

movement of the controls must not lead to inadvertent operation. The HUD controls must be adequately illuminated for all normal background lighting conditions, and must not create any objectionable reflections on the HUD or other flight instruments.

b. The display brightness must be satisfactory in the presence of dynamically changing background (ambient) lighting conditions. If automatic control is not provided, it must be shown that a single setting is satisfactory. When the brightness level is altered, the relative luminance of each displayed symbol, character, or data shall vary smoothly. In no case shall any selectable brightness level allow any information to be invisible while other data remains discernible. There shall be no objectionable brightness transients when transitioning between manual and automatic control. The HUD data shall be visible in lighting conditions from 0 fL to 10,000 fL. If certain lighting conditions prevent the crew to adequately seeing and interpreting HUD data (for example, flying directly toward the sun), accommodation must be provided to permit the crew to make a ready transition to the head down displays.

c. To the greatest extent practicable, the HUD controls must be integrated with other controls, including the flight director, to minimize the crew workload associated with HUD operation and to ensure flightcrew awareness of engaged flight guidance modes.

d. The installation of the HUD system must not interfere or restrict other installed equipment such as emergency oxygen masks, headsets, or microphones. The installation of the HUD must not adversely affect the emergency egress provisions for the flightcrew, or significantly interfere with crew access. The system also must not hinder the crew's movement while conducting any flight procedures.

e. The installation of the HUD system must not present the crew with any objectionable glare or reflection in any lighting conditions. This is equally applicable from glare or reflections visible on the HUD system itself, or that originating from the HUD system and visible in other areas such as the windshield. The installation of the HUD system must not significantly obstruct either pilot's external field of view when both combiners are deployed. The external view requirements of § 25.773 must be retained with both combiners deployed.

f. The HUD system must be designed and installed to prevent the possibility of pilot injury in the event of an accident or any other foreseeable

circumstance such as turbulence encounter, hard landing, bird strike, etc. The installation of the HUD, including overhead unit and combiner, must comply with the head injury criteria of § 25.562, Amendment 25-64.

g. The design eyebox shall be laterally and vertically centered around the respective pilot's design eye position, and must be large enough that the minimum monocular field of view is visible at the following minimum displacements from the cockpit Design Eye Position:

Lateral: 1.5 inches left and right
Vertical: 1.0 inches up and down
Longitudinal: 2.0 inches fore and aft

These requirements must be met for pilots from 5'2" to 6'3" tall, while seated with seat belts fastened and with the pilot positioned at the design eye position (ref. § 25.777(c)). Larger eyebox dimensions may be required for meeting operational requirements for use as a full time primary flight display.

h. The HUD system combiner must not create any objectionable distortion of the pilot's external view. The optical qualities (accommodation, luminance, vergence) of the HUD shall be uniform across the entire field of view. When viewed by both eyes from any off-center position within the eyebox, non-uniformities shall not produce perceivable differences in binocular view. Notwithstanding compliance with these minimum eyebox dimensions, the HUD eyebox must be large enough to adequately serve as a primary flight display without inducing adverse effects on pilot vision and fatigue.

3. System Requirements

a. The HUD system must be shown to perform its intended function as a primary flight display during all phases of flight. The normal operation of the HUD system cannot adversely affect, or be adversely affected by other airplane systems. Malfunctions of the HUD system which cause loss of all primary flight information, including that displayed on HUDs and head down instruments, shall be extremely improbable.

b. The criticality of the HUD system's function to display flight and navigation data, including the potential to display hazardous misleading information, must be assessed according to §§ 25.1309 and 25.1333, Advisory Circular (AC) 25-11 paragraph 4.a., and AC 25.1309-1A. All alleviating flightcrew actions that are considered in the HUD safety analysis must be validated during testing for incorporation in the airplane flight

manual procedures section or for inclusion in type-specific training.

c. Since the display of hazardous misleading information on more than one primary flight display must be extremely improbable, HUD system software which generates, displays or affects the generation or display of primary flight information shall be developed to Level A requirements, as specified by RTCA Document DO-178B, "Software Considerations in Airborne Systems and Equipment Certification."

d. The HUD system must monitor the position of the combiner and provide a warning to the crew when the combiner position is such that conformational symbols will be hazardous misaligned.

e. The HUD system must be shown adequate for airplane control and guidance during an engine failure during any phase of flight.

f. There must be no adverse physiological effects of long term use of the HUD system, such as fatigue or eye strain, that cause the pilot to have to revert to the HDD. Use of the HUD system also cannot require excessive cognitive workload or unreasonable limitations on head position.

g. The HUD system must be shown to comply with the high intensity radiated fields certification requirements specified in another special condition, not yet finalized.

Issued in Renton, Washington, on March 24, 1997.

Stewart R. Miller,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service, ANM-100.

[FR Doc. 97-9152 Filed 4-8-97; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. 97-ACE-5]

Removal of Class D Airspace, Marshall Army Airfield, Ft. Riley, KS

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Direct final rule; request for comments.

SUMMARY: This action removes the Class D airspace area at Marshall Army Airfield, Ft. Riley, KS. The Control Tower at Marshall Army Airfield is not in operation and will not be operational in the foreseeable future.

DATES: Effective date: 0901 UTC July 17, 1997.

Comment date: Comments must be received on or before May 15, 1997.

ADDRESSES: Send comments regarding the rule in triplicate to: Manager, Operations Branch, Air Traffic Division, ACE-530, Federal Aviation Administration, Docket Number 97-ACE-5, 601 East 12th St., Kansas City, MO 64106.

The official docket may be examined in the Office of the Assistant Chief Counsel for the Central Region at the same address between 9:00 am. and 3:00 p.m., Monday through Friday, except Federal holidays.

An informal docket may also be examined during normal business hours in the Air Traffic Division at the same address listed above.

FOR FURTHER INFORMATION CONTACT: Kathy Randolph, Air Traffic Division, Operations Branch, ACE-530C, Federal Aviation Administration, 601 East 12th Street, Kansas City, Missouri 64106; telephone (816) 426-3408.

SUPPLEMENTARY INFORMATION: The control tower at Marshall Army Airfield, Ft. Riley, KS, has been closed and will not be operational in the foreseeable future. The Department of the Army has requested the Class D airspace be removed. However, the Class E2 and E4 surface area will be retained.

The Direct Final Rule Procedure

The FAA anticipates that this regulation will not result in adverse or negative comment and, therefore, is issuing it as a direct final rule. Previous actions of this nature have not been controversial and have not resulted in adverse comments or objections. This removal is required because the control tower is no longer operational. Unless a written adverse or negative comment, or a written notice of intent to submit an adverse or negative comment is received within the comment period, the regulation will become effective on the date specified above. After the close of the comment period, the FAA will publish a document in the **Federal Register** indicating that no adverse or negative comments were received and confirming the date on which the final rule will become effective. If the FAA does receive, within the comment period, an adverse or negative comment, or written notice of intent to submit such a comment, a document withdrawing the direct final rule will be published in the **Federal Register**, and a notice of proposed rulemaking may be published with a new comment period.

Comments Invited

Although this action is in the form of a final rule and was not preceded by a

notice of proposed rulemaking, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption **ADDRESSES**. All communications received on or before the closing date for comments will be considered, and this rule may be amended or withdrawn in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of this action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this action will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 97-ACE-5." The postcard will be date stamped and returned to the commenter.

Agency Findings

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is noncontroversial and unlikely to result in adverse or negative comments. For the reasons discussed in the preamble, I certify that this regulation (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative

on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES**.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

Adoption of the Amendment

Accordingly, the Federal Aviation Administration amends Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as follows:

PART 71—[AMENDED]

1. The authority citation for Part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g); 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959-1963 Comp., p. 389; 14 CFR 11.69.

§ 71.1 [Amended]

2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9D, Airspace Designations and Reporting Points, dated September 4, 1996, and effective September 16, 1996, is amended as follows:

Paragraph 5000 Class D airspace
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ACE KS D Ft. Riley, KS. [Removed]

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Issued in Kansas City, MO, on March 12, 1997.

Christopher R. Blum,

Acting Manager, Air Traffic Division, Central Region.

[FR Doc. 97-9139 Filed 4-8-97; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Airspace Docket No. 96-AGL-32]

Establishment of Class E Airspace; Hillsboro, ND, Hillsboro Municipal Airport

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action establishes Class E airspace at Hillsboro, ND. A Global Positioning System (GPS) standard instrument approach procedure (SIAP) to Runway 16 and a GPS SIAP to Runway 34 have been developed for Hillsboro Municipal Airport. Controlled airspace extending upward from 700 to