BY ORDER OF THE COMMANDER

STRATEGIC COMMAND INSTRUCTION (SI) 534-12

25 JUL 2007

Operations, Planning, and Command and Control

LASER DECONFLICTION PROCESS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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(Lt Col Thomas G. Reed)

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The purpose of this SI is to establish policy, define processes, and assign responsibilities for operational forces performing the laser deconfliction mission. It implements DoDI O-3100.11, Illumination of Objects in Space by Lasers. The Laser Clearinghouse (LCH) mission is to provide the mission capabilities for supporting safe and responsible laser activities consistent with the needs of national defense. This document provides guidance regarding laser activities into, through, or from space, or aimed above the horizon. It applies to all Department of Defense (DoD) laser activities. A glossary of references and supporting information is at **Attachment 1**.

1. Laser Deconfliction Process. DoDI O-3100.11 directs that all DoD laser activities must be conducted in a safe and responsible manner that protects space systems, their mission effectiveness, and humans in space, consistent with national security requirements. It also directs that these laser activities must be coordinated with U.S. Strategic Command (USSTRATCOM) for deconfliction with space operations. (***Note:*** Tasks assigned in DoDI O-3100.11 to U.S. Space Command have been assumed by USSTRATCOM consistent with the realignment of organizations). The general procedures for illumination of objects in space by lasers may be found in Paragraph 6 of DoDI O-3100.11. The USSTRATCOM laser deconfliction process entails the six-step process in **Table 1.**

Table 1. USSTRATCOM Laser Deconfliction Process.

Step 1	Registration of the laser.
Step 2	Evaluation of the laser's potential harm to satellites.
Step 3	Analysis of alternative predictive avoidance approaches.
Step 4	Development of a predictive avoidance plan.
Step 5	Validation of the predictive avoidance plan.
Step 6	Authorization of laser activity.

Paragraphs **2. - 4.** expand upon this laser deconfliction process, and paragraphs **5. - 8.** describe the general procedures for LCH operations required to fulfill its laser deconfliction responsibilities.

1.1. LCH Mission. USSTRATCOM is responsible for the laser deconfliction mission in accordance with DoDI O-3100.11. The LCH mission is carried out by the Joint Functional Component Command for Space (JFCC SPACE) through JFCC SPACE Unified Space Vault (USV) in the Joint Space Operations Center (JSpOC) (J95). The alternate LCH mission is the responsibility of the 20th Space Control Squadron, Detachment 1 (20 SPCS Det 1) at Dahlgren, Virginia.

1.2. Responsibilities. The Commander, USSTRATCOM, has assigned overall responsibility for implementation of the USSTRATCOM laser deconfliction process to JFCC SPACE. The following assigns specific responsibilities to USSTRATCOM organizations and supporting mission partners to implement this SI.

1.2.1. Commander, JFCC SPACE:

1.2.1.1. Establishes the maximum safe exposure criteria for use in waiver evaluations per paragraph **3.2.**

1.2.1.2. Establishes standards for ensuring satellite positional uncertainties are accounted for per paragraph **4.2.3.**

1.2.1.3. Provides final authorization to proceed with laser activities per paragraphs **4.1.** and **4.4.**

1.2.1.4. Establishes the policy for granting waivers to the remainder of the laser deconfliction process and procedures for implementation per paragraph **3.** This may be delegated to Director, JSpOC.

1.2.1.5. Provides final authorization to waive the entire Predictive Avoidance (P/A) process after discussions with satellite owners/operators under special circumstances.

1.2.2. JFCC SPACE Director of Operations (J3):

1.2.2.1. Oversees laser deconfliction directives and operational plans.

1.2.2.2. Generates operational requirements for the LCH mission.

1.2.2.3. Advocates within USSTRATCOM for manpower and funding required to operate the LCH. Levels of manning and funding are based on Director, JSpOC and LCH validated requirements

1.2.2.4. Submits the Laser Test Master Schedule to the Joint Staff per paragraph **7.5.**

1.2.2.5. Approves P/A Plans and P/A Capability Validation Plans per paragraphs **4.2.** and **4.3.** This includes development of a standard centralized P/A Plan. Upon implementation of the standard centralized P/A Plan, the LCH may approve laser-specific tailoring of the plan, as described in paragraph **4.2.**

1.2.3. Director, JSpOC:

1.2.3.1. Provides support to USSTRATCOM to ensure the mission of the LCH is accomplished.

1.2.3.2. Evaluates and recommends the maximum safe exposure criteria for use in waiver evaluations per paragraph **3.2.**

1.2.3.3. Evaluates and recommends standards for ensuring satellite positional uncertainties are accounted for per paragraph **4.2.3.**

1.2.4. JSpOC:

1.2.4.1. Monitors laser activities and reports laser firings outside authorized parameters to the Chairman, Joint Chiefs of Staff (CJCS) via the USSTRATCOM Global Operations Center (GOC) and conducts anomaly resolution analyses per paragraphs **8.1.** through **8.3.**

1.2.4.2. Provides timely, accurate satellite ephemeris data, timely notification of space events (including satellite launches, decays or de-orbits, separations, and maneuvers) to the LCH, and performs P/A operations in support of laser activities when assigned by the LCH as requested per paragraph **6.**

1.2.5. Unified Space Vault (JFCC SPACE/J95):

1.2.5.1. Operates the LCH, within the JSpOC, as the focal point for the laser deconfliction process.

1.2.5.2. Establishes manpower requirements and funding needs to operate the LCH. Provides billet and budget requirements to JFCC SPACE/J3.

1.2.5.3. Registers lasers per paragraph **2.**

1.2.5.4. Approves or disapproves requests for LCH support from non-DoD lasers per paragraph **2.3.**

1.2.5.5. Based on maximum exposure criteria established by JFCC SPACE, approves or disapproves waivers to the process. LCH issues waivers to the laser deconfliction process per paragraph **3.1.**

1.2.5.6. Develops P/A approaches for each laser system as necessary and coordinates with stakeholders per paragraph **4.**

1.2.5.7. Coordinates on P/A operational procedures and checklists used in the JSpOC.

1.2.5.8. Approves Unique Protect Lists (UPL) as necessary per paragraph **5.**

1.2.5.9. Maintains and approves the Unrestricted Satellite List (USL) and Master Protect List (MPL) per paragraph **5.**

1.2.5.10. Develops operational procedures to implement LCH operations, including required customer planning support and P/A operations; taskings to JSpOC operations floor to provide P/A operations for laser activities; and approval of P/A operations procedures and checklists for the LCH per paragraph **6.**

1.2.5.11. Provides ancillary customer services per paragraph **7.**

1.2.5.12. Develops procedures to ensure DoD Laser Owners and Operators (LO/O):

1.2.5.12.1. Register lasers with the LCH per paragraph **2.1.** if laser activities will require Secretary of Defense (SecDef) approval or if the laser activity is into, through, or from space or aimed above the horizon, or when the potential to affect satellites or humans in space is uncertain.

1.2.5.12.2. Participate with LCH in determining the P/A approach per paragraph **4.**

1.2.5.12.3. Participates in validation testing as required for final authorization per paragraph **4.**

1.2.5.12.4. Submit information required for final authorization per paragraph **4.**

1.2.5.12.5. Request the USL per paragraph **5.**, if needed.

1.2.5.12.6. Follow the approved P/A approach for laser activities per paragraph **6.**

1.2.5.12.7. Provide Laser Test Master Schedule inputs to the LCH per paragraph **7.5.**

1.2.5.12.8. Report any inadvertent illuminations or laser firings outside authorized parameters as specified in paragraph **8.2.**

1.2.5.13. Develops procedures to ensure DoD Satellite Owners and Operators (SO/O):

1.2.5.13.1. Provide to USSTRATCOM the satellite's specific maximum safe exposure level for laser illumination or assist the LCH in determining the best protection approach per paragraphs **3.2.**, **4.1.**, and **4.2.**

1.2.5.13.2. Provide written correspondence to the LCH if any laser program is granted permission for laser illumination of their satellites.

1.2.6. USSTRATCOM Intelligence, Surveillance, and Reconnaissance (ISR) and Space Division (J84):

1.2.6.1. Identifies and advocates for required capabilities and resources necessary to enable USSTRATCOM to execute its assigned space missions.

1.2.7. USSTRATCOM GOC:

1.2.7.1. Receives and acts on JSpOC reports of laser activities inadvertently conducted outside authorized parameters. Receives impact assessments for any satellite or humans in space that could be inadvertently or adversely affected, and reports to USSTRATCOM's Joint Chiefs of Staff (JCS) chain of command and other agencies as appropriate.

2. Registering a Laser System with the LCH. The JFCC SPACE/J95 (USV) will establish the policy for registering a laser with the LCH and evaluating requests for support. The LCH will establish procedures for implementation. Each DoD LO/O must register its laser with the LCH if a planned activity involves a laser activities into, through, or from space, or aimed above the horizon. Other U.S. Govern-

ment departments and agencies, as well as non-U.S. Government entities, are encouraged to register with the LCH. The laser owner/operator must submit the requested technical data at least 6 months prior to the planned start date.

2.1. Registration Requirements. JFCC SPACE/J95 (USV) will establish the information required for registration, to include technical parameters. Each DoD LO/O must register its laser with the LCH if a planned activity involves a laser activity into, through, or from space, or aimed above the horizon. Under special pre-agreed upon circumstances with satellite owners, Commander (CDR) JFCC SPACE, has the authority to waive this process. After the LO/O has registered, the LCH will provide information on how to carry out the subsequent steps in the laser deconfliction process. The LCH will maintain a database of all registration and laser technical information.

2.2. Evaluating DoD Lasers. Unless waived, the LCH will support all DoD laser activities into, through, or from space, or aimed above the horizon.

2.3. Evaluating Non-DoD Lasers. The JSpOC will accept information from non-DoD lasers about proposed laser activities, and as resources allow, perform P/A processing for the purpose of assessing if the laser's operations could potentially affect DoD space missions, including satellite operations and humans in space.

3. Waiver Determination. The CDR, JFCC SPACE, will establish the policy for granting waivers to the remainder of the laser deconfliction process and procedures for implementation. The LCH will establish procedures for implementation. If circumstances require a waiver to the deconfliction or P/A process for reasons not in established policy or procedures, CDR, JFCC SPACE, may grant a waiver to any and all of the requirements per paragraph **1.2.1.5.**, after consultation with satellite owners.

3.1. Waiver Criteria. Based on criteria and procedures approved by the Director, JSpOC, the LCH may grant a waiver to the process. Examples of both an approved waiver and a disapproved waiver are included at **Attachment 2**. Some of the criteria to be considered are as follows:

3.1.1. The LCH determines that the laser's planned operation places it below the maximum safe exposure criteria. It will assess the likelihood of the laser inadvertently affecting satellites other than its target, or humans in space by using the criteria established per paragraph **3.2.**

3.1.2. The laser activity does not require SecDef approval. The LO/O must notify the LCH in writing of its determination regarding the requirement for SecDef approval. The submittal should state that each of the criteria in DoDI O-3100.11 has been considered and that none of the SecDef approval criteria applies to the laser activity.

3.1.3. The planned laser illumination does not reasonably raise an issue of compliance with treaty obligations and international legal obligations. The LO/O must assure the LCH in writing of compliance with treaty and legal obligations.

3.2. Maximum Safe Exposure Criteria. The maximum safe exposure criteria are defined as the levels of laser illumination at which the potential for detrimental effects to any satellite or human in space is considered to be minimal. The CDR, JFCC SPACE, establishes the criteria based on recommendations by the Director, JSpOC, and JFCC SPACE/J3, in consultation with the LCH, SO/Os, LO/Os, and technical experts in this field regarding laser effects on satellites or humans in space.

3.3. Granting Waivers. Based on criteria and procedures approved by the Director, JSpOC, the LCH will approve or disapprove waivers. The LCH will then notify the LO/O of the results. The waiver will specify the conditions under which the waiver is valid and any other special reporting requirements that may be applicable.

4. P/A Planning and Authorization. The LCH will develop procedures and policy to implement P/A approaches, P/A Plans, P/A Capability Validation Plans, and final authorization.

4.1. Determining the P/A Approach. Unless waivered, the LCH will conduct an evaluation of P/A approach alternatives. The P/A approaches include:

4.1.1. Centralized P/A (CP/A). The JSpOC performs all required P/A and provides the laser program open windows for laser activity.

4.1.2. Decentralized P/A (DP/A). The laser program performs its own deconfliction using processes validated and authorized by CDR, JFCC SPACE.

4.1.3. Hybrid P/A (HP/A). The LCH performs P/A on a select set of satellites and provides open windows to the laser program. The laser owner/operator then performs P/A on the remaining satellites within the LCH-provided windows using processes validated and authorized by CDR, JFCC SPACE.

4.1.4. The criteria for selection of the P/A approach include factors such as ensuring an adequate level of protection for satellites and humans in space, impact to execution of laser activity, satellite vulnerabilities, impact to satellite missions, implementation costs, schedule constraints, security issues, and risk.

4.2. Developing a P/A Plan. The P/A Plan defines the technical and operational approach for P/A to be used by the LCH and the LO/O for the laser activity.

4.2.1. Director, JSpOC will publish a baseline Centralized P/A Plan that establishes a standard approach for the LCH and LO/Os. The LCH may tailor the baseline CP/A Plan for each laser activity.

4.2.2. When DP/A or HP/A approaches have been selected, LCH will prepare a tailored P/A Plan for the laser activity, coordinate the P/A Plan with the appropriate stakeholders, and approve the plan.

4.2.3. CDR, JFCC SPACE, will establish standards based on recommendations from Director, JSpOC, for ensuring that satellite position uncertainties are accounted for in P/A processing.

4.2.4. Director, JSpOC, (in coordination with LO/O) will ensure that all aspects of P/A, including reflected laser energy, are considered in the P/A Plan. The LCH may use an Operational Risk Management approach to address reflected energy.

4.3. P/A Capability Validation Plans. A P/A Capability Validation Plan defines the tests and analyses that, if completed satisfactorily, will provide the confidence needed for the Director, JSpOC, to validate the end-to-end P/A capability. Unless waivered in accordance with procedures stated previously, the JSpOC will implement procedures to validate the P/A capabilities.

4.4. Providing Final Authorization. Upon completion of P/A capability validation, final authorization must be received by the LO/O prior to laser activity. The JSpOC will develop procedures to ensure it receives final authorization, to include providing copies of such to the LO/O and developing procedures in the event of changes to approved configurations.

5. Satellite Protection Lists. The LCH is responsible for maintaining the USL, the MPL, UPLs and the Critical Protect List (CPL). The LCH will establish procedures for implementation.

6. LCH Operations. The LCH will establish procedures for P/A operations by the LCH and 1st Space Control Squadron (1 SPCS), to include Laser Deconfliction Resolution.

6.1. When the CDR, JFCC SPACE, has provided final authorization for laser activity, the LCH and 1 SPCS (when tasked) will prepare to provide P/A support as described in the laser's P/A Plan.

6.1.1. The LO/O will notify the LCH of its intent to conduct laser firings, as defined in its P/A Plan, typically 60 days prior to the activities. The P/A Plan will establish the information to be exchanged and the schedule.

6.1.2. The LCH will prepare a schedule for P/A operations support for the laser activity and will assign responsibility for performing the P/A operations. The LCH may perform the P/A operations or task the 1 SPCS to perform P/A operations in accordance with the approved P/A Plan.

6.2. P/A Operations. The LCH and 1 SPCS (when tasked) will provide 24-hour-per-day operational support, as needed, in accordance with the laser activity P/A Plan to supply safe firing windows, monitor execution, and report deviations. The LCH (or JSpOC-Mountain when tasked) will use satellite ephemeris data, and laser/target locations at the planned illumination times to compute safe-firing windows per the P/A Plan. Classified mission partners may be requested to provide P/A inputs involving their satellites as required by the LCH. The Director, JSpOC, will approve operational procedures and checklists for the LCH and will coordinate on operational procedures and checklists for the JSpOC-Mountain.

6.3. Deviations from P/A operations. Laser P/A procedures may be modified or discontinued when military necessity dictates (for example, for authorized laser operations in combat operations). In these cases, rules of engagement on laser operations will be established to govern when and how laser deconfliction will be accomplished. These rules of engagement will be coordinated through the Commander, USSTRATCOM.

7. LCH Ancillary Services. As resources allow, there are several ancillary services that the LCH may provide and it will establish procedures for implementation.

7.1. Satellite Vulnerability Information. The LCH will maintain information on satellite vulnerabilities and maximum safe exposure levels for DoD satellites (other than national assets) and other satellites, including those involving humans in space. Classified mission partners support the LCH mission by performing analysis to determine the potential of lasers to damage their systems.

7.2. Laser Technical Parameters. The LCH will maintain a Laser Database containing information on registered lasers, laser system radiance distributions in space, and other laser characteristics.

7.3. LCH Historical Information. The LCH will maintain historical information containing schedules and information describing P/A support provided for the LCH mission for all laser activities.

7.4. Laser Deconfliction Procedures for LO/Os. The LCH will publish procedures and processes to assist LO/Os in obtaining P/A support, waivers, and authorization to conduct the laser activity.

7.5. Laser Test Master Schedule. The LCH will develop a Laser Test Master Schedule (LTMS) based on LO/O inputs and submit it to the Director, JSpOC, on a quarterly basis. In turn, the Director will approve the LTMS and forward it to the Joint Staff. At a minimum, the LTMS contains the dates of all projected laser activities requiring SecDef approval within the next 12 months.

7.6. P/A Analysis. The LCH will assist LO/Os by providing pre-test predictive analyses to determine the optimum firing geometries and times.

8. Monitoring Activities, Reporting Inadvertent Illuminations, and Resolving Anomalies. The JSpOC is responsible for monitoring laser activities, resolving anomalies, and up-channeling the necessary reports of inadvertent illuminations. It will establish procedures for implementation.

8.1. Monitoring the Laser Activity. The JSpOC will develop procedures to ensure contact with LO/Os is possible during laser activities.

8.2. Reporting Inadvertent Illuminations. The LO/O will report to the JSpOC any laser activity inadvertently conducted outside authorized parameters per established procedures.

8.2.1. DoD SO/Os must report any conditions that may be indicative of unauthorized laser illumination to USSTRATCOM in accordance with Concept Plan (CONPLAN) 8035-06.

8.2.2. If the JSpOC is aware of a laser operation that may be associated with this event, it will notify the LO/O for further investigation.

8.2.3. When notified of an inadvertent illumination, the JSpOC will immediately report to the USSTRATCOM Global Operations Center via the appropriate reporting channels. The GOC will forward the information to the Joint Chiefs of Staff, via the National Military Command Center. Such reports will include a summary of the laser event and an assessment of any satellite or humans in space that might have been adversely affected.

8.2.4. If notified of inadvertent laser activity by an LO/O, the JSpOC/LCH will notify national asset SO/Os whose closures were violated and may have been affected so they can evaluate their satellites for any potential indications of inadvertent illumination.

8.3. Resolving Anomalies. If the JSpOC is notified of an inadvertent illumination during a laser activity, it will coordinate with the LO/Os, and SO/Os to analyze the laser firing details to assess whether any satellite or humans in space could have been inadvertently and adversely affected. The JSpOC will establish procedures for inadvertent illumination to determine damage assessments and post-mission analysis, and to help prevent future inadvertent illuminations from occurring, if possible.

RICHARD L. JARRELL, Major, USAF
Command Secretariat

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

CDRUSSTRATCOM CONPLAN 8035-06, Change 1, *Space Control*, 18 September 2006.

DoDI O-3100.11, *Illumination of Objects in Space by Lasers*, 31 March 2000

Abbreviations and Acronyms

1 SPCS—1st Space Control Squadron

CDR—Commander

CP/A—Centralized Predictive Avoidance

DoD—Department of Defense

DoDI—Department of Defense Instruction

DP/A—Decentralized Predictive Avoidance

GOC—Global Operations Center

HP/A—Hybrid Predictive Avoidance

JFCC SPACE—Joint Functional Component Command for Space

JFCC SPACE/J3—JFCC SPACE Director of Operations

JFCC SPACE/J35—JFCC SPACE Space Control Division

JFCC SPACE/J95—JFCC SPACE Unified Space Vault in the Joint Space Operations Center (JSpOC)

JSpOC—Joint Space Operations Center

LCH—Laser Clearinghouse

LO/O—Laser Owner/Operator

MPL—Master Protect List

OPR—Office of Primary Responsibility

P/A—Predictive Avoidance

SecDef—Secretary of Defense

SI—Strategic Command Instruction

SO/O—Satellite Owner/Operator

UPL—Unique Protect List

USL—Unrestricted Satellite List

USSTRATCOM—United States Strategic Command

USV—Unified Space Vault

Terms

Critical Protect List (CPL)—The CPL, a sub-set of the MPL, is a list of national satellites that must be protected from illumination by a specific laser.

DoD Laser Activities—Any DoD or DoD-sponsored laser research, development, or developmental or operational test, evaluation, or exercise, funded by, operated under the auspices of, or conducted by DoD. For purposes of this issuance, laser activities include those activities that may be conducted into, through, or from space, or aimed above the horizon with the potential to inadvertently or adversely affect satellites or humans in space.

Illumination—The emission of energy from a laser directed at a target.

Laser Activity—Any laser firing conducted into, through, or from space, or aimed above the horizon from a specific site or system.

Laser Parameters—Technical data such as wavelength, pulse width, energy, power, and divergence provided by the LO/O to the LCH. This data aids in waiver determination.

Master Protect List (MPL)—A comprehensive list of all satellites that must be protected from being affected by laser activities.

Object—Any target or satellite in space that is intentionally or inadvertently illuminated.

Predictive Avoidance (P/A)—A deconfliction process that may be conducted in either a centralized, decentralized, or other approved method certified by JFCC SPACE/J3. It involves the analytical and geometrical method used to (1) determine if a specific satellite may be inadvertently illuminated; (2) ensure that laser illuminations do not adversely affect the safe and effective operation of a satellite; and (3) make informed decisions on the safety of laser activities to, in, through, or from space, or aimed above the horizon.

Safe-Firing Window—Period of time during which the laser activity may be conducted safely. May be stated in terms of either “open” or “closed” windows.

Satellite—Any human-made Earth orbiting object.

Satellite Ephemeris Data—May be either State Vectors (with or without covariance) or two-line element sets.

Target—Any satellite, star, point in space, aircraft, or missile that is the object of intentional illumination for the purpose of laser research, development, developmental or operational testing, evaluation, or exercise.

Testing—All tests, series of tests, demonstrations, or exercises of a laser or laser technology.

Unique Protect List (UPL)—The UPL, a sub-set of the MPL, is a tailored list of satellites that must be protected from illumination by a specific laser. The MPL is the baseline for establishing the UPL. The Satellite Assessment Center has the capability to perform UPL analyses

Unrestricted Satellite List (USL)—The USL is a list of satellites that may serve as targets for non-destructive laser activities such as ranging, tracking, calibration, and imaging.

Attachment 2

SAMPLE WAIVER LETTERS

A2.1. Sample Waiver Approval Letter. Figure A2.1. is an example of a waiver approval letter.

Figure A2.1. Sample Waiver Approval Letter.

DEPARTMENT OF DEFENSE
UNITED STATES STRATEGIC COMMAND

MM DDD YY

MEMORANDUM FOR: NASA Langley Research Center
ATTN: Syed Ismail
NASA Langley Research Center
21 Langley Blvd., MS401A, Hampton, VA 23681

FROM: JFCC SPACE/J95 (USV)
1 NORAD Rd., Suite 8300
Cheyenne Mountain AFS, CO 80914

SUBJECT: Laser Clearinghouse Program/Registration Response

1. The Laser Clearinghouse (LCH) has evaluated the LASE pulse laser. The laser, as described below, does not exceed our threshold and will not require LCH to conduct Predictive Avoidance runs in support of your operation. Changes to the laser's operating parameters are authorized as long as the laser's fluence does not exceed that of the current approved configuration.

Mode	**PRIME**
Pulse Width (sec,)	###
Pulse Repetition Frequency (Hertz)	###
Pulse energy (Joules)	###
Divergence Half-Angle (Radians)	###
Wavelength (Meters)	###
Output Power at Aperture (watts)	###
Strehl Beam Quality (%)	###

2. Laser Clearinghouse has granted a one-year unconditional waiver for operation of the laser described above. Although this waiver is unconditional, this command reserves the right to rescind this waiver if significant space events occur requiring re-evaluation of all lasers. Contact LCH if any laser parameters change, is moved to a different location, or becomes inactive.

3. During operations the LCH must have a way to immediately contact your laser site in case of unforeseen circumstances; therefore, an emergency phone number and point of contact is required at the site.

4. The point of contact is the undersigned at 719-474-4496/16/17. The DSN prefix is 268.

John Barrientos, LT, USN
Chief, Directed Energy Branch
Laser Clearinghouse Program Manager

A2.2. Sample Waiver Disapproval Letter. Figure A2.2. is an example of a waiver disapproval letter.

Figure A2.2. Sample Waiver Disapproval Letter.

DEPARTMENT OF DEFENSE
UNITED STATES STRATEGIC COMMAND

DD MMM YY

MEMORANDUM FOR: ABL SPO Office
1350 Wyoming Blvd, SE
Bldg. 20200
Kirtland AFB, NM 87117-5536

FROM: JFCC SPACE/J95 (USV)
1 NORAD Rd., Suite 8300
Cheyenne Mountain AFS, CO 80914

SUBJECT: Laser Clearinghouse Program/Registration Response

1. The Laser Clearinghouse has evaluated the ABL SHEL, BILL and TILL pulse lasers. The lasers, as described in the Laser Clearinghouse Information Sheet, dated 14 December, 2005, classified SECRET, do exceed our threshold; therefore, Laser Clearinghouse (LCH) Predictive Avoidance runs in support of your operation are required. A formal Predictive Avoidance Plan must be approved prior to LCH's support.

Laser Operating Modes — See classified entries on original document per para 1 above
Pulse Width (sec)
PRF (hertz)
Pulse Energy (joules)
Divergence ½ Angle (radians)
Wavelength (meters)
Output Power @ Aperture (watts)

2. The LCH requires a calendar for the next year on projected laser operations. Two weeks prior to the start of each calendar quarter the LCH requires an update for the immediate Quarter and any changes for the next year. No later than 30 days out directly contact the LCH at 719-474-4496/97/16 to confirm the days of operation and to coordinate support.

3. During operations the LCH must have a way to immediately contact your laser site in case of unforeseen circumstances; therefore, an emergency phone number and point of contact is required at the site.

4. The point of contact is the undersigned at 719-474-4496/16/17. The DSN prefix is 268.

John Barrientos, LT, USN
Chief, Directed Energy Branch
Laser Clearinghouse Program Manager