

KIC 005455434

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})
005455434-01	OBS	No	1.374900	131.728603	11.3	13.372	8.1	10.0	1.78	7805	0.61	12935.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005455434-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

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

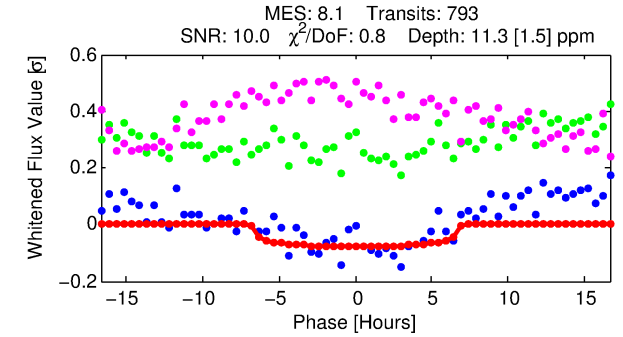
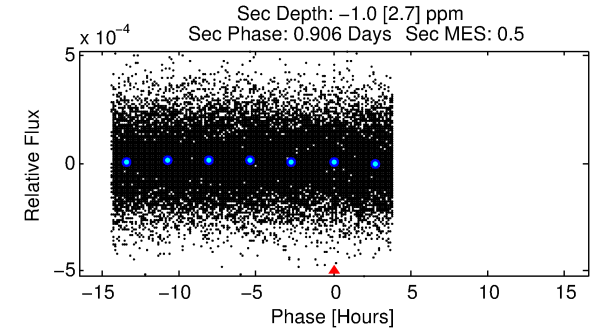
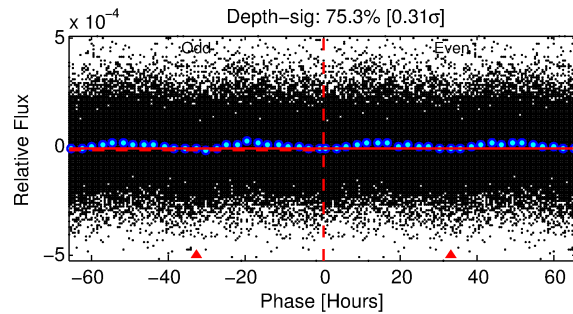
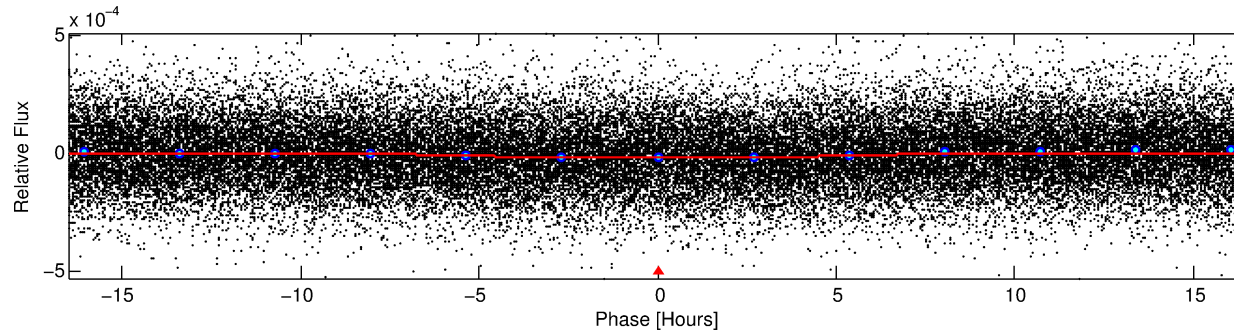
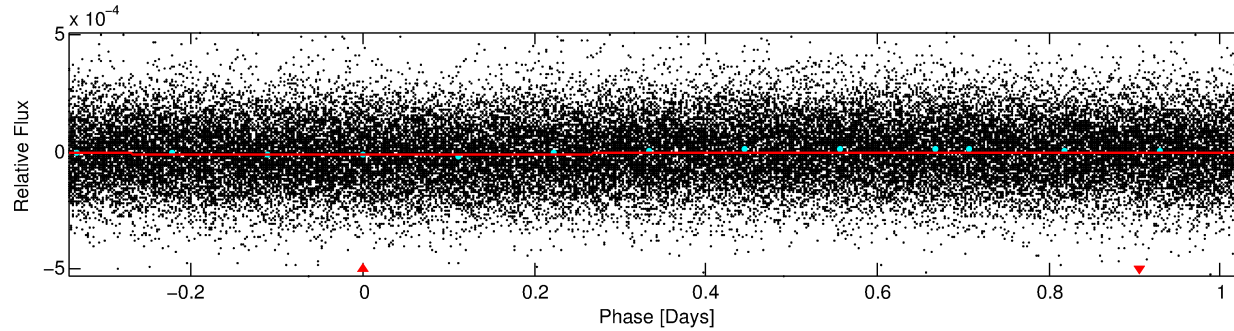
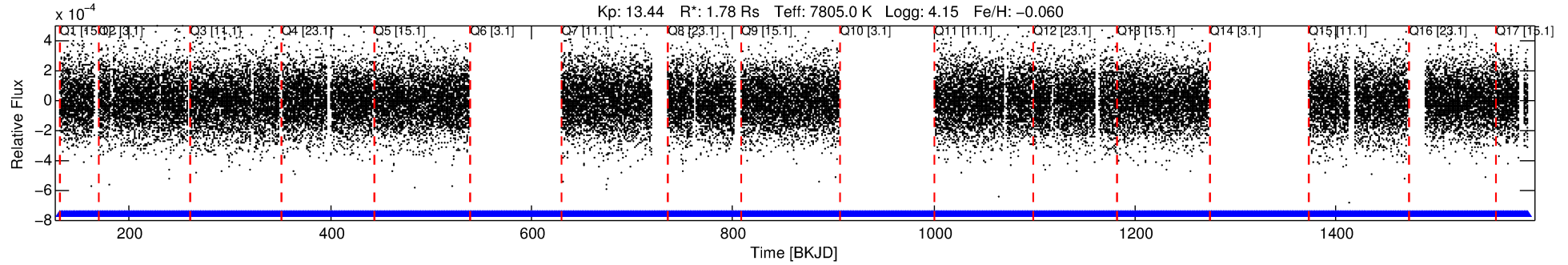
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005455434-01

No Significant Match Found

DV One-Page Summary

KIC: 5455434 Candidate: 1 of 1 Period: 1.375 d



DV Fit Results:

Period = 1.37490 [0.00003] d
Epoch = 131.7286 [0.0116] BKJD
Rp/R* = 0.0031 [0.0032]
a/R* = 1.05 [0.59]
b = 0.00 [2337.45]
Seff = 12935.51 [5038.24]
Teq = 2719 [265] K
Rp = 0.61 [0.64] Re
a = 0.0286 [0.0071] AU
Ag = N/A
Teffp = N/A

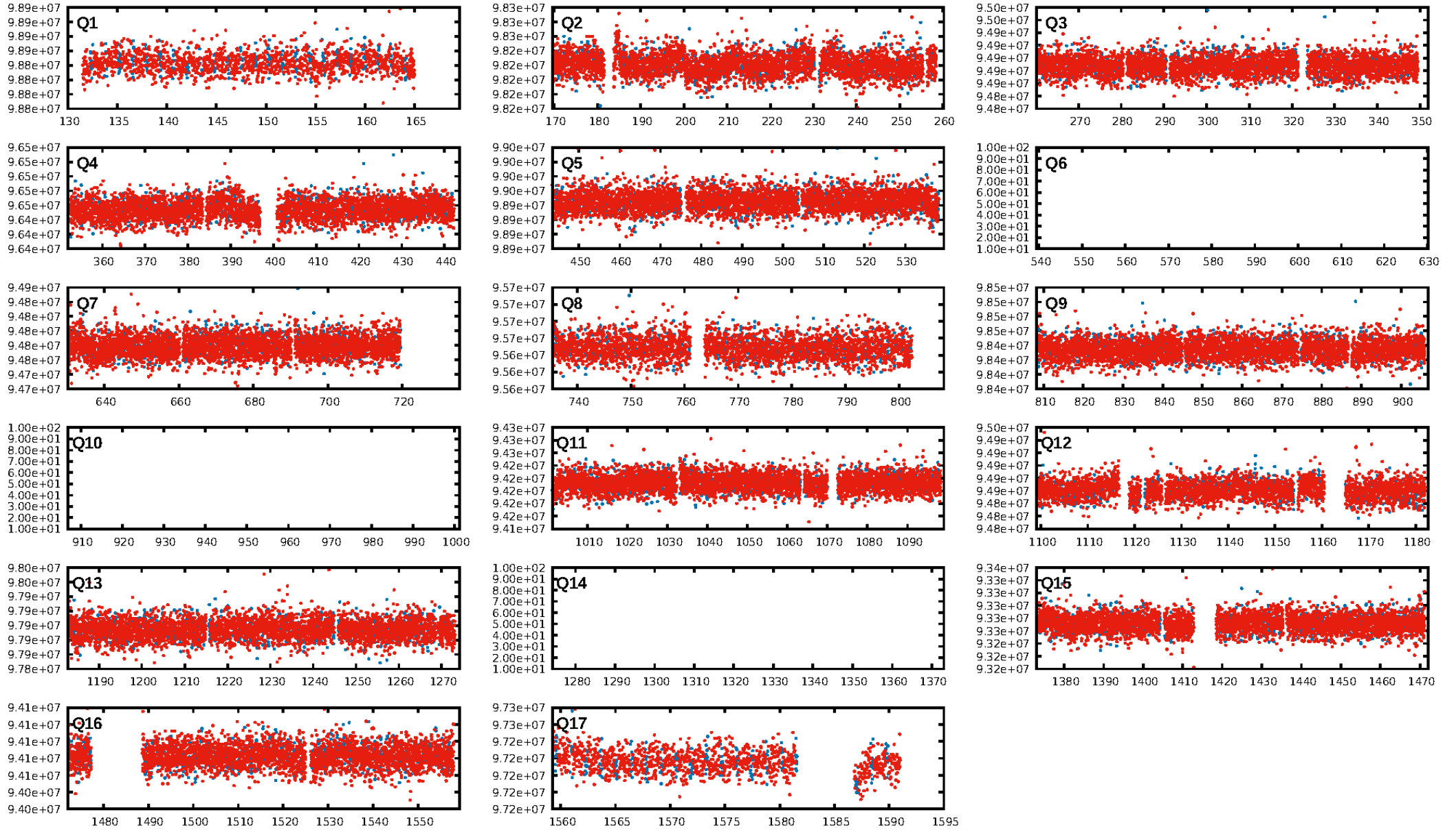
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [749/749]
GhostDiagnostic-chr: -5.57
Centroid-sig: 0.0%
Centroid-so: 4.901 arcsec [3.80 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [14/14]

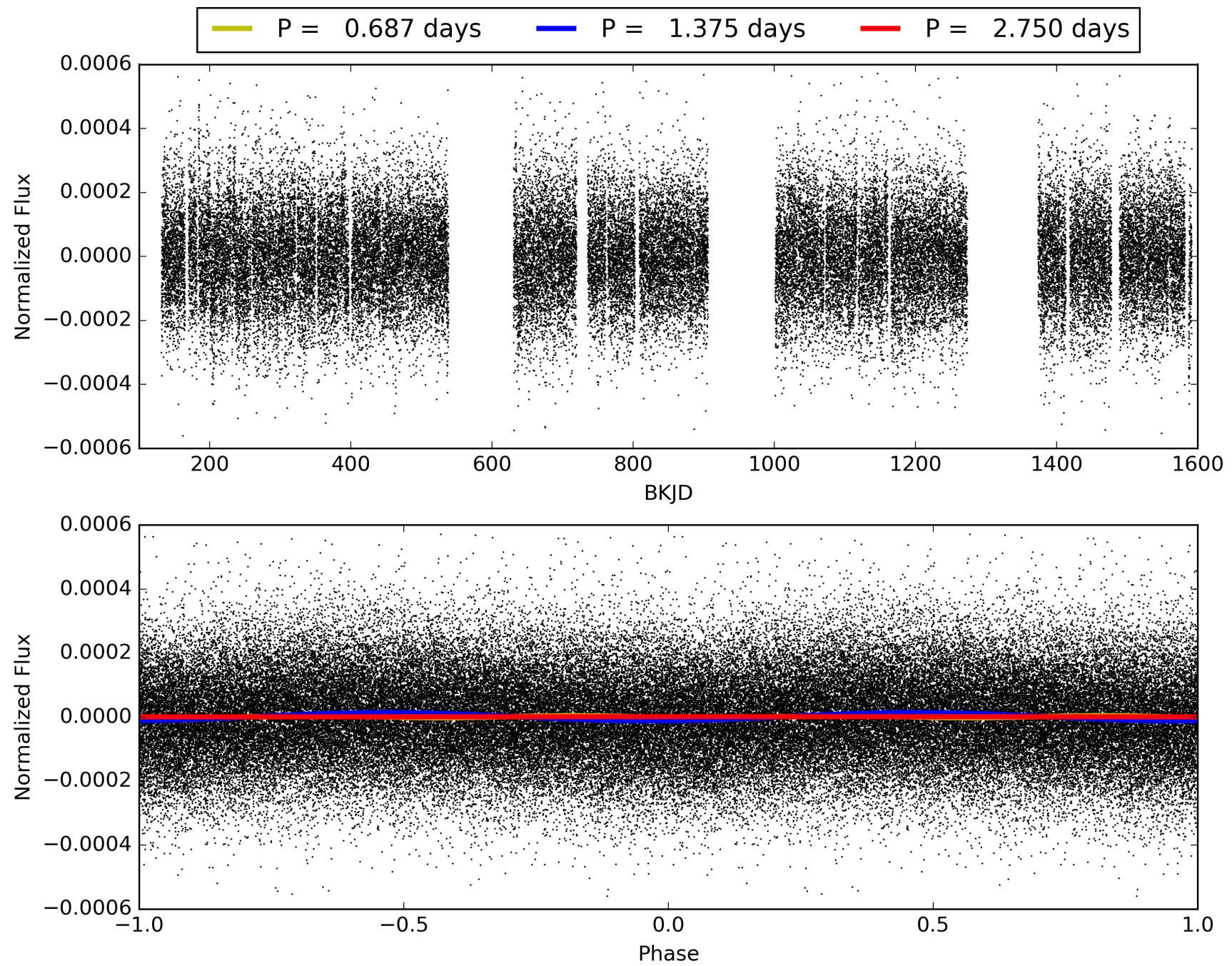
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:34:06 Z

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

TCE 005455434-01, PDC Light Curves

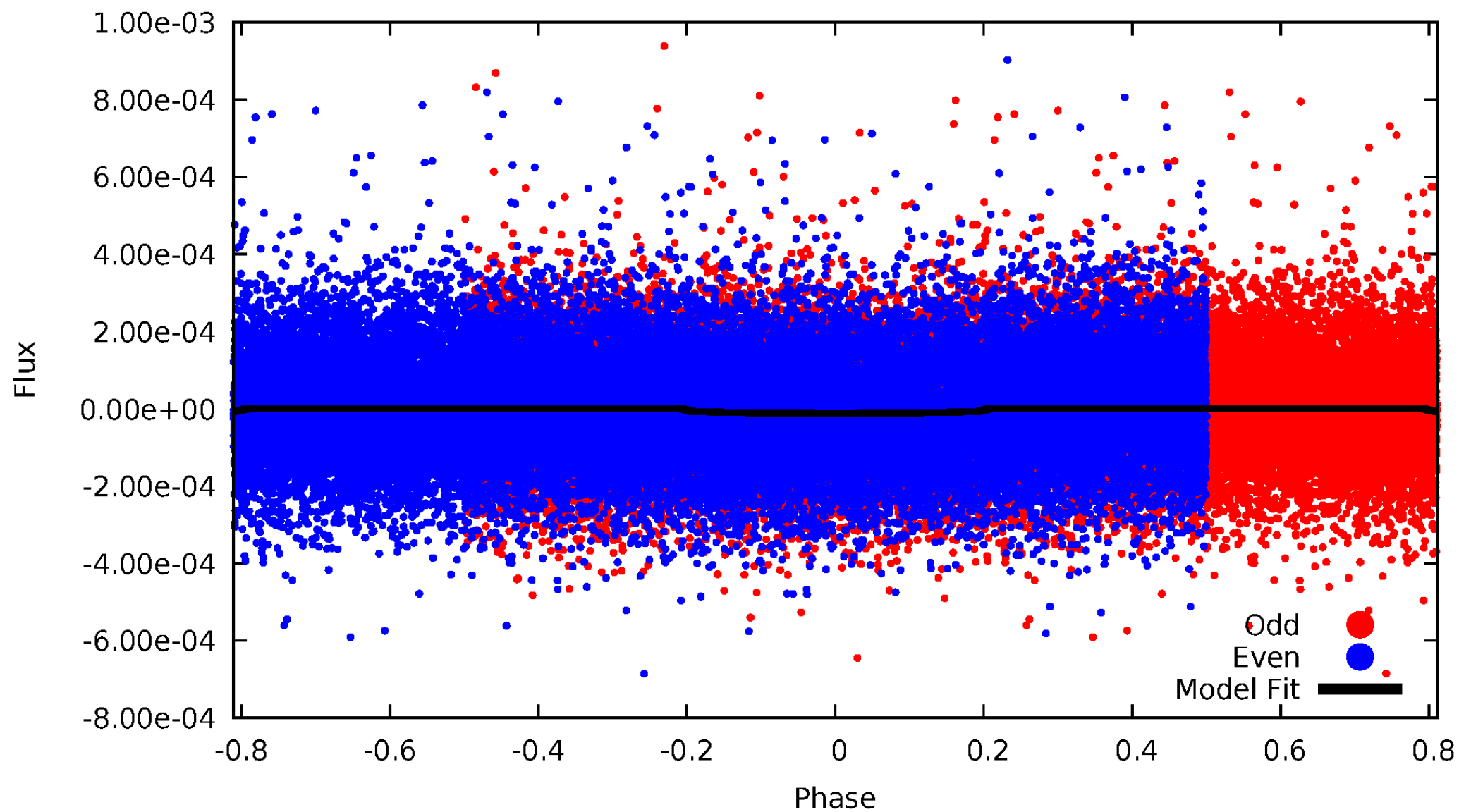


TCE 005455434-01



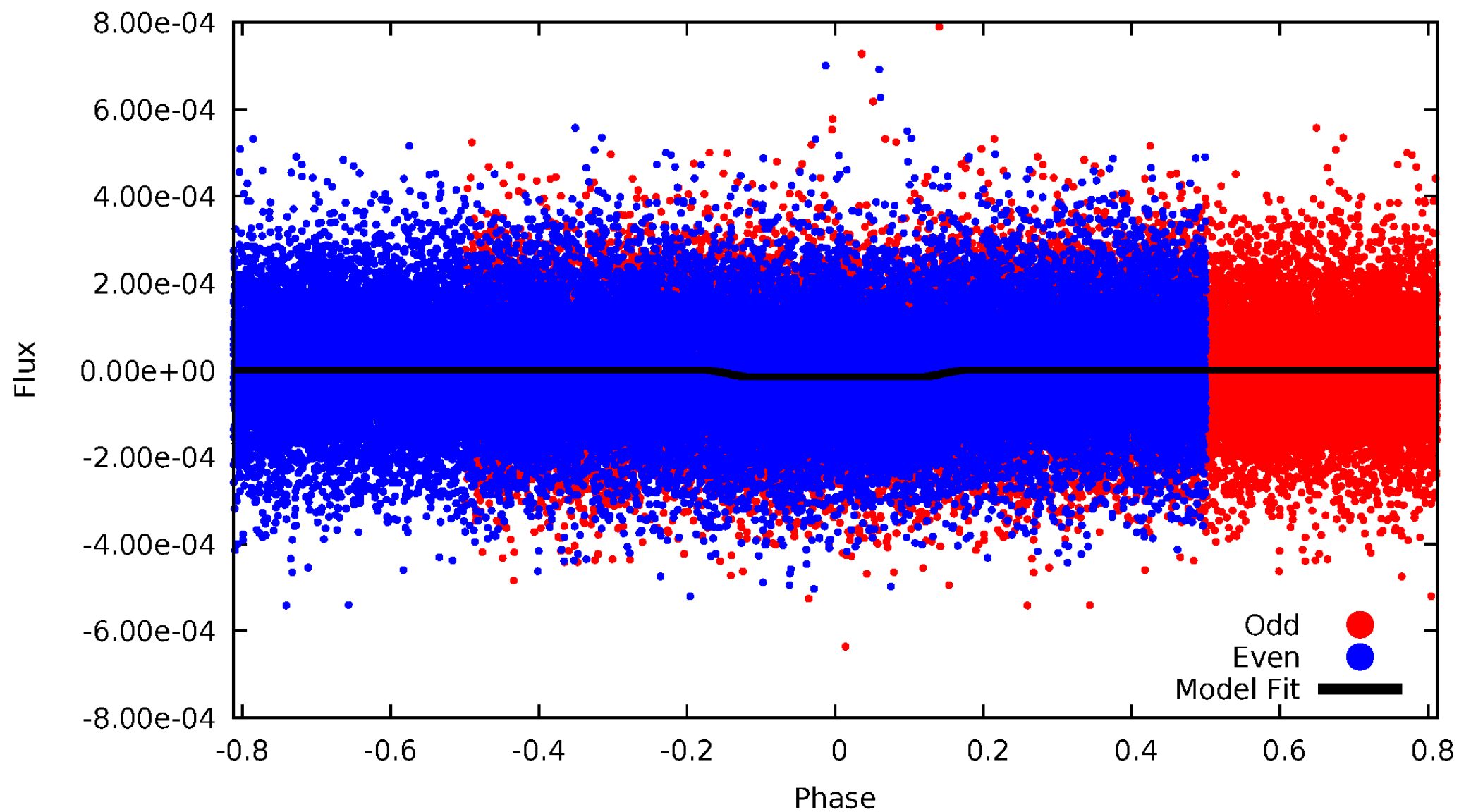
DV Odd/Even

TCE 005455434-01



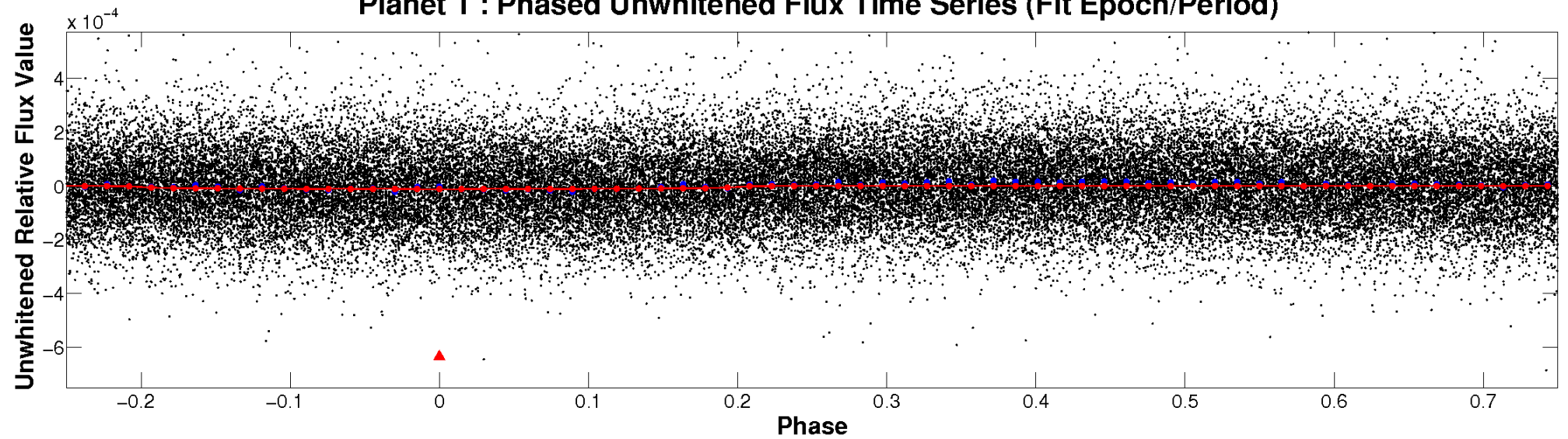
ALT Odd/Even

TCE 005455434-01

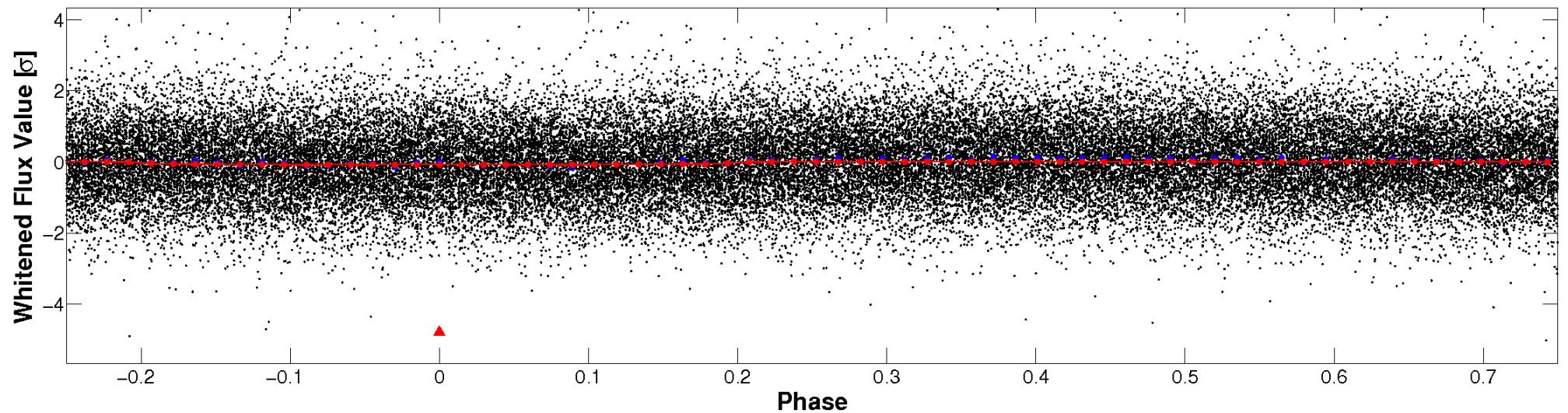


Non-Whitened Vs. Whitened Light Curve

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

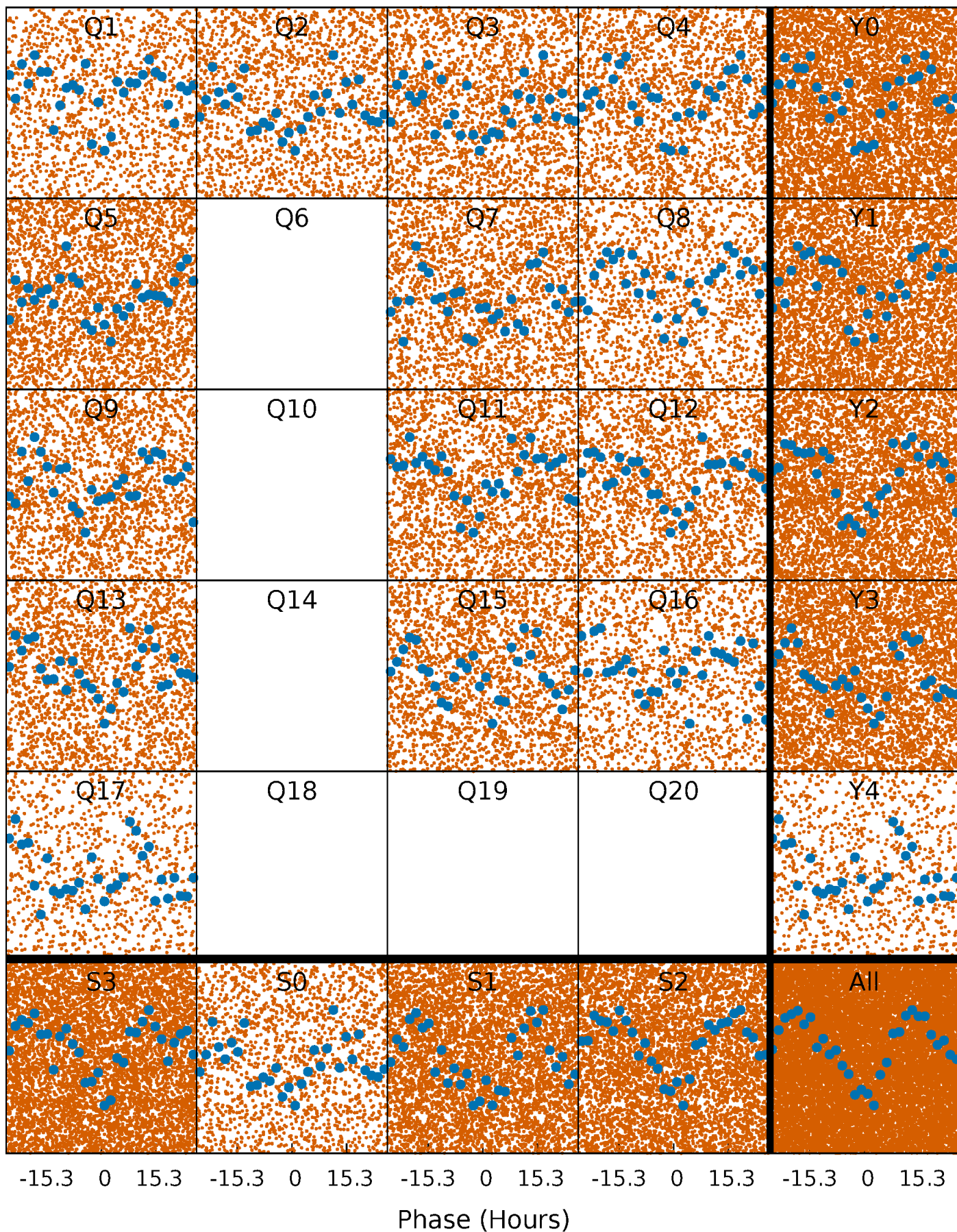


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



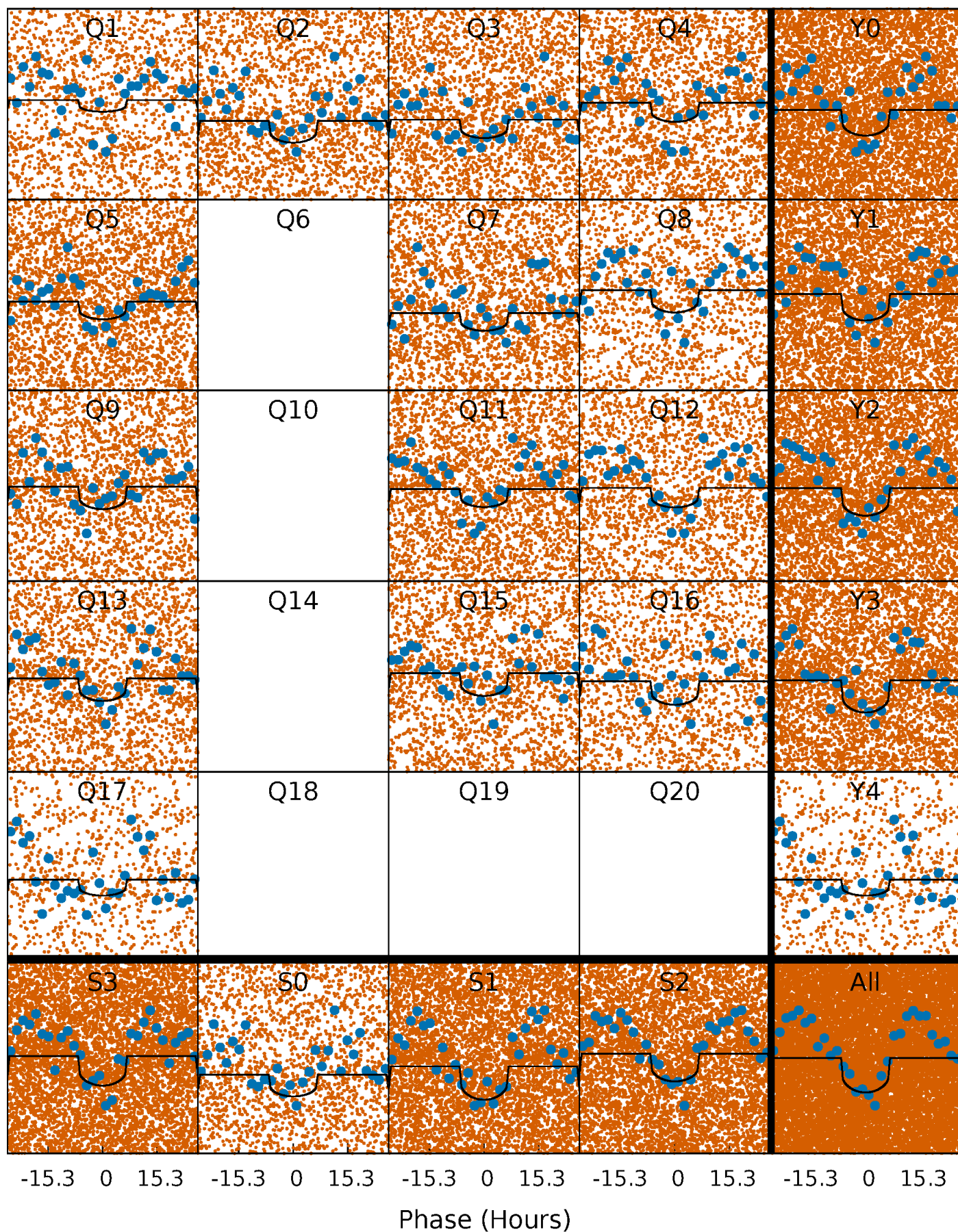
PDC Quarter-Phased Transit Curves

TCE 005455434-01 P= 1.374900 Days $T_0=131.728603$ (BKJD)



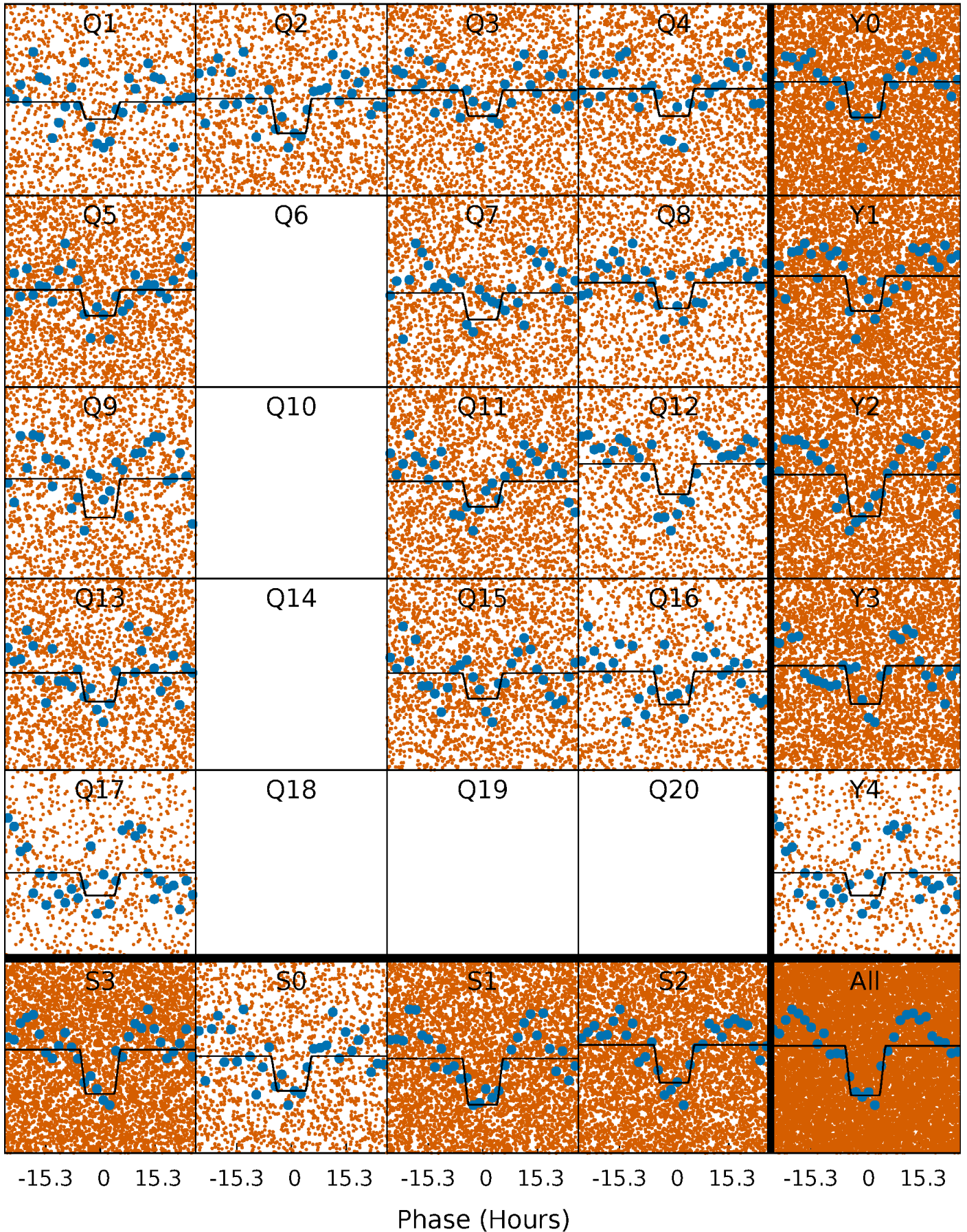
DV Quarter-Phased Transit Curves

TCE 005455434-01 P= 1.374900 Days $T_0=131.728603$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

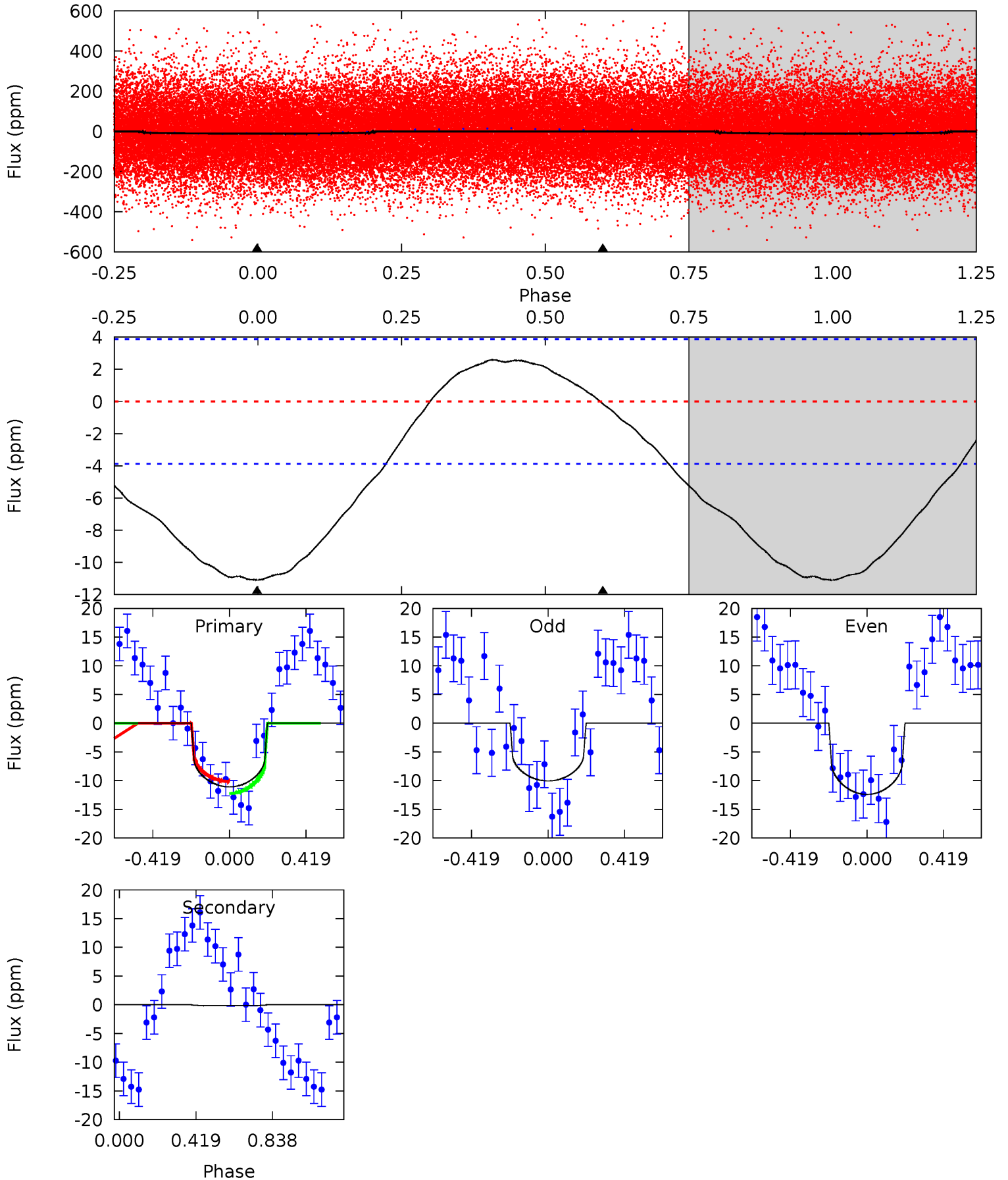
TCE 005455434-01 P= 1.374960 Days $T_0=131.709692$ (BKJD)



DV Model-Shift Uniqueness Test

005455434-01, P = 1.374900 Days, E = 130.353703 Days

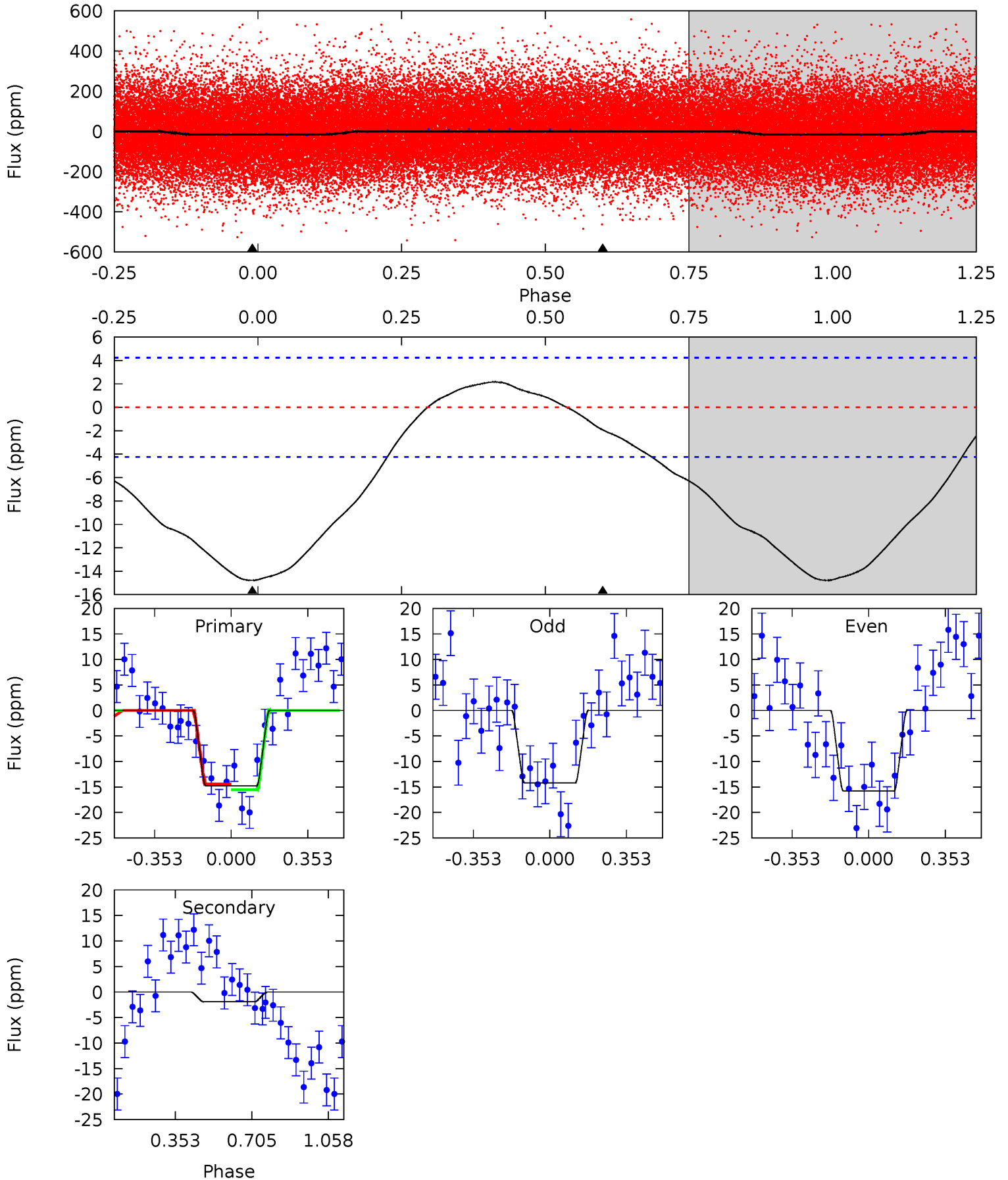
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	0.16	0	0	4.25	0.81	1.40	12.2	12.2	0.16	0.16	1.29	0.99	0.19	1.16



Alt Model-Shift Uniqueness Test

005455434-01, P = 1.374960 Days, E = 130.334732 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	1.95	0	0	4.29	0.93	1.25	15.0	15.0	1.95	1.95	0.80	1.06	0.13	0.60



Stellar Parameters For KIC 005455434

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7805^{+216}_{-325}	$4.153^{+0.116}_{-0.188}$	$-0.060^{+0.150}_{-0.350}$	$1.785^{+0.540}_{-0.332}$	$1.653^{+0.195}_{-0.260}$	$0.409^{+0.237}_{-0.205}$
	+3%/-4%	+3%/-5%	+250%/-583%	+30%/-19%	+12%/-16%	+58%/-50%
Source	KIC0	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 005455434-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-0±1	$0.77^{+0.60}_{-0.48}$	3831^{+293}_{-240}	-3425^{+7803}_{-1035}	$0.078^{+1.221}_{-0.831}$
Alt.	-2±1	$0.87^{+0.64}_{-0.51}$	3830^{+272}_{-246}	4073^{+2435}_{-6434}	$1.017^{+5.485}_{-0.733}$

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 005455434-01. Kepler magnitude: 13.44. Transit SNR 9.98

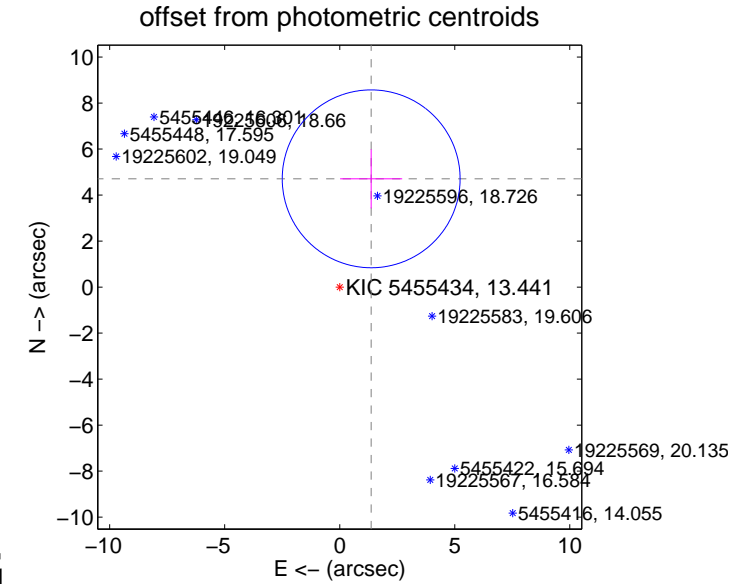
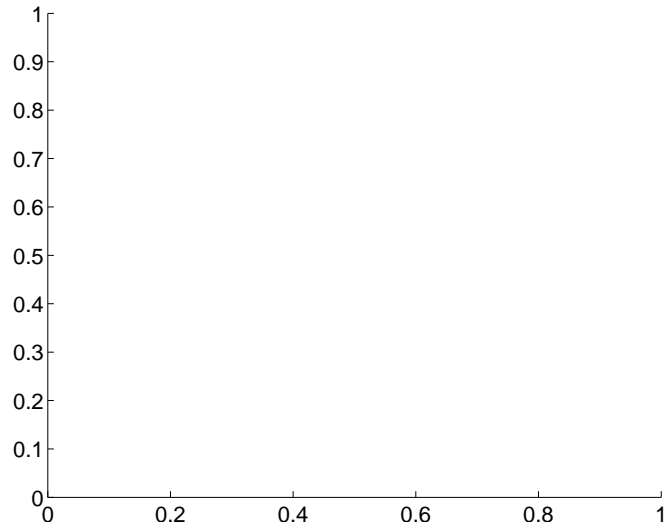
There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	4.90 ± 1.29	3.80	-1.37 ± 1.35	4.71 ± 1.28

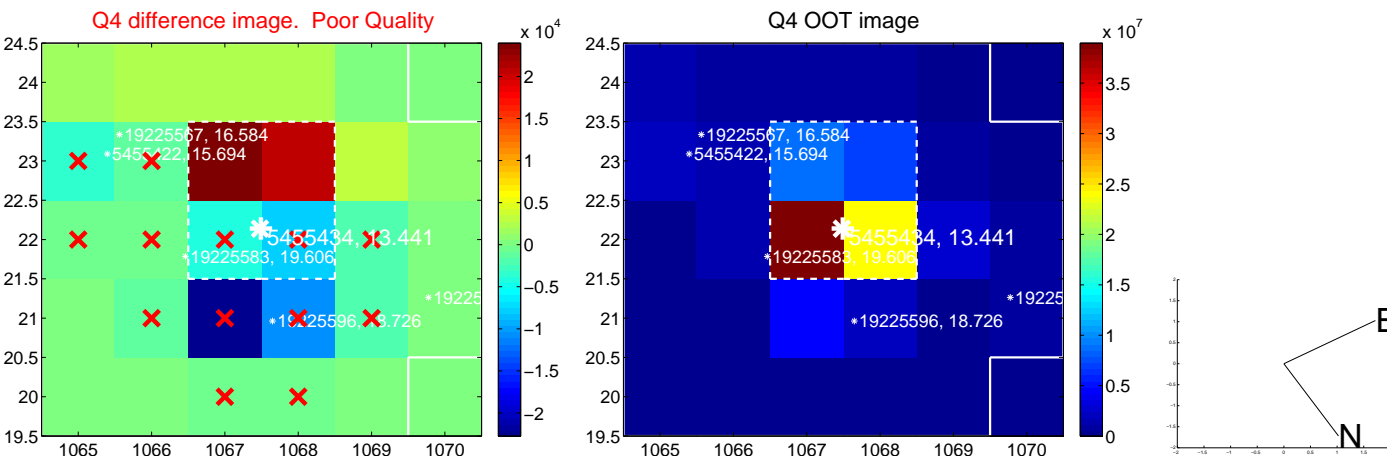
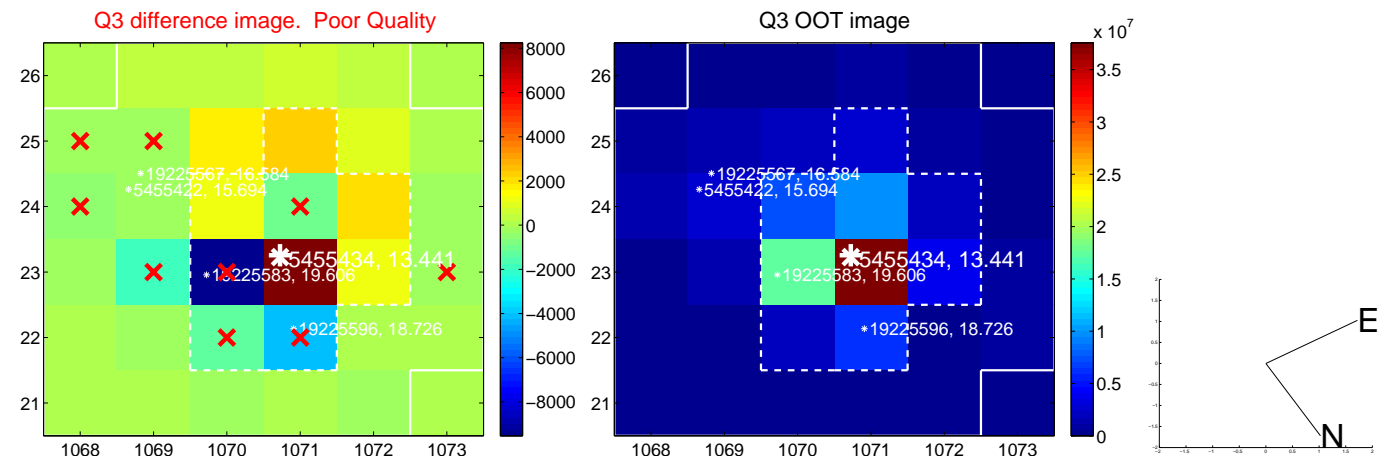
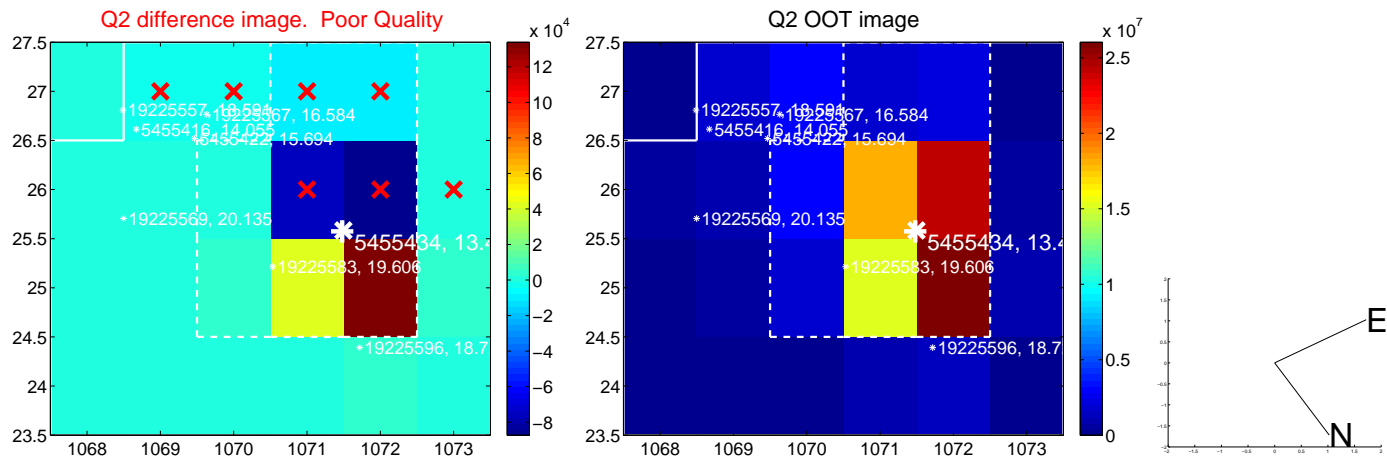
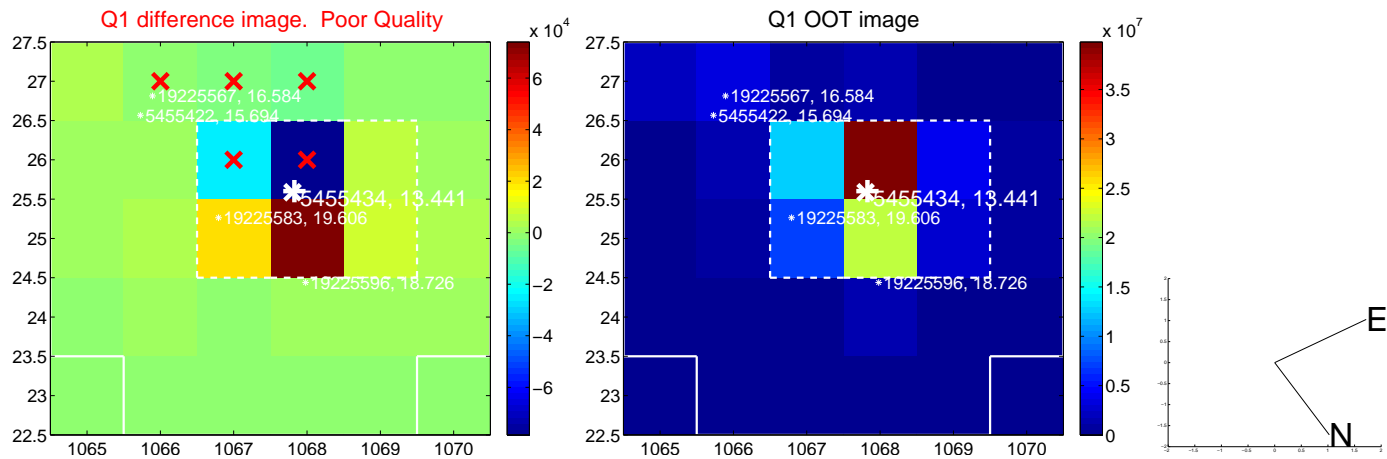
There is no PRF-fit offset from OOT-fit

There is no PRF-fit offset from KIC

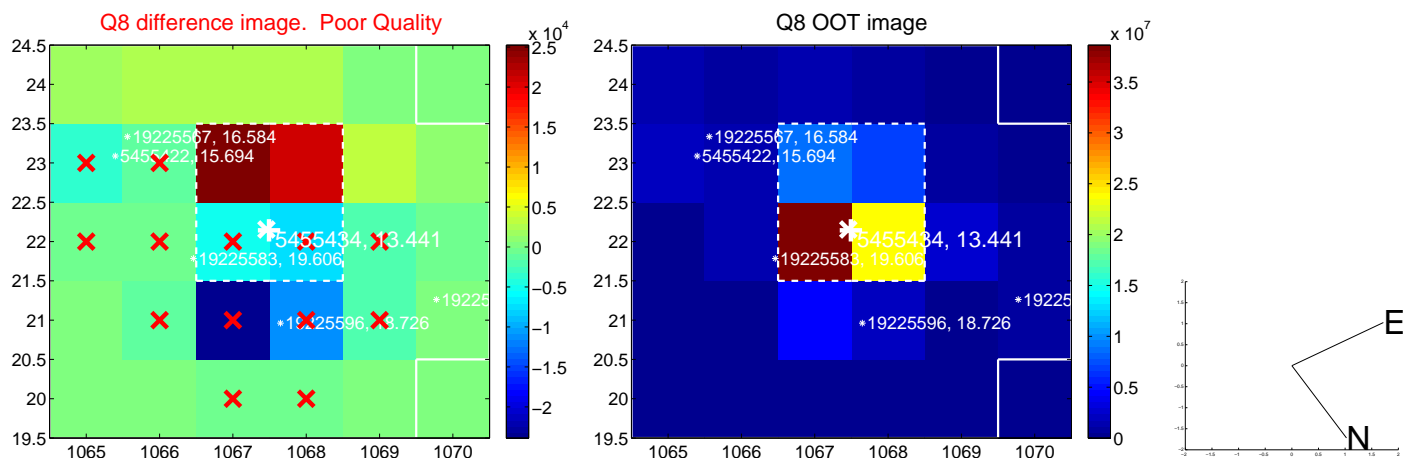
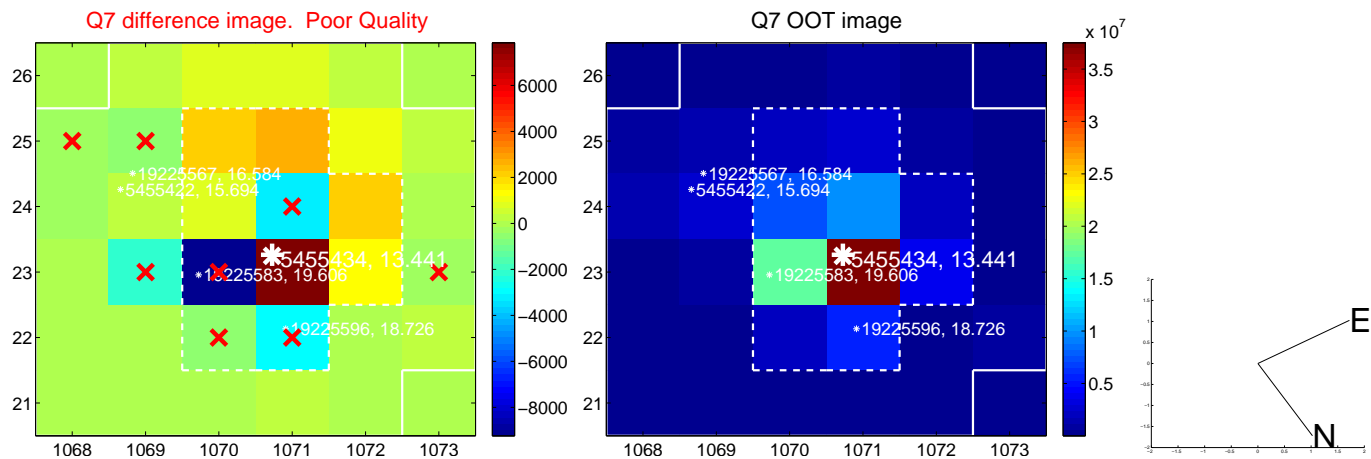
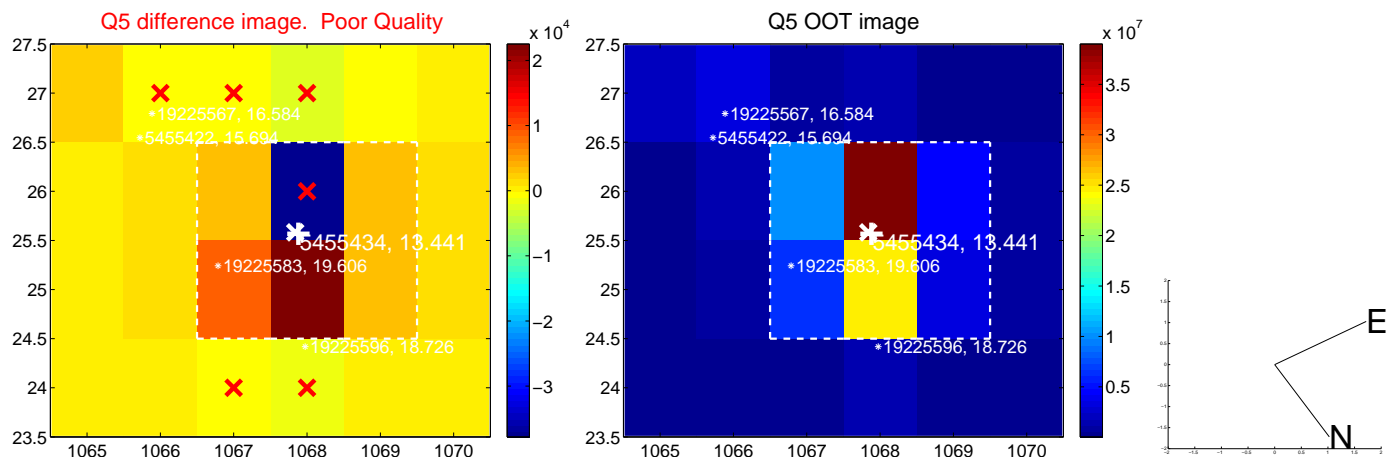


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

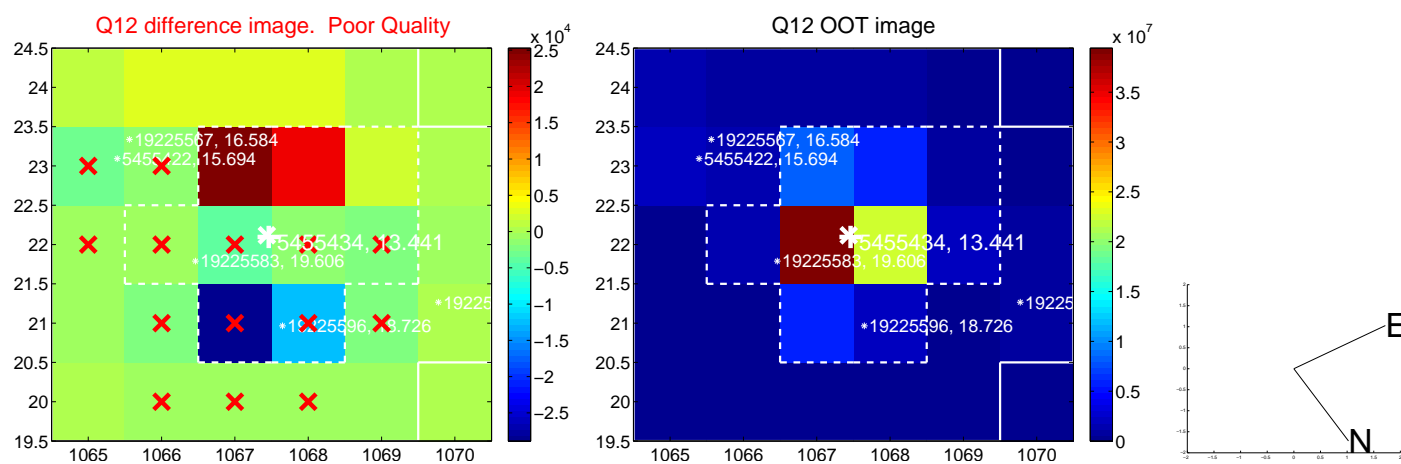
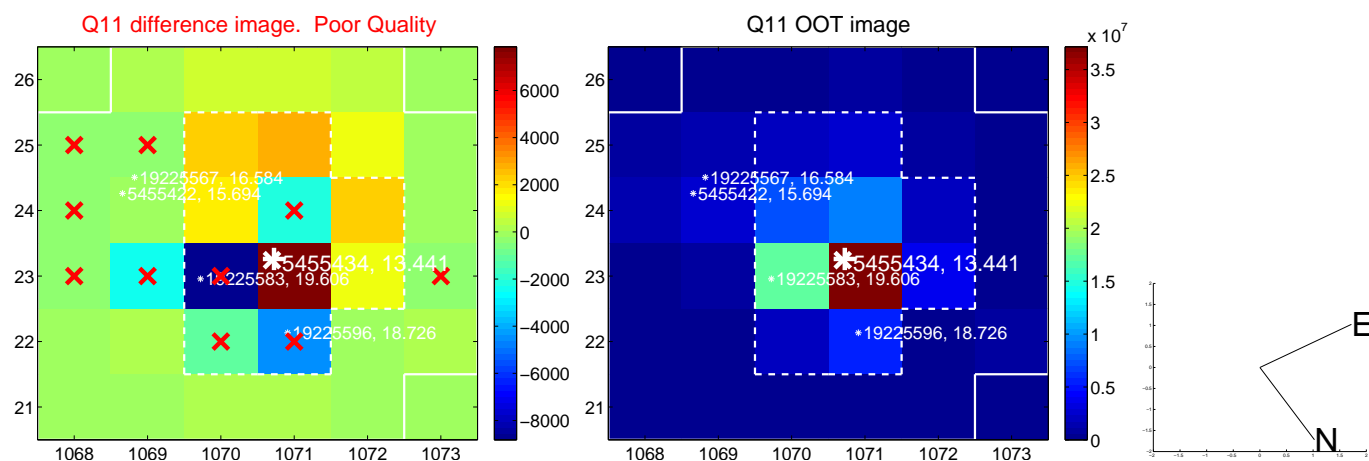
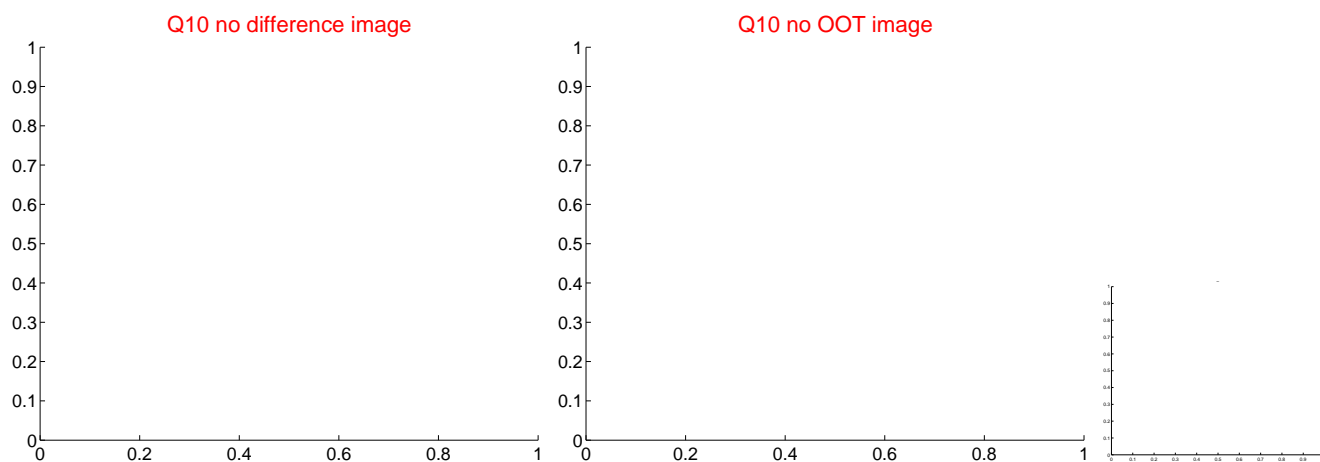
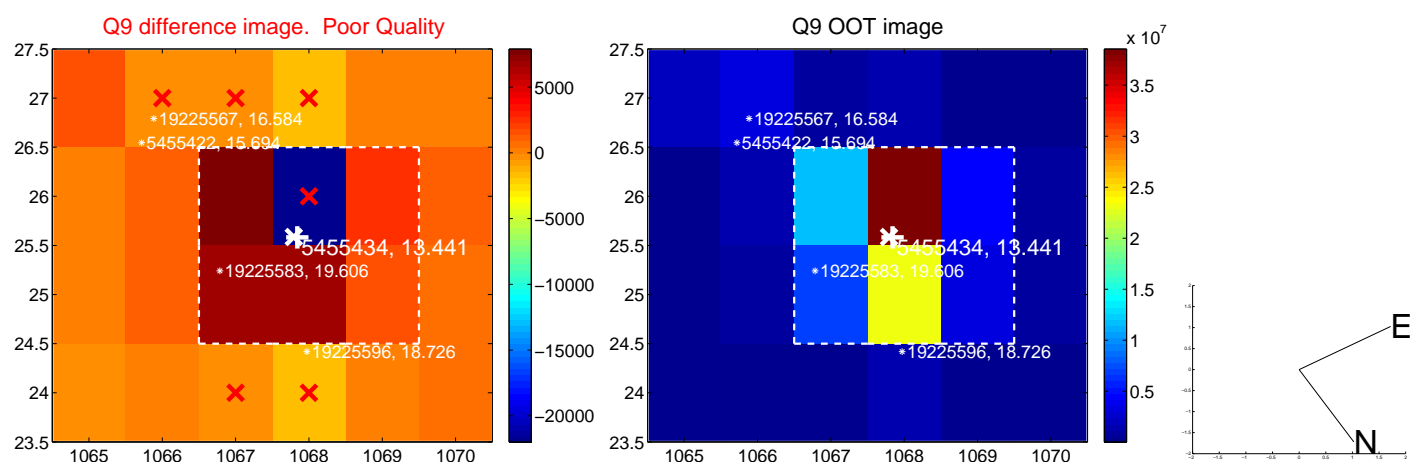
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



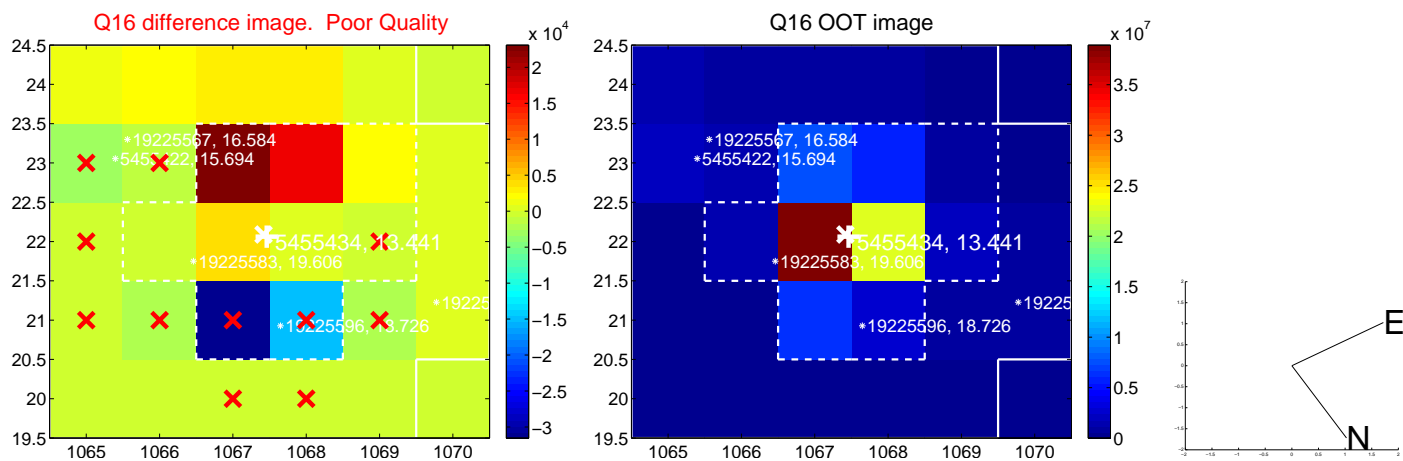
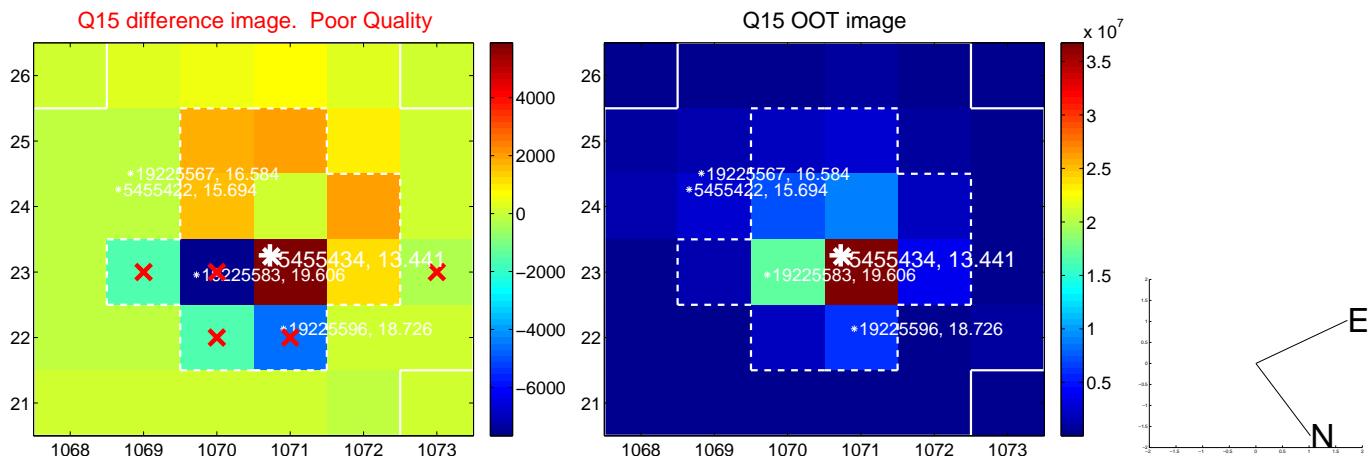
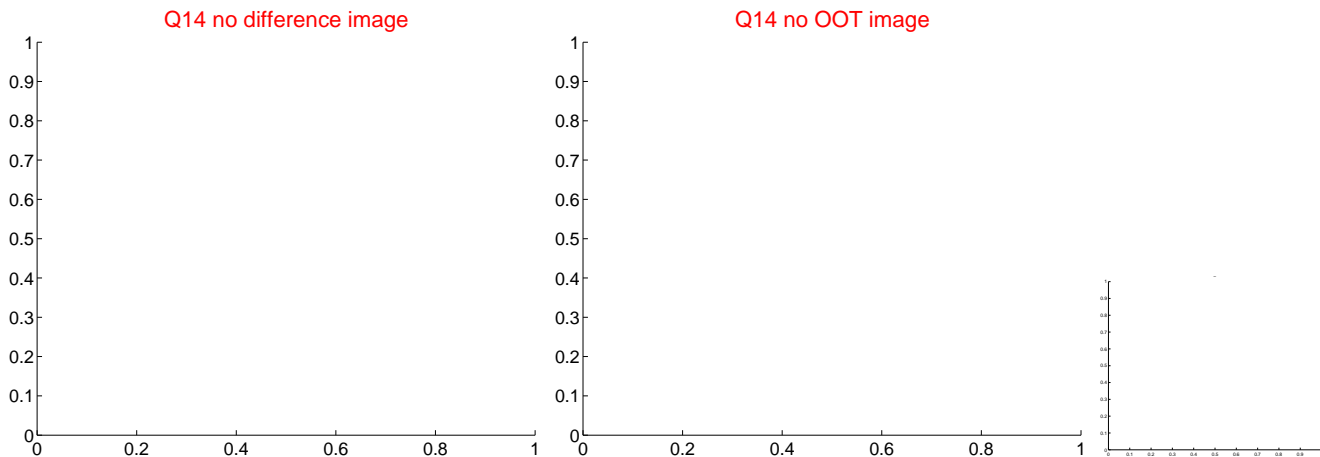
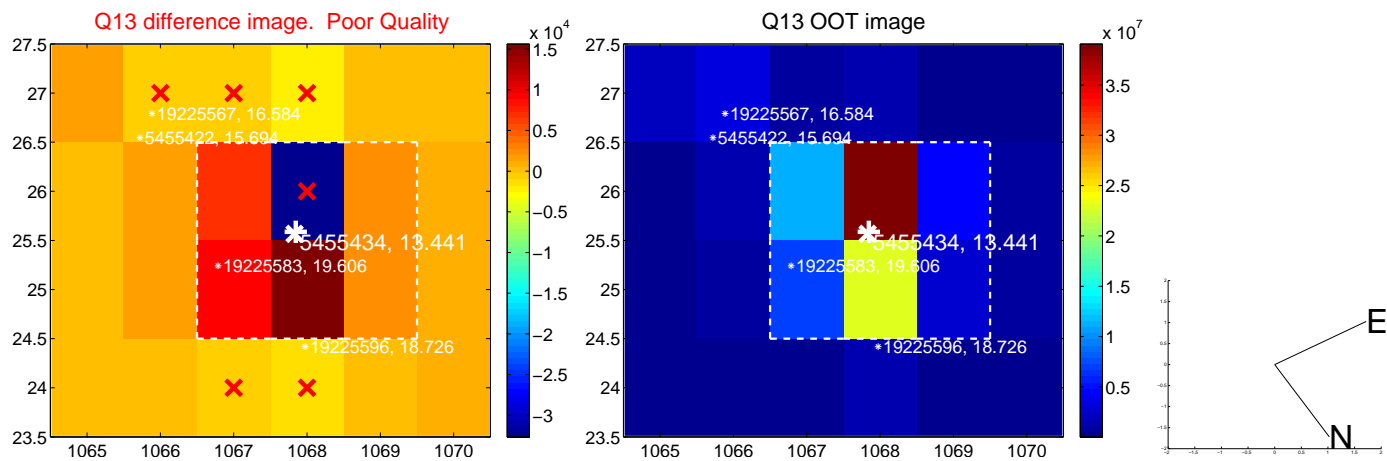
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



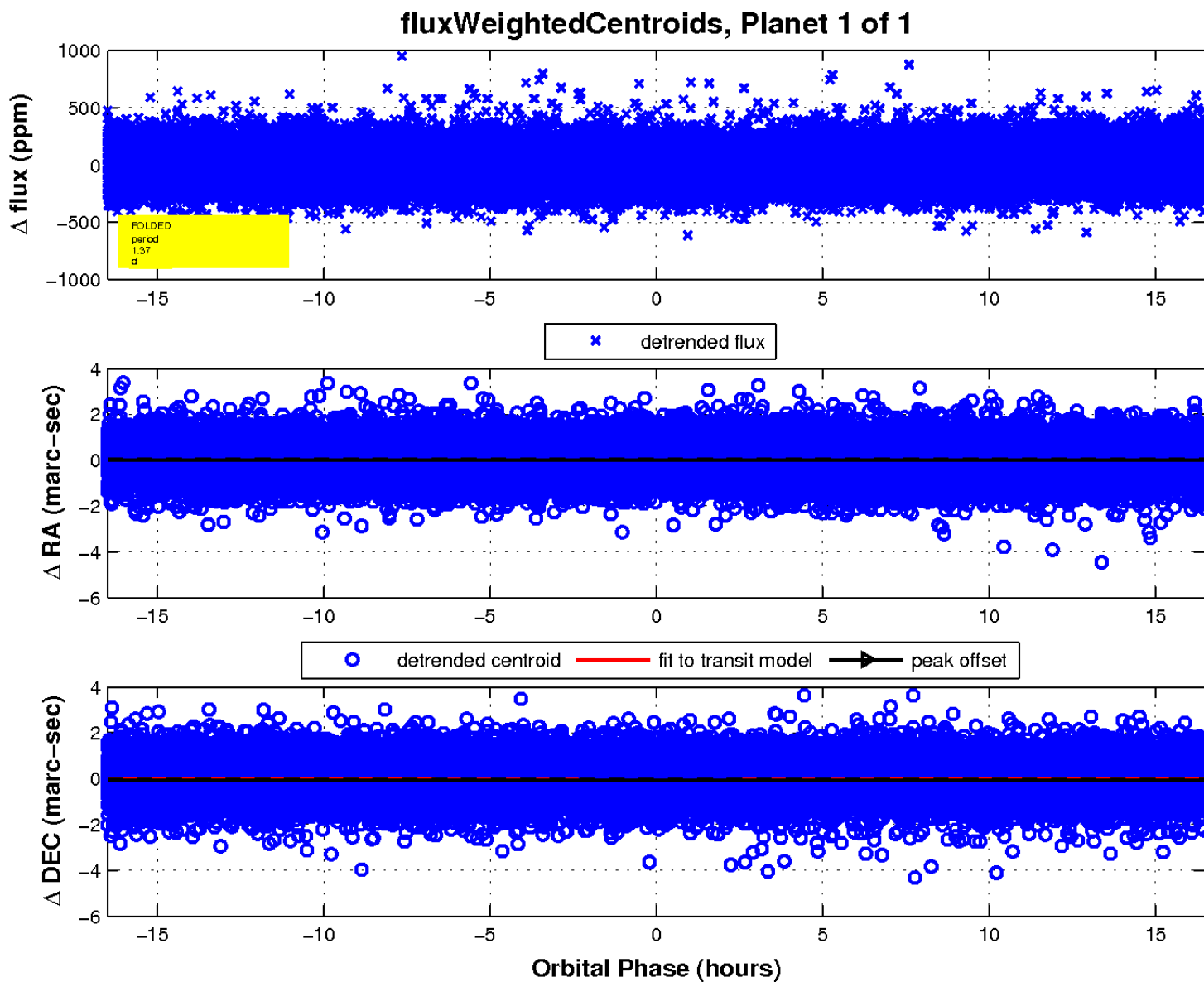
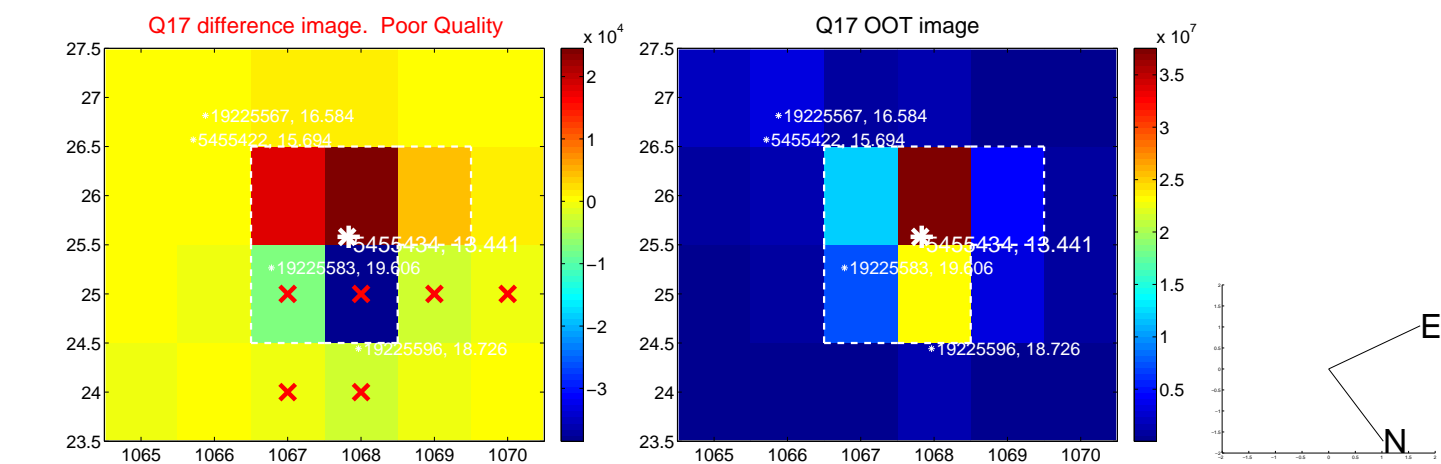
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

