

Ad, Riepe

FIRST DAY

Purpose: Introductory Planning on WS-117L Test Activities at AFMTC.

<u>TIME</u>	<u>LOCATION</u>	<u>ITEM</u>
1000	Room 345 Bldg 425	<ol style="list-style-type: none"><li>1. Briefing by L/C Riepe.<ol style="list-style-type: none"><li>a. Combined Test Plans.</li><li>b. Schedules.</li><li>c. Objectives.</li><li>d. Technical description of WS-117L as involved with Thor and Atlas.</li></ol></li><li>2. Briefing by L/C Green.<ol style="list-style-type: none"><li>a. Relationship of WS-117L &amp; WS-315A.</li></ol></li><li>3. Briefing by Maj Thornton.<ol style="list-style-type: none"><li>a. Relation of WS-117L &amp; WS-107A-1.</li><li>b. Proposed augmentation of WS-107A-1 to assure fulfillment of its original objectives considering timing of WS-117L integration.</li></ol></li><li>4. Discussion aimed at conclusions on relationship of LMSD, Douglas and Convair.<ol style="list-style-type: none"><li>a. Planning.</li><li>b. Operations.</li><li>c. Coordination.</li><li>d. Responsibility channels.</li><li>e. Flight test working group.</li><li>f. Test Data reduction.</li><li>g. Analysis and dissemination.</li></ol></li><li>5. Determination of Interrelating responsibilities of WDGMI or WDGMC and WDGMR prior to, during and after combined test.</li><li>6. Establishment of Hangar, Pad and Base Operations procedures.</li><li>7. "In-House" discussion on Base Instrumentation and Range Safety Requirements.</li></ol>

DOWNGRADED AT 12 YEAR  
INTERVALS; NOT AUTOMATICALLY  
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MT-58-2660

**Agenda for 117L Meeting Cont'd**

**SECOND DAY**

1. Base Instrumentation.
2. Range Safety requirements
3. Logistical support of test operations.
4. Modifications to WS-315A and WS-107A-1 launch facilities.
5. Definition of specific responsibilities for facility modifications - launch modifications.
  - a. Umbilical mast.
  - b. Service gantry.
  - c. Instrumentation cabling.
  - d. Instrumentation transfer unit.
  - e. Blockhouse instrumentation and space.
  - f. Propellant storage and transfer equipment and other service vehicles and appropriate locations.
  - g. Service plumbing.
  - h. Schedules for accomplishing and integrating (above items).

**FACILITIES SCHEDULE**

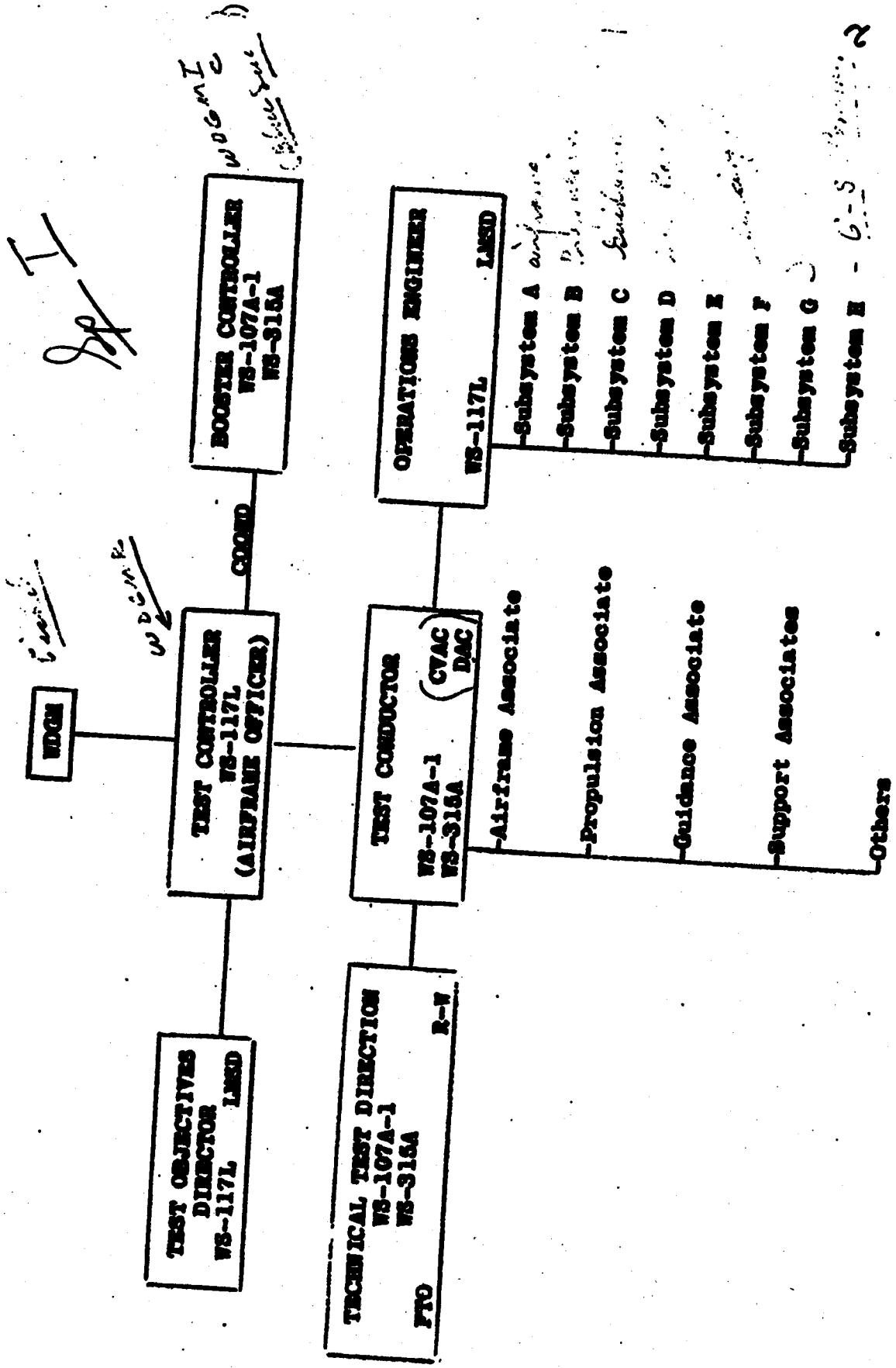
- 1. Hangar "E" - <sup>July</sup> ~~Aug~~ 58 (BOD)
  - Joint Occupancy - ~~April~~ <sup>Possible as early as March-</sup> 1958 (Critical)
  - LAC Interior - March 1958 (Criteria)
- 2. 17A Modifications by Corps of Engineers - Aug 58 (BOD)
  - Power details - Feb 58 (Criteria) *No add. power required*
  - Umbilical siting & footings - Feb 58 (Criteria) *LAC-DAC TO modify thor umbilical -*
  - Distribution details - Feb 58 (Criteria)
  - Hangways for GSE piping - Feb 58 (Criteria) *NO HANGWAYS required.*
- 3. 17A Modifications by LAC - Aug 58 (BOD) *"Able" mods. will fulfill 117L requirements, except for work platforms.*
  - Gantry Modifications - Feb 58 (Criteria)
  - Umbilical Modifications - Feb 58 (Criteria)
  - Vehicle, Power, piping - Feb 58 (Criteria)
- 4. 14 Modifications by Corps of Engineers - Feb 59 (BOD)
  - Power details - <sup>March 58</sup> ~~May~~ 58 (Criteria) *(Probably no add. install required)*
  - Distribution details - <sup>Mar 58</sup> ~~May~~ 58 (Criteria) *(CVAC-LAC to determine cost.)*
  - Hangways for GSE piping - May 58 (Criteria)
- 5. 14 Modifications by LAC - Feb 59 (BOD)
  - Gantry details - <sup>Feb-58</sup> ~~May~~ 58 (Criteria)
  - Umbilical details - <sup>(Feb 58)</sup> ~~May~~ 58 (Criteria)
  - Vehicle, Power, piping - <sup>(Feb 58)</sup> ~~May~~ 58 (Criteria)
- 6. Downrange Modifications - ?

*April 58*  
*Down*  
*59 - 1 Oct - May*  
*April 58*

*Feb 59*  
*for begin*  
*Corr.*

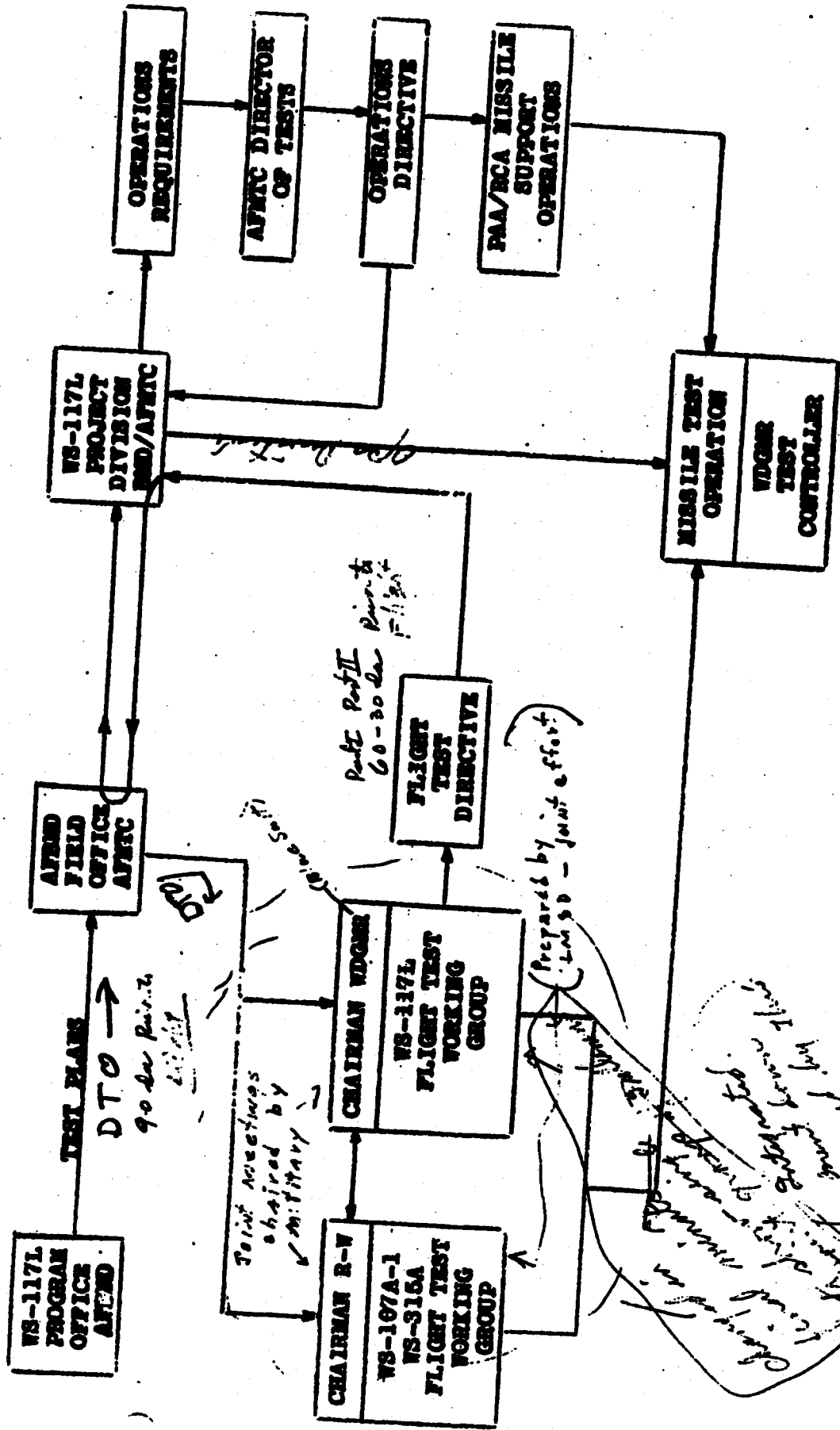
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**ORGANIZATION FOR WS-117L OPERATIONS AT AFMTC**

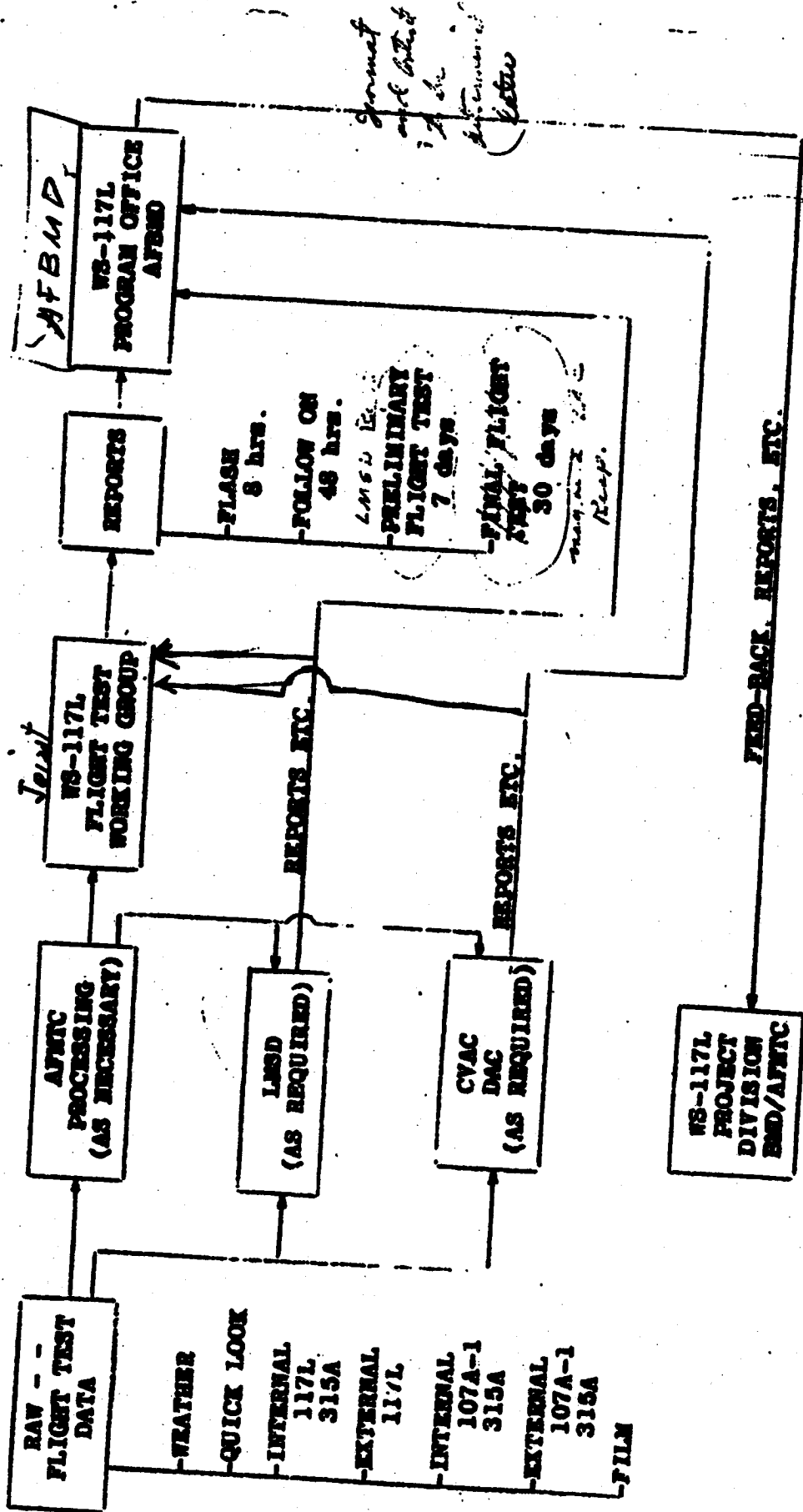


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**ORGANIZATION FOR WS-117L FLIGHT TEST PLANNING AT AFMTC**



WS-117L DATA HANDLING PROCESS - AFMTC OPERATIONS



*format and list of AFMTC determined later*

*Broader Report: One and should be compiled with that it can be distributed separately.*

UPGRADED AT 12 YEAR  
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Page 158-29

PROGRAM SCHEDULE  
ACCELERATED PROGRAM  
ARS, MS 117L

	FY 59												FY 60												FY 61											
	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
1 BOOSTER VEHICLES; Req'd at Test Site																																				
2 Thor - (5) AFMTC, (5) Cooke																																				
3 Atlas - (10) AFMTC, (71) Cooke																																				
4																																				
5 LAUNCH COMPLEXES;																																				
6 AFMTC-Thor; RD (0) and Flights (X)																																				
7 AFMTC-Atlas; RD (0) and Flights (X)																																				
8 Cooke-Thor; RD (0) and Flights (X)																																				
9 Cooke-Atlas; RD (0) & Flights (X) (New)																																				
10																																				
11 DATA ACQUISITION, TRACKING, & COMMAND STATIONS																																				
12 AFMTC-Antiques TLA/18 Mod 1, Complete																																				
13 Cooke-TLA/18 and Command Trc.																																				
14 Hawaii-TLA/18, UHF Track & Command, Radar																																				
15 Alaska-UHF Track and Command, Radar																																				
16 Cooke-Complete Station																																				
17 Northwest & Northeast Sta. Complete																																				
18 Central Sta. Complete																																				
19																																				
20 NEW SET ATLAS USE REQ'D FOR COOKE																																				
21																																				
22 PASD SYSTEM TEST FACILITY																																				
23 Component Test Lab Available																																				
24 Test Stands 1 & 2 Available																																				
25																																				
26 MS 117L VEHICLE COMPLETION-FLIGHT & CAPTIVE																																				
27																																				
28 MS 117L MILESTONES:																																				
29 Functional Mockup Complete (Authority)																																				
30 Start Structural Tests																																				
31 Install Engine in Flt. Veh. No. 1																																				
32 Captive Veh. Hot Firings Begin																																				
33 First Thor Flight-AFMTC																																				
34 First Thor Flight-Cooke																																				
35 First Atlas Flight-AFMTC																																				
36 First Atlas Flight-Cooke																																				
37																																				
38 TRACK RADARS-ESQ-1 (MS-19) (3) REQ'D.																																				
39 WIND TUNNEL TEST PRIORITY - THOR MS 117L																																				
40 LUNION ENVIRON. CHAMBER TESTS																																				

CONFIDENTIAL

PROGRAM SCHEDULE	ACCELERATED PROGRAM															
	(*) START	(O) BOD	(X) OPERS	FY 59			FY 60			FY 61						
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<b>CRITICAL REQUIREMENTS</b>																
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1 NEEL ATLAS LAUNCH COMPLEX  
 2 THOR FRONT ADAPTER SECTION  
 3 TRAJECTORY COMPUTATION  
 4 AFMTC FLIGHTS - R-1  
 5 COOKE FLIGHTS - R-11 OF SAC  
 6 CAPTIVE TESTING  
 7 Test Site Completion  
 8 IASD MFG. BLDG. & ENVIRON. CHAMBER  
 9 SITE SELECTION -  
 10 A. Hawaii  
 11 B. Cooke - Launcher & DA & T Sta.  
 12 C. Northwest & Northeast DA & T Stas.  
 13 D. Central DA & T Sta.  
 14 E. Alaska Track & Command Sta.  
 15 SITE DEVELOPMENT & CONSTRUCTION  
 16 A. Hawaii  
 17 B. Cooke  
 18 C. NW & NE Sta.  
 19 D. Central Sta.  
 20 E. Alaska  
 21 F. Intelligence Center  
 22 COOKE RANGE SAFETY  
 23 SAC/BIKE SUPPORT  
 24 A. Thor - Cooke  
 25 B. Atlas - Cooke  
 26 C. Instrum. & Range Safety & Base Support  
 27 D. Communications  
 28 INTER-STATION COMMUNICATIONS  
 29 A. AFMTC to Cooke  
 30 B. Hawaii to Cooke  
 31 C. Alaska to Cooke  
 32 D. NW, NE, and Central Sta. to Cooke  
 33 E. Teletypes - AFMTC & IASD to Cooke  
 34 RECOVERABLE MFG. RE-ENTRY TESTS - A/C  
 35 LAUNCH COMPLEX MODIFICATIONS  
 36 Thor - AFMTC  
 37 Thor - Cooke  
 38 Atlas - AFMTC  
 39 TEST SUPPORT BILDS: AFMTC - HANGAR E  
 COOKE - To Be Built  
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ACCELERATED PROGRAM

ANS, WS 117L

CRITICAL DEVELOPMENT AREAS

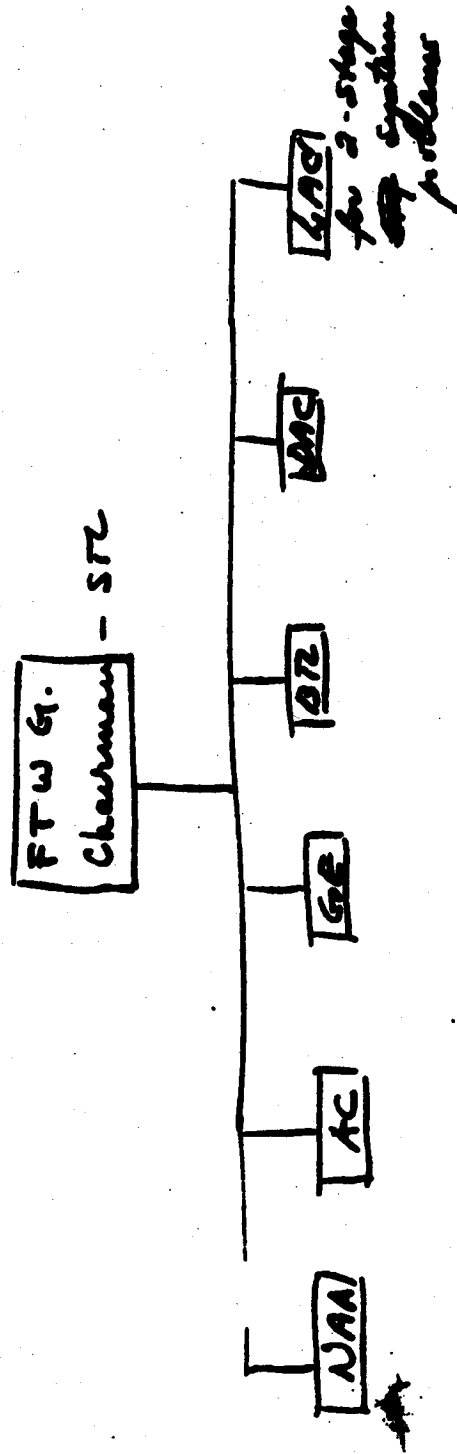
1 SUBSYSTEM

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## FLT TST UBERINGS GROUP

1. limit scope and charter of Flight Test Working Group to system problems that arise in planning and coordinating 2-stage launch operation.
2. Then only one FTWG necessary; whatever arrangements LAC makes to coordinate efforts of SAC sub-contractors can be considered in same light as arrangements which DAC makes to coordinate efforts of SAC sub-contractors. (We don't have another FTWG with SAC, Audit, RCA, etc.)



## General Points

1. We feel that it is very important to the basic Atlas, Titan, and Thor weapon programs, <sup>that we</sup> not ~~introduce~~ introduce an organizational arrangement which might disrupt the smooth working relationships between Test Controller, Test Director, & Test Conductor. We have worked almost 2 years to get where we are now; the next 12 months are our most critical testing months; should we in any way ~~disrupt~~ risk disrupting this for only 5 labours for Thor and for a relatively small number of Atlas/Thor? By 574
2. System Test Duration of LAC, after 2nd stage arrives at launching stand has so remote a connection with design, fabrication, etc. of Subsystem I, (being supervised by Rome Air Dev Center!) that we cannot understand the ~~argument for wanting~~ <sup>argument for wanting</sup> the other organization, in view of the clear ~~technical~~ <sup>technical</sup> disadvantages of the other organization. To be logical, one would be more concerned with Convin/locked & Dryden/locked problems of this sort, since <sup>we</sup> as Test Conductor Convin or Dryden would one step closer to locked organizationally.