

**United States of America**  
**FEDERAL COMMUNICATIONS COMMISSION**  
**EXPERIMENTAL**  
**RADIO STATION CONSTRUCTION PERMIT**  
**AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XT      FX MO

(Class of Station)

WH2XUP

(Call Sign)

0049-EX-TC-2017

(File Number)

NAME Google LLC

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(a & j) of the Commission's Rules

Station Locations

- (1) MOBILE: Region 1: Winnemucca, NV: airborne max altitude 75,500 ft. AGL, within 100 km, centered around NL 40-53-55; WL 117-48-16
- (2) Winnemucca, NV - NL 40-53-55; WL 117-48-16; MOBILE: Region 1: Winnemucca, NV: airborne max altitude 75,500 ft. AGL, within 100 km
- (3) MOBILE: Region 2: CA, ID, NV, OR, UT - see area described in application exhibit, airborne max altitude 75,500 ft. AGL
- (4) MOBILE: Region 3: CA, NV - see area described in application exhibit, airborne max altitude 75,500 ft. AGL

Frequency Information

MOBILE: Region 1: Winnemucca, NV: airborne max altitude 75,500 ft. AGL, within 100 km, centered around NL 40-53-55; WL 117-48-16

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 75210-75790 MHz | MO            | 60M0D1D             | 7.676 kW (ERP)   |                           |
| 75500 MHz       | MO            | 580MD1D             | 7.676 kW (ERP)   |                           |

This authorization effective September 21, 2017 and  
will expire 3:00 A.M. EST June 01, 2020

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

MOBILE: Region 1: Winnemucca, NV: airborne max altitude 75,500 ft. AGL, within 100 km, centered around NL 40-53-55; WL 117-48-16

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 84210-84790 MHz | MO            | 60M0D1D             | 7.676 kW (ERP)   |                           |
| 84500 MHz       | MO            | 580MD1D             | 7.676 kW (ERP)   |                           |
| 85210-85790 MHz | MO            | 60M0D1D             | 7.676 kW (ERP)   |                           |
| 85500 MHz       | MO            | 580MD1D             | 7.676 kW (ERP)   |                           |

Winnemucca, NV - NL 40-53-55; WL 117-48-16; MOBILE: Region 1: Winnemucca, NV: airborne max altitude 75,500 ft. AGL, '

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 75210-75790 MHz | FX            | 60M0D1D             | 192.8 kW (ERP)   |                           |
| 75500 MHz       | FX            | 580MD1D             | 192.8 kW (ERP)   |                           |
| 84210-84790 MHz | FX            | 60M0D1D             | 192.8 kW (ERP)   |                           |
| 84500 MHz       | FX            | 580MD1D             | 192.8 kW (ERP)   |                           |
| 85210-85790 MHz | MO            | 60M0D1D             | 192.8 kW (ERP)   |                           |

## Frequency Information

Winnemucca, NV - NL 40-53-55; WL 117-48-16; MOBILE: Region 1: Winnemucca, NV: airborne max altitude 75,500 ft. AGL, '

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------|---------------|---------------------|------------------|---------------------------|
| 85500 MHz | MO            | 580MD1D             | 192.8 kW (ERP)   |                           |

MOBILE: Region 2: CA, ID, NV, OR, UT - see area described in application exhibit, airborne max altitude 75,500 ft. AGL

| Frequency       | Station Class | Emission Designator | Authorized Power       | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------------|---------------------------|
| 75210-75790 MHz | MO            | 60M0D1D             | 0.631 W (Output Power) |                           |
| 75500 MHz       | MO            | 580MD1D             | 0.631 W (Output Power) |                           |
| 85210-85790 MHz | MO            | 60M0D1D             | 0.631 W (Output Power) |                           |
| 85500 MHz       | MO            | 580MD1D             | 0.631 W (Output Power) |                           |

MOBILE: Region 3: CA, NV - see area described in application exhibit, airborne max altitude 75,500 ft. AGL

| Frequency       | Station Class | Emission Designator | Authorized Power      | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|-----------------------|---------------------------|
| 75210-75790 MHz | MO            | 60M0D1D             | 0.01 W (Output Power) |                           |
| 75500 MHz       | MO            | 580MD1D             | 0.01 W (Output Power) |                           |

## Frequency Information

MOBILE: Region 3: CA, NV - see area described in application exhibit, airborne max altitude 75,500 ft. AGL

| Frequency       | Station Class | Emission Designator | Authorized Power      | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|-----------------------|---------------------------|
| 85210-85790 MHz | MO            | 60M0D1D             | 0.01 W (Output Power) |                           |
| 85500 MHz       | MO            | 580MD1D             | 0.01 W (Output Power) |                           |

## Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (3) Google must register with the third party Database Managers as specified in Section 101.1523 of the Commission's Rules.
- (4) Due to the National Science Foundation's (NSF) Very Long Baseline Array (VLBA) operating in possible view of the high flying aircraft, Google must coordinate with Mr. Dan Mertely at dmertely@zia.aoc.NRAO.EDU prior to conducting the test.