

CHAPTER 8

PUBLIC COMMENTS AND RESPONSES

8.0 PUBLIC COMMENTS AND RESPONSES

8.1 INTRODUCTION

The MDA has complied with the NEPA mandate of public participation in the environmental impact analysis process primarily in three ways:

- Public scoping meetings were held at the following locations at which the MDA presented an overview of the ABL program, described the Proposed Action and alternatives, and invited public comments:
 - Lancaster, California on 1 April
 - Lompoc, California on 3 April
 - Albuquerque, New Mexico on 15 April
 - Las Cruces, New Mexico on 17 April.
- Public hearings were held at the following locations at which the MDA presented the findings of the Draft SEIS and invited public comments:
 - Lancaster, California on 15 October
 - Lompoc, California on 17 October
 - Albuquerque, New Mexico on 22 October
 - Las Cruces, New Mexico on 24 October.
- The Draft SEIS was made available for public review and comment in September and October 2002.

Public comments received both verbally at the public meetings and in writing during the review period have been considered and are addressed by the MDA in this section.

8.2 ORGANIZATION

This Public Comment and Response section is organized into several subsections, as follows:

- This Introduction, which describes the process, organization, and approach taken in addressing public comments
- A consolidated comment-response document
- An index of commentors
- A transcript of the public hearings
- Photocopies of all written comments received.

These sections are described below.

Comments received that are similar in nature or address similar concerns have been consolidated to focus on the issues of concern, and a response is provided that addresses all of the similar comments. Some comments simply state a fact or opinion; for example “the Draft SEIS adequately assesses the

impacts on [a resource area].” Such comments, although appreciated, do not require a specific response and are not called out herein. The comments and responses are grouped by area of concern, as follows:

- 1.0 MDA Policy
- 2.0 Purpose and Need for Action
- 3.0 Alternatives Including the Proposed Action
- 4.0 Local Community
- 5.0 Airspace
- 6.0 Hazardous Materials and Hazardous Waste Management
- 7.0 Health and Safety
- 8.0 Water Resources
- 9.0 Air Quality
- 10.0 Noise
- 11.0 Biological Resources
- 12.0 Cultural Resources
- 13.0 Socioeconomics

Within each area, each consolidated comment-response is numbered sequentially. For example, under 7.0 Health and Safety, individual comments-responses are numbered 7.1, 7.2, etc. At the end of each numbered comment-response is a set of numbers that refer to the specific comment in the documents received that were combined into that consolidated comment. The numbers of the individual comments are indicated in parentheses (e.g., 3-2, 6-2, 14-1). Comment 3-2, for example, refers to document 3, comment number 2. A reader who wishes to read the specific comment(s) received may turn to the photocopies of the documents included in this section. Below each comment number is the number of the consolidated comment in which the specific comment has been encompassed (e.g., 7.1). Thus the reader may reference back and forth between the consolidated comments-responses and the specific comment documents as they were received.

It should be emphasized that not only have responses to SEIS comments been addresses in this comment-response section, as explained, but the text of the SEIS has also been revised, as appropriate, to reflect the concerns expressed in the public comments.

The list of commentors includes the name of the commentor, the identifying document number that has been assigned to it, and the page number in this section on which the photocopy of the document is presented.

1.0 MDA Policy

- 1.1 Comment: Opposed to the Airborne Laser (ABL) program. (3-6, 6-1, 9-2, 13-3, 14-4, 16-4)

Response: The Secretary of Defense has directed the Missile Defense Agency (MDA) to develop a capability to defend the United States, deployed forces, U.S. allies, friends, and areas of vital interest from ballistic missile attack. In response, MDA is developing the Ballistic Missile Defense System (BMDS) to provide layered defense. The ABL is an element of the BMDS.

- 1.2 Comment: The ABL is a misuse of military forces as it could migrate from a defensive weapon to an offensive weapon. (3-12, 13-1)

Response: The ABL system is one element of the MDA's BMDS, which is intended to provide an effective defense for the United States, its deployed forces, and its friends and allies from limited missile attack. The ABL is a defensive weapon system that is designed to spot, track, engage, and destroy missiles during the boost phase when a missile is under power and is being thrust skyward by its rocket engines. Using a weapons-class laser, the missile would be destroyed during the initial boost phase, shortly after being launched. The ABL is not designed as an offensive weapon.

- 1.3 Comment: The development and implementation of the ABL and other missile defense systems and accompanying technologies is in conflict with federal environmental policy. (6-5)

Response: The SEIS analyzes the potential effects of implementing the Proposed Action and alternatives in relation to the human environment in accordance with the National Environmental Policy Act (40 CFR Part 1508.14). The phrase "human environment" includes the natural and physical environment and the relationship of people with that environment.

- 1.4 Comment: More public hearings should be conducted with advanced notices distributed in the major and minor media. (9-1, 10-1, 15-1)

Response: A public scoping meeting and a public hearing was conducted near each of the four installations at which ABL test activities could occur. Public notice of these meetings was published as paid advertisements in local newspapers. The paid advertisement offers better notification because the notice is within the body of the newspaper rather than in the public notice section at the back of the newspaper. In addition to the newspaper notifications, installation public affairs released press releases to the media notifying them of the upcoming meetings. Based on the effort to notify the public, no further public hearings are scheduled.

2.0 Purpose and Need for Action

No comments were received for this area of concern.

3.0 Alternatives Including the Proposed Action

- 3.1 Comment: Section 2.2.1 should state that ground testing from Holloman Air Force Base (AFB) would occur across the National Monument and would require closure and evacuation of the public. (12-1)

Response: Text has been added to Section 2.1.1 to indicate that ground testing from Holloman AFB across the White Sands National Monument would require closure and evacuation of the public.

4.0 Local Community

No comments were received for this area of concern.

5.0 Airspace

No comments were received for this area of concern.

6.0 Hazardous Materials and Hazardous Waste Management

- 6.1 Comment: Unexploded ordnance is a concern in other countries and this program could result in unexploded ordnance in other countries. (3-7)

Response: During the ABL test program no explosive warheads would be installed on the target missiles; therefore, no unexploded ordnance would result from test activities. Impacts of unexploded ordnance in other countries as a result of deploying the ABL aircraft during war times is beyond the scope of the SEIS.

- 6.2 Comment: What hazardous waste would be produced and how would it be disposed of. (3-15)

Response: The estimated quantities of wastes generated during ABL test activities is presented in Table 2.2-4 of the SEIS. Each installation where test activities would occur has policies and procedures in place to dispose of hazardous waste and spill prevention control and countermeasure plans in the event a release did occur. The policies and procedures for managing hazardous waste at each installation are presented in Sections 3.1.3, 3.2.3, 3.3.3, and 3.4.3.

- 6.3 Comment: Even a small amount of hazardous material when factored into the total toxicity levels in our environment, local, statewide, and national is unacceptable. (7-1)

Response: ABL test activities would be conducted in accordance with a hazardous materials management program and pollution prevention program to ensure environmental compliance, and to minimize the use of hazardous materials. Each installation where test activities would occur currently has policies and procedures in place to manage hazardous materials and spill prevention, control, and countermeasures in place in the event of a release. Table 2.2.2 of the SEIS provides the estimated quantities of chemical storage at Edwards AFB during the ABL test program. Because Edwards AFB has been designated as the Home Base, this is the only installation that will store bulk quantities of ABL laser chemicals. Spill prevention, control, and countermeasure procedures, methods, and equipment have been developed and implemented for the ABL system in coordination and compliance with Edwards AFB hazardous materials/waste

storage and transfer areas. The other test installations would not store ABL laser fuels, only existing stores of hazardous materials would be used to support ABL test activities (e.g., fuel to power generators, solvents, household cleaners). The hazardous materials policies and procedures for each installation are presented in Sections 3.1.3, 3.2.3, 3.3.3, and 3.4.3.

- 6.4 Comment: The Air Force should address the potential applicability of Toxic Reporting Inventory (TRI) requirements under the Emergency Planning and Community-Right-to-Know Act (EPCRA), the Pollution Prevention Act, and Executive Order 13148 at facilities in the United States where ABL chemicals are proposed for storage such as at Edwards AFB. (11-1, 11-3)

Response: Table 1.5.1, Environmental permits and Licenses, has been revised to include EPCRA, the Pollution Prevention Act, and Executive Order 13148.

- 6.5 Comment: The FEIS and amended record of decision should identify whether there are known readily available, less harmful substitutes for identified applications and purposes (i.e., less toxic substances to carry out ABL testing activities). (11-2)

Response: ABL test activities would be conducted in accordance with a hazardous materials management program and pollution prevention program to ensure environmental compliance, and to minimize the use of hazardous materials. The chemicals identified for use in the ABL systems are specifically designed for the effective operation of the chemical oxygen iodine laser (COIL). No other chemicals have been identified that could be used in place of those designed for the ABL system.

7.0 Health and Safety

- 7.1 Comment: What is the potential for harm to the public if there is an accident of the ABL aircraft? (3-1, 3-2, 3-5)

Response: The potential for an accident of the ABL aircraft is presented in Appendix C of the 1997 FEIS for the ABL program. According to the analysis, the probability of an accident that severely damages the hull of the aircraft, creating the possibility of a rupture of the laser fuel tanks, is less than one in a million. Historically, 80 percent of the catastrophic accidents of the Boeing 747-400 have occurred during the takeoff, initial climb, initial approach, final approach, and landing phases of the aircraft. These phases constitute 10 percent of the flight time of an average mission (approximately 18 minutes of a 3-hour flight). The analysis focused on the takeoff and initial climb out of the ABL aircraft because the aircraft would be returning to the Home Base (Edwards AFB) with smaller amounts of laser fuel and jet fuel due to completion of test activities. If a catastrophic accident occurs during the high-speed portion of a takeoff, before the aircraft left the ground, or during the initial climb out of the aircraft, the laser fuel tanks may rupture and contribute to a fire or explosion. In both scenarios, the greatest concern for the public would be the possible uncontrolled release or formation of toxic chemicals as a result of the crash and fire. Studies of aircraft crash scenarios have shown that approximately two thirds of the aircraft fuel would be consumed in the initial fireball, the remaining fuel would pool in the crater caused by the aircraft impact and then burn. Since hydrogen peroxide and ammonia are oxidizers (chemicals that promote combustion) and chlorine, helium, and nitrogen are gases, the chemicals stored as laser fuel are expected to be consumed in the initial fireball. The initial fireball would last approximately 5 minutes, where as the remaining one third of the aircraft fuel could burn for several hours. If the accident occurred during the initial, low speed portion of the takeoff, resulting in the aircraft fuselage contacting the runway but not rupturing, any releases

involving the laser fuel would be confined behind a pressure bulkhead. The crew of the aircraft could safely evacuate the aircraft and any releases of laser fuel chemicals could be vented in a controlled manner, preventing the formation of toxic concentrations, or pumped into containers for disposal (U.S. Air Force, 1997a). The probability of the low speed accident is less than one in a million. This type of accident would occur within the installation boundaries and contained by base personnel. The public would not be involved and only minor on-site contamination would be anticipated.

- 7.2 Comment: The ABL technology is dangerous because it can be directed upward or downward. (3-3)

Response: During ABL flight testing activities, the geometry of the tests would preclude operation of the laser, except at a horizontal or upward angle. The ABL aircraft would fly at an altitude above 35,000 feet. The laser systems would be directed above horizontal and track targets in an upward direction to eliminate potential ground impact. Based upon this scenario, it has been calculated that if a laser beam misses the target, the beam trajectory would be such that the beam would depart the controlled airspace above the pre-approved altitude as coordinated with the Federal Aviation Administration (FAA). The ABL system would not be directed downward during test activities.

- 7.3 Comment: Testing the ABL near civilian populations is not appropriate. (3-8)

Response: Ground-testing activities are designed to be conducted within the installation boundaries and would be conducted in areas with no civilian populations. Flight-testing activities are designed to take place over established military ranges and within established restricted military operations areas. These specific areas are used to reduce the possibility of civilians being impacted during testing. In cases where civilian populations could be impacted by testing activities, previously established policies and procedures are in place to ensure test areas are cleared of civilians before testing is conducted (e.g., road closures, notice to airmen, notice to mariners). A discussion of safety procedures employed by the installations during proposed ABL test activities is presented in Sections 3.1.4, 3.2.4, 3.3.4, and 3.4.4.

- 7.4 Comment: Testing the ABL at Kirtland AFB will make Albuquerque a first strike target. (3-11, 3-14)

Response: No evidence of heightened attack from testing the ABL at an existing military installation has been identified.

- 7.5 Comment: The airborne laser system is part of a group of weapons systems that require the use of controversial communications technologies to track targeted moving objects. These transmissions have proven adverse physiological affects. The environmental impact report must show the local incidences of these physiological affects compared to incidence in areas not exposed to the acoustic bombardment. (6-2)

Response: The ABL aircraft uses standard communications equipment to maintain contact with ground locations. The potential effects of the use of ground-based radar systems throughout the world to aid in identifying missile launches when the ABL aircraft is commissioned to active service is beyond the scope of analysis of this SEIS. This SEIS addresses the test phase of the ABL aircraft only.

7.6 Comment: Section 3.3.4.2 discussion regarding debris recovery operations and restoration should indicate that activities would be conducted under terms of a special use permit issued by the National Park Service at White Sands National Monument.

Response: Text has been added to Section 3.3.4.2 to indicate that any debris recovery and restoration activities within the White Sands National Monument would be conducted under terms of a special use permit issued by the National Park Service at White Sands National Monument.

7.7 Comment: It is possible for safety measures to fail during test activities. This poses a high risk for safety and health of the area. (14-1, 14-2, 16-1, 16-2)

Response: Sections 3.1.4, 3.2.4, 3.3.4, and 3.4.4 describe the mechanisms that would be in place to ensure a safe environment to conduct ABL test activities. These mechanisms include interlocks to ensure the laser beam is only directed at the target; the interlock system would shut off the laser if it deviates from the intended path to the target.

8.0 Water Resources

8.1 Comment: The influx of 50 people (50 families) to the Albuquerque area could have an adverse effect on the regions aquifer. (3-4, 3-9)

Response: The estimated 50 temporary personnel that would be present during the ABL test period at Kirtland AFB are not anticipated to have an adverse effect to the regions water supply. The 50 personnel would be in the region on a temporary basis (approximately 2 weeks) and would not be new permanent residents in the region. Based on an average per capita consumption of 110 gallons per day, an estimated 77,000 gallons of water would be consumed by the 50 test personnel during the 2-week test period. This is a small fraction of the 448,607 population of Albuquerque, which would equate to approximately 690,844,000 gallons of water consumed in a two-week period.

8.2 Comment: Permittees should amend the existing Storm Water Pollution Prevention Plans to incorporate any additional activities and pollutant controls dictated by the Proposed Action. (5-1)

Response: As appropriate, the installations would amend their existing storm water pollution prevention plans to accommodate the proposed ABL test activities.

9.0 Air Quality

No comments were received for this area of concern.

10.0 Noise

No comments were received for this area of concern.

11.0 Biological Resources

- 11.1 Comment: The Wright's fishhook cactus (*Mammillaria wrightii*) does not occur on Kirtland AFB nor is it listed as federally endangered. Check the species list provided in Appendix E. (12-4, 12-5)

Response: The species discussed in the SEIS are those known or suspected to occur at Kirtland AFB and White Sands Missile Range, the lists provided by the U.S. Fish and Wildlife Service (USFWS) is for species occurring within the respective counties that the installations are within. The text and tables in the SEIS have been revised as appropriate based on the USFWS list and installation specific species lists provided by the installations.

- 11.2 Comment: The discussion regarding potential effects of ground-testing activities on biological resources is vague. It is unclear what types of injury, what types of laser energy produce the injuries, and under what conditions impacts to wildlife may occur. (12-6)

Response: Text has been added to clarify that precautions would be in place to prevent the laser energy from straying from the intended target to further protect biological resources from being affected during test activities.

- 11.3 Comment: The statement regarding ground- testing activities being conducted, to the extent possible, outside of the migratory waterfowl season to minimize impacts should not be limited to waterfowl. (12-7)

Response: Text has been revised to not limit migratory bird species to only waterfowl.

12.0 Cultural Resources

No comments were received for this area of concern.

13.0 Socioeconomics

- 13.1 Comment: The influx of 50 people would cause an economic impact. (3-9)

Response: The potential impact to socioeconomics as a result of the ABL test program are presented in Sections 3.1.9, 3.2.9, 3.3.9, and 3.4.9. The estimated 50 temporary personnel that would be present during the ABL test period would have a small, positive, yet largely unnoticeable effect on socioeconomics in the local communities near the installations.

- 13.2 Comment: The ABL program could have a national and international effect to socioeconomics. (3-13)

Response: The areas evaluated for potential socioeconomic impacts as a result of ABL test activities are those communities in the immediate vicinity of the test installations that would most likely host the personnel associated with ABL test activities. These areas include the local communities surrounding Edwards AFB, Kirtland AFB, White Sands Missile Range/Holloman AFB, and Vandenberg AFB. The estimated 50 temporary personnel that would be present during the test period would have a small, positive, yet largely unnoticeable effect on the socioeconomics in the local communities. Because ABL test activities are only proposed at

installations in California and New Mexico, national or international socioeconomic effects are not anticipated.

- 13.3 Comment: The effects of the development of the ABL system on economic and social environments would be detrimental. The ABL system poses a serious mental health threat and jeopardizes our children's future economic stability. The environmental impact report must include a study of the psychic effects on children of financial instability and the anticipation of violence. (6-3) (6-4)

Response: The analysis of psychic effects of financial instability and the anticipation of violence is beyond the scope of the SEIS. No known financial instability or violence is anticipated from conducting tests of the ABL system.

- 13.4 Comment: Section 3.3.9.1 does not mention that White Sands National Monument has an annual public use of over 500,000 visitors and is the most visited National Park Service site in New Mexico. Also, the impacts analysis in Section 3.3.9.2 should state that ground-based laser testing from Holloman AFB would significantly increase closures of public use of the National Monument, resulting in inconvenience to the public. (12-3)

Response: Text has been added to Section 3.3.9 regarding annual visitation to White Sands National Monument and the short-term increase of closures from public use of the National Monument, resulting in inconvenience to the public.

- 13.5 Comment: There will be an impact to California commercial and recreational fishing, especially below the Western Range. Ocean vessels must be notified in advance of potential hazards. Flight tests may require the closure of one or more of the state or national parks, thus disrupting activities in the area and calling to question environmental impacts of these areas. (13-2, 14-3, 16-3)

Response: Section 3.4.9 addresses the potential effects to commercial and recreational fishing off the California coast. Section 3.4.4 discusses the existing procedures for the notice to airmen, notice to mariners, clearance of state and county beaches, as well as protection of workers on off-shore oil rigs associated with ABL test activities at Vandenberg AFB and over the Western Range.

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1 MISSILE DEFENSE AGENCY
 2 PUBLIC HEARING ON THE
 3 DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR
 4 THE AIRBORNE LASER PROGRAM
 5
 6
 7 **CERTIFIED COPY**
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 11 HELD AT 44055 NORTH SIERRA HIGHWAY
 12 LANCASTER, CALIFORNIA
 13 TUESDAY, OCTOBER 15, 2002
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 21 ATKINSON-BAKER, INC.
 22 COURT REPORTERS
 23 330 North Brand Boulevard, Suite 250
 24 Glendale, California 91203
 25 (818) 551-7300
 REPORTED BY: MAXINE MILLER
 FILE NO.: 9C070E3

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 2 A P P E A R A N C E S
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 4 SPEAKERS:
 5 COLONEL JOHN J. POWERS
 6 KENNETH ENGLADE, Public Affairs Officer
 7 CAPTAIN JOE WIMMER
 8
 9 ALSO PRESENT:
 10 EVA WALLACE
 11 ROBYN BARELA, Spanish Interpreter
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1 LANCASTER, CALIFORNIA - TUESDAY, OCTOBER 15, 2002
 2 7:02 P.M.
 3 -----
 4 COLONEL POWERS: Good evening, ladies and gentlemen.
 5 I'd like to welcome you to the public hearing on the Draft
 6 Supplemental Environment Impact Statement for proposed test
 7 activities of the Airborne Laser Program. Since cell
 8 phones and pagers can be distracting, it would be greatly
 9 appreciated if you would turn off or change the setting to
 10 a nonaudible or vibration ring on your cell phones and
 11 pagers. If you'll please have a seat, we'll get started.
 12 The video that you are just watching is a
 13 tape of the first flight of the modified 747 aircraft from
 14 the Boeing facility in Wichita, Kansas. The aircraft was
 15 flown to test the structural integrity after all the
 16 modifications were completed to its airframe. None of the
 17 active lasers were onboard. The payload was simulated with
 18 ballast.
 19 Now, if everyone will please stand, we'll
 20 play the National Anthem, and we'll get started.
 21 (National Anthem was played.)
 22 COLONEL POWERS: Okay. Ladies and gentlemen, my
 23 name is Colonel John Powers, and I'll be the presiding
 24 officer for tonight's meeting. My purpose here is to
 25 ensure that we have a fair, orderly hearing and all that

1 wish to be heard have a chance to speak. I would like to
2 welcome your participation in tonight's events.

3 At this point, I'd like to introduce the
4 other members in the public participation panel and their
5 role in this meeting: Colonel Eva Wallace, from the
6 Airborne Laser System Program office at Kirtland Air Force
7 Base in New Mexico is the senior Airborne Laser Program
8 office representative at this program hearing.

9 Ms. Robyn Barela, from the Airborne Laser
10 System Program office at Kirtland Air Force Base in
11 New Mexico is the Spanish speaker, and she is here to help
12 anyone in the audience who feels more comfortable
13 addressing their issues in Spanish rather than English.
14 She will not translate the entire proceeding but will serve
15 as an aide.

16 Ms. Barela, would you please introduce
17 yourself.

18 (Ms. Barela speaks to the audience in
19 Spanish.)

20 COLONEL POWERS: Thank you.

21 Mr. Ken Englade from the Airborne Laser
22 System Program Public Affairs Office in Kirtland, who will
23 present an overview of actions leading to the preparation
24 of the Draft Supplemental Environmental Impact Statement
25 and describe the proposed action and alternatives.

1 And Captain Joe Wimmer, from the
2 Airborne Laser System Program External Affairs Office at
3 Kirtland Air Force Base in New Mexico, who will present the
4 findings of the Draft Supplemental Impact Statement.

5 The purpose of tonight's hearing is to
6 receive your comments, suggestions, and criticisms of the
7 Draft Supplemental Environmental Impact Statement or SEIS.
8 Those of you who have not had an opportunity to review the
9 Draft SEIS may want to read the summary of the major
10 findings in the handout available at the door. The
11 findings will also be addressed by the panel members in
12 their presentations. Throughout the hearing, I ask that
13 you keep in mind that the public hearing is not designed to
14 be a debate, nor is it primarily designed as a
15 question-and-answer session. However, clarifying questions
16 asked as part of your comment time may be appropriate.
17 This hearing is also not a time set aside for you to use
18 your comment time to personally attack those whose views
19 may be different from your own.

20 In the first part of tonight's meeting, the
21 members of the panel will brief you on the details of the
22 proposed action and alternatives and the findings of the
23 Draft SEIS. The second part of the meeting will give you
24 an opportunity to provide information and make statements
25 for the record. This input assures that the

1 decision-makers may benefit from your knowledge of the
2 local area and any adverse environmental effects you think
3 may result in the proposed action or alternatives.

4 Tonight's hearing is designed to give you an
5 opportunity to comment on the adequacy of the Draft SEIS.
6 Keep in mind that the SEIS is simply intended to assure
7 that the decision-makers will be fully apprised of the
8 potential environmental impacts associated with the
9 proposed action and alternatives before they decide on a
10 course of action. Consequently, comments on issues
11 unrelated to the SEIS are really beyond the scope of this
12 hearing and will not be addressed.

13 I would like to make a few administrative
14 comments. First of all, if you wish to speak tonight, I
15 ask that you fill out one of the cards that are located on
16 the registration table as you came into the room. From
17 these cards, I will call your name, and come up forward and
18 state your comments. If you did not pick up a card and
19 would like to make a comment tonight, please raise your
20 hand and one of the representatives will bring you a card.

21 After the panel has finished its
22 presentations, we will have a 15-minute recess. During the
23 time, we will collect the cards. When the meeting resumes,
24 I will recognize elected officials first. Then I will call
25 members of the public in random order from the cards that

1 have been handed in. For those of you who have not
2 indicated on the card that you want to make a statement but
3 wish to speak later, please fill out another card at the
4 registration table during the break.

5 I want to make sure that we have an
6 opportunity to fully consider the comments that you make
7 tonight. We have an individual here who will record
8 everything that is said so that we don't overlook any of
9 your comments.

10 I'd also like to establish a few ground rules
11 so that all of us have the benefit of hearing individual
12 comments and that we have a good meeting transcript.

13 First, please speak only after I recognize
14 you, and address your remarks only to me. If you have a
15 written statement, you may place it in the box next to the
16 podium or you may read it aloud within the time limit or
17 you can do both.

18 Second, please speak clearly and slowly into
19 the microphone stating your name and the capacity in which
20 you appear. This will help our reporter with the
21 transcript.

22 Third, each person will be recognized for
23 five minutes. If you exceed this time, I will ask you to
24 stop at that point. If you have more comments than you are
25 able to present in the five minutes, please prioritize them

1 so that the most important are addressed first in case you
2 run out of time. After everyone has had the opportunity to
3 comment, I will then address the audience to see if anyone
4 would like to speak again.

5 Fourth, please do not speak while another
6 person is speaking. Only one person will be recognized at
7 a time. If you decide later to make a comment after the
8 public hearing or have additional considerations, we
9 encourage you to send your written comments to the address
10 shown on the screen or indicated on the comment sheet.

11 Finally, if you would like a copy of the
12 Final SEIS, you may state that in a written comment sheet
13 or on the attendance card that you filled out at the door.
14 Private addresses provided will be compiled to develop a
15 mailing list for those requesting copies of the Final SEIS.
16 Personal home addresses and phone numbers written on the
17 written comment sheet or attendance card will not be
18 published in the Final SEIS.

19 If no one has any questions at this time,
20 I'll turn the program over to Mr. Ken Englade who will
21 present an overview of the actions leading to the
22 Draft SEIS and describe the proposed action and
23 alternatives.

24 MR. ENGLADE: Good evening, ladies and gentlemen.
25 My name is Ken Englade, and I'm from the Airborne Laser

1 Public Affairs Office. This SEIS, supplemental
2 environmental analysis based upon changes in the proposed
3 test program that have occurred since the Final
4 Environmental Impact Statement for the program definition
5 and risk reduction phase of the Airborne Laser Program was
6 published in April 1997. The SEIS is being used to fulfill
7 our requirements to comply with the National Environmental
8 Quality Acts or NEPA.

9 The Environmental Impact Statement published
10 in 1997 considered options for siting a home base, a
11 diagnostic test range, and an expanded area test range in
12 support of the Airborne Laser Program. A screening process
13 was developed to narrow the number of alternative locations
14 for detailed analysis. This process was designed to
15 identify a number of candidate locations that can meet a
16 threshold of operational considerations necessary to
17 conduct the Airborne Laser Program.

18 The record of decision for the 1997
19 Environmental Impact Statement identified Edwards Air Force
20 Base as the home base to support the Airborne Laser
21 aircraft and conduct ground-test activities of the
22 Airborne Laser systems, White Sands Missile Range as the
23 diagnostic test range, and the Western Range as the
24 expanded-area test range. These two areas would support
25 proposed flight activities of the Airborne Laser systems.

1 This environmental effort was begun in
2 March 2002 with the publication of a Notice of Intent to
3 prepare a Supplemental Environmental Impact Statement or
4 SEIS for Airborne Laser test actions in the
5 Federal Register.

6 A scoping meeting was held near each location
7 where the activities will occur to include here in
8 Lancaster on April 1, 2002, to receive public input on the
9 scope of the issues to be addressed in the SEIS. After
10 scoping, we collected the necessary data and conducted the
11 environmental analysis. The notice of availability was
12 published in the Federal Register on September 20, 2002.

13 In addition to tonight's hearing, written
14 comments on the Draft SEIS will continue to be accepted at
15 this address until November 5, 2002. After the comment
16 period is over, we will evaluate all comments, both written
17 and verbal, and perform additional analysis or change the
18 SEIS where necessary. Again, as in the scoping process,
19 equal consideration will be given to all comments, whether
20 they are presented here tonight or mailed to us.

21 Once the review process is complete, we will
22 produce a Final SEIS scheduled for completion in March 2003
23 and mail it to all those on the original distribution list
24 for the Draft SEIS. If you are not on our mailing list,
25 you can request a copy by writing to this address. The

1 Final SEIS will include comments received during the public
2 review period and our responses to those comments. If
3 appropriate, we will group comments into categories and
4 respond accordingly.

5 The SEIS will serve as an input for a
6 Record of Decision. We expect to accomplish the
7 Record of Decision in late spring of next year. The
8 Draft SEIS was prepared to comply with the
9 National Environmental Policy Act, or NEPA, and the
10 Council on Environmental Quality Regulations. Efforts were
11 made to reduce needless bulk, write in plain language,
12 focus only on those issues that are clearly related to the
13 environment, and to integrate with other documents required
14 as part of the decision-making process.

15 The analysis focuses on impacts that may
16 occur as a direct or indirect result of the proposed
17 Airborne Laser test activities.

18 Now I will present an overview of the
19 proposed action and alternatives that have been analyzed.
20 Afterwards Captain Wimmer will present a synopsis of the
21 results of our analysis.

22 The Airborne Laser system is one element of
23 the Missile Defense Agency's Ballistic Missile Defense
24 System which is intended to provide an effective defense
25 for the United States, its deployed forces, and its friends

1 and allies from limited missile attack during all three
2 stages of an attacking missile's flight.

3 The three segments are the boost segment,
4 midcourse segment, and the terminal segment. The boost
5 segment is when the missile is under power and is being
6 thrust skyward by its rocket engines. The midcourse
7 segment is the longest segment. This is when the missile
8 is in a ballistic arc, heading for its target. The
9 terminal segment is the few remaining moments of the
10 missile's flight before the missile reaches its target.
11 Each element of the Ballistic Missile Defense System is
12 designed to work independently to provide an effective
13 defense against incoming missiles.

14 The Airborne Laser is designed to destroy
15 missiles during the boost phase. The Airborne Laser is a
16 weapon system that is designed to spot, track, engage, and
17 destroy missiles. Using a megawatt-class laser, the
18 missile would be destroyed during the initial boost phase
19 shortly after being launched.

20 The Airborne Laser system consists of a
21 modified Boeing 747-400F aircraft that utilizes four
22 lasers. The first three are not designed to destroy, but
23 rather they are used to gather information regarding the
24 target and to make the high-energy laser more effective.

25 These three lasers are the Active Ranging

1 System Laser, the Track Illuminator Laser, and the
2 Beacon Illuminator Laser. The Active Ranging System
3 provides basic information regarding the target, such as
4 speed, altitude, range and direction. The
5 Track Illuminator Laser provides the high-energy targeting
6 system with the optimum location upon which to attack the
7 target. The Beacon Illuminator Laser is used to gather
8 information on the atmosphere between the aircraft and the
9 target.

10 The fourth laser is the high-energy,
11 weapons-class laser that is designed to destroy the target.
12 It is a megawatt-class laser generated by chemical
13 reaction.

14 A battle management command center onboard
15 the aircraft provides computerized control of the laser
16 weapon system, communications, and intelligence.

17 During the initial testing program, a fifth
18 laser will be used. The surrogate high-energy laser is a
19 lower-power laser and will be used as a simulation of the
20 high-energy laser.

21 During flight-test activities, the
22 Airborne Laser aircraft would fly at or above 35,000 feet
23 and would detect and track launches or target missiles
24 using onboard sensors. Active tracking of the missile can
25 begin when the missile clears the cloud tops. The

1 high-energy laser would be directed in an upward direction
2 toward the missile. The energy from the laser would heat
3 the missile's booster components and cause a stress
4 fracture in the outer surface of the missile. This would
5 allow gasses from the booster rocket to escape, causing an
6 explosion that would destroy the missile.

7 The geometry of the test would preclude
8 operation of the laser except at a horizontal or upward
9 angle. This is to ensure that lower-flying aircraft and
10 objects on the ground would not be in the path of the laser
11 beam. The onboard sensors would also be used to confirm
12 that nothing in the airspace other than the intended target
13 is within the potential beam paths. This is in addition to
14 using the controlled and cleared airspace during the
15 Airborne Laser flight-testing.

16 The proposed action is to conduct test
17 activities of the Airborne Laser system at test ranges
18 associated with Edwards Air Force Base and Vandenberg Air
19 Force Base, California, and Kirtland Air Force Base,
20 New Mexico, and White Sands Missile Range with support from
21 Holloman Air Force Base, New Mexico. Tests activities
22 would involve testing the laser components on the ground
23 and in flight to verify the laser components operate
24 together safely and effectively.

25 In the event the ground-testing is not

1 possible at Edwards Air Force Base, Kirtland Air Force Base
2 and White Sands Missile Range with support from
3 Holloman Air Force Base have been identified as alternative
4 ground-test locations. Flight-testing is proposed at the
5 R-2508 airspace complex utilized by Edwards Air Force Base,
6 the Western Range off the coast of California that is
7 utilized by Vandenberg Air Force Base and Point Mugu Naval
8 Air Station, and White Sand Missile Range.

9 The Airborne Laser aircraft would be based at
10 Edwards Air Force Base, and the aircraft would be flown to
11 the other bases for testing as required. All test flights
12 would begin and end at Edwards Air Force Base.

13 Ground testing of the lower-power systems
14 would be conducted at Edwards Air Force Base from the end
15 of the runway associated with the Birk Flight Test
16 Facility. Ground targets would include a biplane, which
17 is a ferris wheel-like rotating target, and stationary
18 target boards.

19 High-energy ground activities would be
20 conducted using a ground-based simulator. No open-range
21 testing of the high-energy laser would be conducted.

22 Kirtland Air Force Base and White Sands
23 Missile Range with support from adjacent Holloman Air Force
24 Base have been identified as alternative ground-test
25 locations if conditions prevent testing at Edwards Air

1 Force Base.

2 If ground testing occurs at Kirtland Air
3 Force Base, the aircraft would be flown to Kirtland Air
4 Force Base and use existing runways, taxiways, and aircraft
5 parking areas. Only the lower-power laser systems would be
6 tested at Kirtland Air Force Base using the existing
7 Sandia Laser Target Range.

8 If ground testing occurs at White Sands
9 Missile Range, the aircraft will be flown to Holloman Air
10 Force Base and use approved runways, taxiways, and aircraft
11 parking areas. Only the lower-power laser systems would be
12 directed westward toward targets placed within White Sands
13 Missile Range.

14 Ground-testing procedures include automatic
15 laser turret limiting devices and/or laser-blocking devices
16 to prevent laser energy from extending beyond the target
17 backstops and from the defined laser beam path. Target
18 backstops include natural features such as hills,
19 mountains, and buttes, or manmade earthen berms.

20 Flight-testing of the Airborne Laser system
21 is required to confirm and expand on computer modeling and
22 ground-test data and to provide complete testing of all
23 systems required to have an effective weapon system.

24 During flight-tests, the Airborne Laser
25 aircraft would be accompanied by up to two chase aircraft

17

1 to monitor the test and the status of the Airborne Laser
2 aircraft. The Airborne Laser aircraft will fly at an
3 altitude at or above 35,000 feet and the laser systems
4 would track targets at a horizontal or in an upward
5 direction to minimize potential contact with the ground or
6 other aircraft. Onboard sensors and pretest planning would
7 be used to confirm that no aircraft or satellites are
8 within the potential path of the beam. Also, only existing
9 military- and FAA-controlled airspace areas would be
10 utilized during the tests and confirmed clear of
11 nonparticipating aircraft during testing activities.

12 Flight-tests would utilize the R-2508
13 airspace complex utilized by Edwards Air Force Base, the
14 Western Range utilized by Vandenberg Air Force Base and
15 Point Mugu Naval Air Station, and White Sands Missile
16 Range, including Fort Bliss-controlled airspace and
17 FAA-controlled airspace as necessary.

18 Targets that would be used during
19 flight-testing activities would include the following: a
20 missile alternative range target instrument or Marti, which
21 is a balloon with a target board attached; a proteus
22 aircraft, which is a high-altitude manned aircraft with
23 target board attached; and target missiles that simulate a
24 potential missile threat.

25 Both low- and high-power tests would be

18

1 conducted on the Marti and missile targets. Only
2 lower-power tests would occur with the proteus aircraft as
3 it is a manned target vehicle.

4 The tests will evaluate the Airborne Laser
5 System's ability to acquire, track, and engage targets.
6 Missiles used during the flight-test activities will have a
7 flight-termination system to ensure that debris would be
8 contained on the range in the event the target missile must
9 be destroyed in flight.

10 In the event that the aircraft is unable to
11 land at Edwards Air force Base after conducting test
12 activities, preplanned divert bases have been established.
13 The divert bases would have personnel specifically trained
14 to support the Airborne Laser aircraft and appropriate
15 equipment to handle Airborne Laser hazardous materials.

16 The no-action alternative would involve
17 conducting Airborne Laser test activities as described in
18 the original testing program discussed in the 1997
19 document. Other alternatives were considered and
20 eliminated from further consideration in the 1997 document.
21 These alternatives included different test-demonstration
22 methods, laser-system types, and test installations or
23 locations.

24 I would now like to turn the microphone over
25 to Captain Joe Wimmer who will discuss the findings of the

19

1 Draft SEIS.

2 MR. WIMMER: Good evening. My name is
3 Captain Joe Wimmer. I will briefly review the resources
4 detailed in the Draft SEIS that may be affected due to the
5 proposed Airborne Laser test activities.

6 Based on the proposed laser test activities
7 being addressed in this SEIS and actions that have already
8 been addressed within the EIS prepared in 1997, the
9 analysis indicated that there would be no or few potential
10 impacts for several resource areas. These resources are
11 highlighted on this slide. I will summarize the analysis
12 results briefly.

13 Under the Local Community Category, land use
14 and aesthetics did not require further analysis because
15 proposed test activities would occur on existing test
16 ranges and no new military construction- -- which is
17 abbreviated as MILCON -- funded activities would occur. It
18 was determined no land-use would occur; therefore, no
19 impacts are anticipated.

20 Utilities did not require further analysis
21 because no substantial permanent employment changes would
22 occur and utility requirements for test activities were not
23 changed. It was determined that no impacts to utilities
24 are anticipated.

25 Transportation did not require further

20

1 analysis because no substantial permanent employment
2 changes would occur and standard operating procedures are
3 in place to control traffic during proposed test
4 activities. It was determined that no impacts to roadways
5 and transportation and railroads are anticipated.

6 And finally, environmental justice did not
7 require further analysis because Airborne Laser test
8 activities would be conducted and contained within the
9 installation and range boundaries. It was determined no
10 disproportionately high and adverse impacts to low-income
11 and minority population would occur.

12 Under the hazardous materials and hazardous
13 waste management category, installation restoration program
14 sites would not require further analysis because there are
15 no installation restoration program sites in the vicinity
16 of proposed ground target locations.

17 Storage tanks did not require further
18 analysis because no changes to the requirement for storage
19 tanks was identified. This determined -- it was determined
20 that storage tanks associated with the Airborne Laser
21 Program were adequately addressed in the 1997 EIS.

22 Asbestos did not require further analysis
23 because no MILCON-funded facility construction or
24 demolition activities are proposed to support test
25 activities, and it was determined that no impacts from

1 asbestos are anticipated.

2 Pesticide usage did not require further
3 analysis because the proposed test activities would not
4 require an increase in the use of pesticides.

5 Polychlorinated biphenyls, or PCBs, did not
6 require further analysis because no PCB-containing
7 equipment would be utilized; therefore, no impacts are
8 anticipated.

9 Radon did not require further analysis
10 because the proposed test activities would not be conducted
11 in facilities that would be permanently occupied. It was
12 determined that no impacts from radon are anticipated.

13 Medical and biohazardous waste did not
14 require further analysis because medical and biohazardous
15 waste would not be generated during proposed test
16 activities; therefore, no impacts are anticipated.

17 Lead-based paint did not require further
18 analysis because, as with asbestos, no MILCON-funded
19 facility construction or demotion activities are proposed
20 to support test activities, and it was determined that no
21 impacts from lead-based paint are anticipated.

22 Under the Natural Environmental Category,
23 soils and geology did not require further analysis because
24 no MILCON-funded facility construction or demolition
25 activities are proposed to support test activities and no

1 ground disturbance would occur.

2 Water resources did not require further
3 analysis because, similarly to soils and geology, no
4 MILCON-funded facility construction or demolition
5 activities are proposed to support test activities. No
6 ground disturbance would occur. Washdown activities of the
7 aircraft at Edwards Air Force Base would be conducted in
8 accordance with the applicable Base management plans
9 addressing wastewater and pollution prevention.

10 The Draft SEIS focuses on potential impacts
11 that would occur as a result of the proposed Airborne Laser
12 test activities. Resources evaluated in detail include
13 socioeconomic, airspace hazardous materials and hazardous
14 waste management, health and safety, air quality, noise,
15 biological resources, and cultural resources.

16 Under the Local Community category,
17 socioeconomic was analyzed further because Edwards Air
18 Force Base has been designated as a home base and up to
19 250 personnel, permanent program-related personnel, and up
20 to 50 temporary personnel during test activities are
21 anticipated. These personnel would have a small, positive,
22 yet largely unnoticeable effect on the population, income,
23 and employment in the region.

24 Airspace was not analyzed further in regards
25 to impact on the ground, because by virtue of the proposed

1 ground-test scenarios, it would occur close to the ground
2 and would not have airspace-use impacts. The proposed
3 flight test scenarios in the R-2508 airspace complex were
4 analyzed and determined it would not have an adverse impact
5 on activities conducted within the complex. The restricted
6 areas, military operating areas, and associated air traffic
7 control-using agency has a scheduling office responsible
8 for establishing an activity schedule for the portions of
9 the R-2508 complex that would be used and forwarded to the
10 controlling air route traffic control center. Jet route
11 J110, which transects the northern portion of the
12 R-2508 complex, could experience a change in it's
13 availability if flight-test activities occurred after
14 sunset and on the weekends. The potential change in the
15 availability of this jet route during the short duration of
16 flight-test activities is not expected to result in
17 substantial effects to air traffic.

18 Hazardous materials and hazardous waste
19 management was analyzed further because the integrated
20 maintenance facility at Edwards Air Force Base would be
21 used to store, handle, and mix chemicals for the laser.
22 This conforming and compatible storage area is situated in
23 a remote area approximately 1.2 miles from the Birk Flight
24 Test Facility. Storage and handling areas consist of
25 concrete pads with associated tanks, piping, valves, relief

1 devices, and related storage and transfer equipment.
 2 Effluents from the operation of the high-energy laser will
 3 be managed by the use of chemical scrubbers and chemical
 4 reactions that produce nontoxic byproducts. Any hazardous
 5 waste generated during test activities would be stored at
 6 an approved 90-day accumulation point and disposed of in
 7 accordance with applicable regulations.

8 Health and safety was analyzed further
 9 because of the potential hazards associated with the
 10 system. Lasing activities would be managed under
 11 appropriate range safety regulations. Backdrops, buffer
 12 zones, beam path restrictors, and administrative controls
 13 would be in place during the ground-test activities.
 14 Open-range testing of the laser systems would not be
 15 conducted if water is present in the adjacent dry lake.
 16 All laser engagements of the Marti drop and proteus tests
 17 would occur at altitudes above 35,000 feet; therefore,
 18 public exposure to hazardous levels of direct laser energy
 19 would be eliminated. Any laser energy that misses the
 20 target would continue upward and away from the ground.

21 Under the Natural Environment category, air
 22 quality was analyzed further because of the potential for
 23 emissions associated with the system and was determined
 24 that the ground-testing contribution to the total emissions
 25 would be minimal. The major source of emissions would be

1 due to the vehicles used for flight support and emissions
 2 from Airborne Laser aircraft and chase aircraft takeoffs
 3 and landings. Total emissions for volatile organic
 4 compounds and nitrogen oxides from test activities would be
 5 approximately 16.5 and 31.55 tons per year respectively.
 6 The emissions resulting from the proposed action are far
 7 less than 10 percent of the emission inventories of the
 8 Kern County Air Pollution Control District and below the
 9 de minimis threshold of 50 tons per year. Under current
 10 regulations, the requirements for air quality conformity do
 11 not apply to the action. Because the emission levels are
 12 primarily mobile in nature, a new source of review would
 13 not be triggered for flight-testing activities.

14 Noise was analyzed further because of the
 15 introduction of new noise sources. Noise generated by the
 16 ground pressure recovery assembly during ground tests of
 17 the high-energy laser is expected to be approximately
 18 10 decibels. The associated ejector tubes and turbopumps
 19 are expected to generate noise levels of approximately
 20 110 to 134 decibels over an approximate 20-second period
 21 during ground tests. These noise levels would be
 22 attenuated somewhat based on their location within the
 23 system integration laboratory and next to the Birk Flight
 24 Test Facility hangar. Increased noise levels from the use
 25 of aerospace ground equipment adjacent to the runway during

1 ground-testing activities would not exceed typical
 2 flightline noise levels. The Airborne Laser aircraft and
 3 chase aircraft would maneuver at high altitudes at
 4 approximately 35,000 feet; therefore, noise from these
 5 aircraft would be less than 55 decibels. Analysis results
 6 determined for ground- and flight-testing activities, no
 7 adverse noise impact is anticipated.

8 Biological resources were analyzed further
 9 because threatened and endangered species are found on
 10 Edwards Air Force Base. Ground-testing activities would be
 11 conducted just prior to sunrise or after sunset to minimize
 12 atmospheric effects of ground heating and blowing dust.
 13 This time period would minimize any potential harassment or
 14 take of desert tortoises as they would typically be within
 15 burrows at these hours. In addition, no ground disturbance
 16 would occur during placement of the targets. No adverse
 17 effects to biological resources are anticipated during
 18 flight-test activities due to the high altitude,
 19 35,000 feet or higher, in which the tests would occur.

20 Cultural resources were analyzed because the
 21 sites exist on Edwards Air Force Base. Because ground-test
 22 activities would occur on previously disturbed, paved, or
 23 developed land and no construction activity would be
 24 necessary, no impacts to cultural resources are
 25 anticipated. In addition, no target debris is anticipated

1 during flight-test activities within the R-2508 airspace
 2 complex; therefore, no debris recovery or ground
 3 disturbance is anticipated.

4 The no-action alternative in this SEIS
 5 reflects the proposed test activities analyzed in the 1997
 6 Environmental Impact Statement. Therefore, no new impacts
 7 are created, and potential impacts are discussed in that
 8 document. As previously stated, this SEIS does not discuss
 9 the findings of that document except as a basis of
 10 comparison. Therefore, the no-action alternative generates
 11 no new impacts.

12 In closing, I remind you that this study is
 13 in a draft stage. Our goal is to provide the
 14 decision-makers with accurate information on the potential
 15 environmental consequences of the proposed Airborne Laser
 16 test activities. To do this, we are soliciting your
 17 support -- comments on the Draft SEIS. This information
 18 will support informed decision-making.

19 Now I'd like to turn the meeting back over to
 20 Colonel Powers.

21 COLONEL POWERS: Okay. Thank you. At this point,
 22 we're going to take a 15-minute recess, and then we'll
 23 begin with the next portion of the hearing, which is the
 24 public comment portion. So do we have anybody at this
 25 point who is signed up to speak?

1 (No audible response.)
 2 COLONEL POWERS: Okay. Well, we'll take a 10-minute
 3 recess, and see if anybody changes their mind. Okay. Take
 4 a 10-minute recess.
 5 (Recess.)
 6 COLONEL POWERS: Okay. If everybody will take their
 7 seats again.
 8 Okay. Do we have anybody that wishes to
 9 speak?
 10 (No audible response.)
 11 COLONEL POWERS: Okay. Just for the record, since I
 12 do have one card that is checked in the affirmative, I
 13 believe that person may have during the recess gotten an
 14 answer to their question. So if there are no speakers,
 15 then there is no need for me to go through the instructions
 16 on how speakers are supposed to conduct themselves during
 17 this portion of the hearing.
 18 So this concludes the public hearing. And if
 19 you should later decide to make comments or would like to
 20 receive copies of the Final SEIS, you may do so through the
 21 address shown on the slide that I think will be put up in a
 22 second. You can get the address here at the table in the
 23 front of the room.
 24 Okay. If there's nothing else, appreciate
 25 you coming and participating in this public hearing and

1 have a good evening and a safe ride home.
 2 (Hearing concluded at 7:50)
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1 STATE OF CALIFORNIA)
 2 COUNTY OF LOS ANGELES,)
 3
 4
 5 I, Maxine Miller, do hereby certify that I
 6 reported stenographically the foregoing sworn statement at
 7 the time and place heretofore set forth; that the same was
 8 thereafter reduced to typewritten form by me or at my
 9 supervision; and I do further certify that this is a true
 10 and correct transcript of my stenographic notes so taken.
 11 I further certify that I have no interest in
 12 the subject matter.
 13 Witness my hand this 21st day of
 14 October, 2002.
 15
 16
 17 Maxine Miller
 18 Maxine Miller
 19 Shorthand Reporter
 20
 21
 22
 23
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 25

1 REPORTER'S CERTIFICATION OF CERTIFIED COPY
 2
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 5
 6 I, MAXINE MILLER, Notary Public No. 929568
 7 and Shorthand Reporter in the state of California, certify
 8 that the foregoing pages 1 through 30 constitute a true and
 9 correct copy of the original proceedings taken on October
 10 15, 2002.
 11 I declare under the penalty of perjury under
 12 the laws of the state of California that the foregoing is
 13 true and correct.
 14 Dated this 21st of October, 2002.
 15
 16
 17 Maxine Miller
 18 MAXINE MILLER, Notary Public No. 929568
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1
 2 PUBLIC HEARING ON THE DRAFT SUPPLEMENTAL)
 ENVIRONMENTAL IMPACT STATEMENT FOR)
 3 AIRBORNE LASER PROGRAM AT EDWARDS AFB)
 AND VANDENBERG AFB, CALIFORNIA,)
 4 AND KIRTLAND AFB, WHITE SANDS MISSILE RANGE)
 AND HOLLOMAN AFB, NEW MEXICO)
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 12 TRANSCRIPT OF PROCEEDINGS
 13 Lompoc, California
 14 Thursday, October 17, 2002

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 21 ATKINSON-BAKER, INC.
 22 CERTIFIED COURT REPORTERS
 330 North Brand Boulevard, Suite 250
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 24 REPORTED BY: MARCY A. STYLES, CSR NO. 10604
 25 FILE NO.: 9C070E4

1 THURSDAY, OCTOBER 17, 2002
 2
 3 COLONEL POWERS:
 4 I guess we will get started here.
 5 Good evening, ladies and gentlemen. I would
 6 like to welcome you to the public hearing on the draft
 7 Supplemental Environmental Impact Statement for proposed
 8 test activities of the Airborne Laser Program.
 9 Since cell phones and pagers can be
 10 distracting, it would be greatly appreciated if you would
 11 turn off or change the setting to non-audible or vibration
 12 ring on your cell phones and pagers. If you will please
 13 have a seat, we will get started.
 14 The video you were just watching is a tape of
 15 the first flight of the modified 747-400F aircraft from the
 16 Boeing facility in Wichita, Kansas. The aircraft was flown
 17 to test the structural integrity after all the modifications
 18 were completed to its airframe. None of the active lasers
 19 were onboard -- the pay load was simulated with ballast.
 20 Now, if everyone will please stand, we'll play
 21 the National Anthem, and we will get started.
 22
 23 (Video -- National Anthem)
 24
 25 COLONEL POWERS: Okay. My name is Colonel John Powers, and

1 I will be the presiding officer for tonight's meeting. My
 2 purpose here tonight is to ensure that we have a fair,
 3 orderly hearing, and that all who wish to be heard, have a
 4 fair chance to speak.
 5 At this point, I would like to introduce the
 6 other members of the public hearing panel, and their role in
 7 this meeting.
 8 Colonel Eva Wallace, from the Airborne Laser
 9 System Program office at Kirtland Air Force Base in New
 10 Mexico, is the senior airborne laser system program office
 11 representative at this public hearing.
 12 Ms. Robyn Barela, from the Airborne Laser
 13 System Office Program in Kirtland Air Force Base in New
 14 Mexico, is a Spanish speaker, and she is here to help anyone
 15 in the audience who feels more comfortable addressing their
 16 issues in Spanish, rather than English. She will not
 17 translate the entire proceeding, but will serve as an aide.
 18 Ms. Barela, would you please introduce
 19 yourself?
 20 (Ms. Barela introduces herself in Spanish.)
 21 COLONEL POWERS: Thank you, Ms. Barela.
 22 Mr. Ken Englade from the Airborne Laser Public
 23 Affairs Office, who will present an overview of the actions
 24 leading to the preparation of the draft Supplemental
 25 Environmental Impact Statement, and describe the proposed

1 action and alternatives.
 2 And Captain Joe Wimmer from the Airborne Laser
 3 System Program External Affairs Office at Kirtland Air Force
 4 Base in New Mexico, who will present the findings of the
 5 draft Supplemental Environmental Impact Statement.
 6 The purpose of tonight's hearing is to receive
 7 your comments, suggestions, and criticisms of the draft
 8 Supplemental Environmental Impact Statement or SEIS.
 9 Those of you who have not had an opportunity
 10 to review the draft SEIS, may want to read the summary of
 11 the major findings, in the handout available at the door.
 12 The findings will also be addressed by the panel members in
 13 their presentations.
 14 Throughout this hearing, I ask that you keep
 15 in mind that this public hearing is not designed to be a
 16 debate, nor is it a popularity vote on the draft SEIS, nor
 17 is it primarily designed as a question-and-answer session.
 18 However, clarifying questions asked, as part of your comment
 19 time, may be appropriate. This hearing is also not time set
 20 aside for you to use your comment time to personally attack
 21 those whose views may be different from your own.
 22 In the first part of tonight's meeting, the
 23 members of the panel will brief you on the details of the
 24 proposed action and alternatives and the findings of the
 25 draft SEIS.

1 The second part of the meeting will give you
2 an opportunity to provide information and make statements
3 for the record. This input ensures that the decision makers
4 may benefit from your knowledge of the local area and any
5 adverse environmental effects you think may result from the
6 proposed action or alternatives.

7 Tonight's hearing is designed to give you an
8 opportunity to comment on the adequacy of the draft SEIS.
9 Keep in mind that the SEIS is simply intended to ensure that
10 the decision makers will be fully apprised of the potential
11 environmental impacts associated with the proposed action
12 and alternatives, before they decide on a course of action.
13 Consequently, comments on issues unrelated to the SEIS are
14 really beyond the scope of this hearing and will not be
15 addressed.

16 I would like to make a few administrative
17 comments. First of all, if you wish to speak tonight, I ask
18 that you fill out one of the cards that are located in the
19 registration table as you came into the room. From these
20 cards I will call your name for you to come forward and
21 state your comments. If you did not pick up a card and
22 would like to make a comment tonight, please raise your
23 right hand, and one of our representatives will bring you a
24 card.

25 After the panel has finished its

1 presentations, we will have a fifteen-minute recess, and
2 during this time, we will collect the cards. And when the
3 meeting resumes, I will recognize elected officials first.
4 Then I will call members of the public, in random order,
5 from the cards that have been handed in.

6 For those who have not indicated on the cards
7 that you want to make a statement but wish to speak later,
8 please fill out another card at the registration table
9 during break.

10 I want to make sure that we have the
11 opportunity to fully consider the comments that you make
12 tonight. We have an individual here that will record
13 everything that is said, so that we don't overlook any of
14 your comments.

15 I would like to establish a few ground rules,
16 so that all of us have the benefit of hearing individual
17 comments and that we have a good meeting transcript.

18 First, please speak only after I recognize
19 you, and address your comments to me. If you have a written
20 statement, you may place it in the box next to the podium,
21 or you may read it aloud, or you may do both.

22 Second, please speak clearly and slowly into
23 the microphone, stating your name and the capacity in which
24 you appear. This will help our recorder with the
25 transcript.

1 Third: Each person will be recognized for
2 five minutes. If you exceed this time limit, I will ask you
3 to stop at that point. If you have more comments than you
4 will be able to present in five minutes, please prioritize
5 them so that the most important comments are addressed
6 first, in case you run out of time. After everyone has had
7 an opportunity to comment, I will then address the audience
8 to see if anybody would like to speak again.

9 Fourth: Please do not speak while another
10 person is speaking. Only one person can be recognized at a
11 time.

12 If you later decide to make a comment after
13 this public hearing or have additional considerations, we
14 encourage you to send your written comments to the address
15 shown on the screen or indicated on the comment sheet.

16 Finally, if you would like a copy of the final
17 SEIS, you may state that on a written comment sheet or on
18 the attendance card that you filled out at the door.
19 Private addresses provided will be compiled to develop the
20 mailing list for those requesting copies of the final SEIS.
21 Personal home addresses and phone numbers written on the
22 written comment sheet or attendance card, will not be
23 published in the final SEIS.

24 If no one has any questions at this time, I
25 will turn the program over to Mr. Ken Englade, who will

1 present an overview of the actions leading to the
2 preparation of the draft SEIS, and describe the proposed
3 action and alternatives.

4 Any questions?

5
6 MR. KEN ENGLADE: Good evening, ladies and gentlemen. My
7 name is Ken Englade, and I'm from the airborne laser public
8 affairs office. This SEIS is a supplemental environmental
9 analysis, based upon changes in the proposed test program
10 that have occurred since the final environmental impact
11 statement for the program definition and risk reduction
12 phase of the Airborne Laser Program was published in April
13 1997. The SEIS is being used to fulfill our requirements to
14 comply with the National Environmental Policy Act, or NEPA.

15 The Environmental Impact Statement published
16 in 1997 considered options for siting a home base, a
17 diagnostic test range, and an expanded-area test range in
18 support of the Airborne Laser Program. A screening process
19 was developed to narrow the number of alternative locations
20 for detailed analysis.

21 This process was designed to identify a number
22 of candidate locations that could meet a threshold of
23 operational considerations necessary to conduct the airborne
24 laser program.

25 The record of decision for the 1997

1 Environmental Impact Statement identified Edwards Air Force
2 base as the home base (to support the airborne laser
3 aircraft and conduct ground test activities of the airborne
4 laser systems), White Sands Missile Range as the diagnostic
5 test range, and the Western Range as the expanded-area test
6 range. These two areas would support proposed flight test
7 activities of the airborne laser systems.

8 This environmental effort was begun in March
9 2002, with the publication of a notice of intent to prepare
10 a Supplemental Environmental Impact Statement, or SEIS, for
11 airborne laser test actions in the federal register.

12 A scoping meeting was held near each location
13 where the activities will occur, to include here at Lompoc
14 on April 3rd, 2002, to receive public input on the scope of
15 issues to be addressed in the SEIS. After scoping, we
16 collected the necessary data and conducted the environmental
17 analysis. The notice of availability was published in the
18 Federal Register on September 20th, 2002.

19 In addition to tonight's hearing, written
20 comments on the draft SEIS will continue to be accepted at
21 this address until November 5th, 2002. After the comment
22 period is over, we will evaluate all comments, both written
23 and verbal, and perform additional analysis or change the
24 SEIS where necessary.

25 Again, as in the scoping process, equal

1 consideration will be given to all comments, whether they
2 are presented here tonight or mailed to us.

3 Once the review process is complete, we will
4 produce a final SEIS scheduled for completion in March 2003,
5 and mail it to all those on the original distribution list
6 from the draft SEIS.

7 If you are not on our mailing list, you can
8 request a copy by writing to this address. The final SEIS
9 will include comments received during the public review
10 period and our responses to those comments.

11 If appropriate, we will group comments into
12 categories and respond accordingly. The SEIS will serve as
13 input for the record of decision. We expect to accomplish
14 the record of decision in late spring of next year.

15 The draft SEIS was prepared to comply with the
16 National Environmental Policy Act or NEPA, and the Council
17 on Environmental Quality Regulations. Efforts were made to
18 reduce needless bulk, write in plain language, focus only on
19 those issues that are clearly related to the environment,
20 and to integrate with other documents required, as part of
21 the decision-making process.

22 The analysis focuses on impacts that may occur
23 as a direct or indirect result of the proposed airborne
24 laser test activities.

25 Now I will present an overview of the proposed

1 action and alternatives that have been analyzed.
2 Afterwards, Captain Wimmer will present a synopsis of the
3 results of our analysis.

4 The airborne laser system is one element of
5 the Missile Defense Agency's ballistic missile defense
6 system, which is intended to provide an effective defense
7 for the United States, its deployed forces, and its friends
8 and allies, from limited missile attack during all three
9 stages of an attacking missile's flight.

10 The three segments are the boost segment, the
11 midcourse segment, and the terminal segment. The boost
12 segment is when the missile is under power and is being
13 thrust skyward by its rocket engines. The midcourse segment
14 is the longest segment. This is when the missile is in a
15 ballistic arc, heading for its target. The terminal segment
16 is the few remaining moments of the missile's flight before
17 the missile reaches its target. Each element of the
18 ballistic missile defense system is designed to work
19 independently, to provide an effective defense against
20 incoming missiles.

21 The airborne laser is designed to destroy
22 missiles during the boost phase. The airborne laser is a
23 weapon system that is designed to spot, track, engage, and
24 destroy missiles. Using a megawatt-class laser, the missile
25 would be destroyed during the initial boost phase, shortly

1 after being launched.

2 The airborne laser system consists of a
3 modified Boeing 747-400F aircraft that utilities four
4 lasers; the first three are not designed to destroy, rather
5 they are used to gather information regarding the target and
6 to make the high-energy laser more effective.

7 These three lasers are the active ranging
8 system laser, the track illuminator laser, and the beacon
9 illuminator laser. The active ranging system provides basic
10 information regarding the target, such as speed, altitude,
11 range and direction. The track illuminator laser provides
12 the high-energy laser targeting system with the optimum
13 location upon which to attack the target. The beacon
14 illuminator laser is used to gather information on the
15 atmosphere between the aircraft and the target.

16 The fourth laser is the high-energy weapons
17 class laser that is designed to destroy the target. It is a
18 megawatt-class laser generated by a chemical reaction.

19 A battle management command control center
20 onboard the aircraft provides computerized control of the
21 laser weapon system, communications, and intelligence.

22 During the initial testing program, a fifth
23 laser will be used. The surrogate high-energy laser is a
24 lower-power laser and will be used as a simulation of the
25 high-energy laser.

1 During flight-test activities, the airborne
2 laser aircraft would fly at or above 35,000 feet, and would
3 detect and track launches of target missiles, using onboard
4 sensors. Active tracking of the missile could begin when
5 the missile clears the cloud tops. The high-energy laser
6 would be directed at an upward direction toward the missile.
7 The energy from the laser would heat the missile's booster
8 components and cause a stress fracture in the outer surface
9 of the missile. This would allow gases from the booster
10 rocket to escape, causing an explosion that would destroy
11 the missile.

12 The geometry of the test activities would
13 preclude operation of the laser, except at a horizontal or
14 upward angle. This is to ensure that lower-flying aircraft
15 and objects on the ground would not be in the path of the
16 laser beam. The onboard sensors would also be used to
17 confirm that nothing in the air or space, other than the
18 intended target, is within the potential beam path. This is
19 in addition to using controlled and cleared airspace during
20 the airborne laser flight testing.

21 The proposed action is to conduct test
22 activities of the airborne laser system at test ranges
23 associated with Edwards Air Force Base and Vandenberg Air
24 Force Base, California and Kirtland Air Force Base and White
25 Sands Missile Range, with support from Holloman Air Force

1 Base, New Mexico. Test activities would involve testing the
2 laser components on the ground and in flight, to verify that
3 laser components operate together safely and effectively.

4 In the event that ground testing is not
5 possible at Edwards Air Force Base, Kirtland Air Force Base
6 and White Sands Missile Range, with support from Holloman
7 Air Force Base, have been identified as alternative ground
8 test locations. Flight testing is proposed at the R-2508
9 airspace complex utilized by Edwards Air Force Base; the
10 Western Range off the coast of California that is utilized
11 by Vandenberg Air Force Base and Point Mugu Naval Air
12 Station; and White Sands Missile Range.

13 The airborne laser aircraft would be based at
14 Edwards Air Force Base, and the aircraft would be flown to
15 the other bases for testing, as required. All test flights
16 would begin and end at Edwards Air Force Base.

17 Ground testing of the lower-power laser
18 systems would be conducted at Edwards Air Force Base from
19 the end of the runway associated with the Birk Flight Test
20 Facility. Ground targets would include a rotoplane, which
21 is a ferris wheel-like rotating target, and stationary
22 target boards.

23 High-energy ground testing activities would be
24 conducted, using a ground-based simulator; no open-range
25 testing of the high-energy laser would be conducted.

1 The Kirtland Air Force Base and White Sands
2 Missile Range, with support from adjacent Holloman Air Force
3 Base, have been identified as alternative ground test
4 locations if conditions prevent testing at Edwards Air Force
5 Base.

6 If ground testing occurs at Kirtland Air Force
7 Base, the aircraft would be flown to Kirtland Air Force Base
8 and use existing runways, taxiways, and aircraft parking
9 areas. Only the lower-power laser systems would be tested
10 at Kirtland Air Force Base, using the existing Sandia Laser
11 Target Range.

12 If ground testing occurs at White Sands
13 Missile Range, the aircraft will be flown to Holloman Air
14 Force Base and use approved runways, taxiways, and aircraft
15 parking areas, only the lower-power laser systems would be
16 tested. The laser systems would be directed westward toward
17 targets placed within White Sands Missile Range.

18 Ground-testing procedures include automatic
19 laser turret-limiting devices and/or laser-blocking devices
20 to prevent laser energy from extending beyond the target
21 backstops and from the defined laser beam path. Target
22 backstops include natural features such as hills, mountains,
23 and buttes, or man-made earthen berms.

24 Flight testing of the airborne laser system is
25 required to confirm and expand on computer modeling and

1 ground test data, and to provide complete testing of all
2 systems required to have an effective weapon system.

3 During flight tests, the airborne laser
4 aircraft would be accompanied by up to two chase aircraft to
5 monitor the test and the status of the airborne laser
6 aircraft. The airborne laser aircraft would fly at an
7 altitude at or above 35,000 feet, and the laser systems
8 would track targets at a horizontal, or in an upward
9 direction, to minimize potential contact with the ground or
10 other aircraft. Onboard sensors and pre-test planning would
11 be used to confirm that no aircraft or satellites are within
12 the potential path of the beam. Also, only existing
13 military and FAA-controlled airspace areas would be utilized
14 during the tests and confirmed clear of non-participating
15 aircraft during testing activities.

16 Flight tests would utilize the R-2508 airspace
17 complex utilized by Edwards Air Force Base; the western
18 range utilized by Vandenberg Air Force Base and Point Mugu
19 Naval Air Station; and White Sands Missile Range, including
20 Fort Bliss-controlled airspace and FAA-controlled airspace,
21 as necessary.

22 Targets that would be used during
23 flight-testing activities include the following:

24 A missile alternative-range target instrument,
25 or MARTI, which is a balloon with a target board attached.

1 A Proteus aircraft, which is a high-altitude,
 2 manned aircraft with a target board attached.
 3 And target missiles that simulate a potential
 4 threat missile.
 5 Both low- and high-power tests would be
 6 conducted on the MARTI and missile targets. Only
 7 lower-power tests would occur with the Proteus aircraft, as
 8 it is a manned target vehicle.
 9 The tests will evaluate the airborne laser
 10 system's ability to acquire, track, and engage targets.
 11 Missiles used during the flight-test activities will have a
 12 flight termination system to ensure that debris would be
 13 contained on the range, in the event the target missile must
 14 be destroyed in flight.
 15 In the event that the aircraft is unable to
 16 land at Edwards Air Force Base after conducting test
 17 activities, preplanned divert bases have been established.
 18 The divert bases would have personnel specifically trained
 19 to support the airborne laser aircraft, and appropriate
 20 equipment to handle airborne laser hazardous materials.
 21 The no-action alternative would involve
 22 conducting airborne laser test activities as described in
 23 the original testing program discussed in the 1997 document.
 24 Other alternatives were considered and
 25 eliminated from further consideration in the 1997 document.

1 These alternatives included different test demonstration
 2 methods, laser system types, and test installations or
 3 locations.
 4 I would now like to turn the microphone over
 5 to Captain Joe Wimmer who will discuss the findings of the
 6 draft SEIS.
 7
 8 CAPTAIN WIMMER: Good evening; my name is Captain Joe
 9 Wimmer. I will briefly review the resources detailed in the
 10 draft SEIS that may be affected due to the proposed airborne
 11 laser test activities, based on the proposed airborne laser
 12 test activities being addressed in this SEIS and actions
 13 that have already been addressed within the EIS prepared in
 14 1997. The analysis indicated there would be no or few
 15 potential impacts for several resource areas. These
 16 resources are highlighted on this slide, and I will
 17 summarize the analysis results briefly.
 18 Under the "Local Community" category, Land Use
 19 and Aesthetics did not require further analysis, because
 20 proposed test activities would occur on existing test ranges
 21 and no new military construction, which is abbreviated as
 22 MILCON, funded activities would occur. It was determined
 23 that no land use changes would occur; therefore, no impacts
 24 are anticipated.
 25 Utilities did not require further analysis

1 because no substantial permanent employment changes would
 2 occur, and utility requirements for test activities would
 3 not change. It was determined that no impacts to utilities
 4 are anticipated.
 5 Transportation did not require further
 6 analysis, because no substantial permanent employment
 7 changes would occur, and standard operating procedures are
 8 in place to control traffic during proposed test activities.
 9 It was determined that no impacts to roadways, air
 10 transportation, and railroads are anticipated.
 11 And finally, Environmental Justice did not
 12 require further analysis, because airborne laser test
 13 activities would be conducted and contained within the
 14 installation and range boundaries. It was determined that
 15 no disproportionately high and adverse impacts to low-income
 16 and minority population would occur.
 17 Under the "Hazardous Materials and Hazardous
 18 Waste Management" category, Installation Restoration Program
 19 Sites did not require further analysis, because there are no
 20 installation restoration program sites in the vicinity of
 21 the launch sites.
 22 Storage Tanks did not require further
 23 analysis, because no changes to the requirement for storage
 24 tanks was identified; therefore, it was determined that
 25 storage tanks associated with the Airborne Laser Program

1 were adequately addressed in the 1997 EIS.
 2 Asbestos did not require further analysis,
 3 because no MILCON-funded facility construction or demolition
 4 activities are proposed to support flight test activities --
 5 excuse me, test activities. It was determined that no
 6 impacts from asbestos are anticipated.
 7 Pesticide Usage did not require further
 8 analysis, because the proposed test activities would not
 9 require an increase in the use of pesticides.
 10 Polychlorinated Biphenyls (or PCBs) did not
 11 require further analysis, because no PCB-containing
 12 equipment would be utilized during proposed test activities;
 13 therefore, no impacts are anticipated.
 14 Radon did not require further analysis because
 15 the proposed test activities would not be conducted in
 16 facilities that would be permanently occupied. It was
 17 determined that no impacts from radon are anticipated.
 18 The Medical and Biohazardous Waste did not
 19 require further analysis, because medical and biohazardous
 20 waste would not be generated during the proposed test
 21 activities; therefore, no impacts are anticipated.
 22 Lead-Based Paint did not require further
 23 analysis, because as with the asbestos, no MILCON-funded
 24 facility construction or demolition activities are proposed
 25 to support test activities. It was determined that no

<p style="text-align: center;">Document 2</p> <p>1 impacts from lead-based paint are anticipated.</p> <p>2 Under the "Natural Environment" category,</p> <p>3 <u>Soils and Geology</u> did not require further analysis, because</p> <p>4 no MILCON-funded facility construction or demolition</p> <p>5 activities are proposed to support test activities, no</p> <p>6 ground disturbance would occur.</p> <p>7 <u>Water Resources</u> did not require further</p> <p>8 analysis, because similar to soils and geology, no</p> <p>9 MILCON-funded facility construction or demolition activities</p> <p>10 are proposed to support test activities, no ground</p> <p>11 disturbance would occur.</p> <p>12 The draft SEIS focuses on potential impacts</p> <p>13 that would occur as a result of proposed airborne laser test</p> <p>14 activities. Resources evaluated in detail include</p> <p>15 socioeconomics, airspace, hazardous materials, and hazardous</p> <p>16 waste management, health and safety, air quality, noise,</p> <p>17 biological resources, and cultural resources.</p> <p>18 Under the "Local Community" category,</p> <p>19 <u>Socioeconomics</u> was analyzed further, because flight-testing</p> <p>20 activities at Vandenberg Air Force Base are expected to</p> <p>21 trigger the rotation of up to 50 program-related, temporary</p> <p>22 personnel into and out of Vandenberg Air Force Base for</p> <p>23 short periods surrounding each test event. The rotation of</p> <p>24 up to 50 program-related, temporary personnel would have a</p> <p>25 small, positive, yet largely unnoticeable effect on</p> <p style="text-align: right;">21</p>	<p style="text-align: center;">Document 2</p> <p>1 population, income, and employment in the area surrounding</p> <p>2 Vandenberg Air Force Base.</p> <p>3 There is the potential for impacts to local</p> <p>4 commercial and recreational fishing in the waters offshore</p> <p>5 of Vandenberg Air Force Base and below the warning areas of</p> <p>6 the Western Range. However, ocean vessels would be notified</p> <p>7 in advance of launch activity, as part of routine</p> <p>8 operations, through a notice to mariners to warn vessels of</p> <p>9 test operations and the potential hazards. All efforts are</p> <p>10 made to ensure that the flight corridors are clear of</p> <p>11 vessels.</p> <p>12 Flight-testing activities have the potential</p> <p>13 for impacts on local recreation activities, because they may</p> <p>14 require the temporary closure of one or more of the State</p> <p>15 and County parks in the area surrounding Vandenberg Air</p> <p>16 Force Base. While inconvenient for the individuals</p> <p>17 involved, the relative small number of park visitors that</p> <p>18 could be affected, along with the fact that existing</p> <p>19 evacuation agreements are in effect, determined impacts to</p> <p>20 recreational use of the parks would not be substantial. No</p> <p>21 adverse impacts to socioeconomics are anticipated under the</p> <p>22 proposed action.</p> <p>23 <u>Airspace</u> was analyzed further to determine if</p> <p>24 the use of the Western Range for the proposed flight-testing</p> <p>25 activities would have an adverse impact on activities</p> <p style="text-align: right;">22</p>
<p style="text-align: center;">Document 2</p> <p>1 conducted within the range. The agencies that use the</p> <p>2 special airspace of the Western Range, have a scheduling</p> <p>3 office that is responsible for establishing a real-time</p> <p>4 activities schedule for those restricted areas. The</p> <p>5 schedule and any changes are forwarded to the controlling</p> <p>6 air route traffic control center. There would be no impact</p> <p>7 to the regional air routes, because no airways or jet routes</p> <p>8 pass through or near the restricted areas to be used during</p> <p>9 the flight-testing activities. No adverse impacts from</p> <p>10 airspace usage are anticipated under the proposed action.</p> <p>11 <u>Hazardous Materials and Hazardous Waste</u></p> <p>12 <u>Management</u> was analyzed further, because hazardous materials</p> <p>13 will be used to launch missiles. The hazardous materials</p> <p>14 used during missile launch preparation would be similar to</p> <p>15 those currently used at Vandenberg Air Force Base, and would</p> <p>16 be transported to the missile preparation area, using ground</p> <p>17 support equipment, without the need for revised procedures.</p> <p>18 In the event the airborne laser aircraft is</p> <p>19 unable to land at Edwards Air Force Base, Vandenberg Air</p> <p>20 Force Base has been identified as one of three preplanned,</p> <p>21 divert bases in which the aircraft could be diverted to.</p> <p>22 Vandenberg Air Force Base personnel would be specifically</p> <p>23 trained to support the airborne laser aircraft, and</p> <p>24 appropriate equipment to handle the airborne laser hazardous</p> <p>25 materials would be in place. No adverse impacts from</p> <p style="text-align: right;">23</p>	<p style="text-align: center;">Document 2</p> <p>1 hazardous materials or hazardous waste management are</p> <p>2 anticipated under the proposed action.</p> <p>3 <u>Health and Safety</u> was analyzed further,</p> <p>4 because of the potential hazards associated with the system.</p> <p>5 The primary hazard associated with the flight-testing</p> <p>6 activities is the reflected laser energy off a target</p> <p>7 missile, and missile debris falling within the Western Range</p> <p>8 boundaries. Any laser energy that misses the targeted</p> <p>9 missile would continue upward and away from the ground. The</p> <p>10 reflected laser energy hazards for the high-energy laser</p> <p>11 have been extensively investigated and</p> <p>12 possible-for-reflection scenarios predicted. The</p> <p>13 possibility of public exposure to hazardous levels of</p> <p>14 direct, nonreflected laser energy would be eliminated by the</p> <p>15 decision to restrict laser-firing angles to above the</p> <p>16 horizontal plane from the airborne laser aircraft's altitude</p> <p>17 of 35,000 feet or higher.</p> <p>18 However, because of the missile's flight path</p> <p>19 angle, when intercepted by the laser beam, reflections from</p> <p>20 the target missile surface could be directed downward.</p> <p>21 Flight-test activities would be configured so that any</p> <p>22 reflected energy would be contained within the range</p> <p>23 boundaries. The targets in all high-energy laser tests</p> <p>24 would be flying at altitudes above 35,000 feet. Because the</p> <p>25 diffusely-reflected energy is spread over a large area, the</p> <p style="text-align: right;">24</p>

1 energy density rapidly decreases to below the maximum
2 permitted exposure levels. Any directed laser energy that
3 misses the target would exit restricted airspace above
4 45,000 feet and continue upward, eventually exiting the
5 earth's atmosphere.

6 Vandenberg Air Force Base has in place
7 established procedures to ensure a safe environment to
8 conduct airborne laser flight-test activities. Restricted
9 airspace areas would be controlled according to eastern and
10 Western Range 127.1 range safety requirements, safety
11 operating instructions, the 30th Space Wing Regulations and
12 FAA directives and regulations. The notice to mariners and
13 a notice to airmen would be disseminated prior to launch
14 activities. Established procedures related to evacuating or
15 sheltering personnel on off-shore oil rigs during launch
16 operations would be implemented. The State and County
17 beaches potentially affected during launch activities would
18 be closed. Analysis results determined health and safety
19 impacts from the proposed airborne laser-testing activities
20 at Vandenberg Air Force Base would be inconsequential.

21 Under the "Natural Environment" category,
22 Air Quality was analyzed further, because of the potential
23 for emissions from the flight tests and missile launches.
24 The estimated emissions from flight-test activities are
25 below the de minimis conformity determination level of 100

25

1 tons per year, and are less than one percent of the Santa
2 Barbara County's total emissions. The estimate of criteria
3 pollutant emissions is based on the number of proposed
4 missile launches, and includes estimates for the service
5 vehicles. The criteria pollutant emissions, due to the
6 missile launch activities, would produce insignificant
7 changes in regional air quality. No adverse impacts from
8 air quality are anticipated under the proposed action.

9 Noise was analyzed further, because the
10 testing activities involve hazardous noise-producing
11 equipment. Flight-test activities would involve the
12 airborne laser aircraft and up to two chase aircraft. These
13 aircraft would fly and maneuver at altitudes about 35,000
14 feet. No noise impact from the airborne laser aircraft or
15 the chase aircraft are anticipated, due to the altitude of
16 the proposed test activities. All target missiles would be
17 launched from the existing launch areas at Vandenberg Air
18 Force Base. The noise from the proposed target missiles
19 would be much less than the larger missiles currently
20 launched from the Vandenberg Air Force Base. Therefore, a
21 lower noise impact from the missile launches would be
22 expected. Analysis results determined, for flight-testing
23 activities, no adverse noise impacts are anticipated under
24 the proposed action.

25 Biological Resources were analyzed further,

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1 because threatened and endangered species are found on
2 Vandenberg Air Force Base. The test missiles are much
3 smaller than any of the space launch vehicles currently
4 launched. The potential disturbance to the indigenous
5 pinnipeds population is expected to be less. As test plans
6 are detailed and finalized, the appropriate permits would be
7 obtained as part of the standard launch protocol. The
8 trajectory of the target missiles would be such that the
9 first stage of the missile and any debris from the
10 destruction of the missile during test activities would
11 occur no closer than three miles from the coastline.

12 Analysis of the effects of a target missile
13 impacting the ocean approximately 130 kilometers, or 81
14 miles from the launch point, has shown an extremely low
15 probability of hitting any marine mammals, and the effect of
16 the propellant remaining onboard would be localized to a
17 small volume of water for a short period of time. An
18 analysis of the effect of missile debris on migrating gray
19 whales, using gray whales as a representative species,
20 suggested that during peak migration densities, a whale
21 could be struck and killed by falling debris with an
22 expected probability of one in one hundred thousand.
23 Missile launches occurring at other than peak migration
24 times would present significantly lower risks to migrating
25 whales.

27

1 An analysis of the impacts associated with the
2 operation of the high-energy laser showed that laser
3 activities would not have significant impacts upon the
4 wildlife at Vandenberg Air Force Base or the Western Range.
5 The analysis, which takes into account the high altitude at
6 which the proposed laser activity would occur, along with
7 the test geometry, determined that the high-energy laser
8 would be prevented from being engaged in a downward
9 direction. No adverse impacts are anticipated under the
10 proposed action.

11 Cultural Resources were analyzed, because
12 sites existing on Vandenberg Air Force Base -- the
13 flight-testing activities at Vandenberg Air Force Base would
14 consist of the launching of missiles from existing coastal
15 launch sites. Target missile debris would land in the ocean
16 well away from the coastline. Debris falling offshore would
17 pose no threat to Vandenberg Air Force Base's cultural
18 resources. No adverse impacts are anticipated under the
19 proposed action.

20 The no-action alternative in this SEIS
21 reflects the proposed test activities analyzed in the 1997
22 Environmental Impact Statement. Therefore, no new impacts
23 are created, and potential impacts are discussed in that
24 document. As previously stated, this SEIS does not discuss
25 the findings of that document, except as a basis of

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1 comparison. Therefore, the no-action alternative generates
 2 no new impacts.

3 In closing, I remind you that this study is in
 4 a draft stage. Our goal is to provide the decision makers
 5 with accurate information on the potential environmental
 6 consequences of the proposed airborne laser test activities.
 7 To do this, we are soliciting your comments on the draft
 8 SEIS. This information will support informed decision
 9 making.

10 I would now like to turn the meeting back over
 11 to Colonel Powers.

12

13 COLONEL POWERS: Thank you, Captain Wimmer.

14 Next is the main portion of the meeting, which
 15 is the public comment period. And before we go into that,
 16 we will take a ten-minute recess. So if anybody who filled
 17 out a card didn't initially indicate that you wanted to make
 18 a statement, but now feel you want to make a statement, use
 19 this time during the next ten minutes to fill out a card
 20 indicating such.

21 Okay. So we will take a ten-minute recess and
 22 then we will hear the comments.

23

24 (Break taken.)

25

1 COLONEL POWERS: Okay. This apparently is going to be short
 2 because I have cards here and nobody signed up to speak. So
 3 does anybody have any comments? Last chance here, now.
 4 Anybody want to get up and speak? Okay. All right.

5 All right. Apparently, we have no speakers.
 6 I will say that again. And that being the case, this
 7 hearing is concluded. If you should later decide to make
 8 additional comments, or would like to receive a copy of the
 9 final SEIS, you may do so through the address that will be
 10 available at the front desk. Okay. This hearing is
 11 concluded. Good night and thank you for coming.

12 (Proceedings concluded at 8:00 p.m.)

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1 STATE OF CALIFORNIA)
 2 COUNTY OF SAN LUIS OBISPO) SS

3

4 I, the undersigned, a Certified Shorthand
 5 Reporter of the State of California, do hereby
 6 certify:

7 That the foregoing proceedings were taken
 8 before me at the time and place herein set forth; that
 9 any witnesses in the foregoing proceedings, prior to
 10 testifying, were placed under oath; that a verbatim
 11 record of the proceedings was made by me using machine
 12 shorthand which was thereafter transcribed under my
 13 direction; further, that the foregoing is an accurate
 14 transcription thereof.

15 I further certify that I am neither
 16 financially interested in the action nor a relative or
 17 employee of any attorney of any of the parties.

18 IN WITNESS WHEREOF, I have this date
 19 subscribed my name.

20

21 Date: 10/27/02

22

23

24 Marcy Styles
 MARCY STYLES
 CSR No. 10604

25

1 MISSILE DEFENSE AGENCY

2

3

4 IN THE MATTER OF A
 5 PUBLIC HEARING ON THE SUPPLEMENTAL
 6 ENVIRONMENTAL IMPACT STATEMENT FOR
 7 THE AIRBORNE LASER PROGRAM

8

9

10

11 TRANSCRIPT OF PROCEEDINGS

12

13 October 22, 2002

14 7:00 PM

15 Marriott Hotel

16 2101 Louisiana Boulevard, Northeast

17 Albuquerque, New Mexico

18

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21 PANEL MEMBERS:

22 CAPT. JOE WIMMER

23 COL. JOHN POWER

24 MR. KEN ENGLADE

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3

1 COL. POWERS: Okay. I think we'll go and get
2 started. We have a couple more people, it looks like,
3 signing in, but they should be in here momentarily.
4 Good evening, ladies and gentlemen. I'd like
5 to welcome you to the public hearing on the draft
6 Supplemental Environmental Impact Statement for proposed
7 test activities of the Airborne Laser Program.
8 Since cell phones and pagers can be
9 distracting, it would be greatly appreciated if you would
10 turn off or change the setting to nonaudible or vibration
11 ring on your cell phones and pagers.
12 And if you'll have a seat, we'll get started.
13 Starting last summer, the modified 747-400F
14 aircraft was flown to test the structural integrity after
15 all the modifications were completed to its airframe.
16 None of the active lasers were on board. The payload was
17 simulated with ballast.
18 Now, if everyone will please stand, we'll play
19 the national anthem, and we'll get started.
20 Thank you.
21 My name is Col. John Powers, and I will be the
22 presiding officer for tonight's meeting. My purpose here
23 is to ensure that we have a fair, orderly hearing and
24 that all who wish to be heard have a fair chance to do
25 so.

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4

1 At this point, I'd like to introduce the other
2 members of the public hearing panel and their role in
3 this meeting.
4 Col. Eva Wallace, from the Airborne Laser
5 System Program Office at Kirtland Air Force Base in New
6 Mexico, is the senior Airborne Laser System Program
7 Office representative at this public hearing.
8 Capt. Sal Rodriguez, from the Airborne Laser
9 System Program Office of Kirtland, is a Spanish speaker,
10 and he is here to help anyone in the audience who feels
11 more comfortable addressing their issues in Spanish
12 rather than English. He will not translate the entire
13 proceeding but will serve as an aide.
14 Capt. Rodriguez, if you would please introduce
15 yourself.
16 CAPT. RODRIGUEZ: *Senoras y senores, mi nombre*
17 *es Capt. Sal Rodriguez. Me encuentro hoy aqui con el*
18 *proposito de asistir a aquellas personas que tengan*
19 *alguna pregunta o preguntas y prefieran o se sientan*
20 *mejor haciendolas en Espanol, en cambio de el Ingles.*
21 *Por razones de tiempo, entre otras, no traducire todo el*
22 *procedimiento en Espanol, pero hare todo lo posible por*
23 *contestar sus preguntas.*
24 *Muchas gracias.*
25 COL. POWERS: Thank you.

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5

1 Mr. Ken Englade, from the Airborne Laser System
2 Program Public Affairs Office at Kirtland, will present
3 an overview of actions leading to the preparation of the
4 draft Supplemental Environmental Impact Statement and
5 describe the proposed action and alternatives.
6 And Capt. Joe Wimmer, from the Airborne Laser
7 System Program External Affairs Office at Kirtland, will
8 present the findings of the draft Supplemental
9 Environmental Impact Statement.
10 The purpose of tonight's hearing is to receive
11 your comments, suggestions and criticisms of the draft
12 Supplemental Environmental Impact Statement, or SEIS.
13 Those of you who have not had an opportunity to
14 review the draft SEIS may want to read the summary of the
15 major findings in the handout available at the door. The
16 findings will also be addressed by the panel members in
17 their presentations.
18 Throughout this hearing, I ask that you keep in
19 mind that this public hearing is not designed to be a
20 debate, nor is it a popularity vote on the draft SEIS,
21 nor is it primarily designed as a question and answer
22 session; however, clarifying questions asked as part of
23 your comment time may be appropriate.
24 This hearing is also not a time set aside for
25 you to use your comment time to personally attack those

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1 whose views may be different from your own.

2 In the first part of tonight's meeting, the
3 members of the panel will brief you on the details of the
4 proposed action and alternatives and the findings of the
5 draft SEIS.

6 The second part of the meeting will give you an
7 opportunity to provide information and make statements
8 for the record. This input ensures that the decision
9 makers may benefit from your knowledge of the local area
10 and any adverse environmental effects that you think may
11 result from the proposed action or alternatives.

12 Tonight's hearing is designed to give you an
13 opportunity to comment on the adequacy of the draft SEIS.
14 Keep in mind that the SEIS is simply intended to ensure
15 that the decision makers will be fully apprised of the
16 potential environmental impacts associated with the
17 proposed action and alternatives before they decide on a
18 course of action.

19 Consequently, comments on issues unrelated to
20 the SEIS are really beyond the scope of this hearing and
21 will not be addressed.

22 I would like to make a few administrative
23 comments. First of all, if you wish to speak tonight, I
24 ask that you fill out one of the cards that are located
25 on the registration table as you came into the room.

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1 From these cards, I will call your name for you
2 to come up -- come forward to state your comments. If
3 you did not pick up a card and would like to make
4 comments tonight, please raise your hand, and one of our
5 representatives will bring you a card.

6 After the panel has finished its presentations,
7 we will take a 15-minute recess. During this time, we
8 will collect the cards, and when the meeting resumes, I
9 will recognize elected officials first, then I will call
10 members of the public in random order from the cards that
11 have been handed in.

12 For those of you who have not indicated on the
13 cards that you want to make a statement but wish to speak
14 later, please fill out another card at the registration
15 table during that break.

16 I want to make sure that we have an opportunity
17 to fully consider the comments that you make tonight, and
18 because of that, we have an individual here who will
19 record everything that is said so that we don't overlook
20 any of your comments.

21 I'd like to establish a few ground rules so
22 that all of us have the benefit of hearing individual
23 comments and that we have a good meeting transcript.

24 First, please speak only after I recognize you,
25 and address your comments to me. If you have a written

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1 statement, you may place it in the box next to the podium
2 that will be set up, or you may read it aloud, or you may
3 do both.

4 Second, please speak clearly and slowly into
5 the microphone, stating your name and the capacity in
6 which you appear. This will help our recorder with the
7 transcript.

8 Third, each person will be recognized for five
9 minutes. If you exceed this limit, I will ask you to
10 stop at that point. If you have more comments than you
11 will be able to present in five minutes, please
12 prioritize them so that the most important comments are
13 addressed first, in case you run out of time.

14 After everyone has had an opportunity to
15 comment, then I will address the audience to see if
16 anyone would like to speak again.

17 Fourth, please do not speak while another
18 person is speaking. Only one person will be recognized
19 at a time.

20 If you later decide to make a comment after the
21 public hearing or have additional considerations, we
22 encourage you to send your written comments to the
23 address that will be shown on the screen or indicated on
24 the comment sheet.

25 Finally, if you would like a copy of the final

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1 SEIS, you may state that on a written comment sheet or on
2 the attendance card that you filled out at the door.
3 Private addresses provided will be compiled to develop
4 the mailing list for those requesting copies of the final
5 SEIS. Personal home addresses and phone numbers written
6 on the written comment sheet or attendance card will not
7 be published in the final SEIS.

8 If no one has any questions at this time, I
9 will turn the program over to Mr. Ken Englade, who will
10 present an overview of the actions leading to the
11 preparation of the draft SEIS and describe the proposed
12 action and alternatives.

13 Mr. Englade.

14 MR. ENGLADE: Good evening, ladies and
15 gentlemen. My name is Ken Englade, and I'm from the
16 Airborne Laser Public Affairs Office.

17 This SEIS is a supplemental environmental
18 analysis based upon changes in the proposed test program
19 that have occurred since the final Environmental Impact
20 Statement for the Program Definition and Risk Reduction
21 Phase of the Airborne Laser Program was published in
22 April, 1997.

23 The SEIS is being used to fulfill our
24 requirements to comply with the National Environmental
25 Policy Act, or NEPA.

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1 The Environmental Impact Statement published in
2 1997 considered options for siting a home base, a
3 diagnostic test range and an expanded area test range in
4 support of the Airborne Laser Program.

5 A screening process was developed to narrow the
6 number of alternative locations for detailed analysis.
7 This process was designed to identify a number of
8 candidate locations that could meet a threshold of
9 operational considerations necessary to conduct the
10 Airborne Laser Program.

11 The Record of Decision for the 1997
12 Environmental Impact Statement identified Edwards Air
13 Force Base as the home base to support the airborne laser
14 aircraft and conduct ground test activities of the
15 airborne laser systems, White Sands Missile Range as the
16 diagnostic test range and the Western Range as the
17 expanded area test range.

18 These two areas would support proposed flight
19 test activities of the airborne laser systems.

20 This environmental effort was begun in March,
21 2002, with the publication of a notice of intent to
22 prepare a Supplemental Environmental Impact Statement, or
23 SEIS, for airborne laser test actions in the Federal
24 Register.

25 A scoping meeting was held near each location

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1 where the activities will occur, to include here at
2 Albuquerque on April 15th, 2002, to receive public input
3 on the scope of issues to be addressed in the SEIS.

4 After scoping, we collected the necessary data
5 and conducted the environmental analysis. The notice of
6 availability was published in the Federal Register on
7 September 20th, 2002.

8 In addition to tonight's hearings, written
9 comments on the draft SEIS will continue to be accepted
10 at this address until November 5th, 2002. After the
11 comment period is over, we will evaluate all comments,
12 both written and verbal, and perform additional analysis
13 or change the SEIS where necessary.

14 Again, as in the scoping process, equal
15 consideration will be given to all comments, whether they
16 are presented here tonight or mailed to us.

17 Once the review process is complete, we will
18 produce a final SEIS, scheduled for completion in March,
19 2003, and mail it to all those on the original
20 distribution list for the draft SEIS. If you are not on
21 our mailing list, you could request a copy by writing to
22 this address. The final SEIS will include comments
23 received during the public review period and our
24 responses to those comments.

25 If appropriate, we will group comments into

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1 categories and respond accordingly. The SEIS will serve
2 as input for the Record of Decision. We expect to
3 accomplish the Record of Decision in late spring of next
4 year.

5 The draft SEIS was prepared to comply with the
6 National Environmental Policy Act, or NEPA, and the
7 Council on Environmental Quality Regulations. Efforts
8 were made to reduce needless bulk, write in plain
9 language, focus only on those issues that are clearly
10 related to the environment and to integrate with other
11 documents required as part of the decision-making
12 process.

13 The analysis focuses on impacts that may occur
14 as a direct or indirect result of the proposed airborne
15 laser test activities.

16 Now I will present an overview of the proposed
17 action and alternatives that have been analyzed.
18 Afterwards, Capt. Wimmer will present a synopsis of the
19 results of our analysis.

20 The airborne laser system is one element of the
21 Missile Defense Agency's ballistic missile defense
22 system, which is intended to provide an effective defense
23 for the United States, its deployed forces and its
24 friends and allies from limited missile attack during all
25 three stages of an attacking missile's flight.

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1 The three segments are the boost segment, the
2 midcourse segment and the terminal segment.

3 The boost segment is when the missile is under
4 power and is being thrust skyward by its rocket engines.

5 The midcourse segment is the longest segment.
6 This is when the missile is in a ballistic arc, heading
7 for its target.

8 The terminal segment is the few remaining
9 moments of the missile's flight before the missile
10 reaches its target.

11 Each element of the ballistic missile defense
12 system is designed to work independently to provide an
13 effective defense against incoming missiles. The
14 airborne laser is designed to destroy missiles during the
15 boost phase.

16 The airborne laser is a weapon system that is
17 designed to spot, track, engage and destroy missiles.
18 Using a megawatt class laser, the missile would be
19 destroyed during the initial boost phase, shortly after
20 takeoff.

21 The airborne laser system consists of a
22 modified Boeing 747-400F aircraft that utilizes four
23 lasers. The first three are not designed to destroy,
24 rather they are used to gather information regarding the
25 target and to make the high-energy laser more effective.

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1 These three lasers are the active ranging
2 system laser, the track illuminator laser and the beacon
3 illuminator laser.

4 The active ranging system provides basic
5 information regarding the target, such as speed,
6 altitude, range and direction.

7 The track illuminator laser provides the
8 high-energy laser targeting system with the optimum
9 location upon which to attack the target.

10 The beacon illuminator laser is used to gather
11 information on the atmosphere between the aircraft and
12 the target.

13 The fourth laser is the high-energy, weapons
14 class laser that is designed to destroy the target. It
15 is a megawatt class laser generated by a chemical
16 reaction.

17 A battle management command center onboard the
18 aircraft provides computerized control of the laser
19 weapons system, communications and intelligence.

20 During the initial testing program, a fifth
21 laser will be used. The surrogate high-energy laser is a
22 lower-power laser and will be used as a simulation of the
23 high-energy laser.

24 During flight test activities, the airborne
25 laser aircraft would fly at or above 35,000 feet and

1 would detect and track launches of target missiles using
2 onboard sensors. Active tracking of the missile could
3 begin when the missile clears the cloud tops.

4 The high-energy laser would be directed at an
5 upward direction toward the missile. The energy from the
6 laser would heat the missile's booster components and
7 cause a stress fracture in the outer surface of the
8 missile. This would allow gases from the booster rocket
9 to escape, causing an explosion that would destroy the
10 missile.

11 The geometry of the test activities would
12 preclude operation of the laser except at a horizontal or
13 upward angle. This is to ensure that lower-flying
14 aircraft and objects on the ground would not be in the
15 path of the laser beam.

16 The onboard sensors would also be used to
17 confirm that nothing in the air or space, other than the
18 intended target, is within the potential beam path. This
19 is in addition to using controlled and cleared air space
20 during airborne laser flight testing.

21 The proposed action is to conduct test
22 activities of the airborne laser system at test ranges
23 associated with Edwards Air Force Base and Vandenberg Air
24 Force Base, California, and Kirtland Air Force Base and
25 White Sands Missile Range, with support from Holloman Air

1 Force Base, New Mexico.

2 Test activities would involve testing the laser
3 components on the ground and in flight to verify that
4 laser components operate together safely and effectively.

5 In the event that ground testing is not
6 possible at Edwards Air Force Base, Kirtland Air Force
7 Base and White Sands Missile Range, with support from
8 Holloman Air Force Base, have been identified as
9 alternative ground test locations.

10 Flight testing is proposed at the R-2508 Air
11 Space Complex utilized by Edwards Air Force Base, the
12 Western Range off the coast of California that is
13 utilized by Vandenberg Air Force base in Point Mugu Naval
14 Air Station and White Sands Missile Range.

15 The airborne laser aircraft would be based at
16 Edwards Air Force Base, and the aircraft will be flown to
17 the other bases for testing as required. All test
18 flights would begin and end at Edwards Air Force Base.

19 Ground testing of the lower-powered laser
20 systems would be conducted at Edwards Air Force Base from
21 the end of the runway associated with the Birk Test
22 Flight facility. Ground targets would include a
23 rotoplane, which is a ferris wheel-like rotating target,
24 and stationary target boards.

25 High-energy ground testing activities would be

1 conducted using a ground-based similarity. No open range
2 testing of the high energy laser would be conducted.

3 Kirtland Air Force Base and White Sands Missile
4 Range, with support from adjacent Holloman Air Force
5 Base, have been identified as alternative ground test
6 locations if conditions prevent testing at Edwards Air
7 Force Base.

8 If ground testing occurs at Kirtland Air Force
9 Base, the aircraft would be flown to Kirtland Air Force
10 Base and use existing runways, taxiways and aircraft
11 parking areas. Only the lower-power laser systems would
12 be tested at Kirtland Air Force Base using the existing
13 Sandia laser target range.

14 If ground testing occurs at White Sands Missile
15 Range, the aircraft will be flown to Holloman Air Force
16 Base and use approved runways, taxiways and aircraft
17 parking areas. Only the lower-power laser systems would
18 be tested. The laser systems would be directed westward,
19 toward targets placed within White Sands Missile Range.

20 Ground testing procedures include automatic
21 laser turret limiting devices and/or laser blocking
22 devices to prevent laser energy from extending beyond the
23 target backstops and from the defined laser beam path.
24 Target backstops include natural features such as hills,
25 mountains and buttes or man-made earthen berms.

1 Flight testing of the airborne laser system is
2 required to confirm and expand on computer modeling and
3 ground test data and to provide complete testing of all
4 systems required to have an effective weapons system.

5 During flight tests, the airborne laser
6 aircraft would be accompanied by up to two chase aircraft
7 to monitor the test and the status of the airborne laser
8 aircraft. The airborne laser aircraft would fly at an
9 altitude at or above 35,000 feet, and the laser systems
10 would track targets at a horizontal or in an upward
11 direction to minimize potential contact with the ground
12 or other aircraft.

13 Onboard sensors and pretest planning would be
14 used to confirm that no aircraft or satellites are within
15 the potential path of the beam. Also, only existing
16 military and FAA-controlled air space areas would be
17 utilized during the test and confirmed clear of
18 nonparticipating aircraft during testing activities.

19 Flight tests would utilize the R-2508 Air Space
20 Complex utilized by Edwards Air Force Base, the Western
21 Range utilized by Vandenberg Air Force Base and Point
22 Mugu Naval Air Station and White Sands Missile Range,
23 including Fort Bliss controlled air space and FAA
24 controlled air space as necessary.

25 Targets that would be used during flight

1 testing activities include the following: A missile
2 alternative range target instrument, or MARTI, which is a
3 balloon with a target board attached; a Proteus aircraft,
4 which is a high altitude manned aircraft with target
5 board attached; and target missiles that simulate a
6 potential threat missile.

7 Both low- and high-power laser tests will be
8 conducted on the MARTI and missile targets. Only
9 lower-powered tests would occur with the Proteus aircraft
10 as it is a manned target vehicle.

11 The test will evaluate the airborne laser
12 system's ability to acquire, track and engage targets.
13 Missiles used during the flight test activities will have
14 a flight termination system to ensure that debris would
15 be contained on the range in the event the target missile
16 must be destroyed in flight.

17 In the event that the aircraft is unable to
18 land at Edwards Air Force Base after conducting test
19 activities, preplanned divert bases have been
20 established. The divert bases would have personnel
21 specifically trained to support the airborne laser
22 aircraft and appropriate equipment to handle airborne
23 laser hazardous materials.

24 The no-action alternative would involve
25 conducting airborne laser test activities as described in

1 the original testing program discussed in the 1997
2 document.

3 Other alternatives were considered and
4 eliminated from further consideration in the 1997
5 document. These alternatives include different test
6 demonstration methods, laser system types and test
7 installations or locations.

8 I would now like to turn the microphone over to
9 Capt. Joe Wimmer, who will discuss the findings of the
10 draft SEIS.

11 CAPT. WIMMER: Good evening. My name is
12 Capt. Joe Wimmer.

13 I will briefly review the resources detailed in
14 the draft SEIS that may be affected due to the proposed
15 airborne laser test activities.

16 Based on the proposed airborne laser test
17 activities being addressed in this SEIS and actions that
18 have already been addressed within the EIS prepared in
19 1997, the analysis indicated that there would be no or
20 few potential impacts for several resource areas. These
21 resources are highlighted on this slide, and I will
22 summarize the analysis results briefly.

23 Under the local community category, land use
24 and esthetics did not require further analysis because
25 proposed test activities would not occur on existing test

1 ranges and no new military construction, which is
2 abbreviated as MILCON, funded activities would occur. It
3 was determined that no land use changes would occur.
4 Therefore, no impacts are anticipated.

5 Utilities did not require further analysis
6 because no substantial permanent employment changes would
7 occur and utility requirements for test activities would
8 not change. It was determined that no impacts to
9 utilities are anticipated.

10 Transportation did not require further analysis
11 because no substantial permanent employment changes would
12 occur and standard operating procedures are in place to
13 control traffic during proposed test activities. It was
14 determined that no impacts to roadways, air
15 transportation and railroads are anticipated.

16 Finally, environmental justice did not require
17 further analysis because airborne laser test activities
18 would be conducted and contained within the installation
19 and range boundaries. It was determined that no
20 disproportionately high and adverse impacts to low-income
21 and minority populations would occur.

22 Under the hazardous materials and hazardous
23 waste management category, installation and restoration
24 program sites did not require further analysis because
25 there are no installation/restoration program sites in

1 the vicinity of the proposed ground target locations.
 2 Storage tanks did not require further analysis
 3 because no changes to the requirement for storage tanks
 4 was identified. Therefore, it was determined that
 5 storage tanks associated with the Airborne Laser Program
 6 were adequately addressed in the 1997 EIS.
 7 Asbestos did not require further analysis
 8 because no MILCON-funded facility construction or
 9 demolition activities are proposed to support test
 10 activities. It was determined that no impacts from
 11 asbestos are anticipated.
 12 Pesticide usage did not require further
 13 analysis because the proposed test activities would not
 14 require an increase in the use of pesticides.
 15 Polychlorinated biphenyls, or PCBs, did not
 16 require further analysis because no PCB-containing
 17 equipment would be utilized during proposed test
 18 activities. Therefore, no impacts are anticipated.
 19 Radon did not require further analysis because
 20 the proposed test activities would not be conducted at
 21 facilities that would be permanently occupied. It was
 22 determined that no impacts from radon are anticipated.
 23 Medical and biohazardous wastes did not require
 24 further analysis because medical and biohazardous wastes
 25 would not be generated during proposed test activities.

1 Therefore, no impacts are anticipated.
 2 Lead-based paint did not require further
 3 analysis because, as with asbestos, no MILCON-funded
 4 facility construction or demolition activities are
 5 proposed to support test activities. It was determined
 6 that no impacts from lead-based paint are anticipated.
 7 Under the natural environment category, soils
 8 and geology did not require further analysis because no
 9 MILCON-funded facility construction or demolition
 10 activities are proposed to support test activities and no
 11 ground disturbances would occur.
 12 Water resources did not require further
 13 analysis because, similarly to soils and geology, no
 14 MILCON-funded facility construction or demolition
 15 activities are proposed to support test activities, no
 16 ground disturbance would occur.
 17 The draft SEIS focused on potential impacts
 18 that would occur as a result of the proposed airborne
 19 laser test activities. Resources evaluated in detail
 20 include socioeconomic, air space, hazardous materials
 21 and hazardous waste management, health and safety, air
 22 quality, noise, biological resources and cultural
 23 resources.
 24 Under the local community category,
 25 socioeconomic was analyzed further because ground

1 testing activities at Kirtland Air Force Base are
 2 expected to require up to 50 program-related temporary
 3 personnel for the duration of the test activities.
 4 The addition of up to 50 program-related
 5 temporary personnel would have a small, positive, yet
 6 largely unnoticeable, effect on the population, income or
 7 employment in the region surrounding Kirtland Air Force
 8 Base.
 9 Air space was not analyzed further because only
 10 ground testing activities of the airborne laser system
 11 are proposed at Kirtland Air Force Base.
 12 Hazardous materials and hazardous waste
 13 management was analyzed further because small quantities
 14 of existing stores of aviation fuel and petroleum oil and
 15 lubricants at Kirtland Air Force Base would be used to
 16 fuel and maintain the aircraft ground support equipment
 17 used to supply power to the aircraft and laser systems
 18 during ground testing activities.
 19 These small quantities would result in a
 20 negligible increase in materials requirements from
 21 current base operations.
 22 In the event the airborne laser aircraft is
 23 unable to land at Edwards Air Force Base after conducting
 24 test activities, Kirtland Air Force Base has been
 25 identified as one of the three preplanned divert bases in

1 which the airborne laser aircraft would be diverted to.
 2 Personnel at Kirtland Air Force Base would be
 3 specifically trained to support the airborne laser
 4 aircraft and appropriate equipment to handle the airborne
 5 laser's hazardous materials would be in place.
 6 Health and safety was analyzed further because
 7 of the potential hazards associated with the system.
 8 Only the lower-power laser systems would be ground tested
 9 at Kirtland Air Force Base from pad 4 to multiple target
 10 platforms at varying distances, specifically four, five
 11 and seven kilometers downrange.
 12 Targets used during the firing of the laser
 13 system include billboard-mounted target boards and
 14 rotoplane-mounted target boards.
 15 In order to minimize potential laser hazards,
 16 multiple controls would be used to reduce the potential
 17 for off-range lasing and accidental lasing of
 18 unsuspecting receptors.
 19 The first of these controls include use of
 20 backdrops and enclosures.
 21 The second type includes horizontal and
 22 vertical buffer zones.
 23 The third type includes administrative
 24 controls, for example, only allowing authorized and
 25 trained personnel near the test area.

1 And the final type includes removal of
2 mirror-like reflecting surfaces from the test area.

3 Under the natural environment category, air
4 quality was analyzed further because of the potential for
5 emissions from the ground level testing activities.

6 After reviewing the expected emissions from the
7 test scenarios and comprise -- comparing them to the
8 total emissions created by Kirtland Air Force Base, the
9 analysis determined that the effects would be minimal.

10 There would be no takeoff or landing off the airborne
11 laser aircraft set to arrive and depart Kirtland Air
12 Force Base upon completion of the test activities.

13 The estimated emissions are a fraction of a
14 percent of the Bernalillo County total emissions. The
15 potential air quality impacts from the proposed airborne
16 laser testing activities at Kirtland Air Force Base will
17 be inconsequential.

18 Noise was analyzed further because the testing
19 activities use hazardous noise-producing equipment. An
20 analysis to determine noise levels from the use of the
21 aircraft ground support equipment adjacent to the runway
22 during ground testing activities and the landing and
23 takeoff of the airborne laser aircraft would not cause
24 adverse effects to residential areas or to the local
25 population. Analysis results -- analysis results

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1 determined no adverse noise impacts are anticipated.

2 Biological resources were analyzed further
3 because threatened and endangered species are found on
4 Kirtland Air Force Base. The results determined adverse
5 impacts of biological resources are not expected because
6 the ground testing activities would utilize an existing
7 laser test range and no construction or ground
8 disturbance would occur.

9 Cultural resources were analyzed because sites
10 exist on Kirtland Air Force Base. The ground testing
11 activities would occur on previously disturbed, paved or
12 developed land. No construction activity would be
13 necessary for ground testing activities. Therefore,
14 there are no foreseen impacts of cultural resources on
15 Kirtland Air Force Base resulting from activities
16 proposed by the Airborne Laser Program.

17 The no-action alternative in this SEIS reflects
18 the proposed test activities analyzed in 1997
19 Environmental Impact Statement. Therefore, no new
20 impacts are created, and potential impacts are discussed
21 in that document.

22 As previously stated, this SEIS does not
23 discuss the findings of that document except as a basis
24 of comparison. Therefore, the no-action alternative
25 generates no new impacts.

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1 In closing, I remind you that this study is in
2 a draft stage. Our goal is to provide the decision
3 makers with accurate information on the potential
4 environmental consequences of the proposed airborne laser
5 test activities.

6 To do this, we are soliciting your comments on
7 the draft SEIS. This information will support informed
8 decision-making.

9 I'd like to now turn the meeting back over to
10 Col. Powers.

11 COL. POWERS: Thank you.

12 Well, the next portion of this public hearing
13 will be the public comment phase, and before we do that,
14 we'll take a 15-minute recess so I can gather the cards
15 and see who's going to be speaking tonight.

16 Anybody who would like to speak, if you haven't
17 already filled out a card, please do so so that we can
18 recognize you when we come back from our recess.

19 So let's take a 15-minute recess.
20 (Proceedings in recess.)

21 COL. POWERS: Okay. I guess we can continue.

22 Before we do proceed, I want to remind you of a
23 couple of points.

24 Please limit your comments to five minutes so
25 that everyone can be heard.

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1 And also, please state your name clearly before
2 you make a statement for the record.

3 The panel members are not the decision makers
4 regarding the proposed action or alternatives. If during
5 the public comment period a speaker requires a
6 clarification prior to providing a comment, the panel
7 members will try to answer the clarification.

8 To ensure that everyone has an opportunity to
9 speak, I also ask that repetitive statements be avoided.
10 If you agree with the comments of an earlier speaker,
11 please simply state your concurrence.

12 Okay.

13 We have no elected officials or representatives
14 of elected officials that I can see; is that correct?

15 So I'll just call randomly from the cards that
16 I have here. And please forgive me if I butcher a name
17 or have trouble reading the handwriting.

18 But I'll start out with Nicholas Wechselberger.
19 MR. WECHSELBERGER: Yes.

20 I was hoping I wouldn't be first, but --
21 UNIDENTIFIED SPEAKER: Somebody has to do it.

22 MR. WECHSELBERGER: Yes, somebody has to do it.

23 I guess, rather than make a comment at this
24 point, perhaps any clarification you could shed on the
25 danger that the chemicals in the aircraft would pose, in

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1 case there was an accident, to urban population, you
 2 know, if the plane were to crash or anything of this
 3 nature, what kind of dangers -- what kind of impact would
 4 that have on injuries to people in the area.
 5 COL. POWERS: Well, as I said earlier, this
 6 isn't designed as a question-and-answer session.
 7 MR. WECHSELBERGER: Okay.
 8 COL. POWERS: That would be beyond what would
 9 really be a clarification.
 10 But if you have comments you would like to make
 11 or concerns you would like to express, you're certainly
 12 free to use your five minutes for that.
 13 MR. WECHSELBERGER: Okay.
 14 Yes, yeah. Okay. So my concern is not knowing
 15 the nature of the chemicals involved for the reaction for
 16 the laser, and in case there was an accident, I'm
 17 concerned about the proximity of these weapons to urban
 18 populations.
 19 So basically, that's it.
 20 COL. POWERS: All right. Thank you.
 21 Jeanne Pahls.
 22 MS. FAHLS: I'm also glad I wasn't first. So
 23 second is better.
 24 I do have a lot of concerns about this -- the
 25 laser weapons in space. I think that explosions in space

1 aren't very good for the environment in space.
 2 I think we already have more weapons than any
 3 planet could possibly need. And to have weapons in
 4 space, lasers in space is another step toward war, toward
 5 domination of a planet, further control of the resources
 6 of the planet, and I don't think war is ever good for the
 7 environment.
 8 All of these weapons don't offer us any
 9 protection from others' anger. That's been proven to us
 10 by September 11, by the snipers in Washington -- or the
 11 sniper in Washington, by the explosions that have
 12 happened in Israel. That technology does not protect us.
 13 We like to think it does, but it has not been a
 14 protection to us in the past year.
 15 I think that a different foreign policy would
 16 be the only way we could really find protection, one that
 17 respects people who are living in poverty, and then we
 18 won't have that kind of anger directed toward us.
 19 I see that anything that takes us toward war is
 20 going to cause the death of a lot of children, a lot of
 21 families, a lot of military folks, a lot of people in
 22 uniform and out of uniform, and I think that all of that
 23 makes me frightened.
 24 I think that a lot of energy, effort, money and
 25 resources are going into this, and, you know -- I mean,

1 I'm a teacher. I'm a third grade teacher. I have
 2 children in my classroom that I see every single day who
 3 are hungry. I'm teaching children from very poor
 4 families, and I see hunger in my room every day.
 5 And I think about how the money that's going
 6 into the wars that our president is advocating and the
 7 weapons that our president is pushing for could be going
 8 into things that would help that seven-year-old in my
 9 classroom who is hungry every single day.
 10 And I think that poverty is never good for the
 11 environment, either, or for the neighborhood in which
 12 that poverty lives.
 13 And all I'm -- in all of the pictures that you
 14 have, the weapon -- the laser is directed upward, but,
 15 you know, we've seen enough history behind us to know
 16 what human nature is like.
 17 And I'm not saying that -- I'm just saying --
 18 what I'm trying to say is that in past history, lots of
 19 things have been done on behalf of our government that
 20 are appalling to any one of us and that we would never do
 21 ourselves, but that they have been done anyway.
 22 Blankets with the small pox virus were handed
 23 out on purpose to the Native Americans. Hitler -- this
 24 is not our government, but Hitler certainly carried out
 25 some terrible things with the help of the German people.

1 I'm German myself. You know, probably some of my own
 2 relatives in Germany may have done those things. They
 3 probably never thought they would.
 4 But we know that human nature, once it has
 5 technology or once it has power, can do horrible things.
 6 And this is very powerful technology, and I shudder to
 7 think of what could be done with something like this
 8 directed upward or directed downward.
 9 I think it would just be a matter of time
 10 before some power that be would choose to direct the beam
 11 downward. I think that we've seen enough in our history
 12 of humanity to know that that would probably happen
 13 eventually.
 14 In this city, we have not enough water to go
 15 around already. We've got an endangered species, the
 16 little silvery minnow that's dying, and even with the
 17 size of our city and the resources that we have now, it's
 18 already -- we're taxing our water aquifer, and we're
 19 starting to have to use the river water, and we can see
 20 that the river is dying, and it's not going to be there.
 21 So I know that you guys said that it would just
 22 be 50 people that would be working on this, but when I
 23 hear 50 people, I hear, you know, 50 families using
 24 water, 50 lawns maybe.
 25 I think that we're a little too big for our

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1 resources now, and I don't know what to do about that,
2 and I think bringing more people in to work on laser
3 weapons here would be very harmful to our use of water in
4 this area, since we don't have enough already.

5 I think that Nick's point about the danger that
6 chemicals in the aircraft would pose in case of an
7 accident is a very valid point. The dangers that
8 chemicals in any aircraft would pose -- I mean, any kind
9 of accident would cause harm to the environment.

10 And I don't see any reason to add more risk of
11 any kind of crashes, any kind of accidents, any kind of
12 debris falling out of the sky, when we already have more
13 weapons than we could possibly ever use. And those
14 weapons are not protecting us already.

15 That's pretty much all I had to say.

16 COL. POWERS: Thank you.

17 Robin Phillips.

18 MS. PHILLIPS: My name is Robin Phillips. And
19 I appreciate an opportunity to come and express my
20 comments. I'm glad that they are being recorded.

21 I'm definitely not in favor of the program. In
22 fact, I'm not in favor of increasing the military
23 industrial complex at all. When the Bush family started
24 their first war for oil in 1990 and '91, my tax bill,
25 what I sent in, was \$500,000.

1 I resent feeling that I am part of this problem
2 of paying for the increase in the military industrial
3 complex. I feel that as this has increased, it's robbing
4 not only the capital -- the financial capital, but also
5 the intellectual capital that could be going into
6 other -- other areas of society that I feel I'd rather
7 place my money.

8 I'm happy to pay my fair share of taxes, but I
9 don't approve of paying for these expensive weapons
10 systems like this.

11 And that's the main thing I wanted to express.

12 COL. POWERS: Thank you.

13 Alan Klein.

14 MR. KLEIN: My name is Alan Klein. I represent
15 no organization, other than maybe the human family, just
16 an average proponent of that.

17 I was impressed in a way by the display that
18 you had going, the visual display while the national
19 anthem was being played. It was impressive in a way that
20 certain, shall we say, technical or Hollywood-style
21 presentations are, except I noticed it was -- it was
22 completely sort of a Star Wars kind of thing. There
23 weren't any human beings in it.

24 My feeling is that I don't know all the
25 technical aspects -- or any of the technical aspects that

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1 you were going over in regard to this particular weapon,
2 but I think that nothing can be considered outside of the
3 total environmental impact.

4 And I think that we know that weapons are often
5 heralded as being something -- having some special
6 technical ability, but yet again, we've seen that they
7 don't usually live up to that, not only in the tests that
8 we've seen of the anti-ballistic missile program, quite
9 costly at that, but also what happened during the Gulf
10 War. The weapons were said to be quite a bit more
11 effective than they turned out to be.

12 And I'd like to say that it's on record that
13 the Air Force dropped more -- more bombs on Cambodia and
14 Laos in that actually questionable illegal operation by
15 the then president than were dropped in all of World War
16 II.

17 Now, this had a -- this continues to have an
18 impact in terms of unexploded ordnance that then does
19 explode and farmers and children and so forth lose
20 their -- you know, if they're not killed, they
21 certainly -- they lose -- they lose limbs as a result of
22 that.

23 So I think that we have to consider the impact
24 of our weapons program, or as it -- not only as it does
25 stand, but as it -- as it would in the future, in terms

1 of human beings everywhere.

2 I see that everything on our earth is
3 interconnected. We can't really divorce ourselves, nor
4 can we say that -- as one senator did, that, well,
5 American life is worth more than other lives. I think
6 life is just life. It's indivisible.

7 We all want to live. We all want to prosper in
8 some way. I don't really feel that our program will --
9 as it stands, will work out. There's no way to
10 consider -- to be able to govern the consequences of
11 actions, for example, in Iraq once they start.

12 So I'm suggesting that there are -- that there
13 are other ways that we need to explore, peaceful ways,
14 creative ways. I mean, I don't know that this is really
15 creative.

16 And I agree with the speaker beforehand who
17 said that, well, you know, this is -- this is a -- this
18 uses a lot of -- a lot of great talents, intellectual
19 abilities and so forth, which could be used in ways that
20 would -- in which everyone could prosper.

21 So I think we really need to consider that
22 there are -- there are great possibilities ahead of us
23 that we could be -- we could be -- as Congressman Denish
24 said, we could be a nation among nations leading --
25 leading the world in peaceful, cooperative endeavors and

1 finding ways to eliminate violence, whether it be crime
 2 in the streets, violence in the home or violence in terms
 3 of war, which is actually the most mass form.
 4 Thank you all for this opportunity.
 5 COL. POWERS: Thank you.
 6 Dorie Runting? Did I pronounce that right?
 7 MS. RUNTING: Thank you, sir.
 8 I do agree with the previous speakers.
 9 And I know you're here to hear about the
 10 scientific aspects of this weapon and the environmental
 11 impacts, but when it comes to weapons and military
 12 spending, this has always been off limits as far as our
 13 popular input is concerned.
 14 I mean, we have no channels for voting on our
 15 military budget. We have no effective way for citizens
 16 to have an input on our military policy, our foreign
 17 policy as far as the military goes. We just don't.
 18 So you -- when we come to these hearings as a
 19 way to express that -- and we do have a convention
 20 that -- to which we belong for the peaceful uses of outer
 21 space. This contravenes that convention. I mean, not
 22 just this, but the whole program for outer space,
 23 so-called defense, and this -- I have no doubt that this
 24 weapon will be used in an offensive way, because it seems
 25 that it's a very powerful weapon.

1 So in addition, outer space -- the whole outer
 2 space program is going to -- one aspect of it is to send
 3 up all the stuff into space which will be eventually
 4 coming down to earth, I'm sure, and I don't know -- we
 5 just don't seem to consider that aspect of it.
 6 In addition to the fact that it's going to set
 7 up a competition with other countries doing the same, and
 8 also private endeavor in outer space will want their
 9 share of the space up there.
 10 So I -- it just doesn't seem right to me, and
 11 I -- I guess that's what I have to say about it.
 12 Thank you.
 13 COL. POWERS: Thank you, ma'am.
 14 Bob -- I believe it's Anderson.
 15 MR. ANDERSON: That's right.
 16 Col. Powers, thank you.
 17 My name is Bob Anderson. I'm a professor with
 18 the University of New Mexico.
 19 And I want to thank you for having this
 20 hearing. We didn't know about it until Friday, or we'd
 21 have had more people here. It suddenly appeared in the
 22 paper.
 23 And I just wanted to let you know that a lot of
 24 us are here from a group called New Mexico Solidarity
 25 Network, and we're very much opposed to the arms race and

1 the militarization of our economy in the state here. And
 2 we want to speak to these issues, I think probably under
 3 what you would call a category of socioeconomic issues
 4 and things like that. And I think that the EIS misses a
 5 lot of that.
 6 I wanted to say I wouldn't -- I endorse
 7 everything that all my friends have said here. I think
 8 that they're right on target. And I want to just amplify
 9 on a few of those and try to speak more focused on a few
 10 of those.
 11 One is that the first thing that strikes me is
 12 bringing any kind of more weapons systems and testing
 13 into an area where there's a population of over a half
 14 million people is stupid. It's not a common sense, good
 15 idea. There's people that have spoken on the impact on
 16 our water supply here by bringing more people in.
 17 And this is just a stepping stone to more and
 18 bigger projects. We know this from reading President
 19 Bush's first strike plan and whole missile defense
 20 program, what Kirtland Air Force Base is involved in, and
 21 you know it as well as I do, the whole militarization of
 22 space, and this is a key part of that.
 23 Economically here, environmentally, we can't
 24 take more of an impact like that. We're running out of
 25 water. We know that. It's costing all of us more tax,

1 and as taxpayers, we don't like that.
 2 Socioeconomically, your project will employ, as
 3 you know, 50 people, and it always finds positive impacts
 4 on these things, but we -- this state has probably spent
 5 one trillion dollars on nuclear weapons in the Manhattan
 6 Project.
 7 We're the first in the state with the largest
 8 percentage of people in poverty, children without health
 9 care access. Ms. Pahlis says there's kids going to school
 10 here that don't have food, they don't have eyeglasses,
 11 they don't have books.
 12 We don't need more of this model of economic
 13 development based on the Cold War and this arms race,
 14 which this is a part of, and this is going to lead us to.
 15 Socioeconomically, this is a disaster for us. It's going
 16 to create more of the problems than we've got.
 17 And we'd like to see our money spent in
 18 directions that's going to benefit the people, first off,
 19 of this state, but look at it nationally and
 20 internationally. That is part of the violation of a
 21 whole number of treaties.
 22 Ms. Bunting spoke to that, the arms control
 23 treaties, the weapons in space. The missile defense
 24 program has a whole plan laid out to build weapons, and
 25 the militarization of space lasers and nuclear weapons

1 are part of that.

2 We're very much opposed to that. We want you

3 all to know that. And people have been protesting these

4 things, much like what we have.

5 And I think that what you've noticed here in

6 the last, oh, two or three months, since probably about

7 two years ago at Seattle, there's a ground swell of

8 opposition to this policy, the militarization of our

9 diplomatic and political problems, trying to find

10 high-tech solutions for them that don't find solutions

11 for us.

12 We don't like that. American people and the

13 people of the world are speaking out on this massively.

14 And I think that you folks should be aware of that. And

15 we don't want to see our city where we're at more deeply

16 involved.

17 And it's going to make us targets in one way,

18 if there is ever any kind of larger retaliation on these

19 things. But this application of technology and brain

20 power is misplaced. I think that most of us feel that.

21 This is dangerous, what you're doing and where you're

22 taking us in this.

23 It's a misuse of our military. I'm a former

24 military person. And that was one of the things that

25 made me aware of these kinds of things, is that we're

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12 1 using these for aggressive offensive operations.

2 We start off talking about defensive, it's

1.2 3 going to be a small operation, and the next thing you

4 know we've got full-blown programs that are going

5 everywhere. And it's a political control problem.

6 I hope you folks are military professionals and

7 value what you're doing and the use of your science and

8 technology, but I think most of us will tell you that

9 it's been misused. And we don't want to see that. We'd

10 like to see a better use of that.

13 11 So socioeconomically, environmentally, this

12 program is more of the problems than we've got, and we

13 don't see any of your points trying to address those and

13.2 14 putting it into a larger context using political

15 implications of it locally for us, nationally what it

16 means and internationally as a part of an escalation of

17 an arms race study that is headed into space.

18 You have to look at that environmentally, what

19 that's going to mean when other countries try to catch up

20 with these exotic technologies. This is the mother of

21 all weapons. This is the dream weapon, the Holy Grail,

22 which we know that militarists have been trying to

23 achieve for many, many years, directing energy beam

24 weapons.

25 It's an amazing, fabulous technology. But all

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1 it's going to do is lead us down the road of greater

2 escalations of people in other countries to try to match

3 that or try to stop us from developing it.

4 And we'd like to see that done internally,

5 politically, and on the basis that benefits all of us,

6 instead of going down this road the wrong way. We can

7 see a lot of local implications in that.

8 So that's my comments and concerns about it,

9 and I thank you for being here.

10 COL. POWERS: Thank you.

11 Okay. I have one more card, Todd Lindblom.

12 MR. LINDBLOM: Yeah. Thanks for --

13 COL. POWERS: Let me just remind you -- smoke

14 was coming off her hands, she was trying to type so fast.

15 So if I could ask you to just make your comments as

16 slowly and clearly as you can so that we make sure she

17 gets them all.

18 MR. LINDBLOM: I'm not going to say much. I'd

19 just like to -- I'd like to say what everybody else has

20 said tonight so eloquently.

21 I'm representing New Mexico Vecinos United.

22 It's an organization that tries to make neighborhoods

23 better places to live. And I think this project is just

24 going to make neighborhoods worse places to live just

25 because it's going to create more poverty or more of a

1 divide between those who have and those who don't.

2 That's all I got to say.

3 COL. POWERS: Thank you.

4 Okay. That's all the cards I have.

5 Is there anybody who has not filled out a card

6 who would now like to fill out a card and speak?

7 Is there anybody who has already spoken that

8 has thought of a few more comments they'd like to make in

9 the time allotted?

10 Yes. I see -- if I remember right, that's

11 Ms. Jeanne Pahls?

12 MS. PAHLS: That's right. I always -- I

13 always -- I cannot keep my mouth shut, I'm afraid. I do

14 have one more point that I realized after I sat down that

15 I did want to say.

14 16 And that is that I think that one more thing

17 that is bad for the environment of Albuquerque is that

18 producing weapons like this here in Albuquerque makes us

7.4 19 a target, and we're going into a very unstable time, I

20 believe, and having all this weapons production,

21 especially right here in the city, not outside the city,

22 but right in the city, makes us -- makes us a target.

23 And that, once again, is something that puts

24 our environment at risk and our children at risk.

25 COL. POWERS: Thank you.

1 Anybody else who's already spoken that -- okay.
 2 I see one person who may need to fill out a
 3 card because he hasn't spoken before.
 4 Can we get a card for that gentleman?
 5 While he's filling out that card, I saw --
 6 Can you state your name again?
 7 MR. KLEIN: Yes. Alan Klein.
 8 What I have to say will be short. I concur
 9 with all the excellent remarks of Bob Anderson, very well
 10 organized.
 11 I'd just like to say that -- emphasize that the
 12 State of New Mexico is number one on the -- on the scale
 13 of poverty and, I believe, number 50 in terms of child
 14 health coverage. This was -- this was printed recently
 15 in the Albuquerque Journal.
 16 I'd like to contrast that, since we're always
 17 talking about we have to reform our welfare, that some of
 18 these corporations, like Boeing, for example, are making
 19 really big, big money. There's big money in this. And
 20 we know that the people in the -- in the military and
 21 pentagon have rotated into slots in the -- in the defense
 22 industry, no doubt very well-paying slots.
 23 I think at one time, and maybe it's the
 24 situation now, where they had to put in a six-month
 25 waiting period. So there's a lot of money going into a

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1 few corporations, and it's also true that some of the
 2 largest corporations in this country have had years when
 3 they paid no taxes and got a rebate instead. I've never
 4 been able to figure out how that occurred.
 5 But I think there's a lot better ways we could
 6 take this money, because putting money into so-called
 7 defense, and we have these graveyards of weapons, is a
 8 dead-end. It does not -- if any, it just -- it zaps the
 9 economy, it zaps our strength as a nation, as people.
 10 So we can do better than that.
 11 Thank you.
 12 COL. POWERS: Thank you.
 13 Charles Powell.
 14 MR. POWELL: Yes, sir.
 15 I'm Charles Powell. I'm a former Air Force
 16 veteran. I served at a Titan missile complex during the
 17 Cuban missile crisis.
 18 I have very serious concerns about issues of
 19 war and peace. One of my concerns has to do with
 20 hazardous waste, you know, exactly what wastes are going
 21 to be produced by this program, how will they be disposed
 22 of and so on.
 23 I'm also very concerned about the misdirecting
 24 of our resources and talents to weapons instead of
 25 meeting the needs of the people of the world.

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1 My largest concern is that apparently the
 2 decision to do this has already been made, and if
 3 anything, we can only impact how it's going to be done
 4 other than whether it should be done. And I think that's
 5 very unfortunate.
 6 Thank you.
 7 COL. POWERS: Thank you.
 8 And lastly, Sally-Alice Thompson.
 9 MS. THOMPSON: I just have two points.
 10 One is that the environment is not going to be
 11 helped by having -- by having what are supposed to be
 12 defensive weapons when they're really offensive weapons,
 13 because of the dangers that have been -- it's been
 14 pointed out before, but the danger of terrorism, which
 15 is -- the twin towers would not have been protected by
 16 this, and the people that are being hit by the snipers
 17 would not have been protected, the people that were hit
 18 by the anthrax would not have been protected.
 19 And who knows what the next kind of -- next
 20 kind of attack's going to be? And none of it is going to
 21 help -- none of it's going to be helped by this high
 22 technology, which is only aggravating the rest of the
 23 world and making us hated throughout the rest of the
 24 word.
 25 I travel quite a bit, and I see people from

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1 other parts of the world, and they're not happy with the
 2 fact that we are attempting to monopolize outer space,
 3 which this is the beginning of.
 4 The other point is that -- it's been hinted at
 5 before by other people, by other speakers, that the --
 6 the way that our country would be great is to work toward
 7 positive development rather than destructive development.
 8 Destruction does not -- in the final analysis, makes for
 9 wealth for a few people, but for the vast majority of the
 10 population of the world, it's -- it's negative rather
 11 than positive.
 12 And we need to start thinking positively.
 13 Thank you.
 14 COL. POWERS: Thank you.
 15 Are there any other comments?
 16 Yes. Okay.
 17 Again, could you state your name -- that's
 18 Nicholas Wechselberger?
 19 MR. WECHSELBERGER: Nicholas Wechselberger.
 20 COL. POWERS: Yes. Okay.
 21 MR. WECHSELBERGER: Yes. Okay.
 22 So as you might imagine, I was thrown off being
 23 the first person to respond. I was also thrown off by
 24 the limited parameters that the response could deal with.
 25 So I just had a brief comment.

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1 And I really appreciated the statements of my
 2 other fellow citizens, concerned citizens. And I just
 3 want to reinforce and concur really an important point.
 4 The input by citizens is, in this case, in a really
 5 obscure location that very few people know about, and you
 6 have to take the heat for larger policy issues.

7 And our fervent hope, I'm sure that everyone
 8 would agree, is that the statements that we're making,
 9 our concerns will actually filter up to those who are
 10 actually responsible for these very important decisions,
 11 that affect the whole world.

12 As Bob said, looking at things in a larger
 13 context, and the idea that these kind of decisions will
 14 escalate thinking about military confrontations, making
 15 us targets, targets more than we are now, and that it
 16 violates treaties that are negotiated through peace and
 17 not through violence and power.

18 And a really excellent statement that Dorie
 19 made then made me feel compelled to make another
 20 statement, which was that citizens have no avenue to vote
 21 on military budget or have input on military decisions.
 22 We're left out of that loop.

23 And thank you for listening, and I hope you'll
 24 pass this on.

25 COL. POWERS: Thank you.

1 Okay. If there are no further comments, this
 2 concludes the public hearing. If you should later decide
 3 to make additional comments or would like to receive
 4 copies of the final SEIS, you may do so through the
 5 address shown on the slide.

6 We appreciate you coming tonight, and we
 7 appreciate your participation in this public hearing, and
 8 thank you.

9 This hearing is adjourned.
 10 (Proceedings adjourned at 8:23 PM.)
 11

1 STATE OF NEW MEXICO)
 2) ss.
 3 COUNTY OF BERNALILLO)
 4
 5

6 I, CHERYL ARREGUIN, the officer before whom the
 7 foregoing proceedings were taken, do hereby certify that
 8 I personally recorded the proceedings by machine
 9 shorthand; that said transcript is a true record of the
 10 proceedings; that I am neither attorney nor counsel for,
 11 nor related to or employed by any of the parties to the
 12 action in which this proceeding is taken, and that I am
 13 not a relative or employee of any attorney or counsel
 14 employed by the parties hereto or financially interested
 15 in the action.

16
 17 
 18 NOTARY PUBLIC
 19 CCR License Number: 21
 20 Expires: 12/31/02

21 My Commission Expires: 12/10/03
 22
 23
 24
 25

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 4 SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
 5 PUBLIC HEARING
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 10 TRANSCRIPT OF PROCEEDINGS
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 16 OCTOBER 24, 2002
 17 7:00 P.M.
 18 201 EAST UNIVERSITY
 19 LAS CRUCES, NEW MEXICO
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 25 (28297)

A P P E A R A N C E S :

Colonel John J. Powers, USAF
U.S. Air Force Trial Judiciary
112 Luke Avenue, Room 301
Bolling AFB, DC 20032-5113

Kenneth Engrade
Public Affairs Officer
3300 Target Road, Bldg. 760
Kirtland AFB, New Mexico 87117-6612

Captain Joseph H. Wimmer
Chief, External Affairs Branch
3300 Target Road, Building 760
Kirtland AFB, New Mexico 87117-66121

Reported by:

Maria Caraveo
Keith & Miller Certified Court Reporters
100 N. Stanton, Suite 1320
El Paso, Texas 79901

P R O C E E D I N G S

COLONEL JOHN POWERS: Good evening,
ladies and gentlemen, I would like to welcome you to
the public hearing on the draft Supplemental
Environmental Impact Statement for proposed test
activities of the Airborne Laser Program. Since cell
phones and pagers can be distracting, it would be
greatly appreciated if you would turn off or change the
setting to a non-audible or vibration ring on your cell

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phones and pagers. If you'll please have a seat, we'll
get started. The video you were just watching is a
tape of the first flight of the modified 747-400F
aircraft from the Boeing facility in Wichita, Kansas.
The aircraft was flown to test the structural integrity
after all the modifications were completed to its
airframe. None of the active lasers were on board.
The payload was simulated with ballast.

Now, if everyone will please stand, we'll
play the National Anthem, and we'll get started.

(Video of the National Anthem played)

COLONEL JOHN POWERS: Ladies and
gentlemen, my name is Colonel John Powers and I will be
the presiding officer for tonight's meeting. My
purpose here tonight is to ensure that we have a fair,
orderly hearing and that all who wish to be heard, have
a fair chance to speak. I would like to welcome your
participation in tonight's events.

At this point, I would like to introduce
the other members of the public hearing panel and their
role in this meeting.

Colonel Eva Wallace, from the Airborne
Laser System Program Office at Kirtland Air Force Base
in New Mexico, is the senior Airborne Laser System
Program Office representative at this public hearing.

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Captain Sal Rodriguez, from the Airborne
Laser System Program Office at Kirtland Air Force Base
in New Mexico, is the senior Airborne Laser System
Program Office representative at this public hearing.

Captain Sal Rodriguez, from the Airborne
Laser System Program Office at Kirtland Air Force Base
New Mexico is a Spanish speaker, and he is here to help
anyone in the audience who feels more comfortable
addressing their issues in Spanish rather than English.
He will not translate the entire proceeding, but will
serve as an aide. Captain Rodriguez, would you please
introduce yourself?

Captain Sal Rodriguez:
(Introduction in Spanish)

COLONEL JOHN POWERS: Mr. Ken Engrade,
from the Airborne Laser Public Affairs Office, who will
present an overview of actions leading to the
preparation of the draft Supplemental Environmental
Impact Statement and describe the proposed action and
alternatives.

And Captain Joe Wimmer, from the Airborne
Laser System Program External Affairs Office at
Kirtland Air Force Base in New Mexico, who will present
the findings of the draft Supplemental Environmental
Impact Statement.

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The purpose of tonight's hearing is to
receive your comments, suggestions, and criticism of
the draft Supplemental Environmental Impact Statement
or SEIS. Those of you who have not had an opportunity
to review the draft SEIS, may want to read the summary
of the major findings in the handout available at the
door. The panel members will also address the findings
in their presentations.

Throughout this hearing, I ask that you
keep in mind that this public hearing is not designed
to be a debate, nor is it a popularity vote on the
draft SEIS, nor is it primarily designed as a question
and answer session. However, clarifying questions
asked as part of your comment time may be appropriate.
This hearing is also not a time set aside for you to
use your comment time to personally attack those whose
views may be different from your own.

In the first part of tonight's meeting,
the members of the panel will brief you on the details
of the proposed action and alternatives and the
findings of the draft SEIS. The second part of the
meeting will give you an opportunity to provide
information and make statements for the record. This
input ensures that the decision-makers benefit from
your knowledge of the local area and any adverse

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1 environmental effects you think may result from the
2 proposed action or alternatives.

3 Tonight's hearing is designed to give you
4 an opportunity to comment on the adequacy of the draft
5 SEIS. Keep in mind that the SEIS is simply intended to
6 ensure that the decision-makers will be fully apprised
7 of the potential environmental impacts associated with
8 the proposed action and alternatives before they decide
9 on a course of action. Consequently, comments on
10 issues unrelated to the SEIS are really beyond the
11 scope of this hearing and will not be addressed.

12 I would like to make a few administrative
13 comments. First of all, if you wish to speak tonight,
14 I ask that you fill out one of the cards that are
15 located on the registration table as you came into the
16 room. From these cards, I will call your name for you
17 to come forward and state your comments. If you did
18 not pick up a card and would like to make a comment
19 tonight, please raise your hand and one of our
20 representatives will bring you a card.

21 After the panel has finished its
22 presentations, we will have a 15-minute recess. During
23 this time, we will collect the cards. When the meeting
24 resumes, I will recognize elected officials first.
25 Then I will call members of the public in random order

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1 from the cards that have been handed in. For those of
2 you who have not indicated on the cards that you want
3 to make a statement but wish to speak later, please
4 fill out another card at the registration table during
5 the break.

6 I want to make sure that we have an
7 opportunity to fully consider the comments you make
8 tonight. We have an individual here who will record
9 everything that is said so that we won't overlook any
10 of your comments.

11 I'd like to establish a few ground rules
12 so that all of us have the benefit of hearing
13 individual comments and that we have a good meeting
14 transcript.

15 First: Please speak only after I
16 recognize you, and address your remarks to me. If you
17 have a written statement, you may place it in the box
18 next to the podium, or you may read it aloud -- within
19 the time limit -- or you may do both.

20 Second: Please speak clearly and slowly
21 into the microphone, stating your name and the capacity
22 in which you appear. This will help our recorder with
23 the transcript.

24 Third: Each person will be recognized
25 for five minutes. If you exceed this time limit, I

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1 will ask you to stop at that point. If you have more
2 comments than you will be able to present in five
3 minutes, please prioritize them so that the most
4 important comments are addressed first, in case you run
5 out of time. After everyone has had the opportunity to
6 comment, I will then address the audience to see if
7 anyone would like to speak again.

8 Fourth: Please do not speak while
9 another person is speaking. Only one person will be
10 recognized at a time.

11 If you later decide to make a comment
12 after this public hearing, or have additional
13 considerations, we encourage you to send your written
14 comments to the address shown on the screen or
15 indicated on the comment sheet.

16 Finally, if you would like a copy of the
17 final SEIS, you may state that on a written comment
18 sheet or on the attendance card you filled out at the
19 door. Private addresses provided will be compiled to
20 develop the mailing list for those requesting copies of
21 the final SEIS. Personal home addresses and phone
22 numbers written on the written comment sheet or
23 attendance card will be published in the final SEIS.

24 If no one has any questions at this time,
25 I will turn the program over to Mr. Ken Englade, who

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1 will present an overview of actions leading to the
2 preparation of the draft SEIS and describe the proposed
3 action and alternatives.

4 MR. KEN ENGLADE: Good evening, ladies
5 and gentlemen, my name is Ken Englade and I'm from the
6 Airborne Laser Public Affairs Office. This SEIS is a
7 supplemental environmental analysis based upon changes
8 in the proposed test program that have occurred since
9 the final environmental impact statement for the
10 program definition and risk reduction phase of the
11 Airborne Laser Program was published in April 1997.
12 The SEIS is being used to fulfill our requirements to
13 comply with the National Environmental Policy Act or
14 NEPA.

15 The Environmental Impact Statement
16 published in 1997, considered options for siting a home
17 base, a diagnostic test range, and an expanded-area
18 test range in support of the Airborne Laser Program. A
19 screening process was developed to narrow the number of
20 alternative locations for detailed analysis. This
21 process was designed to identify a number of candidate
22 locations that could meet a threshold of operational
23 considerations necessary to conduct the Airborne Laser
24 Program.

25 The record of decision for the 1997

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1 Environmental Impact Statement identified Edwards Air
2 Force Base as the home base to support the airborne
3 laser aircrafts and conduct ground test activities of
4 the airborne laser systems, White Sands Missile Range
5 as the diagnostic test range, and the Western Range as
6 the expanded-area test range. These two areas would
7 support proposed flight test activities of the airborne
8 laser systems.

9 We began in March 2002 with the
10 publication of a notice of intent in the Federal
11 Register to prepare a Supplemental Environmental Impact
12 Statement or SEIS for airborne laser test actions.

13 We held a scoping meeting near each
14 location where the activities would occur. At the Las
15 Cruces meeting on April 17th, 2002, we received public
16 input on the scope of issues to be addressed in the
17 SEIS. After scoping, we collected the necessary data
18 and began the environmental analysis. We published the
19 notice of availability of the draft for public review
20 and comment in the federal register on September 20th,
21 2002.

22 In addition to tonight's hearing, written
23 comments on the draft SEIS will continue to be accepted
24 at this address until November 5th, 2002. After the
25 comment period is over, we will evaluate all comments,

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1 both written and verbal, and perform additional
2 analysis or change the SEIS, where necessary. Again,
3 as in the scoping process, equal consideration will be
4 given to all comments, whether they are presented here
5 tonight or mailed to us.

6 Under the current schedule, once the
7 review process is finished, we will complete the final
8 SEIS in March 2003, and mail it to those on the list
9 that appears in the draft SEIS. If you are not on our
10 mailing list, you can request a copy by writing to this
11 address. The final SEIS will include comments received
12 during the public review period and our responses to
13 those comments.

14 If appropriate, we will group comments
15 into categories and respond accordingly. The SEIS will
16 serve as input for the record of decision. We expect
17 to accomplish the record of decision in late spring of
18 next year.

19 The draft SEIS was prepared to comply
20 with the National Environmental Policy Act, or NEPA,
21 and the Council on Environmental Quality Regulations.
22 We strove to reduce needless bulk, write in plain
23 language, focus only on those issues that were clearly
24 related to the environment, and be compatible with
25 other documents required in the decision-making

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1 process.
2 The analysis focused on impact that would
3 occur as a direct or indirect result of the proposed
4 airborne laser test activities. Now, I will present an
5 overview of the proposed action and alternatives that
6 have been analyzed. Afterwards, Captain Wimmer will
7 present a synopsis of the results of our analysis.

8 The airborne laser system is one element
9 of the missile defense agency's ballistic missile
10 defense system. It is intended to provide an effective
11 defense for the United States, its deployed forces, and
12 its friends and allies from limited missile attack
13 during the three phases of attacking missile's flight.

14 The three segments are, the boost
15 segment, the midcourse segment, and the terminal
16 segment. The boost segment is when the missile is
17 under power and is being thrust skywards by its rocket
18 engines. The midcourse segment is the longest. It
19 occurs when the missile is in a ballistic arc, heading
20 for its target. The terminal segment includes the few
21 remaining moments of the missile's flight before the
22 missile reaches its target. Each element of the
23 ballistic missile defense system is designed to work
24 independently to provide an effective defense against
25 incoming missiles.

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1 The airborne laser is designed to destroy
2 missiles during the boost segment. The airborne laser
3 is a weapon system that is designed to spot, track,
4 engage, and destroy missiles. Using a megawatt-class
5 laser, the missile would be destroyed during the
6 initial boost segment, shortly after being launched.

7 The airborne laser system consists of a
8 modified Boeing 747-400F aircraft that utilizes four
9 lasers, the first three are not designed to destroy,
10 rather they are used to gather information regarding
11 the target and to make the high-energy laser more
12 effective.

13 These three lasers are the active ranging
14 system laser, the track illuminator laser, and the
15 beacon illuminator laser. The active ranging system
16 would provide basic information regarding the target,
17 such as speed, altitude, range and direction. The track
18 system with the optimum location at which to attack the
19 target. The beacon illuminator laser would gather
20 information on the atmosphere between the aircraft and
21 target.

22 The fourth laser is the high-energy,
23 weapon class laser that is designed to destroy the
24 target. It is a megawatt-class laser generated by a
25 chemical reaction.

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1 A battle management command center onboard
2 the aircraft would provide computerized control of the
3 laser weapon system, communications, and intelligence.
4 During the initial testing program, a fifth laser would
5 be used. The surrogate high-energy laser, a low-power
6 laser, would be used to simulate the high-energy laser.

7 During the flight-test activities, the
8 airborne laser aircraft would fly at or above 35,000
9 feet and could detect and track launches of target
10 missiles using onboard sensors. Active tracking of the
11 missile could begin when the missile clears to cloud
12 tops. The high-energy laser would be directed at an
13 upward direction toward the missile. The energy from
14 the laser would heat the missile's booster components
15 and cause a stress fracture in the outer surface of the
16 missile. This would allow gases from the booster
17 rocket to escape, causing an explosion that would
18 destroy the missile.

19 The geometry of the test activities would
20 preclude operation of the laser except at a horizontal
21 or upward angle. This would ensure that lower-flying
22 aircraft and objects on the ground would not be in the
23 path of the laser beam. The onboard sensors would also
24 be used to confirm that nothing in the air or space,
25 other than the intended target, would be within the

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1 potential beam path. This would be in addition to
2 using controlled and cleared airspace during airborne
3 laser flight-testing.

4 The proposed action is to conduct test
5 activities of the airborne laser system at test ranges
6 associated with Edwards and Vandenberg Air Force Base,
7 California, and Kirtland and Holloman Air Force Base
8 and White Sands Missile Range, New Mexico. Test
9 activities would involve testing the laser components
10 on the ground and in flight to verify that laser
11 components operate together safely and effectively.

12 In the event that ground-testing is not
13 possible at Edwards Air Force Base, Kirtland and
14 Holloman Air Force Base and White Sands Missile Range
15 have been identified as alternative ground test
16 locations. Flight-testing is proposed at the R-2508
17 Airspace Complex utilized by Edwards Air Force Base;
18 the Western Range off the coast of California that is
19 utilized by Vandenberg Air Force Base, point Mugu
20 Naval Air Station; and White Sands Missile Range.

21 The airborne laser craft would be based
22 at Edwards Air Force Base and the aircraft would be
23 flown to the other bases for testing as required. All
24 test flights would begin and end at Edwards Air Force
25 Base.

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1 Ground testing of the lower-power laser
2 systems would be conducted at Edwards Air Force Base
3 from the end of the runway associated with the Birk
4 Flight Test Facility. Ground targets would include a
5 rotoplane, which is a Ferris wheel-like rotating
6 target, and stationary target boards.

7 High-energy ground-testing activities
8 would be conducted using a ground-based simulator; no
9 open range testing of the high-energy laser would be
10 conducted.

11 Kirtland and Holloman Air Force Base and
12 White Sands Missile Range have been identified as
13 alternative ground test locations if conditions prevent
14 testing at Edwards Air Force Base.

15 If ground testing occurs at Kirtland Air
16 Force Base, the aircraft would be flown to Kirtland Air
17 Force Base and use existing runways, taxiways, and
18 aircraft parking areas. Only the lower-power laser
19 systems would be tested at Kirtland Air Force Base
20 using the existing Sandia laser target range.

21 If ground testing occurs at White Sands
22 Missile Range, the aircraft would be flown to Holloman
23 Air Force Base and use approved runways, taxiways, and
24 aircrafts' parking areas. Only the lower-power laser
25 systems would be tested. The laser systems would be

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1 directed westward toward targets placed within White
2 Sands Missile Range.

3 Ground-testing procedures would include
4 automatic laser turret limiting devices and/or laser
5 blocking devices to prevent laser energy from extending
6 beyond the target backstops and from the defined laser
7 beam path. Target backstops would include natural
8 features such as hills, mountains, and buttes, or
9 manmade earthen berms.

10 Flight-testing of the airborne laser
11 system is required to confirm and expand on computer
12 modeling and ground test data, and to provide complete
13 testing of all systems required to have an effective
14 weapon system.

15 During the flight tests, the airborne
16 laser aircraft would be accompanied by up to two chase
17 aircraft to monitor the test and the status of the
18 airborne laser aircraft. The airborne laser aircraft
19 would fly at an altitude at or above 35,000 feet and
20 the upward direction to minimize potential contact with
21 the ground or other aircraft. Onboard sensors and
22 pre-test planning would be used to confirm that no
23 aircraft or satellites were within the potential path
24 of the beam. Also, only existing military or FAA
25 controlled airspace areas would be utilized during the

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1 tests and confirmed clear of non-participating aircraft
2 during the testing activities.

3 Flight-tests would utilize the R-2508
4 Airspace Complex utilized by Edwards Air Force Base;
5 the Western Range utilized by Vandenberg Air Force
6 Base and Point Mugu Naval Air Station; and White Sands
7 Missile Range, including Fort Bliss controlled airspace
8 and FAA controlled airspace as necessary.

9 Targets that would be used during
10 flight-testing activities include the following:
11 missile alternative range target instrument, or MARTI,
12 which is a balloon with a target board attached. A
13 Proteus aircraft, which is a high-altitude manned
14 aircraft with target board attached, and target
15 missiles that simulate a potential threat missile.

16 Both low- and high-power tests would be
17 conducted on the MARTI and missile targets. Only
18 lower-power tests would occur with the Proteus aircraft
19 as it is a manned target vehicle.

20 The tests would evaluate the airborne
21 laser system's ability to acquire, track, and engage
22 targets. Missiles used during the flight-test
23 activities that requires a flight termination system,
24 determined by range safety, will be used to ensure that
25 debris would be contained on the range in the event the

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1 target missile had to be destroyed in flight due to
2 off-nominal missile flight trajectory.

3 In the event that the aircraft is unable
4 to land at Edwards Air Force Base after conducting test
5 activities, preplanned divert bases have been
6 established. The divert bases would have personnel
7 specifically trained to support the airborne laser
8 aircraft and appropriate equipment to handle airborne
9 laser hazardous materials.

10 The no-action alternative would involve
11 conducting airborne laser test activities as described
12 in the original testing program discussed in the 1997
13 document.

14 Other alternatives were considered and
15 eliminated from further consideration in the 1997
16 document. Those alternatives included different test
17 demonstration methods, laser systems types, and test
18 installations or locations.

19 I would now like to turn the microphone
20 over to Captain Joe Wimmer, who will discuss the
21 findings of the draft SEIS.

22 CAPTAIN JOE WIMMER: Good evening, my
23 name is Captain Joe Wimmer. I will briefly review the
24 resources detailed in the draft SEIS that may be
25 affected due to the proposed airborne laser test

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1 activities.

2 Based on the proposed airborne laser test
3 activities being addressed in this SEIS and actions
4 that have already been addressed within the EIS
5 prepared in 1997, the analysis indicated that there
6 would be no or few potential impacts for several
7 resource areas. These resources are highlighted on the
8 slide, and I will summarize the analysis results
9 briefly.

10 Under the local community category, land
11 use and aesthetics did not require further analysis
12 because proposed test activities would occur on
13 existing test ranges and no new military construction,
14 which is abbreviated as milcon, funded activities would
15 occur, it was determined that no land use changes would
16 occur; therefore, no impacts are anticipated.

17 Utilities did not require further
18 analysis. Because no substantial permanent employment
19 changes would occur and utility requirements for test
20 activities would not change, it was determined that no
21 impacts to utilities are anticipated.

22 Transportation did not require further
23 analysis. Because no substantial permanent changes
24 would occur and standard operating procedures are in
25 place to control traffic during proposed test

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1 activities, it was determined that no impacts to
2 roadways, air transportation, and railroads are
3 anticipated.

4 And finally, environmental justice did
5 not require further analysis. Because airborne laser
6 test activities would be conducted and contained within
7 the installation and range boundaries, it was
8 determined that no disproportionately high and adverse
9 impacts to low-income and minority population would
10 occur.

11 Under the hazardous materials and
12 hazardous waste management category, installation
13 restoration program sites did not require further
14 analysis because there are no installation restoration
15 program sites in the vicinity of proposed test
16 locations.

17 Storage tanks did not require further
18 analysis because no changes to the requirement for
19 storage tanks was identified; therefore, it was
20 determined that storage tanks associated with the
21 Airborne Laser Program were adequately addressed in the
22 1997 EIS.

23 Asbestos did not require further analysis
24 because no milcon-funded facility construction or
25 demolition activities are proposed to support test

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1 activities, it was determined that no impacts from
2 asbestos are anticipated.

3 Pesticide usage did not require further
4 analysis because the proposed test activities would not
5 require an increase in the use of pesticides.

6 Polychlorinated biphenyls, or PCBs did
7 not require further analysis because no PCB-containing
8 equipment would be utilized during proposed test
9 activities; therefore, no impacts are anticipated.

10 Radon, did not require further analysis.
11 Because the proposed test activities would not be
12 conducted in facilities that would be permanently
13 occupied, it was determined that no impacts from radon
14 are anticipated.

15 Medical and biohazardous waste did not
16 require further analysis because medical and
17 biohazardous waste would not be generated during
18 proposed test activities; therefore, no impacts are
19 anticipated.

20 Lead-based paint did not require further
21 analysis, because as with asbestos, because no
22 milcon-funded facility construction or demolition
23 activities are proposed to support test activities, it
24 was determined that no impacts from lead-based paint
25 are anticipated.

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1 Under the natural environment category,
2 soils and geology did not require further analysis
3 because no milcon-funded facility construction or
4 demolition activities are proposed to support test
5 activities, no ground disturbance would occur. Some
6 soil disturbance would be expected during missile
7 debris recovery actions at White Sands Missile Range.
8 Any debris from target missiles would be recovered in
9 accordance with standard operating procedures to
10 minimize potential impacts to soils and to reduce the
11 potential for soil erosion.

12 Water resources did not require further
13 analysis because similarly to soils and geology, no
14 milcon-funded facility construction or demolition
15 activities are proposed to support test activities, no
16 ground disturbance would occur. Some soil disturbance
17 would be expected during missile debris recovery
18 actions at White Sands Missile Range. Any debris from
19 target missiles would be recovered in accordance with
20 standard operating procedures to minimize potential
21 impacts to soils and to reduce the potential for soil
22 erosion.

23 The draft SEIS focuses on potential
24 impacts that would occur as a result of the proposed
25 airborne laser test activities. Resources evaluated in

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SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

1 detail include socioeconomics, airspace, hazardous
2 materials and hazardous waste management, health and
3 safety, air quality, noise, biological resources, and
4 cultural resources.

5 Under the local community category,
6 socioeconomics was analyzed further, because testing
7 activities conducted at White Sands Missile Range and
8 Holloman Air Force Base would require up to 50
9 program-related, temporary personnel for short periods.
10 The 50 program-related personnel would have a small,
11 positive, yet largely unnoticeable, effect on
12 population, income, and employment in the area
13 surrounding the installations.

14 Airspace for Holloman Air Force Base was
15 analyzed further because if ground tests could not be
16 conducted at Edwards or Kirtland, Holloman Air Force
17 Base and White Sands Missile Range would be used.
18 Ground and flying safety considerations associated with
19 lasers would restrict aircraft operations during
20 staging and testing. Locations would be selected that
21 minimize these impacts. If a suitable ground test
22 location could not be identified, ground testing would
23 be postponed until conditions at Edwards or Kirtland
24 Air Force Base were suitable. The 1997 EIS recognized
25 the fact that airborne testing would have an effect on

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1 Holloman operations as well.

2 Airspace for White Sands Missile Range
3 was analyzed further because of flight testing
4 scenarios. No new special use areas would be
5 necessary. White Sands Missile Range air traffic
6 control would ensure that the flight test area is clear
7 prior to implementing test activities. The FAA may,
8 when appropriate, implement flight level restrictions
9 for non-participating aircraft to ensure they are clear
10 of the test area.

11 Airborne laser aircraft use of the
12 existing special use airspace such as restricted areas,
13 military operation areas, and associated air traffic
14 control assigned airspace would not have a significant
15 impact on current and future activities conducted
16 within these areas. The scheduling office that is
17 responsible for establishing the activity schedule for
18 the portions of the White Sands Missile Range airspace
19 complex that would be utilized, forwards the proposed
20 test schedule, along with any subsequent changes, to
21 the controlling air traffic control center to ensure
22 non-participating aircraft remain clear of the test
23 area.

24 Hazardous materials and hazardous waste
25 management was analyzed further because the hazardous

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1 materials used for range testing operations would
 2 include cleaning solvents, paint compounds, explosive
 3 material and toxic propellants. Liquid propellants
 4 would be used in missile flight systems. The existing
 5 hazardous materials storage and handling capabilities
 6 at White Sands Missile Range and Holloman Air Force
 7 Base would permit proper handling of all materials.
 8 Any debris from target missile impact areas would be
 9 recovered in accordance with White Sands Missile Range
 10 standard operating procedures.

11 Missile debris and oxidizer or fuel
 12 released after a test would be handled in accordance
 13 with the White Sands Missile Range installation spill
 14 contingency plan. Missile debris would be loaded on a
 15 truck and transported to an approved range residue
 16 accumulation point for analysis. The debris would be
 17 characterized to determine if it is a hazardous waste.
 18 Hazardous wastes would be disposed of via permitted
 19 procedures through the White Sands Missile Range
 20 hazardous waste storage facility.

21 In the event the airborne laser aircraft
 22 is unable to land at Edwards Air Force Base after
 23 conducting test activities, Holloman Air Force Base has
 24 been identified as one of three pre-planned divert
 25 bases which the airborne laser aircraft would be

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SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

1 diverted to. Personnel at Holloman Air Force Base
 2 would be specifically trained to support the airborne
 3 laser aircraft and appropriate equipment to handle the
 4 airborne laser hazardous materials would be in place.

5 Health and safety was analyzed further
 6 because of the potential hazards associated with the
 7 system. In the event that ground-testing was conducted
 8 here, the lower-power platforms would be staged on
 9 Holloman Air Force Base and point west at targets on
 10 White Sands Missile Range. Laser safety precautions
 11 would be followed and activities at Holloman would be
 12 curtailed during testing on White Sands Missile Range.

13 The San Andres Mountains behind the
 14 targets would provide a vertical boundary to contain any
 15 direct laser beams or reflections. Areas subject to
 16 direct or reflected beams would be cleared of all
 17 non-essential personnel and access would be restricted.
 18 Laser targets would be positioned within a shroud to
 19 limit the possibility of deflection when the laser beam
 20 struck these surfaces.

21 The primary hazards associated with
 22 flight-testing activities are the reflection of laser
 23 energy off a target and debris impacts on the range.
 24 The possibility of public exposure to hazardous levels
 25 of direct, non-reflected laser energy would be

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1 eliminated by the decision to restrict laser firing
 2 angles to above the horizontal plane from the airborne
 3 laser aircraft's altitude of 35,000 feet or higher.
 4 However, because of the missile's flight path angle,
 5 when intercepted by the laser beam, reflections from
 6 the target missile surface would be directed downward.

7 Flight-test activities would be
 8 configured so that any hazardous reflected energy would
 9 be contained within range boundaries. The targets in
 10 all high-energy laser tests would be flying at
 11 altitudes above 35,000 feet.

12 Because the diffusely reflected energy is
 13 spread over a large area, the energy density rapidly
 14 decreases to below the maximum permitted exposure
 15 levels. Any direct laser energy that misses the target
 16 would exit restricted airspace above 45,000 feet and
 17 continue upward eventually exiting the earth's
 18 atmosphere.

19 Flight-testing activities may involve
 20 off-range lasing, where the laser systems are fired
 21 from FAA-controlled airspace at targets within White
 22 Sands Missile Range controlled airspace. White Sands
 23 Missile Range air traffic control would ensure that the
 24 flight test area is clear prior to implementing test
 25 activities. The FAA may, when appropriate, implement

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1 flight level restrictions for non-participating
 2 aircraft to ensure that they are clear of the test
 3 area.

4 White Sands Missile Range ground and
 5 flight safety determines the dimensions of the safety
 6 zone surrounding the launch and impact area, which
 7 areas of the missile range are evacuated for each
 8 mission, activation of the flight-termination system in
 9 the event of missile failure, missile intercept safety
 10 zones, and oversees the testing of missiles.

11 Evacuations, clearances, and road
 12 closures would be implemented to ensure worker and
 13 public safety. Roadblocks would be established before
 14 launch activities begin, and appropriate ground and air
 15 surveillance sweeps would occur to ensure the
 16 appropriate areas are evacuated. The U.S. Highways 70
 17 and 380 are regularly closed during missile tests at
 18 White Sands Missile Range and could be closed during
 19 the flight-testing activities.

20 Missile debris would be contained within
 21 the range boundaries. Missile debris would be
 22 recovered in accordance with existing White Sands
 23 Missile Range standard operating procedures. Recovery
 24 operations would be conducted utilizing existing roads,
 25 helicopter, or by foot and typically last less than one

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1 day. Debris would be recovered immediately as part of
2 a continuous effort to keep White Sands Missile Range
3 clear of debris. Analysis results for ground- and
4 flight-testing activities determined no adverse health
5 and safety impacts are anticipated.

6 Under the natural environment category,
7 air quality was analyzed further because of the
8 potential for emissions associated with the system.
9 The emissions from the ground-level-testing activities,
10 would be minimal. The limited use of Holloman for
11 take-offs and landings would contribute negligibly to
12 the emissions generated by the thousands of annual
13 aircraft operations previously analyzed.

14 The ground level emissions created by the
15 airborne laser flight-testing activities would occur
16 from missile setup, launch activities, and debris
17 recovery. These emissions are estimated to be less
18 than one percent of the six counties' total emissions.
19 The increase in criteria pollutant emissions would not
20 produce significant changes in air quality at White
21 Sands Missile Range.

22 Noise was analyzed further because the
23 testing activities use hazardous noise producing
24 equipment. Noise levels from the use of the aircraft
25 ground support equipment adjacent to the runway during

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1 ground-testing activities and the landing and takeoff
2 of the airborne laser aircraft would not cause adverse
3 effects to residential areas or the local populations.

4 During flight-testing, the airborne laser
5 aircraft would be accompanied by up to two chase
6 aircraft. These aircraft would maneuver at altitudes
7 above 35,000 feet. The noise level from the aircraft
8 maneuvering at this altitude is estimated to be less
9 than 55 decibels; therefore, no adverse noise impacts
10 are anticipated.

11 Biological resources were analyzed
12 further because threatened and endangered species are
13 found on White Sands Missile Range. Lasers are
14 currently used on White Sands Missile Range in various
15 programs, and analysis of these laser programs
16 indicated that there was a potential for physical
17 injury to wildlife.

18 According to a study performed in 1980
19 regarding laser activity at White Sands Missile Range,
20 there have been negligible cumulative impacts on
21 wildlife populations. Because the ground-test
22 activities that might be conducted at White Sands
23 Missile Range would only involve the lower-powered
24 laser systems, adverse impacts to biological resources
25 are not expected.

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1 The target missile trajectories would be
2 planned to avoid debris impact in the San Andres
3 National Wildlife Refuge and other sensitive areas and
4 adhere to requirements of the agreement between the
5 national park service and White Sands Missile Range
6 with regards to debris impact in the White Sands
7 National Monument.

8 Target debris would be contained within
9 the range boundaries and could result in the negligible
10 loss of some vegetation. After each flight test,
11 debris would be recovered as quickly as possible. If
12 the debris team utilizes a helicopter, the debris
13 recovery flight would involve a gradual descent to pick
14 up the debris, followed by the helicopter flying
15 descent to pick up the debris, followed by the
16 helicopter flying at an altitude that would avoid
17 startling or disturbing wildlife.

18 An analysis of the potential biological
19 impacts associated with the operation of the high
20 energy laser was discussed in the 1997 EIS. This
21 analysis showed that laser activities would not have
22 significant impacts upon the wildlife at White Sands
23 Missile Range. This is due to the high altitude at
24 which the proposed laser activity would occur and from
25 the test geometry that would prevent the high energy

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1 laser from being engaged in a downward direction.

2 Cultural resources were analyzed because
3 sites exist on White Sands Missile Range and Holloman
4 Air Force Base. Because potential ground-testing
5 activities would occur on previously disturbed, paved
6 or developed land and no milcon-funded construction
7 activity would be necessary; there are no foreseen
8 impacts to cultural resources at White Sands Missile
9 Range or Holloman air force base.

10 Use of missiles as targets during
11 flight-testing activities would result in debris
12 impacting the ground surface due to the successful
13 intercept of a missile target or by the termination of
14 the missile flight due to a malfunction. Such ground
15 impacts could potentially impact cultural resources.

16 Debris recovery activities would be
17 conducted in accordance with existing White Sands
18 Missile Range standard operating procedures. The
19 debris recovery teams are assisted by White Sands
20 Missile Range environmental personnel to minimize
21 disturbances to cultural resources. Previous debris
22 pattern modeling completed for prior missile intercept
23 tests does not predict any debris falling on the White
24 Sands National Monument.

25 The no-action alternative in this SEIS

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1 reflects the proposed test activities analyzed in the
2 1997 environmental impact statement. Therefore, no new
3 impacts are created and potential impacts are discussed
4 in that document. As previously stated, this SEIS does
5 not discuss the findings of that document except as a
6 basis of comparison. Therefore, the no-action
7 alternative generates no new impacts.

8 In closing, I remind you that the study
9 is a draft stage. Our goal is to provide the
10 decision-makers with accurate information on the
11 potential environmental consequences of the proposed
12 airborne laser test activities. To do this, we are
13 soliciting your comments on the draft SEIS. This
14 information will support informed decision-making.

15 Now I'd like to turn the meeting back
16 over to Colonel Powers.

17 COLONEL JOHN POWERS: Thank you, Captain
18 Wimmer. After a 10-minute recess, we will move into
19 the main portion of the meeting, which is the public
20 comment period. Let's take a ten-minute break.

21 (Recess)

22 COLONEL JOHN POWERS: We are now
23 reconvened, again. I do not have any cards so we want
24 to check out in front to make sure there's nobody
25 lingering out there.

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1 I have no cards filled out indicating
2 that anybody wants to speak. Does anybody in the
3 audience wish to speak? Apparently not. Okay. then
4 this concludes the public hearing.

5 If you should later decide to make
6 additional comments or would like to receive copies of
7 the final SEIS, you may do so through the address shown
8 on the slide.

9 We appreciate your participation in this
10 public hearing. Thank you for coming. Good night.

11 (Hearing concluded at 7:47)

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CERTIFICATE

1
2 I, Maria Caraveo, Certified Shorthand
3 Reporter of the State of Texas, do hereby certify that
4 the above and foregoing contains a true and correct
5 transcription of the proceedings for the Supplemental
6 Environmental Impact Statement Public Hearing.
7

8 Certified to on November 7, 2002.

9
10
11
12
13
14 Maria Caraveo, CSR/RPM
15 Certified Shorthand Reporter
16 Texas CSR No. 7869
17 Expires December 31, 2004
18 (282571)

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State of New Mexico
ENVIRONMENT DEPARTMENT
Office of the Secretary
Harold Runnels Building
1190 St Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2855
Fax (505) 827-2836



September 30, 2002

Charles E. Brown
Environmental Coordinator
Project Execution Division
HQ AFCEEECE
3207 Sidney Brooks
Brooks AFB, TX 78235-5344

Dear Mr. Brown:

RE: DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE
ARIBORNE LASER (ABL) PROGRAM (SEPTEMBER 2002)

This transmits New Mexico Environment Department (NMED) comments concerning the
above-referenced Draft Supplemental Environmental Assessment Impact Statement
(DSEIS).

Water Quality

The U.S. Environmental Protection Agency (USEPA) requires National Pollutant Discharge
Elimination System (NPDES) Construction Storm Water General Permit coverage prior to
beginning construction for storm water discharges from construction projects (common plans
of development) that will result in the disturbance of five or more acres (one or more acres
after March 10, 2003), including expansions, of total land area. It is unclear whether activities
associated with this project will involve construction but, if so, appropriate NPDES permit
coverage prior to beginning construction will be required.

Among other things, this permit requires that a Storm Water Pollution Prevention Plan
(SWPPP) be prepared for the site and that appropriate Best Management Practices (BMPs)
be installed and maintained both during and after construction to prevent, to the extent
practicable, pollutants (primarily sediment, oil & grease and construction materials from
construction sites) in storm water runoff from entering waters of the U.S. This permit also
requires that permanent stabilization measures (revegetation, paving, etc.), and permanent
storm water management measures (storm water detention/retention structures, velocity
dissipation devices, etc.) be implemented post construction to minimize, in the long term,
pollutants in storm water runoff from entering these waters.

Charles J. Brown
 September 30, 2002 Page 2
 You should also be aware that EPA requires that all "operators" (see **Federal Register/Vol. 63, No. 128/Monday, July 6, 1998 pg 36509**) obtain NPDES permit coverage for construction projects. Generally, this means that at least two parties will require permit coverage. The owner/developer of this construction project who has operational control over project specifications, the general contractor who has day-to-day operational control of those activities at the site, which are necessary to ensure compliance with the storm water pollution plan and other permit conditions, and possibly other "operators" will require appropriate NPDES permit coverage for this project.

Also, operation of these types of facilities additionally require Storm Water Multi-sector General Permit (see **Federal Register/Vol. 63, No. 210/Monday, October 30, 2000**) coverage. Launch sites, impact areas, fueling, soil remediation activities, etc. likely qualify as potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges, from activities that meet the USEPA definition of "industrial activities" under Sector S, K and/or L, and possibly other sectors. This permit also requires preparation of a SWPPP, and installation of appropriate storm water runoff control practices (per the SWPPP).

1. Although it appears that there is little potential to discharge pollutants to "waters of the United States" from the proposed activities, both WSMR and KAFB already have NPDES Storm Water Multi-sector General Permit coverage for "industrial activities" conducted on-site. Permittees should amend the existing Storm Water Pollution Prevention Plans to incorporate any additional activities and pollutant controls dictated by this proposed action.

Air Quality

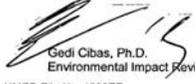
The proposed project is in areas that are currently in attainment for all National Ambient Air Quality Standards (NAAQS). The information provided is adequate to demonstrate that both ground- and flight-test activities have no anticipated conflicts with air quality laws and regulations. Although in the proposed action there is a short-term, minor increase in pollutant emissions due to testing activities, the increased emissions would not be significant and would not change the attainment status of any area. The Air Quality Bureau does not anticipate any air quality related problems as a result of the proposed project.

Hazardous Waste

Section 3.2.3.2 of the SEIS states that the increase in use of hazardous materials and the subsequent generation of hazardous wastes would be negligible, and that the small quantities oil and lubricants used on this project would be obtained from current distribution centers. Existing stores of fuels would be used to power equipment and support ground-testing activities. Existing contingency and spill control plans would be used to minimize any potential environmental consequences resulting from the use of these materials. Existing hazardous waste accumulation points would be used to contain and dispose of any hazardous waste generated from ABL project activities. No hazardous materials would be off-loaded from ABL aircraft that would be considered hazardous wastes.

Charles J. Brown
 September 30, 2002 Page 3
 Because the generation of hazardous wastes on this project will not generate a quantity that is significant and this generation is expected to fall within quantities already permitted, no changes to the existing RCRA permit are required or anticipated.

We appreciate the opportunity to comment on this project.

Sincerely,

 Gedi Cibas, Ph.D.
 Environmental Impact Review Coordinator
 NMED File No. 1639ER

Tom Bolema  Page 1 of 3

To: Maj. C. Redelsperger
 ASC/TMIS
 Target Rd., Bldg. 760
 Kirtland AFB
 NM 87117-6612

From: Tom Bolema

Please include the following statement in the Public Comment record of the hearing.

Airborne Laser Program
 Supplemental Environmental Impact Statement
 Lancaster, CA Public Hearing

October 15, 2002

1.1 I'm Tom Bolema of the High Desert Greens. I'm one of over 500 Green Party members residing in the Antelope Valley region. We object to the testing of the airborne laser system on the grounds that such testing violates environmental and public health and safety standards. These health and safety standards are already being compromised by congressional

From Tom Bolema  Thu, Oct 8 - 17:14 - 2002 11:29 PM Page 2 of 3

exemption. The Pentagon's plans put public safety at even greater risk.

2. The airborne laser system is part of a group of weapons systems that require the use of controversial communications technologies to track targeted moving objects. Of special concern in the development of the airborne laser system are these accessory communications technologies, some of which are already in operation. Throughout the Antelope Valley, one can hear the constant low frequency "hum" emanating from these powerful transmitters.

7.5 Antelope Valley residents are being exposed to these transmissions that have proven deleterious physiological effects according to Dr. Kanavy, chief of the biological effects group of the Phillips Laboratory's Electromagnetic Effects Division at Kirtland Air Force Base in New Mexico. The effects of that exposure include "behavioral aberrations, perturbations of neural networks, fetal (embryonic) tissue damage (including birth defects), cataractogenesis, altered blood chemistry, metabolic changes and suppression of the endocrine and immune systems..."

In Light of these findings, the environmental impact report must show the local incidence of these maladies compared to incidence in areas not exposed to the acoustic bombardment.

13.3 The effects of the development of the airborne laser system on our economic and social environment are also detrimental. We acknowledge the need for and are in fact confident that

From Tom Bolerra

Page 3 of 3

we already possess an ample defense and that we can sustain it without sacrificing our quality of life. The current federal emphasis on developing missile defense weaponry is bound to keep taxpayers in debt and cold war anxieties alive for generations to come.

4
13.3 We submit that the airborne laser system poses a serious mental health threat and jeopardizes our children's future economic stability. The environmental impact report must include a study of the psychic effects on children of financial instability and the anticipation of violence.

It is evident that the majority of people worldwide want peace and prosperity and that the oppression and marginalization of groups and individuals creates animosity and the conditions for violence. We therefore cannot conscience so investing our vital resources which should be used to promote inclusion and stability. Furthermore, the responsibility of policing the planet should be shared with the rest of the world. We Americans cannot fund it alone.

5
1.3 Within the National Environmental Policy Act, Congress established that it is the policy of the federal government to "create and maintain conditions under which man and nature can exist in productive harmony." The development and implementation of the airborne laser and other missile defense systems and accompanying technologies is therefore in conflict with federal environmental policy.

Written Comment Sheet Airborne Laser Program Supplemental Environmental Impact Statement

Thank you for attending this public hearing. Our purpose for hosting this meeting is to give you an opportunity to comment on issues analyzed in the Supplemental Environmental Impact Statement (SEIS) for the Airborne Laser Program test activities proposed at Kirtland Air Force Base (AFB) and White Sands Missile Range/Holloman AFB, New Mexico, and Edwards AFB and Vandenberg AFB, California. Please use this sheet to comment on any environmental issues that you feel should be clarified in the Final SEIS.

Date: 10/22/02

1
6.3 Even a small amount of hazardous material when factored into the total toxicity levels in our environment - local, state-wide and national - is unacceptable. Both our natural resources - water, land and air - and our own immune systems have been degraded over the years from a variety of toxins and radioactive materials.

Name: Alan Klein

Address: Street Address City/State/Zip Code

Please hand this form in or mail to:
ASCTMI
Attn: Lt. Col. Edward Marchand
3300 Target Road, Building 760
Kirtland AFB, NM 87117-6612
Fax: (505) 846-1675

Only the names of individuals making comments and specific comments will be disclosed. Personal home addresses and phone numbers will not be published in the SEIS.



MESCALERO Apache TRIBE

TRIBAL HISTORIC PRESERVATION OFFICE
151 Central Avenue
P.O. Box 227
Mescalero, New Mexico 88340
Phone: 505/464-4474 ext. 279 or 270
Fax: 505/464-9191

Mr. Charles J. Brown
HQ AFCEE/ECE
3207 Sydney Brooks
Brooks AFB, TX 78235-5344

(X) The Mescalero Apache Tribe has determined that the proposed EIS for the Airborne Laser Program WILL NOT AFFECT any objects, sites, or locations important to our traditional culture or religion.

() The Mescalero Apache Tribe has determined that the proposed project by _____ WILL AFFECT objects, sites, or locations important to our traditional culture or religion. We request that the _____ undertake further consultations to evaluate the effects of the project on these sites.

In the future, we request that you minimally provide us with the following items to aid in our determination:

- Cultural Resource Survey Reports
- Site Forms
- Maps (Both General and Site Specific)
- Research Designs (If Applicable)
- Data Recovery Plans (If Applicable)
- Photographs

Thank you for providing the Mescalero Apache Tribe the opportunity to comment on this project. We look forward to reviewing and commenting on future Dept. of the Air Force projects.

CONCUR:

Donna Stern-McFadden

Donna Stern-McFadden
Signature

Tribal Historic Preservation Officer
Title

10/16/02
Date

COMMENTS

October 24, 2002

Mr. George H. Gauger
HQ AFCEE/ECE
3207 Sydney Brooks
Brooks AFB, Texas
Fax 210-536-3890

Mr. Gauger;

Please include the attached letter from Ivan Ninichuck of Cal Poly Progressive Student Alliance and the its accompanying page of Cal Poly PSA 20 endorsers in the formal comments for the Chemical Oxygen Iodine Laser (ABL) due to be flight tested at Vandenberg AFB.

Thank you.

Sheila Baker
Member, Cal Poly Progressive Student Alliance

6.4 1 Based upon EPA's review of the DSEIS, we rate it LO, Lack of Objections. Although EPA has no objections with the DSEIS or the proposed project, we ask for one issue to be clarified in the Final EIS (FEIS) and amended Record of Decision. The Air Force should address the potential applicability of Toxic Reporting Inventory (TRI) requirements under the Emergency Planning and Community Right-to-Know Act, the Pollution Prevention Act, and Executive Order 13148 at facilities in the United States where ABL chemicals are proposed for storage such as at Edwards Air Force Base. Please refer to our attached comments for additional discussion of TRI-related issues.

We appreciate the opportunity to provide comments. Please send one copy of the Final EIS to this office (mailcode: CHD-2) at the letterhead address when it is filed with EPA's Washington, DC office. If you have any questions, please call me or my staff contact for this project, David Tomovic, at 415-972-3858 or electronic mail at <tomovic.david@epa.gov>.

Sincerely,
/SIGNED BY/
Lisa B. Hanf, Manager
Federal Activities Office

Attachment: 1

cc: Michael Jansky, EPA Region 6, Dallas, TX (via email)

U.S. EPA comments on Draft Supplemental Environmental Impact Statement (DSEIS) - AIRBORNE LASER (ABL) PROGRAM; Edwards Air Force Base (AFB), Vandenberg Air Force Base, and the Adjacent Western Range (Point Mugu Naval Air Warfare Center Sea Range), California; and Kirtland Air Force Base, White Sands Missile Range, and Holloman Air Force Base, New Mexico -- November 4, 2002

Toxic Reporting Inventory

Table 2.2-2 (p. 2-7) addresses estimated storage requirements for bulk chemicals at Edwards Air Force Base (AFB), identifying the following storage quantities at this facility:

<	Ammonia (Anhydrous)	2,000 to 4,000 pounds
<	Chlorine	1,000 to 2,000 pounds
<	Sulfuric Acid	660 gallons

Table 1.5-1 (p. 1-11) identifies environmental permits and licenses required by this project. Regarding hazardous materials and hazardous waste, Table 1.5-1 references the Resource Conservation and Recovery Act and the California Hazardous Waste Control Act. However, the DSEIS does not address the potential applicability of the Emergency Planning and Community Right-to-Know Act (EPCRA), including its Toxic Reporting Inventory (TRI) requirements; the Pollution Prevention Act (PPA); or Executive Order (EO) 13148 (Greening the Government Through Leadership in Environmental Management - April 21, 2000), which extends TRI-related requirements to the Federal sector. EPCRA was enacted to inform communities of potential chemical hazards. EPCRA Sections 311 and 312 require facilities to report the location and quantities of chemicals stored on-site to State and local agencies in order to facilitate an effective response to chemical spills and hazardous material incidents. EPCRA Section 313 requires EPA and the States to annually collect data on releases and transfers of certain toxic chemicals from facilities, and make such data available to the public. The PPA requires that additional data on waste management and source reduction efforts be

2 6.5 reported to EPA (see PFA Section 6607). EO 13148 instructs the Federal sector to adhere to the provisions of the EPCRA and the PFA, including TRI requirements. Ammonia, chlorine, and sulfuric acid are three chemicals that are subject to TRI requirements. Additionally, in keeping with Section 503(b) of EO 13148, the FEIS and amended Record of Decision should identify whether there are known, readily available, less harmful substitutes for identified applications and purposes, i.e., less toxic substances to carry out ABL testing activities. The Final EIS (FEIS) and amended Record of Decision should address the potential applicability of the EPCRA, the PFA, and EO 13148 to this project.

3 6.4



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Post Office Box 649
Albuquerque, New Mexico 87103

November 1, 2002

ER 02/865

Charles J. Brown
Environmental Coordinator
Project Execution Division
HQ AFCEE/ECE
3300 Sidney Brooks
Brooks AFB, Texas 78235-5112

Dear Mr. Brown

The U.S. Department of the Interior has reviewed the Draft Supplemental Environmental Impact Statement (EIS) for the Airborne Laser Program, Kirtland Air Force Base (AFB), White Sands Missile Range (WSMR)/Holloman Air Force Base, New Mexico, Edwards Air Force Base, Vandenberg Air Force Base, California. In this regard, the following comments are provided for your consideration as you develop the final document.

General Comments

The specific elements of the proposed action consist of the use of B747 aircraft outfitted with a laser weapon system to detect and track ballistic missile launches. Test missiles will be fired upon from these aircraft at altitudes above 35,000 feet to determine the effectiveness of the Missile Defense Agency's Airborne Laser Program. Ground-based testing involves individual laser components. Airborne testing will involve high energy lasers (weapon grade) and ground-based testing will involve lower energy lasers. Kirtland AFB, Holloman AFB, and WSMR were identified as potential testing locations.

Although the program was addressed in an April 1997 Final Environmental Impact Statement (ER 95/266), additional changes to the test program necessitated this Supplemental EIS. New changes include: 1) testing with more than one aircraft; 2) potential off-range escape of laser energy; 3) lowering the test altitude from 40,000 feet to above 35,000 feet; 4) testing low energy tracking laser components; and 5) changes in the location, types, and numbers of tests.

Specific Comments

While White Sands National Monument is frequently mentioned, there seems to be a lack of recognition that this area is used by the public. Most closures and evacuations of Monument property for existing military testing affect the little-used western portion of the Monument, known as the co-use area, without affecting the primary public use area of the Monument. If Holloman AFB was selected for ground-based laser testing as described on page 2-8, Section 2.2.1, this would require testing across the primary public use area of the National Monument, and this should be clearly stated. Section 2.2.1 should state that testing would occur across the National Monument and would require closure and evacuation of the public.

- 3.1 2 Section 3.3.4.2 (in the paragraph referencing environmental consequences of health and safety) regarding debris recovery operations and restoration, should state "... would be under terms of a special use permit issued by the National Park Service at White Sands National Monument."
- 3.13.4 3 Section 3.3.9.1 fails to mention White Sands National Monument has an annual public use by over 500,000 visitors and is the most visited National Park Service site in New Mexico. The impact analysis of Section 3.3.9.2 should state that ground-based laser testing from Holloman AFB would significantly increase closures of public use of the National Monument, resulting in inconvenience to the public.
- 11.1 4 The EIS, page 3-59, states that Wright's fishhook cactus (*Mammillaria wrightii*) occurs on Kirtland AFB (Albuquerque) and is listed as a federally endangered species. This cactus is neither a listed species nor does it occur on Kirtland AFB. This cactus is known from the El Paso area. Please reference the July 11, 2002, species lists that were included in Appendix E for Bernalillo County for a current and complete species list (Consultation No. 2-22-02-I-513). We concur with the Air Force's determination that the proposed action is not likely to adversely affect listed species or critical habitat (none designated) within Kirtland AFB.
- 11.1 5 For a current and complete species list for WSMR, please reference (in Appendix E) the July 12, 2002, letter (Consultation No. 2-22-02-I-514). With respect to activities on WSMR, it is our understanding that this project is part of activities normally conducted on WSMR. Low energy laser ground testing activities would be conducted at Edwards AFB, and the WSMR was identified only as an alternate site. The WSMR normally coordinates with the Fish and Wildlife Service on site-specific activities which may affect federally-listed species. Based on the level of ongoing coordination with WSMR and the type and location of the activity, we concur with the Air Force's determination that the proposed action is not likely to adversely affect any federally-listed species on WSMR.
- 11.2 6 Statements on page 3-91 describing the effects of ground testing activities on biological resources is vague. For example, the fourth paragraph on this page states "an analysis of laser programs indicated there was a potential of physical injury to wildlife" and "quail and coyotes were only slightly impacted" but concludes that testing involving lower power lasers is not

11.2 6 expected to result in adverse impacts to wildlife. It is unclear what types of injury, what types of laser energy produce such injuries, and under what conditions (and hence avoidance of) impacts to wildlife may occur. These statements should be clarified so that the potential for impacts can be adequately addressed. Impacts to terrestrial wildlife can be avoided or minimized by conducting ground-based activities during the hottest parts of the day or avoiding early morning or early evening hours. All reasonable precautions to prevent laser energy from straying off target should likewise reduce or eliminate potential adverse impacts to wildlife.

11.3 7 The statement on page 3-91 indicating that "ground-testing activities would be conducted, to the extent possible, outside of the migratory waterfowl season to minimize impacts" should not be limited to waterfowl. The peak bird migratory periods in New Mexico, for instance, are September through November and March through May.

Thank you for the opportunity to review this Draft Supplement. We trust our comments will be of use during future environmental documentation.

Sincerely,

for Glenn B. Sekavec
Glenn B. Sekavec
Regional Environmental Officer



Global Network Against Weapons and Nuclear Power in Space

October 29, 2002

Mr. George H. Gauger
HQAFCEE/ECE
3207 Sydney Brooks
Brooks AFB, Texas 78235

Dear Mr. Gauger:

We are sending comments regarding the Chemical Oxygen Iodine Laser, also known as the Airborne Laser which is due to be flight tested at Vandenberg AFB in 2003.

We were surprised to hear about how inaccurate notification was placed in media around Vandenberg AFB thus making it impossible for people to turn out at local hearings to voice concerns about the program.

1.2 1 Our greatest concern about this project is the need. Who is the U.S. defending against? Who is going to launch nuclear missiles at the U.S.? Is not this system really intended as an expansion of U.S. forward deployed military that will be used to virtually surround and provoke China?

The cost of the airborne laser is outrageous. Cutbacks in child care, health care, education, social security, and environmental clean-up are happening all over the nation. How can we as a nation afford this system when our national treasury is already being drained by the military industrial complex? This system is just more welfare for the aerospace industry.

13.5 2 Finally there will be an impact to California commercial and recreational fishing, especially below the Western Range. Ocean vessels must be notified in advance of potential hazards. Flight tests may require the closure of one or more of the state or national parks, thus disrupting activities in the area and calling to question environmental impact of these areas.



1.1 3 Our organization is opposed to this project. It will only help create a new arms race (which is probably what you want anyway) and will cost us our children's future.

In peace,

B. K. Gagnon

Bruce K. Gagnon
Coordinator

Page 1 of 2

October 29, 2002

Mr. George H. Gauger
HQAFCEE/ECE
3207 Sydney Brooks
Brooks AFB, Texas 78235
Fax 210-536-3890

Dear Mr. Gauger,

Thank you for allowing our comments to be recorded regarding the Chemical Oxygen Iodine Laser, also known as the Airborne Laser which is due to be flight tested at Vandenberg AFB in 2003.

First, we are understandably disappointed that the Santa Maria Times and the Santa Barbara Press reported the ABL scoping meeting would be held on Wednesday, Oct 16, rather than its true date, Thursday, Oct. 17. Naturally few if anyone made it. Therefore, written comments from the public are especially meaningful.

7.7 1 Chemical lasers over the ocean cannot be considered environmental. True, mechanisms will be installed to keep the laser from striking anything but the target, but these measures can fail.

7.7 2 The storage, handling, and use of chemical lasers presents dangers to all life on the Central Coast. This project is highly unnecessary and presents a high risk for safety and health of our area.

This project is expensive. Billions of dollars will be required just to test this system. Both Santa Barbara and San Luis Obispo Counties struggle to maintain our healthcare, our schools, and necessary services. The contrast in wasteful spending that the COIL project provides is obscene.

13.5 3 Finally, according to Vandenberg AFB Space and Missile Times, October 25 issue, there will be an impact to local commercial and recreational fishing, especially below the Western Range. Ocean vessels must be notified in advance of potential hazards. Flight tests may require the closure of one or more of the state or national parks, thus disrupting activities in the area and calling to question environmental impact of these areas.

1.1 4 Please stop this project. Contrary to the headlines in the Santa Barbara County newspapers, we, the public, are not mum on missile defense.

Sincerely,

Nancy H. Ferraro

