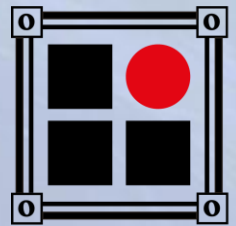


Tracciamento e monitoraggio delle merci containerizzate

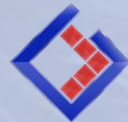


Centro
Internazionale
Studi
Containers



22/10/21

Andrea GREGORI



ZENATEK

The background features a light blue gradient with diagonal motion blur lines. Faint white icons of an airplane, a satellite, and a computer monitor are visible in the upper portion of the image.

753,000,000

Container fleet by type (World 2020)

Category	Million TEU	Percent
40/45ft box H.C.	21.1	51%
40ft box	8.5	20%
20 ft box	6.3	15%
20/40ft reefers	2.1	5%
Dry freight special	1.1	3%
Others	2,4	6%
TOTAL	41,5	100%

Source: Berg Insight

Cost of a Container by type (World 2020)

Category	value USD	
40ft H.C box.	3,900.00	
40ft H.C. Reefer	11,500.00	22,800.00

Source: Berg Insight

Top 10 container shipping companies (World Sept. 2020)

Shipping Line	Total (owned and chartered)		Market Share	
	Teu's	Ships		
	APM-Maersk	4.150.000	694	21%
MSC	3.800.000	573	19%	
COSCO Group	2.920.000	478	15%	
CMA CGM	2.640.000	487	14%	
Hapag-Lloyd	1.750.000	250	9%	
Ocean Network Express	1.590.000	223	8%	
Evergreen Line	1.230.000	193	6%	
Yang Ming Marine Trans.	600.000	90	3%	
Hyundai M.M.	450.000	65	2%	
PIL (Pacific Int. Line)	370.000	111	2%	
Total	19.500.000		83,2%	
Source: Alphaliner				

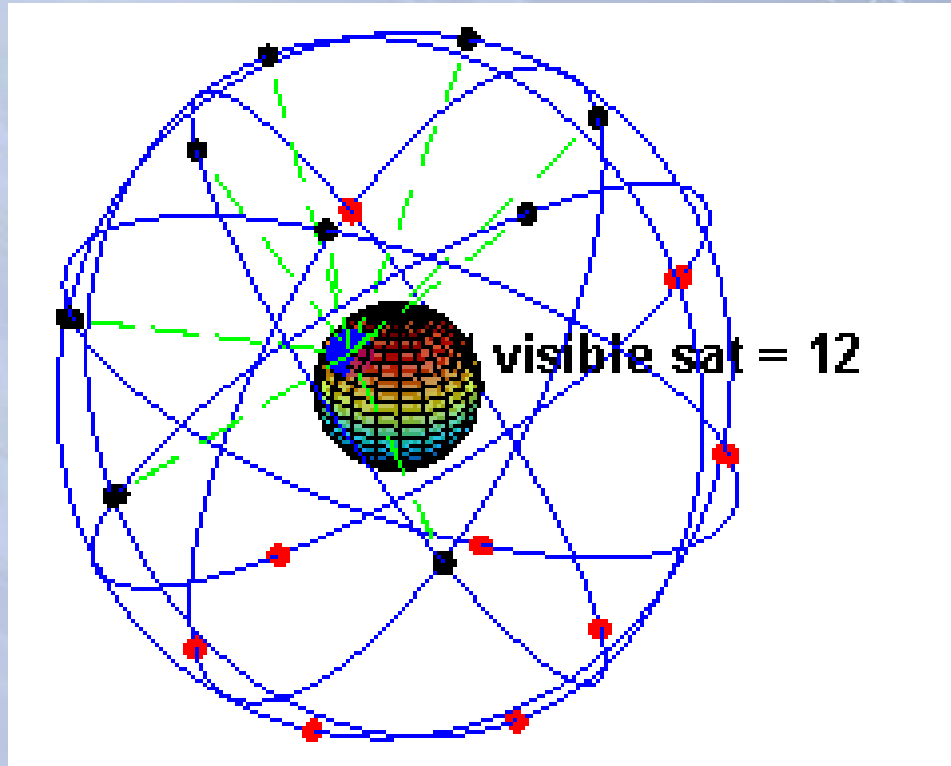
Top container leasing companies (World Sept. 2019)

Company	Total (owned and chartered) Teu's	Market Share	
Triton Int.	6.100.000	28%	
Florens	3.800.000	17%	
Textainer	3.500.000	16%	
Seaco	2.400.000	11%	
CAI International	1.700.000	8%	
Beacon International Leasing	1.300.000	6%	
SeaCube Container Leasing	1.100.000	5%	
Others	2.000.000	9%	
Total	21.900.000		
Source: Alphaliner			

I dispositivi di tracciamento e controllo



I satelliti di posizionamento e comunicazione



1:54

← GPS Status

Fixed/All: 18/28

Accuracy: 10.72

Speed: 0.0 km/h

Bearing: E

Altitude: 51,9858

ID	GNSS	CF	C/N0	Flags	Elev	Azm
8	LI	15.0	AEU	42.0°	305.0°	
10	LI	20.5	AEU	63.0°	106.0°	
16	LI	9.4	AEU	42.0°	191.0°	
20	LI	27.9	AEU	47.0°	61.0°	
21	LI	20.6	AEU	24.0°	67.0°	
26	LI	22.0	AEU	38.0°	177.0°	
27	LI	25.2	AEU	61.0°	351.0°	
18	LI		AE	21.0°	258.0°	
2	LI	14.3	AU	17.0°	26.0°	
18	LI	23.9	AEU	44.0°	63.0°	
9	LI	19.7	AU	33.0°	274.0°	
19	LI	13.1	AU	57.0°	333.0°	
3	LI	21.4	AFU	46.0°	81.0°	
6	BI	12.7	AU	17.0°	53.0°	
9	BI	15.5	AU	20.0°	60.0°	
12	BI	19.8	AU	59.0°	78.0°	
16	BI	19.7	A	20.0°	61.0°	
21	BI	16.3	A	36.0°	158.0°	
5	BI		A	20.0°	119.0°	
11	BI		A	30.0°	293.0°	
22	BI		A	47.0°	84.0°	
25	BI		A	19.0°	268.0°	
5	EI	28.6	AU	29.0°	75.0°	
13	EI	14.1	A	21.0°	274.0°	
15	EI	18.8	AU	68.0°	32.0°	
27	EI	18.3	AU	40.0°	254.0°	
3	EI		A	23.0°	135.0°	

10:00

SailDroid

GPS Information

Current Location

44° 24.11' N
8° 56.57' E

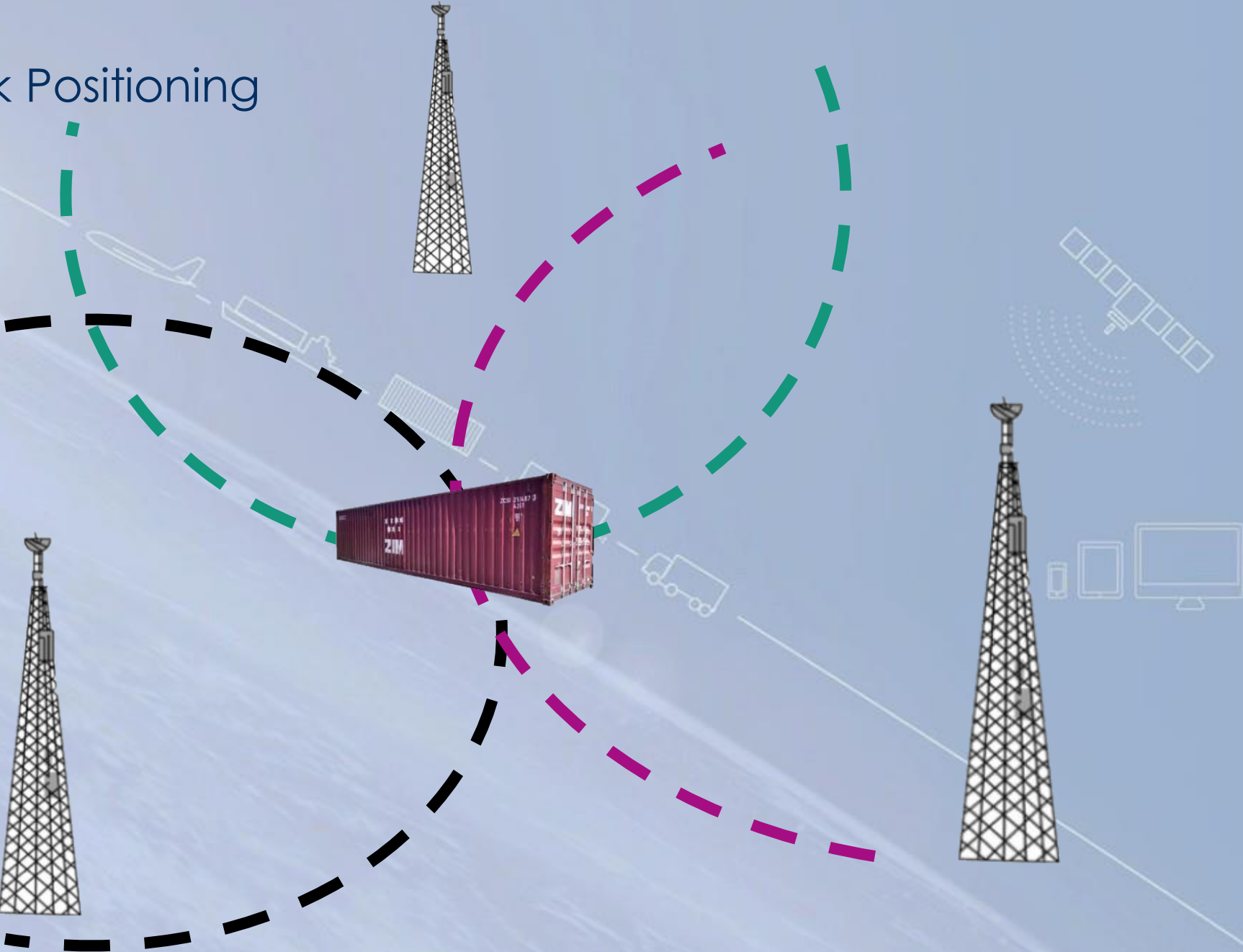
Altitude: 51m

GPS Time (UTC): 07:59:52

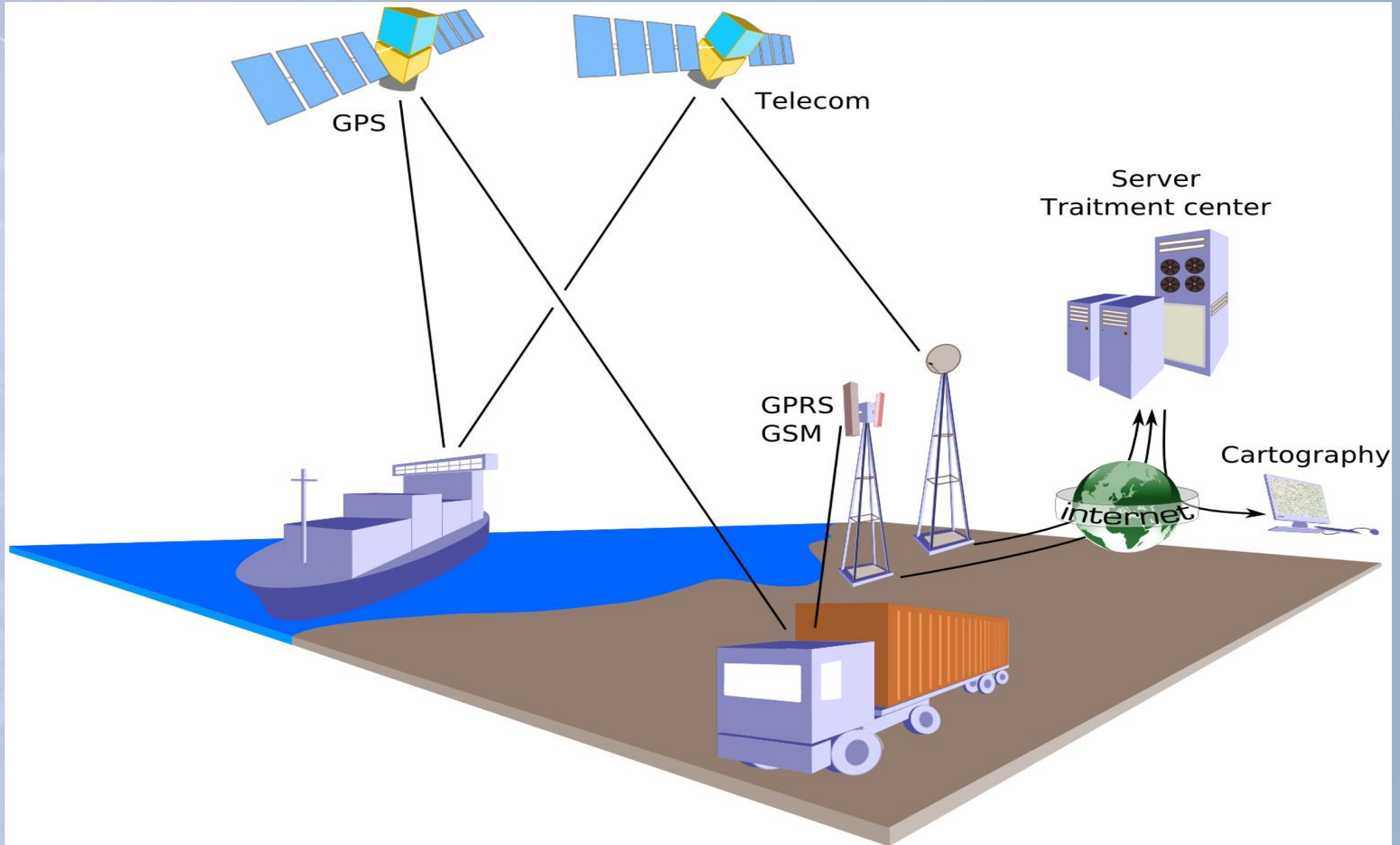
Status: fix

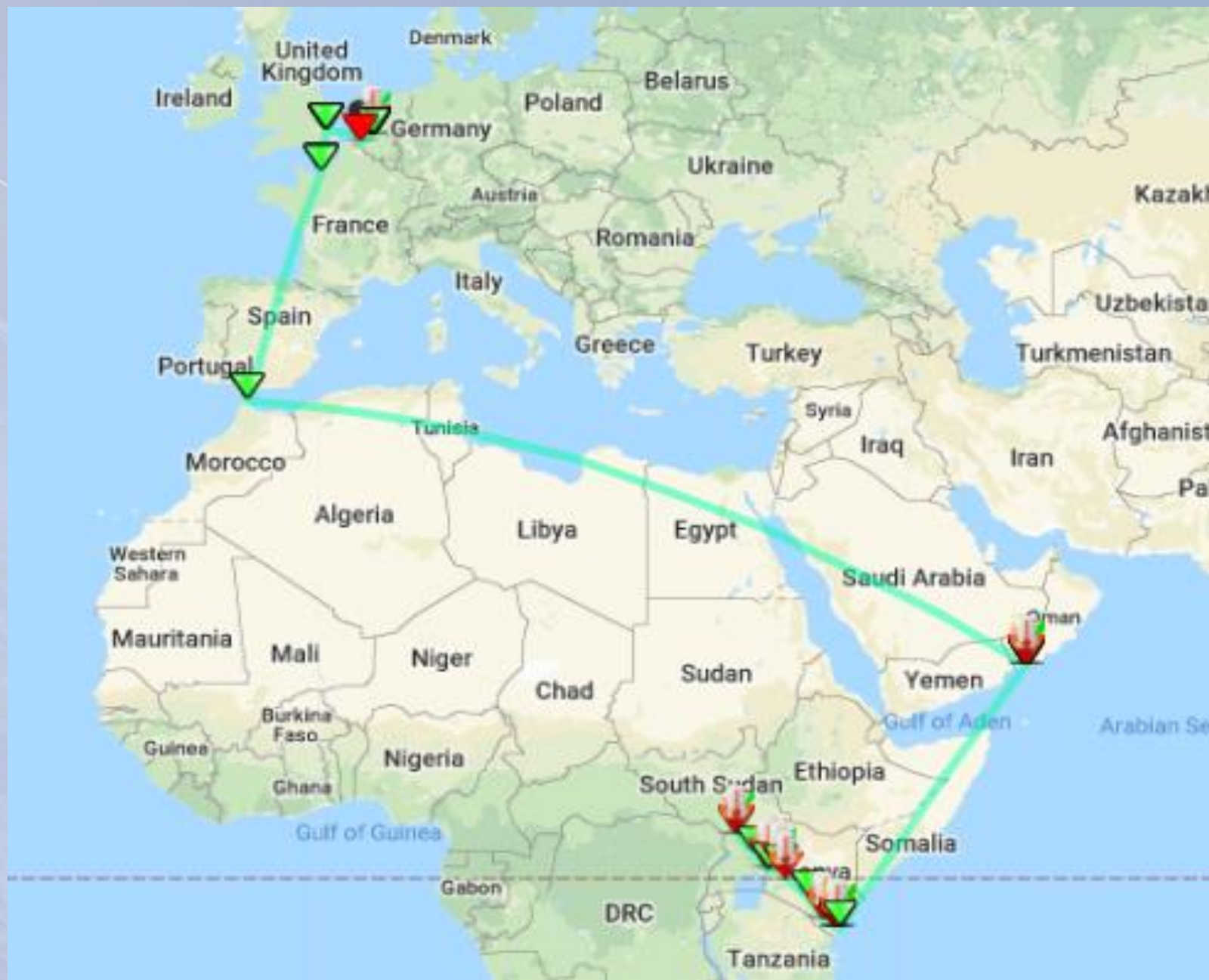


Network Positioning



L' architettura finale





Charts



Plotted measure(s)

Temperature

Search Since

06/18/2021



12

: 00

AM



Until

08/15/2021



11

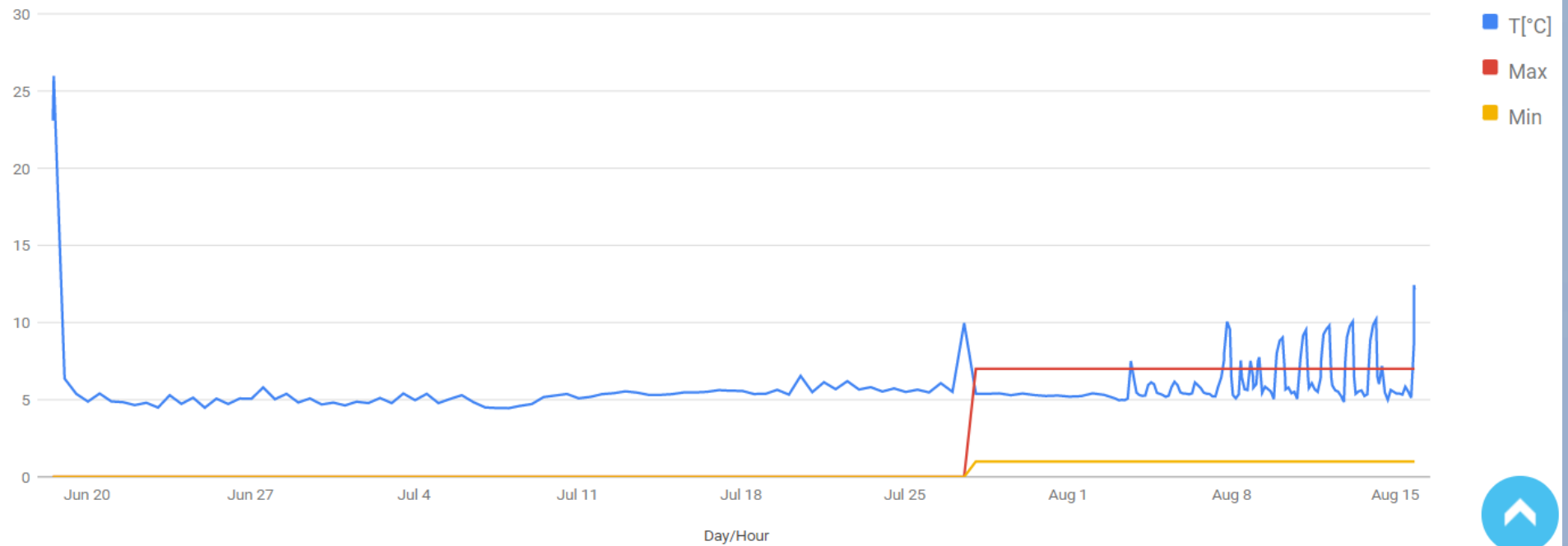
: 59

PM



Charts

Number of found elements: 219



Reference:	MNBU3085664
Type:	Chesses and Long Life milk
Description:	TBD.19065000003308 FPO671-000248 BOSMAG MNBU3085664 40 FT CHILLED
Assignee:	ES-KO
Device S/N:	19065000003308
ETD:	18/06/2021 00:00
ETA:	20/08/2021 00:00
Loading Place:	ROTTERDAM
Unloading Place:	JUBA
Ship Name:	MAERSK MSC ERICA 124E

Event Type	Date of Occurrence	Received	Position	Temperature [°C]	Humidity [%]	Notes
Device Activation	06/18/2021 13:08	06/18/2021 13:11	N/A	23.08	62.98	
Closed Door	06/18/2021 14:03	06/18/2021 14:04	Lat: 51.778, Lon: 4.637 - Einsteinstraat 16 E, 3316 GG Dordrecht, Netherlands- (approx.)	25.97	62.31	
Position	06/19/2021 01:11	06/19/2021 01:12	Lat: 51.778, Lon: 4.637 - Einsteinstraat 16 E, 3316 GG Dordrecht, Netherlands- (approx.)	6.37	57.6	
Position	06/19/2021 13:11	06/19/2021 13:12	Lat: 51.777, Lon: 4.638 - Daltonstraat 25, 3316 GD Dordrecht, Netherlands- (approx.)	5.38	64.46	
Position	06/20/2021 01:11	06/20/2021 01:12	Lat: 51.777, Lon: 4.635 - Planckstraat 21, 3316 GS Dordrecht, Netherlands- (approx.)	4.88	64.24	
Position	06/20/2021 13:11	06/20/2021 13:12	Lat: 51.777, Lon: 4.635 - Planckstraat 21, 3316 GS Dordrecht, Netherlands- (approx.)	5.4	68.12	
Position	06/21/2021 01:12	06/21/2021 01:12	Lat: 51.777, Lon: 4.635 - Planckstraat 21, 3316 GS Dordrecht, Netherlands- (approx.)	4.89	68.56	
Position	06/21/2021 13:12	06/21/2021 13:13	Lat: 51.968, Lon: 4.034 - Antarcticaweg 12-14, 3199 LD Maasvlakte Rotterdam, Netherlands- (approx.)	4.84	80.2	
Position	06/22/2021 01:12	06/22/2021 01:14	Lat: 51.96, Lon: 4.045 - 3199 LD Maasvlakte Rotterdam, Netherlands- (approx.)	4.65	77.16	
Position	06/22/2021 13:12	06/22/2021 13:13	Lat: 51.958, Lon: 4.076 - Unnamed Road, Botlek, Netherlands- (approx.)	4.8	72.74	
Position	06/23/2021 01:12	06/23/2021 01:14	Lat: 51.961, Lon: 4.047 - 3199 LD Maasvlakte Rotterdam, Netherlands- (approx.)	4.49	69.8	

Event Type	Date of Occurrence	Received	Position	Temperature [°C]	Humidity [%]	Notes
Position	07/04/2021 13:15	07/04/2021 13:16	Lat: 51.955, Lon: 4.028 - 3199 LA Maasvlakte Rotterdam, Netherlands- (approx.)	5.38	66.3	
Position	07/05/2021 01:15	07/05/2021 01:16	Lat: 51.962, Lon: 4.033 - 3199 LD Maasvlakte Rotterdam, Netherlands- (approx.)	4.78	69.82	
Position	07/05/2021 13:15	07/05/2021 13:16	Lat: 51.963, Lon: 4.038 - 3199 LD Maasvlakte Rotterdam, Netherlands- (approx.)	5.05	73.83	
Position	07/06/2021 01:15	07/06/2021 01:16	Lat: 51.961, Lon: 4.032 - 3199 LD Maasvlakte Rotterdam, Netherlands- (approx.)	5.29	74.82	
Position	07/06/2021 13:15	07/10/2021 01:18	N/A	4.84	76.45	
Position	07/07/2021 01:15	07/10/2021 01:18	N/A	4.5	77.28	
Position	07/07/2021 13:15	07/10/2021 01:18	N/A	4.46	76.44	
Position	07/08/2021 01:15	07/10/2021 01:18	N/A	4.45	76.48	
Position	07/08/2021 13:16	07/10/2021 01:18	N/A	4.6	72.94	
Position	07/09/2021 01:16	07/10/2021 01:18	N/A	4.72	77.25	
Position	07/09/2021 13:16	07/10/2021 01:18	N/A	5.17	75.68	
Position	07/10/2021 01:16	07/10/2021 01:18	Lat: 35.933, Lon: -5.531 - 8C7PWFM9+3G- (approx.)	5.27	75.85	
Position	07/10/2021 13:16	07/10/2021 13:17	Lat: 35.921, Lon: -5.529 - 8C7PW FCC+67- (approx.)	5.37	76.11	
Position	07/11/2021 01:16	07/11/2021 01:18	Lat: 35.817, Lon: -5.659 - Fahs Anjra, Morocco- (approx.)	5.09	75.07	
Position	07/11/2021 13:16	07/20/2021 13:19	N/A	5.18	77.02	
Position	07/12/2021 01:16	07/20/2021 13:19	N/A	5.36	70.71	
Position	07/12/2021 13:16	07/20/2021 13:19	N/A	5.42	68.05	
Position	07/13/2021 01:16	07/20/2021 13:19	N/A	5.54	77.04	
Position	07/13/2021 13:16	07/20/2021 13:20	N/A	5.46	77.65	
Position	07/14/2021 01:17	07/20/2021 13:20	N/A	5.31	74.88	
Position	07/14/2021 13:17	07/20/2021 13:20	N/A	5.31	73.21	
Position	07/15/2021 01:17	07/20/2021 13:20	N/A	5.36	76.73	
Position	07/15/2021 13:17	07/20/2021 13:20	N/A	5.47	77.25	
Position	07/16/2021 01:17	07/20/2021 13:20	N/A	5.47	69.64	
Position	07/16/2021 13:17	07/20/2021 13:20	N/A	5.51	75.26	
Position	07/17/2021 01:17	07/20/2021 13:20	N/A	5.62	77.3	
Position	07/17/2021 13:17	07/20/2021 13:20	N/A	5.58	76.49	
Position	07/18/2021 01:18	07/20/2021 13:20	N/A	5.57	76.52	
Position	07/18/2021 13:18	07/20/2021 13:20	N/A	5.37	71.33	
Position	07/19/2021 01:18	07/20/2021 13:20	N/A	5.38	68.62	
Position	07/19/2021 13:18	07/20/2021 13:20	N/A	5.64	78.98	
Position	07/20/2021 01:18	07/20/2021 13:20	Lat: 16.966, Lon: 54.017 - Oman- (approx.)	5.33	72.75	
Position	07/20/2021 13:18	07/20/2021 13:19	Lat: 16.947, Lon: 54.004 - Raysut, Oman- (approx.)	6.54	64.69	

Event Type	Date of Occurrence	Received	Position	Temperature [°C]	Humidity [%]	Notes
Position	08/03/2021 13:21	08/03/2021 13:23	Lat: -4.049, Lon: 39.631 - Kenya- (approx.)	5.08	77.3	
Position	08/03/2021 16:21	08/03/2021 16:23	Lat: -4.046, Lon: 39.627 - Mombasa, Kenya- (approx.)	7.22	70.68	
High Temperature	08/03/2021 16:30	08/03/2021 16:31	Lat: -4.043, Lon: 39.624 - Kipevu, Mombasa, Kenya- (approx.)	7.51	69.54	
Position	08/03/2021 19:21	08/03/2021 19:23	Lat: -4.044, Lon: 39.622 - Kipevu, Mombasa, Kenya- (approx.)	6.49	70.53	
Normal Temperature	08/03/2021 19:21	08/03/2021 19:23	Lat: -4.044, Lon: 39.622 - Kipevu, Mombasa, Kenya- (approx.)	6.5	70.53	
Position	08/03/2021 22:21	08/03/2021 22:23	Lat: -4.044, Lon: 39.625 - Kipevu, Mombasa, Kenya- (approx.)	5.46	76.09	
Position	08/04/2021 01:21	08/04/2021 01:23	Lat: -4.043, Lon: 39.622 - Kipevu, Mombasa, Kenya- (approx.)	5.3	76.62	
Position	08/04/2021 04:21	08/04/2021 04:23	Lat: -4.043, Lon: 39.622 - Kipevu, Mombasa, Kenya- (approx.)	5.25	76.48	
Position	08/04/2021 07:22	08/04/2021 07:23	Lat: -4.044, Lon: 39.623 - Kipevu, Mombasa, Kenya- (approx.)	5.27	77.21	
Position	08/04/2021 10:22	08/04/2021 10:24	Lat: -4.046, Lon: 39.626 - Kipevu, Mombasa, Kenya- (approx.)	5.95	78	
Position	08/04/2021 13:22	08/04/2021 13:25	Lat: -4.043, Lon: 39.621 - Kipevu, Mombasa, Kenya- (approx.)	6.12	72.28	
Position	08/04/2021 16:22	08/04/2021 16:24	Lat: -4.043, Lon: 39.625 - Kipevu, Mombasa, Kenya- (approx.)	6.01	73.37	
Position	08/04/2021 19:22	08/04/2021 19:24	Lat: -4.043, Lon: 39.618 - Port Reitz, Kenya- (approx.)	5.44	75.37	
Position	08/04/2021 22:22	08/04/2021 22:24	Lat: -4.046, Lon: 39.622 - Unnamed Road, Mombasa, Kenya- (approx.)	5.38	75.62	
Position	08/05/2021 01:22	08/05/2021 01:24	Lat: -4.044, Lon: 39.623 - Kipevu, Mombasa, Kenya- (approx.)	5.3	75.36	
Position	08/05/2021 04:22	08/05/2021 04:24	Lat: -4.042, Lon: 39.621 - Kipevu, Mombasa, Kenya- (approx.)	5.19	76	
Position	08/05/2021 07:22	08/05/2021 07:25	Lat: -4.044, Lon: 39.621 - Unnamed Road, Mombasa, Kenya- (approx.)	5.26	75.76	
Position	08/05/2021 10:23	08/05/2021 10:25	Lat: -4.044, Lon: 39.621 - Unnamed Road, Mombasa, Kenya- (approx.)	5.82	74.05	
Position	08/05/2021 13:23	08/05/2021 13:25	Lat: -4.044, Lon: 39.618 - Port Reitz, Kenya- (approx.)	6.16	71.93	
Position	08/05/2021 16:23	08/05/2021 16:25	Lat: -4.043, Lon: 39.617 - Port Reitz, Kenya- (approx.)	5.96	72.35	
Position	08/05/2021 19:23	08/05/2021 19:25	Lat: -4.044, Lon: 39.622 - Kipevu, Mombasa, Kenya- (approx.)	5.48	75.03	
Position	08/05/2021 22:23	08/05/2021 22:25	Lat: -4.044, Lon: 39.621 - Kipevu, Mombasa, Kenya- (approx.)	5.4	76.04	
Position	08/06/2021 01:23	08/06/2021 01:25	Lat: -4.043, Lon: 39.617 - Port Reitz, Kenya-	5.39	76.02	

Event Type	Date of Occurrence	Received	Position	Temperature [°C]	Humidity [%]	Notes
Position	08/08/2021 13:26	08/08/2021 13:28	Lat: -3.651, Lon: 38.903 - Miasenyi, Kenya- (approx.)	5.67	70.54	
Position	08/08/2021 16:26	08/08/2021 16:28	Lat: -2.69, Lon: 38.162 - A109, Mtito Andei, Kenya- (approx.)	5.63	73.38	
Position	08/08/2021 19:26	08/08/2021 19:28	Lat: -2.137, Lon: 37.582 - Thithi, Kenya- (approx.)	7.44	67.95	
High Temperature	08/08/2021 19:28	08/08/2021 19:30	Lat: -2.114, Lon: 37.538 - Masimba, Kenya- (approx.)	7.52	67.96	
Normal Temperature	08/08/2021 22:08	08/08/2021 22:11	Lat: -1.439, Lon: 36.986 - Unnamed Road, Athi River, Kenya- (approx.)	6.46	64.8	
Position	08/08/2021 22:26	08/08/2021 22:28	Lat: -1.382, Lon: 36.932 - A104, Nairobi, Kenya- (approx.)	5.78	78.36	
Position	08/09/2021 01:26	08/09/2021 01:29	Lat: -0.58, Lon: 36.374 - Karati, Kenya- (approx.)	6.01	71.55	
High Temperature	08/09/2021 03:08	08/09/2021 03:10	Lat: -0.248, Lon: 35.92 - Ngata, Kenya- (approx.)	7.5	69.51	
Position	08/09/2021 04:26	08/09/2021 04:28	Lat: -0.102, Lon: 35.667 - Mau, Kenya- (approx.)	7.75	70.23	
Normal Temperature	08/09/2021 06:10	08/09/2021 06:12	Lat: 0.332, Lon: 35.369 - Cheptiret, Kenya- (approx.)	6.43	52.12	
Position	08/09/2021 07:26	08/09/2021 07:28	Lat: 0.602, Lon: 35.165 - Kamagut, Kenya- (approx.)	5.45	71.87	
Position	08/09/2021 10:26	08/09/2021 10:30	Lat: 0.599, Lon: 34.396 - Myanga/Syombe, Kenya- (approx.)	5.84	66.72	
Position	08/09/2021 13:27	08/09/2021 13:29	Lat: 0.629, Lon: 34.309 - Ikapolok, Kenya- (approx.)	5.69	72.71	
Position	08/09/2021 16:27	08/09/2021 16:29	Lat: 0.639, Lon: 34.26 - A109, Uganda- (approx.)	5.52	71.07	
Position	08/09/2021 19:27	08/09/2021 19:31	Lat: 0.637, Lon: 34.257 - Eastern Region, Uganda- (approx.)	5.04	82.18	
High Temperature	08/09/2021 21:51	08/09/2021 21:53	Lat: 0.639, Lon: 34.258 - Eastern Region, Uganda- (approx.)	7.51	67.78	
Position	08/09/2021 22:27	08/09/2021 22:29	Lat: 0.638, Lon: 34.256 - Eastern Region, Uganda- (approx.)	8.02	67.85	
Position	08/10/2021 01:27	08/10/2021 01:29	Lat: 0.638, Lon: 34.256 - Eastern Region, Uganda- (approx.)	8.82	69.51	
Position	08/10/2021 04:27	08/10/2021 04:29	Lat: 0.64, Lon: 34.26 - A109, Uganda- (approx.)	9.02	71.31	
Normal Temperature	08/10/2021 07:02	08/10/2021 07:05	Lat: 0.639, Lon: 34.258 - Eastern Region, Uganda- (approx.)	6.47	67.14	
Position	08/10/2021 07:27	08/10/2021 07:30	Lat: 0.638, Lon: 34.256 - Eastern Region, Uganda- (approx.)	5.67	75.24	
Position	08/10/2021 10:27	08/10/2021 10:29	Lat: 0.638, Lon: 34.256 - Eastern Region, Uganda- (approx.)	5.79	75.8	
Position	08/10/2021 13:27	08/10/2021 13:30	Lat: 0.639, Lon: 34.259 - Eastern Region, Uganda- (approx.)	5.42	76.15	
Position	08/10/2021 16:27	08/10/2021 16:30	Lat: 0.638, Lon: 34.257 - Eastern Region, Uganda- (approx.)	5.51	79.2	
Position	08/10/2021 19:28	08/10/2021 19:31	Lat: 1.095, Lon: 34.179 - Unnamed Road, Mbale, Uganda- (approx.)	5.05	69.8	

Event Type	Date of Occurrence	Received	Position	Temperature [°C]	Humidity [%]	Notes
High Temperature	08/15/2021 19:22	09/21/2021 01:42	Lat: 4.869, Lon: 31.591 - Kirralee Cl, Juba, South Sudan- (approx.)	8.63	93.43	
High Temperature	08/15/2021 19:22	08/15/2021 19:27	Lat: 4.869, Lon: 31.592 - Kirralee Cl, Juba, South Sudan- (approx.)	8.63	93.43	
Position	08/15/2021 19:33	09/21/2021 01:42	Lat: 4.871, Lon: 31.589 - Unnamed Road, Juba, South Sudan- (approx.)	12.43	95.03	
Device Detached	08/15/2021 20:00	09/21/2021 01:42	Lat: 4.872, Lon: 31.591 - Terminal Dr, Juba, South Sudan- (approx.)	12.13	95.75	
Device Detached	08/15/2021 20:00	08/15/2021 20:05	Lat: 4.873, Lon: 31.59 - Terminal Dr, Juba, South Sudan- (approx.)	12.13	95.75	

Charts



Plotted measure(s)

Temperature

Search Since

06/18/2021



12

: 00

AM



Until

08/15/2021



11

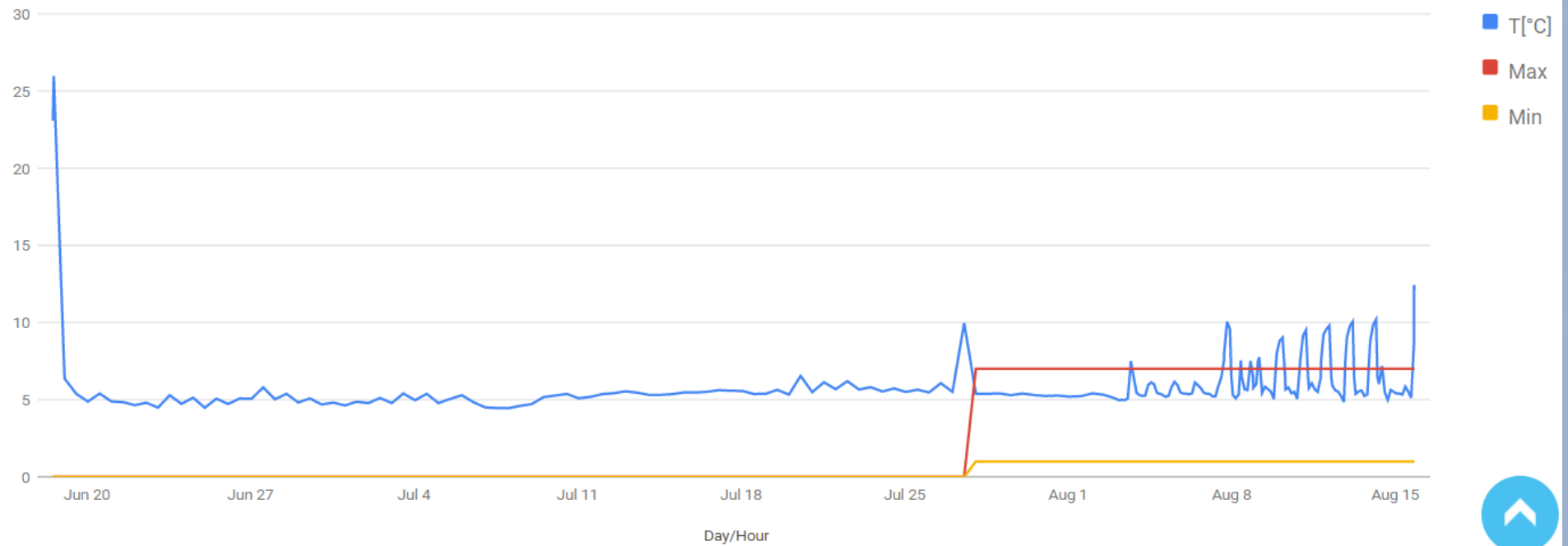
: 59

PM



Charts

Number of found elements: 219





Event Type	Trsp. Ref.	Occurence Date	Position
Position	TBD.19045000002695	17/06/2019 18:50	Lat: 51.3987132413793, Lon: 6.74199104137931 - Rotterdamer Str. 47, 47229 Duisburg, Germany- (approx.)
Open Door	TBD.19045000002695	17/06/2019 17:42	Lat: 51.39931774, Lon: 6.74379831666667 - Rotterdamer Str. 47, 47229 Duisburg, Germany- (approx.)
Position	TBD.19045000002695	17/06/2019 14:50	Lat: 51.0953273, Lon: 6.9884873 - E35, 40764 Langenfeld (Rheinland), Germany- (approx.)

Plotted measure(s)

Humidity

Search Since

06/01/2018

12

: 00

AM

Until

12/25/2019

11

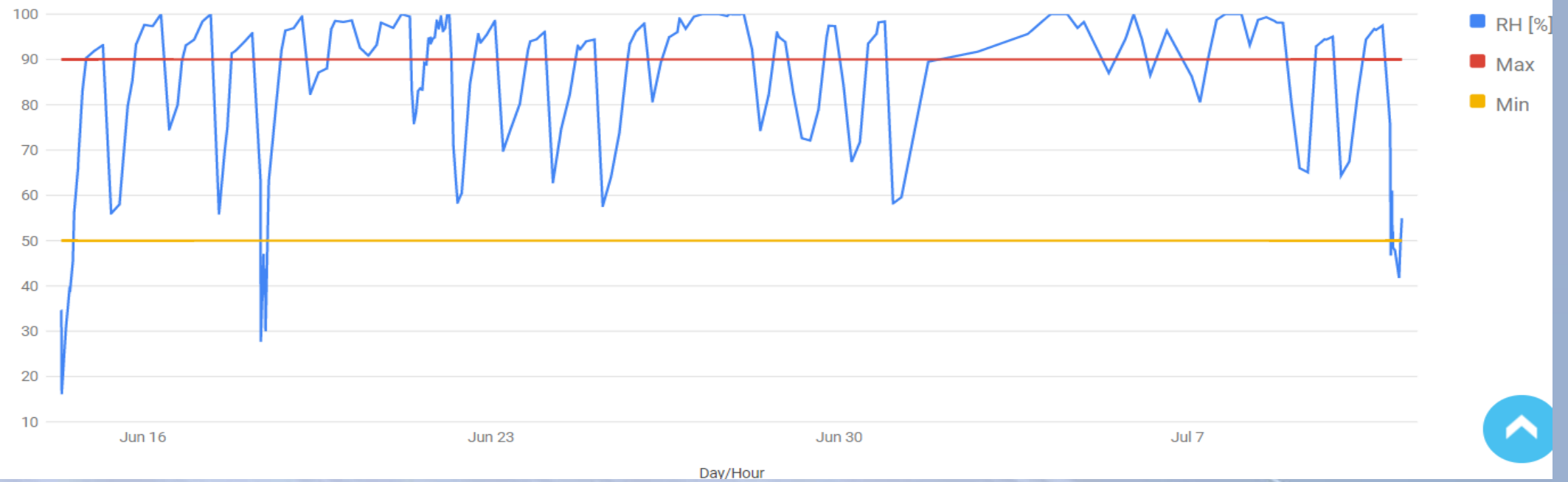
: 59

PM



Charts

Number of found elements: 361



SICUREZZA

**Perché tracciare le merci
spedite?**

QUALITÀ CONTROLLATA GARANTITA

CONTROLLO E GESTIONE TEMPI E SCORTE

CONTENIMENTO COSTI ASSICURATIVI

VALORE AGGIUNTO

Grazie per l' attenzione

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+39 345 79 30 832



