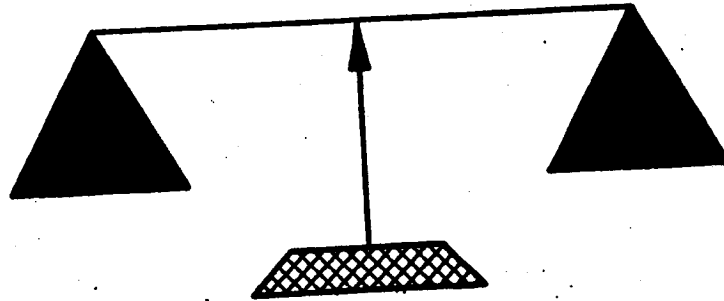




1145

# MANAGEMENT ENGINEERING PROGRAM



◊ *Preliminary Study* ◊

**AGENA LAUNCH  
VEHICLE DIRECTORATE  
FUNCTION**

**6000  
CODE**

**AFSC MANAGEMENT ENGINEERING TEAM NUMBER 10  
LOS ANGELES AIR FORCE STATION  
LOS ANGELES, CALIFORNIA**

PRELIMINARY STUDY  
**AGENA LAUNCH  
VEHICLE DIRECTORATE**  
FUNCTION

6000

CODE

1145

PREPARED BY:

AFSC MANAGEMENT ENGINEERING TEAM 10  
LOS ANGELES AIR FORCE STATION  
LOS ANGELES, CALIFORNIA

5 APRIL 65  
STUDY STARTED

1 JUNE 65  
STUDY COMPLETED

NOTE: THIS STUDY DOES NOT CONSTITUTE AN APPROVED  
MANPOWER STANDARD.

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GENERAL COMMENTS

1. The Agena Directorate as organized and operating is not in full consonance with AFSCM 375-3. Mission requirements are such that strict compliance with the organizational provisions of AFSCM 375-3 is impossible. Waivers to this effect have been granted.
2. The status of the OSD Directed Manpower Reduction is not known at this time, but would have a definite impact on current manpower authorizations if implemented.
3. The Agena Directorate has no Contract Services or Tenancy Agreements.
4. Excellent cooperation was afforded the MEP representative by all personnel of the Agena Directorate.

# -FUNCTIONAL STATEMENT-

## AGENA DIRECTORATE

Responsible for the management and direction of contractor efforts in the definition, design, production, modification, storage, logistic support, test and launch support of the Agena vehicle for all using programs.

Responsible for all program functions for the acquisition and launch of the Gemini Atlas Agena Target Vehicle.

Provides certain engineering and procurement support to specified programs.

Provides AGE engineering support and facilities activation for all using programs and is responsible for the management and direction of the Agena launch services contracts for the ETR and WTR.

## CONFIGURATION CONTROL DIVISION

Responsible to Program Director for identification, control, accounting and status aspects of configuration management of the S-01A/B System (excluding AGE) and Gemini Target Program (including AGE).

Responsible for configuration management functions for the Program S-01A/B vehicles, Gemini Target Program, and for two booster programs when requested.

## VEHICLE ENGINEERING DIVISION

Manages contractor efforts in the development, engineering and test of the S-01 spaceframe, propulsion, vehicle power, control and guidance, and command control systems; provides engineering support to designated program offices for these systems; directs and supervises contractors in these areas to insure their technical adequacy; reviews development plans, programs, work statements, cost proposals and specifications to insure technical compliance and a satisfactory product; participates in contract negotiations; conducts design reviews and technical direction meetings to evaluate and direct contractor activities.

**ELECTRONICS BRANCH.** Responsible for flight electrical power systems, guidance and control systems, and command and control systems.

**ASTRO-VEHICLE BRANCH.** Responsible for propulsion systems and space-frames.

#### AGE DIVISION

Responsible for engineering analysis, design, development, test, qualitative and quantitative requirements and timely delivery of all AGE required by the Air Force and NASA Programs using the S-Cl vehicle.

Responsible for programming, planning, and project management for activation of Satellite System Launch Complexes for programs using the S-01 vehicle; functions include contracting, costing, technical direction, integrated design and development, test requirements, phase scheduling, AGE installation and checkout, and system validation.

Responsible for programming, planning, and project management for ETR and WTR launch services for Air Force and NASA Programs using the S-01 vehicle; functions include contracting, costing, technical direction and test requirements.

**AGE DEVELOPMENT BRANCH.** Responsible for all Aerospace Ground Equipment.

**LAUNCH COMPLEX ACTIVATION BRANCH.** Responsible for launch complex activation and launch services.

#### PROCUREMENT DIVISION

Responsible for procurement and production management functions for the S-01 vehicle and associated ground equipment, and NASA support and launch contract.

Coordinates with applicable program offices and translates program requirements into contractual work statements; plans and negotiates contracts for new procurements; monitors the production and installation status of program equipments; performs management level production expediting.



## REQUIREMENTS AND PROGRAMMING DIVISION

Establishes Agena program technical requirements.

Directs Agena and associated AGE reliability efforts, programming and fiscal planning efforts, work statement preparation, cost proposal analysis, program plan review, and the solving of interface problems.

Provides for and directs technical support of using programs, and booster programs utilizing the Agena vehicle.

## GEMINI-AGENA DIVISION

Focal point for planning, guidance and instructions for effective execution of the Gemini Agena Target program.

Responsible for the design, development, integration, test and launch of the complete Gemini Agena Target Vehicle under the overall Gemini program management of the NASA Manned Spacecraft Center.

The Gemini Agena Target Vehicle System consists of the SLV-2/S-01C vehicles with program peculiar airborne equipment and associated launch base Aerospace Ground Equipment.

DEPUTY FOR  
LAUNCH VEHICLES

AGENA LAUNCH VEHICLE  
DIRECTORATE  
FC:6000 SYM:SSVA

CONFIGURATION CONTROL  
DIVISION  
FC:6000 SYM:SSVAC

VEHICLE ENGINEERING  
DIVISION  
FC:6000 SYM:SSVAE

AGE  
DIVISION  
FC:6000 SYM:SSVAG

PROCUREMENT  
DIVISION  
FC:1250 SYM:SSVAK

REQUIREMENTS & PROGRAMMING  
DIVISION  
FC:6000 SYM:SSVAR

GEMINI-AGENA  
DIVISION  
FC:6000 SYM:SSVAT

SUMMARY PERSONNEL TABLE

<u>WORK CENTER</u>	<u>UMD TITLE</u>	<u>AUTH.</u>	<u>ASGD.</u>
Director's Office	Agena Directorate	6	6
Configuration Management	Configuration Control Division	7	7
Vehicle Engineering	Vehicle Engineering Division	2	2
Electronics	Electronics Branch	14	14
Astro Vehicle	Astro-Vehicle Branch	8	8
Aerospace Ground Equipment	AGE Division	2	2
AGE Development Branch	AGE Development Branch	5	5
Launch Complex Activation Branch	Launch Complex Activation Branch	5	5
Procurement	Procurement Division	12	12
Requirements and Programming	Requirements and Programming Division	10	10
Gemini Agena	Gemini Agena Division	<u>18</u>	<u>18</u>
		89	89

**WORK CENTER DESCRIPTION**

DATE  
1 Jun 65

1. FUNCTION AND SUBFUNCTION

Deputy for Launch Vehicles - Agena Launch Vehicle Directorate  
Director's Office (F/C 6000)

2. WORK CENTER (Include code)

AF Systems Command

4. ORGANIZATION AND LOCATION

Headquarters, Space Systems Division  
Los Angeles Air Force Station, California

5. WORK CENTER DEFINITION

1. SYSTEM MANAGEMENT (Direct)

- a. Responsible for the overall and detailed management, Systems Engineering and Technical Direction including development, procurement, production, modification, integration and financial management of the Agena Space Stage, the Gemini-Agena Target Vehicle, and Associated Ground Equipment.
- b. Responsible for launch stand activation and modification and launch services for all Agena vehicles.
- c. Responsible for Configuration Management and serves as chairman of the Configuration Control Board.
- d. Advises the Deputy for Launch Vehicles and his staff on matters relating to Agena and GATV.
- e. Coordinates efforts of all military/Governmental agencies and civilian contractors participating in the program.

2. MANAGEMENT (Including Supervision and Associated Administration) (Indirect)

- a. Review correspondence, regulations, etc.
- b. Plan and assign workload.
- c. Attend or hold staff meetings and briefings, board and committee participation, and similar management activities.
- d. Attend to personnel matters (ratings, evaluations, leaves, etc.).
- e. Receive and give instructions.
- f. Phone conversations (related to above).
- g. Release program data and functional information.
- h. Special Projects: Takes all necessary actions pertaining to manpower/personnel matters for SSVA and subordinate divisions.
- i. Maintain control of TDY funds.

3. ADMINISTRATION (Indirect)

- a. Typing (inclusive of all associated tasks) and preparing correspondence, reports, plans, etc.
- b. Filing.
- c. Distribution.
- d. Telephone services.
- e. Research (of correspondence, reports, plans, etc.).

6. METHOD(S) FOR DEVELOPING MANPOWER STANDARD (Include code)

7. WORKLOAD FACTOR

8. SOURCE OF COUNT	
FACTOR IDENTIFIED	
<input type="checkbox"/> CORRELATION AND REGRESSION ANALYSIS	COEFFICIENT OF CORRELATION
<input type="checkbox"/> OPERATIONAL AUDIT	STANDARD ERROR

- f. Personnel matters (time and attendance cards, leave, etc.).
- g. Classified document control.
- h. Receive and direct visitors.

10.

CONDITIONS

A. TYPE OF OPERATION

Manual

B. NORMAL HOURS OF OPERATION

0800 - 1645 (45 Minute Lunch)

C. MOVEMENT AND DISTANCE FACTORS

None

D. SPECIAL EQUIPMENT USED

None

E. FATIGUE CONSIDERATIONS

None

F. HAZARDS

None

G. OTHER CONDITIONS

None

H. CONDITIONS RATING FACTOR

Average - .0

11.

COMPUTATION OF STANDARD

ITEMS	AMOUNTS
A. DIRECT TIME	
B. INDIRECT TIME	
C. PRODUCTIVE TIME (A plus B)	
D. LEVELED TIME (C times Leveling Factor )	
E. ALLOWED TIME (D times Allowance Factor )	
F. ADJUSTED WORKLOAD FACTOR VALUE	
G. WORK CENTER TIME STANDARD (E divided by F)	
H. AVERAGE MONTHLY WORKLOAD FACTOR	
I. WORK CENTER MANPOWER STANDARD (G times H divided by 140)	

REMARKS

*William C. Nielsen*

NAME AND TITLE OF FUNCTIONAL REPRESENTATIVE  
WILLIAM C. NIELSEN, Col., USAF  
Director, Agens Directorate

*David L. Calhoun*

NAME AND TITLE OF STANDARDS TECHNICIAN  
DAVID L. CALHOUN, Lt., USAF  
Management Engineering Officer

TAB COMMENTS

Suggested workload factors for the Director's Office are as follows:

WLF # 1: Personnel Supervised

WLF Def: Total personnel authorized in the Directorate.

Source of Count: MAF

WLF # 2: Supervisors

WLF Def: Number of supervisors/deputies authorized in subordinate work centers.

Source of Count: MAF

WLF # 3: AF and NASA Programs

WLF Def: Total number of AF and NASA Programs supported by this Directorate.

Source of Count: Local Records

# MANPOWER PERSONNEL CHART

AGENA DIRECTORATE - DIRECTOR'S OFFICE

WORK CENTER

## AUTHORIZED

<u>AFSC</u>	<u>NUMBER</u>
2926	2
2916	1
70230	1
70250	1
70450	<u>1</u>
	6

## ASSIGNED

<u>AFSC</u>	<u>NUMBER</u>
2926	2
2916	1
70230	1
70250	1
70450	<u>1</u>
	6

## AUTHORIZED

<u>SC</u>	<u>PN</u>	<u>AFSC</u>
WA00 1707	0096	2926
	0243	2926
	0579	2916
	5039	70230
	5038	70250
	5491	70450

## ASSIGNED

<u>AFSC</u>
2926
2926
2916
70230
70250
70450



**WORK CENTER DESCRIPTION**

DATE  
28 May 65

**1. FUNCTION AND SUBFUNCTION**

Agena Launch Vehicle Directorate - Configuration Management Division

**2. WORK CENTER (Include code)**

Configuration Management

**3. COMMAND**

AF Systems Command

**4. ORGANIZATION AND LOCATION**

Headquarters, Space Systems Division  
Los Angeles Air Force Station, California

**5. WORK CENTER DEFINITION**

**1. CONFIGURATION MANAGEMENT (Direct)**  
Responsible for the following:

- a. Configuration management general (as described in Chapters 1 through 4 of new AFSCM 375-1).
- b. Review and process all ECP's including VECP's to insure adequacy, compliance with contractual requirements, validity, cost involved and effectivity points.
- c. Review and process all facilities change requests.
- d. Plan and organize FACI's.
- e. Manage change control of AGE equipment, facilities and space vehicles.
- f. Monitor contractor's configuration management system including the engineering change control system and procedures.
- g. Establish and maintain documentation on configuration, identification and accounting of Agena airborne and ground equipment.
- h. Establish, maintain and monitor the Uniform Specifications Program.
- i. Serve on Configuration Control Board.
- j. Coordinate contractor interface problems.
- k. Coordinate with other governmental agencies.
- l. Assure compliance with or waivers to 375 series.
- m. Develop and initiate work statements.
- n. Review and evaluate contractor proposals.
- o. Establish baseline and follow on configuration.
- p. Assist in definitizing CCN's and contracts.
- q. Evaluate and monitor Milestone Schedules.
- r. Provide configuration management direction for the development of mission peculiar items.
- s. Provide configuration management direction for AGE development.
- t. Special projects.
- u. Develop Memorandums of Agreement associated with AFPR's and other governmental agencies.
- v. Monitor AFPR's effort in configuration management as defined in the Memorandums of Agreement.

**2. MANAGEMENT (Including Supervision and Associated Administration) (Indirect)**

- a. Review correspondence, regulations, etc.
- b. Plan and assign workload.

**6. METHOD(S) FOR DEVELOPING MANPOWER STANDARD (Include code)**

**7. WORKLOAD FACTOR**

**8. SOURCE OF COUNT**

9.

**FACTOR IDENTIFIED**

CORRELATION AND REGRESSION ANALYSIS

COEFFICIENT OF CORRELATION

OPERATIONAL AUDIT

STANDARD ERROR

- c. Attend or hold staff meetings and briefings, board and committee participation, and similar management activities.
- d. Attend to personnel matters (ratings, evaluations, leaves, etc.).
- e. Receive and give instructions.
- f. Phone conversations (related to above).
- g. Release program data and functional information.

3. ADMINISTRATION (Indirect)

- a. Typing (inclusive of all associated tasks) and preparing correspondence, reports, plans, etc.
- b. Prepares, maintains and controls files.
- c. Distribution.
- d. Telephone services.
- e. Research (of correspondence, reports, plans, etc.).
- f. Personnel matters (time and attendance cards, leave, etc.).
- g. Classified document control.
- h. Receive and direct visitors.

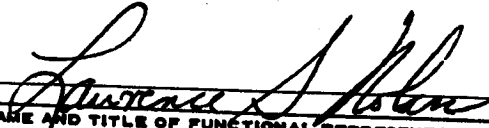
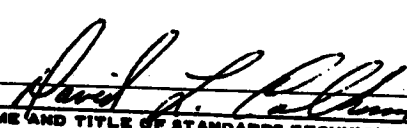
10. CONDITIONS

A. TYPE OF OPERATION <b>Manual</b>	B. NORMAL HOURS OF OPERATION <b>0800 - 1645 (5 day week)</b>
C. MOVEMENT AND DISTANCE FACTORS <b>None</b>	D. SPECIAL EQUIPMENT USED <b>None</b>
E. FATIGUE CONSIDERATIONS <b>None</b>	F. HAZARDS <b>None</b>
G. OTHER CONDITIONS <b>None</b>	H. CONDITIONS RATING FACTOR <b>Average - .0</b>

11. COMPUTATION OF STANDARD

ITEMS	AMOUNTS
A. DIRECT TIME	
B. INDIRECT TIME	
C. PRODUCTIVE TIME (A plus B)	
D. LEVELED TIME (C times Leveling Factor )	
E. ALLOWED TIME (D times Allowance Factor )	
F. ADJUSTED WORKLOAD FACTOR VALUE	
G. WORK CENTER TIME STANDARD (E divided by F)	
H. AVERAGE MONTHLY WORKLOAD FACTOR	
I. WORK CENTER MANPOWER STANDARD (G times H divided by 140)	

REMARKS

 NAME AND TITLE OF FUNCTIONAL REPRESENTATIVE <b>LAWRENCE S. NOLAN, Maj., USAF</b> Chief, Configuration Control Division	 NAME AND TITLE OF STANDARDS TECHNICIAN <b>DAVID L. CALHOUN, Lt., USAF</b> Management Engineering Officer
---	--

TAB COMMENTS

Suggested workload factors for Configuration Control are as follows:

WLF # 1: Engineering Change Proposals  
WLF Def: Number of ECP's processed.  
Source of Count: Local Records

WLF # 2: Configuration Control Board Actions  
WLF Def: Number of CCB evaluations resulting in approval or disapproval actions.  
Source of Count: Local Records.

WLF # 3: First Article Configuration Inspections and Configuration Baseline Determinations (FACI's and CVED's).  
WLF Def: Number of FACI's and CVED's accomplished.  
Source of Count: Local Records

MANPOWER PERSONNEL CHART

CONFIGURATION CONTROL DIVISION

WORK CENTER

AUTHORIZED

<u>AFSC</u>	<u>NUMBER</u>
2916	2
2845B	1
2835A	1
2845A	1
2895B	1
70250	<u>1</u>
	7

ASSIGNED

<u>AFSC</u>	<u>NUMBER</u>
2916	2
2845B	1
2835A	1
2845A	1
2895B	1
70250	<u>1</u>
	7

AUTHORIZED

<u>SC</u>	<u>PN</u>	<u>AFSC</u>
WA00 1734	0257	2916
	0653	2845B
	1061	2835A
	0946	2845A
	1355	2895B
	4543	2916
	5045	70250

ASSIGNED

<u>AFSC</u>
2916
2845B
2835A
2845A
2895B
2916
70250

**WORK CENTER DESCRIPTION**

DATE

21 May 65

**1. FUNCTION AND SUBFUNCTION**

Agens Launch Vehicle Directorate - Vehicle Engineering Division

**2. WORK CENTER (Include code)**

Vehicle Engineering (F/C 6000)

**3. COMMAND**

AF Systems Command

**4. ORGANIZATION AND LOCATION**

Headquarters, Space Systems Division  
Los Angeles Air Force Station, California

**5. WORK CENTER DEFINITION**

**1. SYSTEM MANAGEMENT (Direct)**

- a. Responsible for the overall and detailed management of the Vehicle Engineering Division.
- b. Responsible for technical management and direction of systems contractor effort in the development, engineering and test of the Agens Space Vehicle.
- c. Provide technical support to all Programs using the Agens Vehicle as an ascent or orbital stage.

**2. MANAGEMENT (Including Supervision and Associated Administration) (Indirect)**

- a. Review correspondence, regulations, etc.
- b. Plan and assign workload.
- c. Attend or hold staff meetings and briefings, board and committee participation, and similar management activities.
- d. Attend to personnel matters (ratings, evaluations, leaves, etc.).
- e. Receive and give instructions.
- f. Phone conversations (related to above).
- g. Release program data and functional information.

**3. ADMINISTRATION (Indirect)**

- a. Typing (inclusive of all associated tasks) and preparing correspondence, reports, plans, etc.
- b. Filing.
- c. Distribution.
- d. Telephone services.
- e. Research (of correspondence, reports, plans, etc.).
- f. Personnel matters (time and attendance cards, leave, etc.).
- g. Classified document control.
- h. Receive and direct visitors.

**6. METHOD(S) FOR DEVELOPING MANPOWER STANDARD (Include code)**

**7. WORKLOAD FACTOR**

**8. SOURCE OF COUNT**

9.

**FACTOR IDENTIFIED**

CORRELATION AND REGRESSION ANALYSIS

COEFFICIENT OF CORRELATION

OPERATIONAL AUDIT

STANDARD ERROR

10.

CONDITIONS

A. TYPE OF OPERATION

Manual

B. NORMAL HOURS OF OPERATION

0800 - 1645 (5 day week)

C. MOVEMENT AND DISTANCE FACTORS

None

D. SPECIAL EQUIPMENT USED

None

E. FATIGUE CONSIDERATIONS

None

F. HAZARDS

None

G. OTHER CONDITIONS

None

H. CONDITIONS RATING FACTOR

Average - .0

11.

COMPUTATION OF STANDARD

ITEMS

AMOUNTS

A. DIRECT TIME

B. INDIRECT TIME

C. PRODUCTIVE TIME (A plus B)

D. LEVELED TIME (C times Leveling Factor )

E. ALLOWED TIME (D times Allowance Factor )

F. ADJUSTED WORKLOAD FACTOR VALUE

G. WORK CENTER TIME STANDARD (E divided by F)

H. AVERAGE MONTHLY WORKLOAD FACTOR

I. WORK CENTER MANPOWER STANDARD (G times H divided by 140)

REMARKS

NAME AND TITLE OF FUNCTIONAL REPRESENTATIVE  
CECIL E. RIDDLE, LtCol., USAF  
Chief, Vehicle Engineering Division

NAME AND TITLE OF STANDARDS TECHNICIAN  
DAVID L. CALHOUN, Lt., USAF  
Management Engineering Officer

TAB COMMENTS

Suggested workload factors for Vehicle Engineering are as follows:

WLF # 1: AF and NASA Programs Supported

WLF Def: Total number of AF and NASA Programs supported by this Directorate.

Source of Count: Local Records

WLF # 2: Number of Contractors Monitored

WLF Def: Number of contractors directly monitored.

Source Of Count: Local Records



MANPOWER PERSONNEL CHART

VEHICLE ENGINEERING DIVISION

WORK CENTER

AUTHORIZED

<u>AFSC</u>	<u>NUMBER</u>
2816	1
70450	<u>1</u>
	2

ASSIGNED

<u>AFSC</u>	<u>NUMBER</u>
2816	1
70450	<u>1</u>
	2

AUTHORIZED

<u>SC</u>	<u>PN</u>	<u>AFSC</u>
WA00 1713	0180	2816
	5344	70450

ASSIGNED

<u>AFSC</u>
2816
70450

**WORK CENTER DESCRIPTION**

DATE  
19 May 65

**1. FUNCTION AND SUBFUNCTION**

Agena Launch Vehicle Directorate - Vehicle Engineering Division

**2. WORK CENTER (Include code)**

Electronics (F/C 6000)

**3. COMMAND**

AF Systems Command

**4. ORGANIZATION AND LOCATION**

Headquarters, Space Systems Division  
Los Angeles Air Force Station, California

**5. WORK CENTER DEFINITION**

1. ELECTRONICS (Direct)

- a. Responsible for engineering development and technical management of Agena Vehicle Electrical Power, Guidance and Control, and Communications and Control Sub-systems.
- b. Directs system engineering contractors in development and utilization of power system components and in the integration of complete electrical power systems into flight vehicles.
- c. Technically direct contractor on secondary power matters and support using programs on mission peculiar applications of secondary power.
- d. Monitor use of development test vehicles.
- e. Responsible for the application of secondary power equipment in the Gemini Target Vehicle.
- f. Determine Guidance and Control requirements for the Agena and other satellite vehicles. Support SP programs on special G&C requirements. Direct contractor in development and use of G&C components and integration of complete G&C equipment into flight vehicles.
- g. Provide technical direction on design changes and development programs to contractors of Guidance and Control equipment and review programs, plans, and specifications to insure adequacy of testing, checkout procedures and conformance to requirements.
- h. Analyze test and flight data, participate in exchange of data between government agencies and contractors, and update development work accordingly.
- i. Direct contractor in the integration of Guidance and Control components into a complete subsystem.
- j. Direct contractor on communications and control matters and support the Gemini Target Vehicle program on mission peculiar application of communications and control equipment.
- k. Develop and initiate work statements.
- l. Provide technical inputs to contractor negotiations.
- m. Review and evaluate contractor proposals.
- n. Develop systems performance specifications.
- o. Review and approve contractor equipment and factory test specifications.
- p. Initiate and review funding requirements and revise as necessary.
- q. Prepare and present technical briefings.
- r. Monitor Milestone Schedules.
- s. Attend and present briefings as required.

**6. METHOD(S) FOR DEVELOPING MANPOWER STANDARD (Include code)**

**7. WORKLOAD FACTOR**

**8. SOURCE OF COUNT**

9.

**FACTOR IDENTIFIED**

CORRELATION AND REGRESSION ANALYSIS

COEFFICIENT OF CORRELATION

OPERATIONAL AUDIT

STANDARD ERROR

- t. Special projects.
- u. TDY in support of above.
- v. Review patents and unsolicited proposals.
- 2. MANAGEMENT (Including Supervision and Associated Administration) (Indirect)
  - a. Review correspondence, regulations, etc.
  - b. Plan and assign workload.
  - c. Attend or hold staff meetings and briefings, board and committee participation, and similar management activities.
  - d. Attend to personnel matters (ratings, evaluations, leaves, etc.).
  - e. Receive and give instructions.
  - f. Phone conversations (related to above).
  - g. Release program data and functional information.

- 2. ADMINISTRATION (Indirect)
  - a. Typing (inclusive of all associated tasks) and preparing correspondence, reports, plans, etc.
  - b. Filing.
  - c. Distribution.
  - d. Telephone services.
  - e. Research (of correspondence, reports, plans, etc.).
  - f. Personnel matters (time and attendance cards, leave, etc.).
  - g. Classified document control.
  - h. Receive and direct visitors.

10. CONDITIONS	
A. TYPE OF OPERATION <b>Manual</b>	B. NORMAL HOURS OF OPERATION <b>0800 - 1645 (5 day week)</b>
C. MOVEMENT AND DISTANCE FACTORS <b>None</b>	D. SPECIAL EQUIPMENT USED <b>None</b>
E. FATIGUE CONSIDERATIONS <b>None</b>	F. HAZARDS <b>None</b>
G. OTHER CONDITIONS <b>None</b>	H. CONDITIONS RATING FACTOR <b>Average - .0</b>

11. COMPUTATION OF STANDARD	
ITEMS	AMOUNTS
A. DIRECT TIME	
B. INDIRECT TIME	
C. PRODUCTIVE TIME (A plus B)	
D. LEVELED TIME (C times Leveling Factor )	
E. ALLOWED TIME (D times Allowance Factor )	
F. ADJUSTED WORKLOAD FACTOR VALUE	
G. WORK CENTER TIME STANDARD (E divided by F)	
H. AVERAGE MONTHLY WORKLOAD FACTOR	
I. WORK CENTER MANPOWER STANDARD (G times H divided by 140)	

REMARKS

NAME AND TITLE OF FUNCTIONAL REPRESENTATIVE <b>WILLIAM GREENFIELD, LtCol., USAF</b> Chief, Electronics Branch	NAME AND TITLE OF STANDARDS TECHNICIAN <b>DAVID L. CALHOUN, Lt., USAF</b> Management Engineering Officer
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TAB COMMENTS

Suggested workload factors for Electronics are as follows:

WLF # 1: AF and NASA Programs Supported

WLF Def: Total number of AF and NASA Programs supported by this directorate.

Source of Count: Local Records

WLF # 2: Number of Contractors Monitored

WLF Def: Number of contractors directly monitored.

Source of Count: Local Records

# MANPOWER PERSONNEL CHART

ELECTRONICS BRANCH

WORK CENTER

## AUTHORIZED

<u>AFSC</u>	<u>NUMBER</u>
2816	2
2845D	3
2825A	4
2825B	2
2825C	2
70230	<u>1</u>
	14

## ASSIGNED

<u>AFSC</u>	<u>NUMBER</u>
2816	2
2845D	3
2825A	4
2825B	2
2825C	2
70230	<u>1</u>
	14

## AUTHORIZED

<u>SC</u>	<u>PN</u>	<u>AFSC</u>
WA00 1715	0270	2816
	0655	2816
	0582	2845D
	1494	2825C
	0943	2825A
	0944	2825A
	1172	2825A
	1199	2825A
	1203	2825B
	1207	2825B
	1173	2825C
	1023	2845D

## ASSIGNED

<u>AFSC</u>
2816
2816
2845D
2825C
2825A
2825A
2825A
2825A
2825B
2825B
2825C
2825C
2845D

<u>AUTHORIZED</u>		
<u>SC</u>	<u>PN</u>	<u>AFSC</u>
WA00 1715	1330	2845D
	5041	70230

<u>ASSIGNED</u>
<u>AFSC</u>
2845D
70230

**WORK CENTER DESCRIPTION**

DATE

17 May 65

**1. FUNCTION AND SUBFUNCTION**

**Agna Launch Vehicle Directorate - Vehicle Engineering Division**

**2. WORK CENTER (Include code)**

**Astro Vehicle (F/C 6000)**

**3. COMMAND**

**AF Systems Command**

**4. ORGANIZATION AND LOCATION**

**Headquarters, Space Systems Division  
Los Angeles Air Force Station, California**

**5. WORK CENTER DEFINITION**

**1. VEHICLE (Direct)**

- a. Responsible for engineering development and technical management of Agna Vehicle spaceframe and propulsion sub-systems.
- b. Coordinate the engineering development of Gemini Target Vehicle.
- c. Responsible for development of beryllium skin and doors, fabrication of containment sump, and engineering support of Agna structure.
- d. Responsible for review and evaluation of Aerodynamic and Thermodynamic aspects of Agna and Gemini Target Vehicle structures.
- e. Responsible for development and engineering support of small solid rocket motors.
- f. Responsible for development of multistart rocket engine for Gemini Target Vehicle and for engineering support of Standard Agna engine.
- g. Responsible for development of secondary propulsion system for Gemini Target Vehicle and integration of propulsion subsystem in Gemini Target Vehicle.
- h. Responsible for engineering support of ordnance and pyrotechnic devices, and propellant pressurization system.
- i. Develop and initiate work statements.
- j. Provide technical inputs to contractor negotiations.
- k. Review and evaluate contractor proposals.
- l. Develop and initiate work statements.
- m. Review and approve contractor equipment and factory test specifications.
- n. Initiate and review funding requirements and revise as necessary.
- o. Prepare and present technical briefings.
- p. Monitor Milestone Schedules.
- q. Attend and present briefings as required.
- r. Special projects.
- s. TDY in support of the above.
- t. Review patents and unsolicited proposals.

**2. MANAGEMENT (Including Supervision and Associated Administration) (Indirect)**

- a. Review correspondence, regulations, etc.
- b. Plan and assign workload.
- c. Attend or hold staff meetings and briefings, board and committee participation, and similar management activities.
- d. Attend to personnel matters (ratings, evaluations, leaves, etc.).

**6. METHOD(S) FOR DEVELOPING MANPOWER STANDARD (Include code)**

**7. WORKLOAD FACTOR**

**8. SOURCE OF COUNT**

9.

**FACTOR IDENTIFIED**

CORRELATION AND REGRESSION ANALYSIS

COEFFICIENT OF CORRELATION

OPERATIONAL AUDIT

STANDARD ERROR



- e. Receive and give instructions.
- f. Phone conversations (related to above).
- g. Release program data and functional information.

2. ADMINISTRATION (Indirect)

- a. Typing (inclusive of all associated tasks) and preparing correspondence, reports, plans, etc.
- b. Filing.
- c. Distribution.
- d. Telephone services.
- e. Research (of correspondence, reports, plans, etc.).
- f. Personnel matters (time and attendance cards, leave, etc.).
- g. Classified document control.
- h. Receive and direct visitors.

10. CONDITIONS

A. TYPE OF OPERATION <b>Manual</b>	B. NORMAL HOURS OF OPERATION <b>0800 - 1645 (5 Day week)</b>
C. MOVEMENT AND DISTANCE FACTORS <b>None</b>	D. SPECIAL EQUIPMENT USED <b>None</b>
E. FATIGUE CONSIDERATIONS <b>None</b>	F. HAZARDS <b>None</b>
G. OTHER CONDITIONS <b>None</b>	H. CONDITIONS RATING FACTOR <b>Average - .0</b>

11. COMPUTATION OF STANDARD

ITEMS	AMOUNTS
A. DIRECT TIME	
B. INDIRECT TIME	
C. PRODUCTIVE TIME (A plus B)	
D. LEVELED TIME (C times Leveling Factor )	
E. ALLOWED TIME (D times Allowance Factor )	
F. ADJUSTED WORKLOAD FACTOR VALUE	
G. WORK CENTER TIME STANDARD (E divided by F)	
H. AVERAGE MONTHLY WORKLOAD FACTOR	
I. WORK CENTER MANPOWER STANDARD (G times H divided by 140)	

REMARKS

NAME AND TITLE OF FUNCTIONAL REPRESENTATIVE  
**George W. Watts, Maj., USAF**  
 Chief, Astro Vehicle Branch

NAME AND TITLE OF STANDARDS TECHNICIAN  
**David L. Calhoun, Lt., USAF**  
 Management Engineering Officer

TAB COMMENTS

Suggested workload factors for Astro Vehicle are as follows:

WLF # 1: AF and NASA Programs Supported

WLF Def: Total number of AF and NASA Programs supported by this Directorate.

Source of Count: Local Records

WLF # 2: Number of Contractors Monitored

WLF Def: Number of contractors directly monitored.

Source of Count: Local Records

# MANPOWER PERSONNEL CHART

## ASTRO-VEHICLE BRANCH WORK CENTER

### AUTHORIZED

<u>AFSC</u>	<u>NUMBER</u>
2816	1
2835C	1
2845B	2
2845C	3
70450	<u>1</u>
	8

### ASSIGNED

<u>AFSC</u>	<u>NUMBER</u>
2816	1
2835C	1
2845B	2
2845C	3
70450	<u>1</u>
	8

### AUTHORIZED

<u>SC</u>	<u>PN</u>	<u>AFSC</u>
WA00 1721	0256	2816
	1273	2835C
	1024	2845B
	1025	2845B
	1026	2845C
	1274	2845C
	1358	2845C
	5345	70450

### ASSIGNED

<u>AFSC</u>
2816
2835C
2845B
2845B
2845C
2845C
2845C
2845C
70450

## WORK CENTER DESCRIPTION

DATE  
14 May 65

**1. FUNCTION AND SUBFUNCTION**

Agena Launch Vehicle Directorate - Aerospace Ground Equipment Division

**2. WORK CENTER (Include code)**

Aerospace Ground Equipment (F/C 6000)

**3. COMMAND**

AF Systems Command

**4. ORGANIZATION AND LOCATION**

Headquarters, Space Systems Division  
Los Angeles Air Force Station, California

**5. WORK CENTER DEFINITION**

**1. AGE SYSTEM MANAGEMENT (Direct)**

- a. Manage Air Force Programs for the activation of AF/NASA Agena Program Launch complexes.
- b. Manage satellite systems launch complex conversions.
- c. Accomplish engineering analysis, design, development, test, qualitative and quantitative requirements and timely delivery of all Aerospace Ground Equipment necessary for support of Agena Vehicles.
- d. Attend and review contractor proposal presentations.

**2. MANAGEMENT (Including Supervision and Associated Administration) (Indirect)**

- a. Review correspondence, regulations, etc.
- b. Plan and assign workload.
- c. Attend or hold staff meetings and briefings, board and committee participation, and similar management activities.
- d. Attend to personnel matters (ratings, evaluations, leaves, etc.).
- e. Receive and give instructions.
- f. Phone conversations (related to above).
- g. Release program data and functional information.

**3. ADMINISTRATION (Indirect)**

- a. Typing (inclusive of all associated tasks) and preparing correspondence, reports, plans, etc.
- b. Filing.
- c. Distribution.
- d. Telephone services.
- e. Research (of correspondence, reports, plans, etc.).
- f. Personnel matters (time and attendance cards, leave, etc.).
- g. Classified document control.
- h. Receive and direct visitors.

**6. METHOD(S) FOR DEVELOPING MANPOWER STANDARD (Include code)**

**7. WORKLOAD FACTOR**

**8. SOURCE OF COUNT**

9.

**FACTOR IDENTIFIED**

CORRELATION AND REGRESSION ANALYSIS

COEFFICIENT OF CORRELATION

OPERATIONAL AUDIT

STANDARD ERROR

12.

CONDITIONS

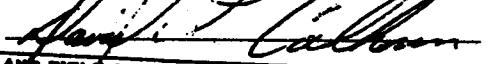
A. TYPE OF OPERATION <b>Manual</b>	B. NORMAL HOURS OF OPERATION <b>0800 - 1645 (5 day week)</b>
C. MOVEMENT AND DISTANCE FACTORS <b>None</b>	D. SPECIAL EQUIPMENT USED <b>None</b>
E. FATIGUE CONSIDERATIONS <b>None</b>	F. HAZARDS <b>None</b>
G. OTHER CONDITIONS <b>None</b>	H. CONDITIONS RATING FACTOR <b>Average - .0</b>

11.

COMPUTATION OF STANDARD

ITEMS	AMOUNTS
A. DIRECT TIME	
B. INDIRECT TIME	
C. PRODUCTIVE TIME (A plus B)	
D. LEVELED TIME (C times Leveling Factor )	
E. ALLOWED TIME (D times Allowance Factor )	
F. ADJUSTED WORKLOAD FACTOR VALUE	
G. WORK CENTER TIME STANDARD (E divided by F)	
H. AVERAGE MONTHLY WORKLOAD FACTOR	
I. WORK CENTER MANPOWER STANDARD (G times H divided by 140)	

REMARKS

NAME AND TITLE OF FUNCTIONAL REPRESENTATIVE <b>ROBERT G. WELLS, Maj., USAF</b> Chief, AGE Division	 NAME AND TITLE OF STANDARDS TECHNICIAN <b>DAVID L. CALHOUN, Lt., USAF</b> Management Engineering Officer
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TAB COMMENTS

Suggested workload factors for Aerospace Ground Equipment Division are as follows:

WLF # 1: AF and NASA Programs Supported

WLF Def: Total number of AF and NASA Programs supported by this Directorate.

Source of Count: Local Records

WLF # 2: Number of Contractors Monitored

WLF Def: Number of contractors directly monitored.

Source of Count: Local Records

MANPOWER PERSONNEL CHART

AGE DIVISION

WORK CENTER

AUTHORIZED

<u>AFSC</u>	<u>NUMBER</u>
2816	1
70450	<u>1</u>
	2

ASSIGNED

<u>AFSC</u>	<u>NUMBER</u>
2816	1
70450	<u>1</u>
	2

AUTHORIZED

<u>SC</u>	<u>PN</u>	<u>AFSC</u>
WA00 1728	0217	2816
	5347	70450

ASSIGNED

<u>AFSC</u>
2816
70450