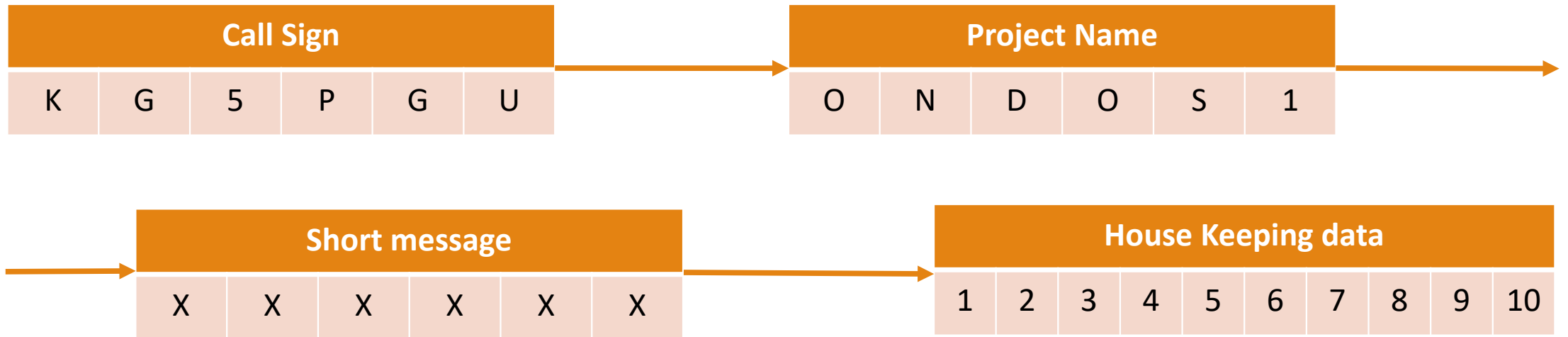

ONDOSAT-OWL-1, 2 CW format and timing

OCTOBER 9, 2023



CW format



Call Sign: ONDOSAT-OWL-1, 2: KG5PGU (This callsign will be updated.)

Short Message: ONDOSAT-OWL will send short message to satellites which is from Amateur radio community or organization whose GS has callsign.

House Keeping Data: There are 5 bytes (40 bits) data and it shows satellite's health condition.

House Keeping format

| Type 1 | | | Type 2 | | |
|---|---|------|--|--|------|
| 1 | BATTERY VOLTAGE | 8bit | 1 | Gyro X axis (deg/s) | 8bit |
| 2 | BATTERY CHARGE | 8bit | 2 | Gyro Y axis (deg/s) | 8bit |
| 3 | Format identifier -> "0" (Type 1) | 1bit | 3 | Gyro Z axis (deg/s) | 8bit |
| | Operation modes -> Normal: 11, Safe:10 | 2bit | | | |
| | Antenna deploy status -> Success:1, Fail:0 | 1bit | | | |
| | SOLAR PANEL +X POWER -> Sunshine:1 Shadow:0 | 1bit | 4 | Format identifier -> "1" (Type 2) | 1bit |
| | SOLAR PANEL -Y POWER -> Sunshine:1 Shadow:0 | 1bit | | | |
| | SOLAR PANEL -Z POWER -> Sunshine:1 Shadow:0 | 1bit | | | |
| | SOLAR PANEL +Y POWER -> Sunshine:1 Shadow:0 | 1bit | | | |
| SOLAR PANEL +Z POWER -> Sunshine:1 Shadow:0 | 1bit | 4 | COM to MAIN Flag -> 1: comm 0: no comm | 1bit | |
| Time after last reset | 5bit | | | | |
| Kill Switch RESET -> Nomal:0 Kill:1 | 1bit | | | | |
| Kill Switch EPS -> Nomal:0 Kill:1 | 1bit | | | | |
| 4 | Reservation command -> Reserve:1 Nothing:0 | 1bit | 5 | Mission status (ON/OFF) | 4bit |
| | GPS/IRIDIUM Flag -> 1: gps 0: iridium | 1bit | | | |
| 5 | MAIN to GPS Flag -> 1: comm 0: no comm | 1bit | 5 | Mission Operating Status (Operating/Not Operating) | 4bit |
| | Battery Temperature (°C) | 8bit | | | |

CW timing

