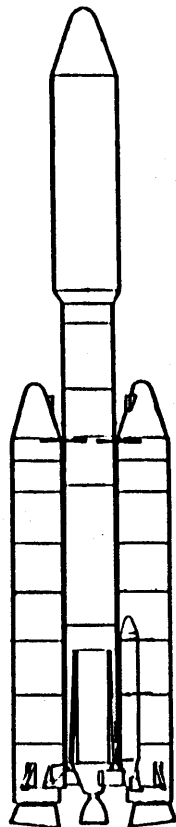


# COMMERCIAL TITAN



**MARTIN MARIETTA**

Declassified and Approved For Release 2012/02/28 : CIA-RDP92B00181R001701610013-1

---

**COMMERCIAL TITAN**  
**SIG SPACE WORKING GROUP**

AEROJET LIQUID ROCKET CO.  
CHEMICAL SYSTEMS DIV./UNITED TECHNOLOGIES  
MARTIN MARIETTA CORP.

**10 JANUARY 1983**

Declassified and Approved For Release 2012/02/28 : CIA-RDP92B00181R001701610013-1

## **PURPOSE OF BRIEFING**

---

CONSIDER THE NEED FOR NATIONAL POLICY CLARIFICATION

EXPLAIN INTERESTS OF MARTIN MARIETTA EI AL. IN THIS POLICY

CONSIDERING:

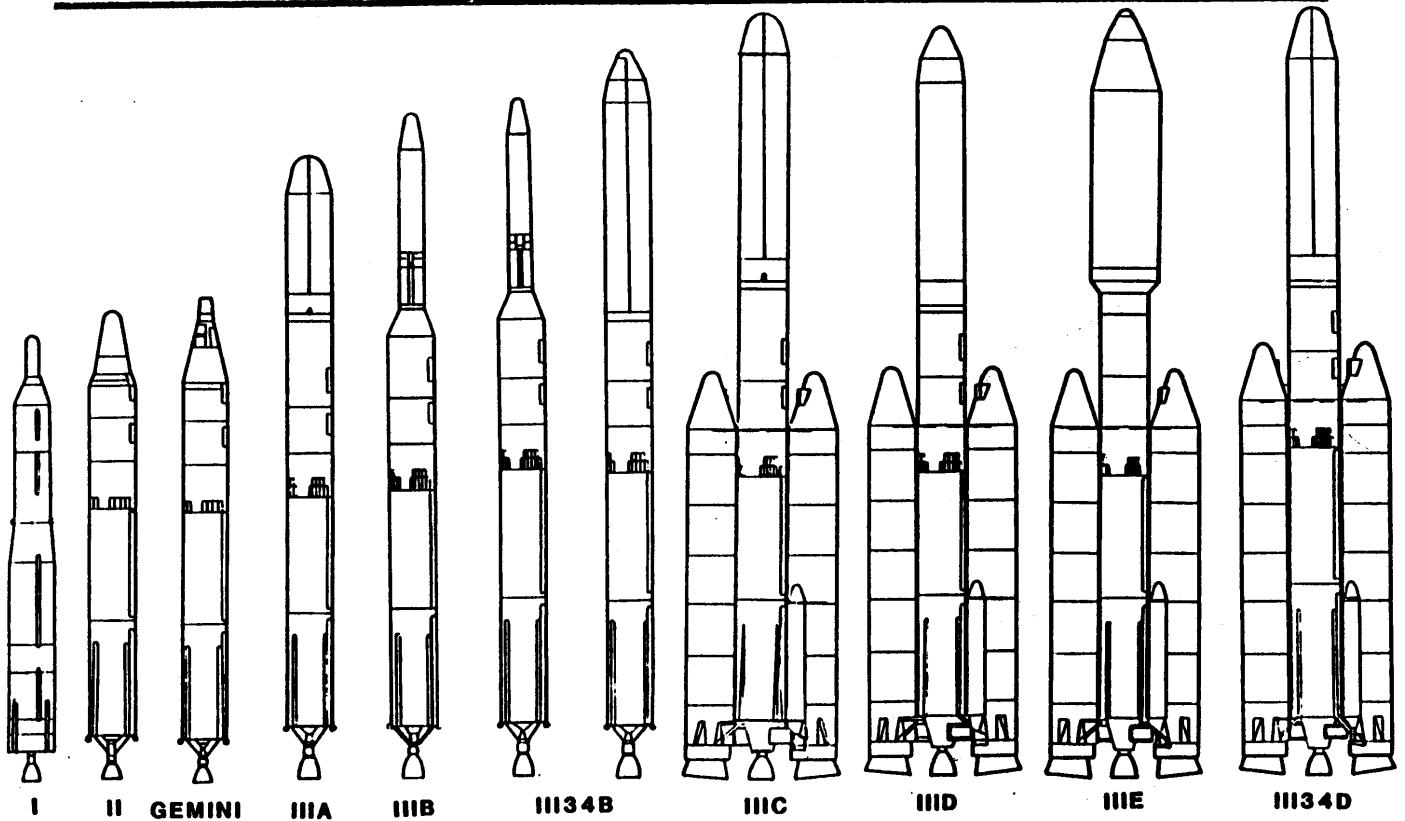
PRESIDENTIALLY ENUNCIATED SPACE POLICY OF JULY 4, 1982

MULTIPLICITY OF NEW AND ESTABLISHED COMPANIES RESPONDING

TIME CONSTRAINTS OF THE NEED FOR POLICY CLARIFICATION

# TITAN CONFIGURATIONS

---



## TITAN EVOLUTION

---

<u>CONFIGURATION</u>	<u>QUANTITY</u>		<u>EVOLUTIONARY STEP</u>
	<u>BUILT</u>	<u>/FLOWN</u>	
TITAN I	163	67	NEW DESIGN LO <sub>2</sub> /RP-1 PROPELLANTS
TITAN II	141	81	CHANGED TO STORABLE A-50/N <sub>2</sub> O <sub>4</sub> PROPELLANTS
GEMINI	12	12	MAN RATED
TITAN IIIA	4	4	ADDED TRANSTAGE
TITAN IIIB	57	55	AGENA UPPER STAGE INSTEAD OF TRANSTAGE
34B	12	8	STRETCHED STAGE I FOR MORE PROPELLANT CAPACITY STRENGTHENED FORWARD SKIRT
TITAN IIIC	36	36	TITAN IIIA WITH 5 SEGMENT SOLID ROCKET MOTORS
TITAN IIID	22	22	SAME AS TITAN IIIC WITH NO UPPER STAGE
TITAN IIIE	7	7	SAME AS TITAN IIID WITH CENTAUR UPPER STAGE AND 14' DIAMETER FAIRING
TITAN 34D	15*	1	INCORPORATE 34B STRETCHED STAGE I AND ADD 1/2 SEGMENT ADDITIONAL PROPELLANT TO EACH SRM. USES EITHER TRANSTAGE OR IUS UPPER STAGE.
TOTAL	<u>469</u>	<u>293</u>	

\*CURRENTLY IN PRODUCTION

## TITAN III OPERATIONAL LAUNCH HISTORY

	CONFIGURATION					TOTAL
	TIIB	TIIC	TIID	TIIE	T34D	
TOTAL LAUNCHED	62	29	22	7	1	121
SUCCESSFUL	61	27	22	7	1	118
PERCENTAGE	98	93	100	100	100	97.5

## TITAN CONTRACTORS AND SUBCONTRACTORS

---

### MARTIN MARIETTA CORP

- MOOG, INC
- CADILLAC - GAGE
- SINGER KERFOT
- ROCKET RESEARCH CO.
- TELEDYNE McCORNACK SELF
- NEW YORK AIRBRAKE
- STAINLESS STEEL PRODUCTS
- SPRAGUE ELECTRONICS
- BABCOCK ELECTRO MECHANICAL
- EAGLE-PICHER
- METAL BELLOWS CORP.
- LEACH CORP.
- ITT CANNON
- HI SHEAR CORP.
- FAIRCHILD STRATOS
- G & H TECHNOLOGY
- GULTON IND.

### CSD

- ROHR
- ALCOA
- WYMAN GORDON

### ALRC

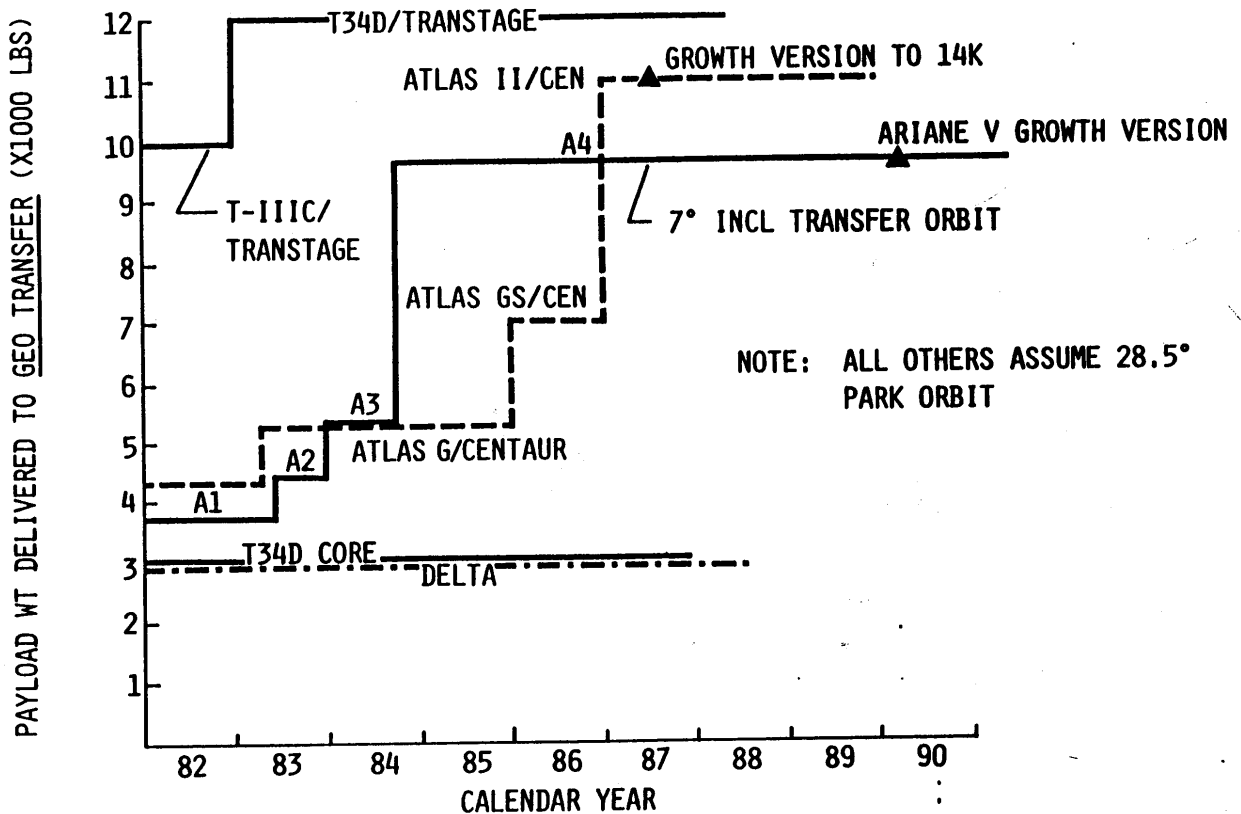
- WESTERN GEAR
- P.E.D. MANUFACTURING
- AIRESEARCH CASTING
- PARAGON PRECISION PRODUCTS
- WESTERN GOLD
- SCARROTT METALLURGICAL
- ADEPT MANUFACTURING
- BELFAB PACIFIC
- STEVENS AIR SYSTEMS
- LAHCO INDUSTRIES
- CONTURA, INC.
- FLUOROCARBON
- ROSEMOUNT, INC.
- ITT NEODYN
- FLEXITALLIC GASKET
- PRECISION COIL

### DELCO ELECTRONICS CORP.

### SCI SYSTEMS, INC.

### ACTRON

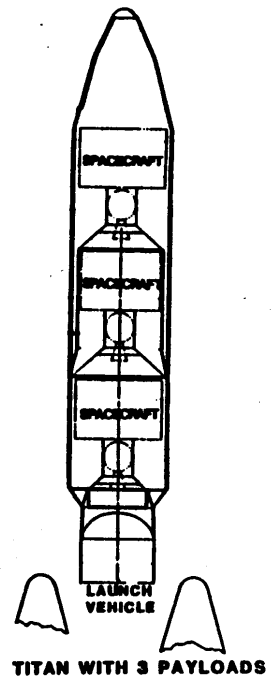
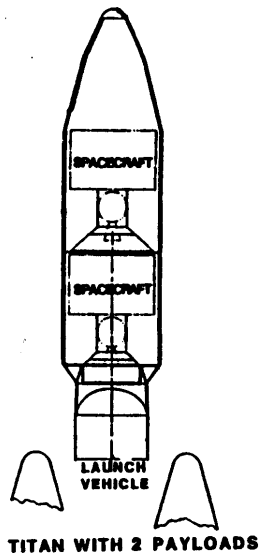
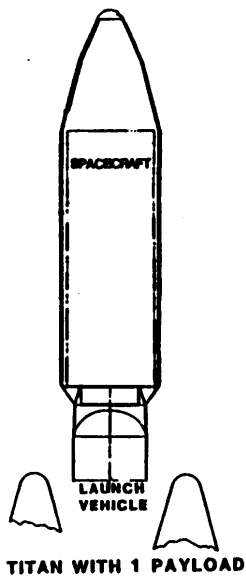
# GEOSTATIONARY TRANSFER CAPABILITY





# CONFIGURATIONS

---

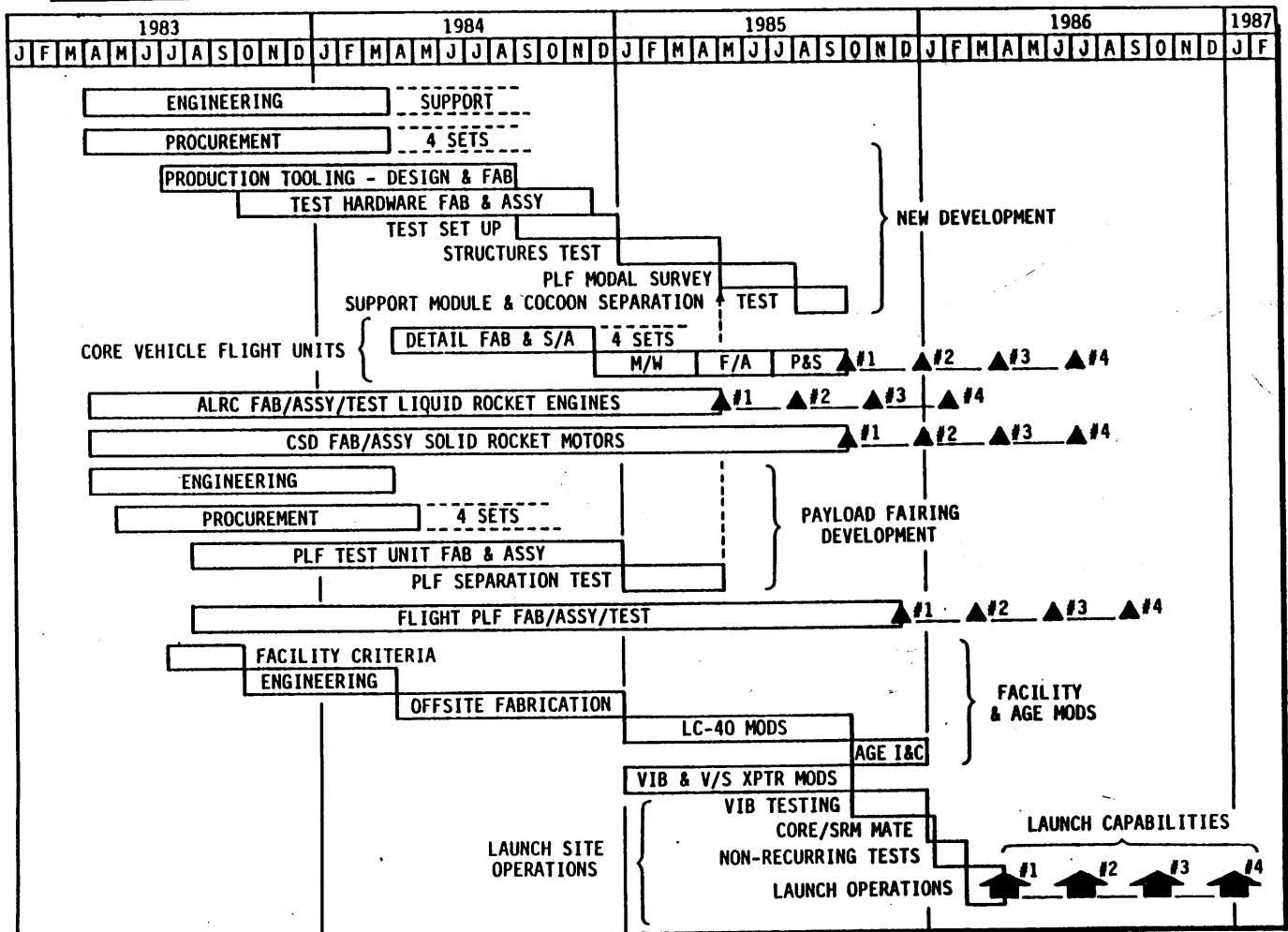


## **COMMERCIAL TITAN PROGRAMMATICS**

---

- FOLLOW-ON PRODUCTION AND LAUNCH TO DOD TITAN PROGRAM
- START PRODUCTION IN 1983
- BUILD OF 4 WITH LAUNCH CAPABILITY IN 1986
- PROVIDE LOW EARTH ORBIT CAPABILITY
- LAUNCH FROM EASTERN SPACE AND MISSILE CENTER

# PROGRAM PLAN



## **SPACETRAN/MARTIN MARIETTA AGREEMENT**

---

- SPACETRAN WILL BUY FOUR TITAN 34-D VEHICLES AND LAUNCH SERVICES FROM MARTIN MARIETTA IN RETURN FOR EXCLUSIVE MARKETING AND SALES RIGHTS FOR NON- U.S. GOVERNMENT TITAN ACTIVITIES UNTIL 01 APRIL 1984.
- SPACETRAN WILL CONTINUE TO HAVE MARKETING AND SALES RIGHTS PROVIDED THEY PROCURE A MINIMUM BUY PER YEAR AFTER 01 APRIL 1984.
- MARTIN MARIETTA WILL CONTRACT FOR BUILD AND LAUNCH OPERATIONS AND WILL BE RESPONSIBLE FOR ANY DOD/NASA SALES FOR U. S. GOVERNMENT USES.
- SPACETRAN WILL PROVIDE ALL NECESSARY INSURANCE COVERAGE.
- MARTIN MARIETTA, AEROJET AND CSD WILL WORK WITH THE U. S. GOVERNMENT REGARDING PROPERTY AND SUPPORT.
- BOTH STRIVE TO PROVIDE STANDARD SHUTTLE/TITAN INTERFACE WITH A GOAL OF PROVIDING A COMMON, EXPENDABLE BACKUP CAPABILITY TO SHUTTLE TO LOW EARTH ORBIT.

## **NATIONAL BENEFIT OF COMMERCIAL ELV'S**

---

- MAINTAINS US LEADERSHIP IN SPACE TRANSPORTATION
- BACKUP FOR STS
  - CIVIL PAYLOADS OFFLOADED DUE TO DOD CRITICAL MISSIONS PRIORITY
  - EMERGENCY DOD BACKUP
- ALTERNATIVE TO FOREIGN ELV'S
- MAINTAIN HIGH TECHNOLOGY INDUSTRIAL BASE
- PROVIDE CAPABILITY TO LAUNCH PAYLOADS NOT ECONOMICALLY FEASIBLE TO MANRATE
- NATIONAL ECONOMIC BENEFIT - JOBS & BALANCE OF PAYMENTS

## **GOVERNMENT BENEFIT OF COMMERCIAL TITAN**

---

- NATIONAL SECURITY VALUE
  - TITAN BUILD AND LAUNCH CAPABILITY MAINTAINED AT LITTLE OR NO EXPENSE TO USG
  - CRITICAL DOD PAYLOAD BACKUP CAPABILITY TO STS
  - ALTERNATIVE LAUNCH CAPABILITY FOR DOD DURING POTENTIAL PERIODS OF HIGH RISK (TO STS) CONFLICT
- ECONOMIC VALUE
  - REDUCES THE USAF TITAN PHASEOUT COSTS
  - PROVIDES POTENTIAL USAF RECOUPMENT OF INVESTMENT IN RESIDUAL TITAN BOOSTERS AND COMPONENTS
  - POTENTIAL CONSUMER OF RESIDUAL TITAN II PROPELLANTS
- ENHANCES CIVIL USER CONFIDENCE IN THE STS
  - TITAN IS THE MOST VERSATILE AND RELIABLE ELV TO SERVE THE CIVIL SECTOR IN THE EVENT DOD EXERCISES PRIORITY USE



## **SPACE POLICY**

---

AMPLIFY CURRENT SPACE POLICY IN TIMELY MANNER

- "CIVIL SPACE PROGRAM"

SUGGESTED ADDITION:

"INCLUDED IN THE CONCEPT OF FACILITATING MORE PRIVATE INVESTMENT AND INVOLVEMENT IN SPACE IS THE AUTHORIZATION AND ENCOURAGEMENT OF COMMERCIALY OPERATED EXPENDABLE LAUNCH SERVICES FROM PREVIOUSLY DEVELOPED USG FACILITIES."



## **PROPERTY AND SERVICES**

---

- LETTER REQUESTS TO SECRETARY V. ORR AND ADMINISTRATOR J. BEGGS
  
- USAF/NASA AGREEMENT TO USE PROPERTY AND SERVICES CURRENTLY SUPPLIED BY THE GOVERNMENT IN SUPPORT OF TITAN BUILD AND LAUNCH
  - DATA
  - TOOLING
  - COMPUTERS
  - SOFTWARE
  - TEST EQUIPMENT
  - FACILITIES
  - RANGE SERVICES

Declassified and Approved For Release 2012/02/28 : CIA-RDP92B00181R001701610013-1

---

ADDENDUM

THE RATIONALE FOR ENABLING COMMERCIALIZATION OF ELV'S

THE RATIONALE FOR ENABLING COMMERCIALIZATION OF ELV'S

A. SERVES THE OBJECTIVES OF THE FEDERAL GOVERNMENT

1. Helps maintain US leadership in space.
  - a. Domestic alternative(s) to foreign ELV.
2. Satisfies the intent of the 1958 Space Act.
  - a. Transfer of publically developed capability to private sector operations.
3. National Security value in maintaining capability to meet presently undefinable possible future needs.
  - a. Catastrophic loss of an orbiter.
  - b. International conflict wherein you don't want to risk the loss of an orbiter and crew in order to put up one satellite.

B. COMPLEMENTS THE SHUTTLE PROGRAM WITHOUT UNDERCUTTING ITS UNIQUE AND VITAL CAPABILITIES

1. Provides backup to STS for civil payload schedule perturbations caused by priority DoD missions.
2. Provides domestic supplemental capability during peak civil and military demand periods not wholly served by extant STS fleet capacity.
3. Provides launch capability for:
  - a. Hazardous payloads.
  - b. Payloads that are neither technically nor economically feasible to manrate to satisfy STS requirements.
4. Reduces the potential cost of erecting a space platform in the 1990's (with STS) by putting non-man in the loop payloads on ELV's and avoiding investment in more orbiters.
5. Enhances the economic viability of STS by making more cost effective use of the orbiter fleet.

**C. ENHANCES THE NATIONAL ECONOMIC BENEFIT**

1. Immediately expands US private sector investment and involvement in civil space.
2. Achieves and enhances further domestic commercial exploitation of USG developed space capability, technologies and systems.
3. Jobs - offers the potential for creation of new jobs over and above the ELV infrastructures.

**D. COMPLEMENTS THE NATIONAL DEFENSE**

1. Helps maintain high technology industrial base thereby minimizing industrial mobilization timelines potentially required for extended conventional warfare conflagration.
2. Provides emergency alternative launch capability for critical DoD missions.

**E. SERVES THE PUBLIC WELFARE**

1. Public derives return on R&D investment in ELV's and facilities through tax revenues derived from provision of services.
2. Domestically satisfies the satellite owner industry demand for dual mode access to orbit.
3. Provides the potential for continued employment of the ELV infrastructure.