

KIC 007198846

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007198846-01	OBS	No	0.566803	131.710994	526.9	1.500	9.7	-1.0	1.44	5513	3.27	9783.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007198846-01	OBS	FP	0.00	1	0	0	1	LPP_DV—LPP_ALT—CENT_NOFITS—EPHEM_MATCH

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

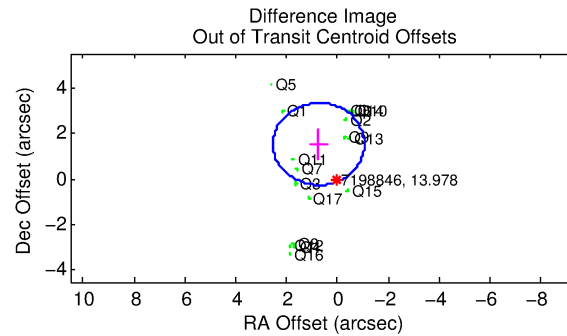
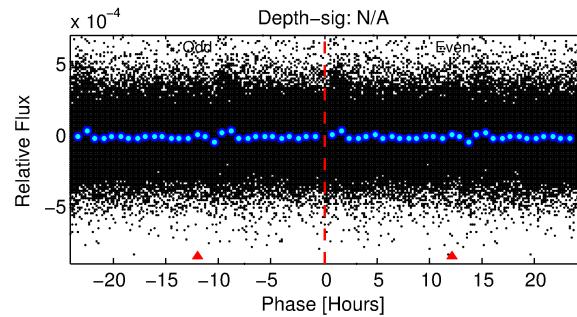
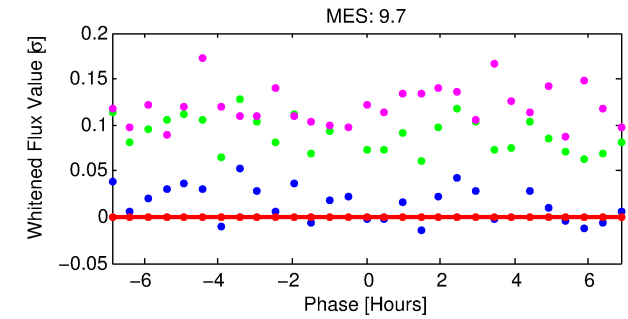
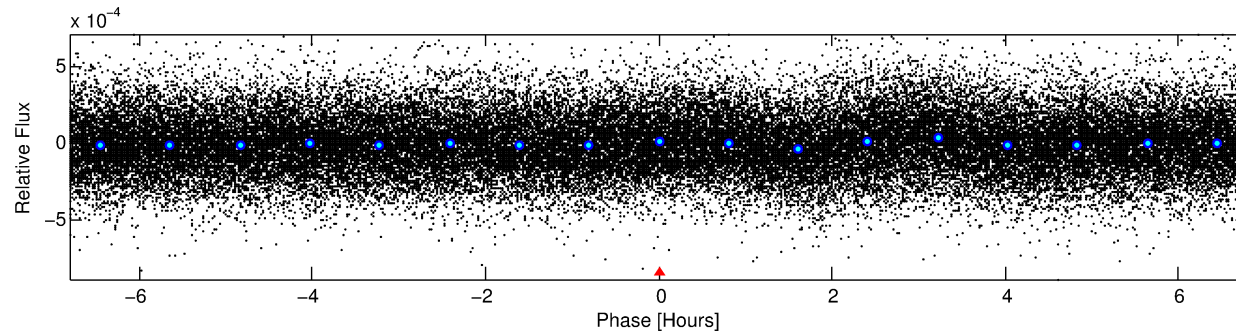
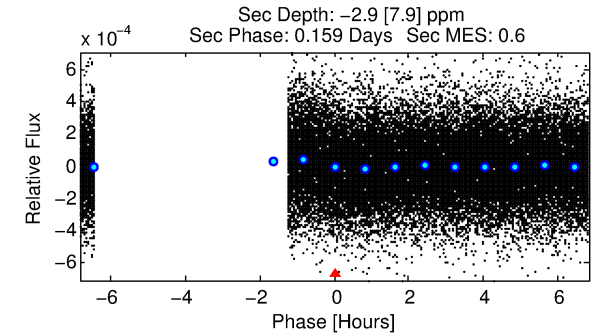
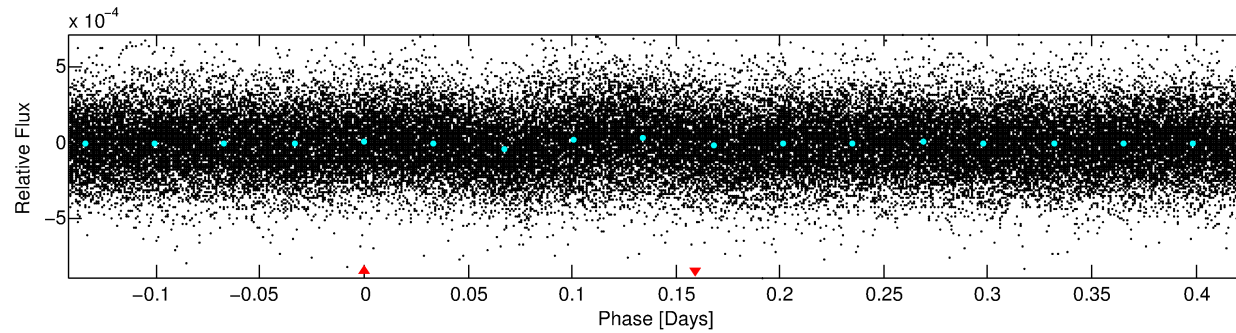
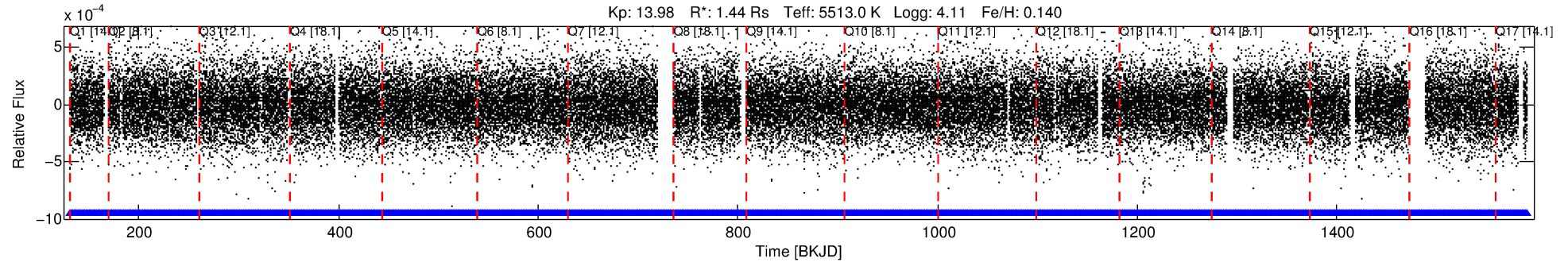
Ephemeris Match Information For 007198846-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
007198846-01	7198846	RR-Lyr-pri	7198959	1:1	124.3	10	-30	7.86	13.98	1182.70	Direct-PRF	0	4.96	15.36

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7198846 Candidate: 1 of 1 Period: 0.567 d



TPS TCE Results:

Period = 0.56680 d
Epoch = 131.7110 BKJD

DV fit results are unavailable

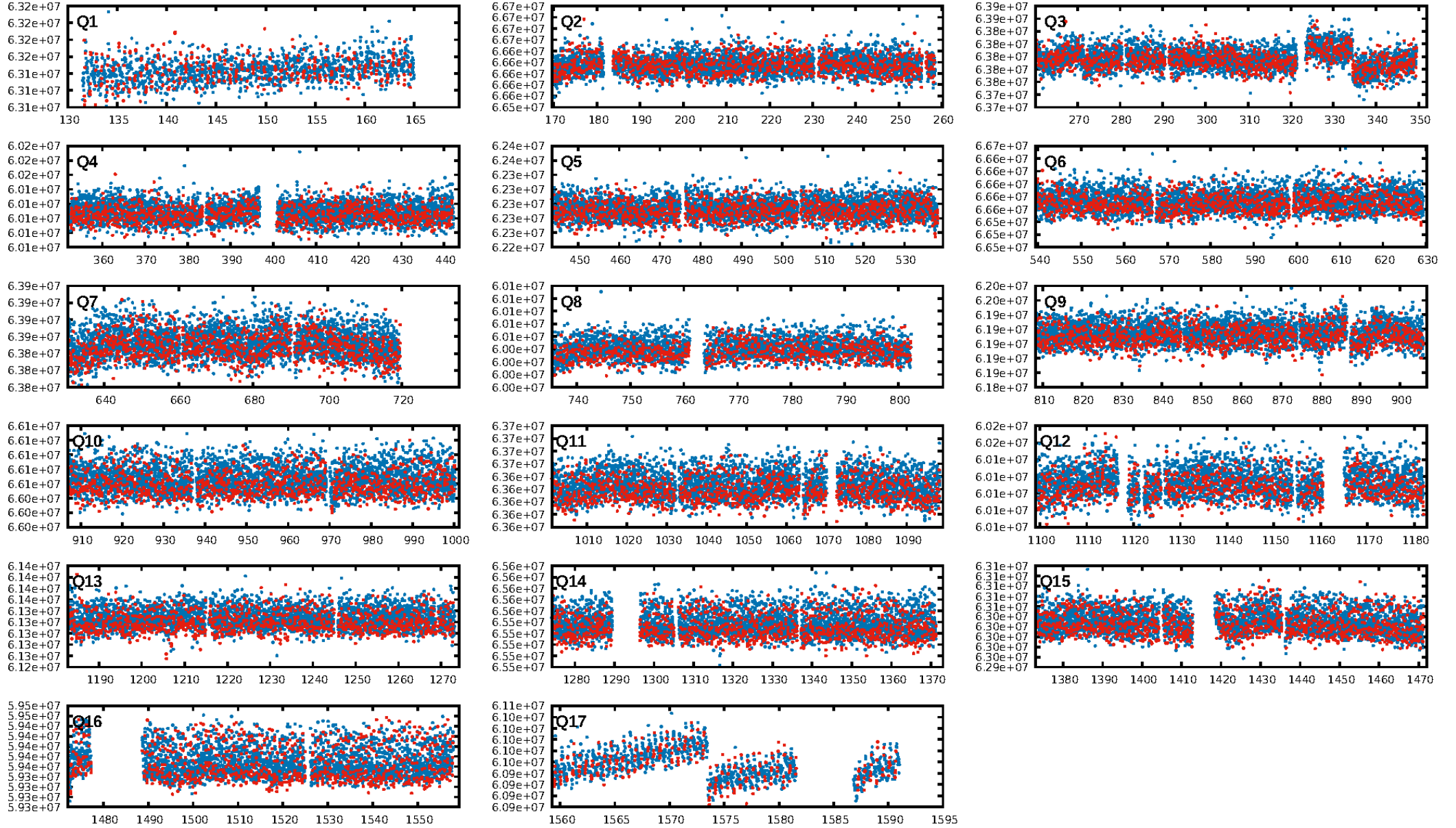
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.93e-22
RollingBand-fgt: 1.00 [2266/2266]
GhostDiagnostic-chr: -0.3118
Centroid-sig: 0.2%
Centroid-so: 0.409 arcsec [4.03σ]
OotOffset-rm: 1.704 arcsec [2.85σ]
KicOffset-rm: 1.806 arcsec [3.04σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.18 [3/17]
DiffImageOverlap-fno: 1.00 [17/17]

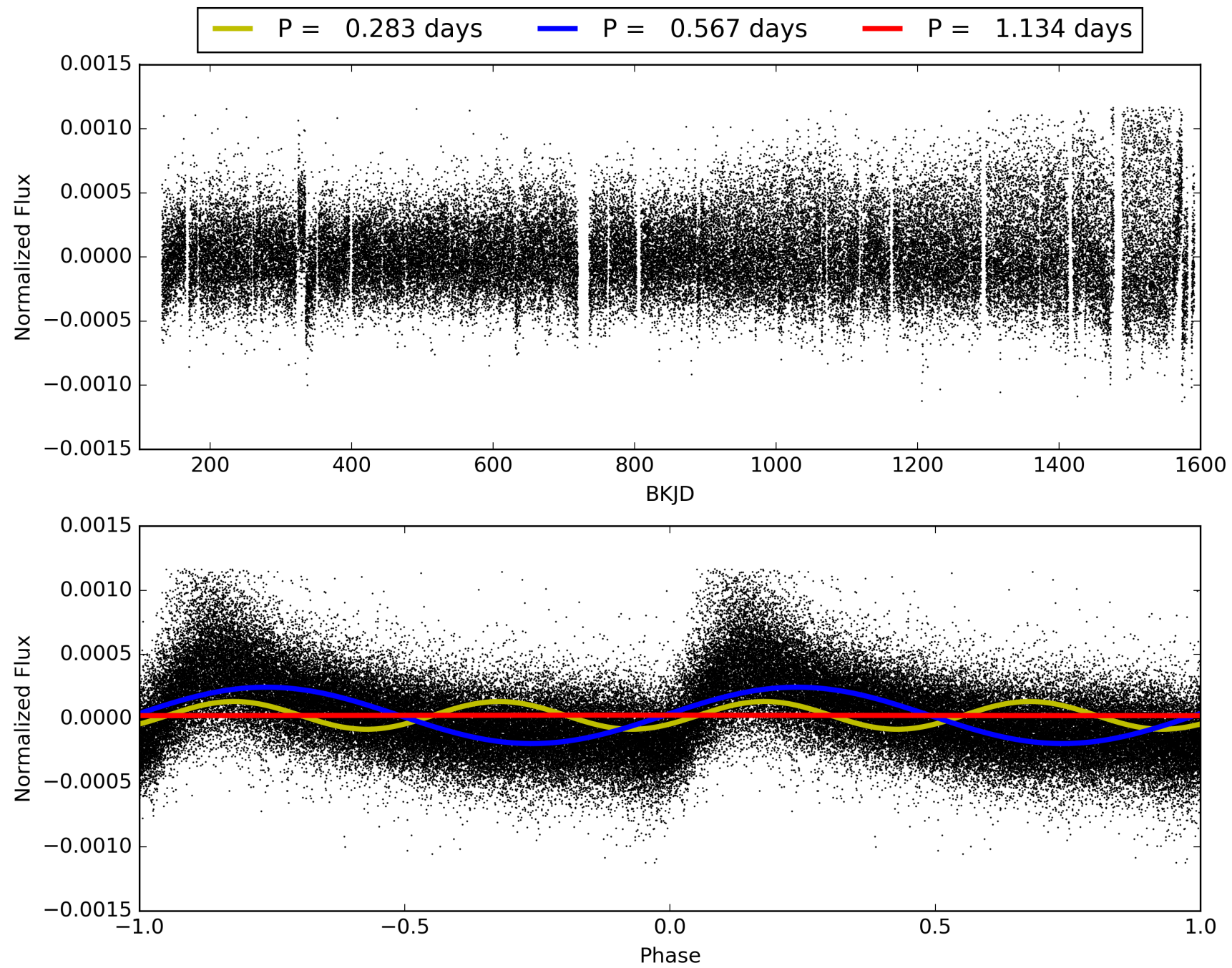
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:06:33 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007198846-01, PDC Light Curves

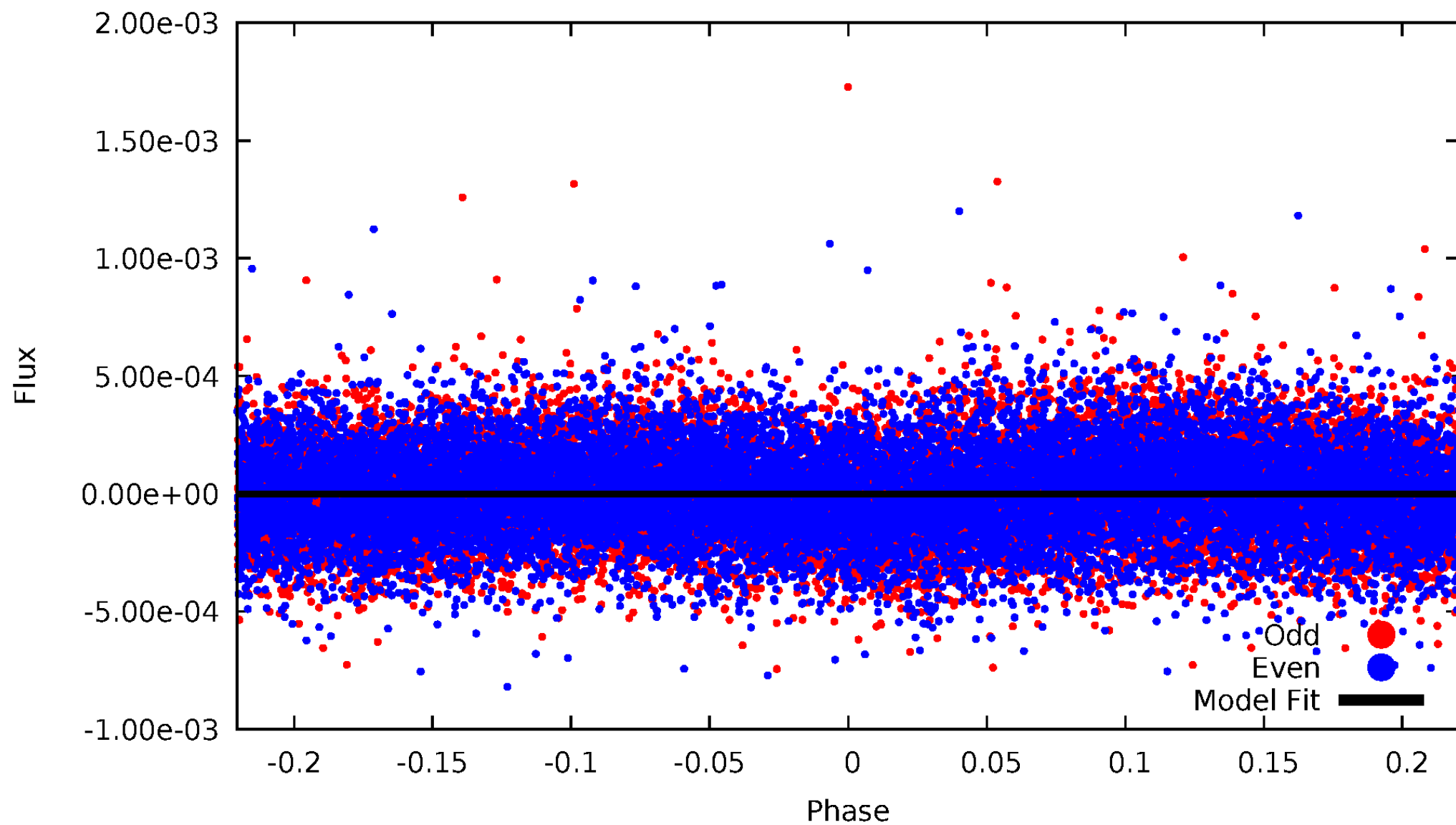


TCE 007198846-01



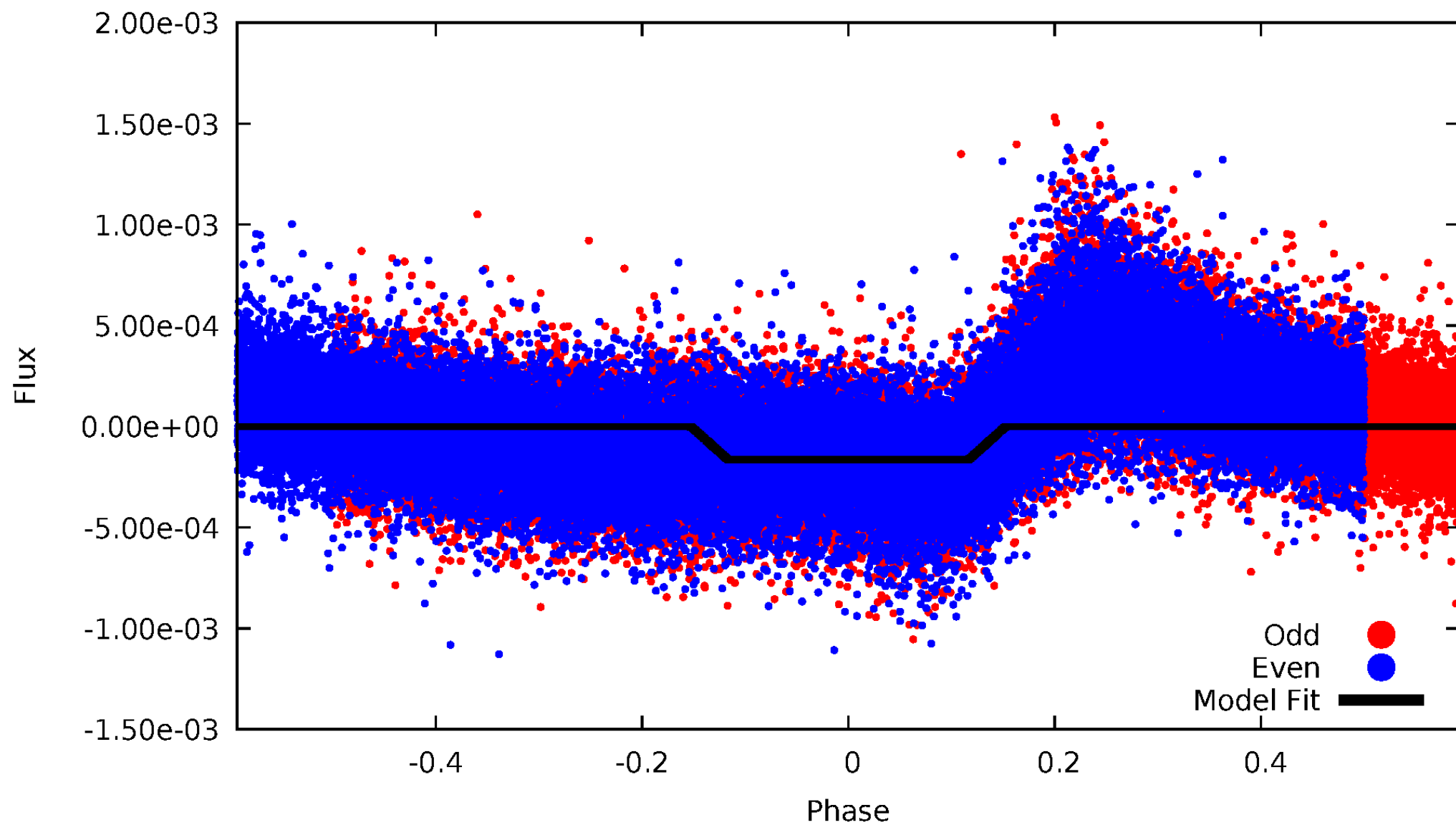
DV Odd/Even

TCE 007198846-01

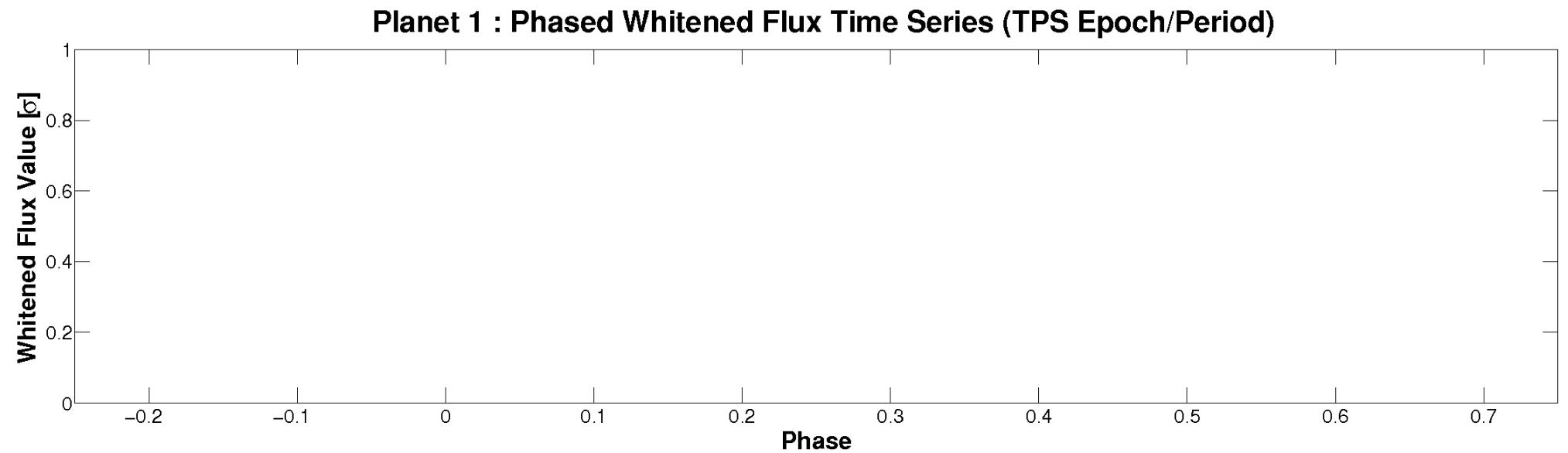
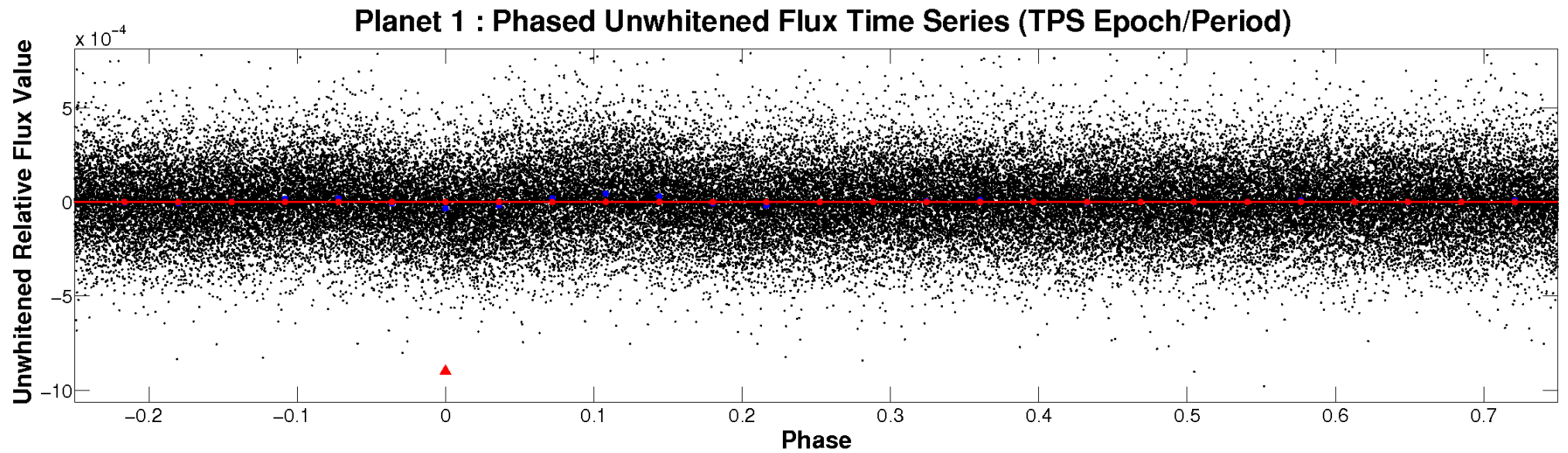


ALT Odd/Even

TCE 007198846-01

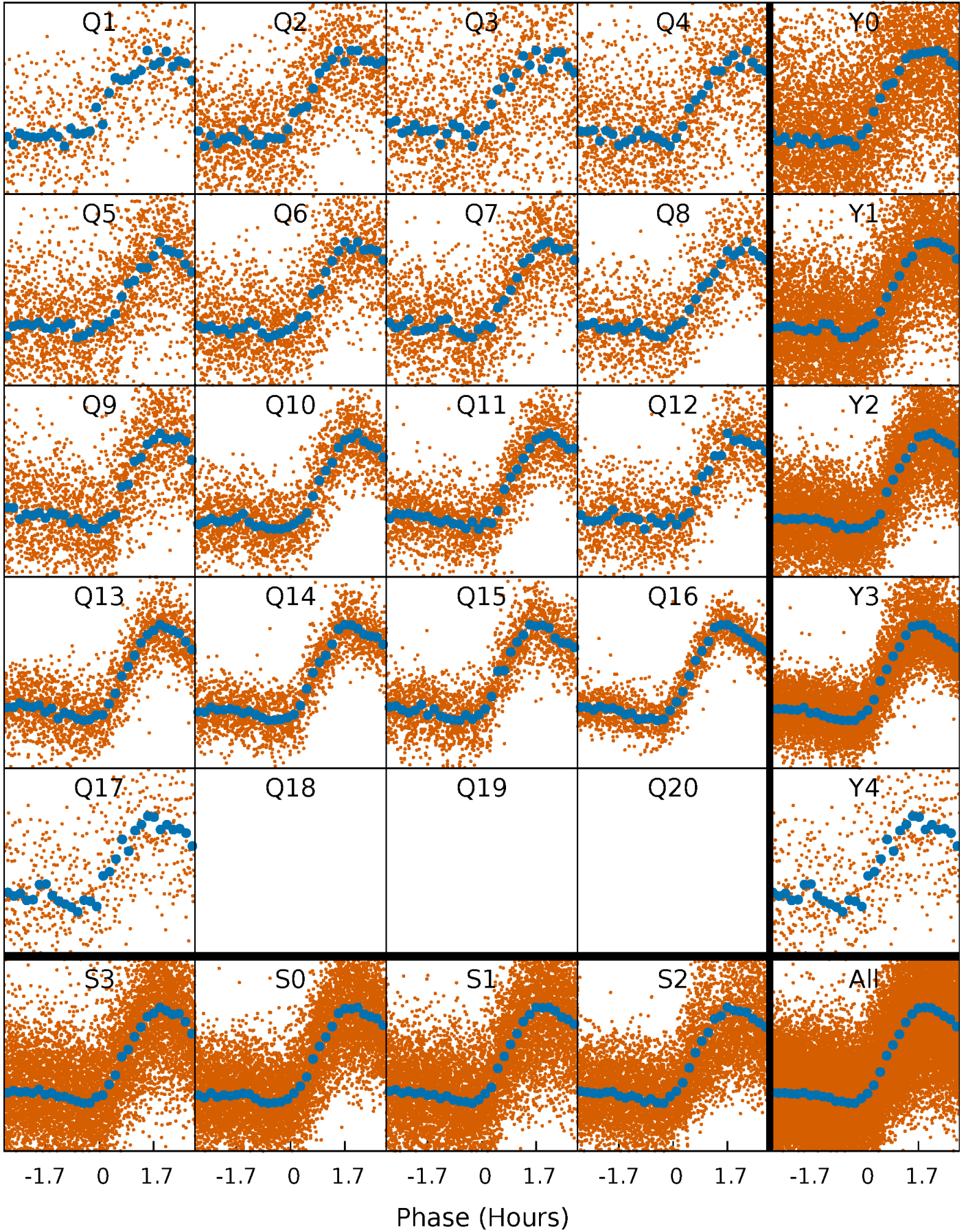


Non-Whitened Vs. Whitened Light Curve



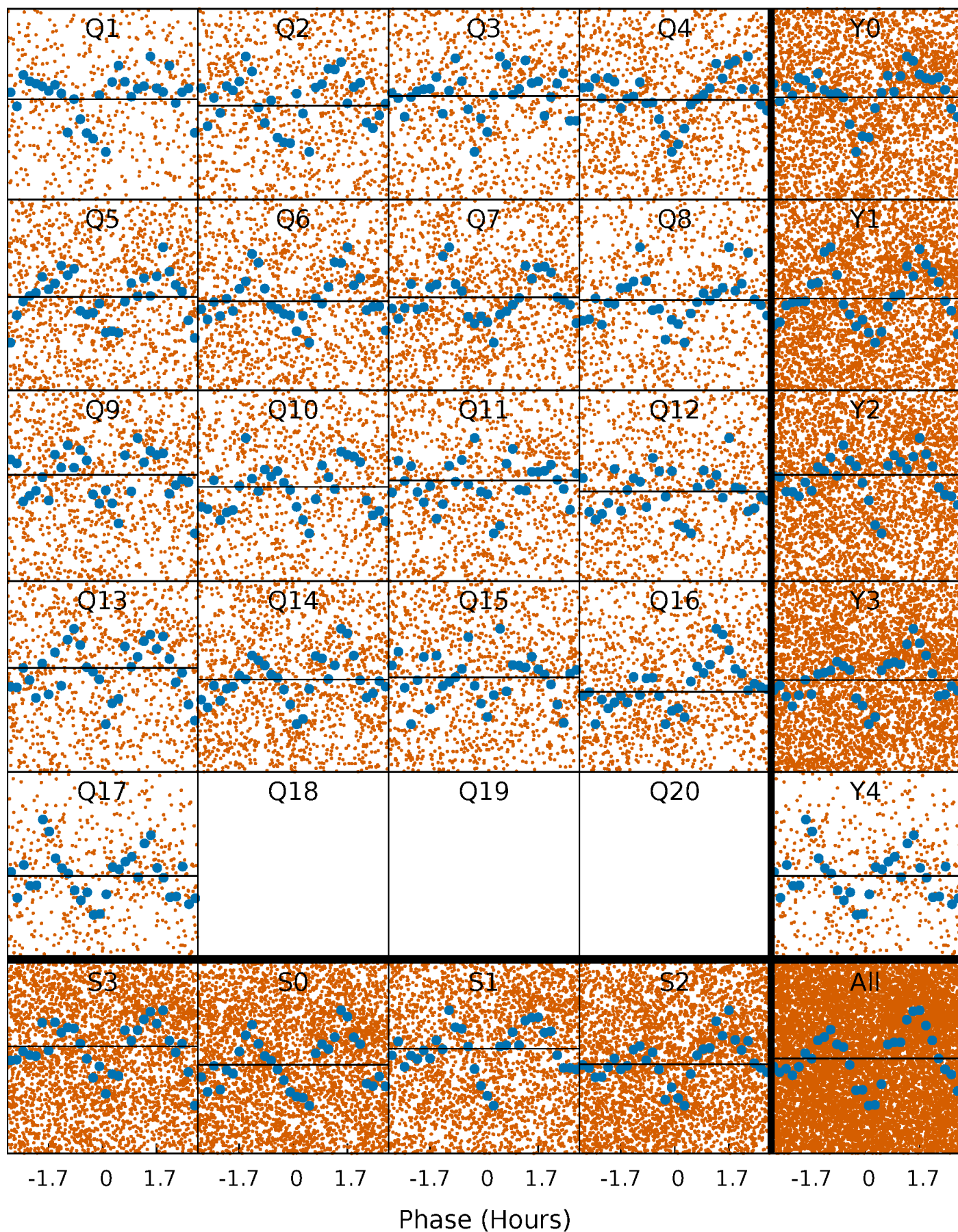
PDC Quarter-Phased Transit Curves

TCE 007198846-01 P= 0.566803 Days $T_0=131.710994$ (BKJD)



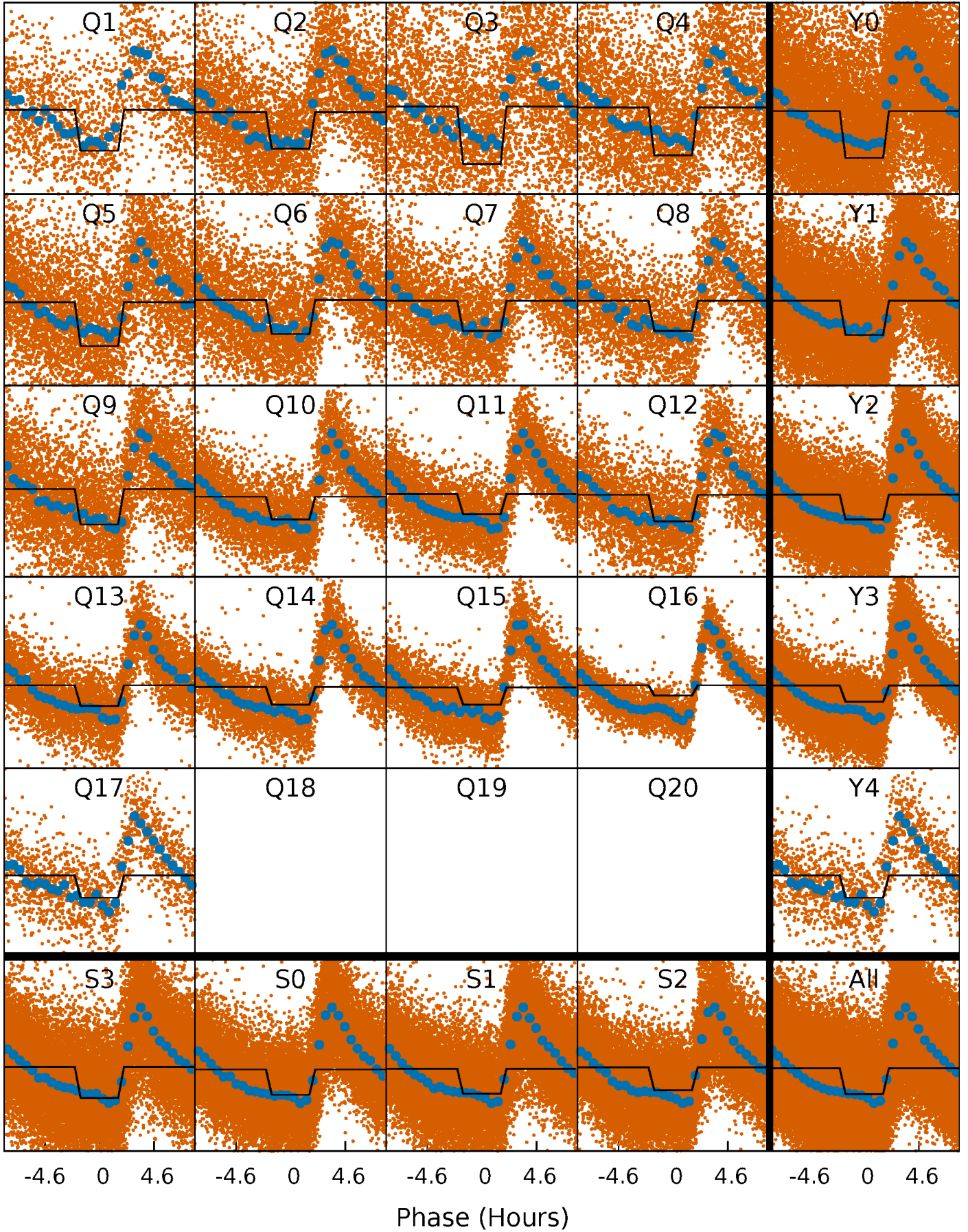
DV Quarter-Phased Transit Curves

TCE 007198846-01 P= 0.566803 Days $T_0=131.710994$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

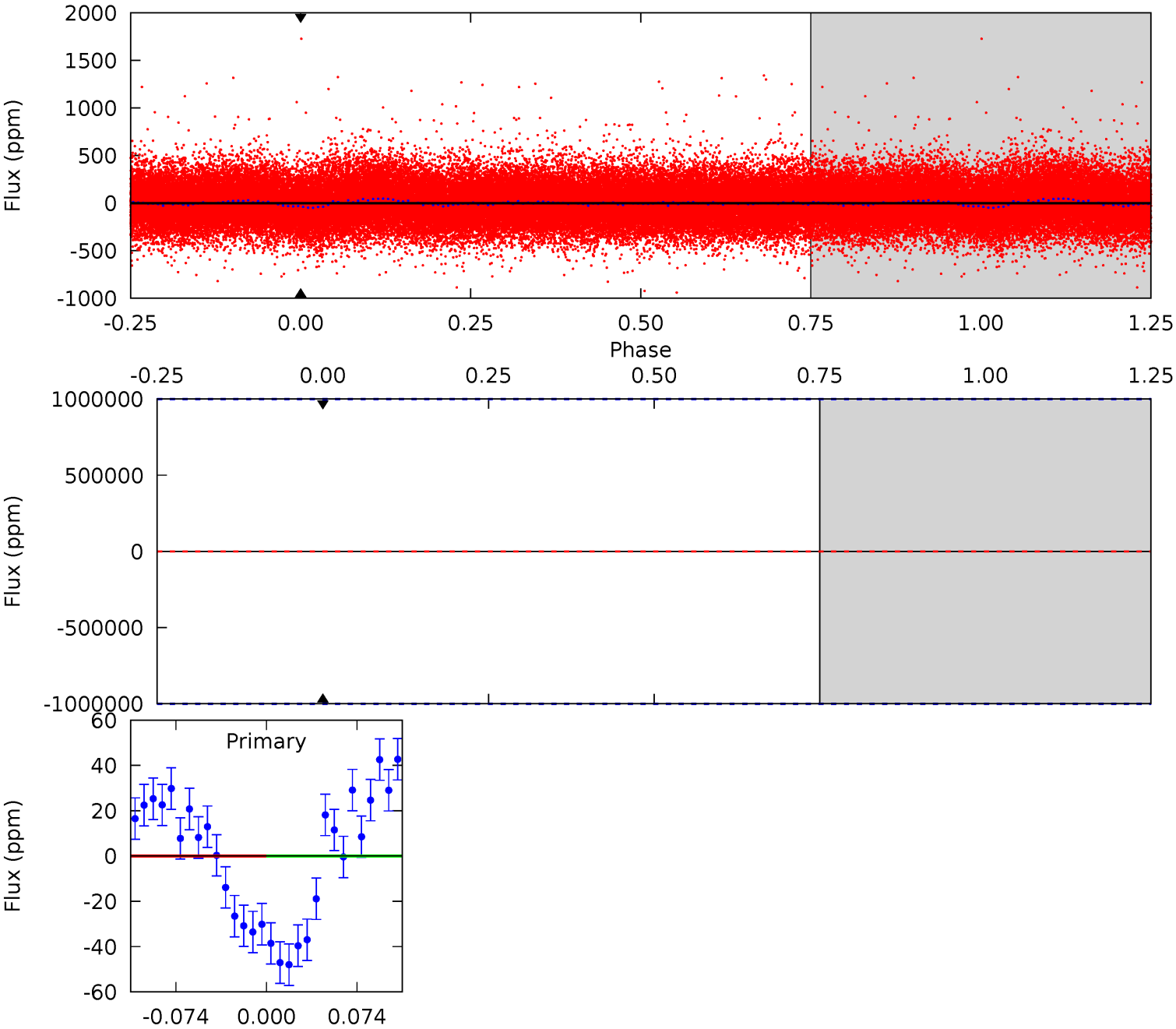
TCE 007198846-01 P= 0.566803 Days $T_0=131.648956$ (BKJD)



DV Model-Shift Uniqueness Test

007198846-01, P = 0.566803 Days, E = 131.144191 Days

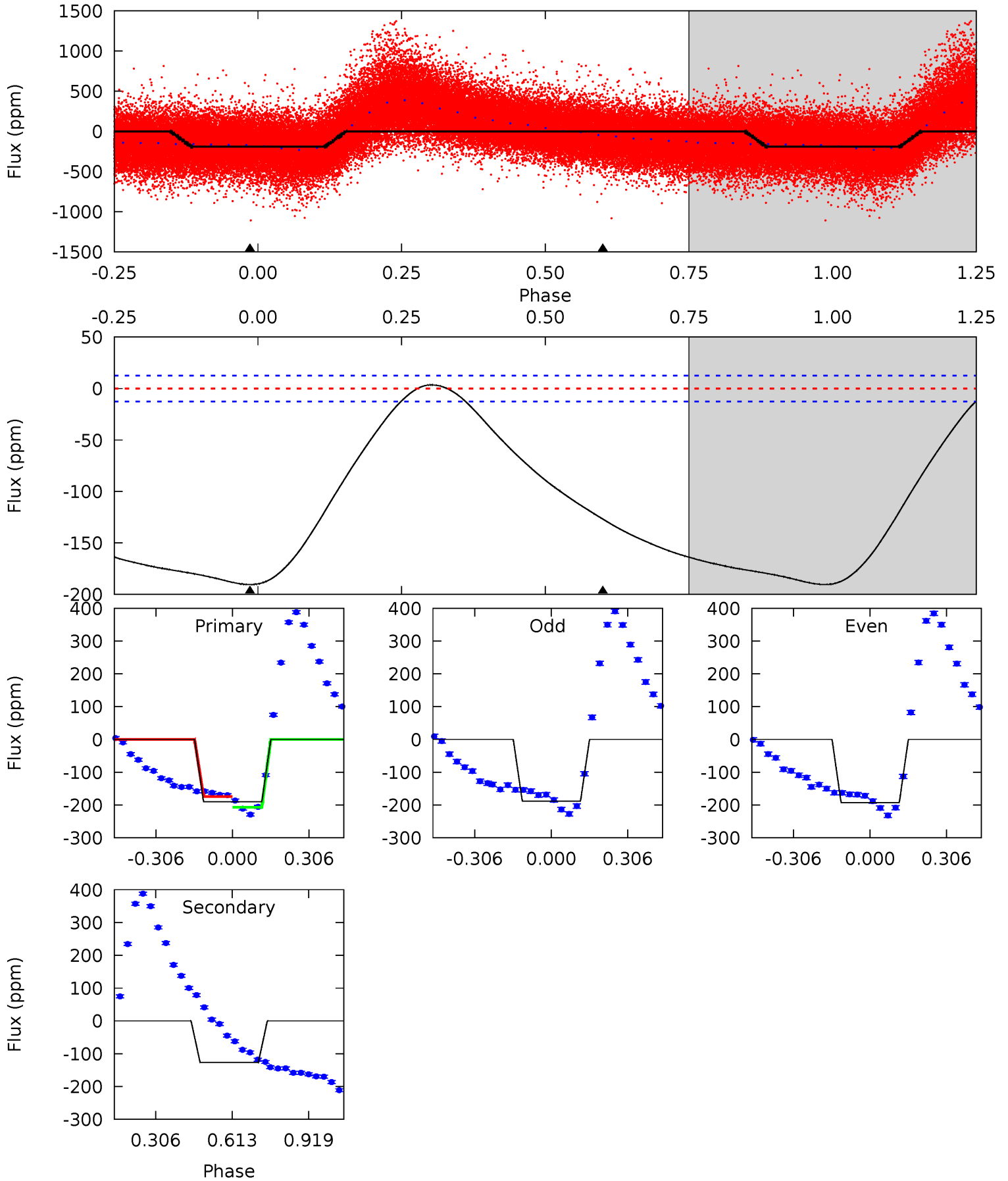
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007198846-01, P = 0.566803 Days, E = 131.082153 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
65.4	43.5	0	0	4.32	1.02	1.85	65.4	65.4	43.5	43.5	0.74	1.05	0.02	6.33



Stellar Parameters For KIC 007198846

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5513^{+82}_{-66}	$4.106^{+0.231}_{-0.099}$	$0.140^{+0.150}_{-0.100}$	$1.442^{+0.207}_{-0.354}$	$0.968^{+0.069}_{-0.056}$	$0.455^{+0.582}_{-0.136}$
	+1%/-1%	+6%/-2%	+107%/-71%	+14%/-25%	+7%/-6%	+128%/-30%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007198846-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$11.36^{+12.55}_{-7.95}$	3529^{+168}_{-242}	-4419^{+24372}_{-12219}	$-0.968^{+159.526}_{-97.929}$
Alt.	-127 ± 3	$10.71^{+10.80}_{-7.60}$	3523^{+156}_{-223}	-3120^{+7169}_{-258}	$0.107^{+1.149}_{-0.080}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

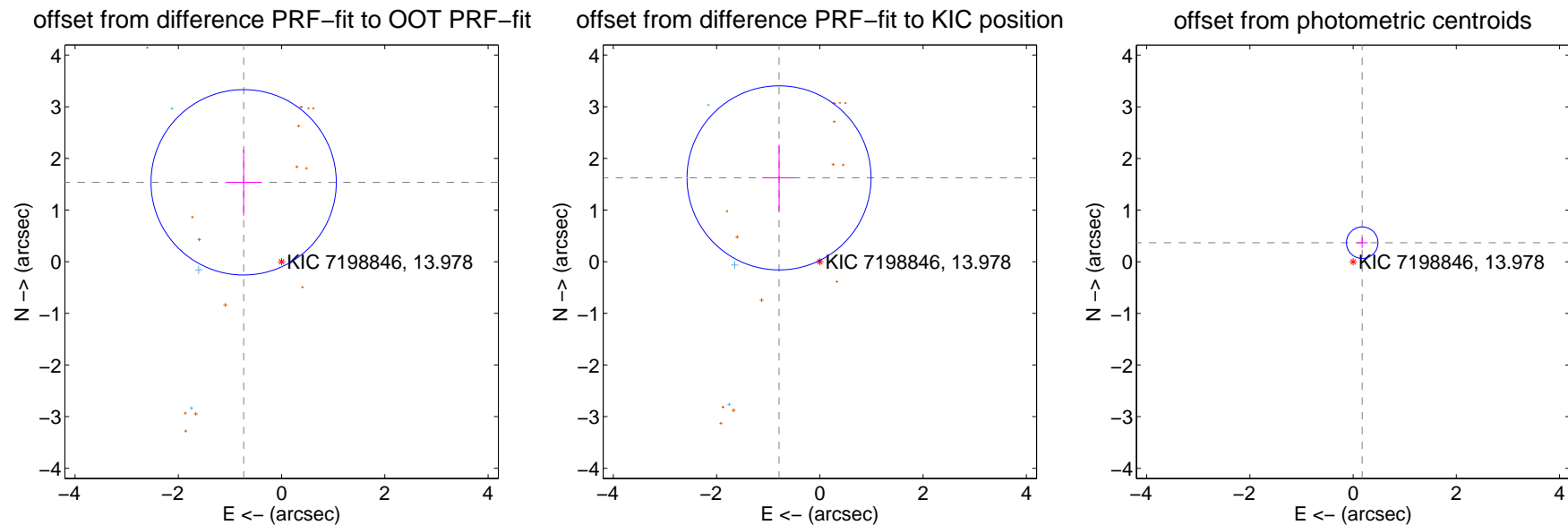
DV Centroid Data

Supplemental centroid analysis for 007198846-01. Kepler magnitude: 13.98. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

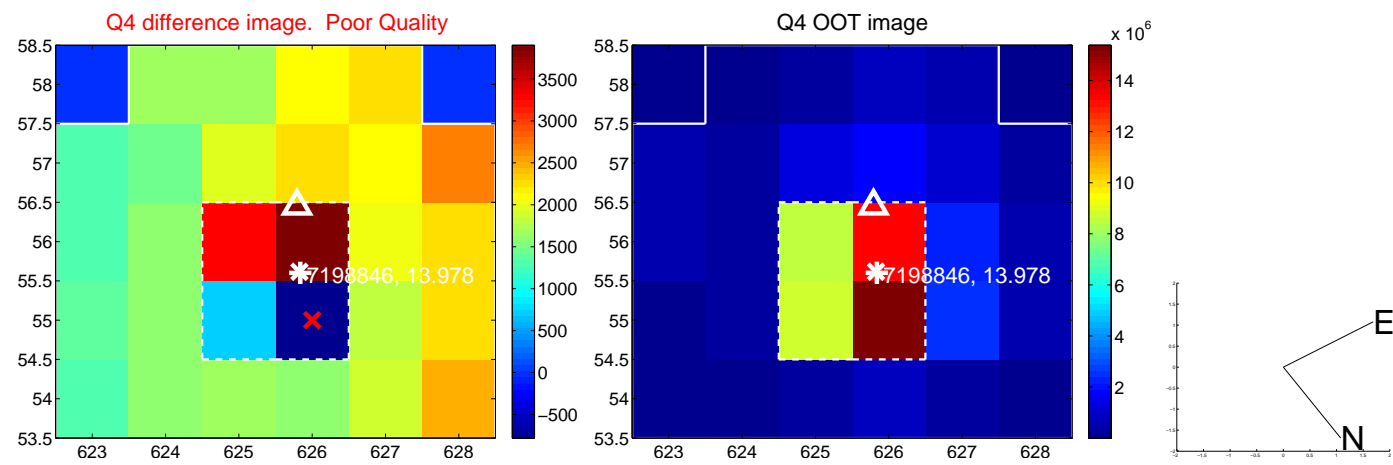
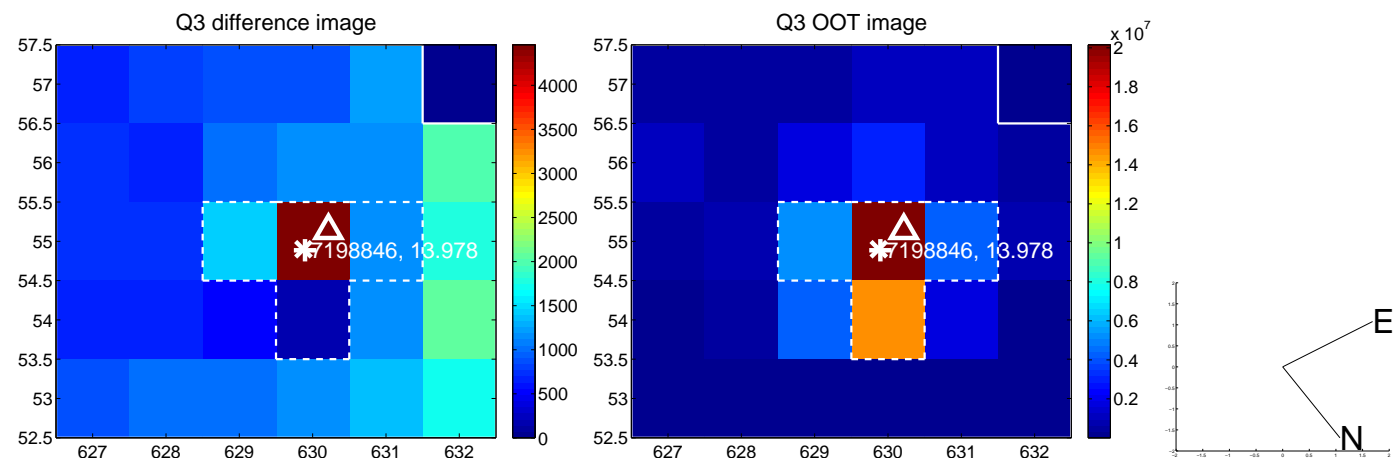
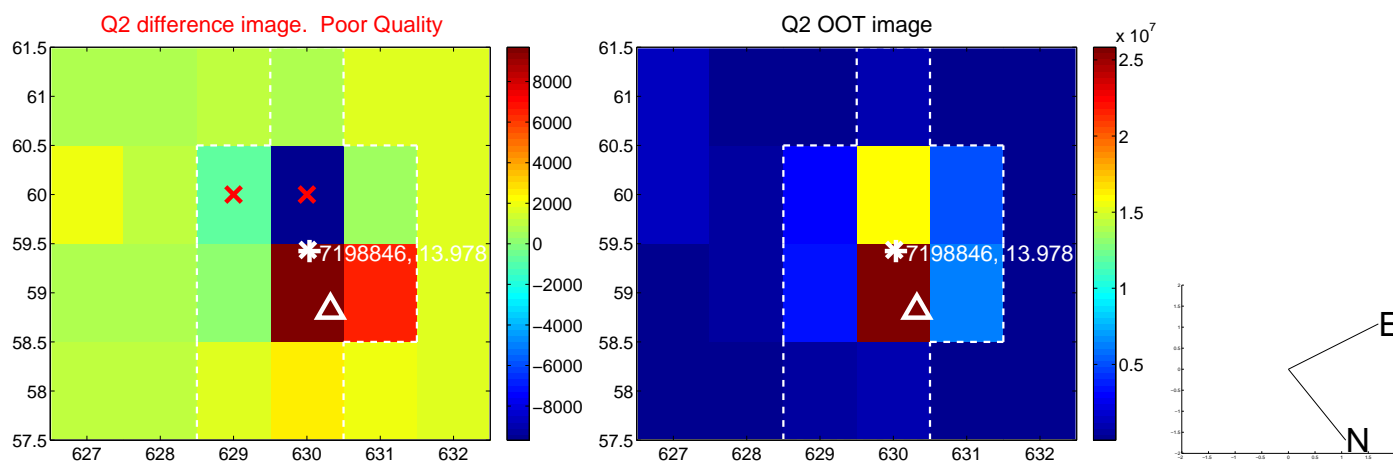
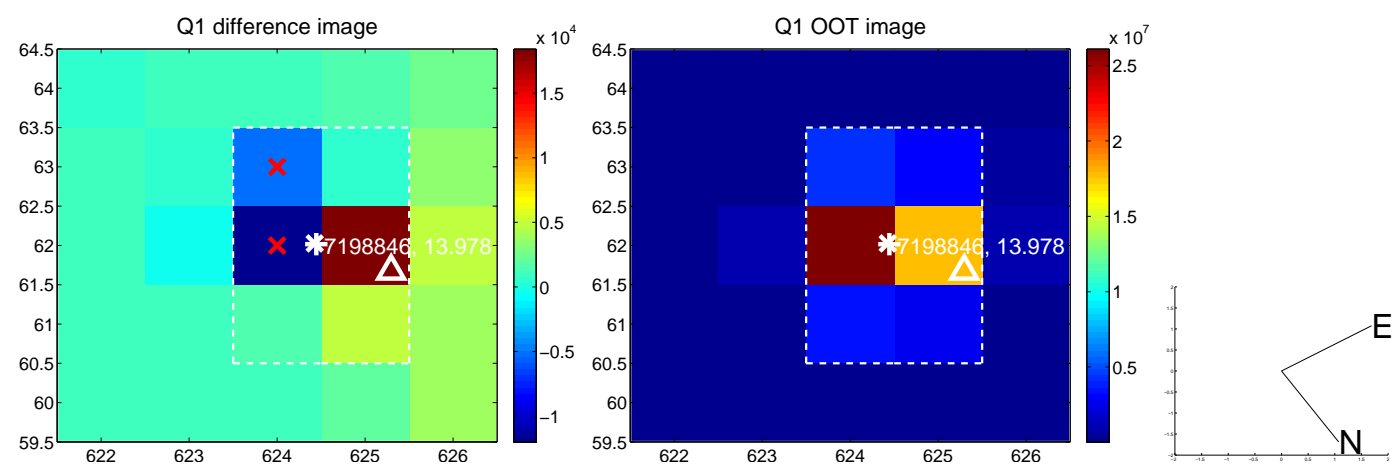
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.704 ± 0.598	2.85	0.735 ± 0.335	1.537 ± 0.644
PRF-fit source offset from KIC position	1.806 ± 0.594	3.04	0.790 ± 0.326	1.624 ± 0.642
photometric centroid source offset	0.41 ± 0.10	4.03	-0.18 ± 0.10	0.37 ± 0.10

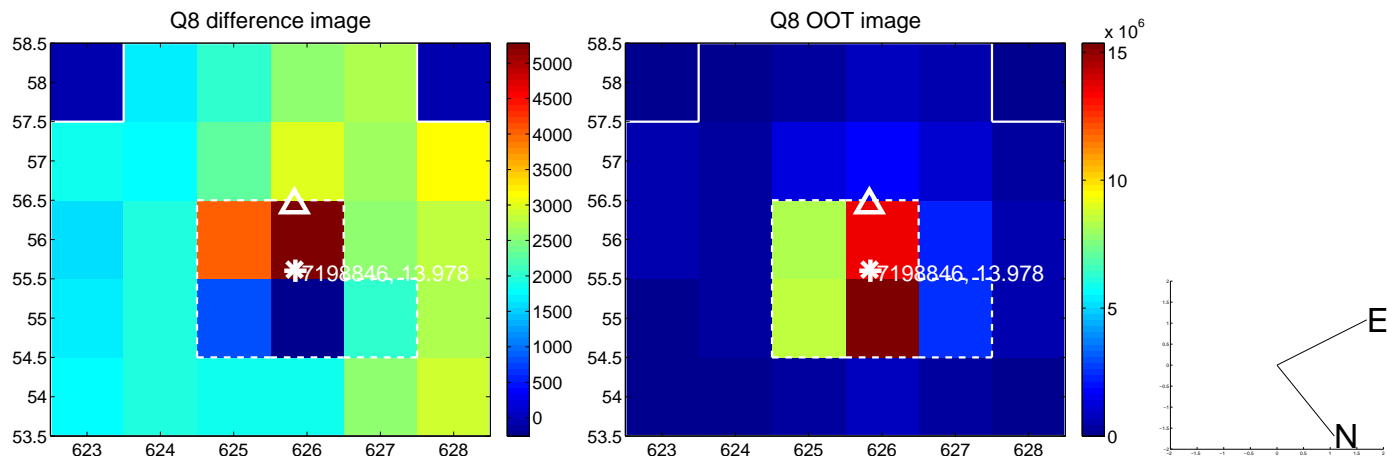
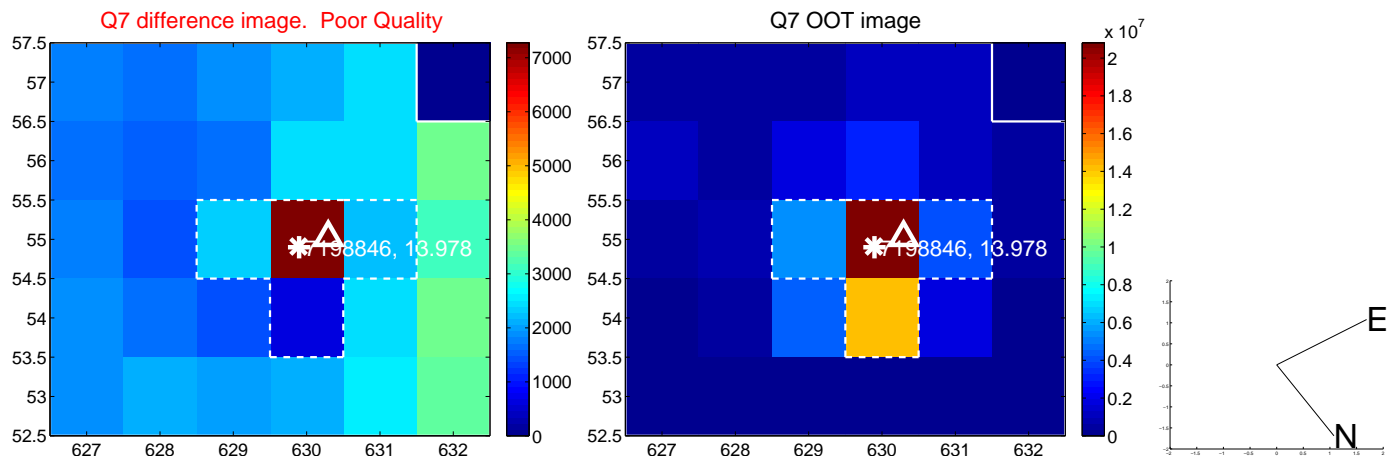
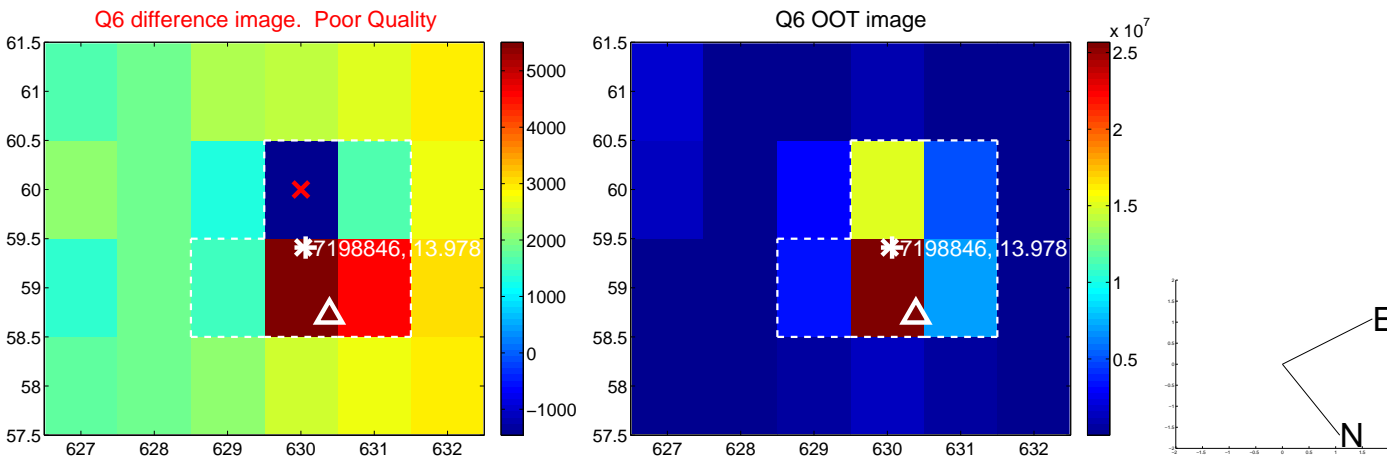
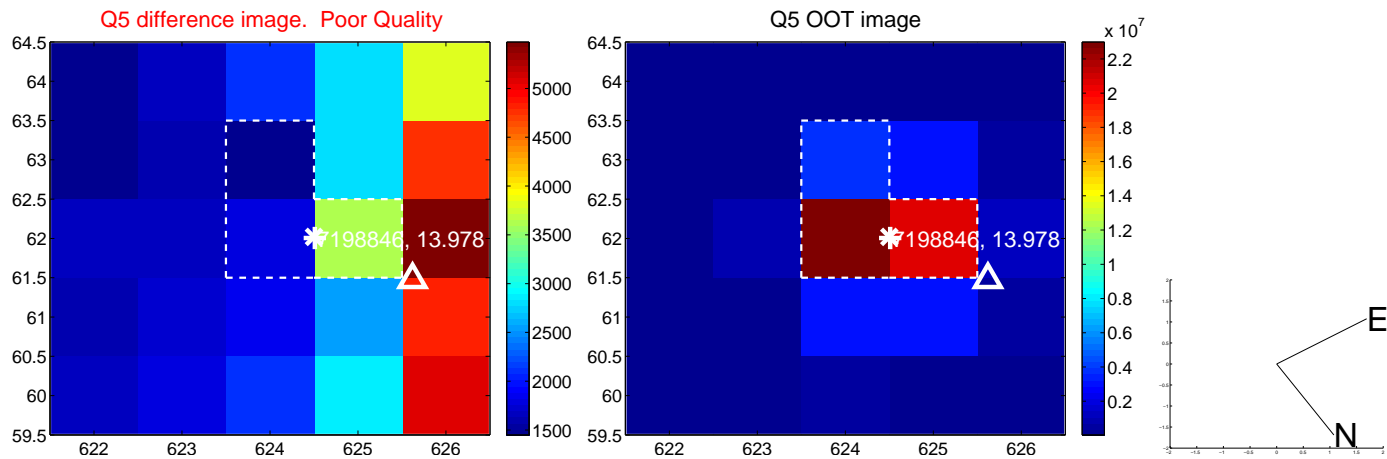


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

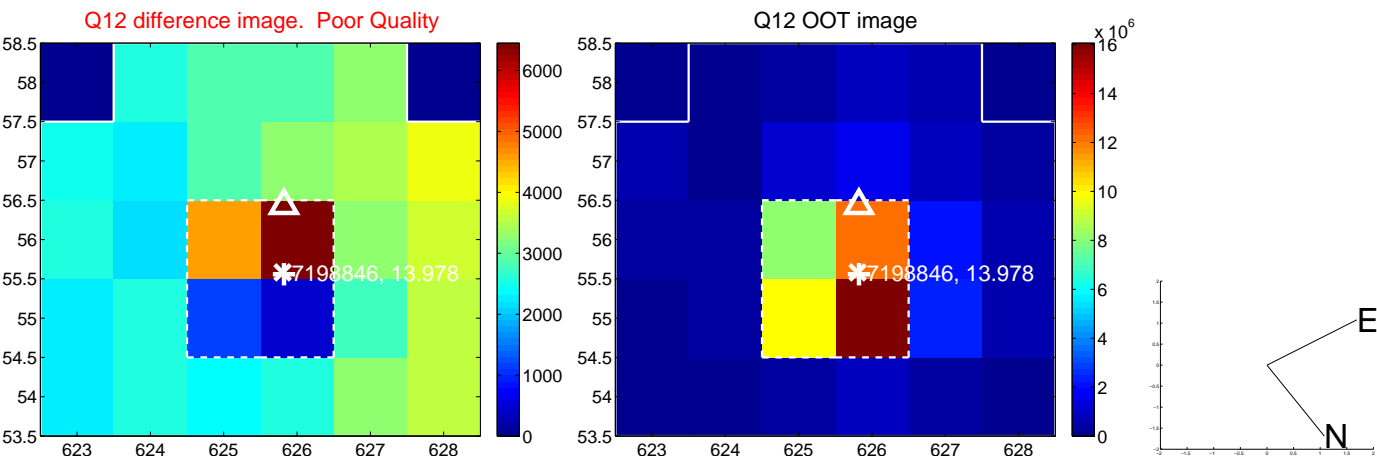
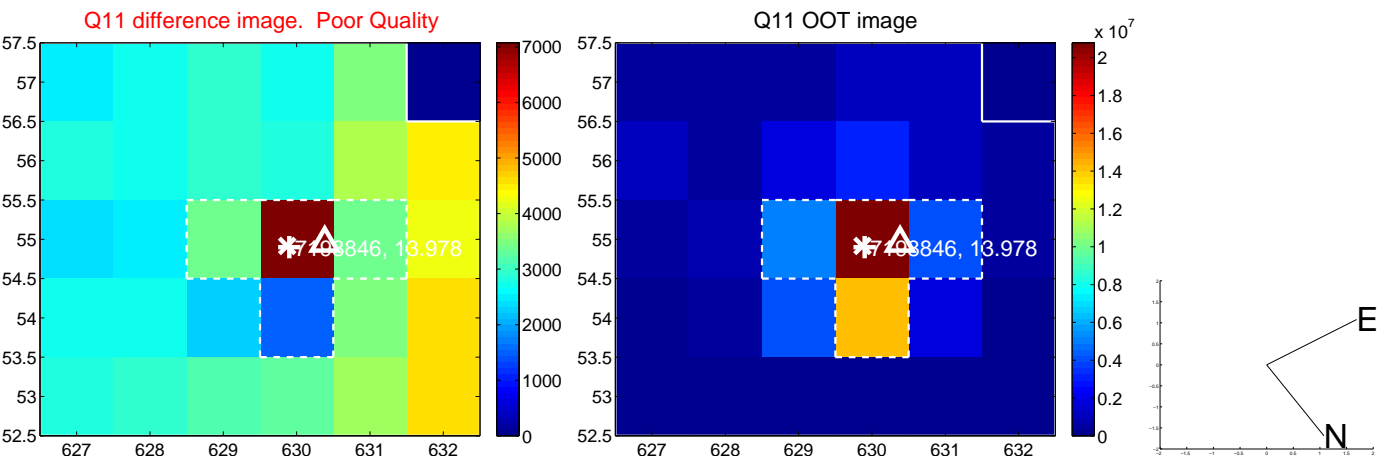
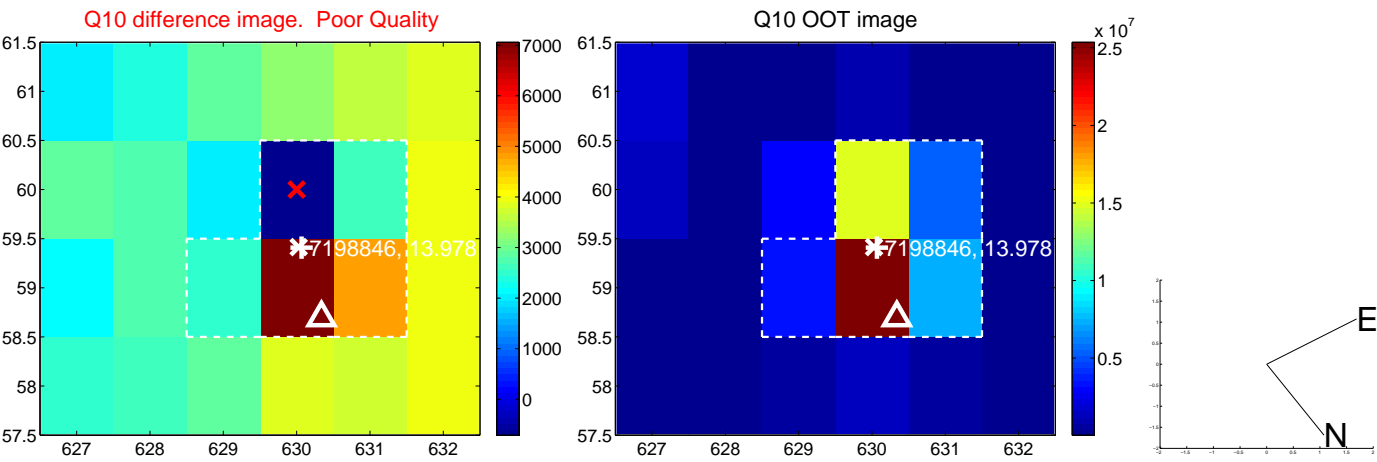
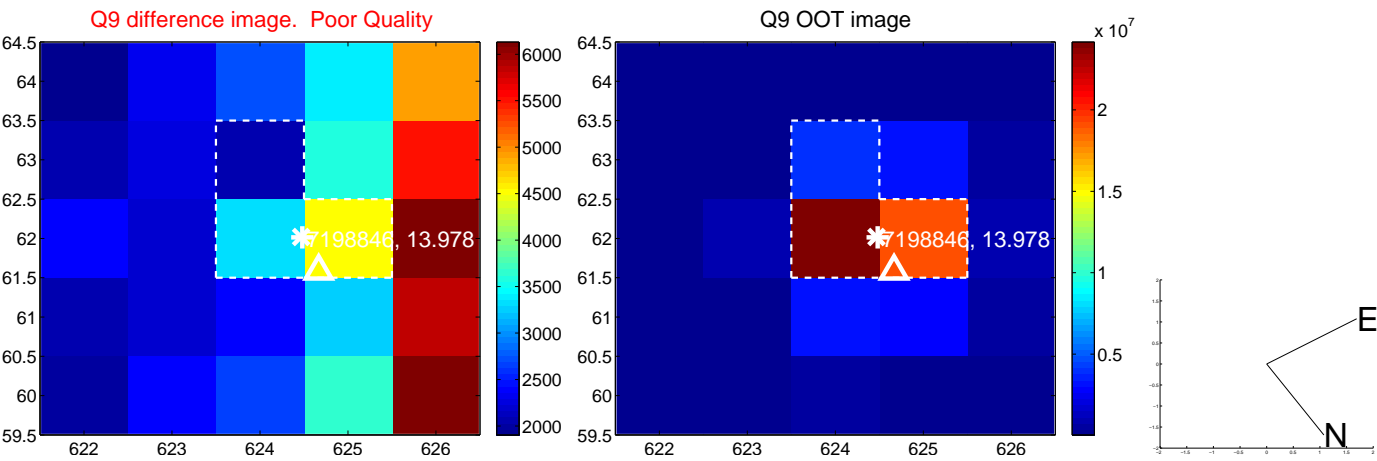
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



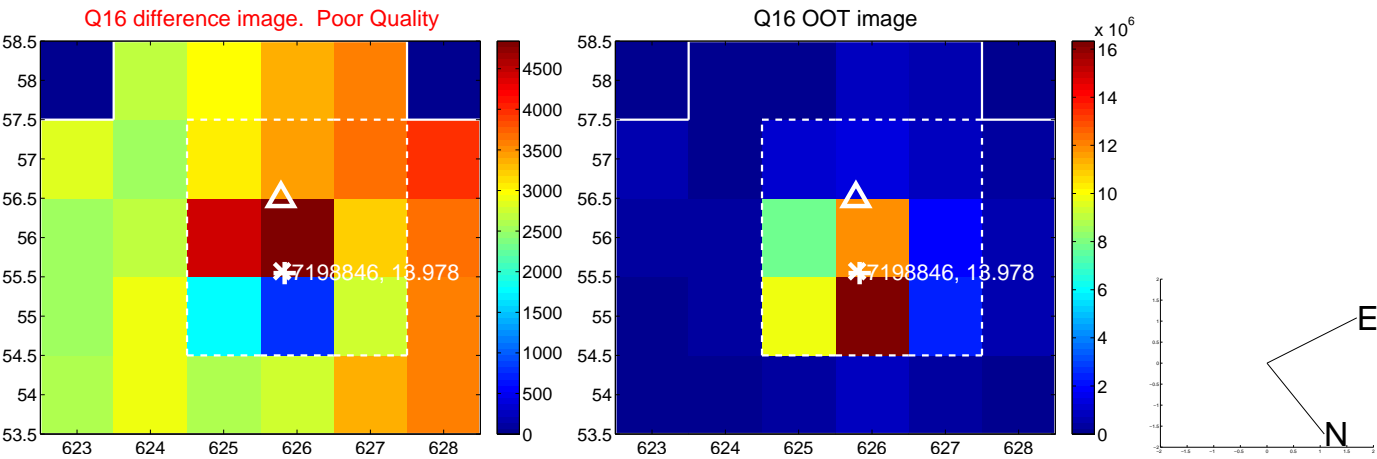
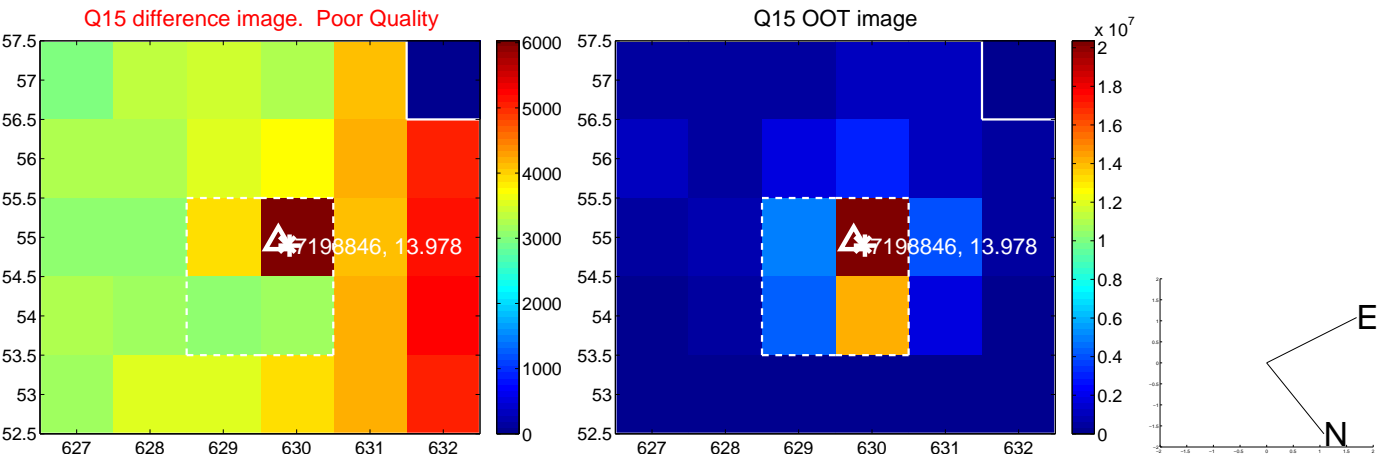
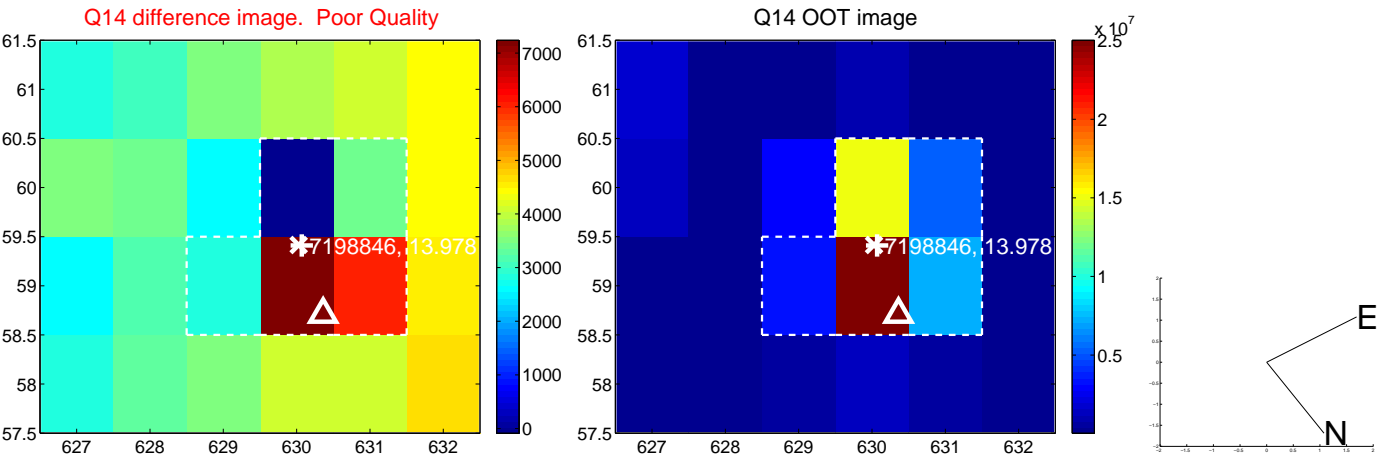
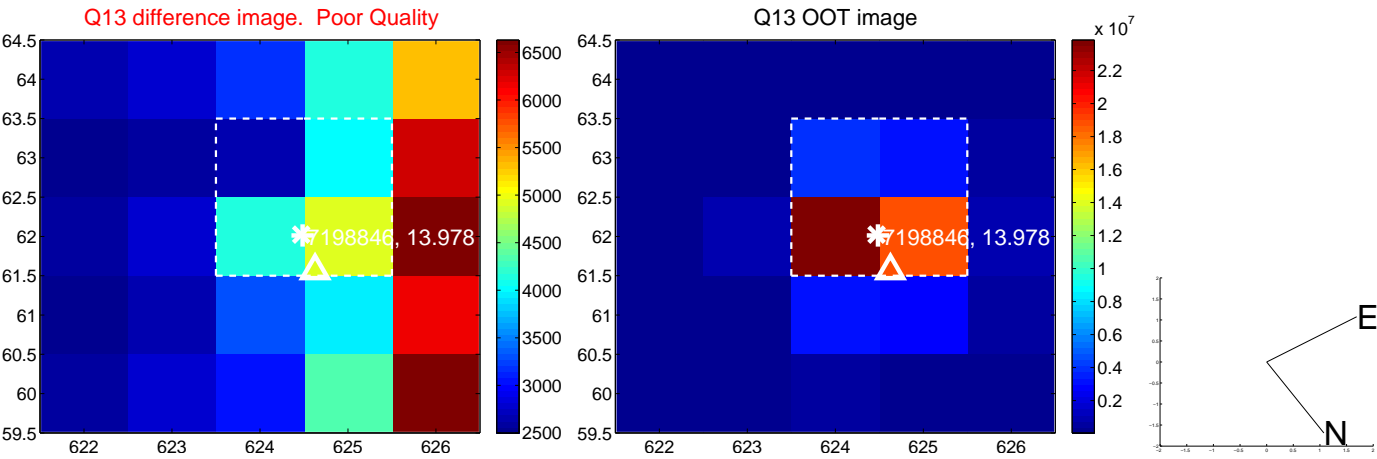
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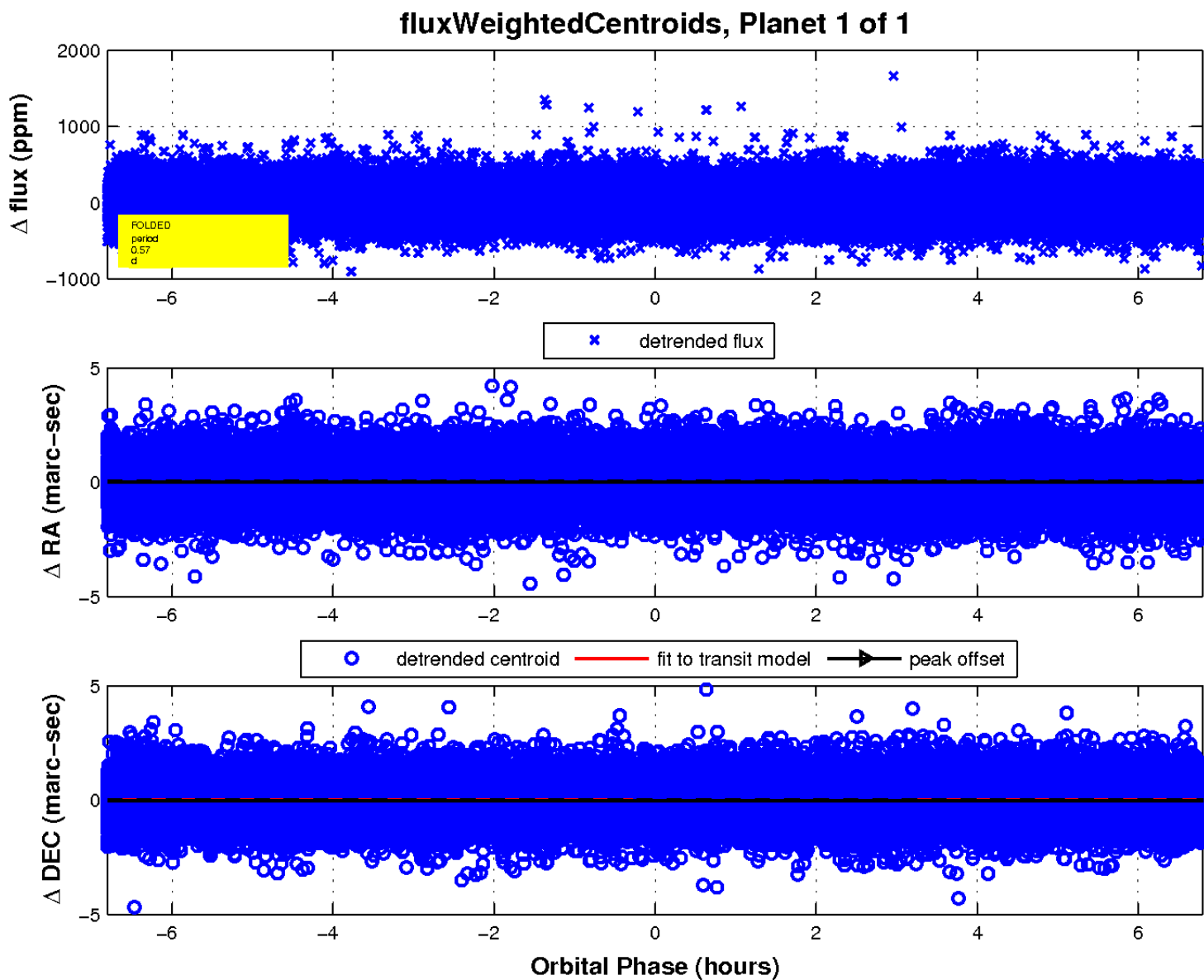
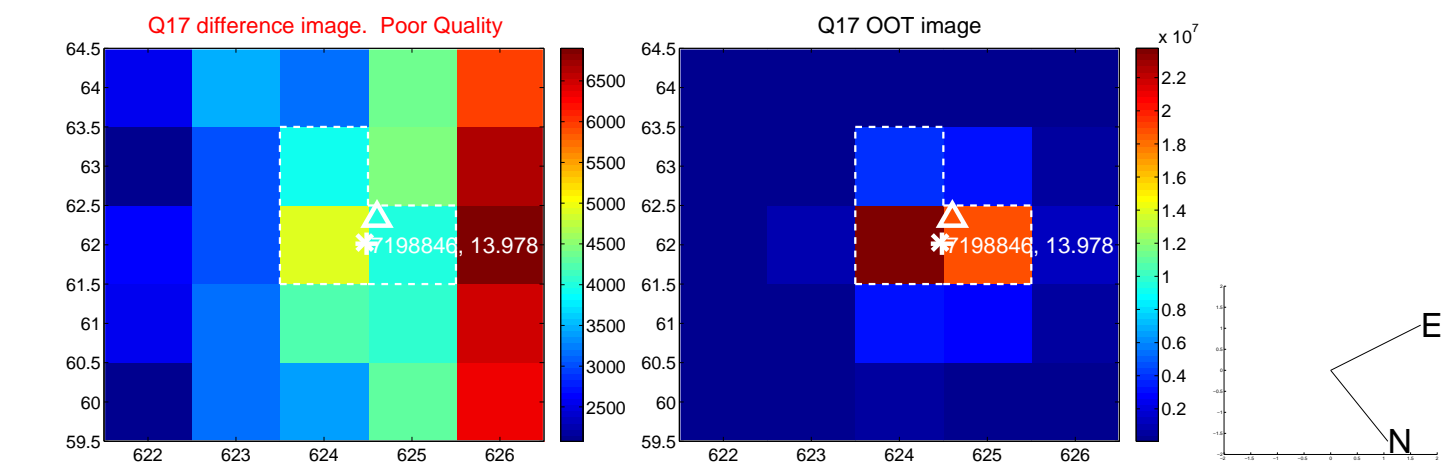
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UKIRT Image

Declination

