



President's Commission On Moon, Mars And Beyond

24-25 MAR 04

Mr. Gary Payton
Deputy For Advanced Systems
Missile Defense Agency



MISSION



- Defend The United States, Deployed Forces, Allies And Friends
- Employ A Ballistic Missile Defense
 System That Layers Defenses To
 Intercept Missiles In All Phases Of Their
 Flight Against All Ranges Of Threat



ELEMENTS



- Collection Of Several Disparate Existing And Future Programs Funded And Managed By Army, Air Force, And Navy
- Now, Elements Brought Together In One Major Program With A Single Mission, Integrated Schedule, Prioritized Funding, And Closely Coordinated Performance Objectives



ELEMENTS

























HISTORICAL APPROACHES



Programs	Definition	System Engineering	System Integration	Element Development
Unprecedented	11 THE			
Manhattan Project				
ICBM, Polaris	NAME OF TAXABLE PARTY.			
Mercury , Safeguard, Apollo, NRO (Early)				
Shuttle	DAY CHEKHASAGE			
U-2 / SR-71				
SDI	M			
Precedented	2.00			
SLBM-Trident				
NRO, C-17				
JSF				

Key

- Government Responsible
- Independent Industry Responsible (Not Element Developer)
- Industry Responsible
- Industry
 Support To
 Government /
 Element
 Developer
- Industry
 Support To The
 Government
 Responsible



SYSTEMS ENGINEERING



- Thorough Trades Analyses Between Elements
 - Accurate Engineering Models
 - Uniform Metrics
 - Cost Models
 - Leads To Budget Decisions And Programatic Direction



SYSTEMS ENGINEERING

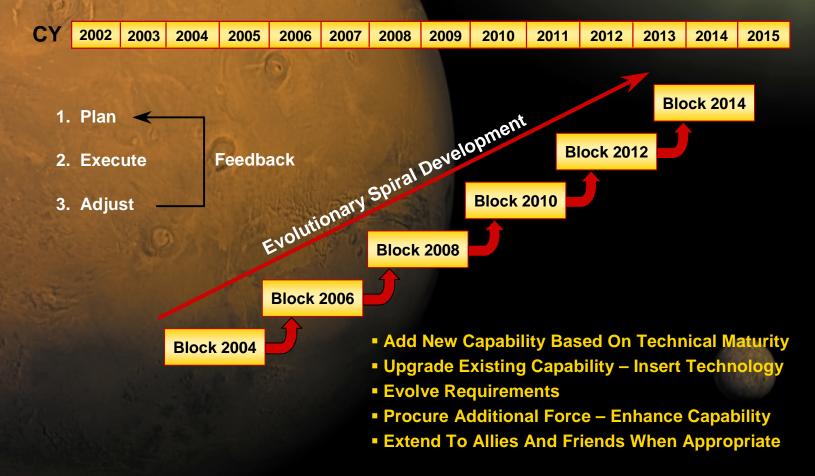


- Ruthless Configuration Control
 - Performance
 - Contracts
 - Budget
- Rigorous Interface Control
 - Hardware
 - Software



BMD EVOLUTIONARY DEVELOPMENT







SPIRAL DEVELOPMENT



- Realistic Demonstrations
- Proven In Representative Test Environment (Stretching From California To Alaska To The Kwajalein Atoll in the Marshall Islands)
- Build Test Learn