

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

EXPERIMENTAL

(Nature of Service)

WG2XVN

(Call Sign)

XT      FX MO

(Class of Station)

0189-EX-ML-2015

(File Number)

NAME AeroVironment, Inc.

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(i) of the Commission's Rules

Station Locations

- (1) MOBILE: Ground Based Locations, 3.22km center, Daggett, CA, within 3.22 km, centered around NL 34-52-18; WL 116-49-49
- (2) MOBILE: Airborne UAV operations 3.2km of center 152.4m AGL, Daggett, CA, within 3.22 km, centered around NL 34-52-18; WL 116-49-49
- (3) MOBILE: Ground Based Locations, 8.94km of center, Sherrills Ford, NC, within 8.94 km, centered around NL 35-35-56; WL 80-57-59
- (4) MOBILE: Airborne UAV operations, 8.94km center, 152.4m AGL, Sherrills Ford, NC, within 8.94 km, centered around NL 35-35-56; WL 80-57-59
- (5) MOBILE: Ground Based Locations, .5 km of center, Kansas City, MO, within 0.5 km, centered around NL 39-06-46; WL 94-35-09
- (6) MOBILE: Airborne UAV operations, .5km center, 152.4AGL, Kansas City, MO, within 0.5 km, centered around NL 39-06-46; WL 94-35-09
- (7) MOBILE: Ground Based Locations 1 km of center, Sibley, MO, within 1 km, centered around NL 39-10-47; WL 94-10-46
- (8) MOBILE: Airborne UAV operations, 1 km center, 121.92m AGL, Sibley, MO, within 1 km, centered around NL 39-10-47; WL 94-10-46
- (9) MOBILE: Ground Based Locations, 1 km of center, Harrison, ND, within 1 km, centered around NL 48-13-45; WL 101-23-07
- (10) MOBILE: Airborne UAV operations, 1 km center, 152.4m AGL, Harrison, ND, within 1 km, centered around NL 48-13-45; WL 101-23-07
- (11) MOBILE: Ground Based Locations within 1.85km center, Bismarck, ND, within 1.85 km, centered around NL 46-49-05; WL 100-49-35
- (12) MOBILE: Airborne UAV operations, 1.85 km center, 152.4 AGL, Bismarck, ND, within 1.85 km, centered around NL 46-49-05; WL 100-49-35
- (13) MOBILE: Ground Based Locations 1 km of center, Valley City, ND, within 1 km, centered around NL 46-56-19; WL 97-59-27

This authorization effective September 17, 2015 and  
will expire 3:00 A.M. EST December 01, 2015

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



Station Locations

- (14) MOBILE: Airborne UAV operations 1km center, 152.4m AGL, Valley City, ND, within 1 km, centered around NL 46-56-19; WL 97-59-27
- (15) MOBILE: Ground Based Locations, 1km center, Broadview, ND, within 1 km, centered around NL 47-15-55; WL 98-00-37
- (16) MOBILE: Airborne UAV operations, 1 km center, 152.4m AGL, Broadview, ND, within 1 km, centered around NL 47-15-55; WL 98-00-37
- (17) MOBILE: Ground Based Locations, 1.5km center, Sandpoint, ID, within 1.5 km, centered around NL 48-15-34; WL 116-31-49
- (18) MOBILE: Airborne UAV operations, 1.5km center, Sandpoint, ID, within 1.5 km, centered around NL 48-15-34; WL 116-31-49
- (19) MOBILE: Ground Based Locations within 5 km of center, Canyon Diablo, AZ, within 5 km, centered around NL 35-10-00; WL 111-07-37
- (20) MOBILE: Airborne UAV operations 5 km of center 152.4m AGL, Canyon Diablo, AZ, within 5 km, centered around NL 35-10-00; WL 111-07-37
- (21) MOBILE: Ground Based Locations within 1km center, Memphis,TN, within 1 km, centered around NL 35-07-44; WL 90-04-33
- (22) MOBILE: Airborne UAV operations 1km center, 152.4 AGL, Memphis, TN, within 1 km, centered around NL 35-07-44; WL 90-04-33
- (23) MOBILE: Ground Based Locations, 1 km center, Java, MT, within 1 km, centered around NL 48-14-27; WL 113-34-16
- (24) MOBILE: Airborne UAV operations 1km center, 121.92m AGL, Java, MT, within 1 km, centered around NL 48-14-27; WL 113-34-16
- (25) MOBILE: Ground Based Locations within 1km center, East Glacier, MT, within 1 km, centered around NL 48-27-15; WL 113-12-37
- (26) MOBILE: Airborne UAV operations, 1km center, 152.4m AGL, East Glacier, MT, within 1 km, centered around NL 48-27-15; WL 113-12-37
- (27) MOBILE: Ground Based Locations, 3.52km center, Lompoc, CA, within 3.52 km, centered around NL 34-35-38; WL 120-20-21
- (28) MOBILE: Airborne UAV operations, 1.5km center, 121.92m AGL, Lompoc, CA, within 1.5 km, centered around NL 34-35-38; WL 120-20-21
- (29) MOBILE: Ground Based Locations within 1.5km center, Santa Ynez, CA, within 1.5 km, centered around NL 34-35-00; WL 120-03-15
- (30) MOBILE: Airborne UAV operations, 1.5km center, Santa Ynez, CA, within 1.5 km, centered around NL 34-35-00; WL 120-03-15
- (31) MOBILE: Ground Based Locations, 1 km of center, Modesto, CA, within 1 km, centered around NL 37-39-33; WL 120-52-24
- (32) MOBILE: Airborne UAV operations, 1km center, 121.92m AGL, Modesto, CA, within 1 km, centered around NL 37-39-33; WL 120-52-24
- (33) MOBILE: Ground Based Locations within 12 km of center, within 12 km, centered around NL 34-19-23; WL 118-51-35
- (34) MOBILE: Airborne UAV operations 12 km of center 152m AGL, within 12 km, centered around NL 34-19-23; WL 118-51-35
- (35) MOBILE: Ground Based Locations within 40km of center, within 40 km, centered around NL 35-50-51; WL 121-05-22
- (36) MOBILE: Airborne UAV operations 40 km of center 1524m AGL, within 40 km, centered around NL 35-50-51; WL 121-05-22
- (37) MOBILE: Ground/water operations 50km center, within 50 km, centered around NL 71-15-00; WL 149-00-00

Station Locations

- (38) MOBILE: Ground Based Locations within 30km of center, within 30 km, centered around NL 34-54-29; WL 117-53-07
- (39) MOBILE: Airborne UAV operations 30 km of center 1524m AGL, within 30 km, centered around NL 34-54-29; WL 117-53-07
- (40) MOBILE: Ground Based Locations within 5 km of center, within 5 km, centered around NL 34-07-09; WL 119-07-10
- (41) MOBILE: Airborne UAV operations 5 km of center 1524m AGL, within 5 km, centered around NL 34-07-09; WL 119-07-10
- (42) MOBILE: Ground Based Locations within 10km of center, within 10 km, centered around NL 35-07-10; WL 79-18-35
- (43) MOBILE: Airborne UAV operations 10 km of center 762m AGL, within 10 km, centered around NL 35-07-10; WL 79-18-35
- (44) MOBILE: Ground Based Locations within 50 km of center, within 50 km, centered around NL 70-25-00; WL 148-50-00
- (45) MOBILE: Airborne UAV operations 50 km of center 1524m AGL, within 50 km, centered around NL 70-25-00; WL 148-50-00
- (46) MOBILE: Ground Based Locations within 4 km of center, within 4 km, centered around NL 32-30-58; WL 114-41-54
- (47) MOBILE: Airborne UAV operations 4 km of center 609.6m AGL, within 4 km, centered around NL 32-30-58; WL 114-41-54
- (48) MOBILE: Ground Based Locations within 5 km of center, within 5 km, centered around NL 34-25-56; WL 119-11-58
- (49) MOBILE: Airborne UAV operations 5km of center 121.92 m AGL, within 5 km, centered around NL 34-25-56; WL 119-11-58
- (50) MOBILE: Ground Based Locations within 5km of center, within 5 km, centered around NL 34-18-21; WL 119-18-08
- (51) MOBILE: Airborne UAV operations 5km center 121.92m AGL, within 5 km, centered around NL 34-18-21; WL 119-18-08
- (52) MOBILE: Ground Based Locations within 18.52km of center, within 18.52 km, centered around NL 36-10-23; WL 120-23-08
- (53) MOBILE: Airborne UAV operations 18.52km center 121.92m AGL, within 18.52 km, centered around NL 36-10-23; WL 120-23-08
- (54) MOBILE: Grnd Based Locations wtn 37.04km Cnt, ex Kern NWR, within 37.04 km, centered around NL 35-36-20; WL 119-42-20
- (55) MOBILE: Airborne 37.04km ctr 121.92mAGL ex Kern NWR, within 37.04 km, centered around NL 35-36-20; WL 119-42-20
- (56) MOBILE: Ground Based Locations within 18.52km of center, within 18.52 km, centered around NL 35-16-35; WL 119-36-08
- (57) MOBILE: Airborne UAV operations 18.52km center 121.92m AGL, within 18.52 km, centered around NL 35-16-35; WL 119-36-08
- (58) MOBILE: Ground Based Locations within 9.26km of center, within 9.26 km, centered around NL 35-26-56; WL 118-59-21
- (59) MOBILE: Airborne UAV operations 9.26km center 121.92m AGL, within 9.26 km, centered around NL 35-26-56; WL 118-59-21
- (60) MOBILE: Ground Based Locations within 37.04km of center, within 37.04 km, centered around NL 35-39-38; WL 108-30-17
- (61) MOBILE: Airborne UAV operations 37.04km center 121.92m AGL, within 37.04 km, centered around NL 35-39-38; WL 108-30-17

Station Locations

- (62) MOBILE: Ground Locations 98.16km Center, 75.9km E/W, within 98.16 km, centered around NL 35-40-57; WL 112-44-21
- (63) MOBILE: Airborne, 98.16km ctr, 75.9km E/W, 121.92AGL, within 98.16 km, centered around NL 35-40-57; WL 112-44-21
- (64) MOBILE: Ground Based Locations within 46.3 km of center, within 46.3 km, centered around NL 36-28-14; WL 110-23-38
- (65) MOBILE: Airborne operations 46.3km of center 121.92m AGL, within 46.3 km, centered around NL 36-28-14; WL 110-23-38
- (66) MOBILE: Airborne UAV operations 50 km center 1524m AGL, within 50 km, centered around NL 71-15-00; WL 149-00-00
- (67) Near Green River (EMERY), UT - NL 39-09-59; WL 110-17-32; MOBILE: Ground Based Locations within 14km of center, within 14 km
- (68) MOBILE: Airborne UAV operations 14km of center 121.92 AGL, within 14 km, centered around NL 39-09-59; WL 110-17-32
- (69) MOBILE: Ground Based Locations within 1 km of center, within 1 km, centered around NL 37-46-40; WL 121-09-19
- (70) MOBILE: Airborne UAV operations 1km of center 121.92m AGL, within 1 km, centered around NL 37-46-40; WL 121-09-19
- (71) MOBILE: Ground Based Locations within 2.5km of center, within 2.5 km, centered around NL 37-37-40; WL 121-10-22
- (72) MOBILE: Airborne UAV operations 2.5km center 121.92m AGL, within 2.5 km, centered around NL 37-37-40; WL 121-10-22
- (73) MOBILE: Ground Based Locations within 2.5km of center, within 2.5 km, centered around NL 37-34-14; WL 121-02-29
- (74) MOBILE: Airborne UAV operations 2.5km center 121.92m AGL, within 2.5 km, centered around NL 37-34-14; WL 121-02-29
- (75) MOBILE: Ground Based Locations within 10km of center, within 10 km, centered around NL 36-46-36; WL 120-36-08
- (76) MOBILE: Airborne UAV operations 10km center 121.92m AGL, within 10 km, centered around NL 36-46-36; WL 120-36-08
- (77) MOBILE: Ground Based Locations within 25km of center, within 25 km, centered around NL 38-22-27; WL 122-20-36
- (78) MOBILE: Airborne UAV operations 25km center 121.92m AGL, within 25 km, centered around NL 38-22-27; WL 122-20-36
- (79) MOBILE: Ground Based Locations within 3km of center, within 3 km, centered around NL 36-22-10; WL 119-27-17
- (80) MOBILE: Airborne UAV operations 3km center 121.92 AGL, within 3 km, centered around NL 36-22-10; WL 119-27-17
- (81) MOBILE: Ground Based Locations within 8 km of center, within 8 km, centered around NL 37-55-40; WL 122-25-08
- (82) MOBILE: Airborne UAV operations 8km center 121.92m AGL, within 8 km, centered around NL 37-55-40; WL 122-25-08
- (83) MOBILE: Ground Based Locations within 8km of center, within 8 km, centered around NL 37-20-33; WL 119-24-15
- (84) MOBILE: Airborne UAV operations 8km center 121.92m AGL, within 8 km, centered around NL 37-20-33; WL 119-24-15

## Frequency Information

MOBILE: Ground Based Locations, 3.22km center, Daggett, CA, within 3.22 km, centered around NL 34-52-18; WL 116-49-49

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 3.2km of center 152.4m AGL, Daggett, CA, within 3.22 km, centered around NL 34-52-18; WL 116-49-49

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W<br>1M56G7W  | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations, 8.94km of center, Sherrills Ford, NC, within 8.94 km, centered around NL 35-35-56; WL 80-57-59

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 8.94km center, 152.4m AGL, Sherrills Ford, NC, within 8.94 km, centered around NL 35-35-56; WL 80-57-59

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations, .5 km of center, Kansas City, MO, within 0.5 km, centered around NL 39-06-46; WL 94-35-09

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, .5km center, 152.4AGL, Kansas City, MO, within 0.5 km, centered around NL 39-06-46; WL 94-35-09

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations 1 km of center, Sibley, MO, within 1 km, centered around NL 39-10-47; WL 94-10-46

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 1 km center, 121.92m AGL, Sibley, MO, within 1 km, centered around NL 39-10-47; WL 94-10-46

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations, 1 km of center, Harrison, ND, within 1 km, centered around NL 48-13-45; WL 101-23-07

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 1 km center, 152.4m AGL, Harrison, ND, within 1 km, centered around NL 48-13-45; WL 101-23-07

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 1.85km center, Bismarck, ND, within 1.85 km, centered around NL 46-49-05; WL 100-49-35

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 1.85 km center, 152.4 AGL, Bismarck, ND, within 1.85 km, centered around NL 46-49-05; WL 100-49-35

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations 1 km of center, Valley City, ND, within 1 km, centered around NL 46-56-19; WL 97-59-27

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 1km center, 152.4m AGL, Valley City, ND, within 1 km, centered around NL 46-56-19; WL 97-59-27

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations, 1km center, Broadview, ND, within 1 km, centered around NL 47-15-55; WL 98-00-37

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 1 km center, 152.4m AGL, Broadview, ND, within 1 km, centered around NL 47-15-55; WL 98-00-37

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations, 1.5km center, Sandpoint, ID, within 1.5 km, centered around NL 48-15-34; WL 116-31-49

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 1.5km center, Sandpoint, ID, within 1.5 km, centered around NL 48-15-34; WL 116-31-49

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 5 km of center, Canyon Diablo, AZ, within 5 km, centered around NL 35-10-00; WL 111-07-37

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 5 km of center 152.4m AGL, Canyon Diablo, AZ, within 5 km, centered around NL 35-10-00; WL 111-07-37

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations within 1km center, Memphis,TN, within 1 km, centered around NL 35-07-44; WL 90-04-33

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 1km center, 152.4 AGL, Memphis, TN, within 1 km, centered around NL 35-07-44; WL 90-04-33

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations, 1 km center, Java, MT, within 1 km, centered around NL 48-14-27; WL 113-34-16

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 1km center, 121.92m AGL, Java, MT, within 1 km, centered around NL 48-14-27; WL 113-34-16

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations within 1km center, East Glacier, MT, within 1 km, centered around NL 48-27-15; WL 113-12-37

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 1km center, 152.4m AGL, East Glacier, MT, within 1 km, centered around NL 48-27-15; WL 113-12-37

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations, 3.52km center, Lompoc, CA, within 3.52 km, centered around NL 34-35-38; WL 120-20-21

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 1.5km center, 121.92m AGL, Lompoc, CA, within 1.5 km, centered around NL 34-35-38; WL 120-20-21

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations within 1.5km center, Santa Ynez, CA, within 1.5 km, centered around NL 34-35-00; WL 120-03-15

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 1.5km center, Santa Ynez, CA, within 1.5 km, centered around NL 34-35-00; WL 120-03-15

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations, 1 km of center, Modesto, CA, within 1 km, centered around NL 37-39-33; WL 120-52-24

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations, 1km center, 121.92m AGL, Modesto, CA, within 1 km, centered around NL 37-39-33; WL 120-52-24

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations within 12 km of center, within 12 km, centered around NL 34-19-23; WL 118-51-35

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 12 km of center 152m AGL, within 12 km, centered around NL 34-19-23; WL 118-51-35

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 40km of center, within 40 km, centered around NL 35-50-51; WL 121-05-22

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 40 km of center 1524m AGL, within 40 km, centered around NL 35-50-51; WL 121-05-22

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground/water operations 50km center, within 50 km, centered around NL 71-15-00; WL 149-00-00

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 30km of center, within 30 km, centered around NL 34-54-29; WL 117-53-07

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 30 km of center 1524m AGL, within 30 km, centered around NL 34-54-29; WL 117-53-07

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 5 km of center, within 5 km, centered around NL 34-07-09; WL 119-07-10

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Airborne UAV operations 5 km of center 1524m AGL, within 5 km, centered around NL 34-07-09; WL 119-07-10

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 10km of center, within 10 km, centered around NL 35-07-10; WL 79-18-35

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 10 km of center 762m AGL, within 10 km, centered around NL 35-07-10; WL 79-18-35

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 50 km of center, within 50 km, centered around NL 70-25-00; WL 148-50-00

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Airborne UAV operations 50 km of center 1524m AGL, within 50 km, centered around NL 70-25-00; WL 148-50-00

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 4 km of center, within 4 km, centered around NL 32-30-58; WL 114-41-54

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 4 km of center 609.6m AGL, within 4 km, centered around NL 32-30-58; WL 114-41-54

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 5 km of center, within 5 km, centered around NL 34-25-56; WL 119-11-58

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Airborne UAV operations 5km of center 121.92 m AGL, within 5 km, centered around NL 34-25-56; WL 119-11-58

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 5km of center, within 5 km, centered around NL 34-18-21; WL 119-18-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 5km center 121.92m AGL, within 5 km, centered around NL 34-18-21; WL 119-18-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 18.52km of center, within 18.52 km, centered around NL 36-10-23; WL 120-23-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Airborne UAV operations 18.52km center 121.92m AGL, within 18.52 km, centered around NL 36-10-23; WL 120-23-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Grnd Based Locations wtn 37.04km Cnt, ex Kern NWR, within 37.04 km, centered around NL 35-36-20; WL 119-42-20

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne 37.04km ctr 121.92mAGL ex Kern NWR, within 37.04 km, centered around NL 35-36-20; WL 119-42-20

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 18.52km of center, within 18.52 km, centered around NL 35-16-35; WL 119-36-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Airborne UAV operations 18.52km center 121.92m AGL, within 18.52 km, centered around NL 35-16-35; WL 119-36-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 9.26km of center, within 9.26 km, centered around NL 35-26-56; WL 118-59-21

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 9.26km center 121.92m AGL, within 9.26 km, centered around NL 35-26-56; WL 118-59-21

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 37.04km of center, within 37.04 km, centered around NL 35-39-38; WL 108-30-17

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Airborne UAV operations 37.04km center 121.92m AGL, within 37.04 km, centered around NL 35-39-38; WL 108-30-17

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Locations 98.16km Center, 75.9km E/W, within 98.16 km, centered around NL 35-40-57; WL 112-44-21

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne, 98.16km ctr, 75.9km E/W,121.92AGL, within 98.16 km, centered around NL 35-40-57; WL 112-44-21

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 46.3 km of center, within 46.3 km, centered around NL 36-28-14; WL 110-23-38

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 kHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Airborne operations 46.3km of center 121.92m AGL, within 46.3 km, centered around NL 36-28-14; WL 110-23-38

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 50 km center 1524m AGL, within 50 km, centered around NL 71-15-00; WL 149-00-00

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

Near Green River (EMERY), UT - NL 39-09-59; WL 110-17-32; MOBILE: Ground Based Locations within 14km of center, with

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 14km of center 121.92 AGL, within 14 km, centered around NL 39-09-59; WL 110-17-32

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations within 1 km of center, within 1 km, centered around NL 37-46-40; WL 121-09-19

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 1km of center 121.92m AGL, within 1 km, centered around NL 37-46-40; WL 121-09-19

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 2.5km of center, within 2.5 km, centered around NL 37-37-40; WL 121-10-22

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 2.5km center 121.92m AGL, within 2.5 km, centered around NL 37-37-40; WL 121-10-22

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations within 2.5km of center, within 2.5 km, centered around NL 37-34-14; WL 121-02-29

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 2.5km center 121.92m AGL, within 2.5 km, centered around NL 37-34-14; WL 121-02-29

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 10km of center, within 10 km, centered around NL 36-46-36; WL 120-36-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 10km center 121.92m AGL, within 10 km, centered around NL 36-46-36; WL 120-36-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations within 25km of center, within 25 km, centered around NL 38-22-27; WL 122-20-36

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 25km center 121.92m AGL, within 25 km, centered around NL 38-22-27; WL 122-20-36

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 3km of center, within 3 km, centered around NL 36-22-10; WL 119-27-17

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 3km center 121.92 AGL, within 3 km, centered around NL 36-22-10; WL 119-27-17

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Frequency Information

MOBILE: Ground Based Locations within 8 km of center, within 8 km, centered around NL 37-55-40; WL 122-25-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 8km center 121.92m AGL, within 8 km, centered around NL 37-55-40; WL 122-25-08

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Ground Based Locations within 8km of center, within 8 km, centered around NL 37-20-33; WL 119-24-15

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 4M68G7W             | 10 W (ERP)       | 0.00012 %                 |

MOBILE: Airborne UAV operations 8km center 121.92m AGL, within 8 km, centered around NL 37-20-33; WL 119-24-15

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 1670-1675 MHz | MO            | 1M56G7W             | 10 W (ERP)       | 0.00012 %                 |

## Special Conditions:

- (1) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.