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| **Bot Uplink Msg Status Segment**  **Bit Map** | | **Element Name** | **Range/Format** | **Description/Notes** |
| **Bytes 0-3 (32-bit integer)** | **0-2**  (3 bits) | *segid* | [ 0 - 7 ] | **Segment ID**  (identifies the segment type; 0=reserved, 1=status, 2=meta, etc.; higher numbers reserved primarily for upload requests, alarms, etc.) |
| **3-15**  (13 bits) | *statid* | [ 0 - 8191 ]  ***mod 2\*\*13*** | **Status Record ID**  (the ‘primary key’ or ‘rowid’ that uniquely identifies this Status Record in the ‘status’ Table of the Float’s embedded database; this built-in SQLite field can range from 0 - 264-1 on the Float; must anticipate rollover) |
| **16-31**  (16 bits) | *heading* | [ 0 - 36,000 ]  ***centidegrees*** | **Heading**  (magnetic north) |
| **Bytes 4-11 (64-bit integer)** | **0-24**  (25 bits) | *timestamp* | Unix Epoch Time  ***1 sec resolution*** | **Timestamp**  (time when data collected; dated from Jan. 1 of the current year; must anticipate 1-year rollover) |
| **25**  (1 bit) | *longitude\_sign* | [ 0 | 1 ] | **Longitude Sign**  (longitude sign bit; a “0” bit value indicates a positive value, east of the prime meridian; a “1” bit value indicates a negative value, west of the prime meridian, requiring multiplication by -1) |
| **26-53**  (28 bits) | *longitude* | ( 0 - 180,000,000]  ***microdegrees*** | **Longitude**  (this absolute longitude value is exclusive of the longitude sign bit described above; multiplication by -1 is required if the longitude sign bit is 1) |
| **54-63**  (10 bits) | *trig\_wake\_count* | [ 0 - 1023 ]  ***mod 1024*** | **Trigger Wake Count**  (represents the number of times the float has been awakened by a trigger; must anticipate rollover) |
| **Bytes 12-15 (32-bit integer)** | **0-6**  (7 bits) | *batt\_charge* | [ 0 -100 ]  ***1% resolution*** | **Battery Charge**  (percentage battery charge remaining; integer precision reported) |
| **7-1**  (1 bit) | *bus\_voltage\_sign* | [ 0 | 1 ] | **Bus Voltage Sign**  (voltage sign bit; a “0” bit value indicates a positive value; a “1” bit value indicates a negative value, west of the prime meridian, requiring multiplication by -1) |
| **8-12**  (5 bits) | *bus\_voltage* | [ 0 - 31 ]  ***decivolts*** | **Bus Voltage**  (main bus voltage; integer represents decivolts; multiplication by -1 is required if the bus voltage sign bit is “1”) |
| **13-19**  (7 bits) | *temperature* | [ 0 - 100 ]  ***1% resolution*** | **Main Temperature**  (main float temperature; integer precision reported) |
| **20-25**  (6 bits) | *node\_cfg\_index* | [ 0- inf ]  ***mod 64*** | **Node Cfg Index**  (most recent Node configuration index; must anticipate rollover; likely <= 255) |
| **26-31**  (6 bits) | *geofence\_cfg\_index* | [ 0 - inf ]  ***mod 64*** | **GeoFence Cfg Index**  (Most recent Geofence configuration index; must anticipate rollover; likely <= 255) |
| **Bytes 16-19 (32-bit integer)** | **0-7**  (8 bits) | *wake\_event\_id* | [ 0 - 255 ] | **Wake Event ID**  (interpretation depends on the value of the wake\_event\_type field; task\_id for alarms,  smarttrigger\_id for trigger) |
| **8-13**  (6 bits) | *task\_cfg\_index* | [ 0 - inf ]  ***mod 64*** | **Task Index**  (most recent task schedule update index; must anticipate rollover; likely <= 255) |
| **14-19**  (6 bits) | *trig\_cfg\_index* | [ 0 - inf ]  ***mod 64*** | **Trigger Cfg Index**  (most recent *SmartTrigger* configuration index; must anticipate rollover; likely <= 255) |
| **20-25**  (6 bits) | *rule\_cfg\_index* | [ 0 - inf ]  ***mod 64*** | **Rule Cfg Index**  (most recent *SmartTrigger* rule modification index; must anticipate rollover; likely <= 255) |
| **26-31**  (6 bits) | *sensor\_cfg\_index* | [ 0 - inf ]  ***mod 64*** | **Sensor Cfg Index**  (most recent sensor configuration index; must anticipate rollover; likely <= 255) |
| **Bytes 20-23** | **0-31**  (32 bits) | *state\_flags* | [ 0 - 232-1 ]  ***32-bit mask*** | **State Flags**  (Contents TBD; e.g., temperature and storage warnings, drag line state; stored as-is in 32-bits) |
| **Bytes 24-27 (32-bit integer)** | **0-3**  (4 bits) | *sw\_rev* | [ 0 - inf ]  ***mod 16*** | **Software Revision Number**  (specifies overall s/w revision for the system; independent of configuration index values; allows for an unlikely 16+ revisions; must anticipate rollover, however) |
| **4**  (1 bit) | *latitude\_sign* | [ 0 | 1 ] | **Latitude Sign**  (latitude sign bit; a “0” bit indicates a positive latitude value, north of the equator; a “1” bit indicates a negative latitude value, south of the equator, requiring multiplication by -1) |
| **5-31**  (27 bits) | *latitude* | ( 0 - 90,000,000 ]  ***microdegrees*** | **Latitude**  (this value is exclusive of the latitude sign bit described above; multiplication by -1 is required if the latitude sign bit is 1) |
| **Bytes 28-30 (24-bit integer)** | **0-2**  (3 bits) | *N/A* | N/A | **Reserved**  (the only free bits in this otherwise fully-packed message segment) |
| **3-20**  (18 bits) | *navsat\_fix\_time* | Unix Epoch Time  ***1 sec resolution*** | **Nav Sat Fix Time**  (time of last satellite fix; dated from Jan. 1 of the current year; must anticipate 1-year rollover) |
| **21-23**  (3 bits) | *wake\_event\_type* | [ 0 - 7 ] | **Wake Event Type**  (Specifies the event - trigger or alarm - that initiated the data collection; 0=alarm, 1=trigger, 2-TBD, 3=TBD, etc.) |

TOTAL STATUS SEGMENT SIZE: 30 bytes (240 bits) - 3 bits unused.