

KIC 009347955

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})
009347955-01	OBS	No	0.767344	131.788744	3.9	8.086	9.7	0.2	0.82	5747	0.17	3049.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009347955-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL —LPP_DV —LPP_ALT —MOD_NONUNIQ_DV

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

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

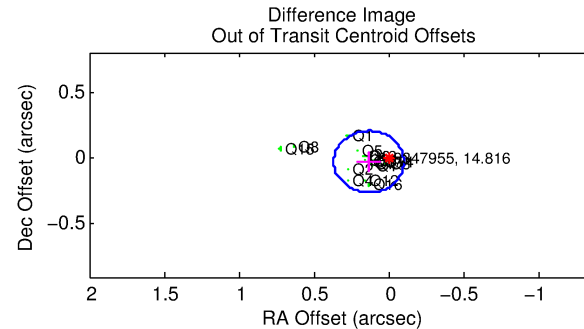
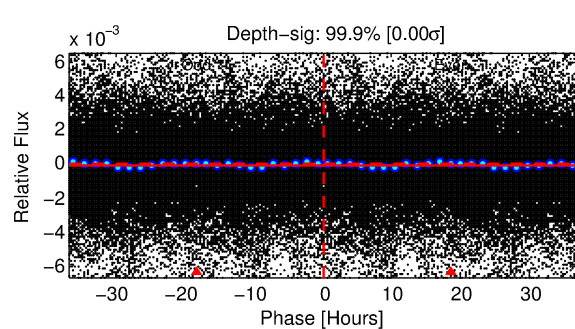
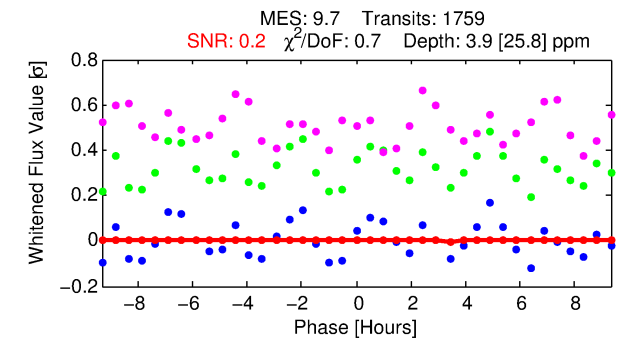
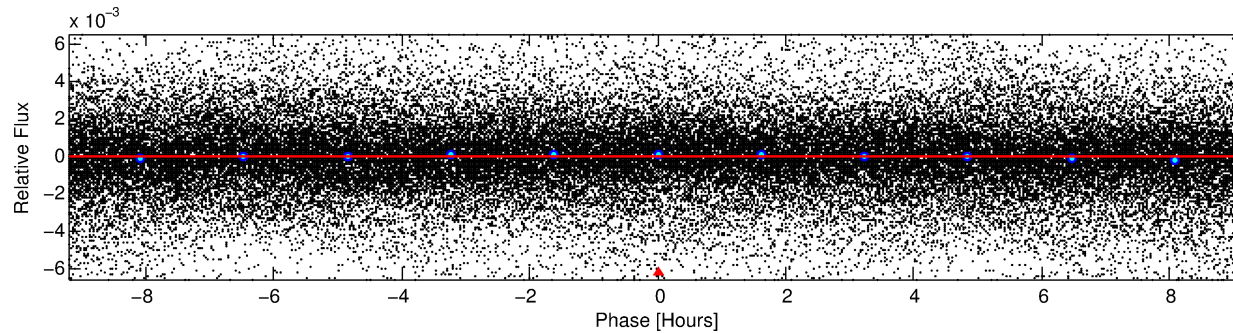
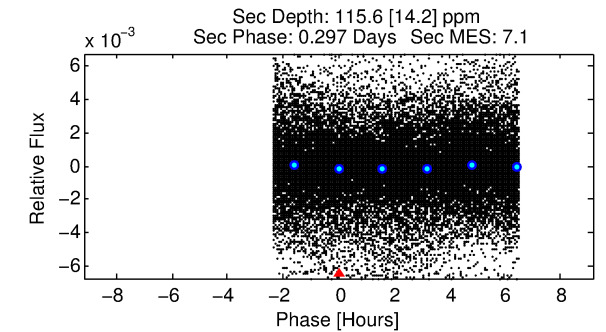
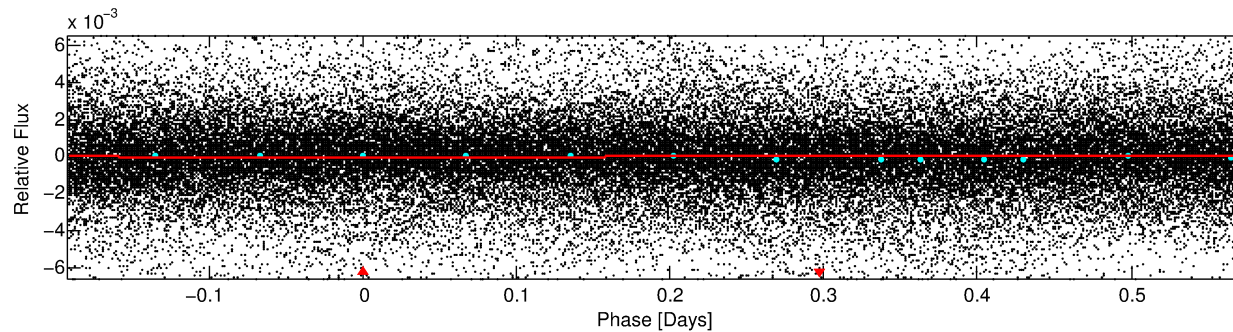
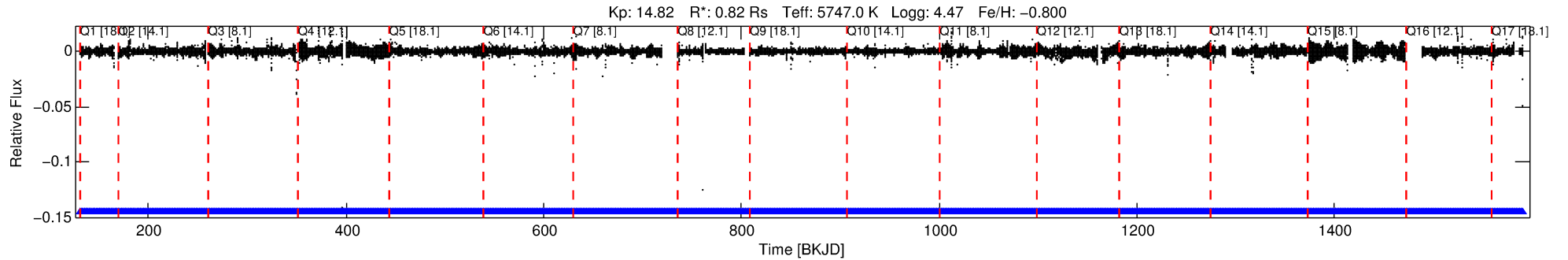
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009347955-01

No Significant Match Found

DV One-Page Summary

KIC: 9347955 Candidate: 1 of 1 Period: 0.767 d



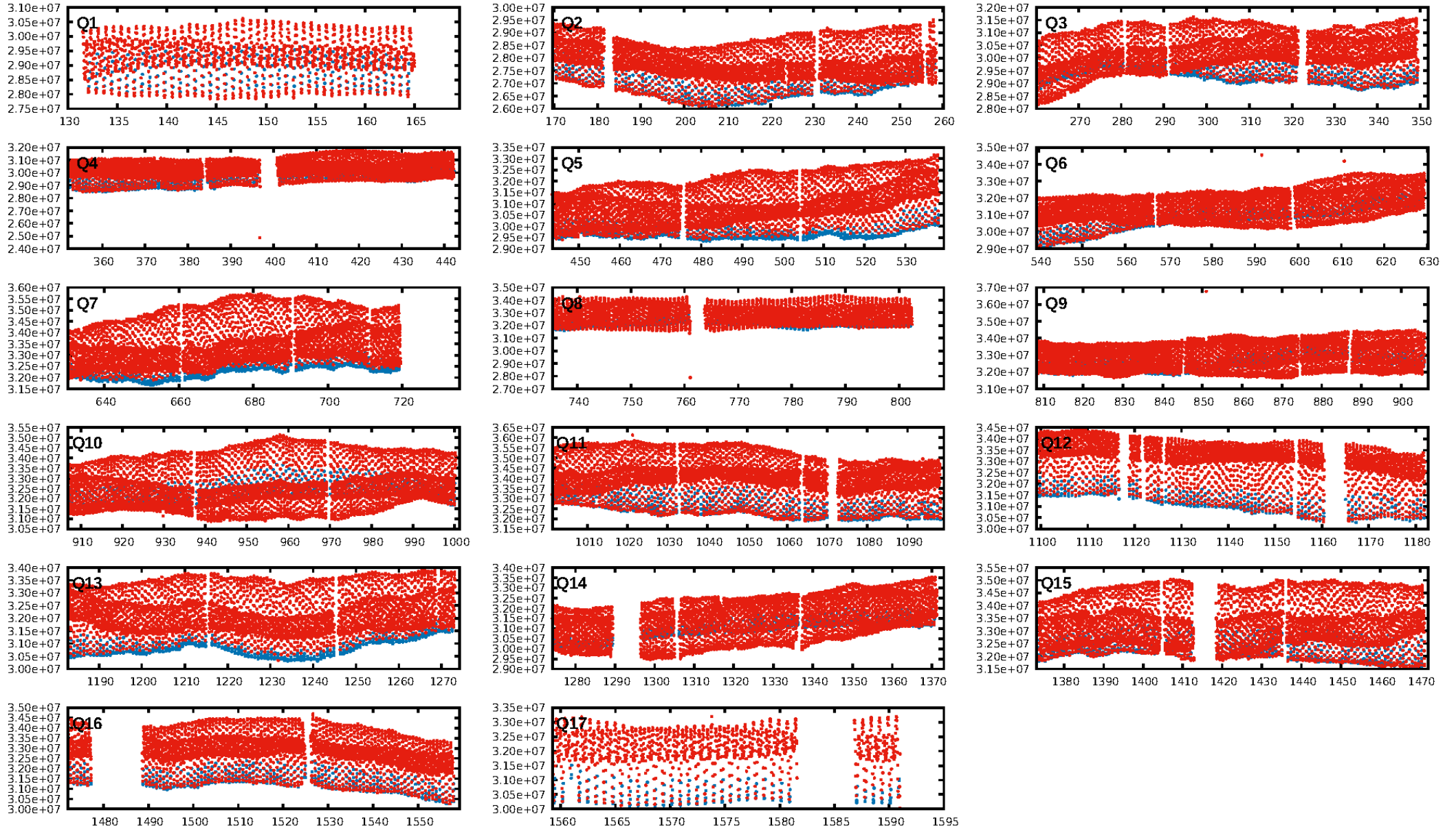
DV Fit Results:

Period = 0.76734 [0.00047] d
Epoch = 131.7887 [0.0685] BKJD
Rp/R* = 0.0018 [0.0217]
a/R* = 1.02 [2.01]
b = 0.49 [102.82]
Seff = 3049.54 [927.55]
Teff = 1895 [144] K
Rp = 0.17 [1.94] Re
a = 0.0147 [0.0027] AU
Ag = 501.58 [11770.83] [0.04σ]
Teffp = 13865 [81339] K [0.15σ]

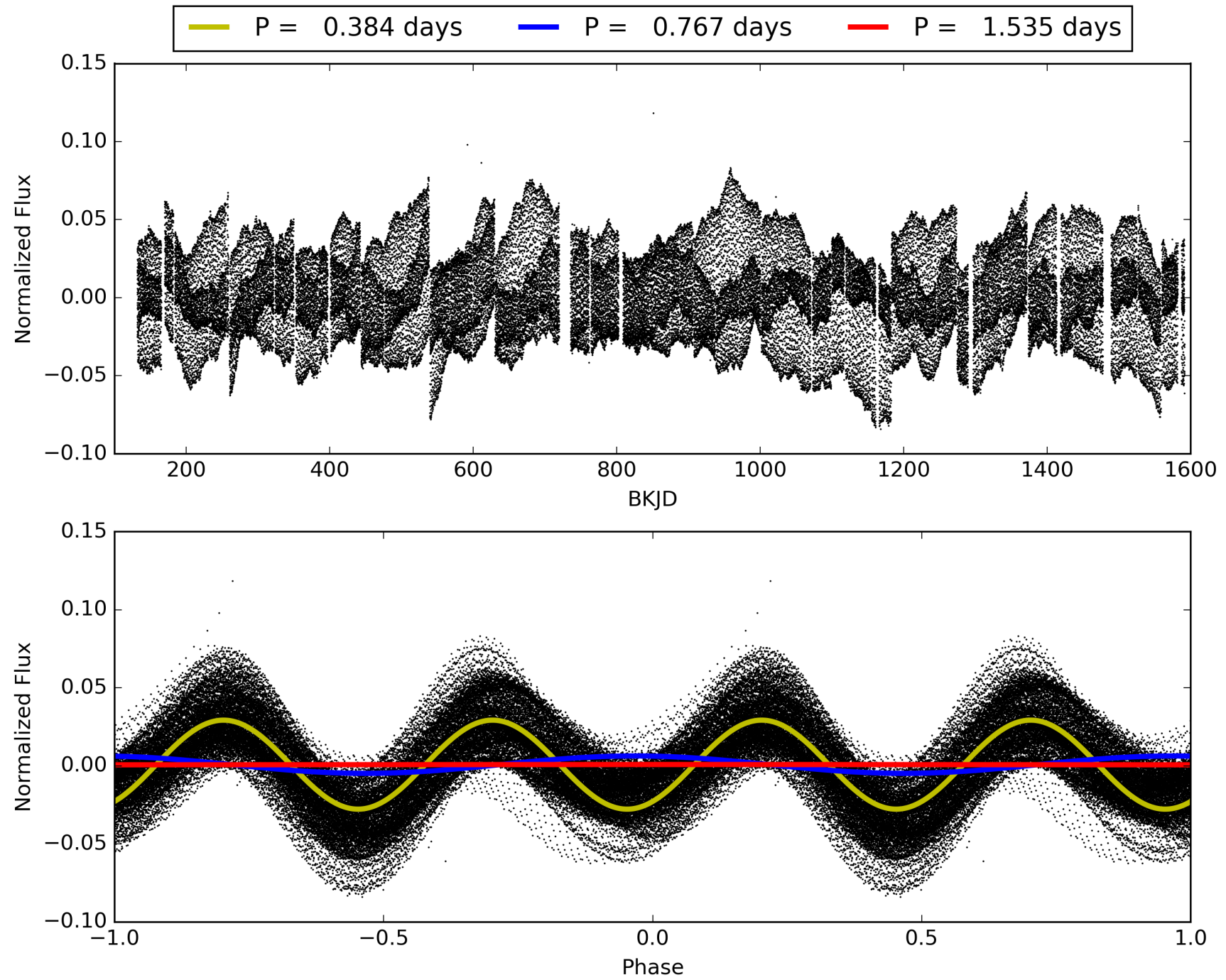
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1680/1680]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.135 arcsec [1.74σ]
KicOffset-rm: 0.120 arcsec [1.56σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.35 [6/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 009347955-01, PDC Light Curves

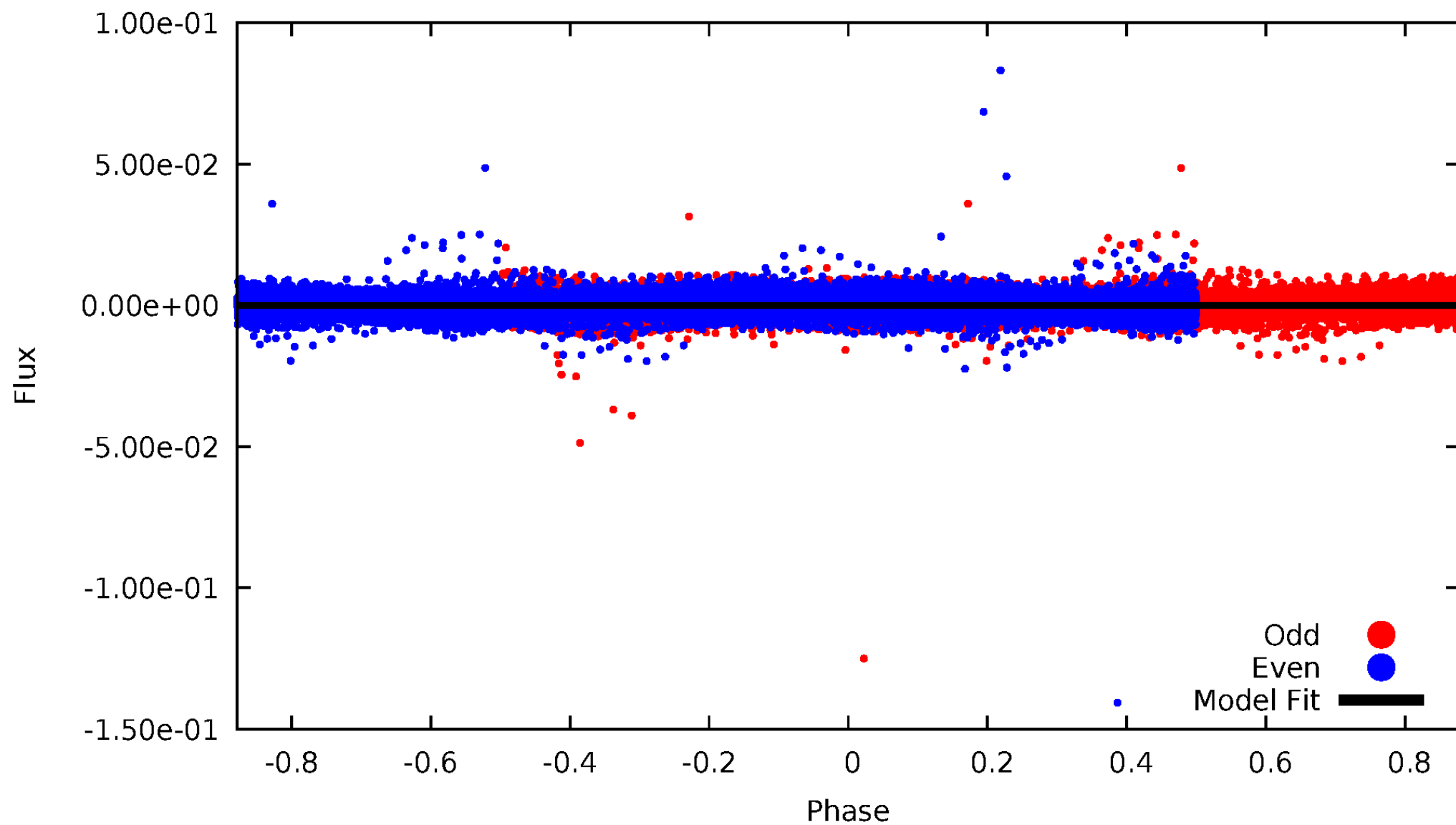


TCE 009347955-01



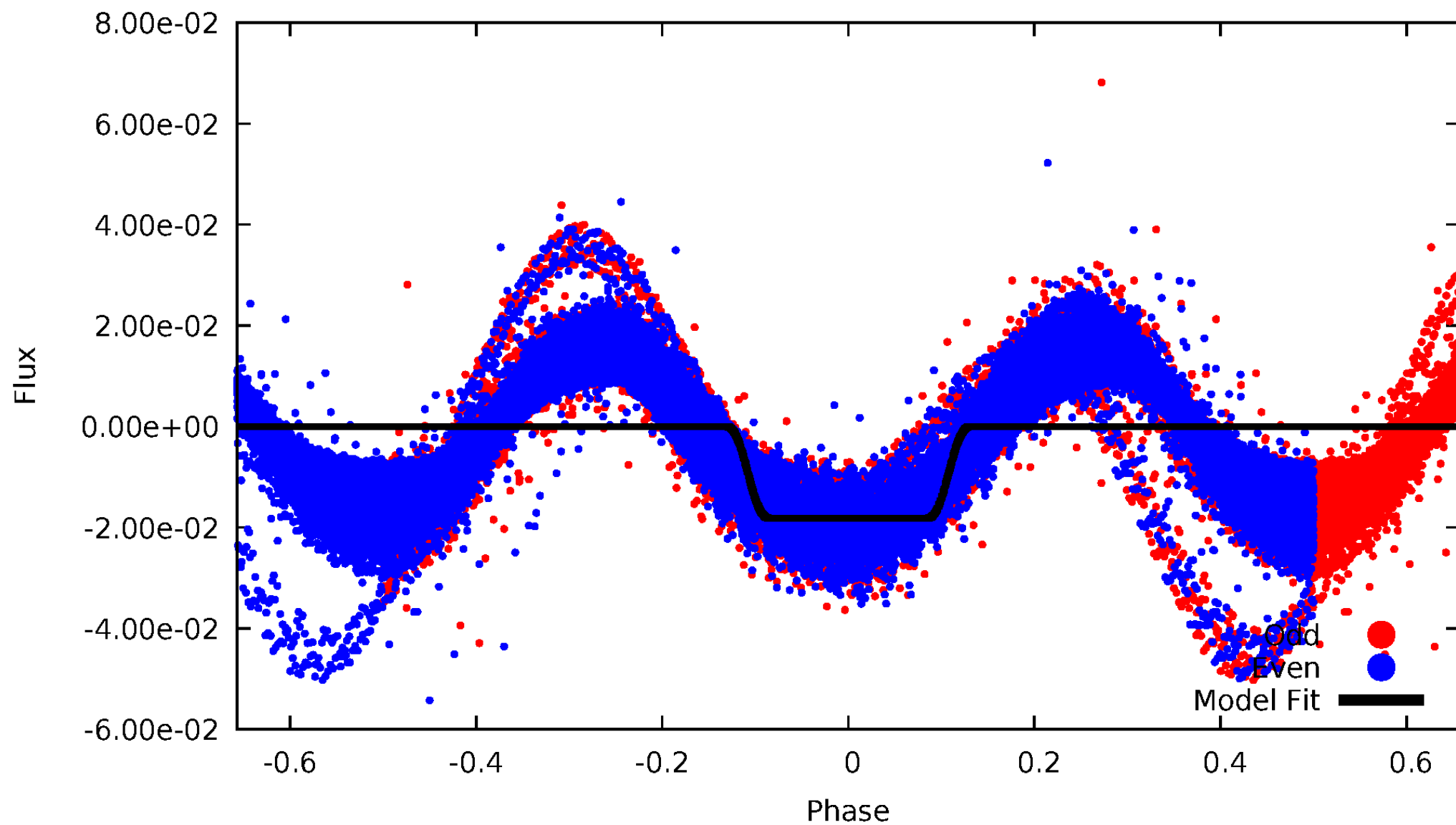
DV Odd/Even

TCE 009347955-01

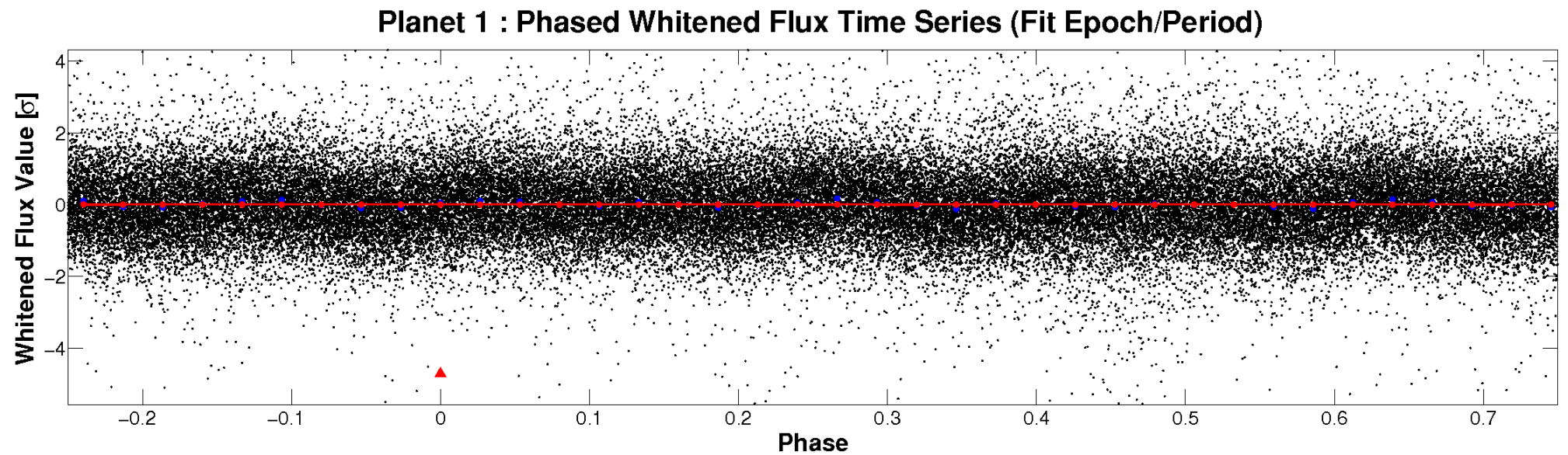
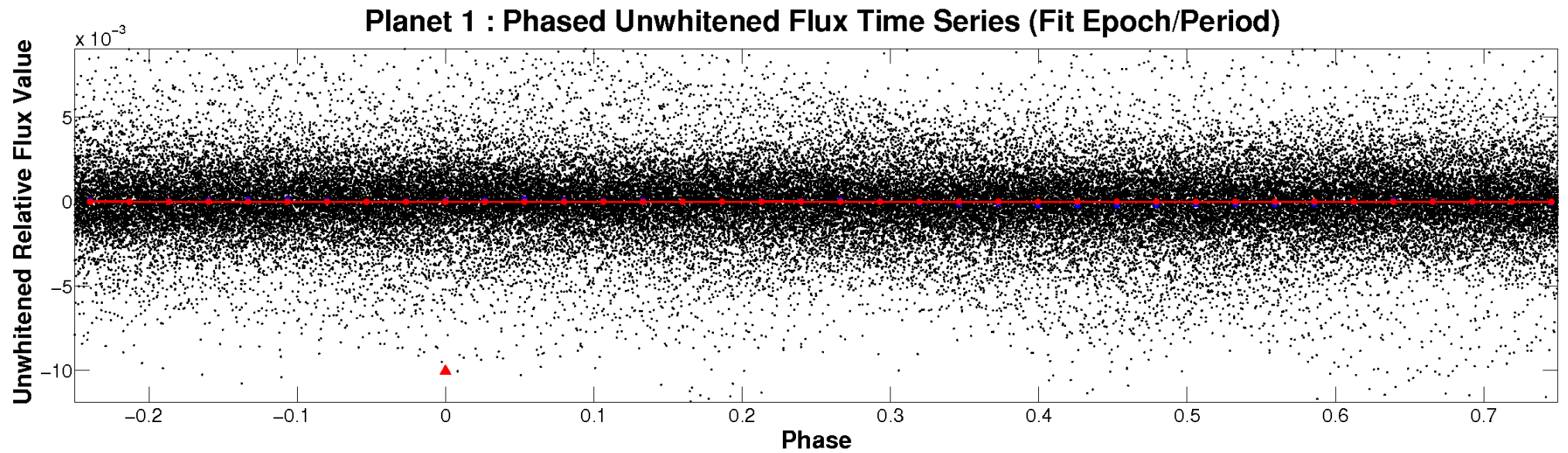


ALT Odd/Even

TCE 009347955-01

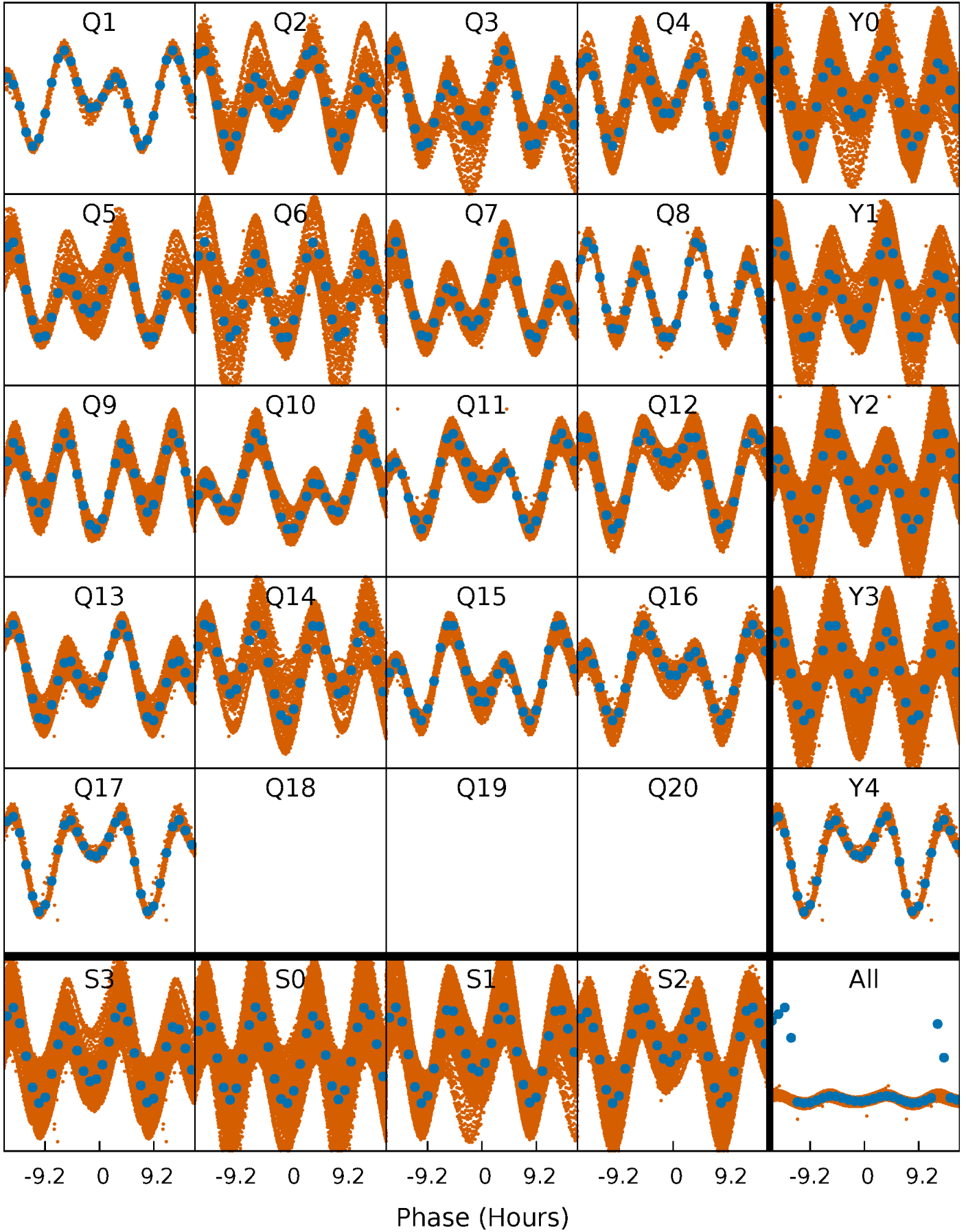


Non-Whitened Vs. Whitened Light Curve



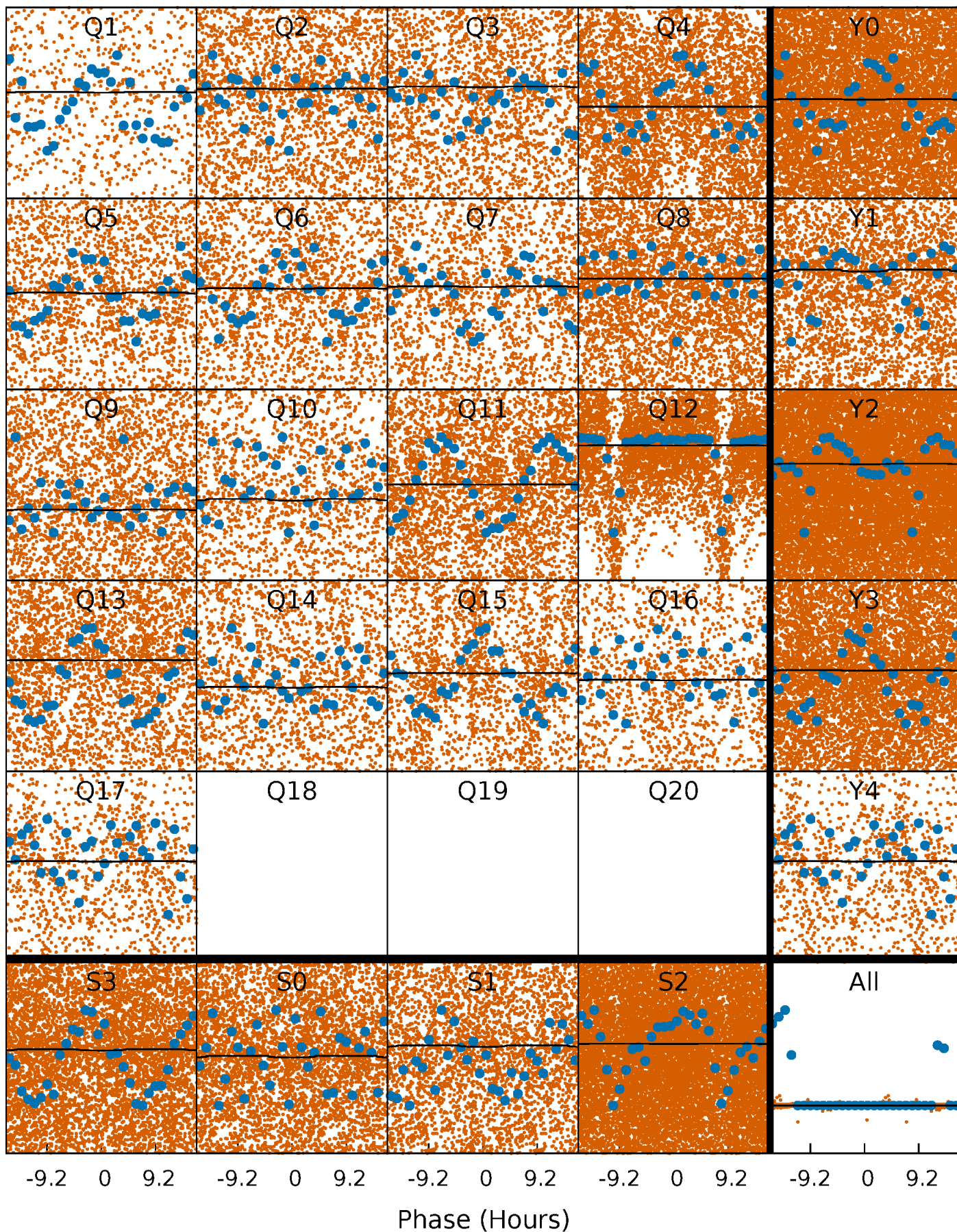
PDC Quarter-Phased Transit Curves

TCE 009347955-01 P= 0.767344 Days $T_0=131.788744$ (BKJD)



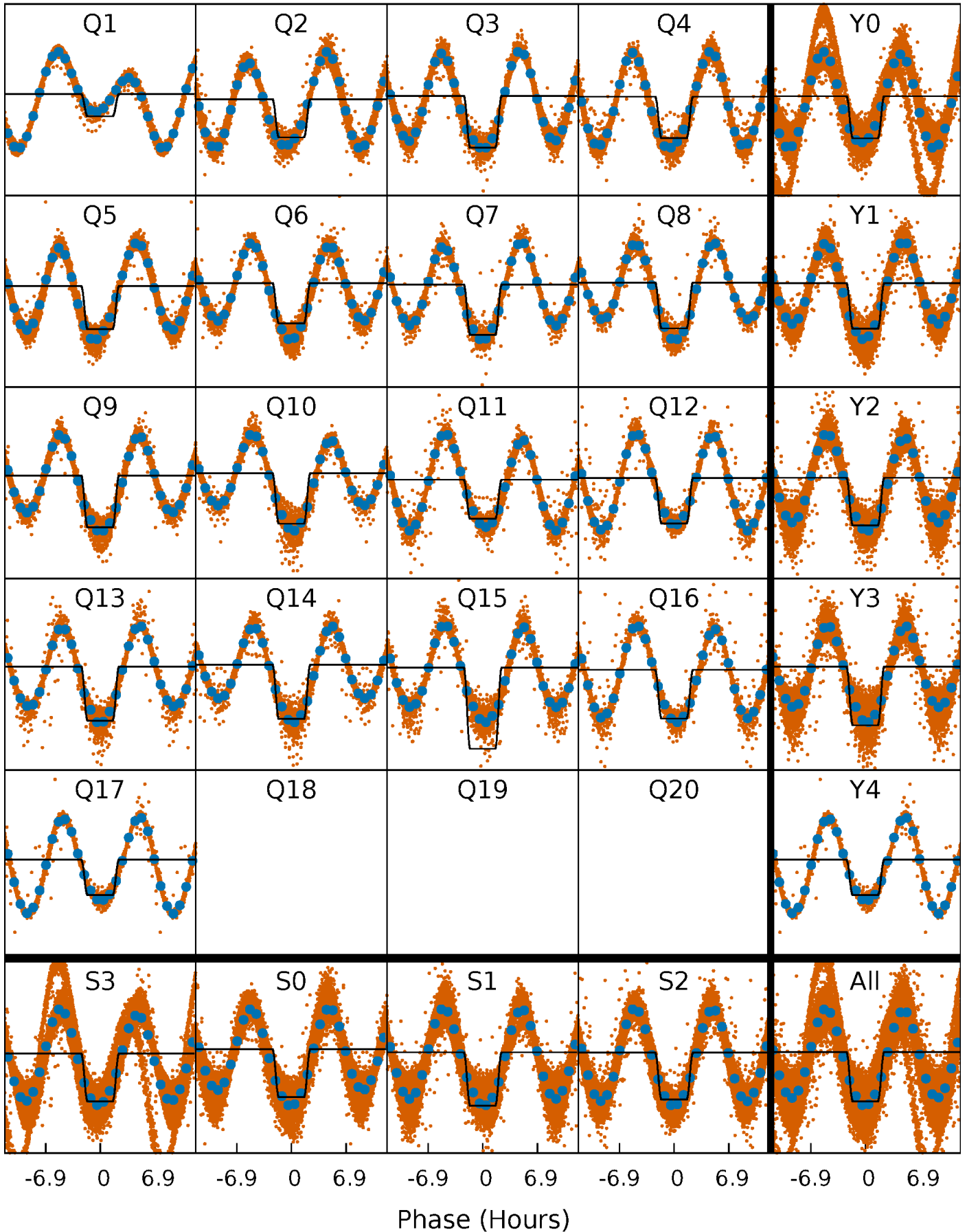
DV Quarter-Phased Transit Curves

TCE 009347955-01 P= 0.767344 Days $T_0=131.788744$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

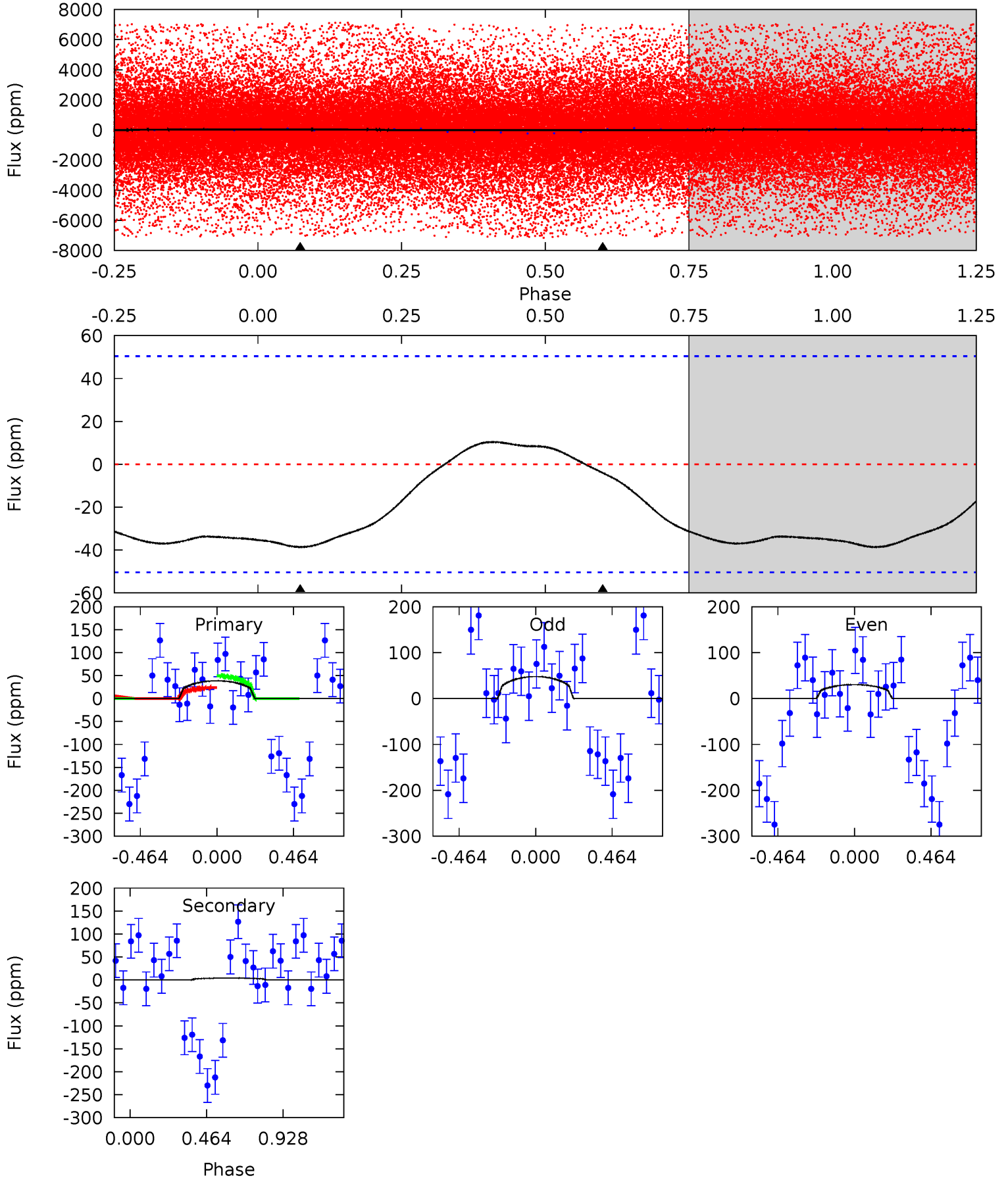
TCE 009347955-01 P= 0.767340 Days $T_0=131.758903$ (BKJD)



DV Model-Shift Uniqueness Test

009347955-01, P = 0.767344 Days, E = 131.021400 Days

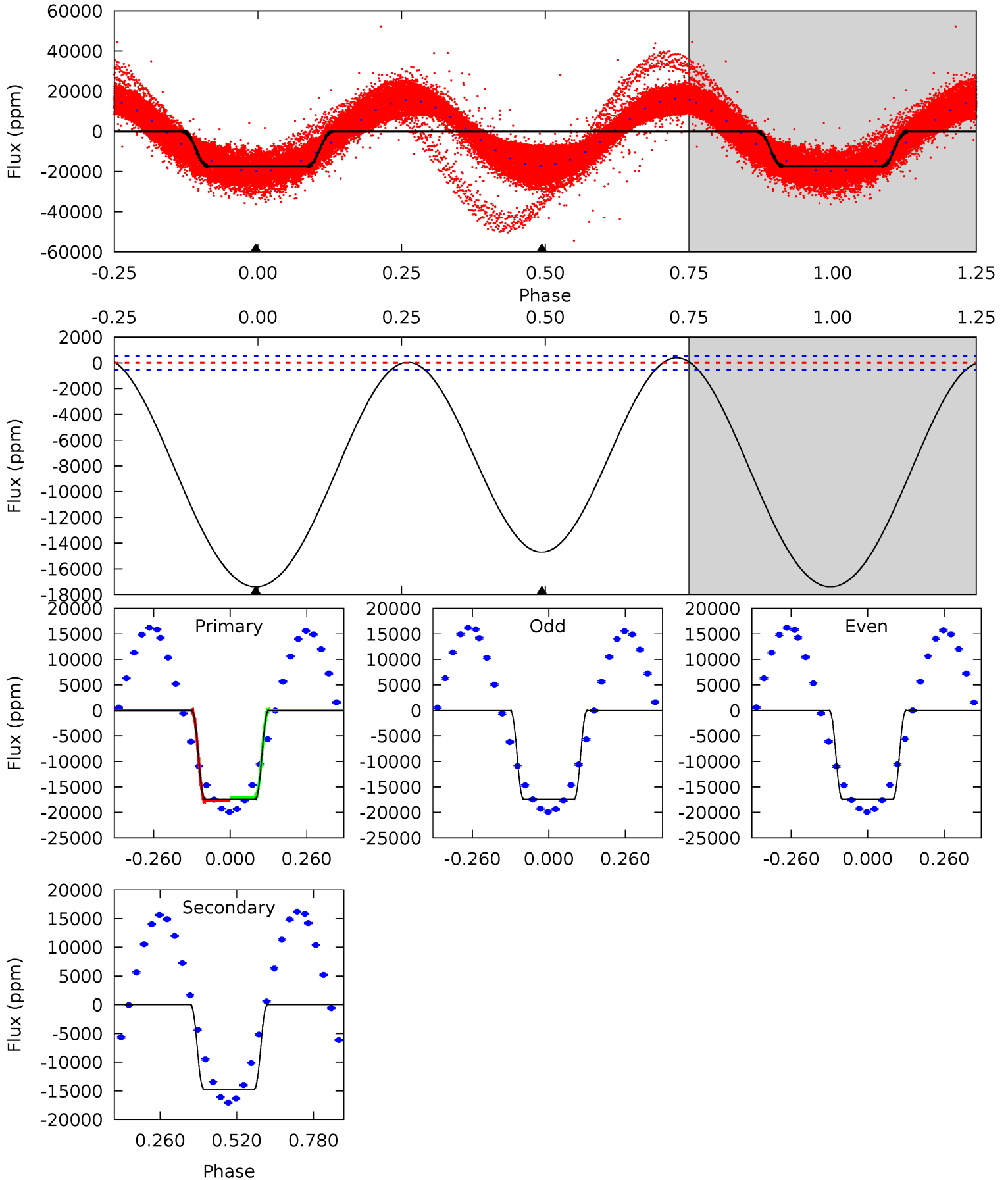
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.24	0.34	0	0	4.23	0.73	1.42	3.24	3.24	0.34	0.34	0.73	0.63	0.21	1.08



Alt Model-Shift Uniqueness Test

009347955-01, P = 0.767340 Days, E = 130.991563 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
142.3	120.2	0	0	4.36	1.13	3.05	142.3	142.3	120.2	120.2	0.04	0.99	0.02	7.00



Stellar Parameters For KIC 009347955

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5747^{+172}_{-172}	$4.466^{+0.145}_{-0.159}$	$-0.800^{+0.350}_{-0.300}$	$0.821^{+0.168}_{-0.112}$	$0.718^{+0.098}_{-0.031}$	$1.830^{+1.184}_{-0.767}$
	+3%/-3%	+3%/-4%	+44%/-37%	+20%/-14%	+14%/-4%	+65%/-42%
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 009347955-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4 ± 12	$1.34^{+1.58}_{-0.92}$	2654^{+160}_{-154}	-2630^{+6674}_{-719}	$0.143^{+2.697}_{-0.611}$
Alt.	-14701 ± 122	$12.26^{+2.26}_{-2.26}$	2650^{+160}_{-140}	5479^{+502}_{-415}	12^{+6}_{-4}

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 $A_{obs} \gg 1.0$

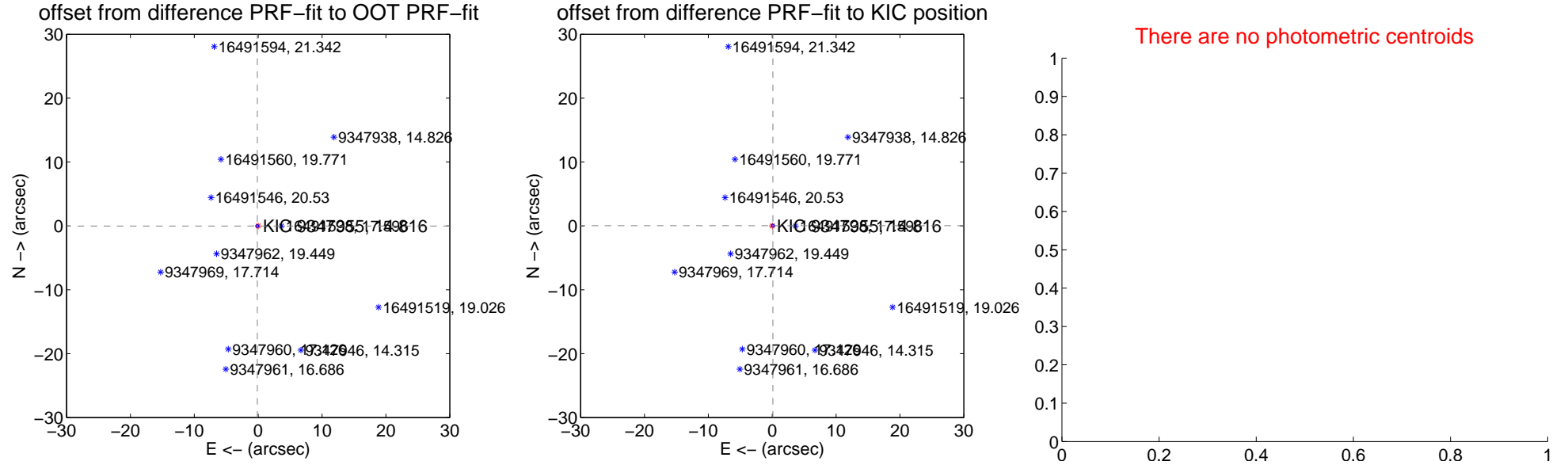
DV Centroid Data

Supplemental centroid analysis for 009347955-01. Kepler magnitude: 14.82. Transit SNR 0.21

There are 6 quarters with good PRF difference image offsets

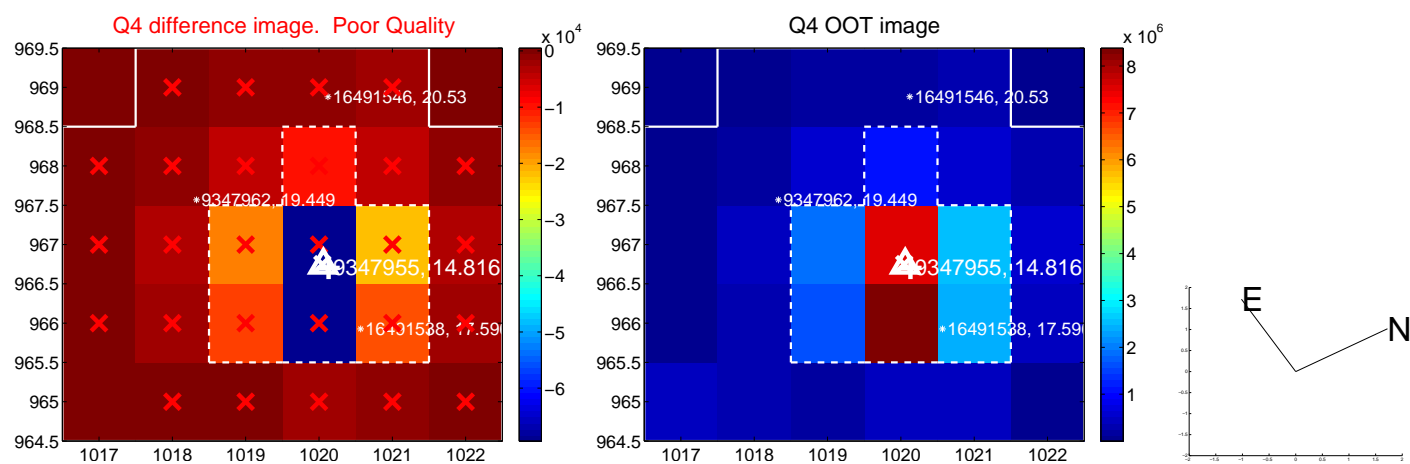
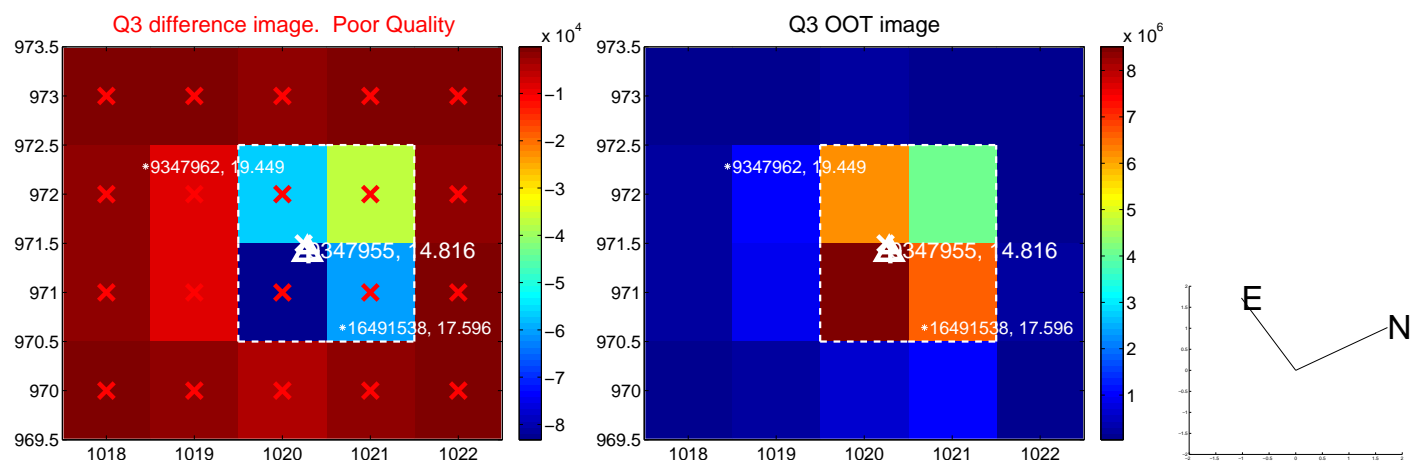
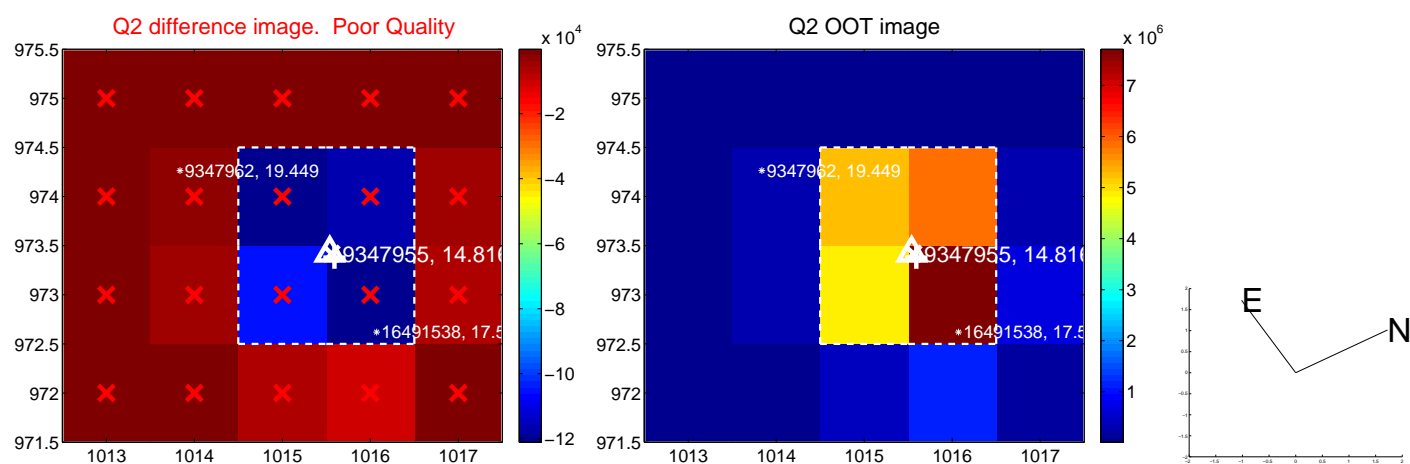
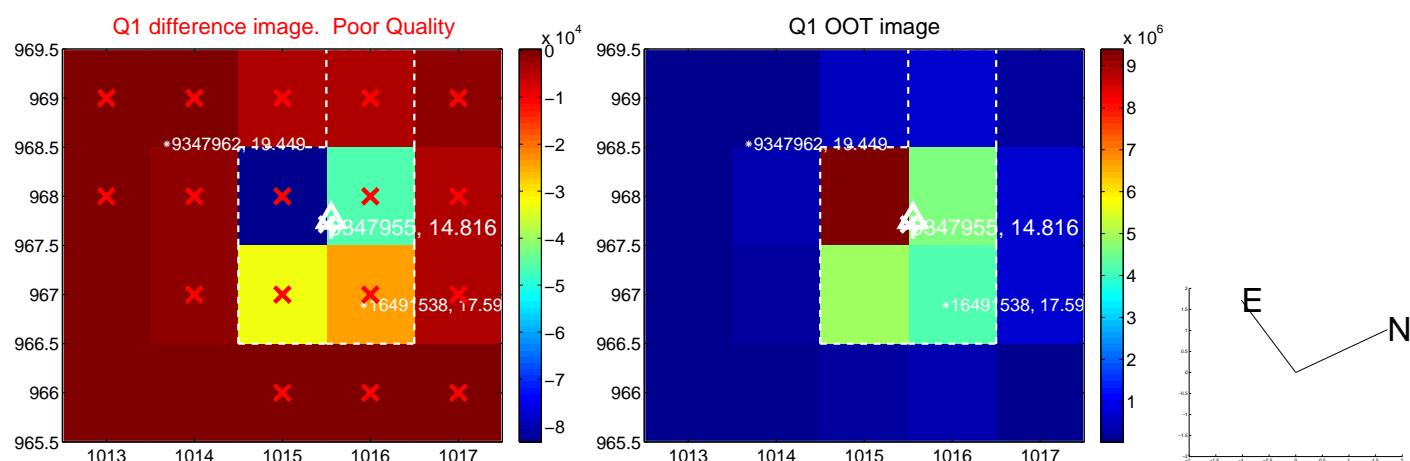
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.135 ± 0.078	1.74	0.132 ± 0.079	-0.028 ± 0.070
PRF-fit source offset from KIC position	0.120 ± 0.077	1.56	-0.113 ± 0.081	0.042 ± 0.071
photometric centroid source offset	—	—	—	—

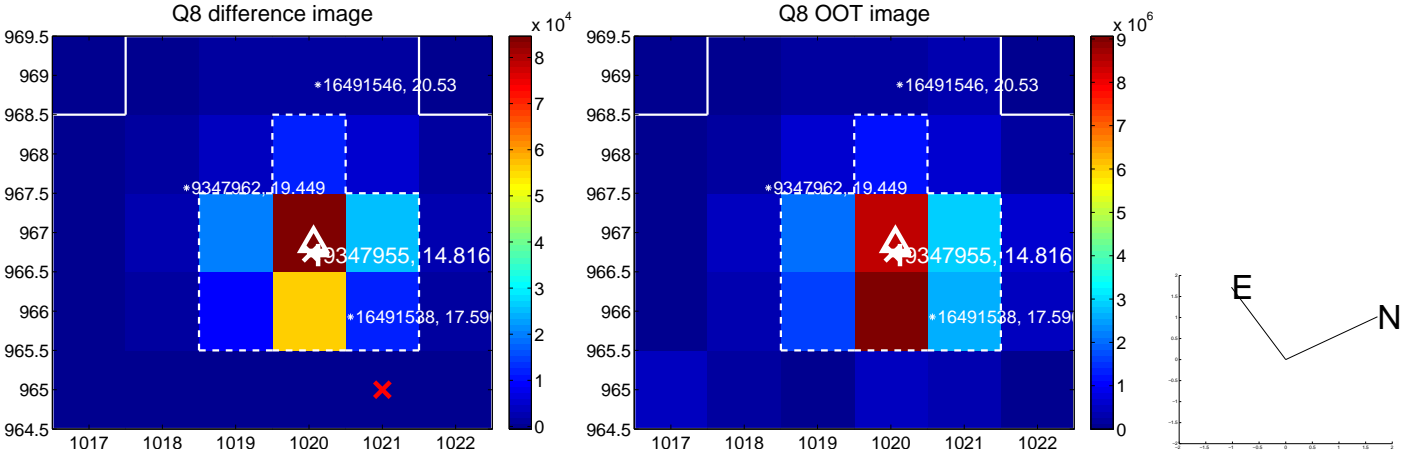
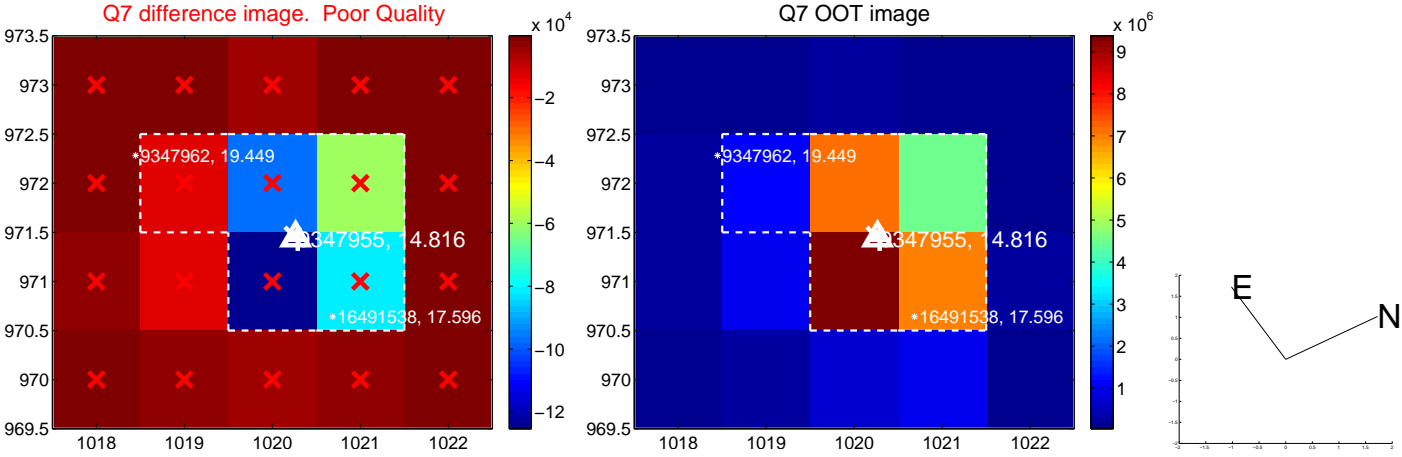
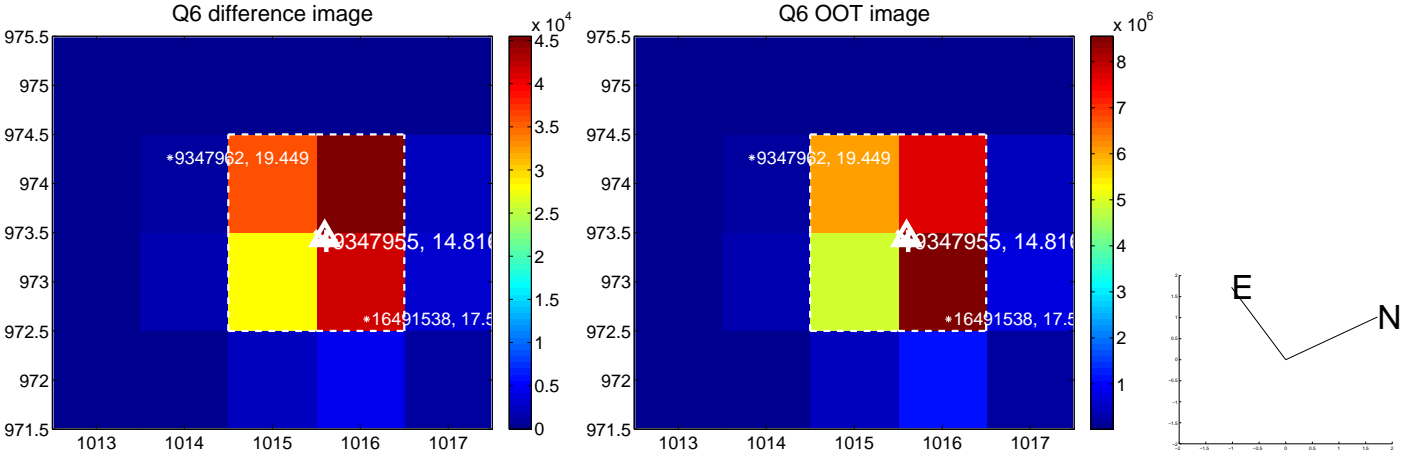
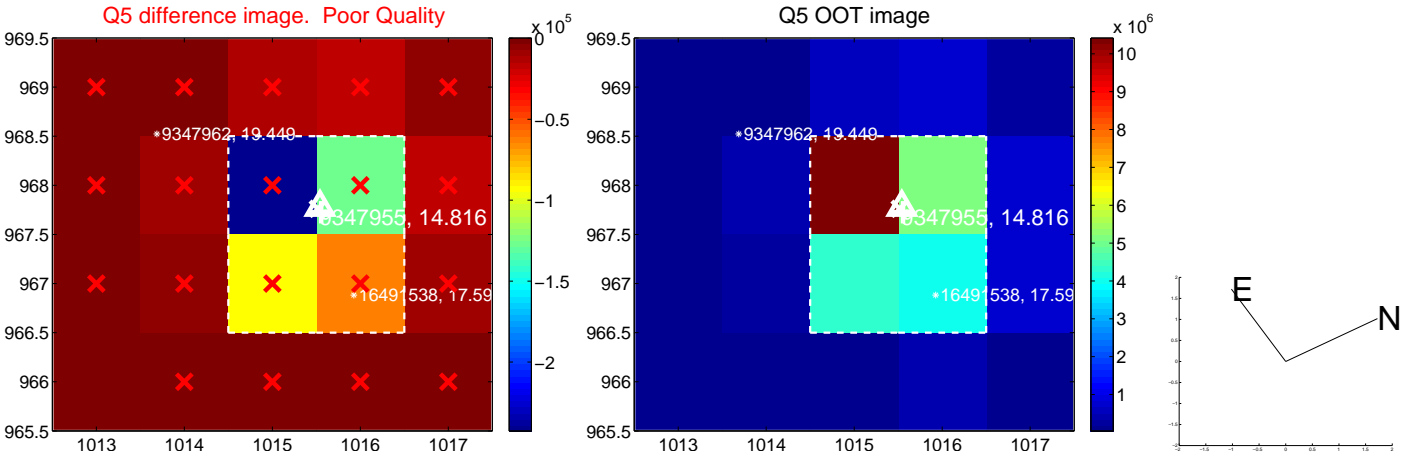


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

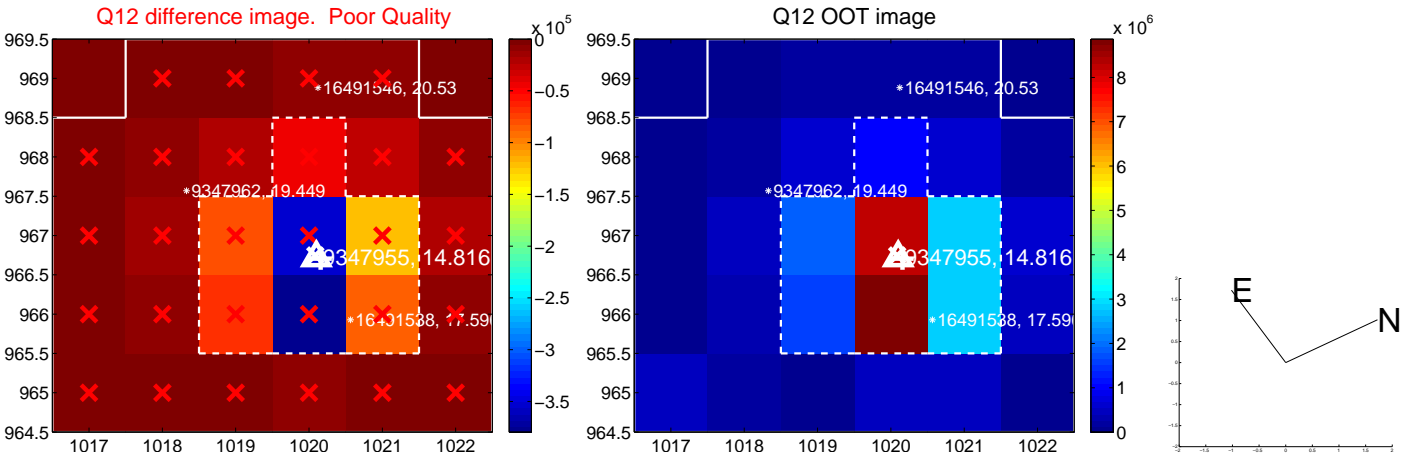
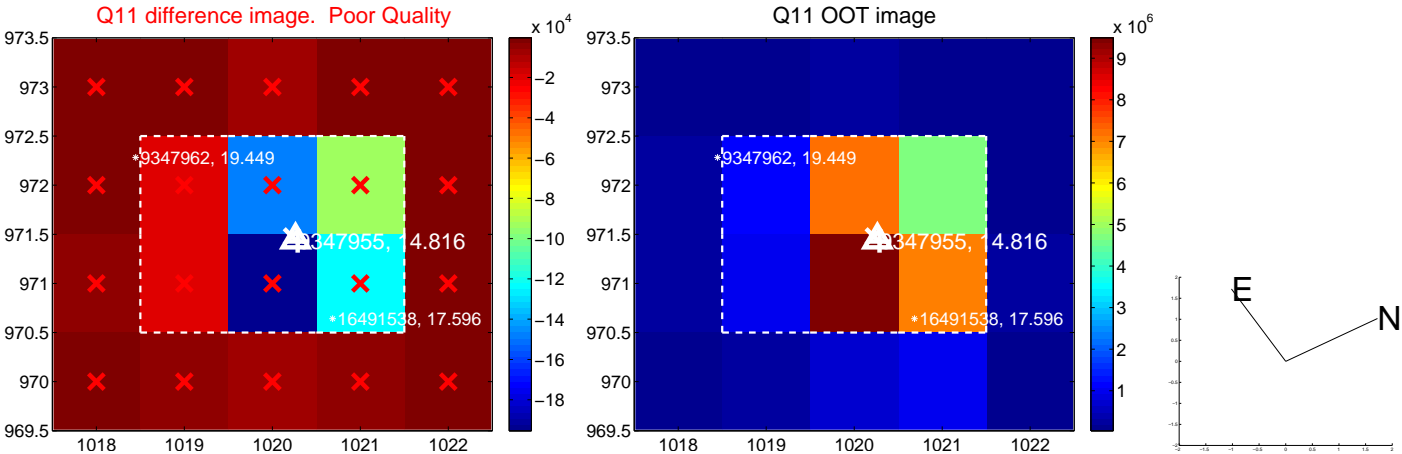
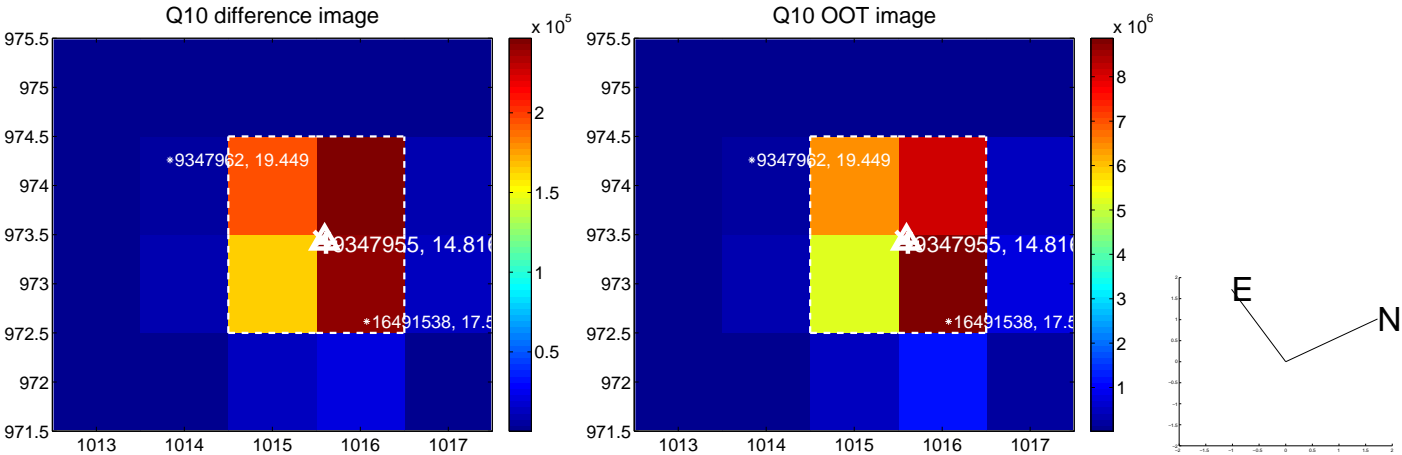
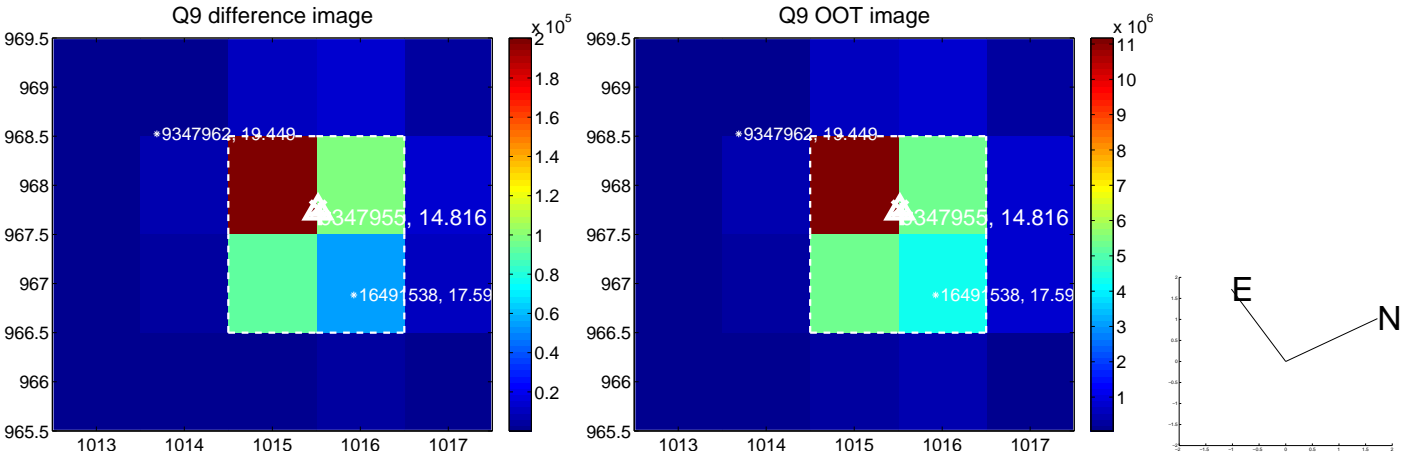
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



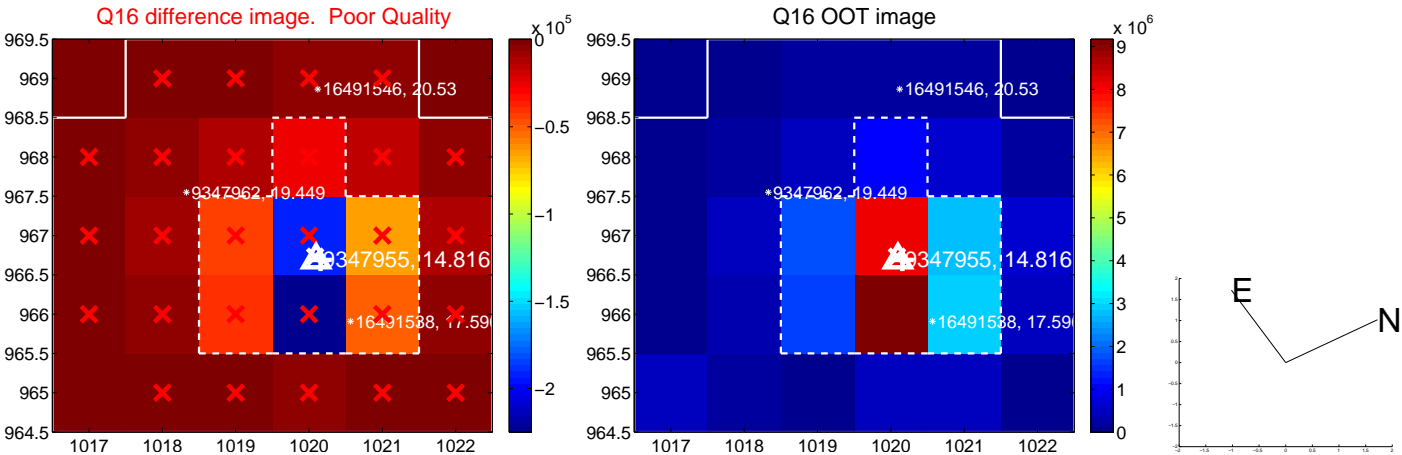
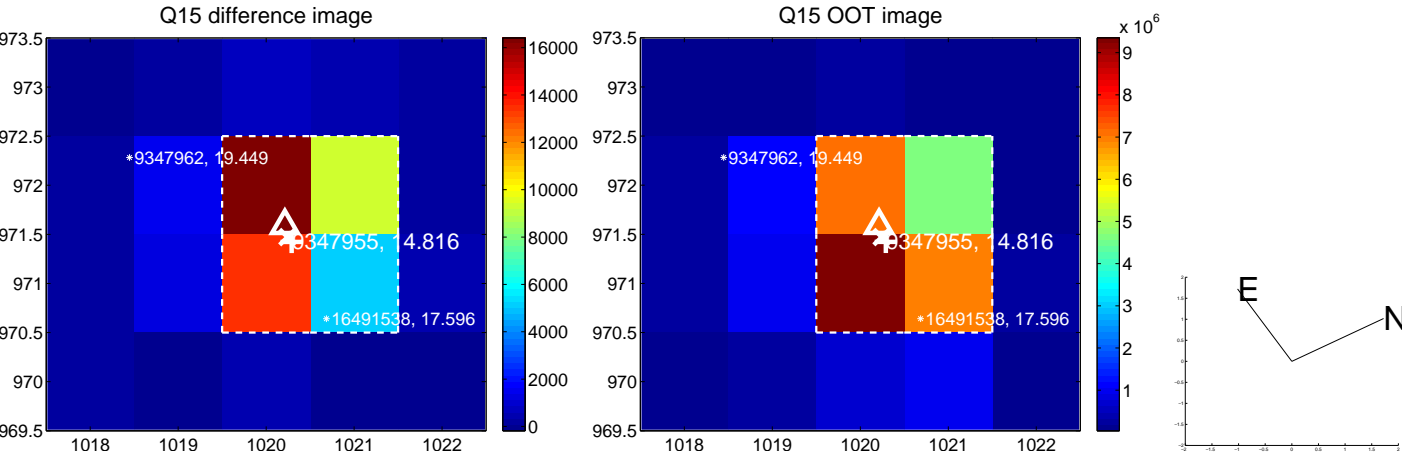
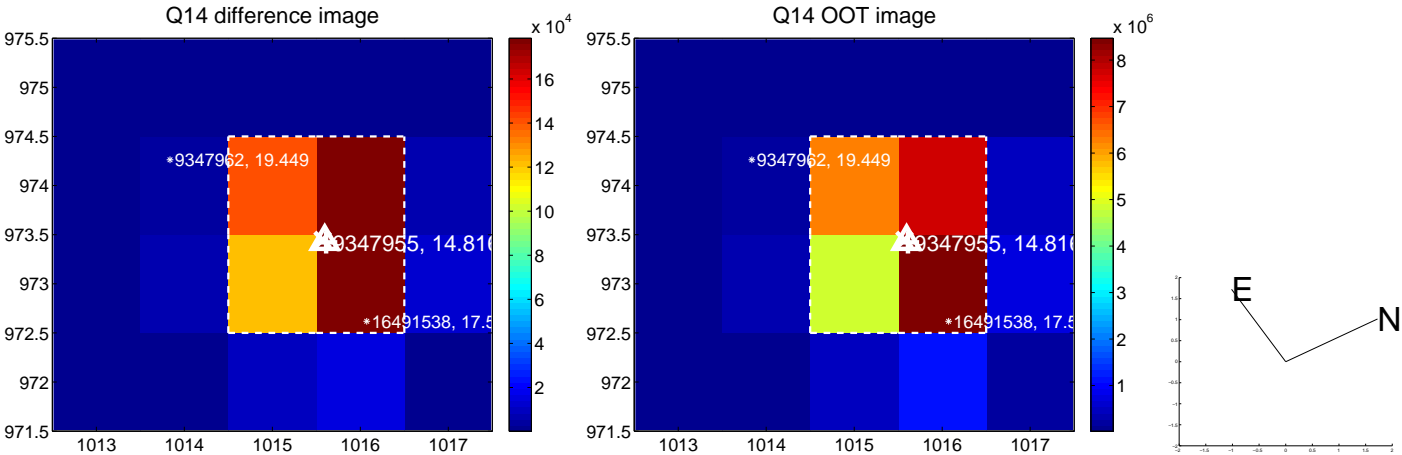
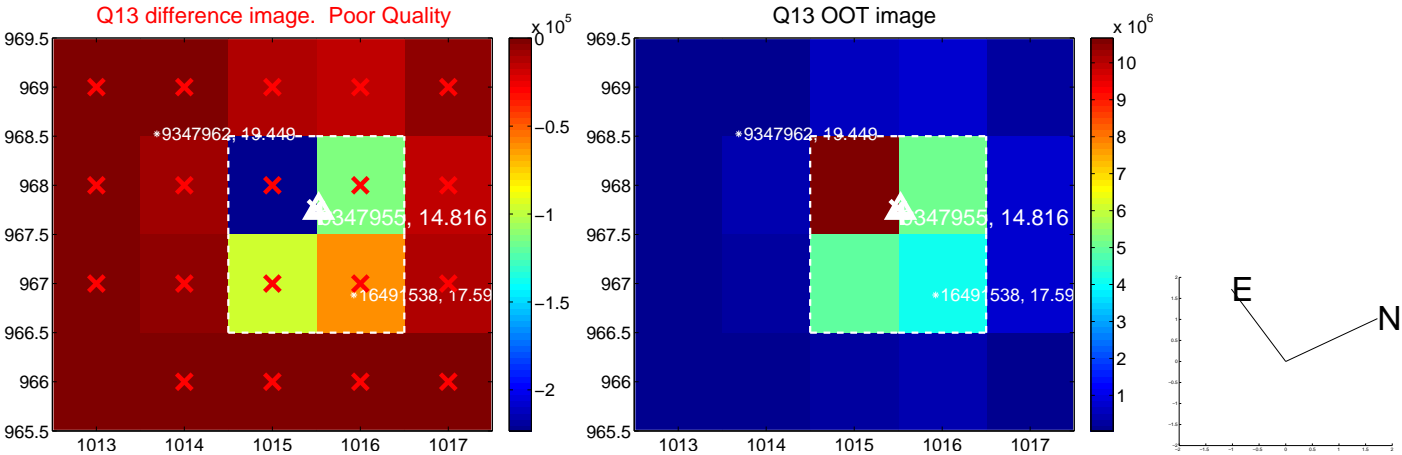
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



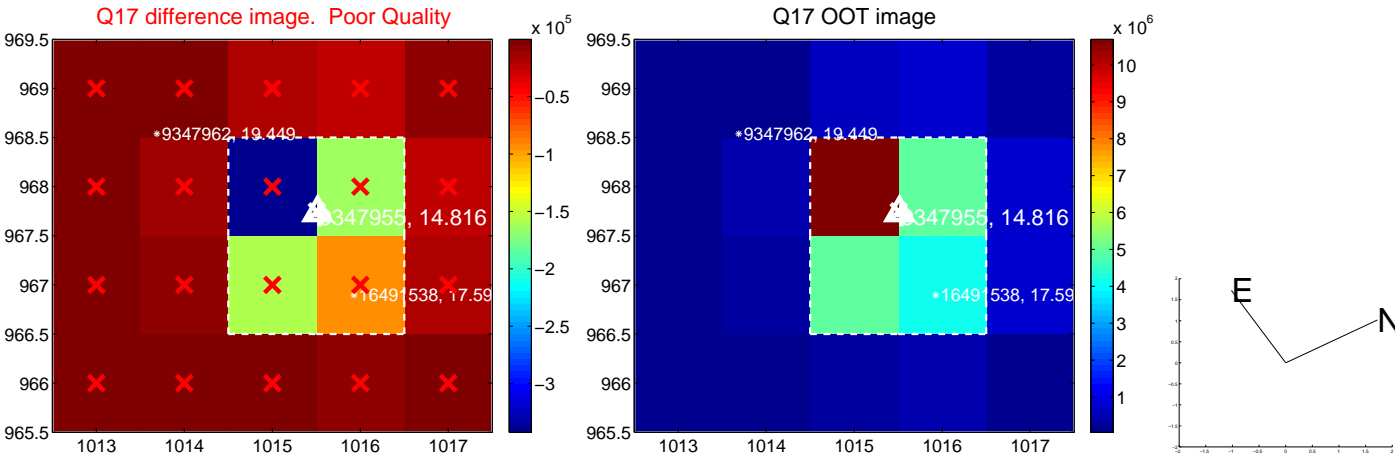
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

