# Understanding How to Read and Convert Latitude and Longitude Coordinates 



These Marks need to be read when communicating coordinates.

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0}=\mathrm{ Degrees }\quad=\mathrm{ Minutes }\mp@subsup{}{}{11}=\mathrm{ Seconds : = Decimal
```

Since the US is in the Northern Western Hemisphere our coordinates will Since the US is in the Northern Western Hemisphere our coordinates w
always be North Latitude and West Longitude. West Longitude can be expressed as a negative (-) such as $-77^{\circ} 28^{\prime} 27^{\prime \prime}$.

This would be read as follows:
North 39 Degrees, 36 Decimal 0678 Minutes by West 76 Degrees, 51 Decimal 4260 Minutes


| Latitude: |
| :--- |
| N39 |
| Longitude: |
| W76 |
| Elevation: |
| 0 feet |

Pronounce each digit individually to be clear in communication
North three nine degrees, three six decimal zero six seven eight minutes by West seven six degrees, five one decimal four two six zero minutes

This would be read as follows:
North 39 Degrees, 36 Minutes, 4 Decimal 28 Seconds by West 76 Degrees, 51 Minutes, 25 Decimal 38 Seconds

Pronounce each digit individually to be clear in communication

| Latitude: |
| :--- |
| N39 $36^{\circ} 4.28^{\prime \prime}$ |
| Longitude: |
| W76 |
| Elevation: |
| 0 feet |

North three nine degrees, three six minutes, four decimal two eight seconds by West seven six degrees, five one minutes, two five decimal three eight seconds

To convert Decimal Degrees to Degrees Decimal Minutes: N $39.3476^{\circ}$ by W $77.4742^{\circ}$ Take the decimal section and multiply by 60. - $3476 \times 60=20.856$ and $.4742 \times 60=28.452$
So the coordinate in decimal minutes would be $\mathrm{N} 39^{\circ} 20.856^{\prime}$ by $\mathrm{W} 77^{\circ} 28.452^{\prime}$
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