

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

EXPERIMENTAL

(Nature of Service)

XD      FX

(Class of Station)

WF2XMP

(Call Sign)

0335-EX-PL-2010

(File Number)

NAME Rockwell Collins, 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) Cedar Rapids (LINN), IA - NL 42-00-38; WL 91-38-45
- (2) Oxford Junction (CLINTON), IA - NL 41-57-41; WL 90-53-37
- (3) Richardson (COLLIN), TX - NL 32-59-43; WL 96-39-37
- (4) Las Cruces (DONA ANA), NM - NL 32-16-44; WL 106-45-14

Frequency Information

Cedar Rapids (LINN), IA - NL 42-00-38; WL 91-38-45

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 2398-3171 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 3260-4050 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 4576-4611 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

This authorization effective August 26, 2010 and  
will expire 3:00 A.M. EST August 26, 2012

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

Cedar Rapids (LINN), IA - NL 42-00-38; WL 91-38-45

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 4636-5100 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 5315-5760 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 5960-6160 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 6770-6970 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7410-7650 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7650-7990 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 8060-9050 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 9350-10200 kHz  | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 10400-10600 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 10800-11550 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

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| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 12090-13850 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 14550-15760 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 15860-15960 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 16060-16160 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 17450-18040 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 18610-19460 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 20460-20960 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 21860-22860 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 23160-23460 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 24460-25230 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

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| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 26490-26910 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 27440-29720 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

Oxford Junction (CLINTON), IA - NL 41-57-41; WL 90-53-37

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 2398-3171 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 3260-4050 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 4576-4611 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 4636-4950 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 5100-5315 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 5760-5960 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 6060-6160 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

## Frequency Information

Oxford Junction (CLINTON), IA - NL 41-57-41; WL 90-53-37

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 6770-6970 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7410-7483 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7650-7698 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7990-8060 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 9050-9350 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 10200-10400 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 10600-10800 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 11550-12090 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 13850-14550 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 15760-15860 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

## Frequency Information

Oxford Junction (CLINTON), IA - NL 41-57-41; WL 90-53-37

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 15960-16060 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 16160-17450 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 18040-18610 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 19460-20460 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 20960-21860 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 22860-23160 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 23460-24460 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 25230-26490 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 26910-27440 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 27990-29720 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

## Frequency Information

Richardson (COLLIN), TX - NL 32-59-43; WL 96-39-37

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 2398-3171 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 3260-4050 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 4576-4611 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 4636-4950 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 5100-5315 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 5760-5960 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 6060-6160 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 6770-6970 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7410-7483 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7650-7698 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

## Frequency Information

Richardson (COLLIN), TX - NL 32-59-43; WL 96-39-37

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 7990-8060 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 9050-9350 kHz   | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 10200-10400 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 10600-10800 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 11550-12090 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 13850-14550 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 15760-15860 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 15960-16060 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 16160-17450 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 18040-18610 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

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| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 19460-20460 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 20960-21860 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 22860-23160 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 23460-24460 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 25230-26490 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 26910-27440 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 27990-29720 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

Las Cruces (DONA ANA), NM - NL 32-16-44; WL 106-45-14

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 2398-3171 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 3260-4050 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

## Frequency Information

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| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 4576-4611 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 4636-4950 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 5100-5315 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 5760-5960 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 6060-6160 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 6770-6970 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7410-7483 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7650-7698 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 7990-8060 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 9050-9350 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

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| 10200-10400 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 10600-10800 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 11550-12090 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
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| 15760-15860 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 15960-16060 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 16160-17450 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 18040-18610 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 19460-20460 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
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| 22860-23160 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 23460-24460 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 25230-26490 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 26910-27440 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |
| 27990-29720 kHz | FX            | 24K0J1D             | 25 kW (ERP)      | 0.005 %                   |

## 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) 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.
- (3) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (4) The following frequency band need to be NOTCHED: 25230-26490 KHz