Sample EWS message for mini-Demo on Dec17, 2020

2020/12/03 Kugi

•EWS message data (122bit data):

(1) Message A: Message for Case1

(2) Message B: Message for Case2

◆Test Schedule :

Date: Dec 17, 2020 (Thu)

Time: $11:00 \sim 17:00[JST] / 09:00 \sim 15:00[Thai Local Time]$

| Message A | 11:00:00~11:59:59[JST] / 09:00:00~09:59:59 [Thai Local Time] |
|-----------|--|
| Message B | 12:00:00~12:59:59[JST] / 10:00:00~10:59:59 [Thai Local Time] |
| Message A | 13:00:00~13:59:59[JST] / 11:00:00~11:59:59 [Thai Local Time] |
| Message B | 14:00:00~14:59:59[JST] / 12:00:00~12:59:59 [Thai Local Time] |
| Message A | 15:00:00~15:59:59[JST] / 13:00:00~13:59:59 [Thai Local Time] |
| Message B | 16:00:00~16:59:59[JST]/14:00:00~14:59:59 [Thai Local Time] |

Appendix: Setting Parameter

(1) Message A: Message for Case1

Space Krenovation Park, GISTDA

Address: 88 Moo 9 Tambon Thung Sukala, Amphoe Siracha, CHONBURI 20230

| Message Field | Element name | Binary Value | Description | Bit Length |
|--------------------|-------------------------------|------------------------|---------------------------------------|------------|
| Message Identifier | Message Type | 10 | Test | 2 |
| | Country ID | 1011111100 | Thailand(=764) | 10 |
| | Provider ID | 0000 | All 0 | 4 |
| Event | Event Category | 000 | Geo | 3 |
| | Event Sub-Category | 0001 | Tsunami | 4 |
| | Severity | 01 | Severe | 2 |
| Event Chronology | Event Onset Day | 00001 | 01 [day] | 5 |
| | Event Onset Hour | 10111 | 23 [h] | 5 |
| | Event Onset Minute | 101101 | 45 [min] | 6 |
| | Expected Duration | 0000 | No Duration | 4 |
| Guidance to React | Guidance Library | 00 | International guidance library | 2 |
| | Response type | 0111 | None | 4 |
| | Instructions | 0000 | Test | 4 |
| Target Area | Latitude | 1001001010100010 | 13.102770[deg]N (1LSB=0.00275[deg]) | 16 |
| | Longitude | 11000111110001010 | 100.928047[deg]E (1LSB=0.00275)[deg]) | 17 |
| | Semi-major Axis Length | 0111 | 41803[m] (1LSB=316[m]) | 4 |
| | Semi-minor Axis Length | 0110 | 20806[m] (1LSB=316[m]) | 4 |
| | Semi-major Axis Azimuth Angle | 01000 | 46.45[deg] (1LSB=5.8[deg]) | 5 |
| Parameters | Specific Setting | 0000000000000000000000 | All 0 | 21 |
| | | | | 122 |

(2) Message B: Message for Case2

Center for Spatial Information Science, at the University of Tokyo

Address: 5-1-5 Kashiwanoha, Kashiwa-shi, Chiba 277-8568, JAPAN

| Message Field | Element name | Binary Value | Description | Bit Length |
|--------------------|-------------------------------|------------------------|---------------------------------------|------------|
| Message Identifier | Message Type | 10 | Test | 2 |
| | Country ID | 0110001000 | Japan(=392) | 10 |
| | Provider ID | 0000 | All 0 | 4 |
| Event | Event Category | 011 | Met | 3 |
| | Event Sub-Category | 0001 | Flood | 4 |
| | Severity | 01 | Severe | 2 |
| Event Chronology | Event Onset Day | 00001 | 01 [day] | 5 |
| | Event Onset Hour | 10111 | 23 [h] | 5 |
| | Event Onset Minute | 101101 | 45 [min] | 6 |
| | Expected Duration | 0000 | No Duration | 4 |
| Guidance to React | Guidance Library | 00 | International guidance library | 2 |
| | Response type | 0111 | None | 4 |
| | Instructions | 0000 | Test | 4 |
| Target Area | Latitude | 1011001100001111 | 35.902495[deg]N (1LSB=0.00275[deg]) | 16 |
| | Longitude | 11100011100000101 | 139.938049[deg]E (1LSB=0.00275)[deg]) | 17 |
| | Semi-major Axis Length | 0111 | 41803[m] (1LSB=316[m]) | 4 |
| | Semi-minor Axis Length | 0110 | 20806[m] (1LSB=316[m]) | 4 |
| | Semi-major Axis Azimuth Angle | 01000 | 46.45[deg] (1LSB=5.8[deg]) | 5 |
| Parameters | Specific Setting | 0000000000000000000000 | All 0 | 21 |
| | | | | 122 |

Bangkok กรุงเทพมหานคร DISTRICT LAT KRABANG 3097 3378 304 CHACHOENGSAO 3121 3551 BANG KHUN 303 THIAN 3245 SAMUT PRAKAN 3091 3268 3117 SAMUT SAKHON RATCHABURI Semi-major Axis Length: 41.803 [km] 3206 1003 1004 Semi-minor Axis Length: 3176 3178 20.806 [km] BANG LAMUNG SUB-DISTRICT STUB UTUBENS 36 7 3204 Semi-major Axis Azimuth Angle: 46.5 [deg] Khao 3484 3191 Pattaya City เมืองพัทยา Chamao-Khao Wong National Park Khram RAYONG Rayong Yai Island เทศบาล เกาะครามใหญ่ นครระยอง 3218 4 Google

Fig1-1: Target Area(Message A)

Map data @2020 Japan Terms Send feedback 10 km

Stoneking Ban F สำนักคุณภาพ PK ENGINEERING น้ำมันเชื้อเพลิง GROUP CO. LTD Satellite Badminton Court Government office cds (laemchabang) สนามแบทมีน whale logist transport ล้นลาวเทียม (Thailand) C Digital Park Thailand Government office สถานีเคเบิลใต้ CR Company Limited น้ำ ชลี3 ครีราชา... เรี จำกัด 0 0 Basaya Hotel & Apartment Laemchabang Chonburi Land หอพักอรุณเข้าส์ เป็น Transportation... เย็นตาโฟเกาะสีชัง 🔞 แทลมฉบัง รังหวัดขอบุรี สาขา โต่งตั้งดี ถนนกิโลเก้า Nippon Express (Thailand) LHELC สถานตรวจสภาพรถ โขตพานิท ลุวดี เขอร์วิส สถานีดาวเทียมศรีราชา Nippon Express Sirindhorn Center for Car inspection station **Engineering Thailand** Geo-Informatics (SCGI) 0 อาคาวสูนย์ภูมิ สารสนเทศสิรินธร (สภ.) 9 Space Inspirium Thitikorn House บ้าน ฐิติกร ก่านอัดแท่ง บ้านคุณตา ตราแท่งทอง อพาร์ทเมนท์ แหลมฉบัง GISTDA THEOS Control & Receiving... 🗬 ที่พักของเมษา Government office เอียเพชร Space Krenovation Park, GISTDA - Latitude: 13.102770[deg]N ร้านเจ้อนละ..ยำ - Longitude: 100.928047[deg]E GISTDA อาคารที่พัก ยเดียวละมัย อุทยานรังงสรรค์ ถนน... ห้างหุ้นล่วน เขียวชาต ATM ธนาคารไทย ร้านช่อมคอมพิวเตอร์ วัลลภ เพรรา พาณิชย์ : ร้าน 108... ใอที โซลูซัเ ข้าวขาหมูแหลมฉบัง ตึกทะเลทองหน้าเชเว่น 🕡 บ้านนา สาขา 2 หจก ไวเวอร์เซอร์วิล... หอถังสูง สถานีผลิต Grocery store และจ่ายน้ำไร่ลอง... ชาพะยอม สาขา Computer repair service 0 0 Fast Food แหลมฉบังขอย10 อีขูซุโอเปอร์เรชั 👩 Bubble Ten พาสุขสรรค์ ชีวิตดี น (ไทยแลนด์) บรก คอนโดหนักงาน กรมสุลกากร แหลมฉบังฟิชชิง 🙆 อพาร์ทเมนท์ ร้านตัดชุดสตรี หอวัศยาเพลส บริษัท ซีพี ออล แหลมฉบัง By แหม่ม 🙆 ชุมชนวัตมโนรม Fujitsu General Engineering Women's clothing store ล์ จำกัด (มหาชน)... สถานีสูบ Anurak Engineering Eastern Management น้ำแหลม 🔓 Google Initioning and Construction... and Water... Map data @2020 Japan Terms Send feedback 100 m L

Fig1-2: Target Area(Message A) - the center of the ellipse

Moka W Sign in Kiryu Shimotsuke Maebashi 桐生市 Tochigi. 真岡市 前橋市 Midori 下野市 栃木市 Mito 9 。ひたちなか市 0 みとり市 294 Ashikaga Mito Line Annaka Takasaki 笠間市 足利市 安中市 高崎市 Yuki Chikusei 佐野市 伊勢崎市 Ota 結城市 筑西市 Sakuragawa E50 150 太田市 50 桜川市 Tomioka Fujioka 富岡市 407 354 Tatebayashi 藤岡市 Omitama 館林市 10 小美玉市 Honjo Fukaya (田田) Ishioka 本庄市 深谷市 Shimotsuma Koga 石岡市 Hanyu 125 下妻市 古河市 462 Hokota 羽生市 Kumagaya 鉾田市 熊谷市 Kazo 加須市 Semi-major Axis Length: Gyoda Tsukuba 41.803 [km] 行田市 つくば市 Higashimatsuyama 299 SAITAMA 常総市 Namegata 行方市 Ushiku 秩父市 Inashiki 牛久市 Kashima Semi-minor Axis Length: 稲敷市 353 鹿嶋市 20.806 [km] Hidaka Katori 日高市 Koshigaya Kamisu 香取市 越谷市 神栖市 Saitama, Hanno Sayama 飯能市 狭山市 。我孫子市 さいたま布 Chichibu Tama Kai 0 National Park 技术多种用数 国立公園 Kashiwa TE O Semi-major Axis Azimuth Angle: 299 柏市 U Ome Iruma Tokorozawa 46.5 [deg] 所沢市 面 青梅市 Adachi 足立区 Sakura Tomisato 佐倉市 3 富里市 銚子市 Tachikawa Sosa 1 Seibu Shinjuku Line 旭市 Funaba 匝瑳市 Tokyo Fuchu Chuo Line Hachioji 八王子市 EST 府中市 Chiba 千葉市 Uenohara 上野原市 🙃 Nambu Line 世田谷区 Otsuki Sammu 大月市 区 山武市 E20 Sagamihara 相模原市 Togane Tsuru 東金市 Kawasaki 都留市

Fig2-1: Target Area(Message B)

Sodegaura 袖ケ浦市

Googles Kimitsu

Kisarazu 未更津市 Kuruni Ichihara

市原市

W

9

C4

00

Oamishirasato

大網白里市

Map data @2020 Japan Terms Send feedback 10 km

Mobara

茂原市

川崎市

Tokyo Bay 東京高

O

横浜市

Yokohama

U

ujiyoshida

Mount Tanzawa

Minamiashigara 秦野市

摩木市

Hiratsuka

/平塚市

KANAGAWA

Hadano

(株) 相宮莱門 High School AOTA SHINDEN INTER MINAMI 1111 TOBICHI 柏インター南 コンフェックス 柏支店 フクダオートサービス 青田新田飛地 ヘーベルハウス 総合 ○ Kashiwa Inter 0 住宅展示場住まいる・ Nanotec Corporation Minami Daini Park Kashiwa Inter Minami Dailchi Park 柏インター南籍二公園 総合住宅展示場 木村屋総本店 ダイナテック(株) 住まいるパーク柏の葉 柏工場総務課 柏インター南第一公園 太平洋セメント 9 エスピック(株) 柏 (株)木村ガラス ♥(株)仁和運送 柏の葉センター 販売(株) 柏営業所 サービスセンター Glass & mirror shop KCS 柏センター 岩渕薬品 柏営業所 Real estate agency 0 0 ○(株)懐石倭 樋田紙工(株) トーイン 第一工場 〇 雷洋社 東幕営業所 岩渕薬品(株) 柏営業所 新柏倉庫(株) 中央 Park ● 流通センター (株)いした屋 柏工場 Warehouse 西尾レントオール Packaging supply store (株) 柏営業所 ボリスター特機(株) 0 太成倉庫柏営業所 Seven Bank ATM 7-Eleven Kashiwa Science Park Tokatsu Techno Plaza セブン銀行ATM Warehouse 事誌テクノブラザ セフン・イレブン 柏 サイエンスパーク店 Konbukuro pond の 東京大学 情報 基盤センター Convenience store FamilyMart こんぶくろ池 Kashiwanoha 5-chome 自然博物公園 ヨシザワLA(株) 🚺 柏の葉五丁目店 (有)ティーアイネット Institute of Industrial University of Tokyo 保険事務所 Science, The... Institute for Cosmic.. The University 東京大学生産技術 Insurance agency 研究所 干旱実験所 東京大学 宇宙線研究所 of Tokyo Penten Pond 弁天池 Kashiwa Institute for solid DYNATECH Campus state physics, the... 東京大学 物性研究所 東京大学拍 Isehara Daiichi Park キャンバス 伊勢原第一公園 National Cancer ATM (Sumitomo Mitsui Banking Corporation) Hospital East 三井住友銀行 ATM **計測量** 理容室 AN CSIS, the University of Tokyo 0 - Latitude: 35.902495[deg]N 東京大学新領域創成 Keiyo D2 Kashiwanoha 科学研究科 生命棟 - Longitude: 139.938049[deg]E Park store (株)染谷園芸 柏の葉公園店 東京大学大学院新領域 Landscaping supply store 創成科学研究科環境機 YorkMart Kashiwanoha Kashiwa Library, The University of Tokyo Kurasushi de Park store 東京大学柏図書館 Aota Nagareyama ヨークマート くら寿司 流山青田店 柏の掌公園店 お魚倶楽部はま Ministry of Finance Cate Kashiwanoha Koen Dai 1 Mizube Park Customs Training Center 財務當 視閱研修所 Udon-ichi Kashiwa Toyofuta shop 柏の葉公園 第3水辺公園 Todai Kashiwa こんぷくろ池 Donguri Nursery 公園 トンホ _ リ 東大納とんぐり保護園 Kashiwanoha Park Kashiwanoha Tennis Courts O 0 柏の葉直球場

Fig2-2: Target Area(Message B) - the center of the ellipse

• EWS format

"EWS-Message(as of 08Sep2020)_for RPDchallenge.xlsx"

Table1: Sheet"SiS_Message"

| | | Version | 1.0 | | |
|---------|--------------------|---|-----------|-------|--|
| Date | 2020/9/6 | VC101011 | 1.0 | | |
| | on EWS Message fo | r the Signal-in-Space | | | |
| Field # | Message field | Element name | Start bit | #bits | length as power of 10 in meters |
| 1 | | Message type | 0 | 2 | Progressive number of updates of a message issued by the same EWS provider and alerting for the same hazard: 00 Alert 01 Update 10 Test 11 Cancel |
| 2 | Message Identifier | Country ID | 2 | 10 | ID of the country from which the alert is issued. Supranational authorites can also be identified The country ID is essential to identify the EWS provider issuing the alert and to manage the display authorizations. For test messages sent for the monitoring performances service, this field is set to all 0's. |
| 3 | | Provider ID | 12 | 4 | Issuing EWS provider in the country. For test messages sent for the monitoring performances service, this field is set to all 0's. |
| 4 | | Event Category | 16 | 3 | Category of the event |
| 5 | <u>Event</u> | Event Sub-Category | 19 | 4 | Detail of the event category. The sub-category is not defined in the CAP fields and will need to be added in the parametric fields of the CAP format exchanged between the EWS provider and the Ground infrastructure to complete the EWS Message. |
| 6 | | <u>Severity</u> | 23 | 2 | Severity of the event. Mostly to adapt the display of the information to a user, in particular to adapt the used color: red for extreme, orange for severe It is essential as visual information is processed faster by the brain than text. |
| 7 | Event chronology | Event Onset | 25 | 16 | (Expected) The UTC time when the event occurred: - 5 bits are used to encode the day - 5 bits are used to encode the hour - 6 bits are used to encode the minute The time reference used is UTC. |
| 8 | | Expected Duration | 41 | 4 | Expected validity of the alert in hours. |
| 9 | Guidance to react | Guidance Library | 45 | 2 | Reference to the guidance to react library to use. A EWS registered national Authority is free to define its own guidance to react library (national library) or to use the guidance to react of a group of countries (regional guidance) or the standardized guidance (international library). The guidance to react libraries are stored in a guidance database. 00 International guidance library 10 Regional guidance library 11 new guidance library under validation |
| 10 | | Response Type | 47 | 4 | Guidance to react for the end-user of the EWS. The Response type is driven by the Event category and sub-category and is selected in the guidance to react library encoded in the previous 2 bits. |
| 11 | | Instruction | 51 | 4 | Refinement of the guidance. |
| 12 | Target Area | <u>Latitude</u> | 55 | 16 | The target area is described as an ellipse. The latitude of center of the ellipse with 305m of precision. If Target Area bits are all zero, this mean "No Target Area". |
| | | Longitude Semi−ma jor axis length | 71 88 | | The longitude of center of the ellipse with 305m of precision. The length as a power of 10 in meters |
| | | Semi-major axis length | 92 | | The length as a power of 10 in meters The length as power of 10 in meters |
| 13 | Parameters | Semi-major axis azimuth angle Specific Setting | 96 101 | | The azimuth angle of the axis (5.8° precision) These 21 bits are dedicated to message customisation depending on the event category. |
| | | TOTAL | | 122 | depending on the event category. |
| | | 19.17.00 | | | |

Table2: Sheet"Country ID"

| | Country | | | | | |
|-----------------|--------------------|--------------|--|--|--|--|
| | | | | | | |
| Code [10bit] | ISO 3166-1 numeric | Country Name | | | | |
| 0110001000 | 392 | Japan | | | | |
| 1011111100 | 764 | Thailand | | | | |

Table3: Sheet" Event"

| Event | | | referred from "Peril Classification and Hazard Glossary" p | |
|--------------------|----------------|--------------------|--|--|
| Code [Bits 0-2] | Event Category | Code [Bits 3-6] | Event Sub-Category | Definition 1 |
| 000 | Geo | | | |
| | | 0001 | Tsunami | A series of waves (with long wavelengths when traveling across the deep ocean) that are generated by a displacement of massive amounts of water through underwater earthquakes, volcanic eruptions or landslides. Tsunami waves travel at very high speed across the ocean but as they begin to reach shallow water they slow down and the wave grows steeper. |
| 011 | Met | | | |
| | | 0001 | | A general term for the overflow of water from a stream channel onto normally dry land in the floodplain (riverine flooding), higher—than normal levels along the coast and in lakes or reservoirs (coastal flooding) as well as ponding of water at or near the point where the rain fell (flash floods). |

Table4: Sheet"Severity"

| Severity | | | | | |
|-------------|--|---|--|--|--|
| Code [2bit] | Severity | | | | |
| 00 | Extreme - Extraordinary threat to life or property |] | | | |
| 01 | Severe - Significant threat to life or property | | | | |
| 10 | Moderate – Possible threat to life or property | Г | | | |
| 11 | Minor - Minimal to no known threat to life or property | | | | |

Table5: Sheet" EventOnset"

| Event | Onset | | | | | |
|-------------|-----------|-------------|----------|---|-------------|--------------|
| Code [5bit] | Day [day] | Code [5bit] | Hour [h] | | Code [6bit] | Minute [min] |
| 00000 | 0 | 00000 | 0 | | 000000 | 0 |
| 00001 | 1 | 00001 | 1 | | 000001 | 1 |
| 00010 | 2 | 00010 | 2 | | 000010 | 2 |
| 00011 | 3 | 00011 | 3 | | 000011 | 3 |
| | | | | | | |
| 11100 | 28 | 10101 | 21 | | 101011 | 43 |
| 11101 | 29 | 10110 | 22 | L | 101100 | 44 |
| 11110 | 30 | 10111 | 23 | | 101101 | 45 |
| 11111 | 31 | 11000 | 24 | | 101110 | 46 |
| | | 11001 | _ | | 101111 | 47 |
| | | 11010 | _ | | | |
| | | 11011 | - | | 111000 | 56 |
| | | 11100 | _ | | 111001 | 57 |
| | | 11101 | _ | | 111010 | 58 |
| | | 11110 | - | | 111011 | 59 |
| | | 11111 | _ | | 111100 | _ |
| | | | | | 111101 | _ |
| | | | | | 111110 | - |
| | | | | | 111111 | - |

Table6: Sheet"Expected Duration"

Expected Duration

| Code [4bit] | Duration [h] |
|-------------|------------------------|
| 0000 | "No Duration" |
| 0001 | Duration < 0.25 |
| 0010 | 0.25 <= Duration < 0.5 |
| 0011 | 0.5 <= Duration < 0.75 |
| 0100 | 0.75 <= Duration < 1 |
| 0101 | 1 <= Duration < 1.5 |
| 0110 | 1.5 <= Duration < 2 |
| 0111 | 2 <= Duration < 3 |
| 1000 | 3 <= Duration < 4 |
| 1001 | 4 <= Duration < 6 |
| 1010 | 6 <= Duration < 8 |
| 1011 | 8 <= Duration < 12 |
| 1100 | 12 <= Duration < 18 |
| 1101 | 18 <= Duration < 24 |
| 1110 | 24 <= Duration < 48 |
| 1111 | 48 <= Duration |

Table7: Sheet"Guidance to react 0.1"

| | Guidance to react Example of a Guidance to react Libray | | | | |
|--------------------|--|--------------------|---|--|--|
| Code [Bits 0-3] | Response Type (examples of possible response type) | Code [Bits 4-7] | Instructions (examples of possible instructions) | | |
| 0111 | None - No action recommended | | | | |
| | | 0000 | Test | | |
| | | 0001 | Exercise | | |
| | | 0010 | Spare | | |
| | | 0011 | Spare | | |
| | | 0100 | Spare | | |
| | | 0101 | Spare | | |
| | | 0110 | No action recommended | | |
| | | 0111 | Unavailable guidance | | |
| | | 1000 | | | |
| | | 1001 | | | |
| | | 1010 | | | |
| | | 1011 | | | |
| | | 1100 | | | |
| | | 1101 | | | |
| | | 1110 | | | |
| | | 1111 | | | |

Table8: Sheet"Latitude(16bit)"

Latitude (16bit) [deg]

| Code [16bit] | angle [deg] | |
|-------------------|--|--|
| 00000000000000000 | -90.000000 | |
| 0000000000000001 | -89.997253 | |
| 0000000000000010 | -89.994507 | |
| 1001001010100001 | 13.100023 | |
| 1001001010100010 | 13.102770 | |
| 1001001010100011 | 13.105516 | |
| 1011001100001110 | 35.899748 | |
| 1011001100001111 | 35.902495 | |
| 1011001100010000 | 35.905241 | |
| 11111111111111101 | 89.994507 | |
| 1111111111111111 | 89.997253 | |
| 11111111111111111 | 90.000000 | |
| | 00000000000000000000000000000000000000 | 00000000000000000 -90.000000 00000000000000001 -89.997253 00000000000000010 -89.994507 1001001010100001 13.10023 1001001010100010 13.105516 1011001100001110 35.899748 1011001100001111 35.902495 1011001100010000 35.905241 11111111111111111 89.997253 |

interval 0.0027466

Table9: Sheet"Longitude(17bit)"

Longitude (17bit) [deg]

| Code [17bit] | angle [deg] |
|---------------------|-------------|
| 000000000000000000 | -180.000000 |
| 00000000000000001 | -179.997253 |
| 00000000000000010 | -179.994507 |
| 110001111110001001 | 100.925300 |
| 11000111110001010 | 100.928047 |
| 11000111110001011 | 100.930793 |
| 11100011100000100 | 139.935302 |
| 11100011100000101 | 139.938049 |
| 11100011100000110 | 139.940795 |
| 1111111111111111101 | 179.994507 |
| 111111111111111110 | 179.997253 |
| 11111111111111111 | 180.000000 |

interval 0.0027466

Table10: Sheet"Axis(4bit)"

| | (at 10 |) Im I |
|------|---------|-----------|
| avie | LZIBIT | 1 1 100 1 |
| | | |

 $Radius[m] = 10^{2.5 + \frac{\alpha}{3.3}}$

| Code [4bit] | Radius [m] | | |
|-------------|------------|--|--|
| 0000 | 316 | | |
| 0001 | 635 | | |
| 0010 | 1277 | | |
| 0011 | 2565 | | |
| 0100 | 5154 | | |
| 0101 | 10355 | | |
| 0110 | 20806 | | |
| 0111 | 41803 | | |
| 1000 | 83993 | | |
| 1001 | 168761 | | |
| 1010 | 339081 | | |
| 1011 | 681292 | | |
| 1100 | 1368875 | | |
| 1101 | 2750388 | | |
| 1110 | 5526170 | | |
| 1111 | 11103363 | | |
| | | | |

Table11: Sheet"Azimuth angle"

Azimuth angle [deg]

| | | | _ | |
|---|-------------|-------------|--------------|------------|
| | Code [5bit] | angle [deg] | | |
| | 00000 | 0.00 | | interval |
| | 00001 | 5.81 | 180/(2^5-1)= | 5.80645161 |
| | 00010 | 11.61 | | |
| | 00011 | 17.42 | | |
| | 00100 | 23.23 | | |
| | 00101 | 29.03 | | |
| | 00110 | 34.84 | | |
| | 00111 | 40.65 | | |
| L | 01000 | 46.45 | | |
| | 01001 | 52.26 | | |
| | 01010 | 58.06 | | |
| | 11101 | 168.39 | | |
| | 11110 | 174.19 | | |
| | 11111 | 180.00 | | |