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## FISCAL IMPACT REPORT

ORIGINAL DATE 1/23/06  
 LAST UPDATED 1/25/06      HB 176

SPONSOR Marquardt

SHORT TITLE NMSU National Solar Observatory      SB \_\_\_\_\_

ANALYST Dearing

### APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Non-Rec	Fund Affected
FY06	FY07		
	\$300.0	Non-Recurring	General Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

Duplicates SB 76

Relates to:

- SB1      General Appropriation act of 2006
- SB 3      New Mexico Space Grant Consortium
- SB38      NMSU Aerospace Engineering Programs
- SB119      NMSU Science, Math & Engineering Academy
- SB120      NMSU Aerospace Engineering Department
- SB 121      NMSU Space & Aerospace Research Program
- HB7      General Appropriation act of 2006
- HB 140      New Mexico Space Grant Consortium
- HB154      NMSU Aerospace Engineering Program
- HB158      NMSU Science, Math & Aerospace Academy
- HB159      NMSU Space and Aerospace Research Program
- HB167      Create NMSU Aerospace Research Program

### SOURCES OF INFORMATION

LFC Files

#### Responses Received From

New Mexico State University (NMSU)  
 Higher Education Department (HED)

### SUMMARY

#### Synopsis of Bill

House Bill 176 appropriates \$300,000 from the general fund to New Mexico State University Board of Regents for the purpose of developing architectural plans for a laboratory/headquarters

center for the National Solar Observatory (NSO) on the campus at NMSU.

### **FISCAL IMPLICATIONS**

The appropriation of \$300,000 contained in this bill is a non-recurring expense to the general fund. Any unexpended or unencumbered balance remaining at the end of fiscal year 2007 shall revert to the general fund.

NMSU did submit a Research and Public Service Project request to the New Mexico Higher Education Department (NMHED) for \$75,000 General Fund base expansion for the Apache Point Observatory whose facilities include the National Solar Observatory. The proposal was submitted to NMHED but was not recommended for expansion.

According to Higher Education Department analysis, the NSO is going to consolidate its operations at a single university. New Mexico is in jeopardy of losing this facility. If it moves to another state, New Mexico will lose \$125M in economic impact over each 5-year period and 175 permanent jobs. In contrast, its consolidation at NMSU will dramatically improve the stature of NMSU as a world-class scientific and technological center, will attract scientists from around the world to southern New Mexico who are experts in science and engineering, will improve the competitiveness of NMSU for external grants and top quality graduate students, will enhance synergies between NMSU and Los Alamos and Sandia National Laboratories, White Sands Missile Range, and the New Mexico Spaceport. Its addition will also augment NMSU outreach efforts to increase the numbers of students entering technology focused fields.

### **SIGNIFICANT ISSUES**

The headquarters of the National Solar Observatory (NSO) is currently located in Sunspot, New Mexico, but its staff live in several places around the world. Over the next few years, the NSO plans to consolidate its operations at a single university. Several universities have expressed an interest in moving this facility to their state. This Bill requests \$300,000 to develop an architectural plan for a 57,000 sq ft building at New Mexico State University that could serve as the NSO headquarters and as a campus education/research center.

According to NMSU analysis, it is anticipated that this building could be completed by 2010 at a cost of \$24M. A future appropriation of up to \$6 million in State money would be matched by an \$18 million Federal matching grant. The NSO is entirely supported by federal appropriations, and, its yearly program operations should not require state funds.

Currently, there is a multi-state bidding process for the consolidated headquarters of the NSO.

Current impact due to the Sunspot location is approximately \$30 million annually and 50 jobs.

### **PERFORMANCE IMPLICATIONS**

The outcome measure of this bill will be the completion of an architectural plan.

### **ADMINISTRATIVE IMPLICATIONS**

The NSO is entirely supported by federal appropriations. Its yearly operation should not require

state funds.

## **CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP**

Duplicates SB 76

Relates to:

<u>SB1</u>	<u>General Appropriation act of 2006</u>
<u>SB 3</u>	<u>New Mexico Space Grant Consortium</u>
<u>SB38</u>	<u>NMSU Aerospace Engineering Programs</u>
<u>SB119</u>	<u>NMSU Science, Math &amp; Engineering Academy</u>
<u>SB120</u>	<u>NMSU Aerospace Engineering Department</u>
<u>SB 121</u>	<u>NMSU Space &amp; Aerospace Research Program</u>
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<u>HB 140</u>	<u>New Mexico Space Grant Consortium</u>
<u>HB154</u>	<u>NMSU Aerospace Engineering Program</u>
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<u>HB167</u>	<u>Create NMSU Aerospace Research Program</u>

This bill relates to the aforementioned list of proposed legislation. This list of related bills has in common the request to appropriate funding for programs that directly relate to: aerospace, aerospace engineering degree programs, and NMSU technical, scientific, mathematics, and research programs.

## **OTHER SUBSTANTIVE ISSUES**

According to Higher Education Department, The NSO has a separate budget for K-12 programs that could be coordinated with NMSU K-12 initiatives to maximize their effectiveness throughout all of southern NM. The NSO also provides research support and mentoring for graduate students in science in engineering.

In general, the costs of insuring satellites while in space have greatly increased recently due to substantial losses incurred from solar wind and other space weather phenomena. The effects of space weather have recently become an important consideration for companies and government entities that have extremely expensive satellites in orbit. The National Solar Observatory's role is expected to increase in the near future, as the need to predict solar weather becomes a more pressing issue.

## **WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL**

According to the Higher Education Department, The NSO will relocate to another state. New Mexico will lose \$125M in economic impact over each 5-year period and 175 high paying jobs. NMSU will lose the opportunity of establishing graduate programs, at very little cost, in solar astronomy and advanced instrumentation. NMSU will lose the opportunity of being recognized as a world-wide leader in an increasingly important field of study (solar activity and space weather). A valuable opportunity for attracting highly talented undergraduate and graduate students to NMSU will be lost. New Mexico will lose a self-sustaining asset. Additionally, the current level of economic impact to the State, approximately 50 jobs and \$30 million annually, could be impaired.

**POSSIBLE QUESTIONS**

Will there be any additional costs associated with the bidding process, in addition to this appropriation, aside from a future building appropriation to be matched with federal monies.

PD/nt