

UNITED STATES OF AMERICA
FEDERAL AVIATION ADMINISTRATION
WASHINGTON D.C.

In the matter of the petition of the

DEPARTMENT OF THE ARMY

For an exemption from the provisions
23495
Of sections 91.73(a) and (b)
of the Federal Aviation Regulations.
Aircraft Lights

Regulatory Docket No.

AMENDED GRANT OF EXEMPTION

On March 26, 1984, the Federal Aviation Administration (FAA) granted an exemption from Section 91.73(a) and (b) of the Federal Aviation Regulations to the Department of the Army to conduct certain night flight military training operations without lighted aircraft position lights. The exemption (Exemption No. 3946) would terminate on June 30, 1986. By letter dated September 23, 1985, US Army Air Traffic Control Activity, Aeronautical Services Office, Cameron Station, Alexandria, Virginia, petitioned the FAA for an amended exemption in order to conduct operations on a continuing basis.

A summary of the petition for exemption was published in the Federal Register (50 FR 50698) on December 11, 1985, for public comment. No comments were received.

FAR Section 91.73 provides, in pertinent part, that during periods of darkness no person may:

(a) Operate an aircraft unless it has lighted position lights; or

(b) park or move an aircraft in, or in dangerous proximity to, a night flight operations area of an airport unless the aircraft –

(1) is clearly illuminated;

(2) has lighted position lights; or

(3) is in an area which is marked by obstruction lights.

The petitioner has been conducting night vision flight training wherein an aircrew's night vision (the ability to see unlighted objects in relative darkness) is enhanced by goggles which amplify ambient light. However, without an exemption from Section 91.73, aircrew members

detect an aura of light about their aircraft caused by its own lighted position lights. The aura impairs the pilot's ability to navigate nap-of-the-earth and reduces the otherwise available effectiveness of the goggles. Also, the lighted position lights, in themselves, detract from the realism of the training environment.

The petitioner has involved virtually all of its air installations in this training activity. The training is currently conducted at altitudes at or below 300 feet above the surface. The Department of the Army offered, in their original petition, that a level of safety equivalent to that of the affected rule can be established by prescribed training control measures including:

1. limiting training to areas that have been flight safety checked and designated for that purpose;
2. operating at 300 feet or less above the surface when in training areas or on training routes;
3. having qualified night vision goggle personnel or instructors on duty in the aircraft;
4. equipping ground monitors with night vision goggles; and
5. issuing Notices to Airmen (NOTAM) or advisories as appropriate.

The FAA finds that the petitioner's current night flight operation have been safely conducted without lighted aircraft position lights under the current exemption. The FAA continues to believe that an equivalent level of safety can be accomplished by limiting the herein authorized activity to helicopters; by confining the operations to define areas of low traffic density; by advertising the activity to other users of the airspace; by employing dedicated surveillance during operations; and by advertising the petitioner's activities and operating areas to other users and giving real-time notice of activities underway.

It is expected that the latter action would cause other affected users minor inconvenience to avoid an area of activity, or, if having elected to transit an area, to exercise particular vigilance for the training activity. In regard to dedicated surveillance, the FAA believes that such surveillance can be accomplished either by using dedicated observers aboard the unlighted training aircraft or by using a lighted escort aircraft dedicated to surveillance duty. When on-board observers are employed, they are employed in pairs for each training operation; i.e., an observer aboard each of two helicopters. Using this method, training operations are conducted in a manner which enable the observers to survey fully for all aircraft involved in the training operations. When using the lighted escort aircraft method of surveillance, the escort aircraft is repositioned as necessary for scanning in all directions for the entire training operation. In either case, the use of such dedicated surveillance does not relieve any pilot of the responsibility to "see and avoid" other aircraft.

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Accordingly, pursuant to the authority contained in Section 307(e) of the Federal Aviation Act of 1958, as amended, which has been delegated to me under Section 11.53 of the

Federal Aviation Regulations, the Department of the Army is hereby granted an exemption from the provisions of Sections 91.73(a) and (b) of the Federal Aviation Regulations in order to conduct night flight military training operations without lighted aircraft position lights, subject to the following conditions and limitations:

1. This exemption is limited to night vision flight training in U.S. Army tactical helicopters.

2. Safety observers.

a. An airborne training operation –

(1) may be conducted in a flight of two or more helicopters with a dedicated observer on duty aboard each helicopter. The flight shall be conducted in such a manner as to enable the observers collectively to survey fully about the entire flight for nonparticipating aircraft; or

(2) shall be escorted by a properly lighted aircraft serving as an observation platform dedicated to surveillance for nonparticipating aircraft.

b. Traffic notifications from the observer to the training flight shall be timely commensurate with the position and speed of the observed nonparticipating traffic.

c. When nonparticipating traffic is relevant, the pilot of each training flight aircraft shall light that aircraft's position lights and keep them lighted until the traffic is no longer relevant.

3. Airborne operations may not be conducted above 200 feet above the surface and must be contained within a prescribed and publicized area that –

a. is simply defined, e.g. the radius area of a point or location;

b. is established in an area of low traffic density;

c. is not within 5 miles of any public use airport;

d. does not infringe upon FAA-designated airspace areas, e.g. control zones and airport traffic areas; and

e. has been coordinated with the appropriate FAA Region's Air Traffic Division and Flight Standards Division Offices.

4. Notwithstanding paragraph 3 above, each operation must be conducted in accordance with Section 91.79, Minimum safe altitudes; - general.

5. The holder shall advertise each approved training area to operators at all airports within 50 miles of the area for 60 days preceding its initial use.

6. Ground (airport/staging area) operations in noncompliance with FAR Section 91.73(b) may be conducted at locations where only the holder's aircraft involved in night vision flight training are operating and suitable alternative measures for collision avoidance are instituted.

7. The holder shall provide notification of training activities through NOTAM's issued through FAA flight service stations at least 24 hours prior to commencement of the training activity. The NOTAM, as a minimum, shall include the location (as described in condition 3.a. above), time, and altitude of the training activity.

8. The holder shall establish procedures for collision avoidance among its aircraft operating pursuant to this exemption, including observer aircraft.

9. Each pilot who will conduct operations under this exemption must be thoroughly familiar with its provisions.

This exemption is effective immediately and remains in force until December 31, 1989, unless sooner superseded or rescinded by the Administrator or his representative.

JOHN R. RYAN
Director, Air Traffic
Operations Service

Issued in Washington D.C. on June 26th 1986
Extension Granted Until January 31, 2001 unless superseded or rescinded. Exemption No.
3946F