

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL

(Nature of Service)

WA9XGF

(Call Sign)

XD FX

(Class of Station)

0120-EX-ST-2000

(File Number)

NAME Advanced Navigation & Positioning Corp.

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 the Government of the United States conferred by Section 706 of the Communications Act of 1934.

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

Purpose Of Operation:

Testing of the Transponder Landing System (TLS).

Station Locations

(1) Watertown, WI - NL 43-09-54; WL 88-43-39

Frequency Information

Watertown, WI - NL 43-09-54; WL 88-43-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
108.35 MHz	FX	6K00A9W	1.66 W (ERP)	
122.8 MHz	FX	6K00A3E	10 W (Output Power)	
333.95 MHz	FX	300HA1N	10 W (ERP)	
1030 MHz	FX	6M00M1D	1700 W (ERP)	
1090 MHz	FX	6M00M1D	11 W (ERP)	

Special Conditions:

- (1) The Transponder Landing System (TLS) at Watertown, Wisconsin, shall use the identifier "XYM" for TLS operations.

This authorization effective March 31, 2000 and
will expire 3:00 A.M. EST September 30, 2000

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Special Conditions:

- (2) TLS operations are limited to the demonstration of Category I ILS-like precision approaches to runway 5 at the Watertown Municipal airport (RYV) in Watertown, Wisconsin. The mainbeam of the Localizer, Glide Slope, and Interrogation transmit antennas shall be on an azimuth of 230 degrees (+/- 5 degrees). Back Course guidance or interrogations are not authorized.
- (3) TLS operational procedures shall be approved by local/regional FAA Air Traffic Control personnel.
- (4) TLS Transponder codes shall be assigned by FAA Air Traffic Control personnel or from a list of codes pre-approved by FAA Air Traffic Control authorities.
- (5) Communications between aircraft and the TLS ground operator that are necessary to enter the transponder code into the TLS and establish TLS service to the aircraft shall be conducted on the UNICOM frequency assigned to the Watertown Municipal airport (RYV), Wisconsin.
- (6) The TLS shall transmit on 1030 MHz only to track the aircraft engaged in a precision approach using the designated transponder code or to perform periodic TLS calibrations and system tests. Transmissions on 1030 MHz at other times are not authorized.
- (7) A temporary increase in the maximum TLS interrogation/suppression rate on 1030 MHz from 5 Hz to 10 Hz is authorized until the FAA determines the appropriate interrogation rate for a TLS system.
- (8) The pulse rate and test duration of the calibration and system test transmissions on 1090 MHz shall be in accordance with FAA direction.
- (9) Future changes in the TLS operating parameters may be required as a result of the FAA TLS test program.
- (10) TLS 1030 MHz transmissions shall consist of a Interrogation transmitter with a directional antenna oriented as described in special condition 2 above and a side lobe suppression transmitter with a directional antenna oriented 180 degrees from the interrogation antenna.
- (11) The maximum 1030 MHz interrogator ERP is authorized during this test and evaluation period. Final 1030 MHz ERP will be determined by the FAA based on operational requirements and may be less than the maximum authorized under this experimental STA. The 1090 MHz AOA Calibration ERP may also be adjusted based on operational requirements.