

Experimental License Application: 0040-EX-PL-2007
OSU-University Multispectral Laboratories

Important Note: In order to service the military project testing for which these licenses are required, we need a minimum of one (1) and preferably two (2) licenses for each of the following categories:

- A. Low VHF band (Channels 2, 4, 5) non-directional,
- B. High VHF band (Channels 7, 9, 11 (NM), 12(OK), and 13) non-directional, and
- C. Low VHF band (Channels 2, 4, 5) directional

Our preference would be for such licenses in both the OK and the NM locations. But we absolutely need the minimum of one in each category above for at least one of the locations.

The TV Channel Data for each requested license follows:

Category A. Chilocco Low VHF
Chilocco, OK Nondirectional

1. Television channel number: 2
2. Antenna location site elevation above mean sea level in meters: 348 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 1.258 KW
6. Transmitter output power in kilowatts: 1 KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Nondirectional
8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA
9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Chilocco, OK Nondirectional

1. Television channel number: 4

2. Antenna location site elevation above mean sea level in meters: 348 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 1.258 KW
6. Transmitter output power in kilowatts: 1 KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional
8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA
9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Chilocco, OK Nondirectional

1. Television channel number: 5
2. Antenna location site elevation above mean sea level in meters: 348 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 1.258KW
6. Transmitter output power in kilowatts: 1KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional
8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA
9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Category B. Chilocco High VHF
Chilocco, OK Nondirectional

1. Television channel number: 7
2. Antenna location site elevation above mean sea level in meters: 348 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 1.3366KW
6. Transmitter output power in kilowatts: 1KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional
8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA
9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Chilocco, OK Nondirectional

1. Television channel number: 9
2. Antenna location site elevation above mean sea level in meters: 348 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 1.3366 KW
6. Transmitter output power in kilowatts: 1KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional
8. If the emissions are digital, then report the out-of-band

emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Chilocco, OK Nondirectional

1. Television channel number: 12

2. Antenna location site elevation above mean sea level in meters: 348 meters

3. Overall tower height above ground level in meters: 50 meters

4. Height of radiation center above ground level in meters: 50 meters

5. Maximum effective radiated power in kilowatts: 1.3366 KW

6. Transmitter output power in kilowatts: 1 KW

7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Chilocco, OK Nondirectional

1. Television channel number: 13

2. Antenna location site elevation above mean sea level in meters: 348 meters

3. Overall tower height above ground level in meters: 50 meters

4. Height of radiation center above ground level in meters: 50 meters

5. Maximum effective radiated power in kilowatts: 1.3366 KW

6. Transmitter output power in kilowatts: 1 KW

7. Verify that the antenna is nondirectional (if directional,

then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

**Category C: Low VHF Directional
Chilocco, OK Directional**

1. Television channel number: 2

2. Antenna location site elevation above mean sea level in meters: 348 meters

3. Overall tower height above ground level in meters: 50 meters

4. Height of radiation center above ground level in meters: 50 meters

5. Maximum effective radiated power in kilowatts: 3.802 KW

6. Transmitter output power in kilowatts: 1 KW

7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Directional

MH Relative Strength

0:	0.66
10:	0.50
20:	0.30
30:	0
40:	0
50:	0
60:	0
70:	0
80:	0
90:	0
100:	0
110	0
120	0
130	0

140	0
150	0
160	0
170	0
180	0
190	0
200	0
210	0
220	0
230	0
240	0
250	0
260	0
270	0
280	0.30
290	0.50
300	0.66
310	0.85
320	0.92
330:	1.0
340:	0.92
350:	0.85

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Chilocco, OK Directional

1. Television channel number: 4

2. Antenna location site elevation above mean sea level in meters; 348 meters

3. Overall tower height above ground level in meters: 50 meters

4. Height of radiation center above ground level in meters: 50 meters

5. Maximum effective radiated power in kilowatts: 3.802 KW

6. Transmitter output power in kilowatts: 1 KW

7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Directional

MH Relative Strength

0:	1.0
10:	0.92
20:	0.85
30:	0.66
40:	0.50
50:	0.30
60:	0
70:	0
80:	0
90:	0
100:	0
110	0
120	0
130	0
140	0
150	0
160	0
170	0
180	0
190	0
200	0
210	0
220	0
230	0
240	0
250	0
260	0
270	0
280	0
290	0
300	0
310	0.30
320	0.50
330:	0.66
340:	0.85
350:	0.92

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Chilocco, OK Directional

1. Television channel number: 5

2. Antenna location site elevation above mean sea level in meters: 348 meters

3. Overall tower height above ground level in meters: 50 meters

4. Height of radiation center above ground level in meters: 50 meters

5. Maximum effective radiated power in kilowatts: 6.607 KW

6. Transmitter output power in kilowatts: 1 KW

7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional

MH Relative Strength

0:	0
10:	0
20:	0
30:	0
40:	0
50:	0
60:	0
70:	0
80:	0
90:	0
100:	0
110	0
120	0
130	0
140	0
150	0
160	0

170	0
180	0
190	0
200	0
210	0
220	0
230	0.0
240	0.30
250	0.50
260	0.66
270	0.85
280	0.92
290	1.0
300	0.92
310	0.85
320	0.66
330:	0.50
340:	0.30
350:	0.0

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Category A. Low VHF
Artesia, NM Nondirectional

1. Television channel number: 2

2. Antenna location site elevation above mean sea level in meters: 1158 meters

3. Overall tower height above ground level in meters: 50 meters

4. Height of radiation center above ground level in meters: 50 meters

5. Maximum effective radiated power in kilowatts: 1.258 KW

6. Transmitter output power in kilowatts: 1 KW

7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Nondirectional

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Artesia, NM Nondirectional

1. Television channel number: 4

2. Antenna location site elevation above mean sea level in meters: 1158 meters

3. Overall tower height above ground level in meters: 50 meters

4. Height of radiation center above ground level in meters: 50 meters

5. Maximum effective radiated power in kilowatts: 1.258 KW

6. Transmitter output power in kilowatts: 1 KW

7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Artesia, NM Nondirectional

1. Television channel number: 5

2. Antenna location site elevation above mean sea level in meters: 1158 meters

3. Overall tower height above ground level in meters: 50 meters

4. Height of radiation center above ground level in meters: 50 meters

5. Maximum effective radiated power in kilowatts: 1.258KW
6. Transmitter output power in kilowatts: 1KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional
8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA
9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Category B. High VHF
Artesia, NM Nondirectional

1. Television channel number: 7
2. Antenna location site elevation above mean sea level in meters: 1158 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 1.3366KW
6. Transmitter output power in kilowatts: 1KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-diirectional
8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA
9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Artesia, NM Nondirectional

1. Television channel number: 9
2. Antenna location site elevation above mean sea level in

meters: 1158 meters

3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 1.3366 KW
6. Transmitter output power in kilowatts: 1KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional
8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA
9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Artesia, NM Nondirectional

1. Television channel number: 11
2. Antenna location site elevation above mean sea level in meters: 1158 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 1.3366 KW
6. Transmitter output power in kilowatts: 1 KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional
8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA
9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Artesia, NM Nondirectional

1. Television channel number: 13
2. Antenna location site elevation above mean sea level in meters: 1158 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 1.3366 KW
6. Transmitter output power in kilowatts: 1 KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional
8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA
9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Category C. Low VHF Directional**Artesia, NM Directional**

1. Television channel number: 2
2. Antenna location site elevation above mean sea level in meters: 1158 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 3.802 KW
6. Transmitter output power in kilowatts: 1 KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Directional

MH Relative Strength

0:	0.66
10:	0.50
20:	0.30
30:	0
40:	0
50:	0
60:	0
70:	0
80:	0
90:	0
100:	0
110	0
120	0
130	0
140	0
150	0
160	0
170	0
180	0
190	0
200	0
210	0
220	0
230	0
240	0
250	0
260	0
270	0
280	0.30
290	0.50
300	0.66
310	0.85
320	0.92
330:	1.0
340:	0.92
350:	0.85

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Artesia, NM Directional

1. Television channel number: 4
2. Antenna location site elevation above mean sea level in meters; 1158 meters
3. Overall tower height above ground level in meters: 50 meters
4. Height of radiation center above ground level in meters: 50 meters
5. Maximum effective radiated power in kilowatts: 3.802 KW
6. Transmitter output power in kilowatts: 1 KW
7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Directional

MH Relative Strength

0:	0
10:	0
20:	0
30:	0
40:	0
50:	0
60:	0
70:	0
80:	0
90:	0
100:	0
110	0
120	0
130	0
140	0
150	0
160	0
170	0
180	0
190	0
200	0
210	0
220	0.30

230	0.50
240	0.66
250	0.85
260	0.92
270	1.0
280	0.92
290	0.85
300	0.66
310	0.50
320	0.30
330:	0
340:	0
350:	0

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

Artesia, NM Directional

1. Television channel number: 5

2. Antenna location site elevation above mean sea level in meters; 1158 meters

3. Overall tower height above ground level in meters: 50 meters

4. Height of radiation center above ground level in meters: 50 meters

5. Maximum effective radiated power in kilowatts: 6.607 KW

6. Transmitter output power in kilowatts: 1 KW

7. Verify that the antenna is nondirectional (if directional, then report the directional antenna's relative field value at every 10 degrees from 0 through 350 degrees): Non-directional

MH Relative Strength

0:	0
10:	0

20:	0
30:	0
40:	0
50:	0
60:	0
70:	0
80:	0
90:	0
100:	0
110	0
120	0
130	0
140	0
150	0
160	0
170	0
180	0
190	0
200	0
210	0
220	0
230	0.0
240	0.30
250	0.50
260	0.66
270	0.85
280	0.92
290	1.0
300	0.92
310	0.85
320	0.66
330:	0.50
340:	0.30
350:	0.0

8. If the emissions are digital, then report the out-of-band emission mask (simple or stringent): NA

9. If the emissions are analog, then report the frequency offset (zero, plus, minus or none): None

