

Educational Media Foundation

5700 West Oaks Boulevard ♦ Rocklin ♦ California ♦ 95765

Exhibit 18

Modesto, CA

Channel Study

REFERENCE		CH# 213A - 90.5 MHz, Pwr= 5 kW, HAAT= 38.0 M, COR= 62 M								DISPLAY DATES	
37 36 28.0 N.		Average Protected F(50-50)= 16.9 km								DATA	02-07-17
120 57 27.0 W.		Omni-directional								SEARCH	02-07-17
CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
213A Modesto	KLXF!	LIC	CX CA	0.0 0.0	0.00 BLED20161128ADP	37 36 28.0 120 57 27.0	1.500 38	44.1 62	11.9 Educational Media Foundati	-60.3	-78.7
215A Turlock	KBDG	LIC	DCX CA	142.4 322.5	12.73 BLED20110523AEO	37 31 01.0 120 52 10.0	0.730 12	0.5 41	4.6 Assyrian American Civic Cl	-4.2*	6.5
213C Tahoe City	KKTO	LIC	VN CA	25.9 206.6	210.97 BLED19970902KB	39 18 38.0 119 53 01.0	38.000 896	193.7 2977	92.0 California State Universit	1.9	54.0
211B Stockton	KYCC	LIC	DCX CA	323.9 143.7	48.27 BLED20080930ATZ	37 57 30.0 121 16 55.0	41.000 107	4.7 116	43.2 Your Christian Companion N	25.8	3.2
*214B1 Tracy	KYKL.P	LIC	DCX CA	264.9 84.5	57.45 BLED20040622ABH	37 33 37.0 121 36 19.0	0.140 532	36.1 1132	23.5 Educational Media Foundati	3.4	7.4
213A San Jose	KSJS	LIC	DC CA	238.7 58.2	84.82 BLED20010928AAK	37 12 33.0 121 46 30.0	1.500 144	28.6 396	8.5 San Jose State University	38.0	5.6
213A Concord	KVHS	LIC	CX CA	297.5 116.8	103.14 BLED20020430AAA	38 01 49.0 122 00 03.0	0.410 137	43.5 209	12.5 Clayton Valley High School	41.7	20.3
214A San Andreas	KQBM	LIC	DEX CA	34.8 215.0	56.28 BLED20140218AAR	38 01 23.0 120 35 26.0	0.100 475	18.2 873	11.7 Blue Mountain Coalition Fo	23.1	22.2
210B Le Grand	KEFR	LIC	CN CA	95.5 276.0	82.30 BLED19910610KB	37 32 01.0 120 01 50.0	1.800 653	2.8 1330	53.7 Family Stations, Inc.	64.0	27.1
212B Fresno	KFNO	LIC	DCX CA	113.3 294.2	147.68 BLED20060103AFV	37 04 25.0 119 25 52.0	2.200 594	88.5 1424	59.7 Family Stations, Inc.	43.7	65.0
214A Hollister	KHRI	CP	DCX CA	205.5 25.3	91.06 BPED20160817AAG	36 52 02.0 121 23 58.0	5.000 -99	14.7 102	10.5 Educational Media Foundati	57.5	52.8
214A Hollister	KHRI	LIC	CX CA	205.5 25.3	91.06 BLED20080702AFE	36 52 02.0 121 23 58.0	0.170 -111	9.2 102	6.4 Educational Media Foundati	63.0	56.9
212B1 Pacific Grove	KAZU	LIC	CX CA	212.4 31.9	138.46 BLED20160223ABC	36 33 08.8 121 47 17.2	3.100 189	58.5 406	39.3 University Corporation At	61.2	71.7
210A Morgan Hill	KHCF	LIC	HX CA	225.8 45.4	80.96 BLED20131017APM	37 05 55.3 121 36 43.4	0.160 -178	0.9 104	6.3 Common Frequency, Inc.	61.7	72.7
216B Fairmead	KLKY	LIC	CX CA	114.9 295.6	125.27 BLED20100401AHV	37 07 40.0 119 40 39.0	39.000 170	7.0 621	58.7 Educational Media Foundati	102.8	65.0

Terrain database is FCC NGDC 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference Zone= - Zone 1A, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
""affixed to 'IN' or 'OUT' values = site inside restricted contour.
« = Station meets FCC minimum distance spacing for its class.

*Note: The facility contemplated herein is being filed contingently with an application for KYKL, Tracy, California according to the guidelines of 47 C.F.R. 73.3517(e). The proposed contingent facility is marked with a "P" following the call sign.

Request for Waiver of 47 C.F.R. Section 73.509

Educational Media Foundation ("EMF") desires to increase the power and service area of station KLXF, Modesto, CA. In order to accomplish this, KLXF will receive interference from the licensed facilities of KBDG, Turlock, CA. While this proposal will create an area of interference, the amount is de minimus.

KLXF's proposed protected contour would, receive prohibited overlap from KBDG. The area of "overlap received" from will be approximately:

Call Sign (or File #)	Square kM	Total area of KLXF's proposed 60 dBu
KBDG	4.8	0.53%

The grant of this waiver request will allow KLXF to increase its overall coverage area by 415.1 square kilometers, an increase of 84.65%. It will provide new service to an estimated 99,967 persons, an increase of 32.12%. This waiver request is nearly identical to the requests made by the licensees of WCPE(FM) and WCCE(FM) in Educational Information Corporation, 6 FCC Rcd 2207 (1991). WCPE(FM) requested a waiver in its application to permit *de minimus* overlap "received," and WCCE(FM) requested a waiver in its application to permit *de minimus* overlap "caused." In recognition of the importance of affording noncommercial educational stations the flexibility to expand and meet the growing demand for service, the Commission granted both waiver requests. The instant request fully satisfies the criteria established by the Commission for waiver of Section 73.509 of the Commission's rules as it pertains to overlap received.

Significant service will be maintained and enhanced by the proposed expansion of KLXF, and the overlap area is very small and well within the scope of the Commission's waiver policy. Clearly, this benefit outweighs the potential for interference in an area that constitutes less than 1% (total) of the station's proposed service area. Accordingly EMF respectfully submits that a waiver of Section 73.509(a) of the Commission's rules is justified in this instance.

Exhibit 18-C

FMCommander Single Allocation Study - 03-01-2017 - FCC NGDC 30 Sec
KLXF.P's Overlaps (In= 1.92 km, Out= 54.03 km)

KLXF.P CH 213 A

Lat= 37 36 28.0, Lng= 120 57 27.0

5.0 kW 38 m HAAT, 62 m COR

Prot.= 60 dBu, Intef.= 40 dBu

KKTO CH 213 C BLED19970902KB

Lat= 39 18 38.0, Lng= 119 53 01.0

38.0 kW 896 m HAAT, 2977 m COR

Prot.= 60 dBu, Intef.= 40 dBu

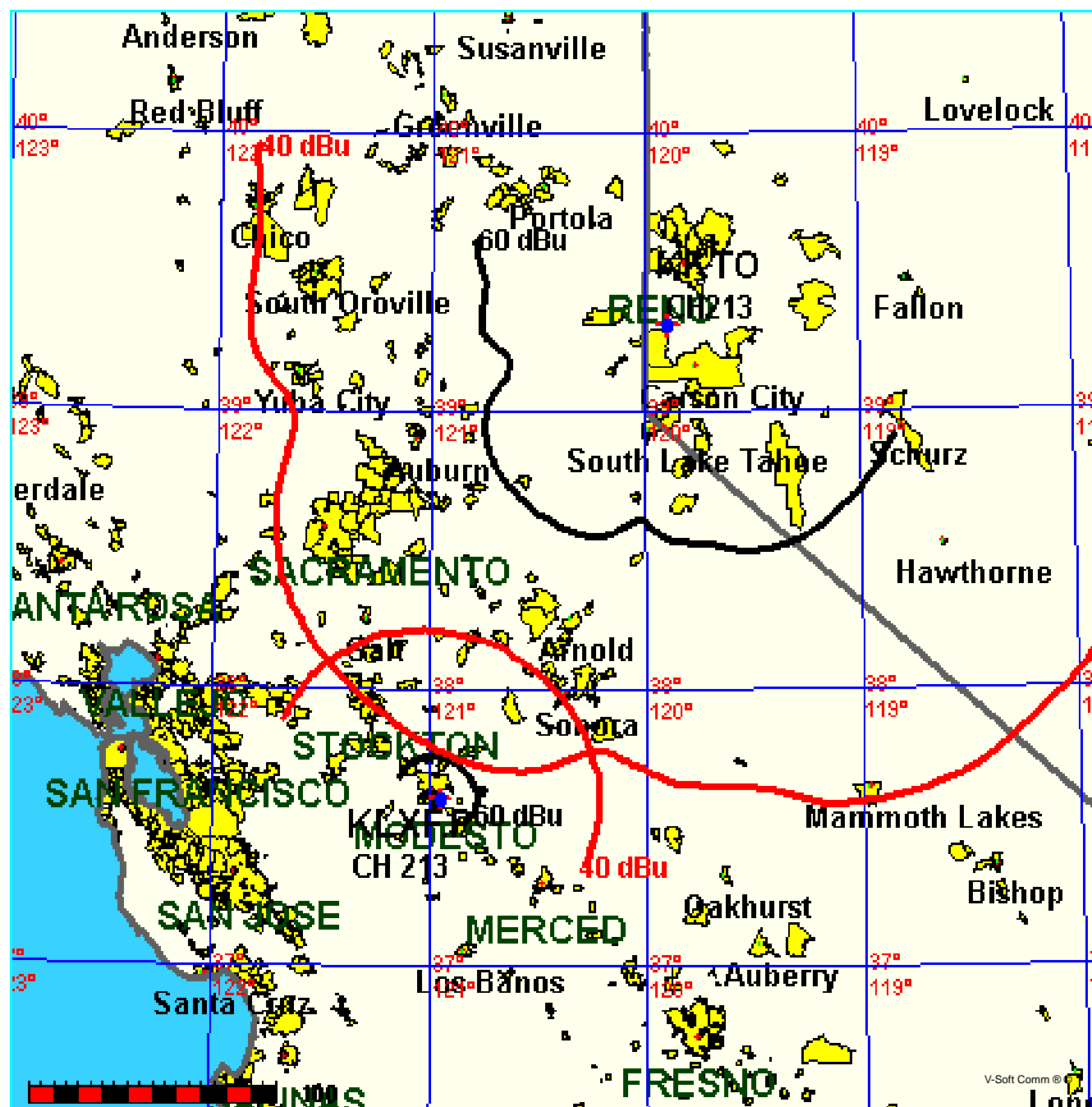


Exhibit 18-D

FMCommander Single Allocation Study - 03-01-2017 - FCC NGDC 30 Sec
KLXF.P's Overlaps (In= 3.39 km, Out= 7.43 km)

KLXF.P CH 213 A

Lat= 37 36 28.0, Lng= 120 57 27.0

5.0 kW 38 m HAAT, 62 m COR

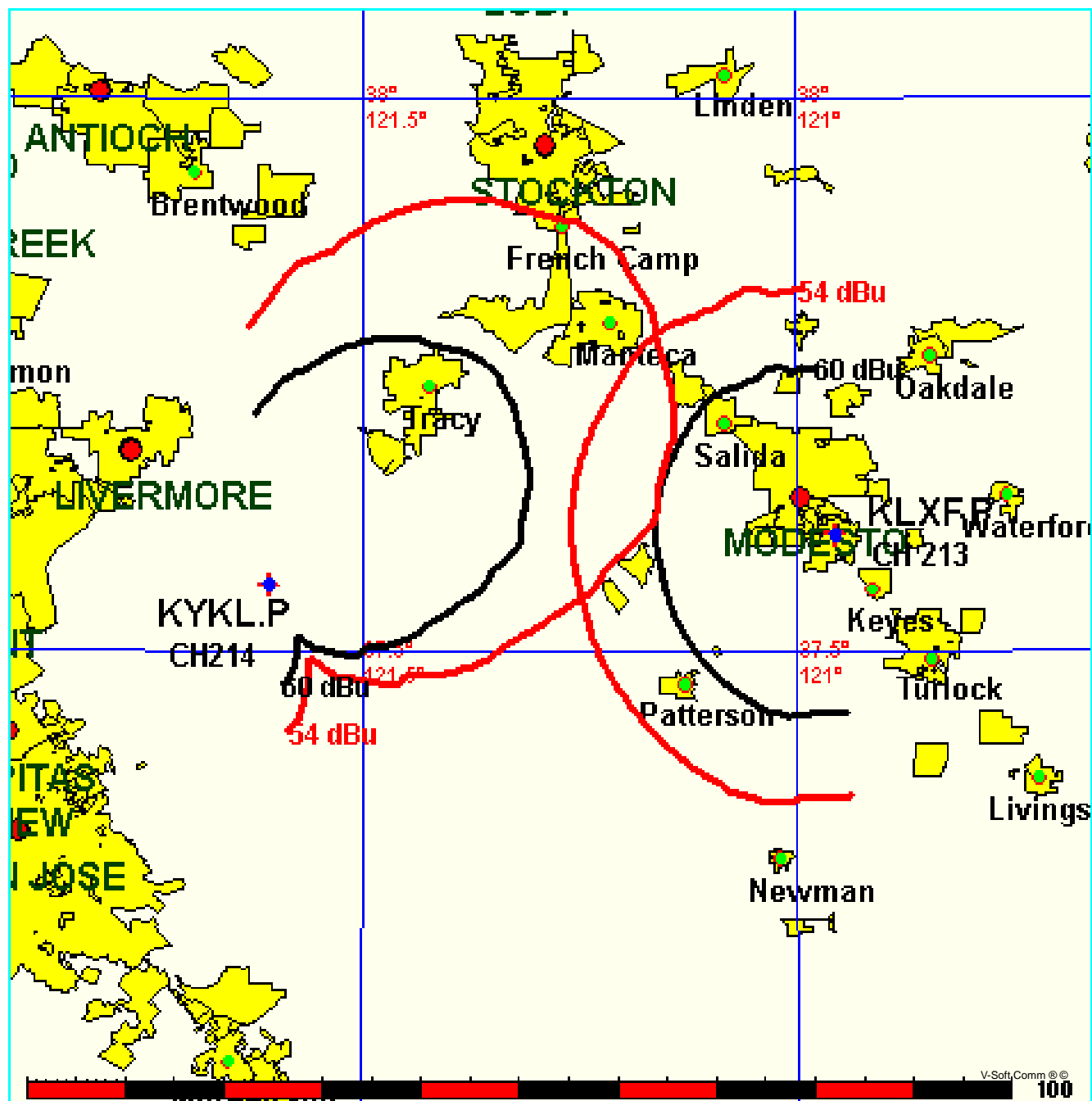
Prot.= 60 dBu, Intef.= 54 dBu

KYKL-P CH 214 B1 DA BLED20040622ABH

Lat= 37 33 37.0, Lng= 121 36 19.0

0.14 kW 532 m HAAT, 1132 m COR

Prot.= 60 dBu, Intef.= 54 dBu



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Exhibit 18-D

Modesto, CA

KYKL vs. KLXF.P

03-01-2017 Terrain Data: FCC NGDC 30 Sec FMOver Analysis

KLXF.P

KYKL BLED20040622ABH

Channel = 213A
Max ERP = 5 kW
RCAMSL = 62 m
N. Lat. 37 36 28.0
W. Lng. 120 57 27.0
Protected
60 dBu

Channel = 214B1
Max ERP = 0.14 kW
RCAMSL = 1132 m
N. Lat. 37 33 37.0
W. Lng. 121 36 19.0
Interfering
54 dBu

Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Azi muth (degrees)	ERP (kW)	HAAT (m)	Di st (km)	Actual (dBu)	I X (km)
265.0	005.0000	0042.5	018.0	084.5	000.1000	0510.1	039.4	52.57	
266.0	005.0000	0042.6	018.0	084.0	000.1020	0514.9	039.4	52.75	
267.0	005.0000	0042.7	018.0	083.6	000.1041	0519.4	039.4	52.93	
268.0	005.0000	0042.7	018.1	083.1	000.1062	0524.3	039.4	53.11	
269.0	005.0000	0042.8	018.1	082.6	000.1084	0528.7	039.4	53.28	
270.0	005.0000	0042.8	018.1	082.2	000.1105	0533.0	039.4	53.44	
271.0	005.0000	0042.9	018.1	081.7	000.1127	0537.1	039.5	53.59	
272.0	005.0000	0042.9	018.1	081.3	000.1149	0540.3	039.5	53.71	
273.0	005.0000	0042.9	018.1	080.8	000.1171	0542.5	039.6	53.81	
274.0	005.0000	0042.9	018.1	080.4	000.1193	0543.9	039.6	53.89	
275.0	005.0000	0042.9	018.1	079.9	000.1212	0545.1	039.7	53.95	
276.0	005.0000	0042.9	018.1	079.5	000.1220	0546.1	039.8	53.96	
277.0	005.0000	0042.9	018.1	079.0	000.1228	0547.0	039.9	53.97	
278.0	005.0000	0042.9	018.1	078.6	000.1236	0547.9	040.0	53.98	
279.0	005.0000	0042.9	018.1	078.2	000.1244	0548.7	040.1	53.97	
280.0	005.0000	0042.9	018.1	077.8	000.1251	0549.2	040.2	53.96	
281.0	005.0000	0043.0	018.1	077.3	000.1259	0549.6	040.3	53.95	
282.0	005.0000	0043.0	018.1	076.9	000.1267	0550.1	040.4	53.93	
283.0	005.0000	0043.0	018.1	076.5	000.1274	0550.5	040.6	53.91	
284.0	005.0000	0043.0	018.1	076.1	000.1281	0550.9	040.7	53.89	
285.0	005.0000	0043.0	018.1	075.7	000.1289	0551.8	040.9	53.87	
286.0	005.0000	0043.0	018.1	075.4	000.1296	0553.3	041.0	53.86	
287.0	005.0000	0042.9	018.1	075.0	000.1303	0555.3	041.2	53.85	
288.0	005.0000	0042.9	018.1	074.6	000.1309	0557.7	041.4	53.84	
289.0	005.0000	0042.8	018.1	074.3	000.1316	0560.2	041.6	53.84	
290.0	005.0000	0042.8	018.1	073.9	000.1323	0562.9	041.8	53.83	
291.0	005.0000	0042.7	018.1	073.6	000.1329	0565.5	042.0	53.82	
292.0	005.0000	0042.6	018.0	073.3	000.1335	0568.0	042.2	53.81	
293.0	005.0000	0042.6	018.0	072.9	000.1341	0570.4	042.4	53.78	
294.0	005.0000	0042.5	018.0	072.6	000.1347	0572.7	042.6	53.76	
295.0	005.0000	0042.4	018.0	072.3	000.1353	0574.9	042.8	53.73	
296.0	005.0000	0042.4	018.0	072.0	000.1358	0577.1	043.0	53.70	
297.0	005.0000	0042.3	018.0	071.7	000.1364	0579.3	043.3	53.67	
298.0	005.0000	0042.3	018.0	071.5	000.1369	0581.6	043.5	53.64	
299.0	005.0000	0042.3	018.0	071.2	000.1375	0584.0	043.7	53.60	
300.0	005.0000	0042.3	018.0	070.9	000.1380	0586.3	043.9	53.57	
301.0	005.0000	0042.4	018.0	070.6	000.1385	0588.7	044.2	53.54	
302.0	005.0000	0042.4	018.0	070.3	000.1391	0591.1	044.4	53.50	
303.0	005.0000	0042.5	018.0	070.1	000.1396	0593.5	044.6	53.47	
304.0	005.0000	0042.6	018.0	069.8	000.1397	0596.0	044.9	53.42	
305.0	005.0000	0042.7	018.1	069.6	000.1397	0598.5	045.1	53.36	
306.0	005.0000	0042.8	018.1	069.3	000.1397	0601.0	045.4	53.31	
307.0	005.0000	0042.9	018.1	069.1	000.1397	0603.5	045.6	53.25	

Educational Media Foundation

Exhibit 18-D

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308.0	005.0000	0043.0	018.1	068.8	000.1397	0606.0	045.9	53.19
309.0	005.0000	0043.1	018.1	068.6	000.1397	0608.3	046.1	53.12
310.0	005.0000	0043.2	018.2	068.4	000.1397	0610.4	046.4	53.06
311.0	005.0000	0043.3	018.2	068.2	000.1397	0612.5	046.7	52.98
312.0	005.0000	0043.4	018.2	068.0	000.1397	0614.3	046.9	52.91
313.0	005.0000	0043.4	018.2	067.8	000.1397	0616.0	047.2	52.83
314.0	005.0000	0043.5	018.2	067.6	000.1397	0617.5	047.5	52.74
315.0	005.0000	0043.5	018.2	067.5	000.1397	0618.8	047.8	52.65
316.0	005.0000	0043.5	018.2	067.3	000.1397	0620.0	048.1	52.56
317.0	005.0000	0043.5	018.2	067.2	000.1397	0620.9	048.4	52.47
318.0	005.0000	0043.4	018.2	067.1	000.1397	0621.7	048.7	52.37
319.0	005.0000	0043.2	018.2	067.0	000.1397	0622.4	049.0	52.26
320.0	005.0000	0043.1	018.1	066.9	000.1397	0622.9	049.3	52.16