

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL
(Nature of Service)

KE2XPE
(Call Sign)

XD FX,MO
(Class of station)

S-2611-EX-96
(File number)

NAME THE MITRE CORPORATION

FAA Air Traffic Control Center; Olathe, KS
(Location of station)

within 161 km radius of: NL 38-51-00; WL 94-50-00

Special Temporary Authority is hereby granted to operate the radio transmitting apparatus described below:

| Frequency (MHz) | Authorized Power (watts) | Emission Designator | Location of Station |
|-----------------|--------------------------|---------------------|---------------------|
| 966 | 100 (ERP) | 1M00F1D | ground |
| 966 | 50 (ERP) | 1M00F1D | air |

Purpose of Operation: Demonstration of Universal Access Transceiver (as part of FAA's "Free Flight" program.)

This special temporary authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This special temporary authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control by the Government of the United States conferred by Section 706 of the Communications Act of 1934.

This authorization effective September 7, 1996 and will expire 3:00 A.M. EST. December 7, 1996



S-2611-EX-96

MITRE

Dr. Robert J. Ravera
Vice President for Operations
Center for Advanced Aviation
System Development
703-883-6680
Fax: 703-883-6809

5 September 1996
F010-L-422

Federal Communications Commission
Experimental Licensing Branch
P. O. Box 358320
Pittsburgh, PA 15251-5315

Dear Sir or Madam:

The MITRE Corporation herein requests an expedited Special Temporary Authorization (STA) to operate an experimental transceiver within 100 nm of the FAA Air Traffic Control Center in Olathe, KS. The FAA has approved operation of the system at this location. This system is currently licensed on an experimental basis in Florida under call sign KE2XPE. Technical parameters for the system have been submitted to the Commission under File Number 5256EXML96.

*OK per
HTW;
(FAA approved
for 3 mos)*

Per CFR47 Part 5, Section 5.56, the following data are submitted to support this STA request:

Item (1)

The MITRE Corporation
1820 Dolley Madison Blvd.
Mail Stop W371
McLean, VA 22102-3481
Attn: D.J. Chadwick, Chief Engineer

Item (2)

STA is required to support demonstration of this system in Olathe, KS as part of the FAA's "Free Flight" program to be attended by officials from the FAA, the airlines and general aviation interests. The demonstration will commence on 7 September and continue for approximately 90 days.

Item (3)

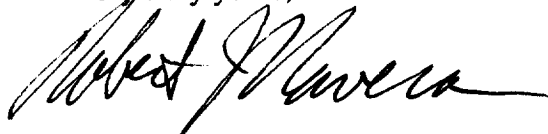
System consists of one ground station and three aircraft stations. Airborne units are installed in single engine aircraft that will operate at altitudes below 12,000 feet MSL. Demonstration will include flights of three aircraft communicating with the ground station. Ground station will uplink weather radar data and aircraft position data. Air units will downlink GPS-derived own-aircraft position and aircraft maneuvering intent.

The MITRE Corporation
1820 Dolley Madison Boulevard
McLean, Virginia 22102-3480

- Item (4)
Purpose of operation is to determine effectiveness of downlinked aircraft position and maneuvering intent in improving ability of FAA controllers to safely separate aircraft in a "Free Flight" environment where aircraft do not fly on airways.
- Item (5)
Operations will be conducted at various times during the 24-hour day, beginning on 7 September 1996 and continuing for approximately 90 days thereafter.
- Item (6)
Ground Station: FIXED Radio Service
Airborne Station: AERONAUTICAL MOBILE Radio Service
- Item (7)
Within 100 nmi radius of FAA ARTCC in Olathe Kansas
[38 51 00N / 094 50 00W]
- Item (8)
MITRE "UAT" Experimental Transceiver, currently licensed under call sign KE2XPE at other locations. Request is for new location.
- Item (9)
Frequency of Operation is 966 MHz
- Item (10)
ERP = 100 watts (ground) and 50 watts (air) [Tx Power is 50 W in both cases]
- Item (11)
Emission: 1MF1D
- Item (12)
Ground Antenna is on roof of FAA ARTCC, approximately 30 feet AGL.
Antenna extends no more than 10 feet above roof of building (mounted to pipe; not on a tower).

In view of our test schedule, expedited handling of this request will be greatly appreciated. If you have any questions regarding this STA request, please contact Jim Chadwick at (703) 883-7010, or FAX (703) 883-1242. Thank you for your assistance in this matter.

Very truly yours,



Dr. Robert J. Ravera

DJC:RJR/clh

Enclosure

FACSIMILE MESSAGE

FACSIMILE MESSAGE

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**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF ENGINEERING AND TECHNOLOGY**

2000 M STREET, N.W., SUITE 230
WASHINGTON, D.C. 20554

September 5, 1996 1 51 pm

FROM: Carl Huie

Telephone: (202) 418-2430
Fax #: (202) 418-1918

TO:

Name: Jim Chadwick
Organization: The MITRE Corporation
Telephone: (703) 883-7010 X
Fax #: (703) 883-1242

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COMMENTS:

License will be mailed after receipt of original application.