|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Touch Points and Tension Points - Your Personal Pension Plan - now to 2030 | | | | | | | | | | | | | | | | | | |
| UHF Sub 1 GHz | | | L Band | S band | | | C Band | | X Band | Ku- | K | Ka | V Band | | E Band | | | |
| 450 MHz | 600  700  800 | 900 | 1.6 GHz | 2 GHz | 2.3 GHz | 2.7 GHz | 3.4-3.8 | 5.6 GHz |  | 12 GHz | 18 GHz | 28 GHz | 50 GHz | 60 GHz | 71-76 | 77-81 | 82-87  GHz | 92-95  GHz |
| Band 31  452-457  LTE | Band 71  600 MHz |  | Band 21  1447  1462  1495  1510 | Band 1  LTE  FDD | Band 30  LTE FDD  2305  2315  2350  2360 | Band 7  LTE FDD  LTE TDD | Band 22  LTE FDD  Bands 42,43,48  LTE TDD | ? |  | GSO  MEO  LEO | Feeder Links | GSO  MEO  LEO | GSO  MEO  LEO |  |  |  |  |  |
|  |  |  | Iridium  Globalstar  Ligado  SAS | Inmarsat  EAN | Globalstar |  | Satellite TV  3.7-4.2 GHz |  | Military radar and radio | Military radar and radio  SAT TV | Military radar and radio  SAT TV  18.13  18.8  19.7  20.2 | P to P  B/haul |  |  |  | Short  Medium  Long  Range  Auto  Radar  76-77 |  |  |
| 5G Refarm | 5G  Refarm | 5G  Refarm | 5G  Refarm  AWS  1.8 GHz  1.9 GHz | 5G  Refarm | 5G Refarm | 5G  Refarm | 5G  Refarm | 5G  New |  | 5G  New | 5G New | 5G New | 5G New | 5G New | 5G New  FDD |  | 5G New  FDD | 5G New  TDD |
| PMSE |  | ISM  902-928 | GPS |  | 2.4 GHz  Wi-Fi |  |  | 5 GHz Wi-Fi  +  802.11p |  |  |  |  |  | 60 GHz  Wi-Fi |  |  |  |  |
|  |  |  |  |  |  | Long  Range  Weather  Radar  300 km  Heavy  Rain  2700  2900 |  | Medium  Range  Weather  Radar  Light  Rain  5250  5725 | Short  Range  Weather  Radar  Light  Rain  9300  9500 |  |  |  |  |  |  |  |  |  |
| Channel Raster and pass band | | | | | | | | | | | | | | | | | | |
| 25 KHz  PMSE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 MHz  LTE | 10 MHz  LTE | 10 MHz  LTE | 10 MHz  LTE | 20 MHz  LTE | 10 MHz  LTE | 20 MHz | 20 MHz | 100 MHz |  | 250  MHz |  | 250  MHz | 500  MHz | 1 GHz | 1 GHz | 1 GHz | 1 GHz | 1+2 GHz |
| 5 | 10-45 |  | 75 | 75 | ? | 75 | 400 | ? |  | 2 GHz | 2 GHz | 3.5 | 3.5 | 3.5 | 5 |  | 5 | 3 |