

KIC 007286137

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})
007286137-01	OBS	No	2.353577	133.046797	9.6	20.412	9.2	6.3	0.76	5800	0.23	579.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007286137-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_UNCERTAIN

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

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

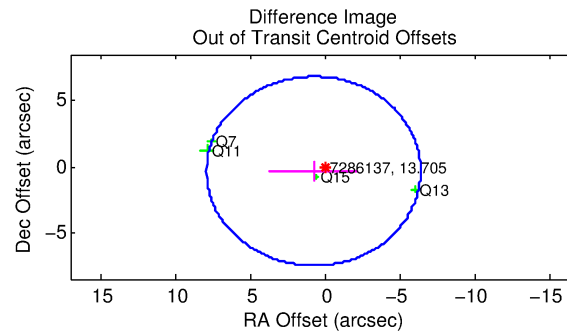
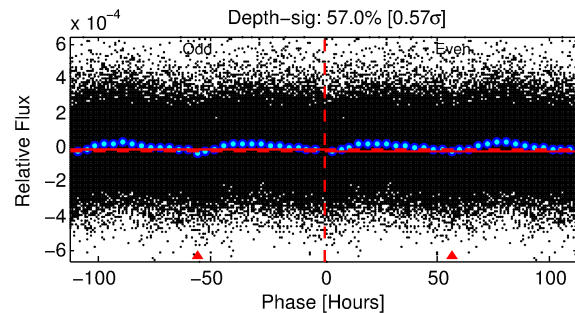
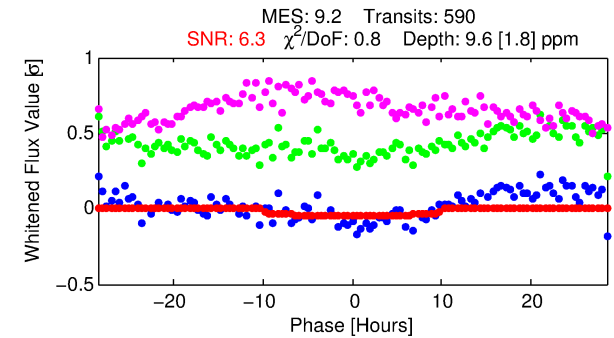
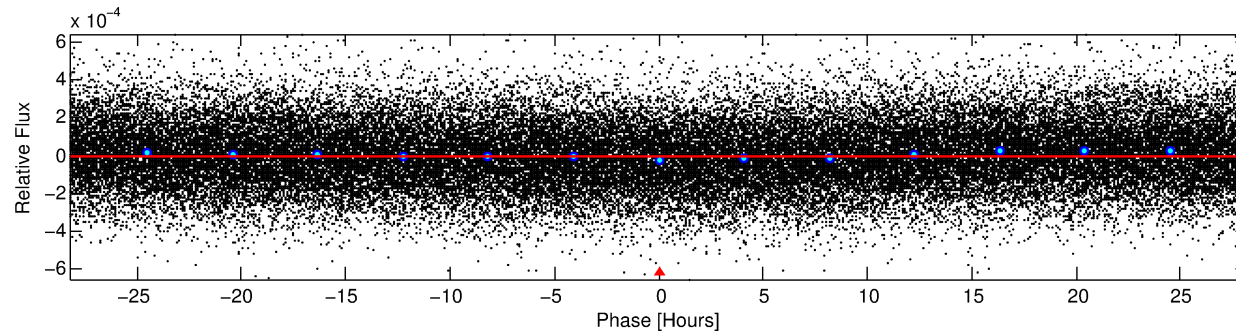
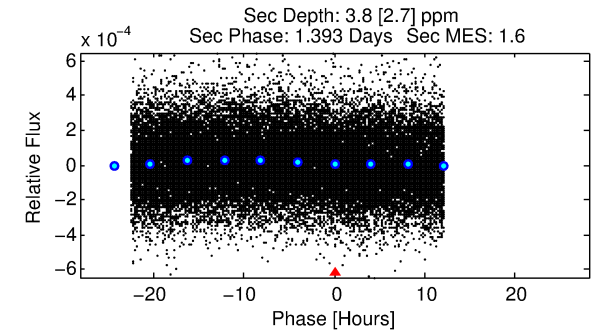
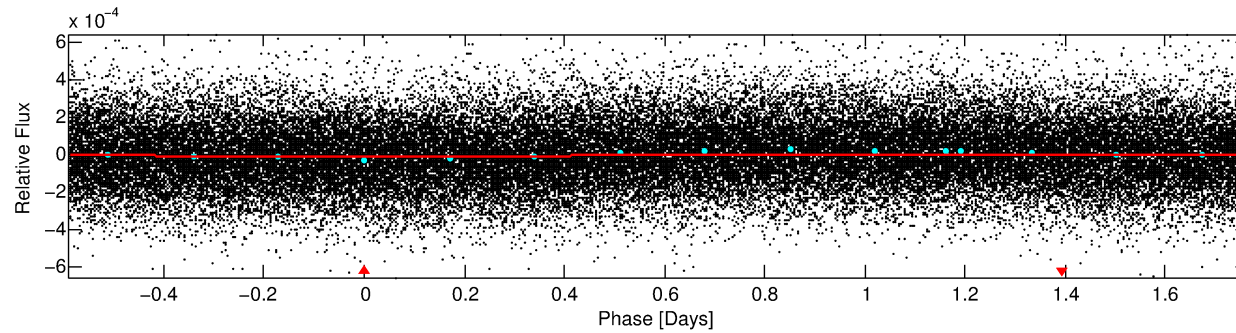
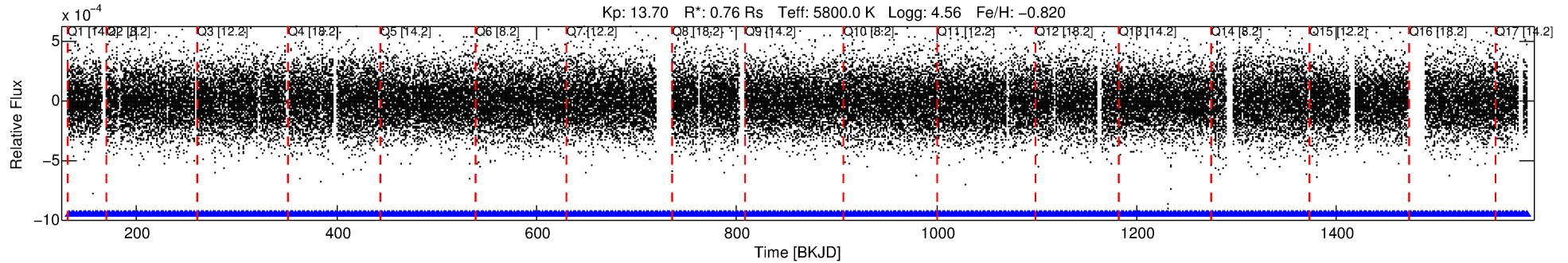
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007286137-01

No Significant Match Found

DV One-Page Summary

KIC: 7286137 Candidate: 1 of 1 Period: 2.354 d



DV Fit Results:

Period = 2.35358 [0.00010] d
Epoch = 133.0468 [0.0247] BKJD
Rp/R* = 0.0028 [0.0049]
a/R* = 1.11 [1.72]
b = 0.07 [118.03]
Seff = 579.34 [147.10]
Teq = 1251 [79] K
Rp = 0.23 [0.40] Re
a = 0.0316 [0.0048] AU
Ag = 37.86 [132.84] [0.28σ]
Teffp = 4798 [4202] K [0.84σ]

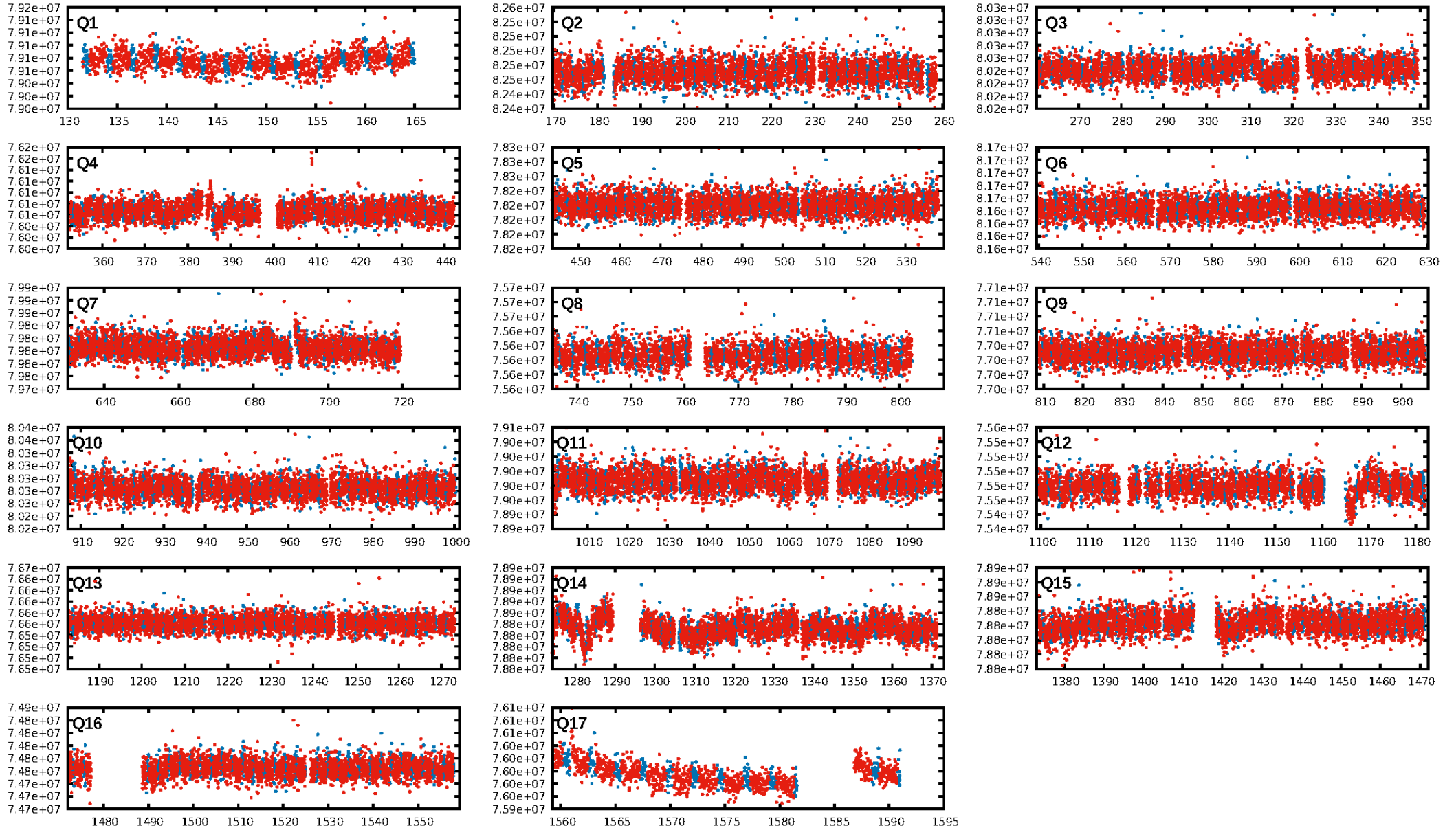
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [564/564]
GhostDiagnostic-chr: 1.148
Centroid-sig: 4.7%
Centroid-so: 3.452 arcsec [1.85σ]
OotOffset-rm: 0.811 arcsec [0.34σ]
OotOffset-st: 0/3/0/1 [4]
KicOffset-rm: 0.631 arcsec [0.22σ]
KicOffset-st: 0/3/0/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [17/17]

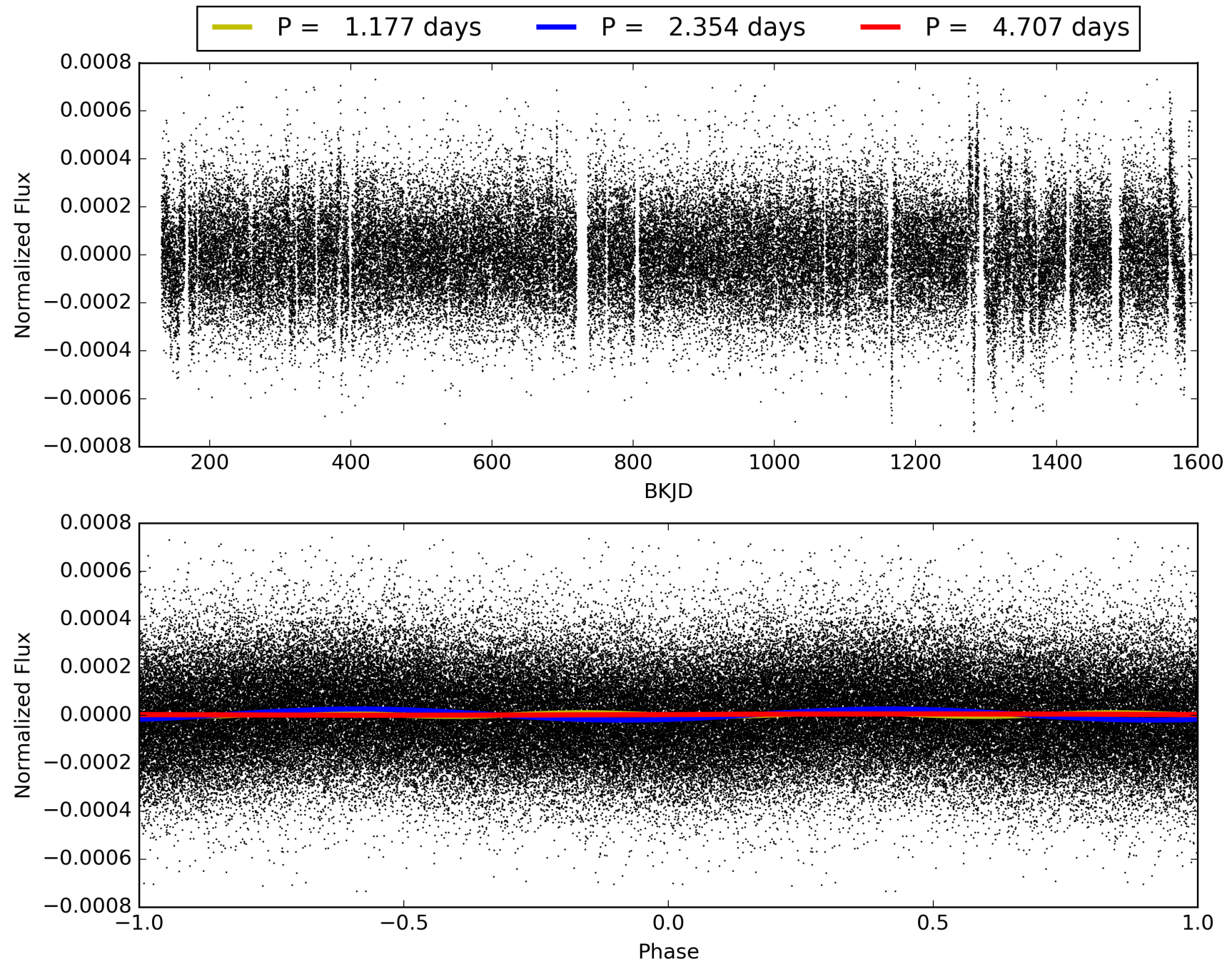
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:08:11 Z

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

TCE 007286137-01, PDC Light Curves

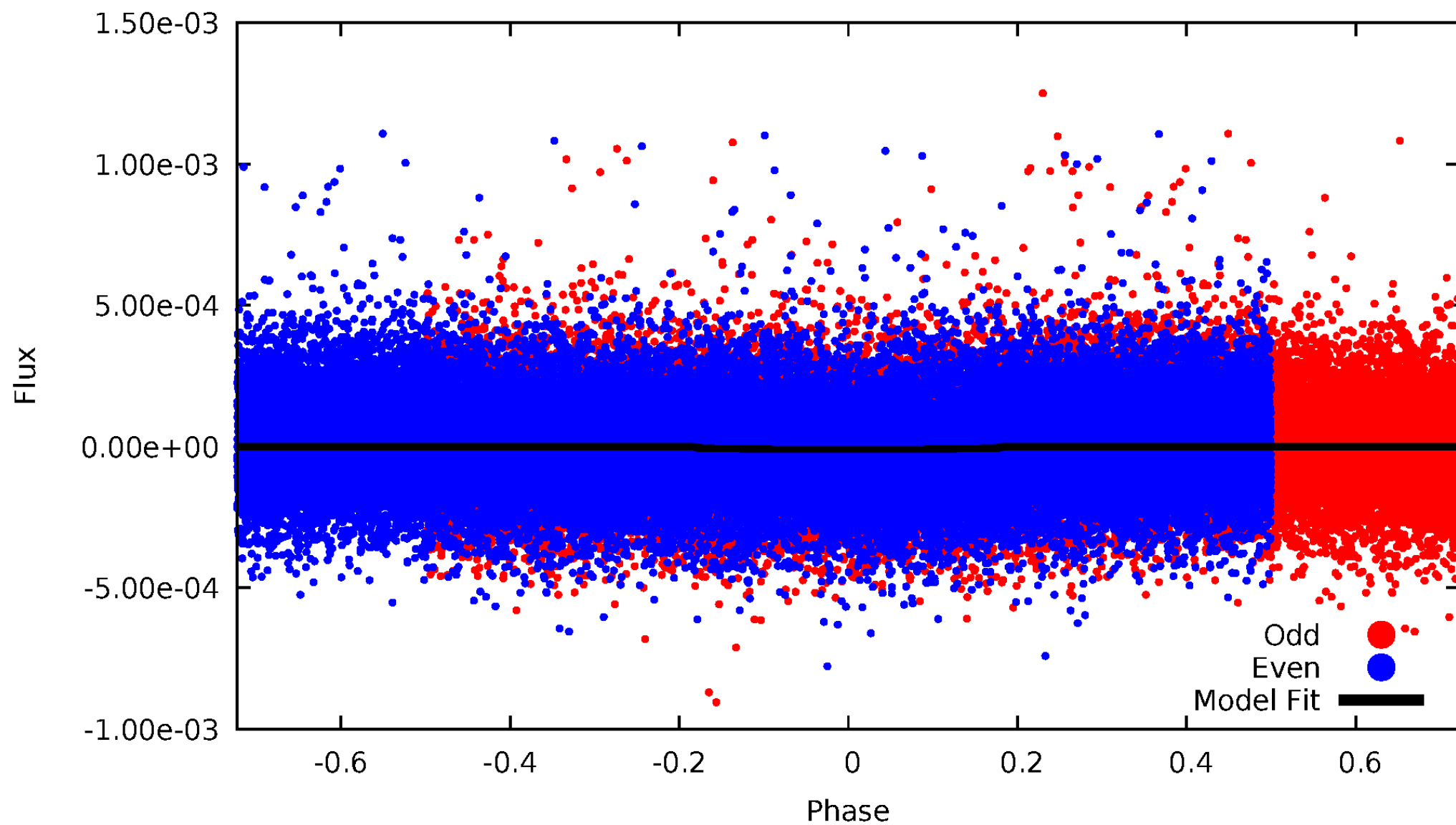


TCE 007286137-01



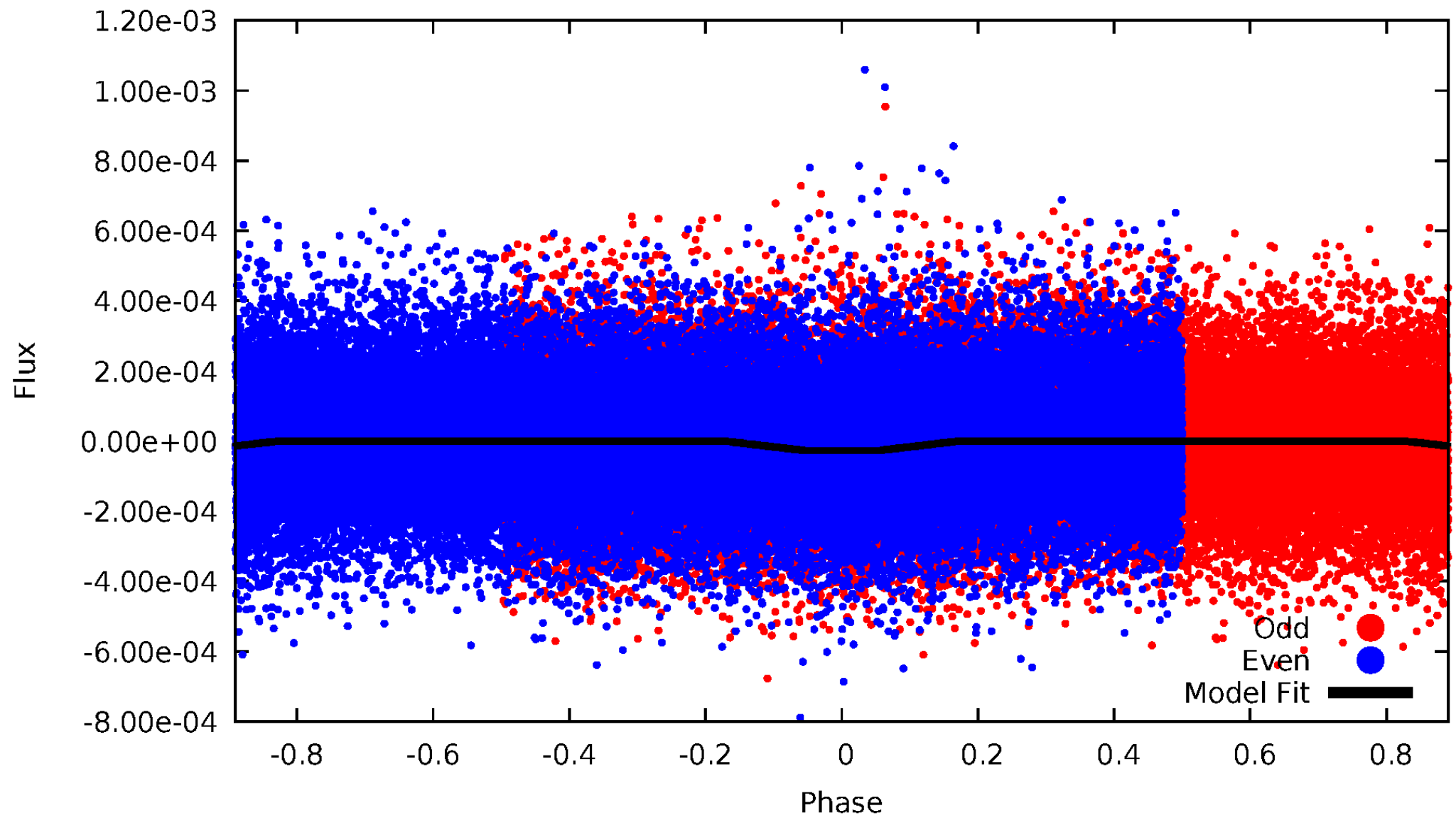
DV Odd/Even

TCE 007286137-01



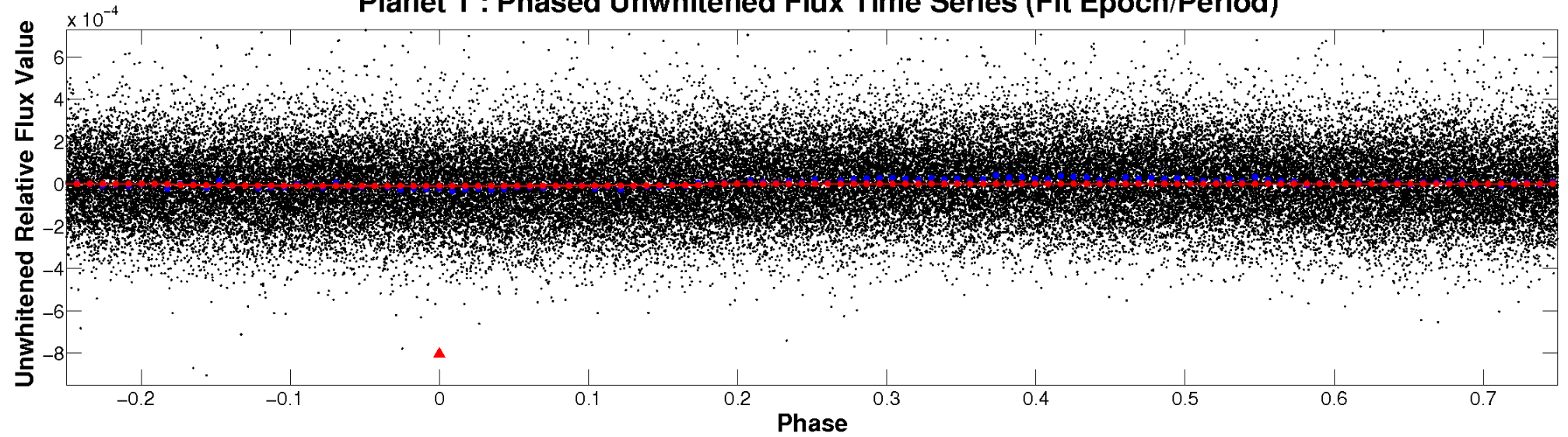
ALT Odd/Even

TCE 007286137-01

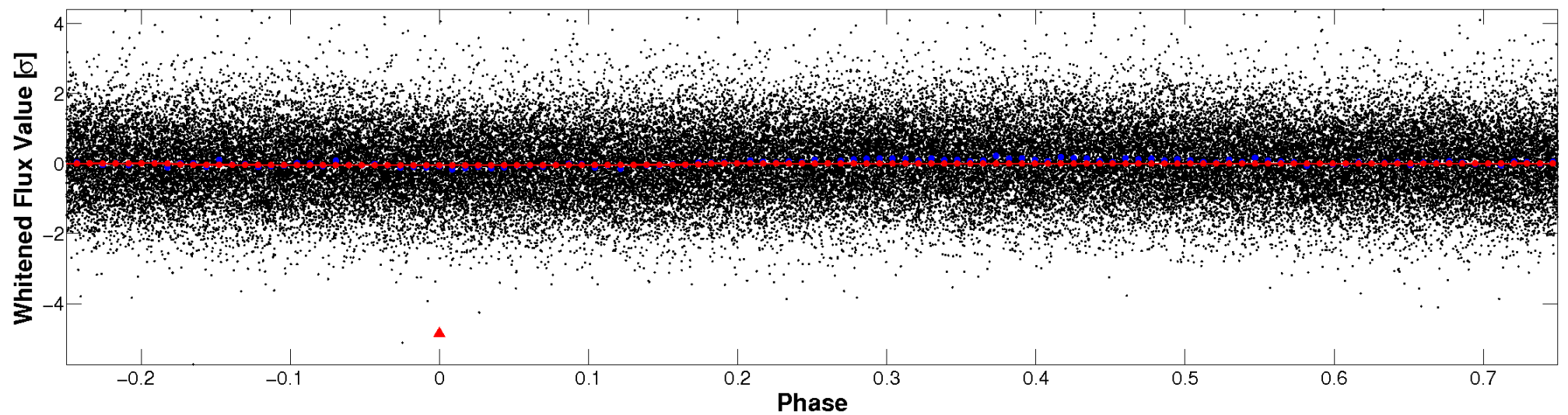


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

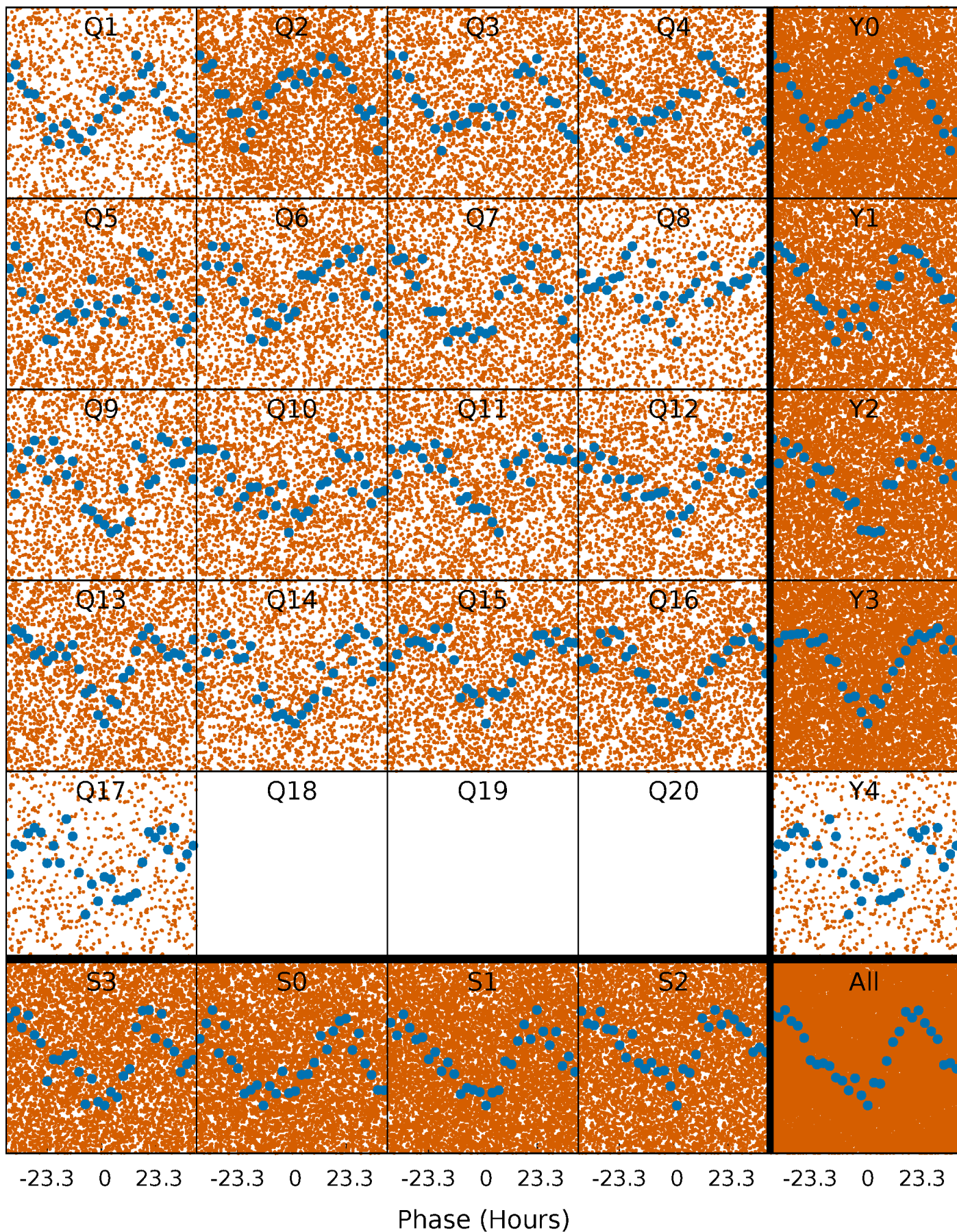


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



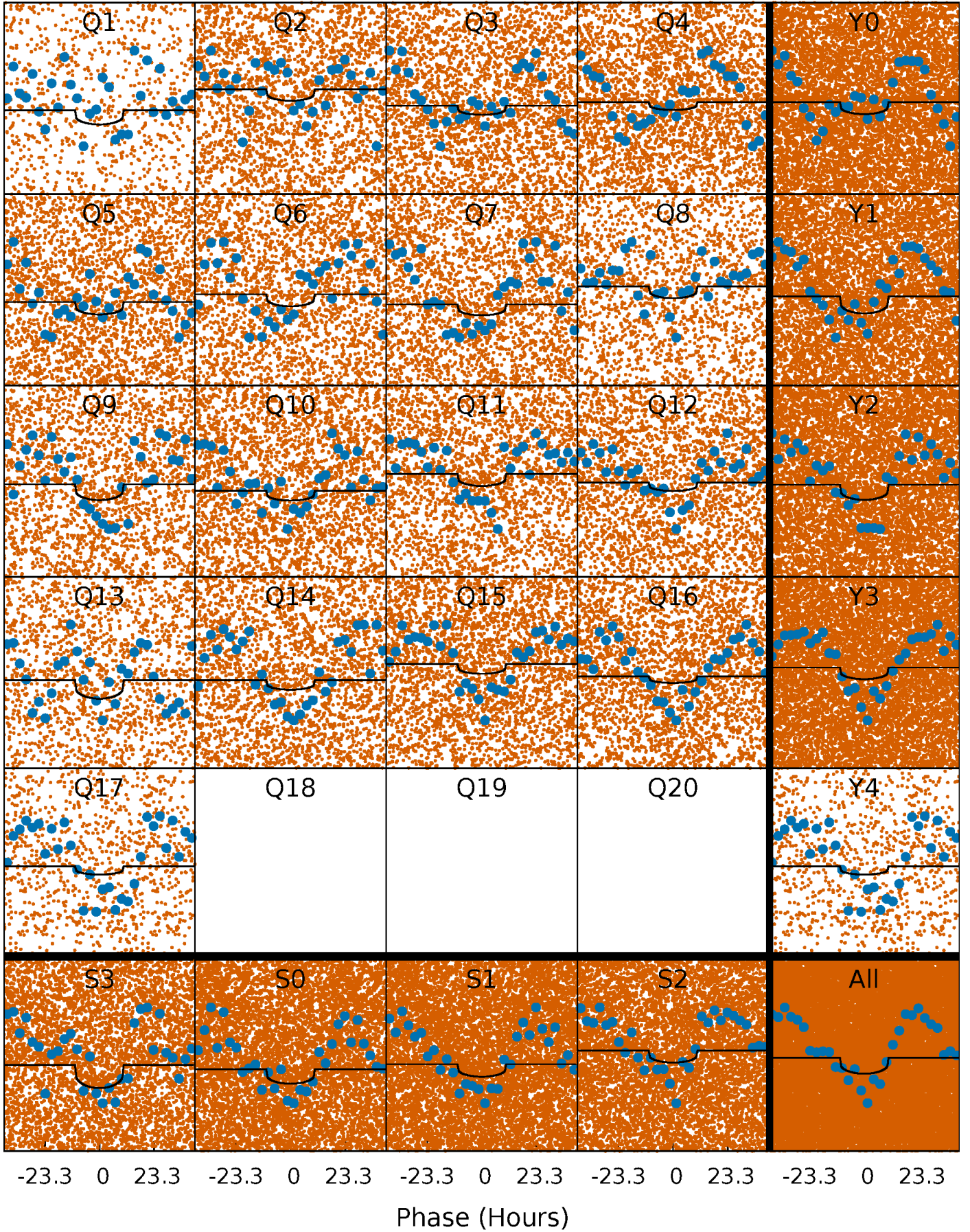
PDC Quarter-Phased Transit Curves

TCE 007286137-01 P= 2.353577 Days $T_0=133.046797$ (BKJD)



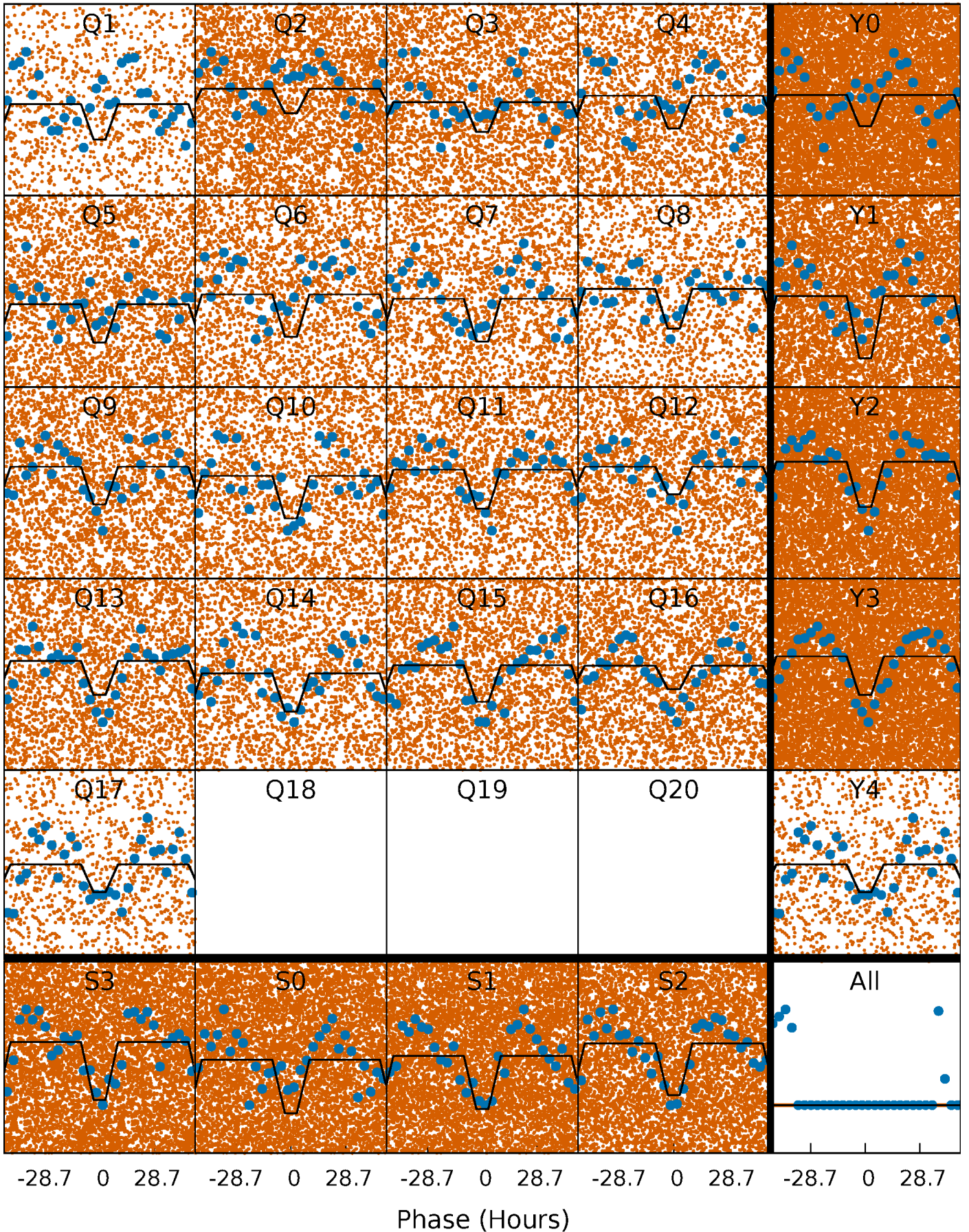
DV Quarter-Phased Transit Curves

TCE 007286137-01 P= 2.353577 Days $T_0=133.046797$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

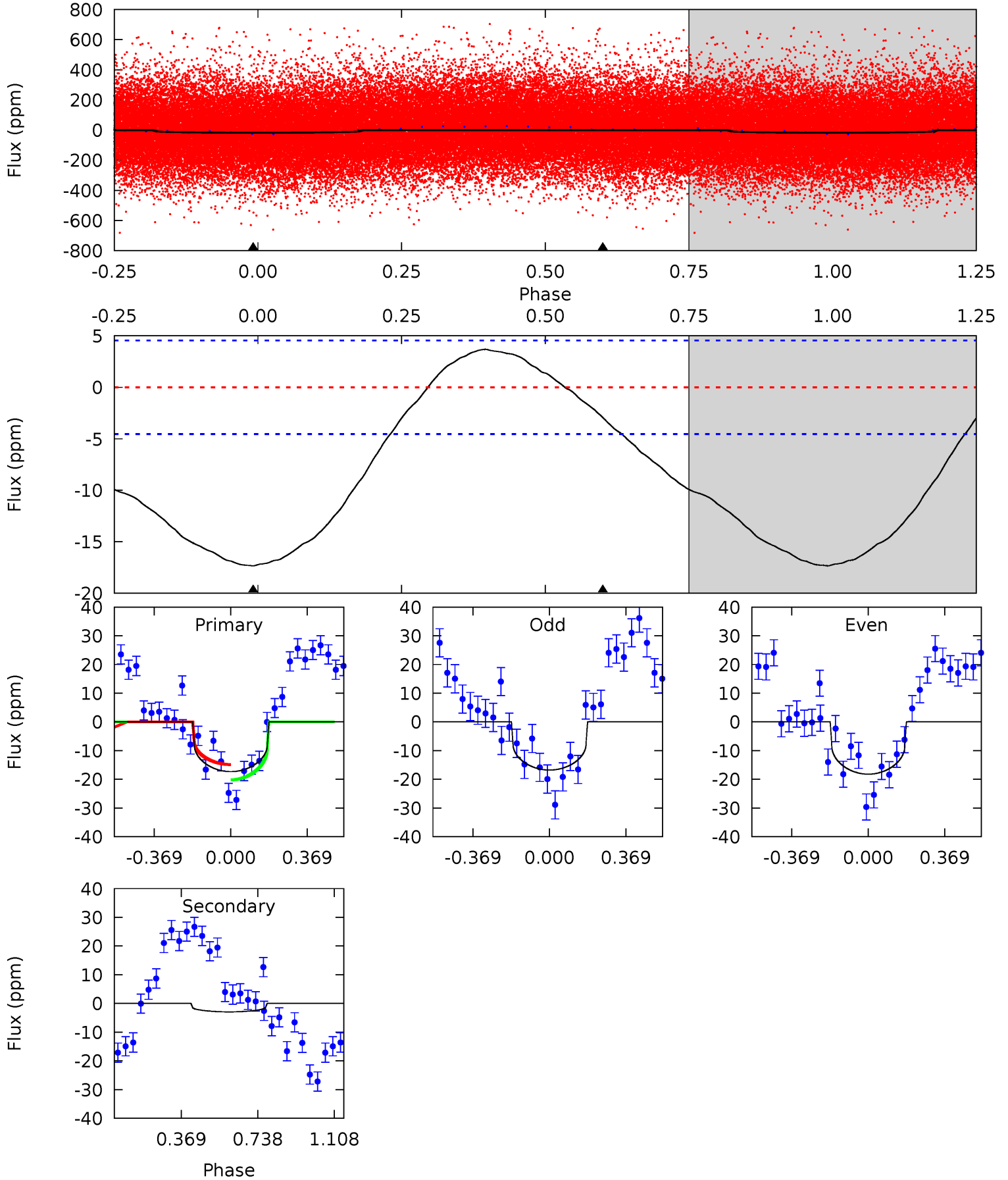
TCE 007286137-01 P= 2.353397 Days $T_0=133.133472$ (BKJD)



DV Model-Shift Uniqueness Test

007286137-01, P = 2.353577 Days, E = 130.693220 Days

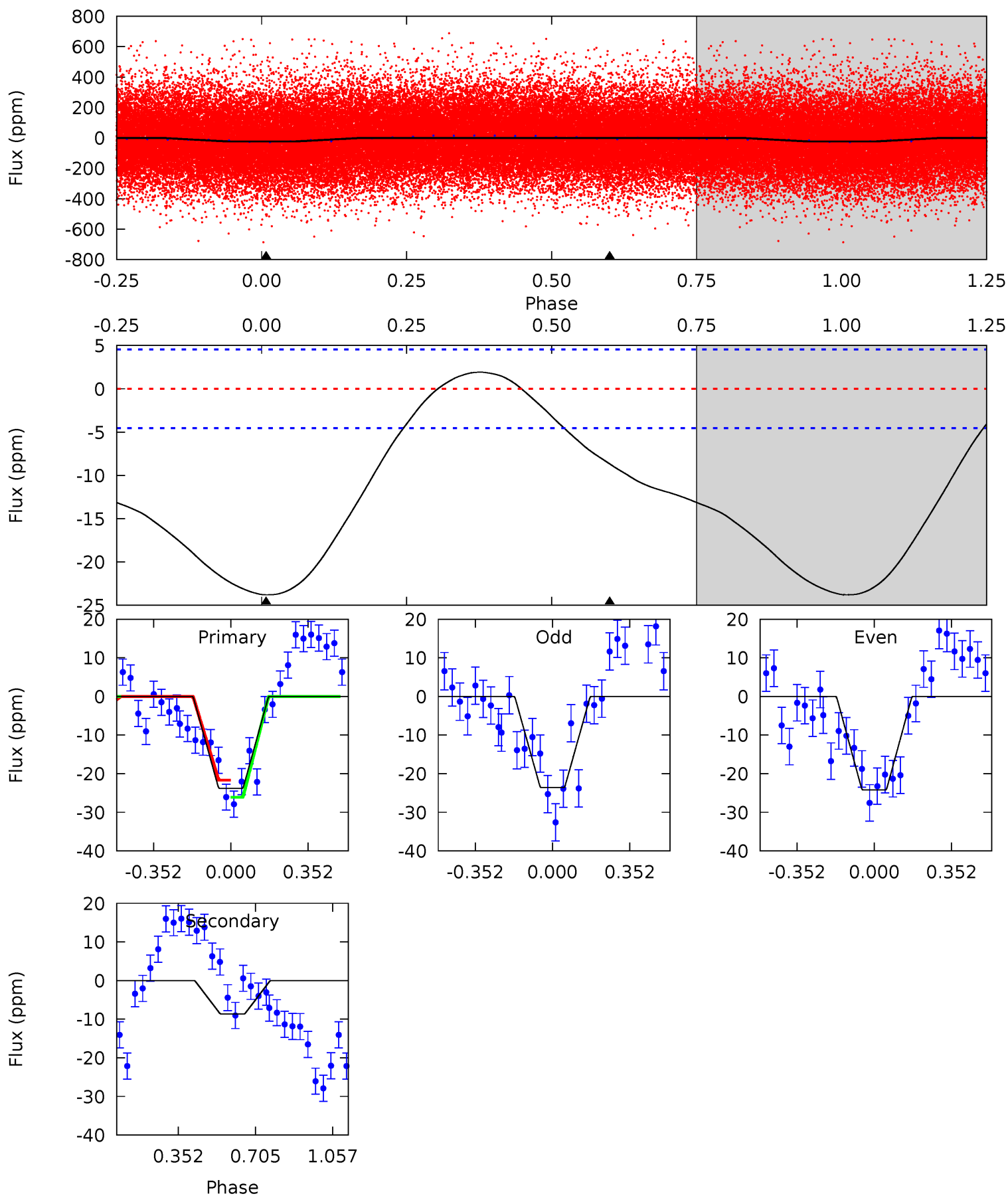
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	2.76	0	0	4.28	0.90	1.72	16.3	16.3	2.76	2.76	0.68	1.05	0.18	2.53



Alt Model-Shift Uniqueness Test

007286137-01, P = 2.353397 Days, E = 130.780075 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.4	8.18	0	0	4.29	0.93	1.54	22.4	22.4	8.18	8.18	0.29	1.22	0.07	2.06



Stellar Parameters For KIC 007286137

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5800^{+174}_{-156}	$4.562^{+0.066}_{-0.123}$	$-0.820^{+0.300}_{-0.300}$	$0.755^{+0.136}_{-0.063}$	$0.758^{+0.074}_{-0.050}$	$2.478^{+0.650}_{-0.870}$
	+3%/-3%	+1%/-3%	+37%/-37%	+18%/-8%	+10%/-7%	+26%/-35%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007286137-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 1	$0.39^{+0.35}_{-0.25}$	1757^{+82}_{-70}	3866^{+2101}_{-792}	10^{+78}_{-8}
Alt.	-9 ± 1	$0.49^{+0.41}_{-0.30}$	1763^{+86}_{-75}	4315^{+2294}_{-812}	19^{+113}_{-14}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

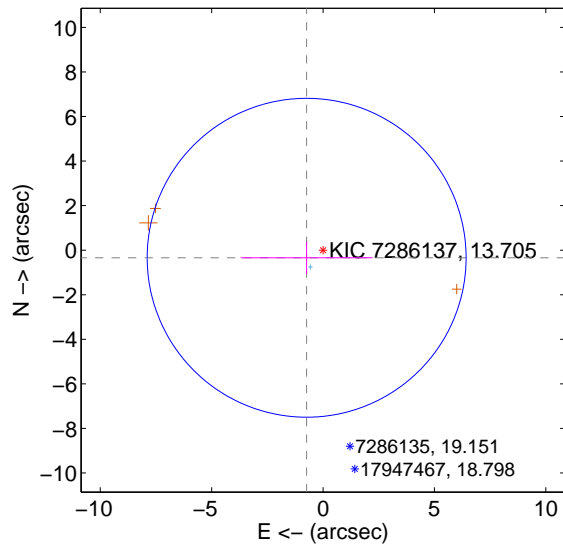
Supplemental centroid analysis for 007286137-01. Kepler magnitude: 13.71. Transit SNR 6.34

There are 1 quarters with good PRF difference image offsets

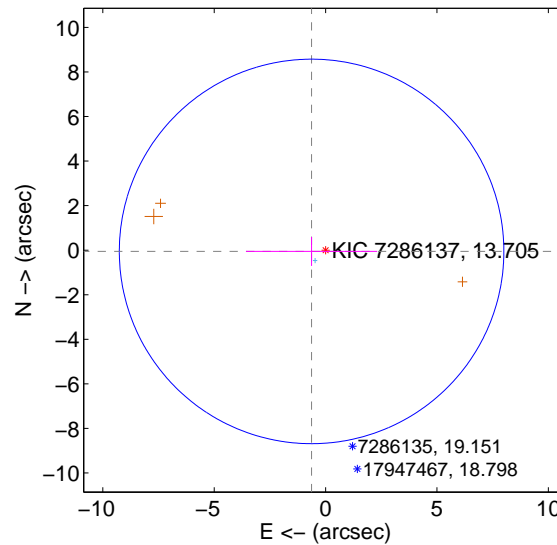
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.811 ± 2.386	0.34	0.736 ± 2.958	-0.341 ± 0.729
PRF-fit source offset from KIC position	0.631 ± 2.877	0.22	0.628 ± 2.945	-0.056 ± 0.649
photometric centroid source offset	3.45 ± 1.87	1.85	-3.41 ± 1.87	-0.54 ± 1.81

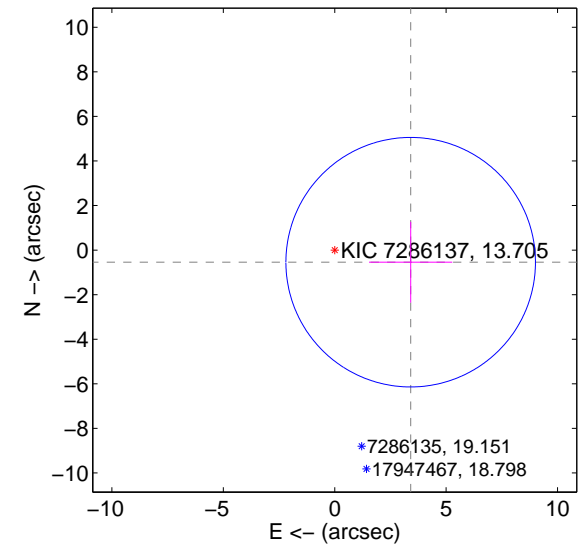
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

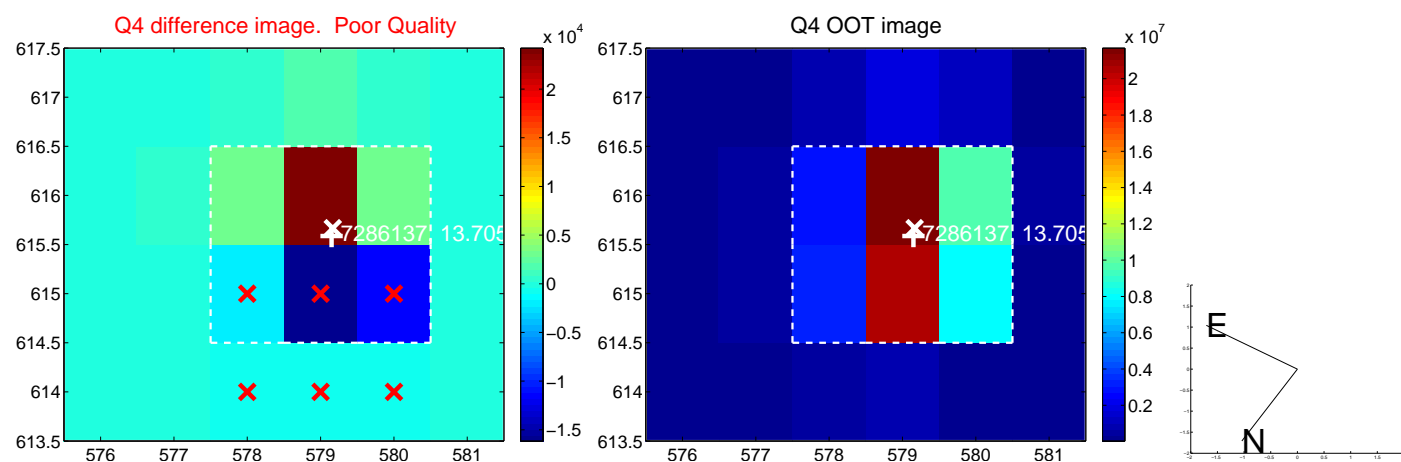
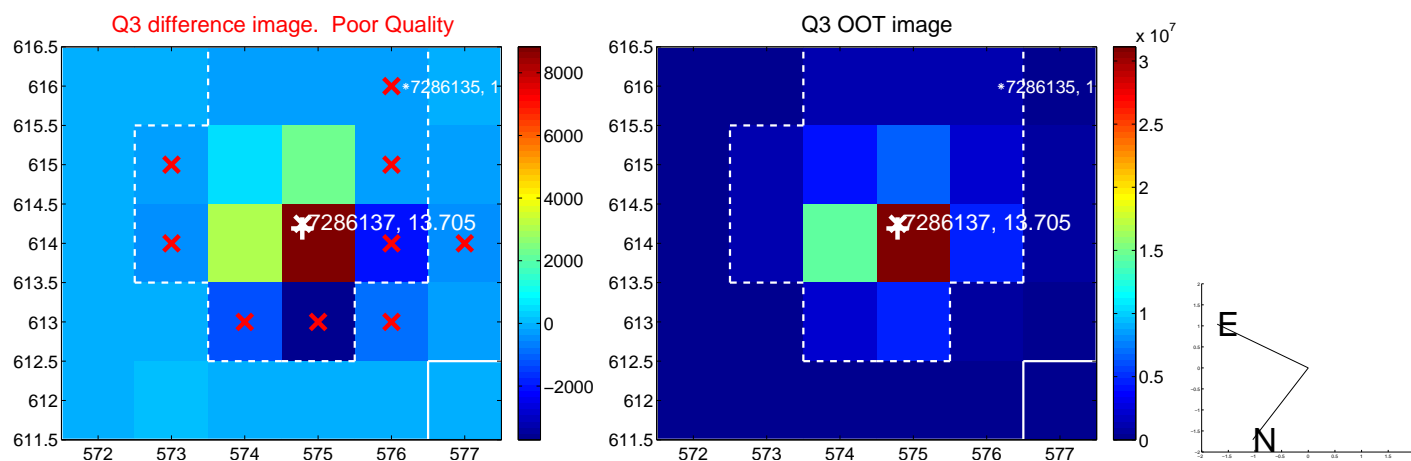
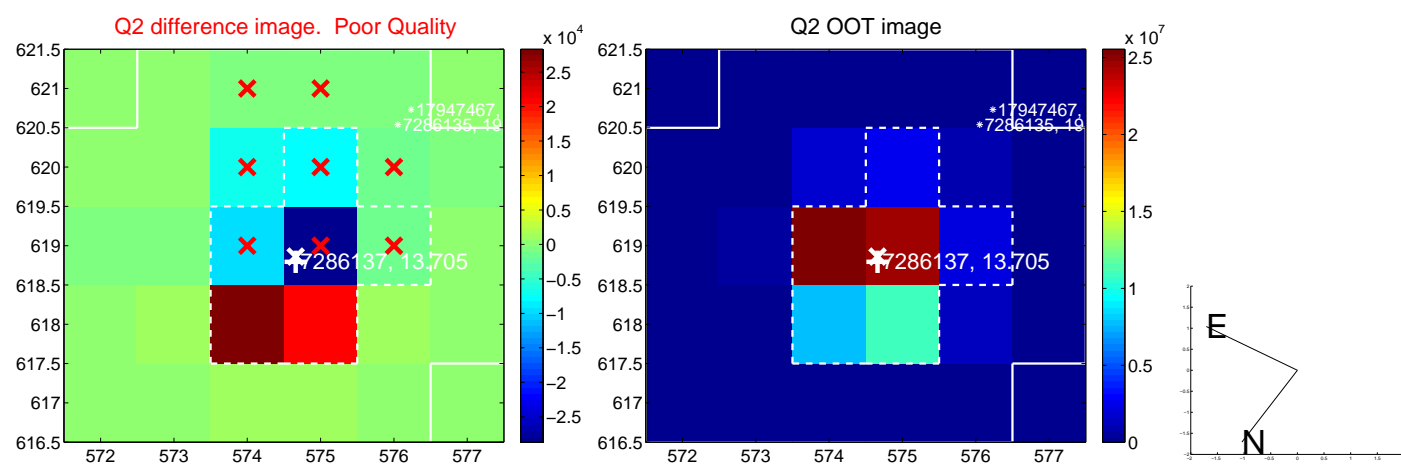
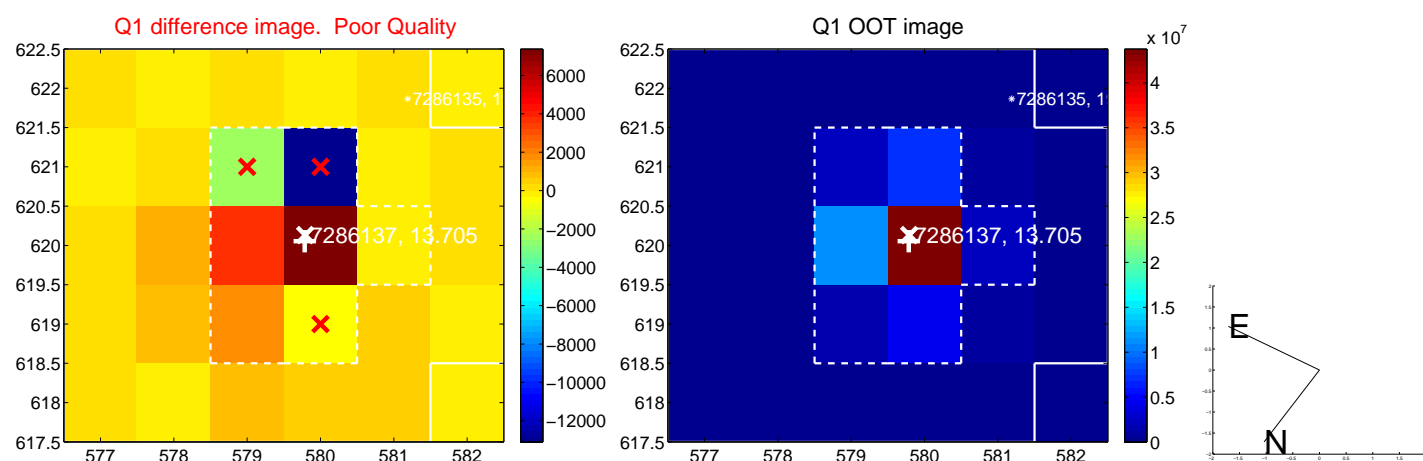


offset from photometric centroids

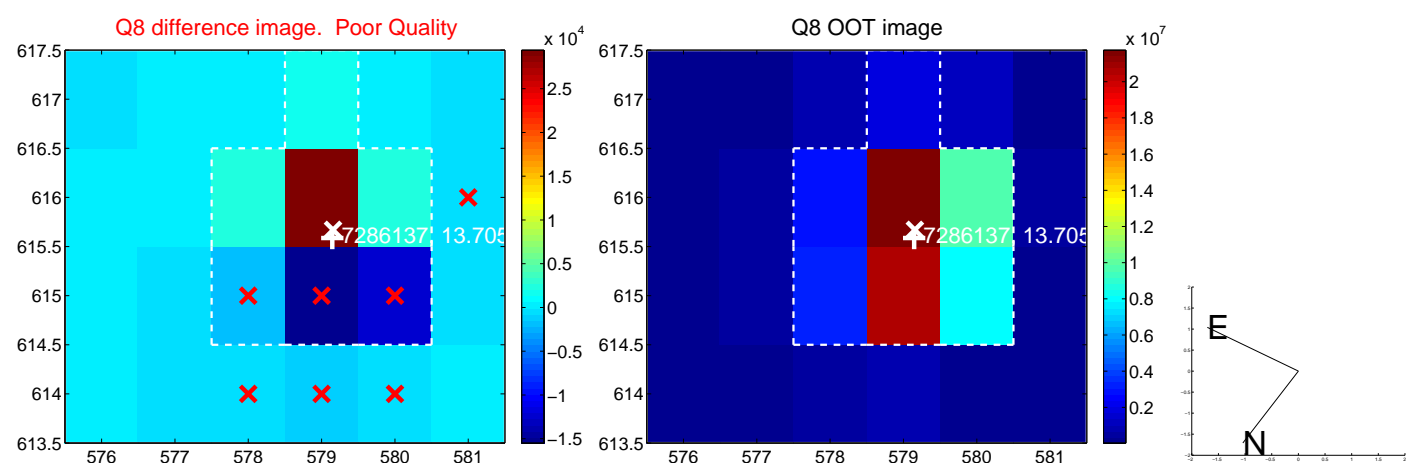
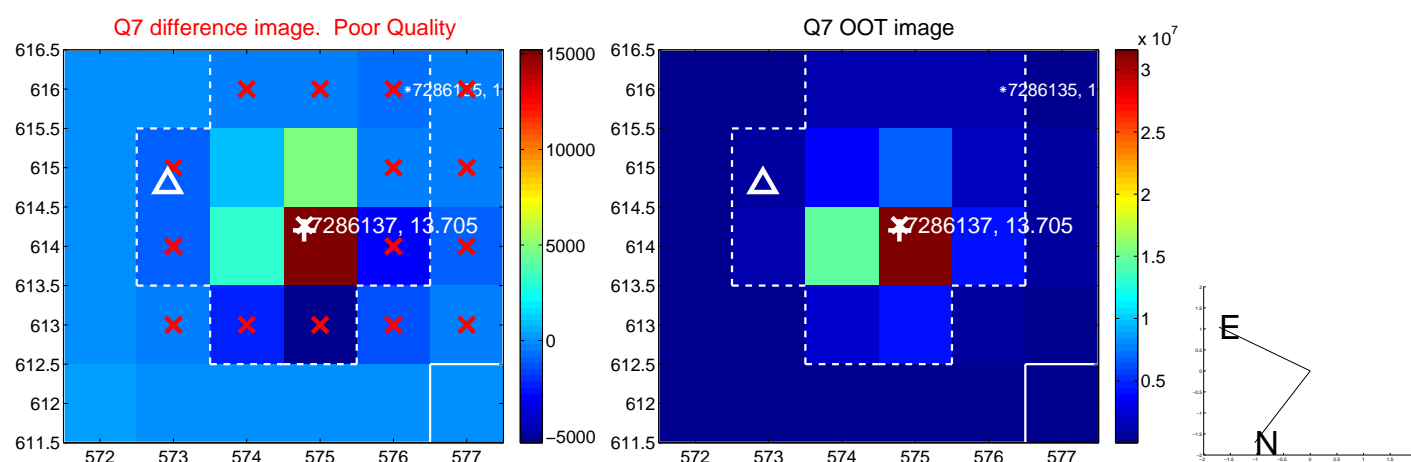
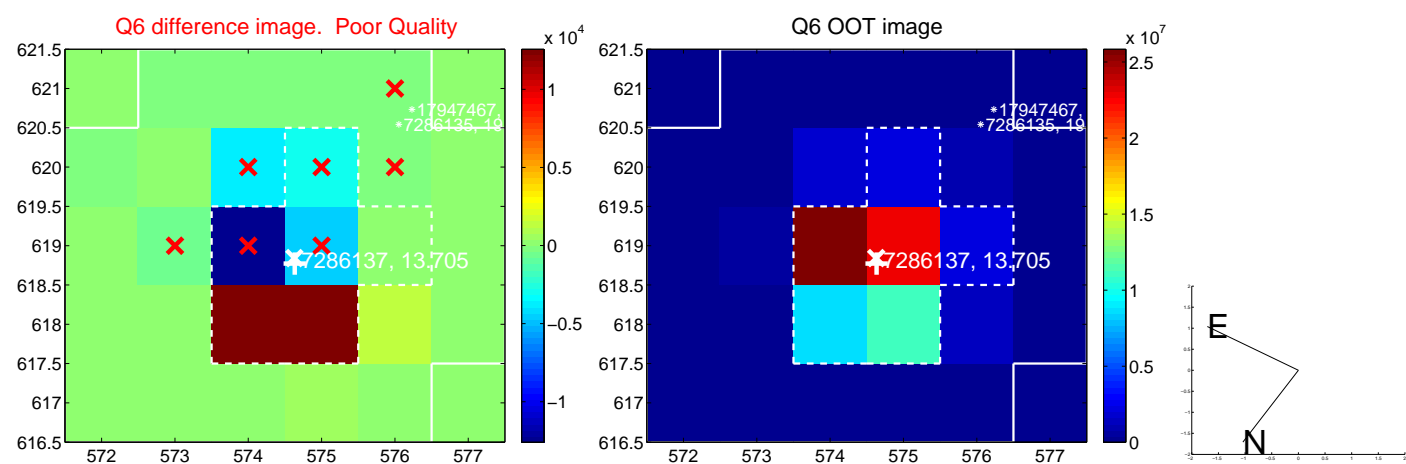
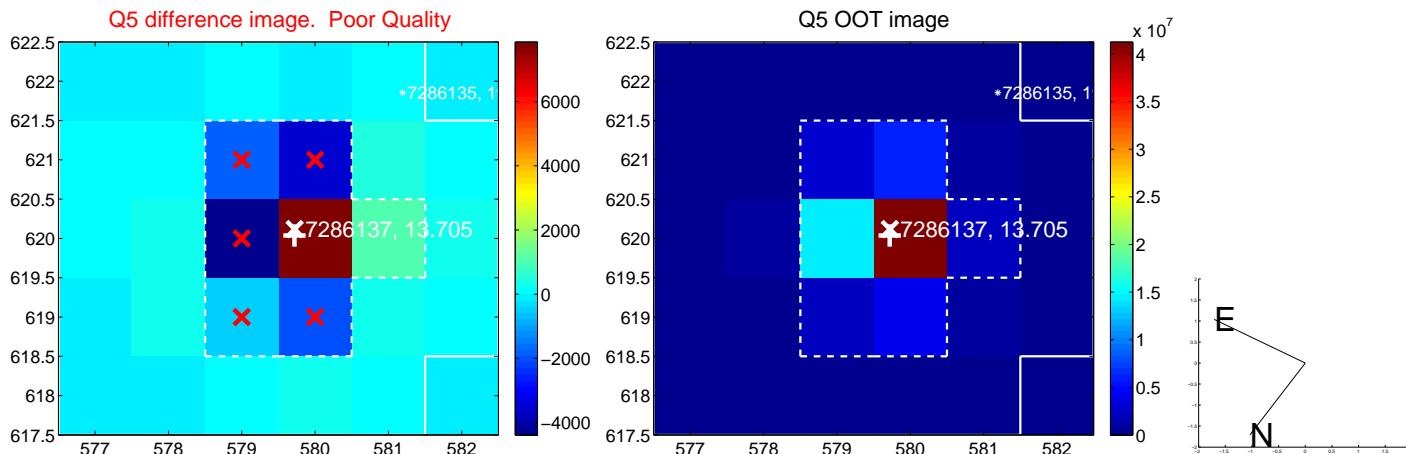


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

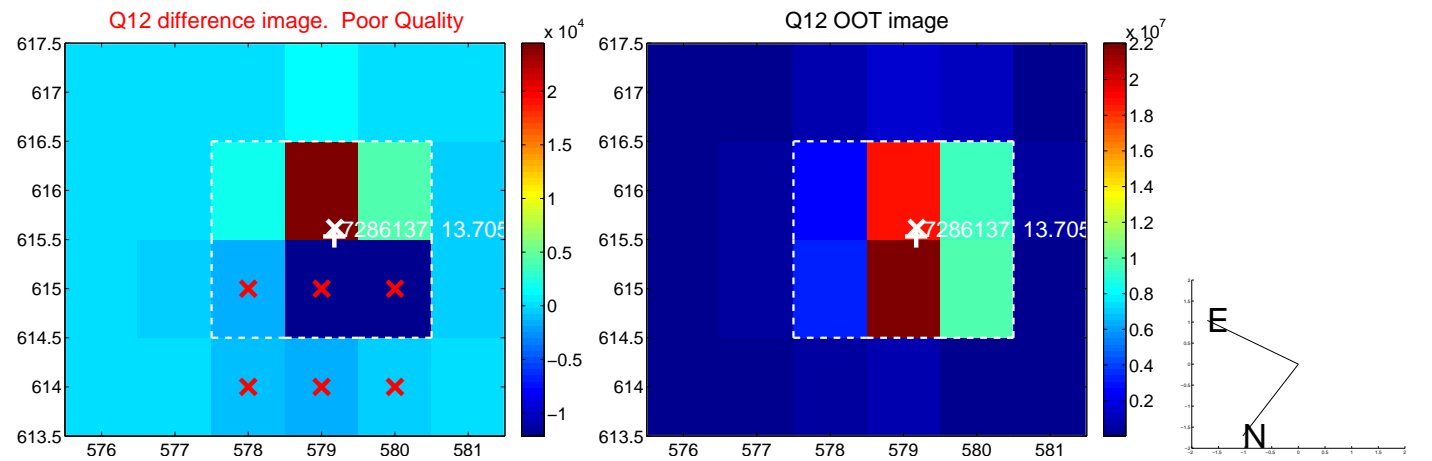
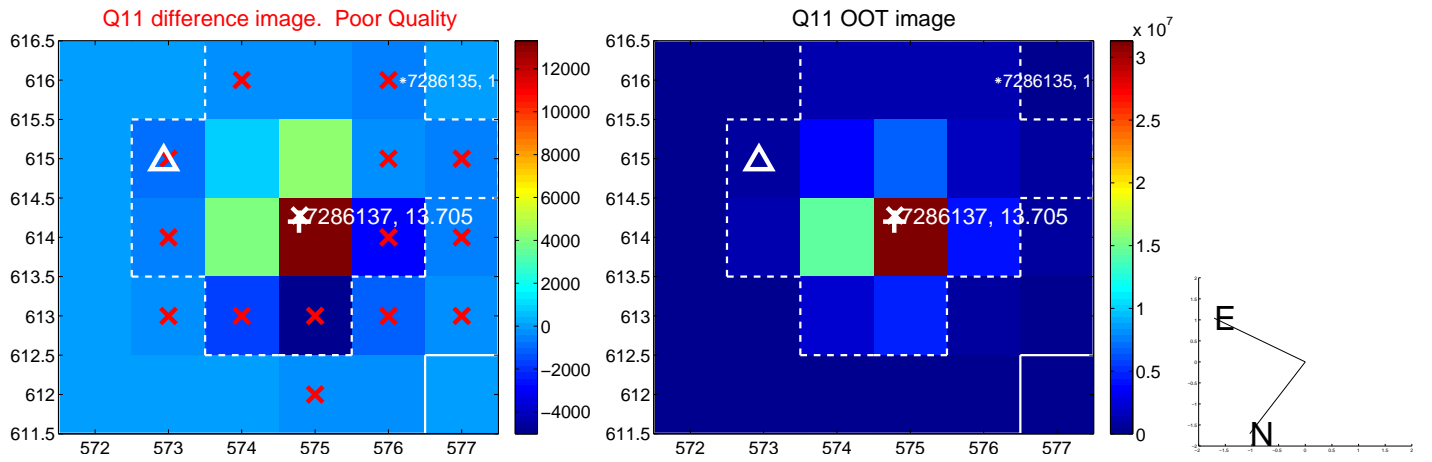
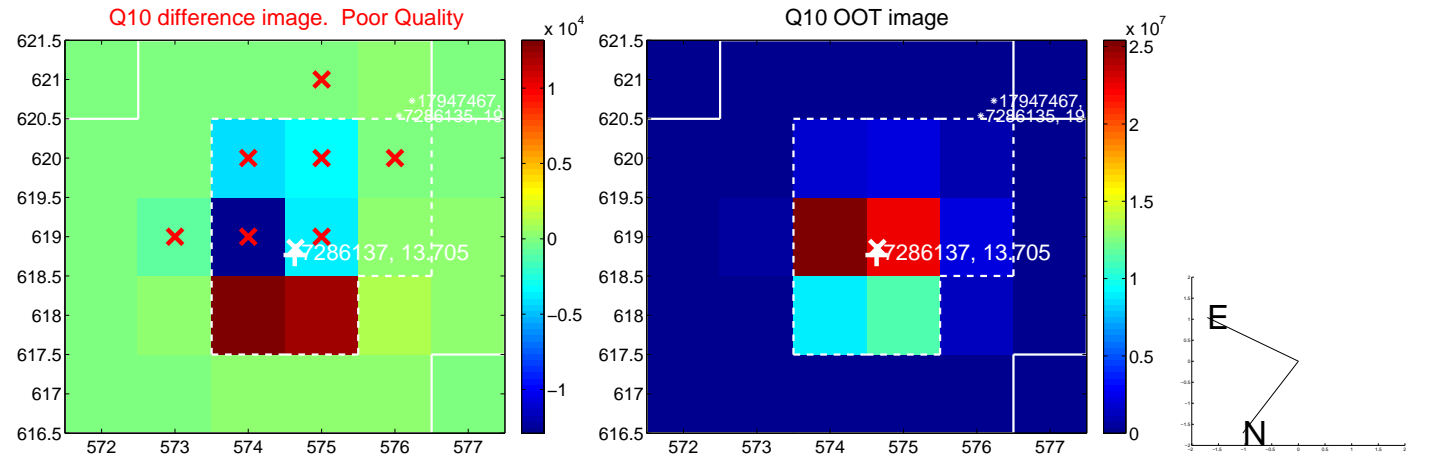
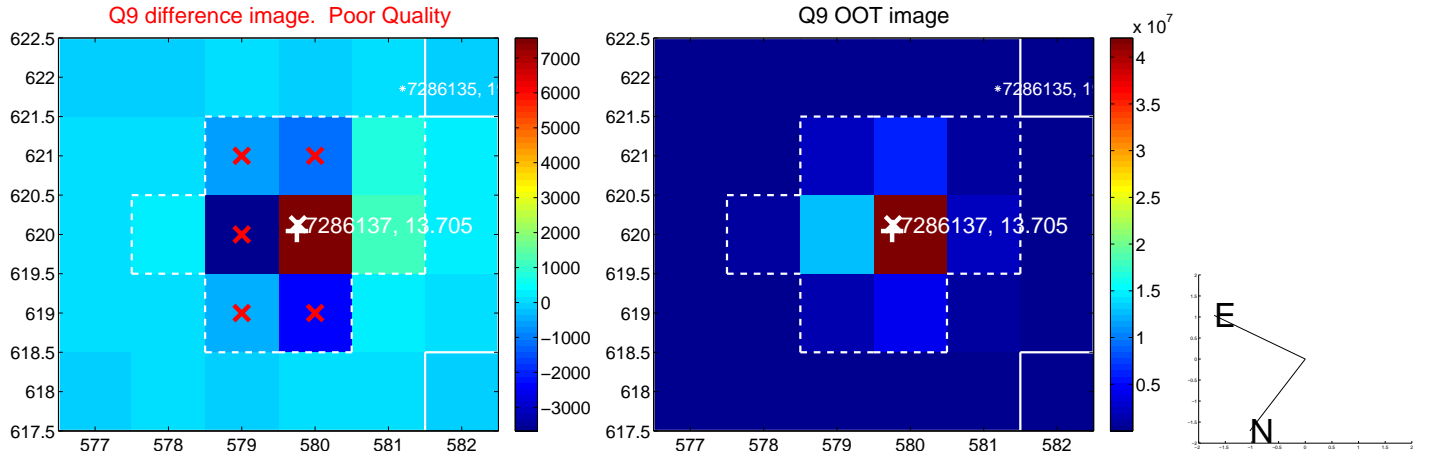
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



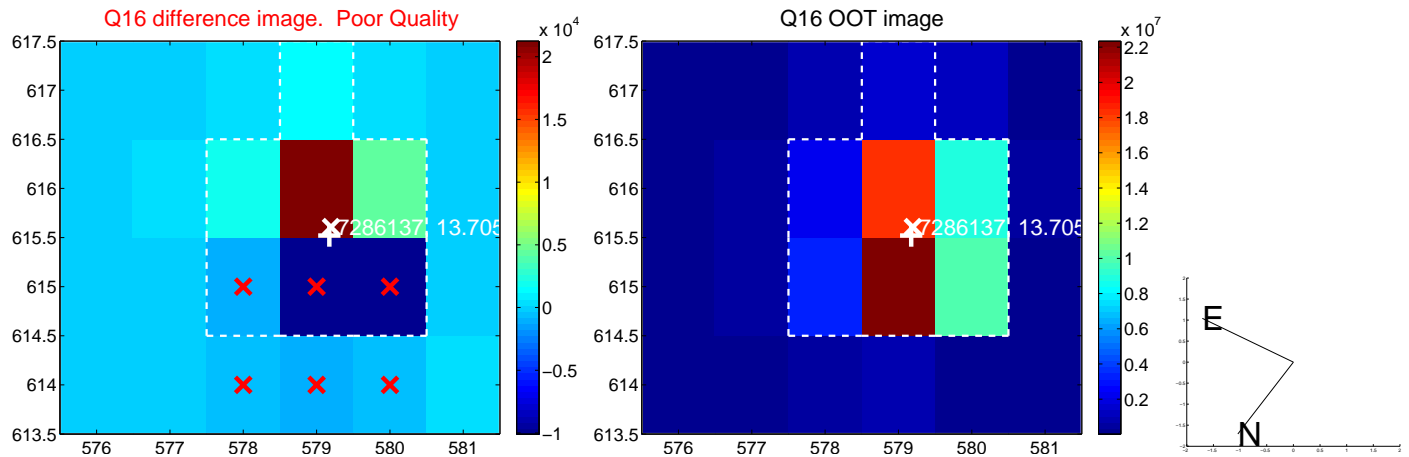
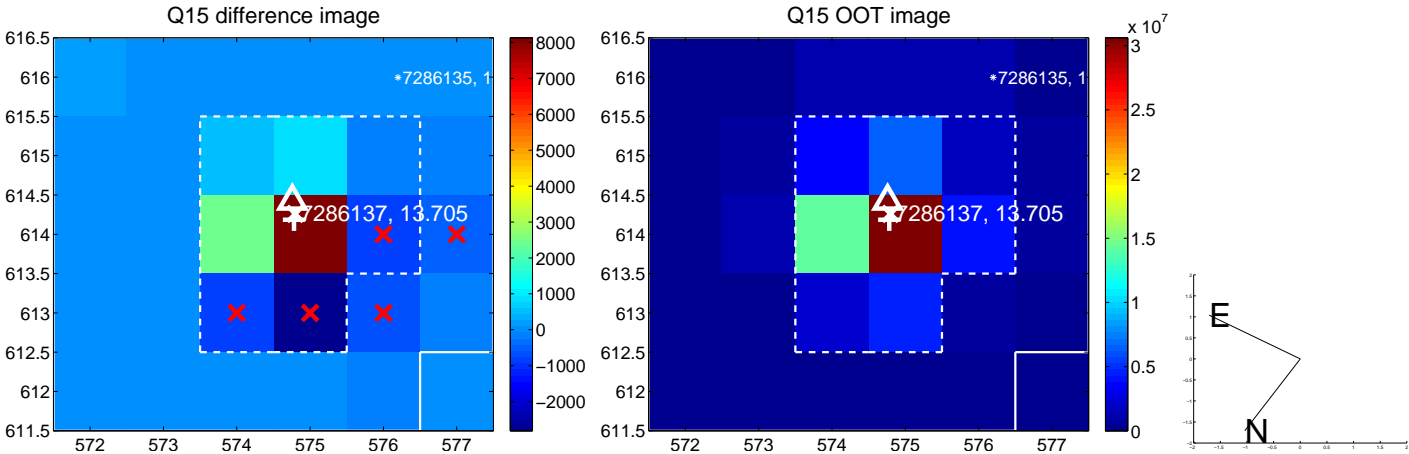
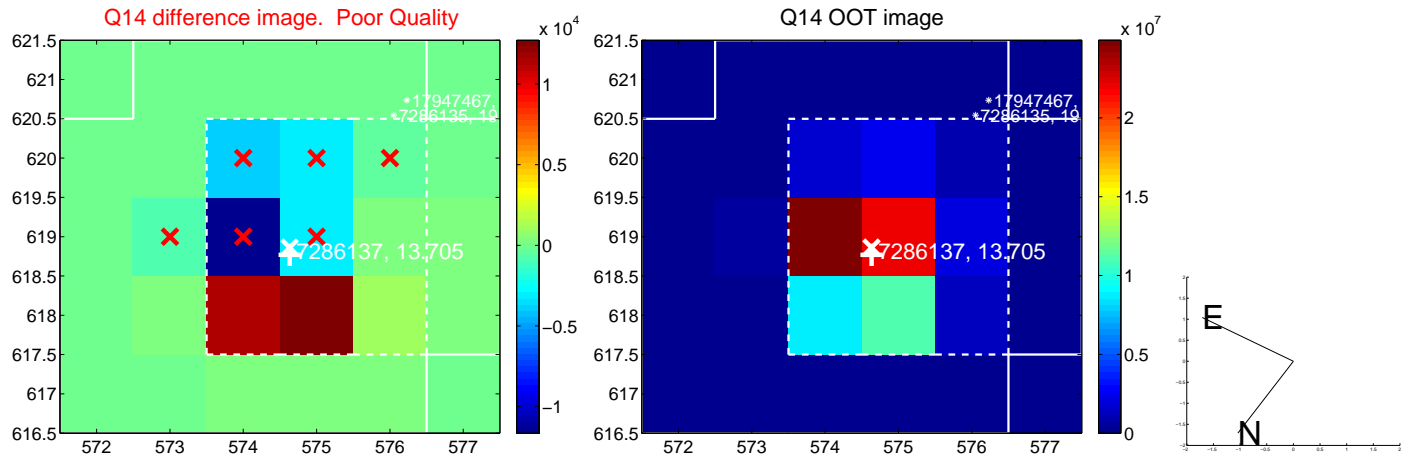
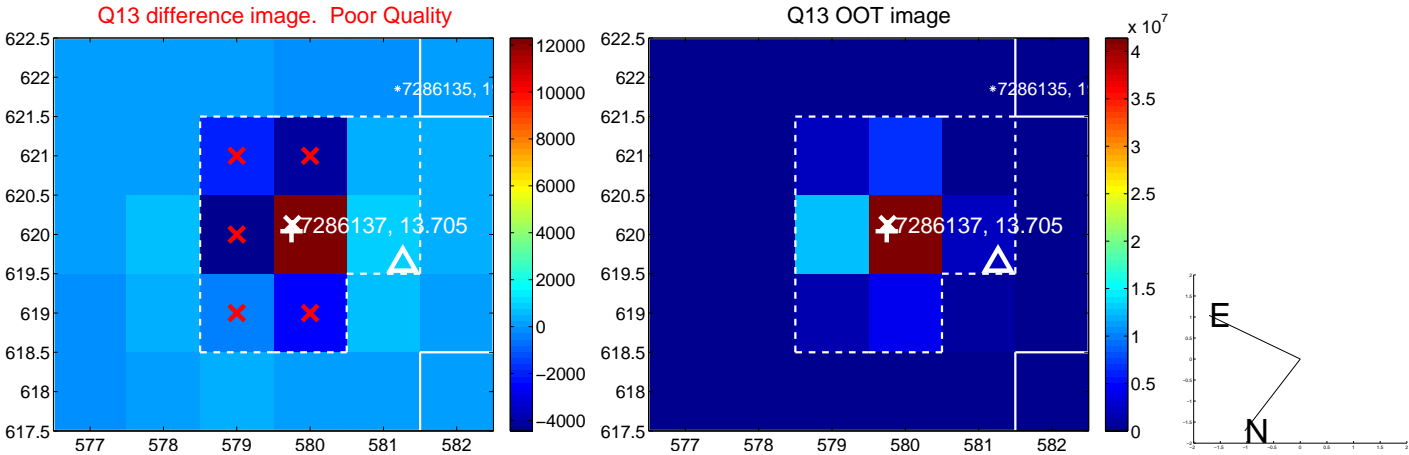
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



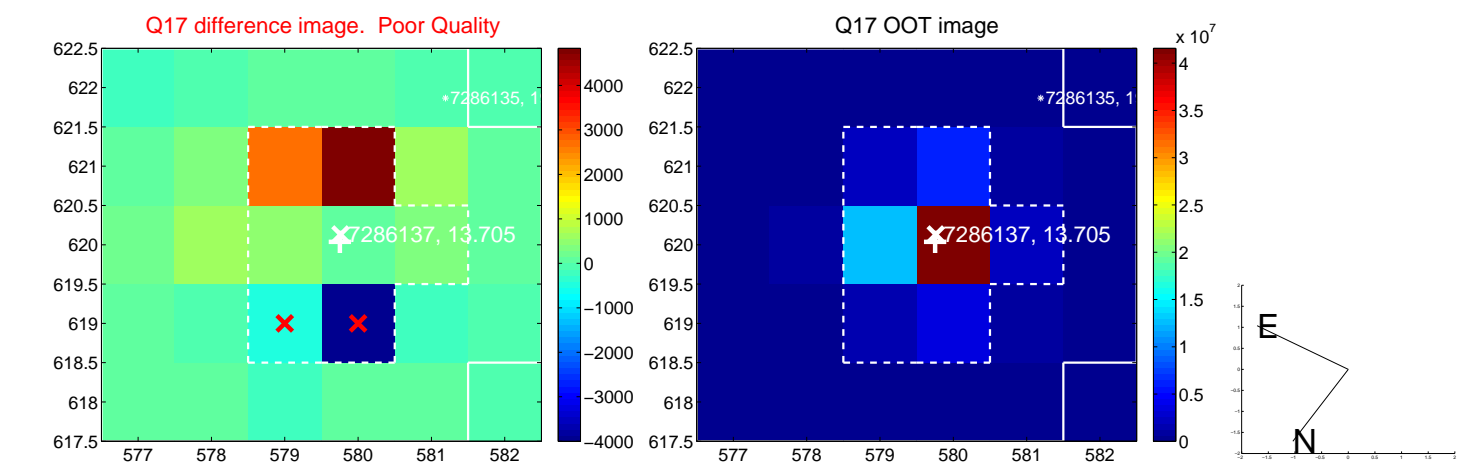
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



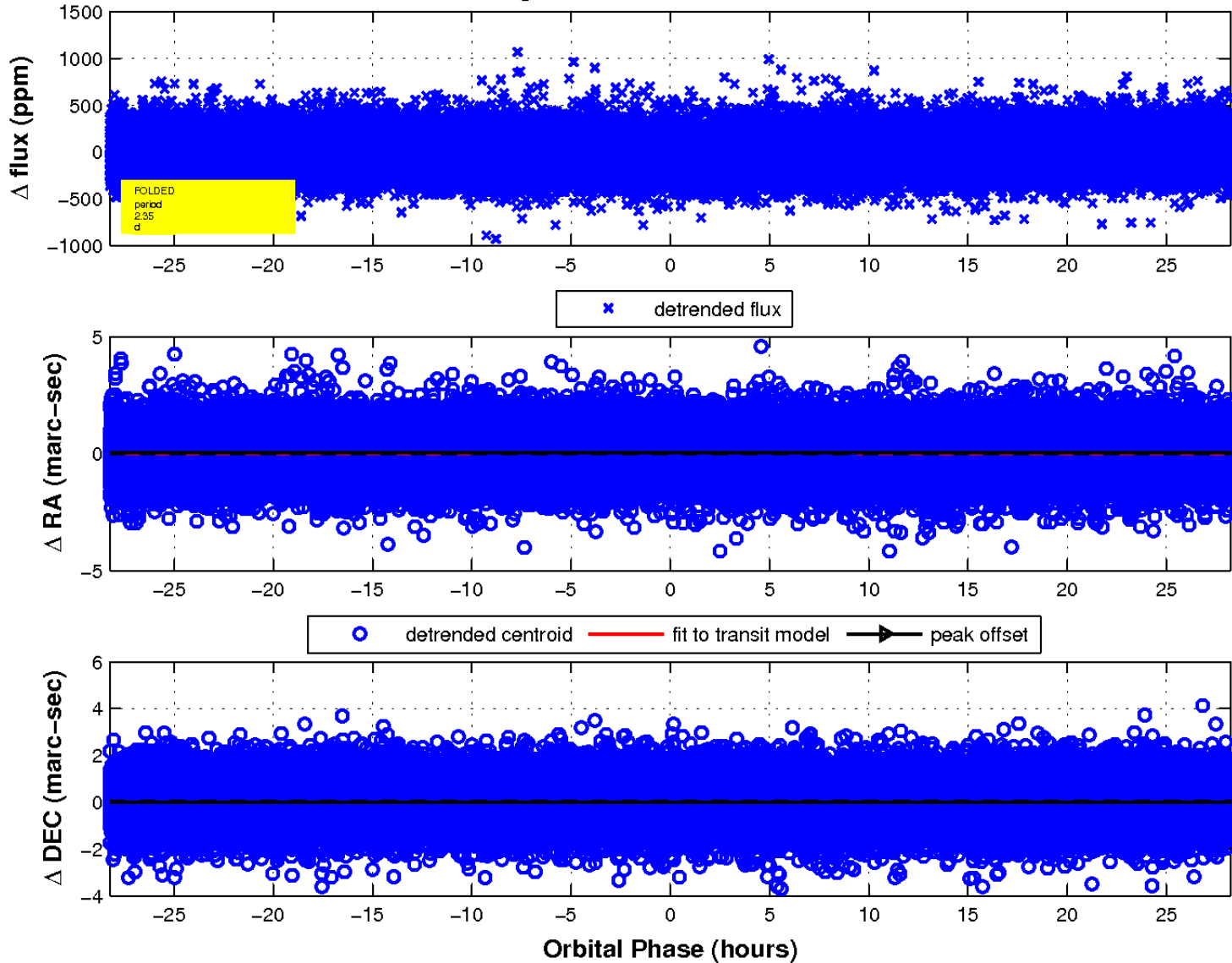
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

