RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE: February 2002

BUDGET ACTIVITY: 03 - Advanced Technology Development

PE NUMBER AND TITLE: 0603876F Space Based Laser

PROJECT: 4779

COST ($ in Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4779	Space Based Laser	67,522	0	0	0	0	0	0	0	136,447
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

In FY 2002, efforts were transferred to Ballistic Missile Defense Organization (BMDO).

(U) A. Mission Description

The Space Based Laser (SBL) project was created to investigate the feasibility of providing the nation with a highly effective, continuous, global boost phase intercept option for both national and theater missile defense. An SBL system could defend against missiles without putting the lives of US military personnel at risk. The speed of light defense allows for boost phase intercept at the earliest possible moment, offering the highest probability that intercepted missile fragments (possibly containing active chemical/biological or nuclear materials) will fall within the attacker's territory rather than defended territory. The SBL system could also provide many ancillary mission capabilities, including space control, air defense, global surveillance, and target detection and designation. Beginning with the FY02 budget, all SBL activities and associated funding are transferred to BMDO.

The SBL project is structured to research the feasibility and operational contribution of performing boost phase missile defense from space. The Ballistic Missile Defense Organization (BMDO) directed energy program (Project 1360, PE 0603173C in FY 2000, PE 0603174C in FY 2001 and out) has been addressing several key critical technology issues, such as the Hydrogen Fluoride laser performance and modeling; optics experiments; laser and optics integration; and Acquisition, Tracking, Pointing, and Fire Control (ATP/FC) tests. The combined AF/BMDO budget ends with FY01 funding and for FY02 and out, all funds transfer to BMDO who will fund through space flight testing. The Integrated Flight Experiment (IFX) is a critical step in proving the feasibility of destroying ballistic missiles in their boost phase from space.

Technology risk reduction and component demonstration prior to flight hardware development are important parts of the IFX program. Ground experiments will demonstrate major risk area engineering design units (gain generator, resonator, beam control). The IFX will culminate with space vehicle integration, performance of a series of on-orbit experiments, and demonstration of SBL boost phase intercept feasibility.

The Air Force contributed funds to the Space Based Laser project from FY 1999 - FY2001. This project is classified as Budget Activity 3 because the Integrated Flight Experiment (IFX) is a technology demonstration.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE: February 2002
BUDGET ACTIVITY: 03 - Advanced Technology Development	PE NUMBER AND TITLE: 0603876F Space Based Laser	PROJECT: 4779

(U) A. Mission Description Continued

(U) FY 2001 ($ in Thousands)

(U)	$59,821	Continued IFX Development
(U)	$500	Continued Advanced Mirror System Development
(U)	$250	continued Lethality, Analysis & Architecture (AFSPC and AFRL efforts)
(U)	$6,950	Provided IFX Program Support
(U)	$67,521	Total

(U) FY 2002 ($ in Thousands)

(U)	$0	No activity - Program transferred to BMDO effective in FY02
(U)	$0	Total

(U) FY 2003 ($ in Thousands)

(U)	$0	No Activity - Program transferred to BMDO effective FY02
(U)	$0	Total

(U) B. Budget Activity Justification

This PE is in Budget Activity 3 (Advanced Technology Development) because it is performing technology development and risk reduction activities on the path to an Integrated Flight Experiment (IFX).

(U) C. Program Change Summary ($ in Thousands)

		FY 2001	FY 2002	FY 2003	Total Cost
(U)	Previous President's Budget	72,544	0	0	TBD
(U)	Appropriated Value	73,216	0		
(U)	Adjustments to Appropriated Value				
	a. Congressional/General Reductions	-513			
	b. Small Business Innovative Research	-5,023			
	c. Omnibus or Other Above Threshold Reprogram				
	d. Below Threshold Reprogram				
	e. Rescissions	-159			
(U)	Adjustments to Budget Years Since FY 2002 PBR				

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE: February 2002
BUDGET ACTIVITY: 03 - Advanced Technology Development	PE NUMBER AND TITLE: 0603876F Space Based Laser	PROJECT: 4779

(U) C. Program Change Summary ($ in Thousands) Continued

		FY 2001	FY 2002	FY 2003	Total Cost
(U)	Current Budget Submit/FY 2003 PBR	67,521	0	0	TBD

(U) Significant Program Changes:
FY01: $10M congressional add in FY 2001 to support acceleration of the IFX and its integrated test facility (included under IFX development).
FY02 and out: All funds transferred to BMDO

(U) D. Other Program Funding Summary ($ in Thousands)

(U) RDT&E, BMDO, R-29, Support Technologies-Adv Tech Dev

(U) E. Acquisition Strategy

Not Required

(U) F. Schedule Profile

(U) Not Required