

KIC 007522019

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})
007522019-01	OBS	No	1.207680	132.568014	20.6	12.893	9.2	10.3	2.04	6654	1.08	11160.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007522019-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

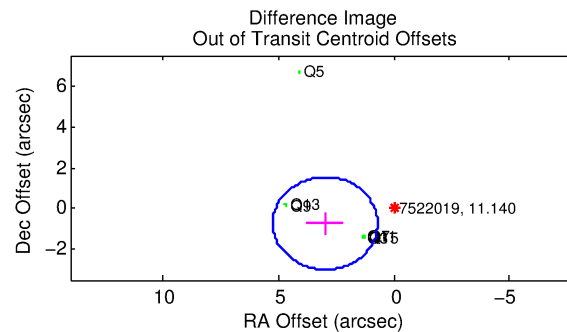
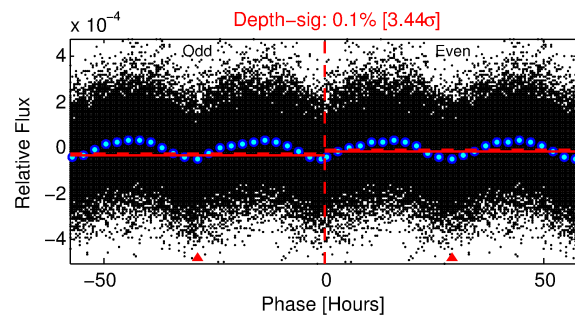
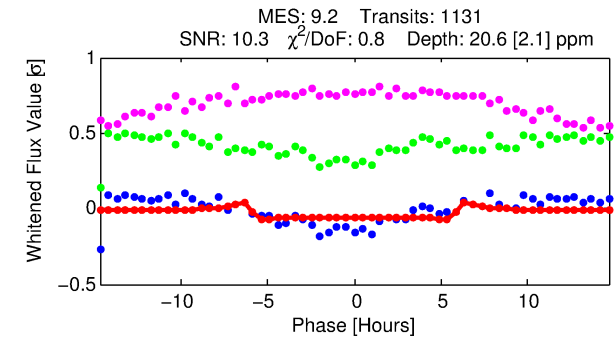
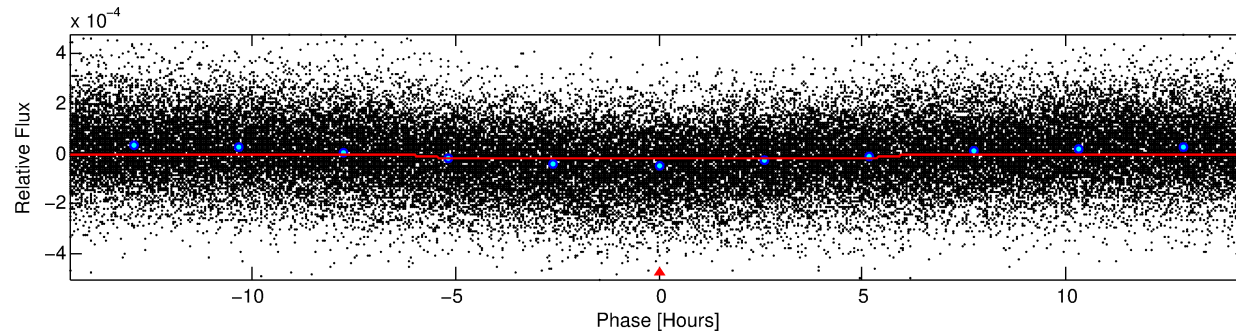
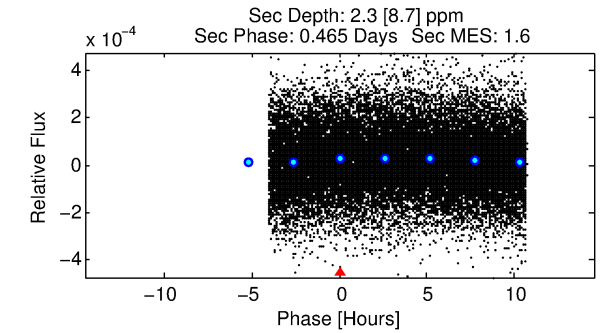
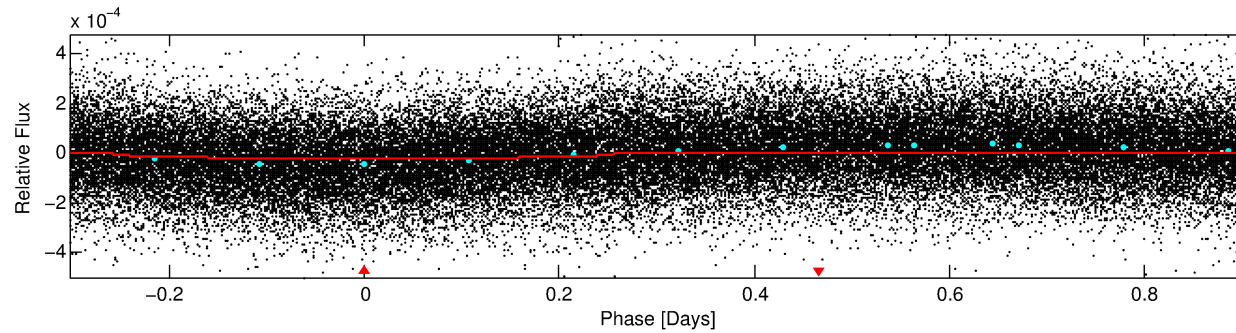
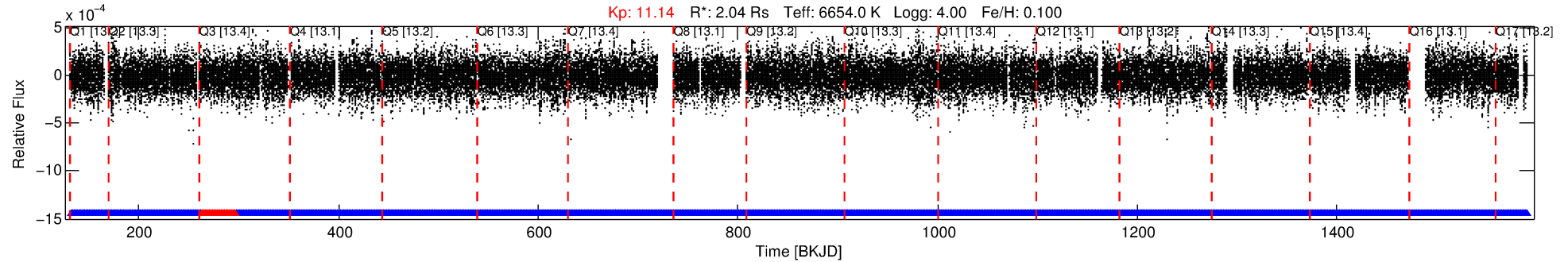
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007522019-01

No Significant Match Found

DV One-Page Summary

KIC: 7522019 Candidate: 1 of 1 Period: 1.208 d



DV Fit Results:

Period = 1.20768 [0.00002] d
Epoch = 132.5680 [0.0045] BKJD
Rp/R* = 0.0049 [0.0004]
a/R* = 1.01 [0.00]
b = 0.90 [0.06]
Seff = 11160.04 [3298.07]
Teq = 2621 [194] K
Rp = 1.08 [0.23] Re
a = 0.0255 [0.0048] AU
Ag = 0.70 [2.69] [-0.11σ]
Teffp = 3705 [3551] K [0.30σ]

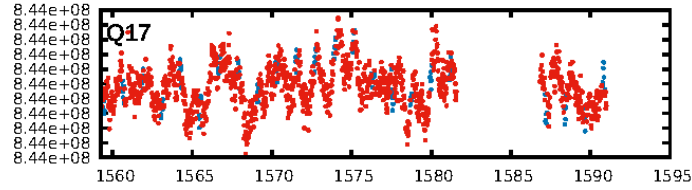
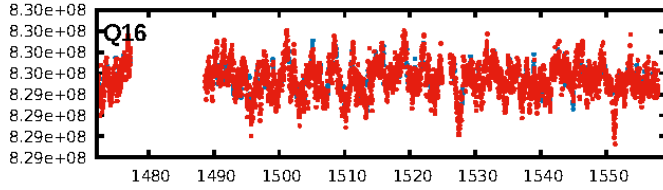
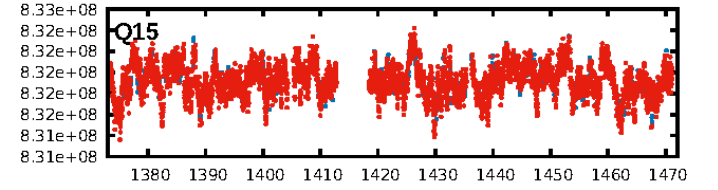
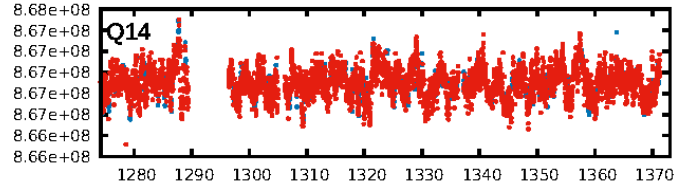
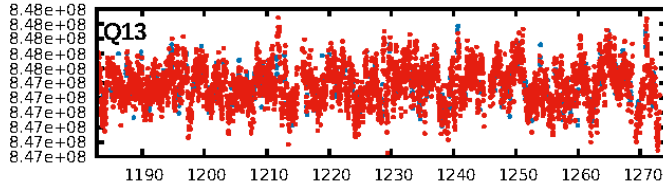
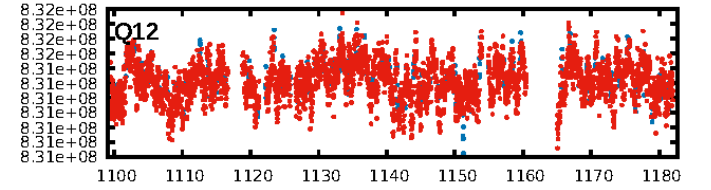
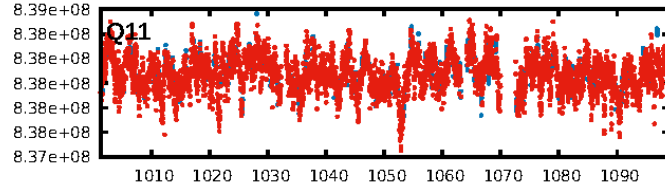
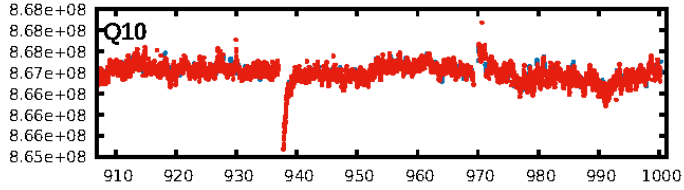
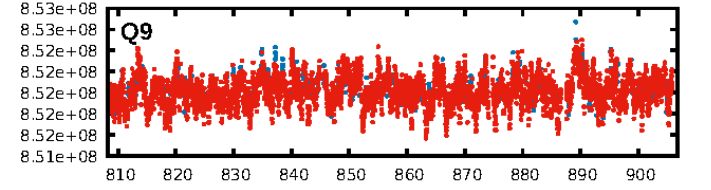
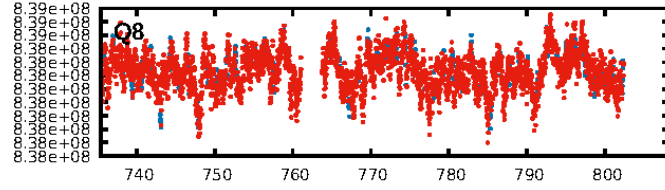
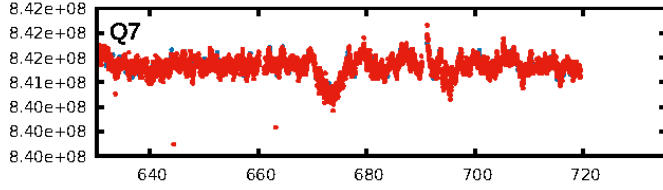
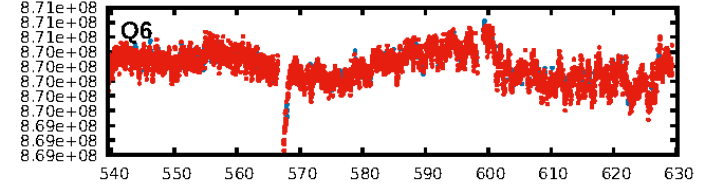
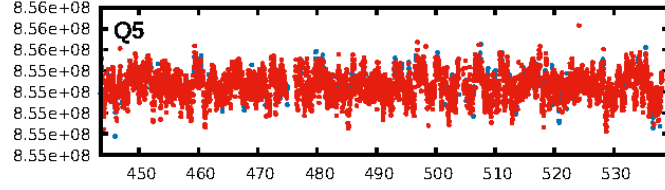
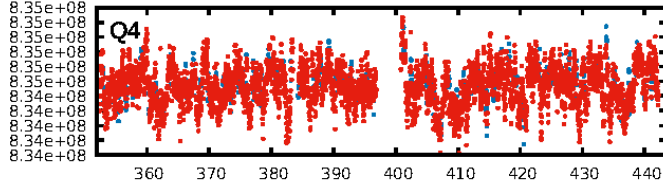
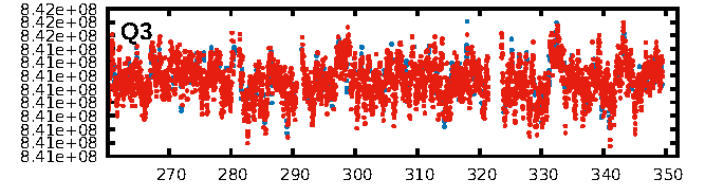
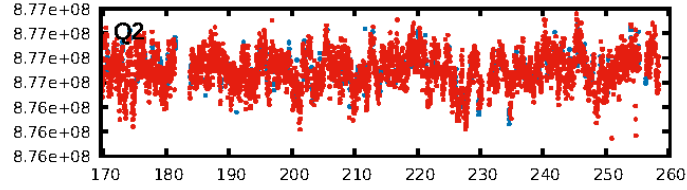
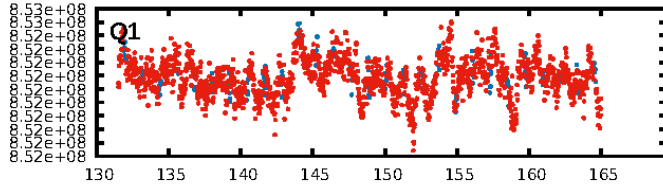
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGo-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [1050/1079]
GhostDiagnostic-chr: 2.674
Centroid-sig: 38.6%
Centroid-so: 0.365 arcsec [1.04σ]
OotOffset-rm: 3.067 arcsec [4.06σ]
KicOffset-rm: 3.351 arcsec [4.85σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 1.00 [17/17]

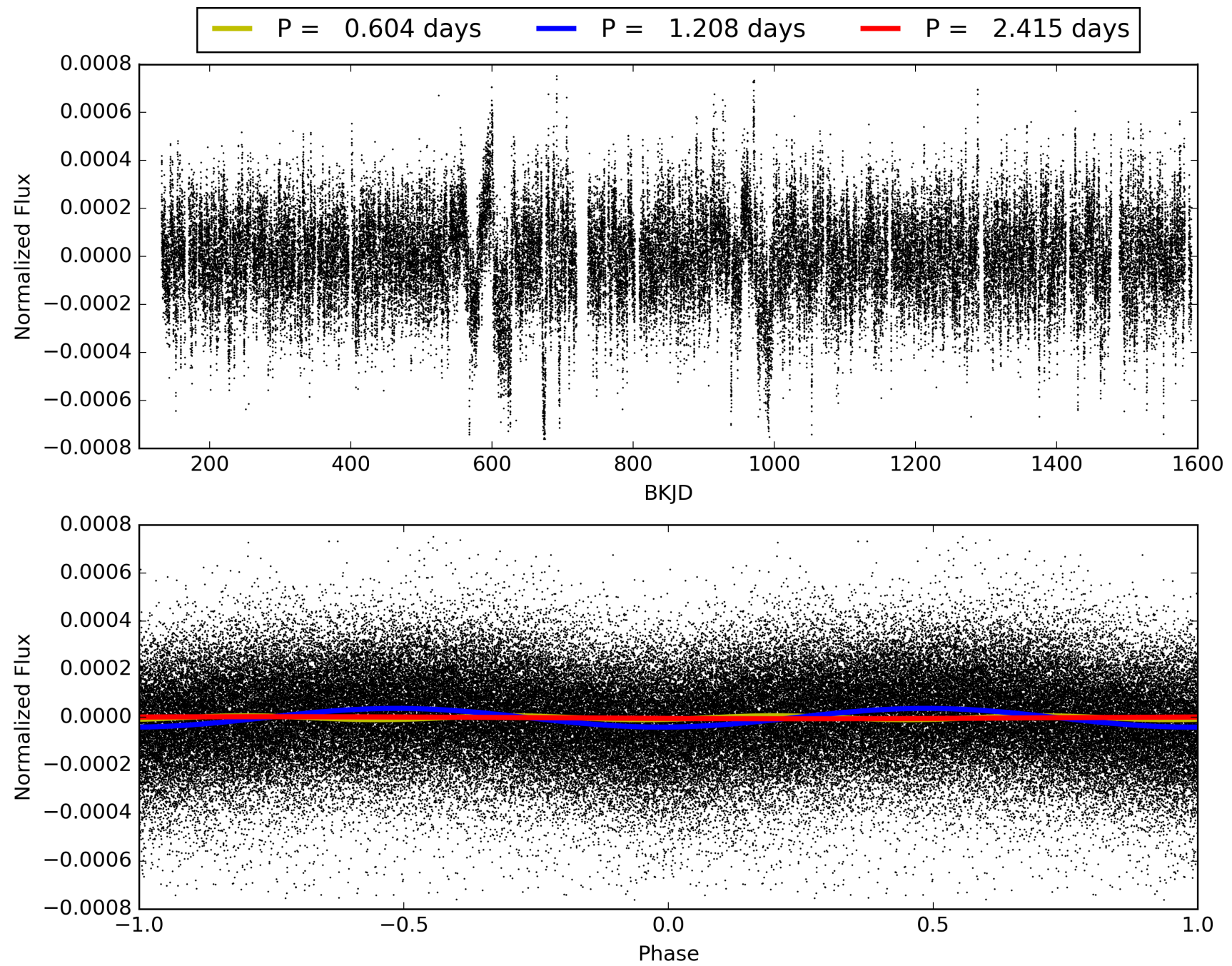
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:31:43 Z

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

TCE 007522019-01, PDC Light Curves

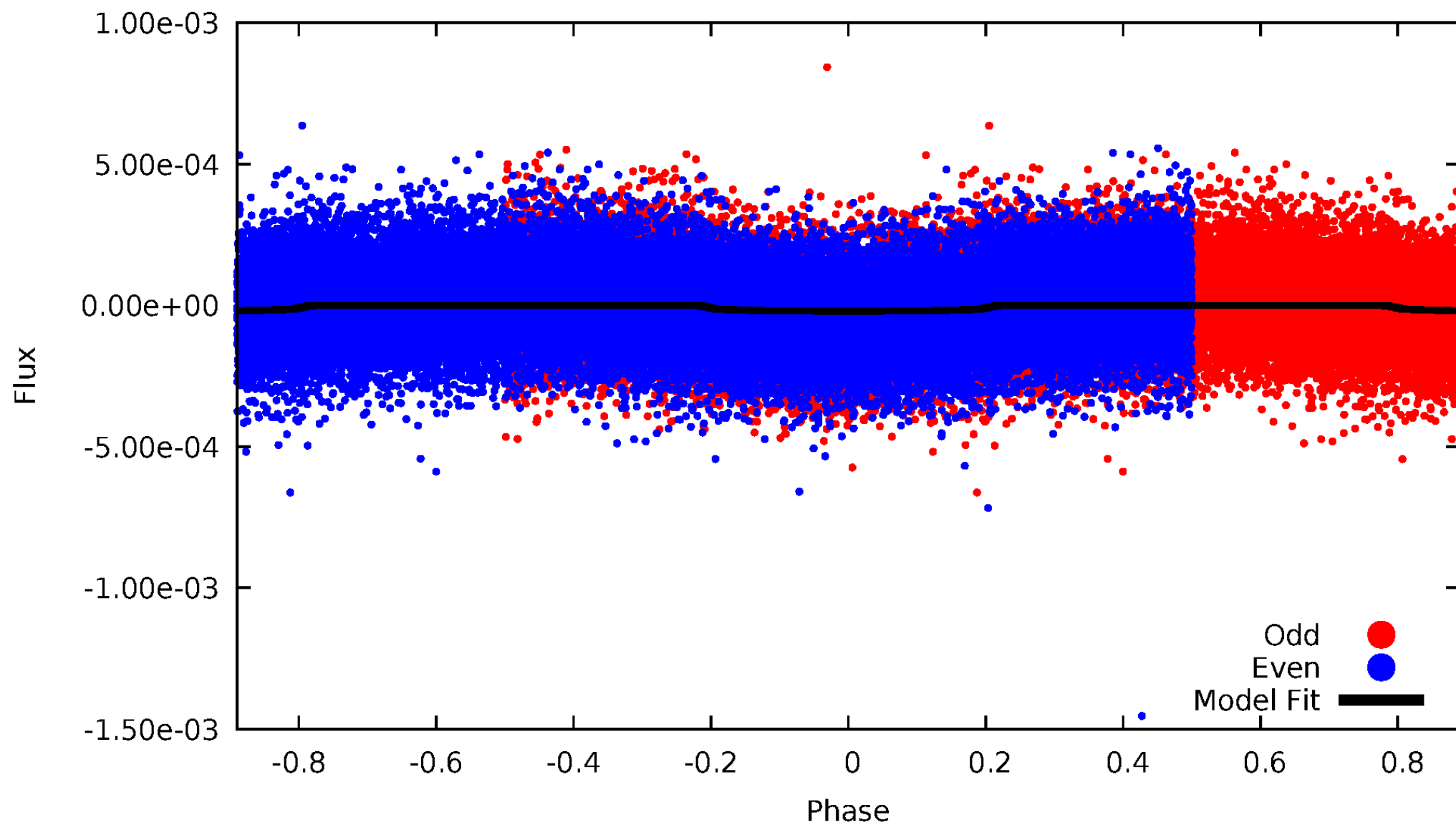


TCE 007522019-01



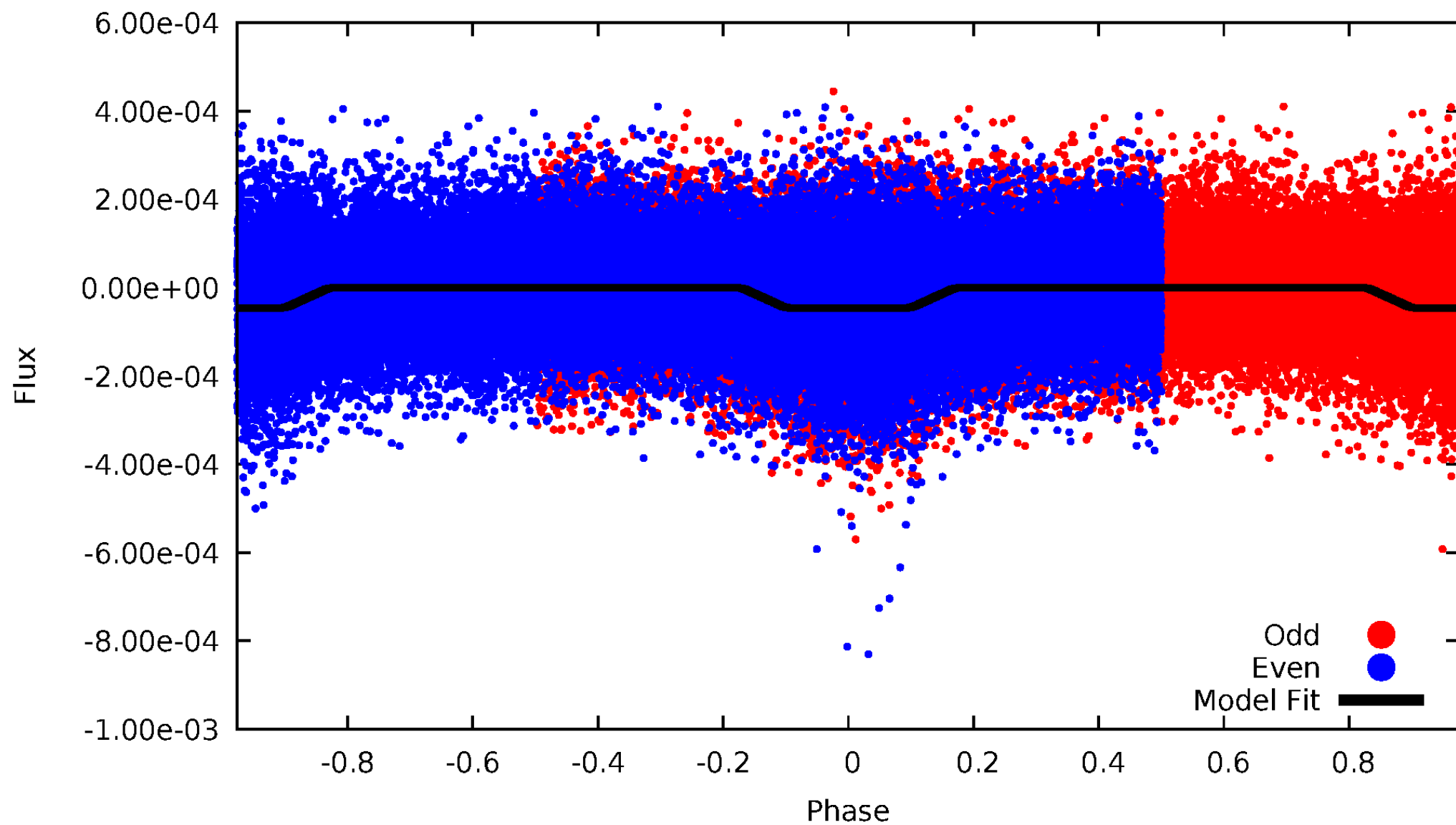
DV Odd/Even

TCE 007522019-01



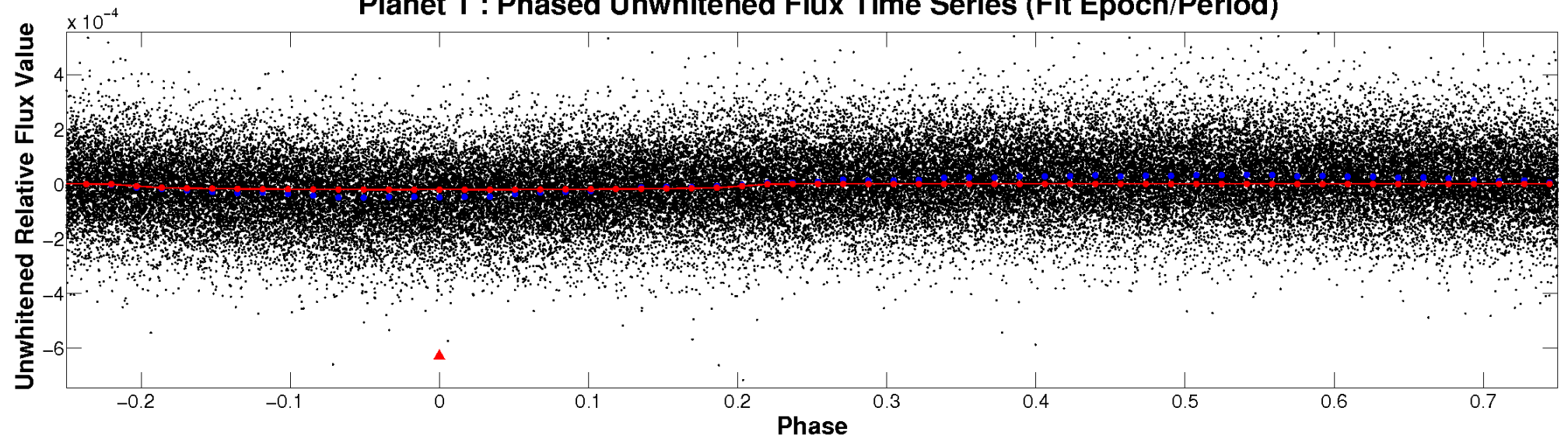
ALT Odd/Even

TCE 007522019-01

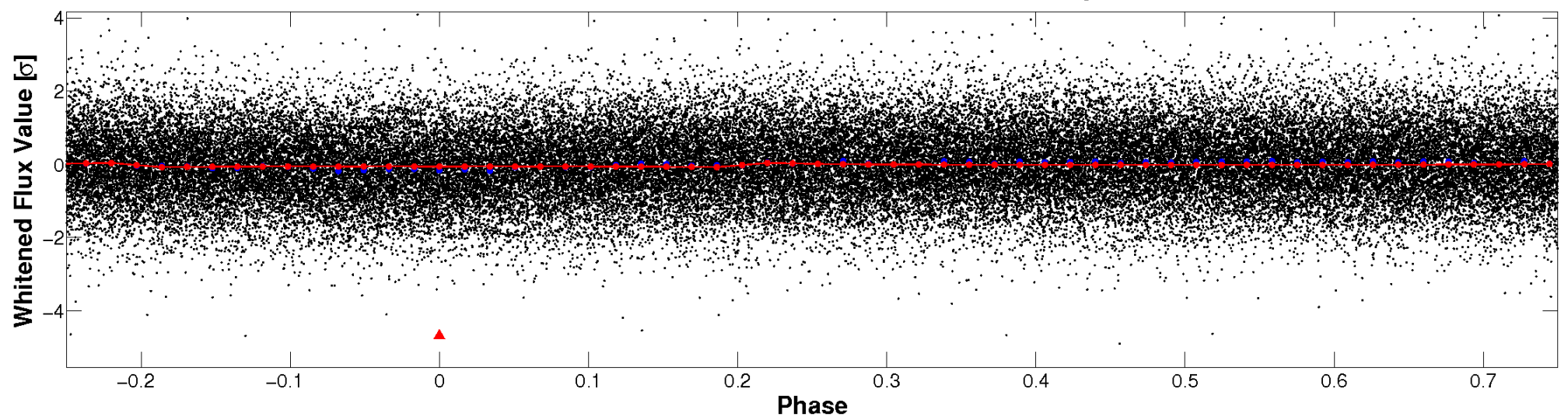


Non-Whitened Vs. Whitened Light Curve

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

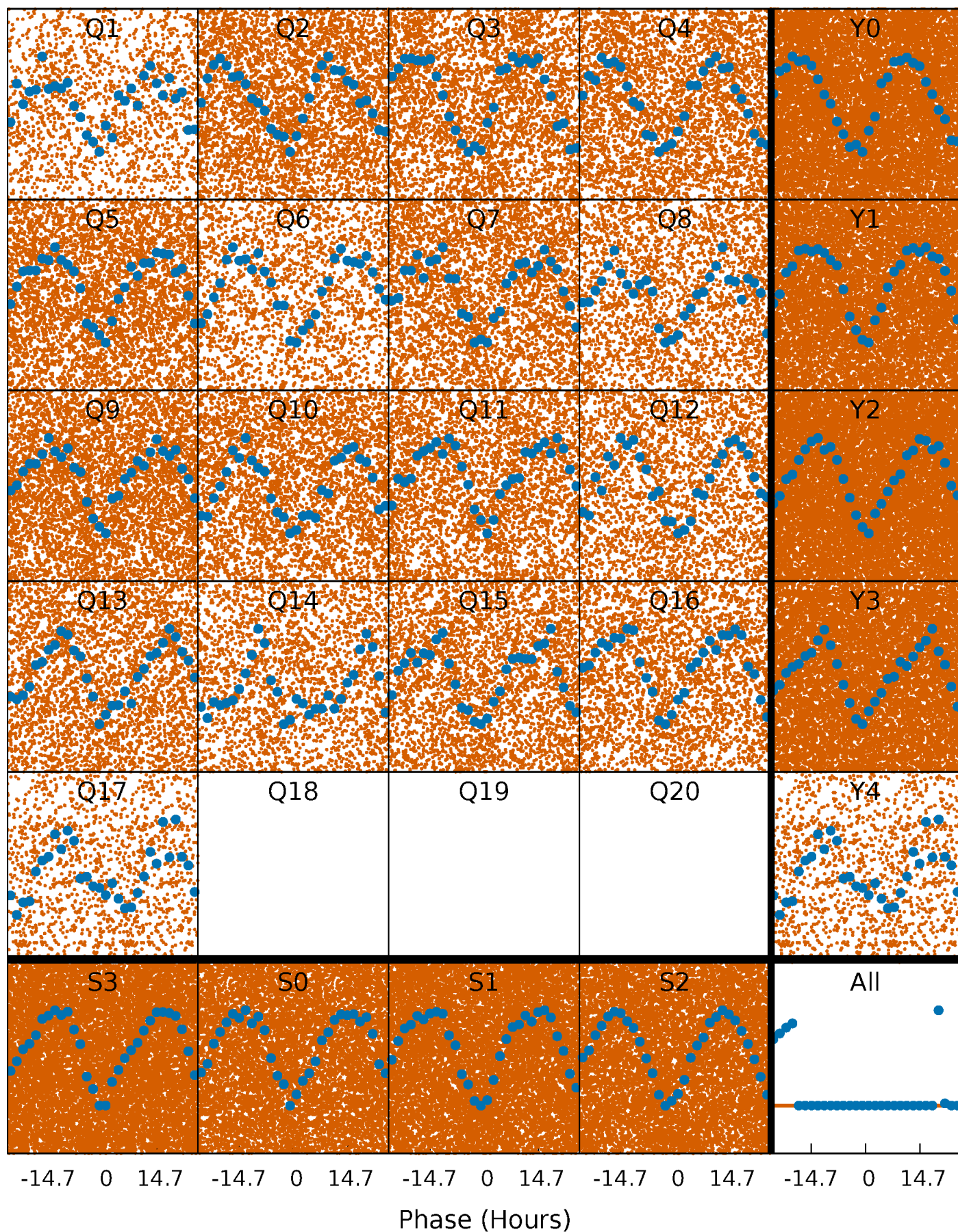


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



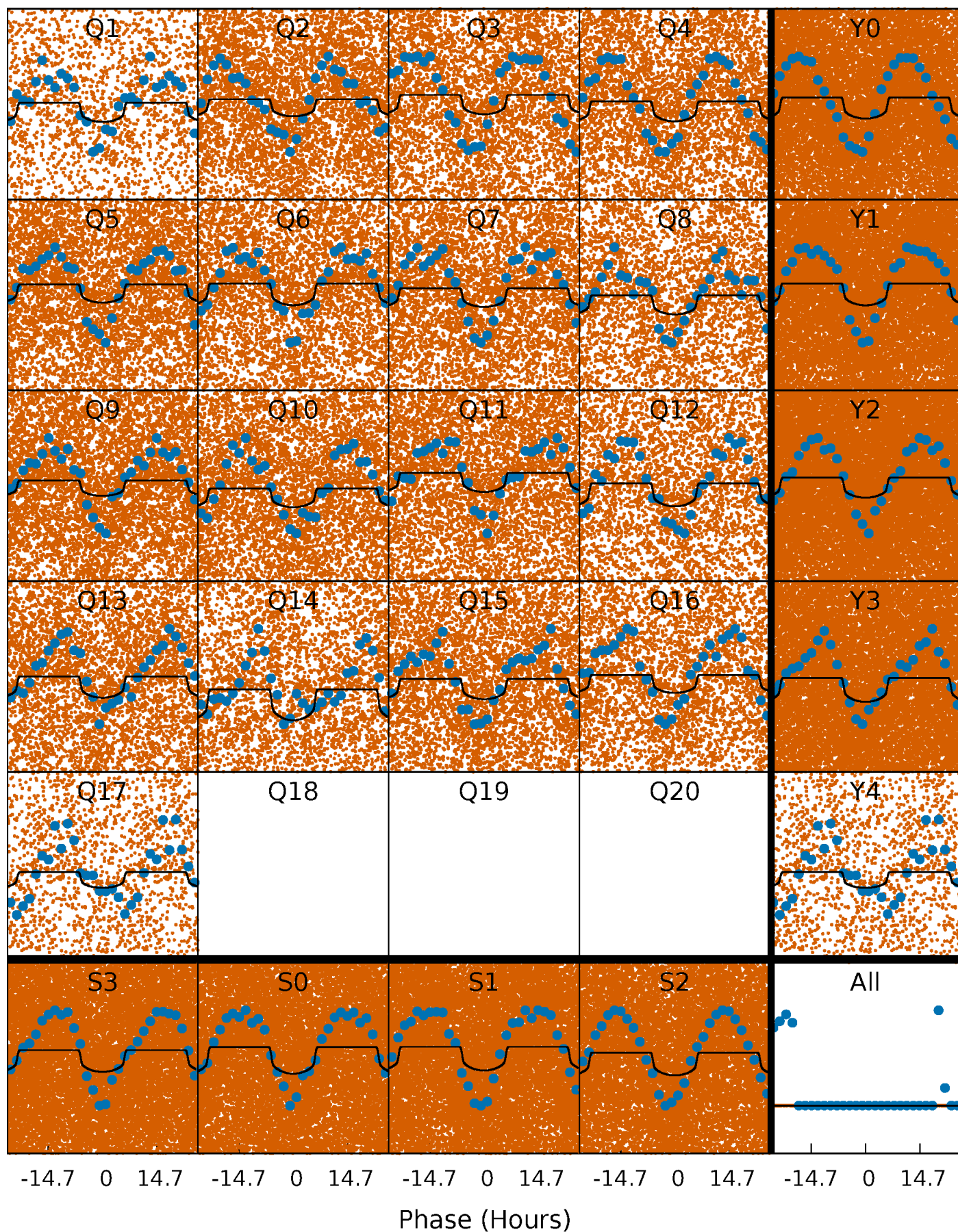
PDC Quarter-Phased Transit Curves

TCE 007522019-01 P= 1.207680 Days $T_0=132.568014$ (BKJD)



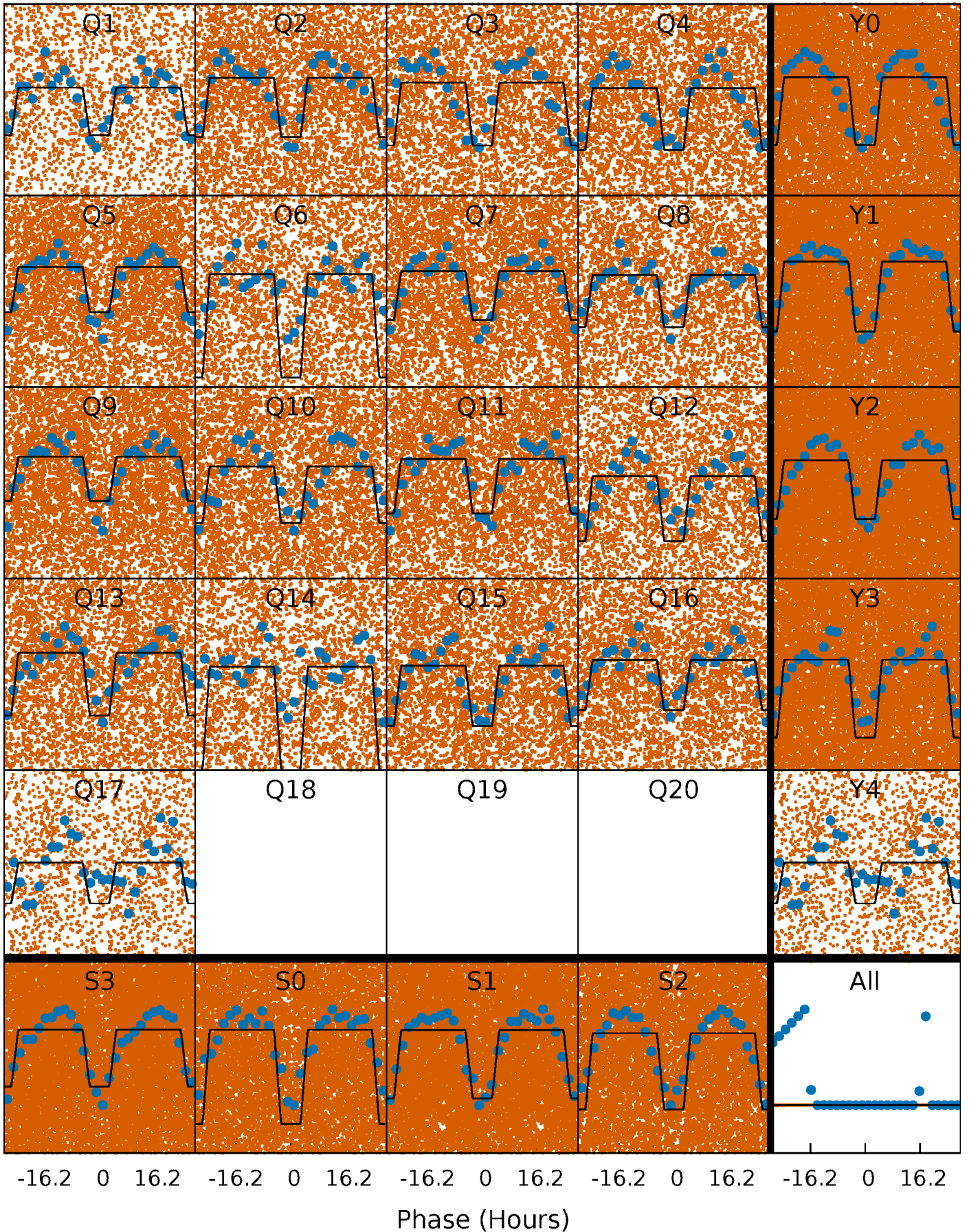
DV Quarter-Phased Transit Curves

TCE 007522019-01 P= 1.207680 Days $T_0=132.568014$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

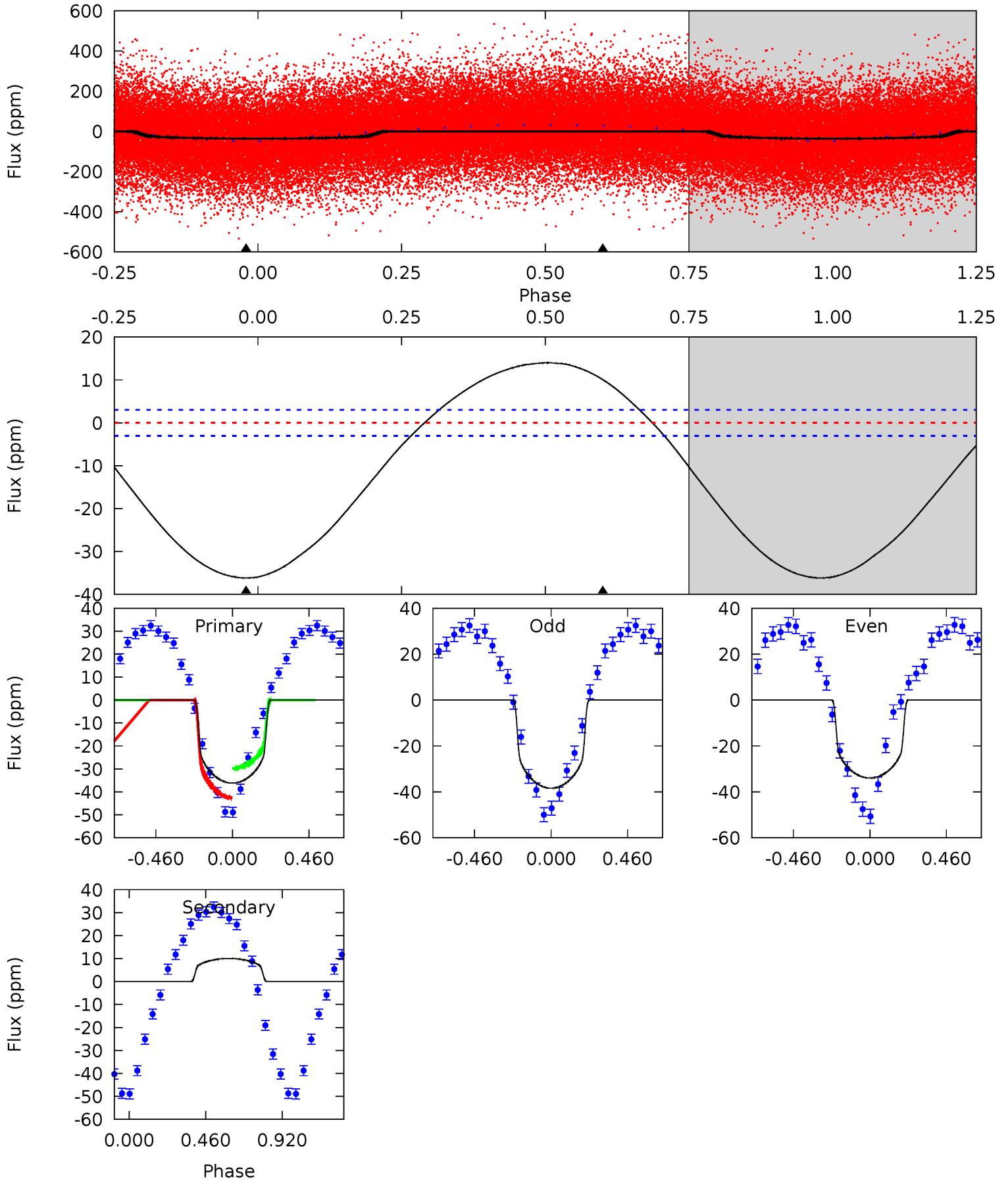
TCE 007522019-01 P= 1.207623 Days $T_0=132.566314$ (BKJD)



DV Model-Shift Uniqueness Test

007522019-01, P = 1.207680 Days, E = 131.360334 Days

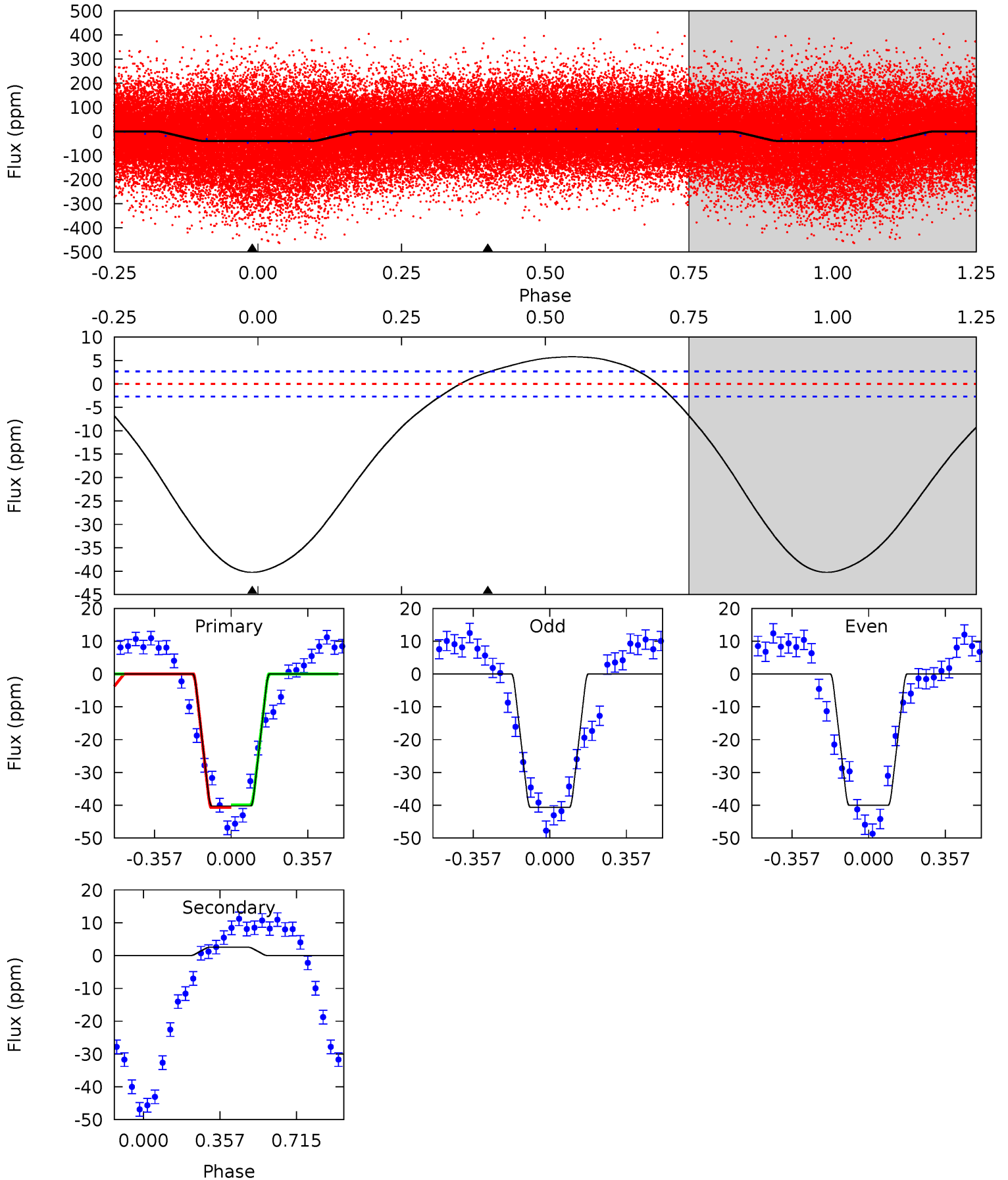
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.5	-14.1	0	0	4.23	0.74	5.04	50.5	50.5	-14.1	-14.1	3.10	1.02	0.28	8.82



Alt Model-Shift Uniqueness Test

007522019-01, P = 1.207623 Days, E = 131.358691 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
64.1	-3.98	0	0	4.29	0.92	4.57	64.1	64.1	-3.98	-3.98	0.52	1.07	0.13	0.52



Stellar Parameters For KIC 007522019

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6654^{+79}_{-79}	$4.003^{+0.168}_{-0.126}$	$0.100^{+0.150}_{-0.150}$	$2.035^{+0.416}_{-0.416}$	$1.520^{+0.127}_{-0.142}$	$0.254^{+0.230}_{-0.088}$
	+1%/-1%	+4%/-3%	+150%/-150%	+20%/-20%	+8%/-9%	+91%/-35%
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 007522019-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	10 ± 1	$1.06^{+0.14}_{-0.15}$	3642^{+184}_{-212}	-5520^{+197}_{-219}	$-3.173^{+0.715}_{-1.153}$
Alt.	3 ± 1	$1.50^{+0.20}_{-0.18}$	3654^{+200}_{-203}	-4009^{+137}_{-134}	$-0.392^{+0.125}_{-0.171}$

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

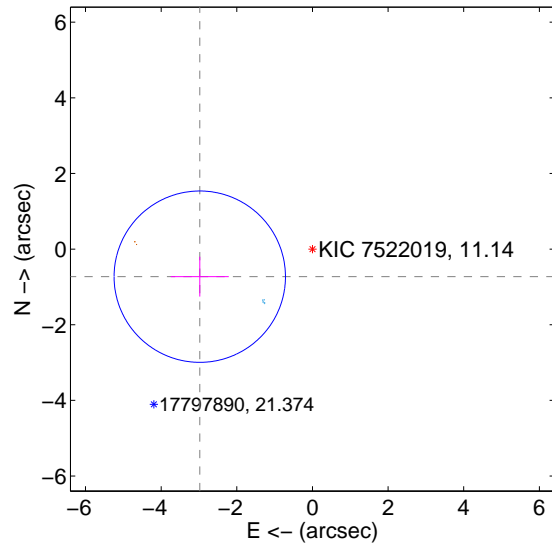
Supplemental centroid analysis for 007522019-01. **Kepler magnitude: 11.14.** Transit SNR 10.31

There are 4 quarters with good PRF difference image offsets

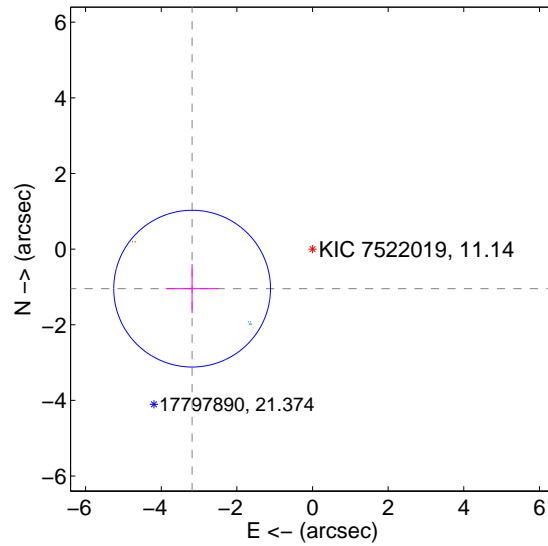
The direct PRF centroid is offset from the target star catalog position by about 0.67 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.067 ± 0.755	4.06	2.979 ± 0.767	-0.729 ± 0.527
PRF-fit source offset from KIC position	3.351 ± 0.691	4.85	3.184 ± 0.695	-1.046 ± 0.647
photometric centroid source offset	0.36 ± 0.35	1.04	0.36 ± 0.35	0.06 ± 0.34

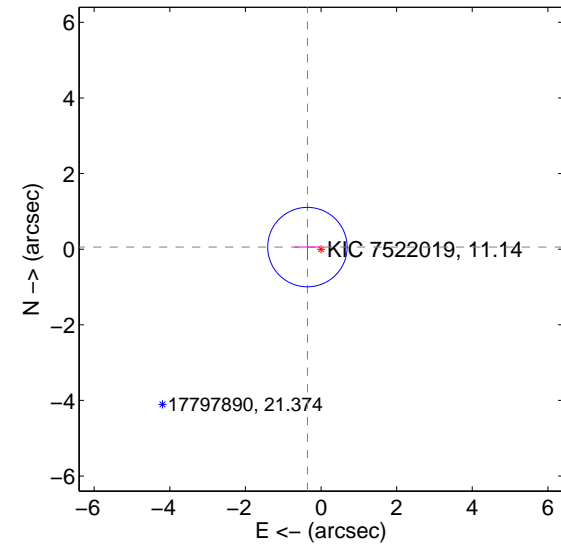
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

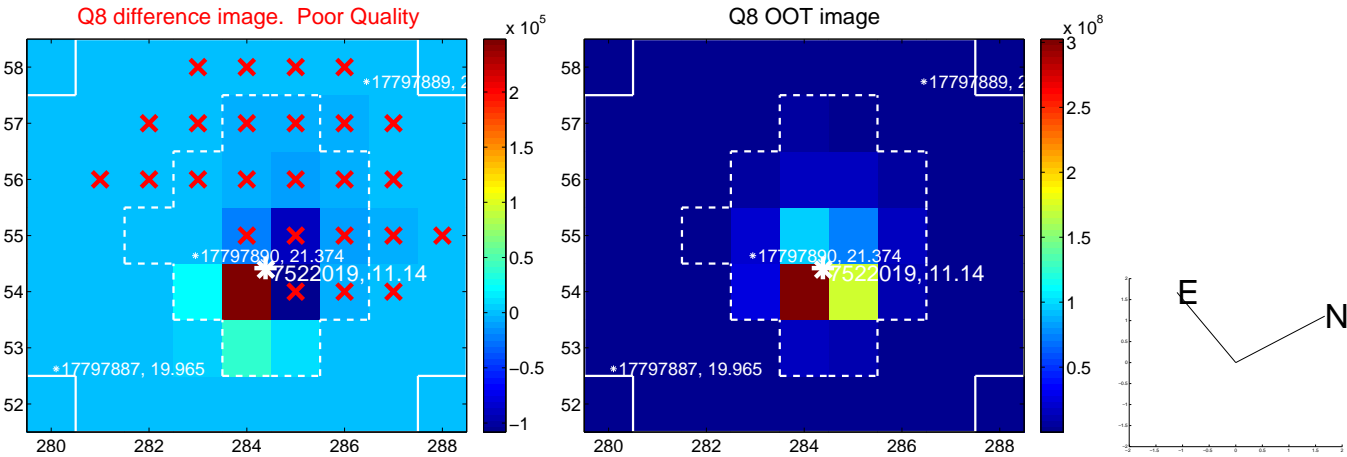
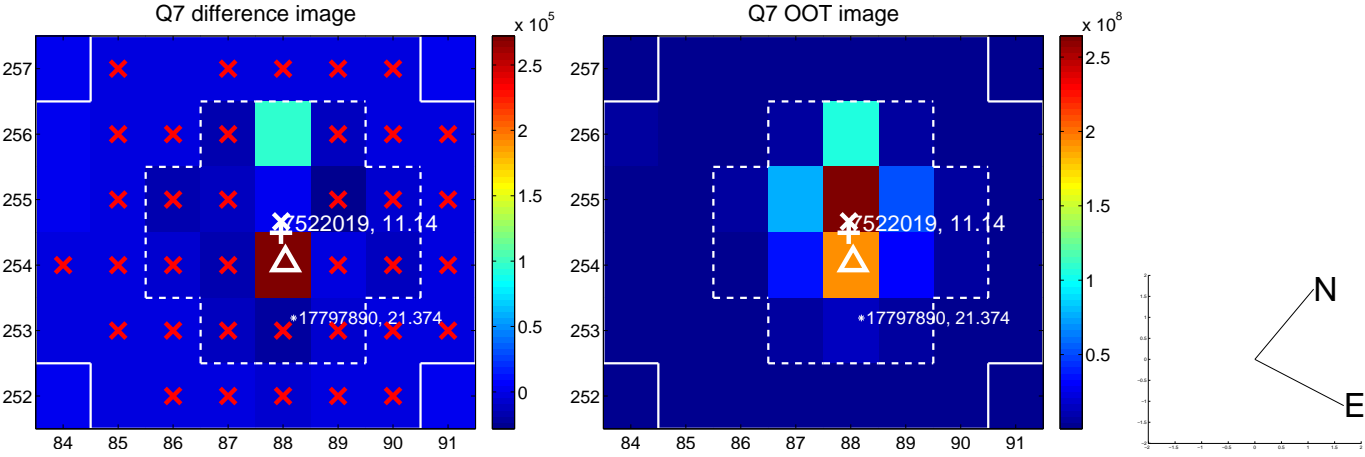
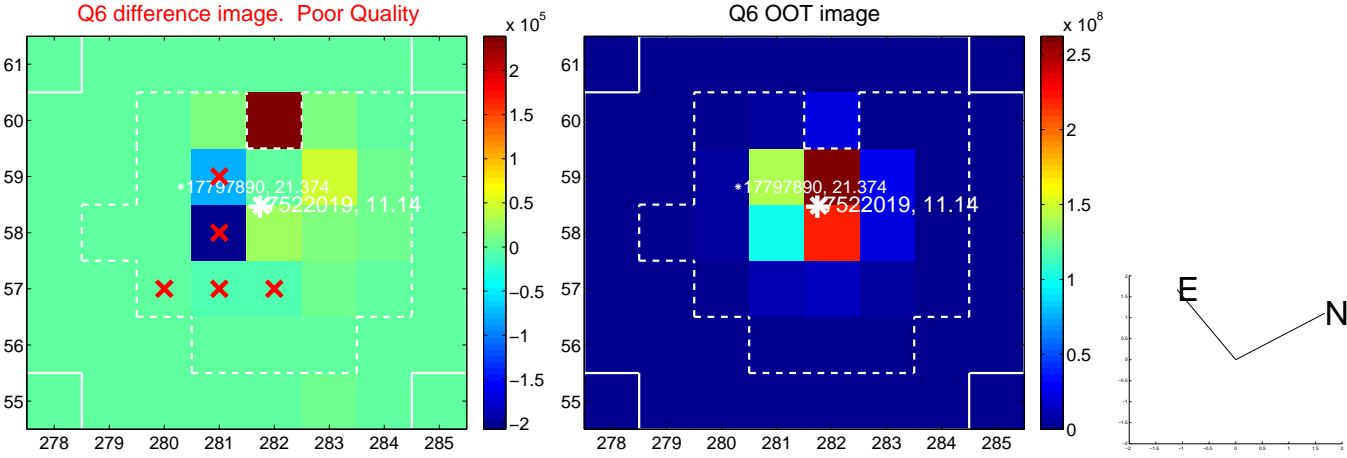
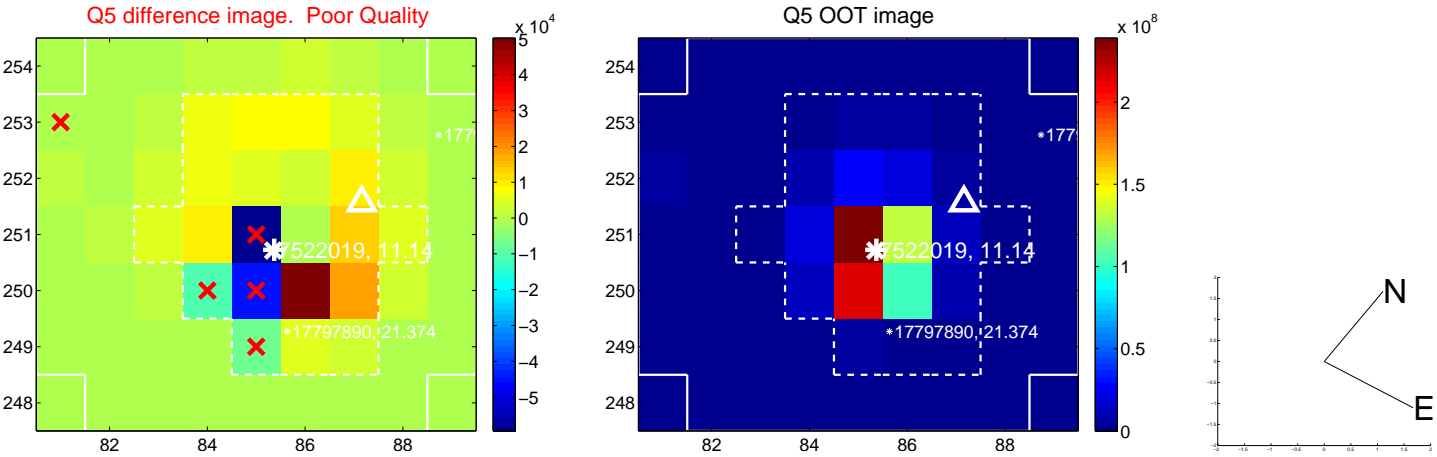


offset from photometric centroids

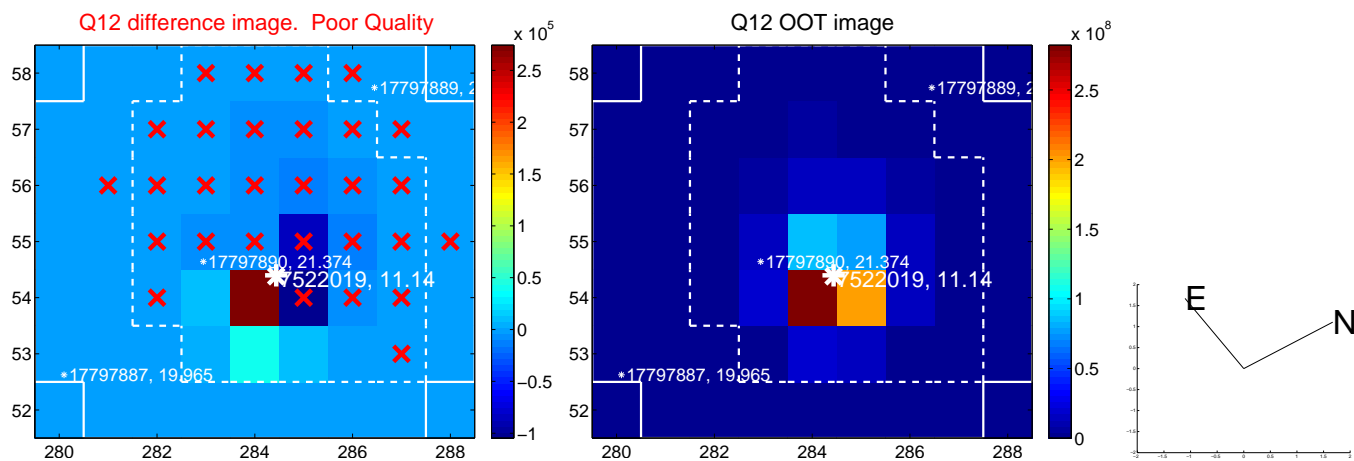
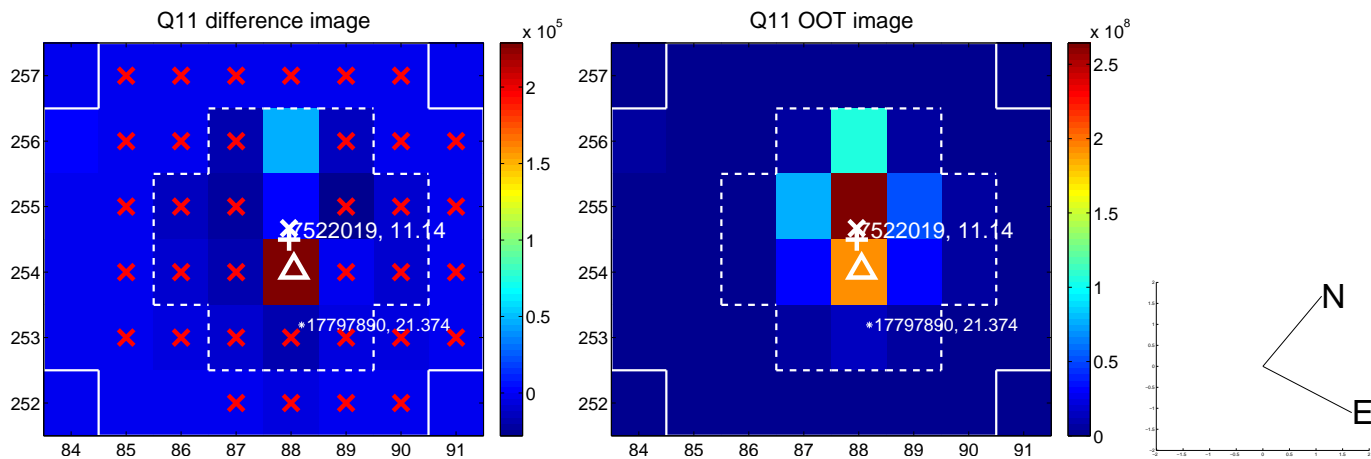
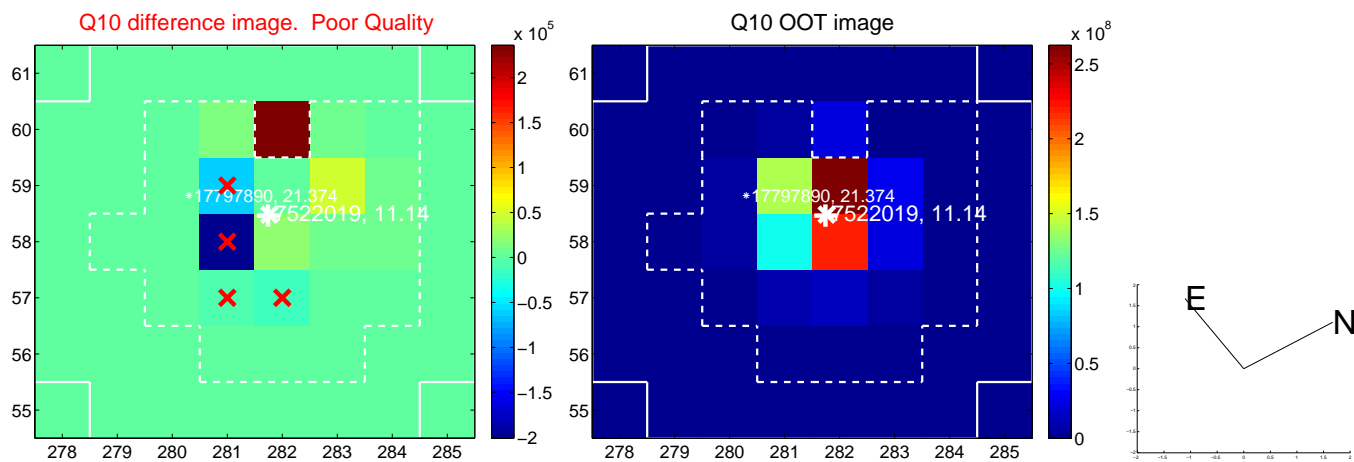
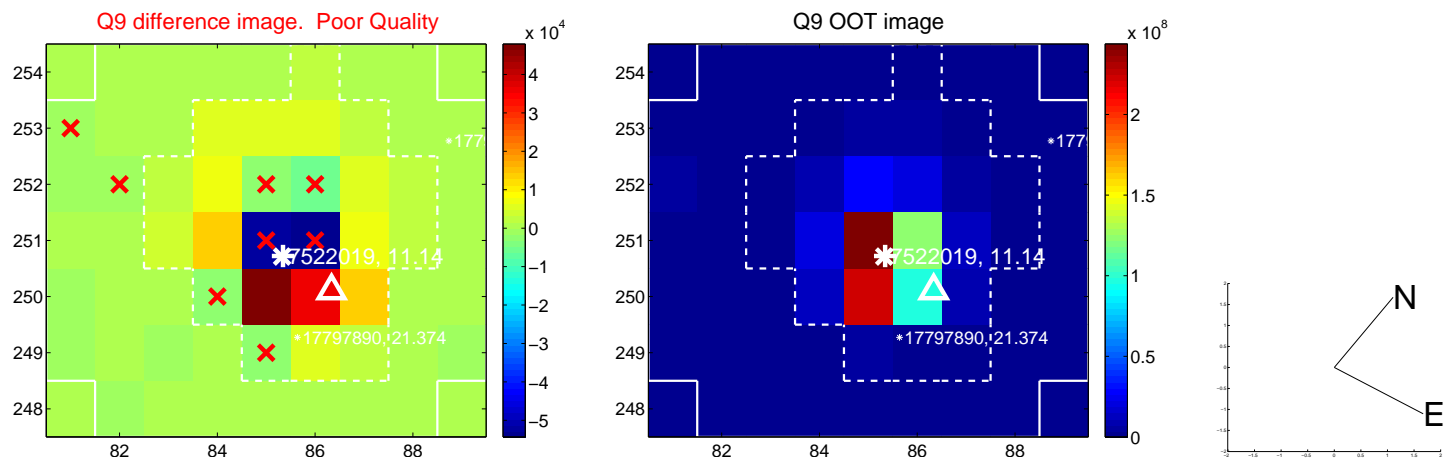


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

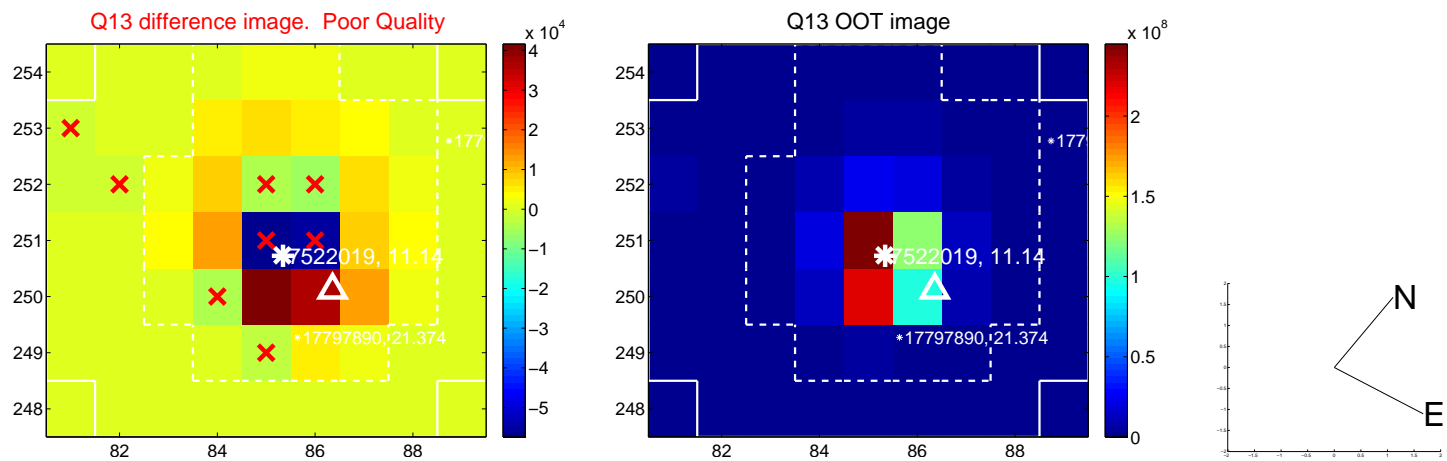
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

