PLANNING SHEET

AST (Airframe) DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1	X												DTA	COMPLETE
2	X												DIENG	COMPLETE.
3	X												CONTRACTOR	COMPLETE.
4			X										DIENG	DRAFT SPECIFICATION COMPLETED
5	X												AMC	ALG TO CD462043 APPROVED 13 DEC 57
6				X									AAWS/DDP	
7				X									AAWS AVRO	AVRO S OF W SHOWS AST AVAILABILITY 31 MAR 61. THIS IS INCOMPATIBLE WITH REQUIREMENT FOR AST IN SITU AT CAMP BORDEN BY 1 JAN 61.
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

AST (Sectioned Engine) DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1 STATEMENT OF REQUIREMENT				X									DTA	GENERAL REQUIREMENT COMPLETE.
2 PROGRAM PLANNING				X									DTA DIEENG	A FIRM REQUIREMENT BEING COMPLETED BY DTA
3 PREPARATION OF PROPOSAL				X									CONTRACTOR	
4 REQUIREMENT SPECIFICATION					X								DIEENG	
5 ISSUE OF CD	X												AMC	AL 6 TO CD 462043 APPROVED 13 DEC 57
6 ISSUE OF CONTRACT						X							AAWS/DDP	
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

DATE: 15 July 58

AST (Electronics)

PROJECT PHASING

1958

1959

1960

1961

I T E M	RCD	1958				1959				1960				1961				REMARKS																				
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A		M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
TARGET DATE	RCD												X																									
DEVELOPMENT ENGINEERING	SCH											X																										
FABRICATION	SCH											X																										
ENGINEERING EVALUATION AND DESIGN ACCEPTANCE	SCH											X																										
PUBLICATIONS	SCH												X																									
FINAL MODEL SPECIFICATION AND DRAWINGS	SCH															X																						

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

DATE: 15 July 58

AST (Electronics) DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S	
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND			
1	X													DTA	GENERAL REQUIREMENT COMPLETS.
2				X										DIENG	FINAL REQUIREMENTS BEING COMPILED BY DTA
3	X													CONTRACTOR	PRELIMINARY DESIGN STUDY RECEIVED FROM RCA.
4						X								DIENG	
5	X													AMC	ALG TO CD 462043 APPROVED 13 DEC 57.
6							X							AAWS/DDP	
7				X										AAWS	ENSURE COMPATIBILITY BETWEEN RCA SCHEDULE AND REQUIREMENT FOR ONE ELECTRONIC. AST IN SITU AT CAMP BORDEN BY 1 JAN 61.
8															
9															
10															
11															
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND			

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

AST (Missile)

DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1			X										DTA	GENERAL REQUIREMENT COMPLETE.
2				X									DIENG	FINAL REQUIREMENTS BEING COMPLETED BY DTA
3					X								DIENG	
4	X												AMC	AL 6 TO CD462043 - APPROVED 13 DEC 57.
5						X							AAWS/DDP	
6														
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

TRAINING AIDS

DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8					1 9 5 9					A C T I O N B Y	R E M A R K S		
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA			SO	ND
1				X									AAWS CTRAIN	FIX NUMBERS OF ASTRA SETS REQUIRED FOR ASTRA TRAINING (RCA RECOMMEND 4 SETS, DTA HAS CALLED FOR TWO SETS).
2				X									DTA	DETERMINE ADDITIONAL TRAINING AIDS REQUIRED (10 MISSILES PRESENTLY ALLOTTED)
3				X									AAWS CTRAIN	AAWS TO SUPPLY LIST OF EQUIPMENT REQUIRING TRAINING AIDS. DTA TO DESIGNATE TYPES AND QUANTITIES.
4				X									AAWS CTRAIN	RESOLVE REQUIREMENT FOR ENGINE RUN-UP FACILITY AT CAMP BORDEN
5					X								CAE CTRAIN	RESOLVE ALLOCATION AND TIMING OF A/C TO ARROW 2 CONFIGURATION FOR CAMP BORDEN
6					X								AAWS CTRAIN	PROVISION FOR GHE COMPONENTS TO SUPPORT AIRCRAFT IN SITU AT CAMP BORDEN.
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

DATE: 15 JULY 58

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IN-SERVICE TRAINING COURSES PROJECT PHASING

1958 1959 1960 1961

ITEM	SCH	1958				1959				1960				1961				REMARKS																				
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A		M	J	J	A	S	O	N	D												
COMMENCEMENT DATES AE TECHS	SCH											X														TOTAL - 137 8 WKS COURSE												
AP TECHS	SCH											X														TOTAL - 410 12 WKS COURSE												
I TECHS	SCH											X														TOTAL - 26 2 WKS COURSE												
E TECH (AIR)	SCH											X														TOTAL - 102 12 WKS COURSE												
SE TECH	SCH											X														TOTAL - 61 3 WKS COURSE												
M & W TECH	SCH											X														TOTAL - 101 4 WKS COURSE												
AST (SPARROW ONLY)	SCH															X										TOTAL - 92 16 WKS COURSE												
COMM TECH (AIR)	SCH											X														TOTAL - 54 4 WKS COURSE												
ARROW ELECTRONIC SYS. (A) FIRE CONTROL	SCH											X														18 WKS COURSE TRADE - AST												
(B) AFCS AND NAV. SYSTEM	SCH											X														24 WKS COURSE TRADE NOT KNOWN												
(C) TELECOM SUB-SYS (RADAR)	SCH											X														6 WKS COURSE RDR TECH (AIR)												
(D) SYSTEMS TECHNICIAN	SCH											X														12 WKS COURSE TRADE AST.												
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	

TOTAL
369
TECHS

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

TRAINING DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S	
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND			
1			X											COMPLETED	CAMP BORDEN SELECTED
2			X											COMPLETED	EXTENSION OF I TECH. TRAINING
3			A		B									RCA AWS 2	(A) PRELIMINARY RCA REPORT AR 27 RECEIVED. (B) SECOND RCA TRAINING REPORT
4			X											CTRAIN AAWS	AVRO SELECTED TO BE TRAINING AGENCY FOR ARROW TRAINING
5															
6															
7															
8															
9															
10															
11															
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND			

ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

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CONSTRUCTION

PROJECT PHASING

I T E M	SCH	1958					1959					1960					1961					RE MARKS													
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A		S	O	N	D	J	F	M	A	M	J	J	A	S
COLD LAKE GUIDED MISSILE LOADING HANGAR	SCH					X																													APPROVED
A TOWED AND DRONE TARGET WKSHP	SCH					X																													APPROVED
RUNWAY EXTENSION TO 10,000 FT																X																			APPROVED

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ARROW WEAPON SYSTEM CALENDAR PLANNING SHEET

CONSTRUCTION DECISION AND DOCUMENT REQUIREMENTS

I T E M	1 9 5 8						1 9 5 9						A C T I O N B Y	R E M A R K S
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		
1				X									ADC	STUDY TO DETERMINE SPACE ALLOCATION AND ADDITIONAL SPACE REQUIREMENTS TO SUPPORT PHASES 6 AND 8.
2				X									CAE COPS CCE	TO CONFIRM THAT ITEMS LISTED ON NEXT PAGE MEET SPACE REQUIREMENTS
3				X									CCE ADC	FOLLOW-UP TO ITEM 2 AFTER FIRM AGREEMENT REACHED ON REQUIREMENTS.
4				X									CCE	DESIGN OF FIRM REQUIREMENTS.
5								X					CCE	APPLICABLE TO COLD LAKE AND UPLANDS BUILDING REQUIREMENTS.
6														
7														
8														
9														
10														
11														
	JF	MA	MJ	JA	SO	ND	JF	MA	MJ	JA	SO	ND		

ARRGW WEAPON SYSTEM CALENDAR PLANNING SHEET

DATE: 15 July 58

PROPOSED CONSTRUCTION PROJECT PHASING

1958 1959 1960 1961

ITEM	SCH	1958				1959				1960				1961				REMARKS																				
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A		M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
MAINTENANCE HANGAR MODIFICATIONS	SCH											C																										C - GOLD LAKE U - UPLANDS
ENGINE RUN-UP PEN	SCH											C																										C - GOLD LAKE U - UPLANDS
AIRCRAFT RUN-UP PAD WITH DURASTACK	SCH											C																										C - GOLD LAKE U - UPLANDS
FUEL SYSTEM COMPONENT WESHOP	SCH											C																										C - GOLD LAKE U - UPLANDS
SERVICES WKSHOP (GR)	SCH											C																										C - GOLD LAKE U - UPLANDS
ASTRA TEST BUILDING	SCH											C																										C - GOLD LAKE U - UPLANDS
DATA REDUCTION AND PROCESSING BUILDING	SCH											C																										C - GOLD LAKE
GROUND SUPPORT BUILDING (INCL. ARMAMENT PACK FACILITY & AIRFRAME COMPONENTS SHOP)	SCH											C																										C - GOLD LAKE U - UPLANDS
ALTERATIONS TO SYNTHETIC TRAINER BUILDING (OPT)	SCH											C	U																									C - GOLD LAKE U - UPLANDS
NOISE ZONING AND ENLARGE EXISTING POWER SUB-STATION	SCH											C																										C - GOLD LAKE U - UPLANDS
RUNWAYS	SCH																																					U - UPLANDS
ALTERATIONS TO ALERT HANGARS	SCH																																					U - UPLANDS

* Items Subject to Confirmation of Requirements. (See Item 2 Previous Page)

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