

KIC 006362947

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})
006362947-01	OBS	No	0.577545	131.990186	24.2	6.663	8.7	3.0	2.64	6762	1.31	56818.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006362947-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT

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

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

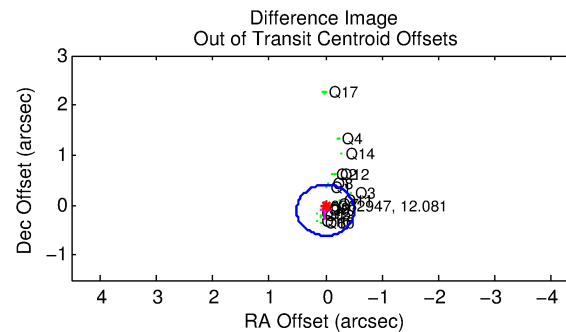
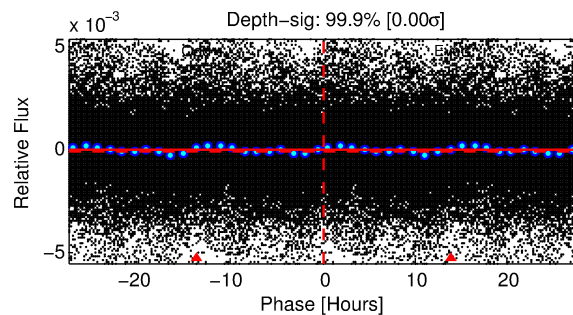
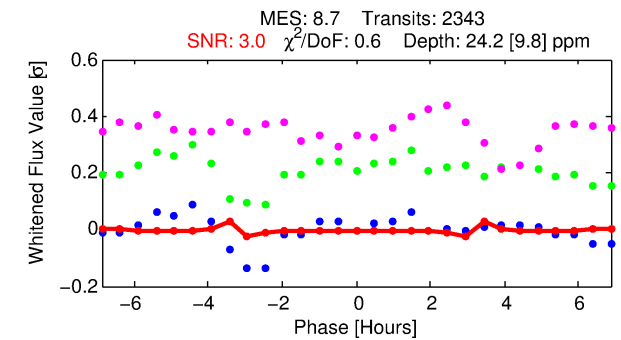
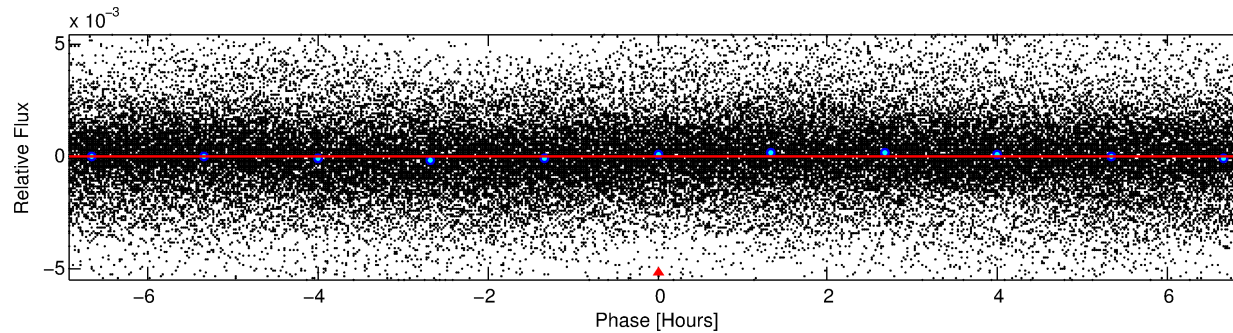
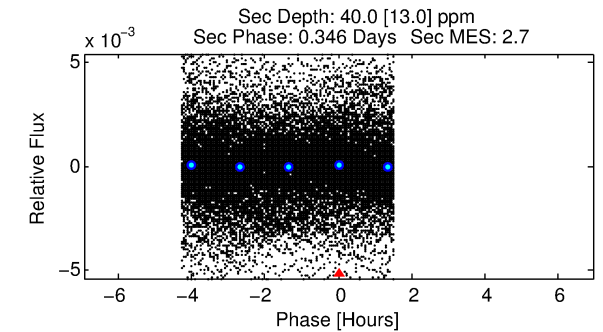
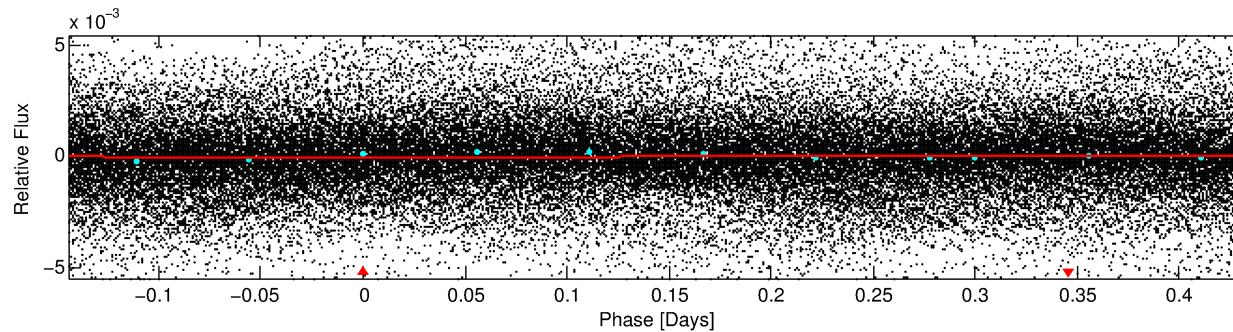
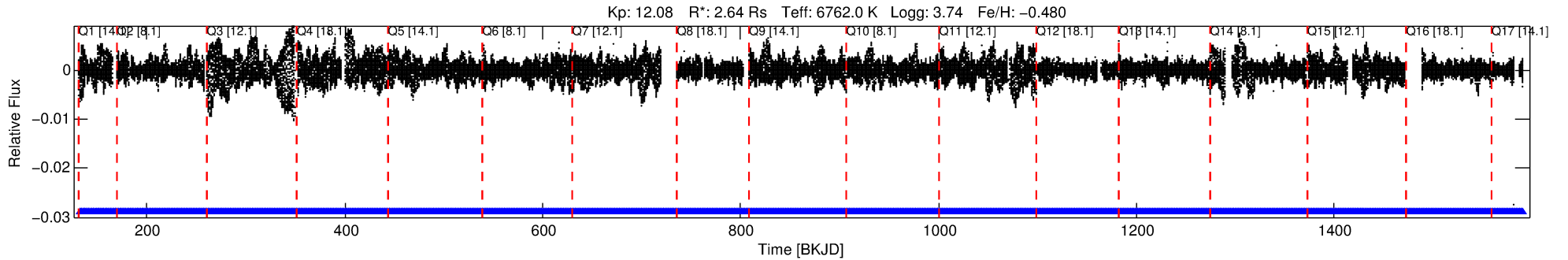
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006362947-01

No Significant Match Found

DV One-Page Summary

KIC: 6362947 Candidate: 1 of 1 Period: 0.578 d



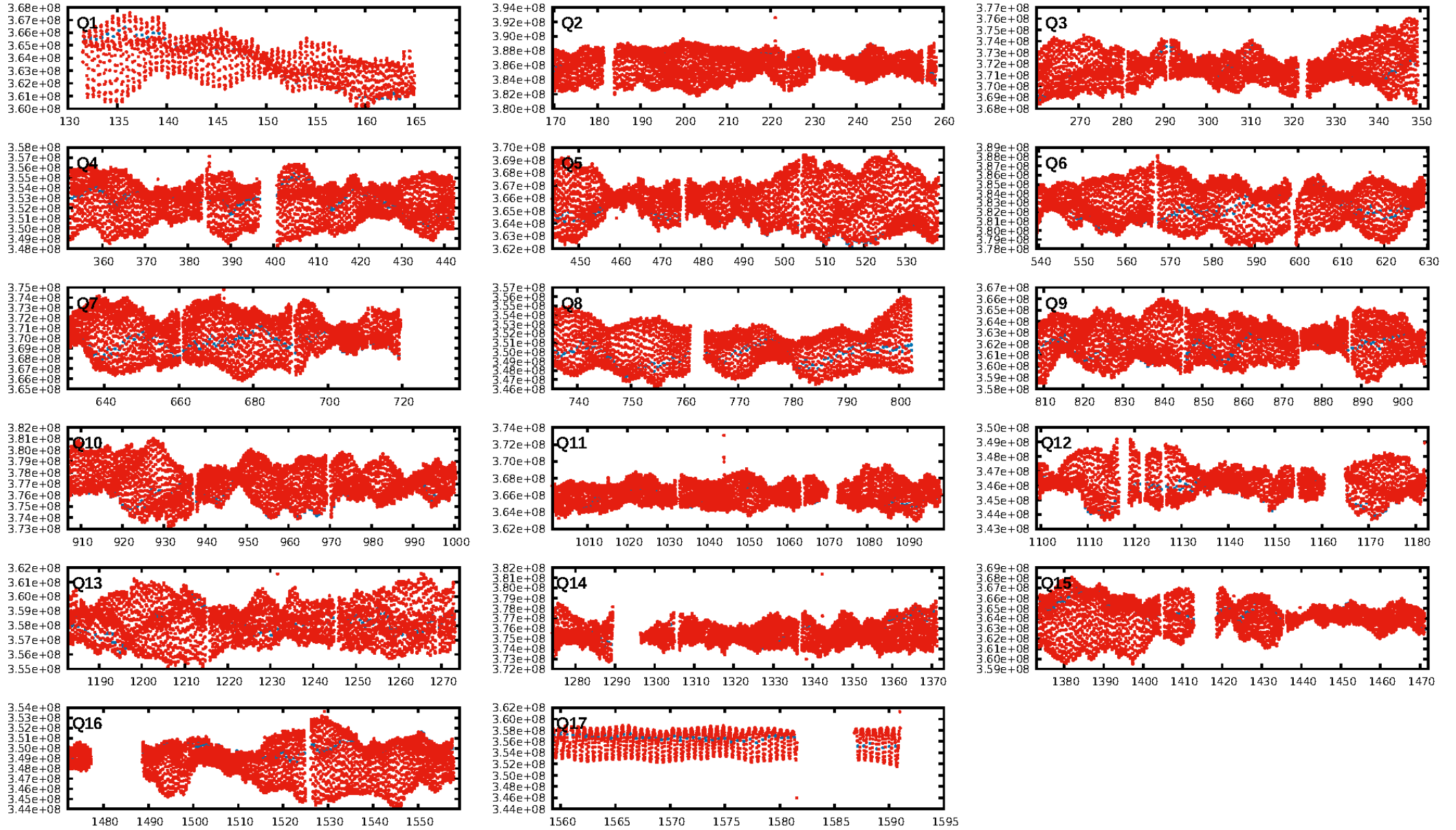
DV Fit Results:

Period = 0.57755 [0.00003] d
Epoch = 131.9902 [0.0031] BKJD
Rp/R* = 0.0046 [0.0024]
a/R* = 1.01 [0.03]
b = 0.14 [20.34]
Seff = 56818.13 [52030.25]
Teff = 3937 [901] K
Rp = 1.31 [0.98] Re
a = 0.0151 [0.0083] AU
Ag = 2.94 [4.23] [0.46σ]
Teffp = 7973 [2241] K [1.67σ]

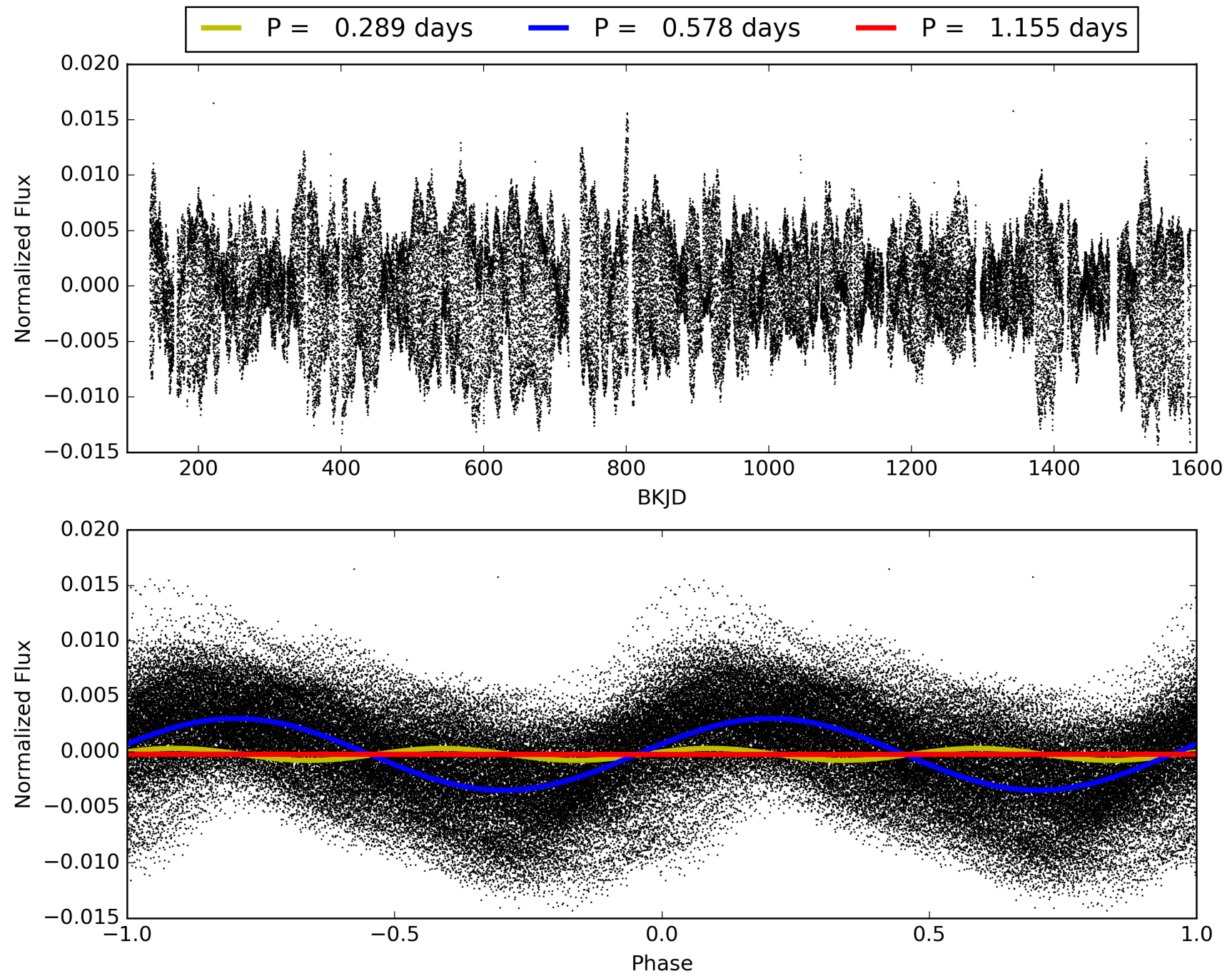
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2236/2236]
GhostDiagnostic-chr: -6.865
Centroid-sig: 1.0%
Centroid-so: 0.488 arcsec [1.71σ]
OotOffset-rm: 0.101 arcsec [0.59σ]
KicOffset-rm: 0.225 arcsec [1.61σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.29 [5/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006362947-01, PDC Light Curves

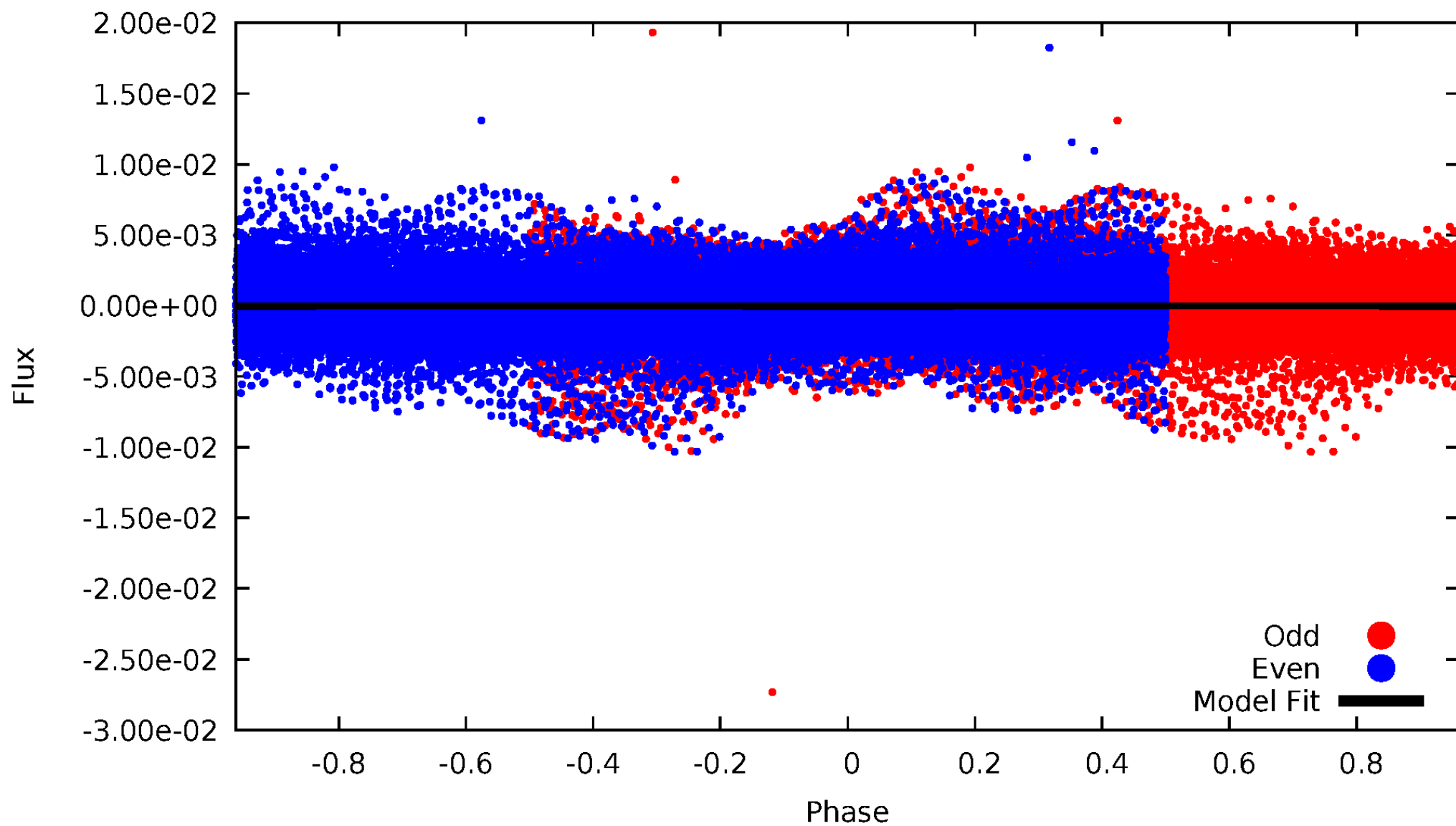


TCE 006362947-01



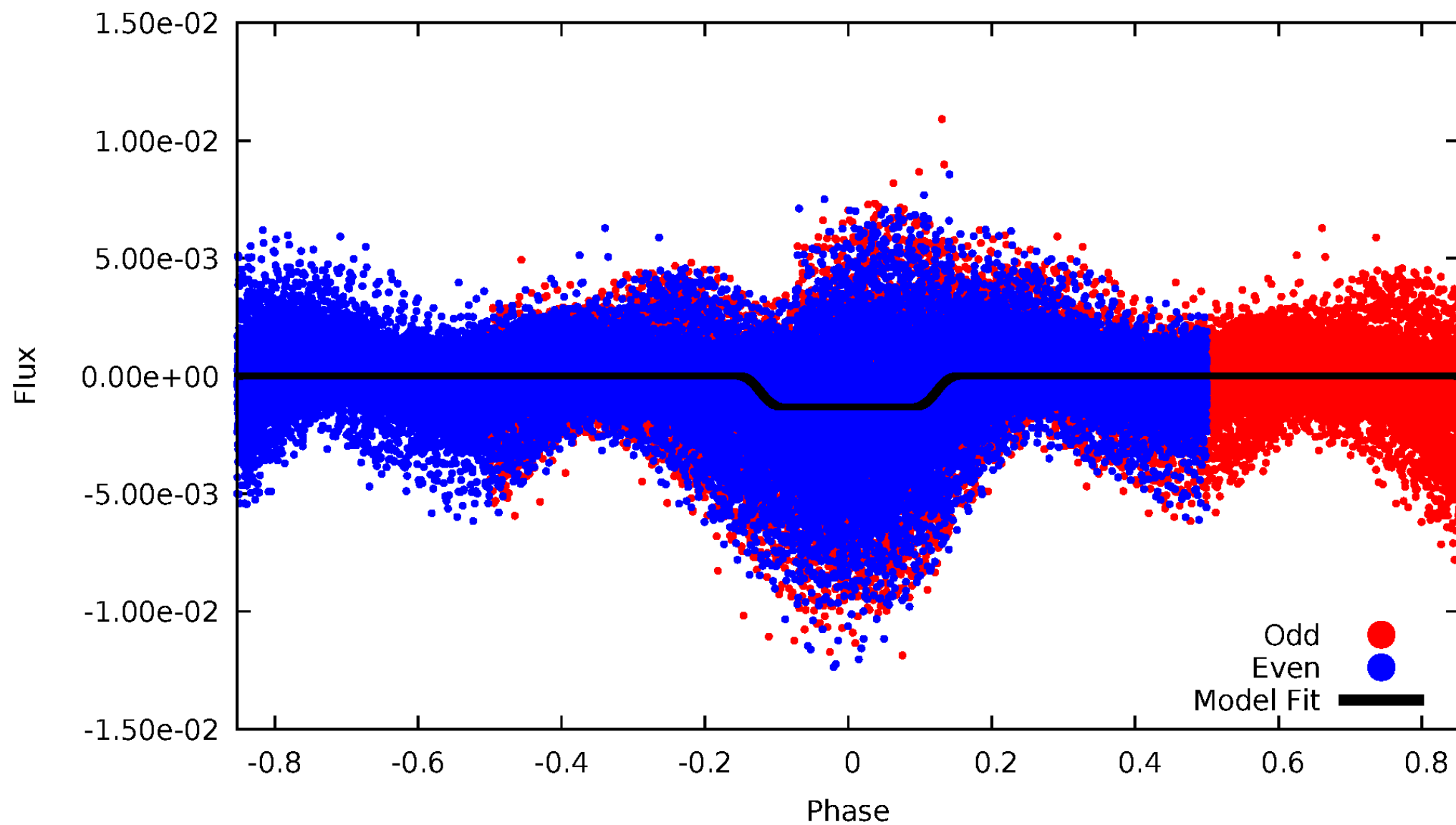
DV Odd/Even

TCE 006362947-01



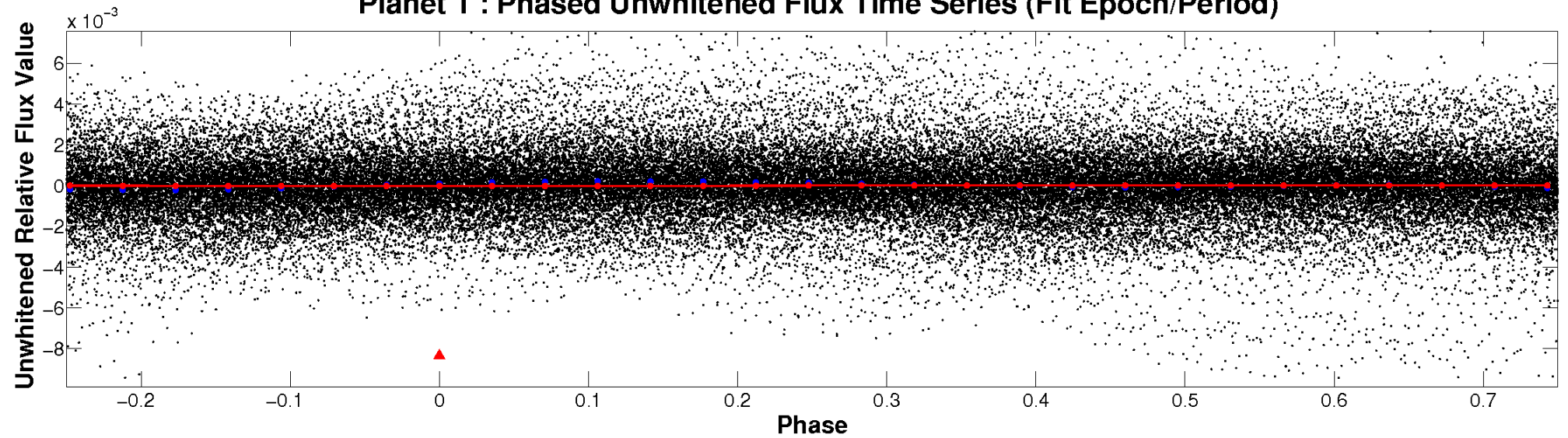
ALT Odd/Even

TCE 006362947-01

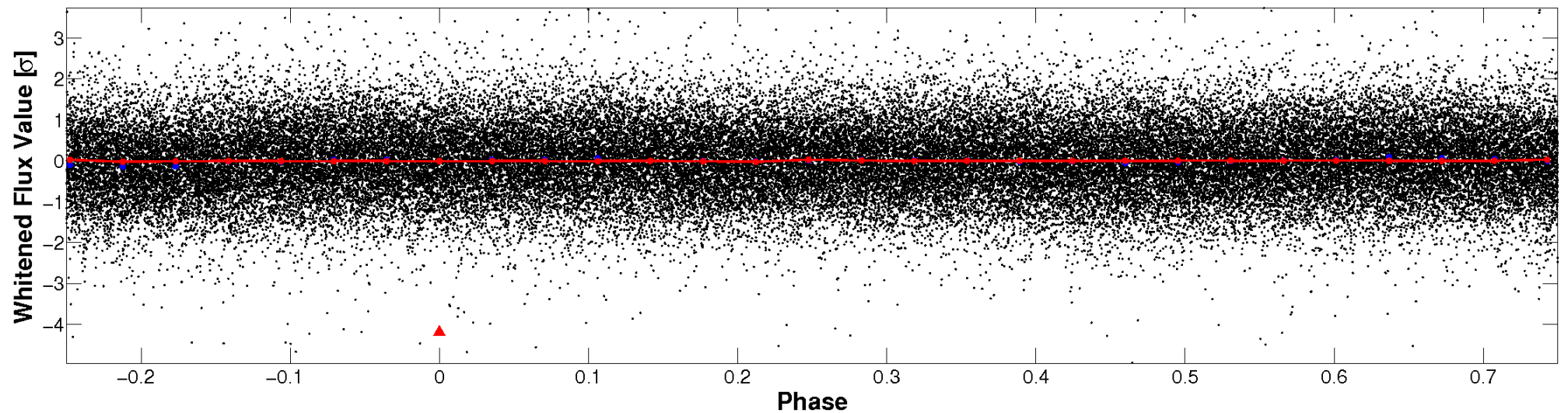


Non-Whitened Vs. Whitened Light Curve

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

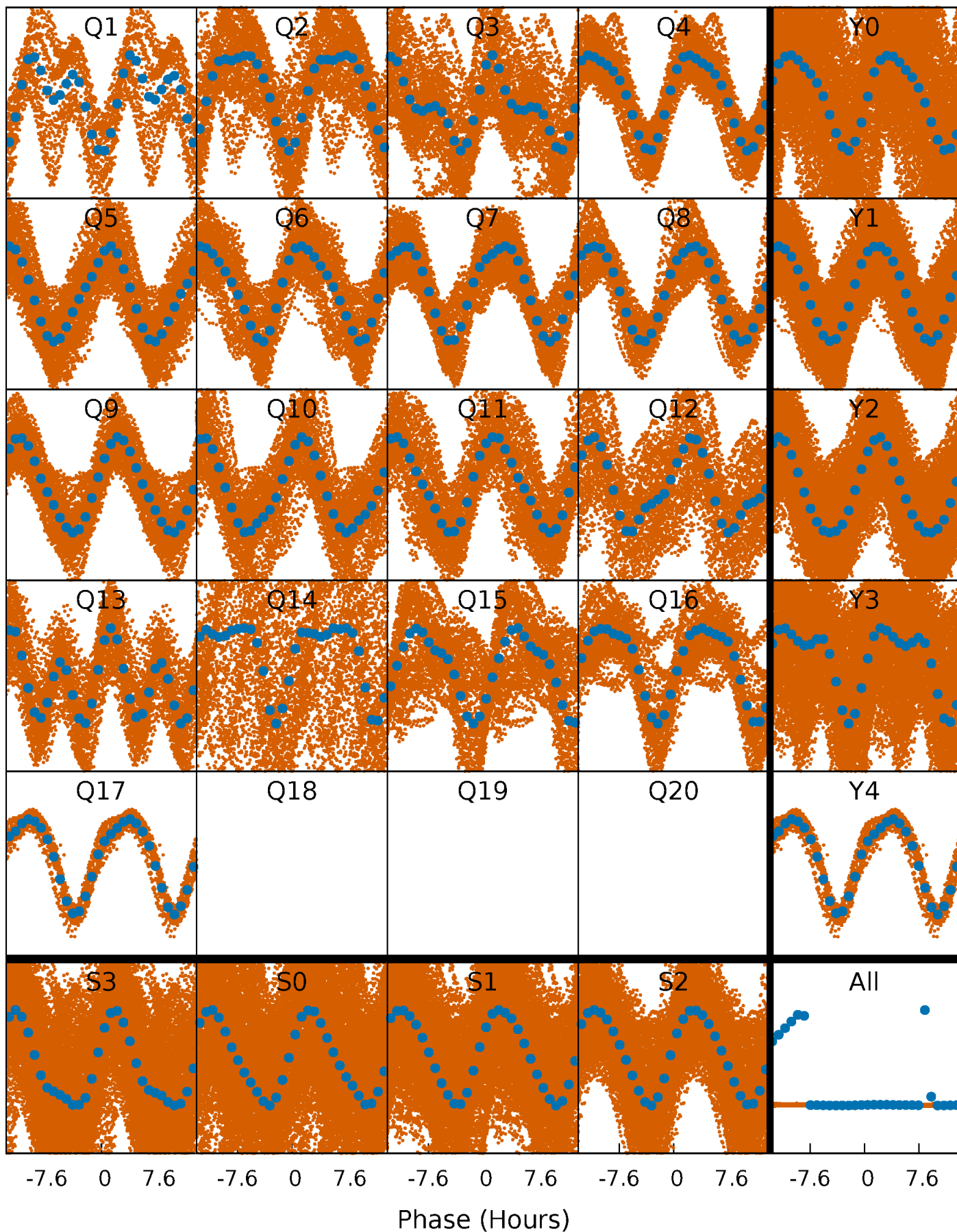


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



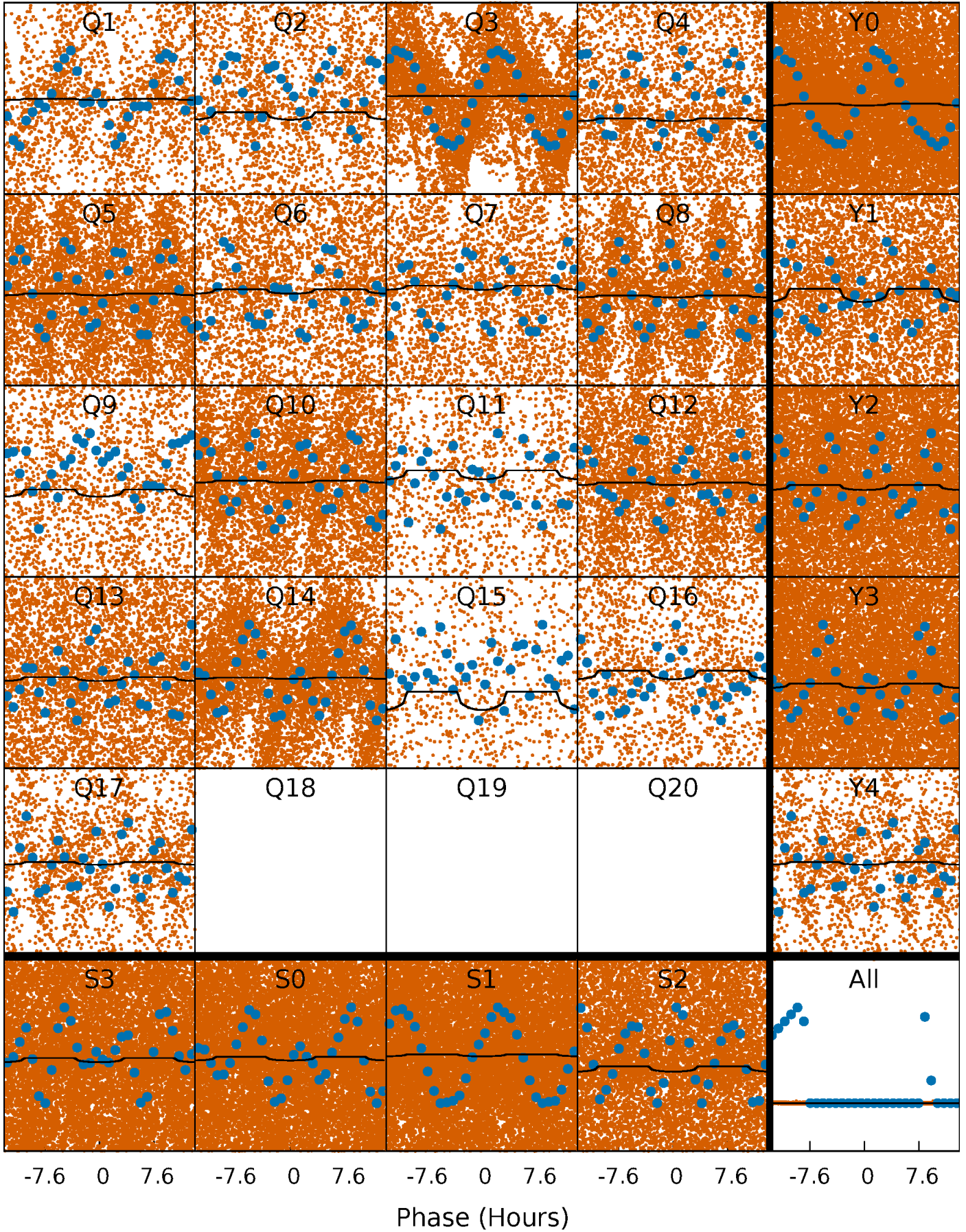
PDC Quarter-Phased Transit Curves

TCE 006362947-01 P= 0.577545 Days $T_0=131.990186$ (BKJD)



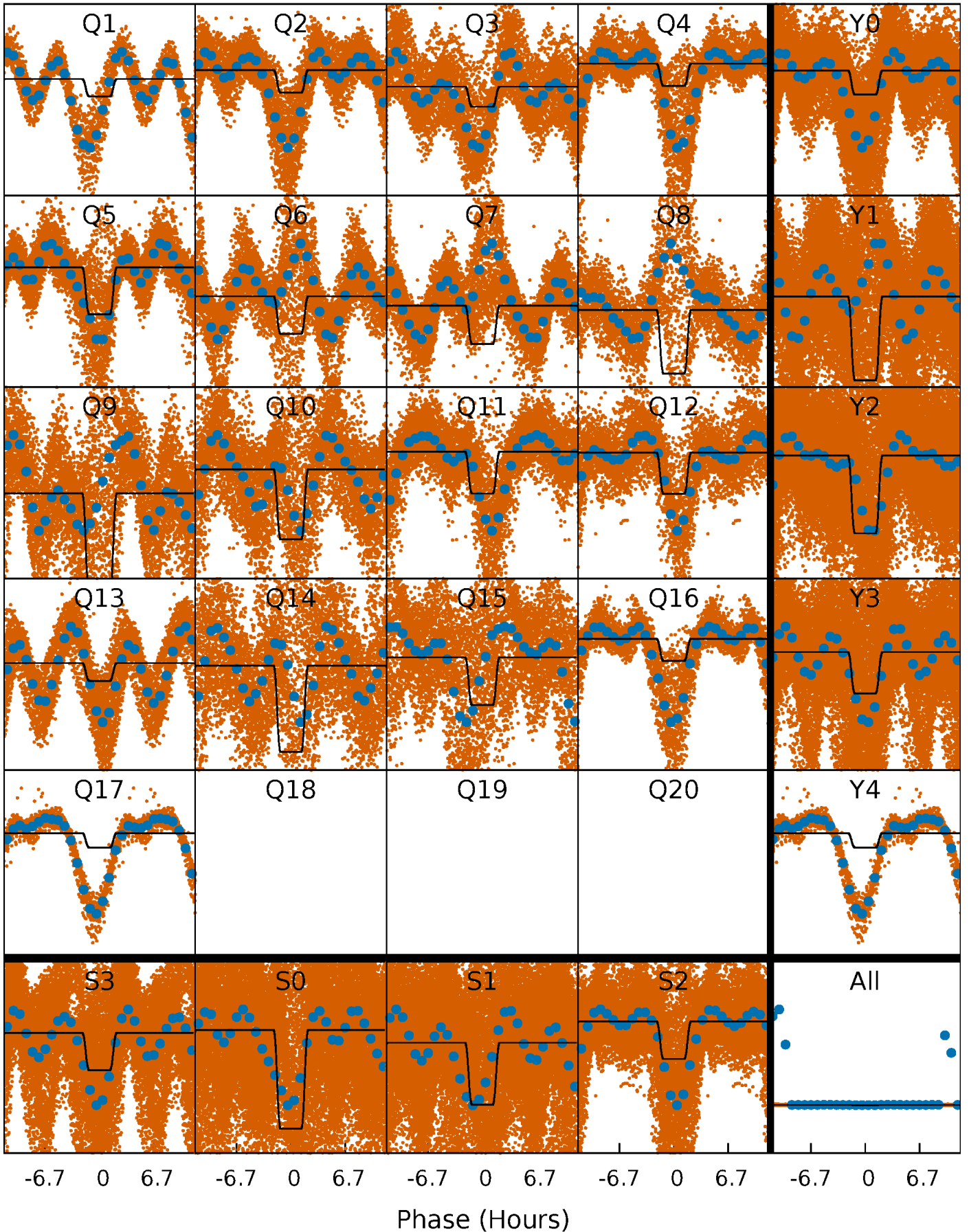
DV Quarter-Phased Transit Curves

TCE 006362947-01 P= 0.577545 Days $T_0=131.990186$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

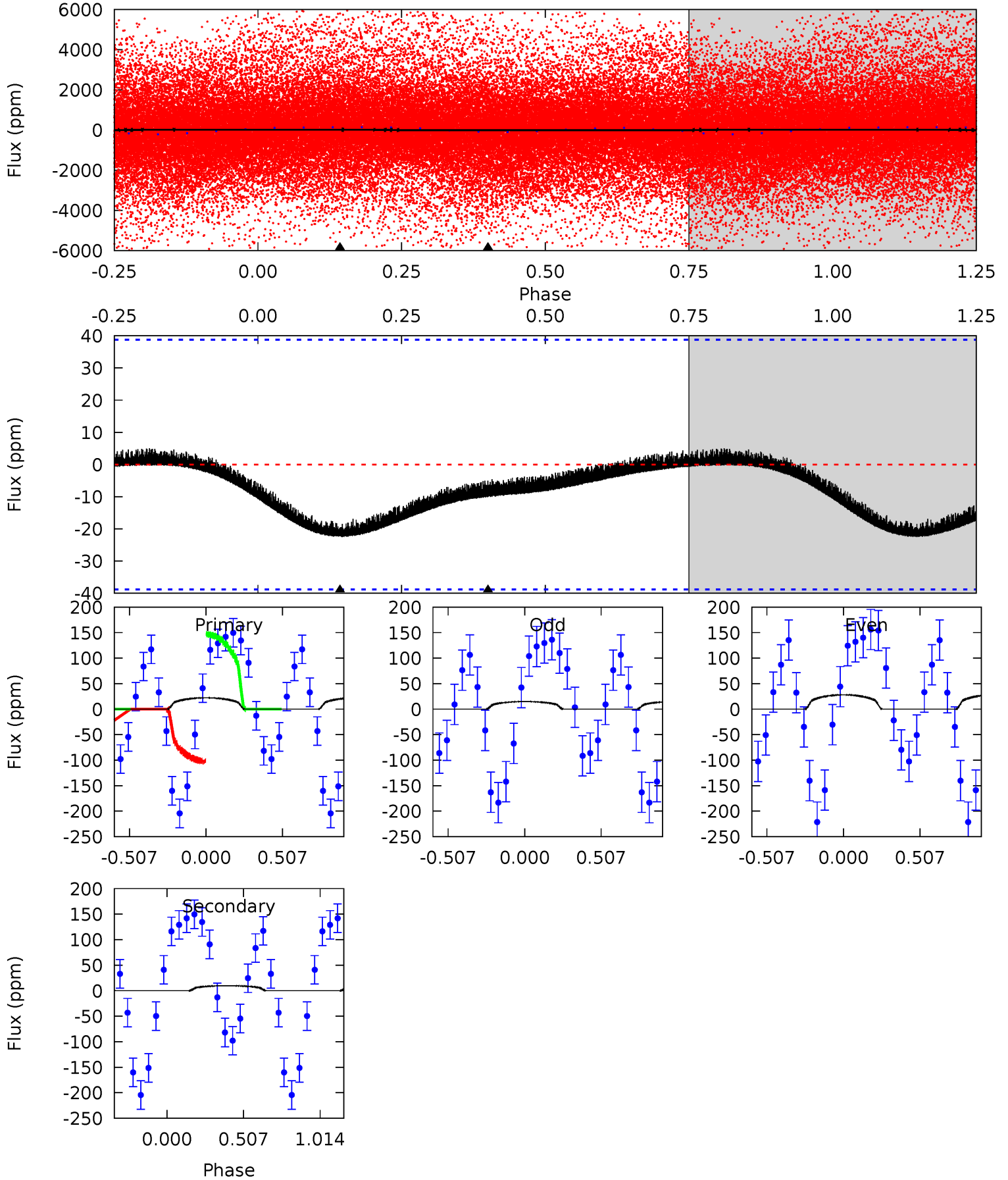
TCE 006362947-01 P= 0.577000 Days $T_0=132.067937$ (BKJD)



DV Model-Shift Uniqueness Test

006362947-01, P = 0.577545 Days, E = 131.412641 Days

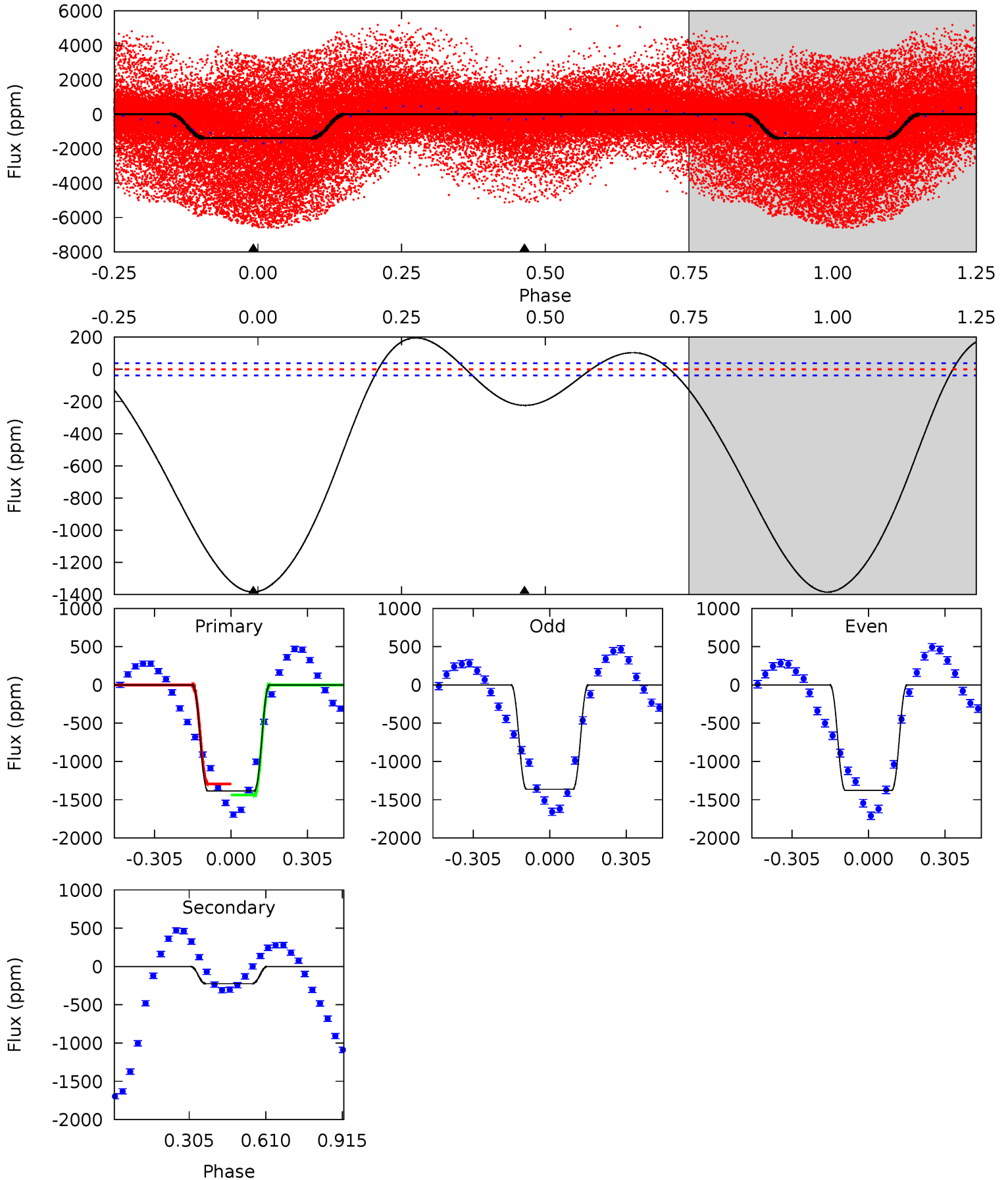
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.41	1.07	0	0	4.21	0.66	0.07	2.41	2.41	1.07	1.07	0.72	-4.73	0.18	2.40



Alt Model-Shift Uniqueness Test

006362947-01, P = 0.577000 Days, E = 131.490937 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
156.4	25.3	0	0	4.33	1.03	11.0	156.4	156.4	25.3	25.3	0.78	1.14	0.12	0



Stellar Parameters For KIC 006362947

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6762^{+183}_{-224}	$3.738^{+0.544}_{-0.096}$	$-0.480^{+0.300}_{-0.300}$	$2.637^{+0.464}_{-1.391}$	$1.386^{+0.205}_{-0.334}$	$0.106^{+0.651}_{-0.030}$
	+3%/-3%	+15%/-3%	+62%/-62%	+18%/-53%	+15%/-24%	+611%/-29%
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 006362947-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10 ± 9	$1.22^{+0.80}_{-0.65}$	5346^{+364}_{-746}	4640^{+2914}_{-9219}	$0.648^{+2.978}_{-0.653}$
Alt.	-224 ± 9	$9.85^{+1.64}_{-2.69}$	5326^{+390}_{-760}	-2556^{+6439}_{-1151}	$0.292^{+0.230}_{-0.072}$

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 $A_{obs} \gg 1.0$

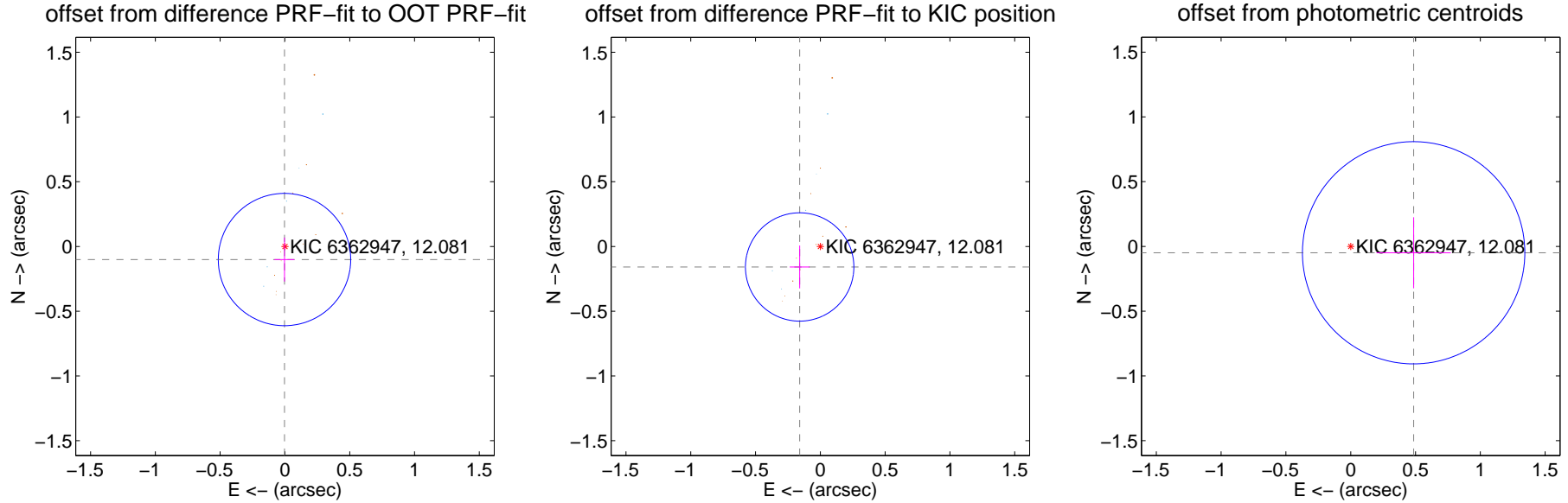
DV Centroid Data

Supplemental centroid analysis for 006362947-01. Kepler magnitude: 12.08. Transit SNR 3.03

There are 5 quarters with good PRF difference image offsets

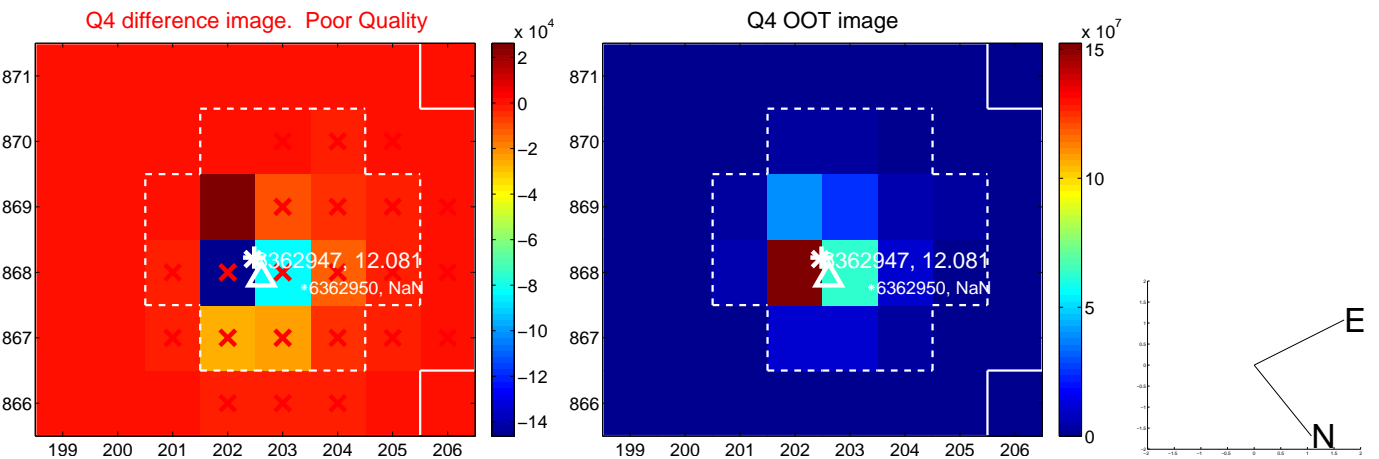
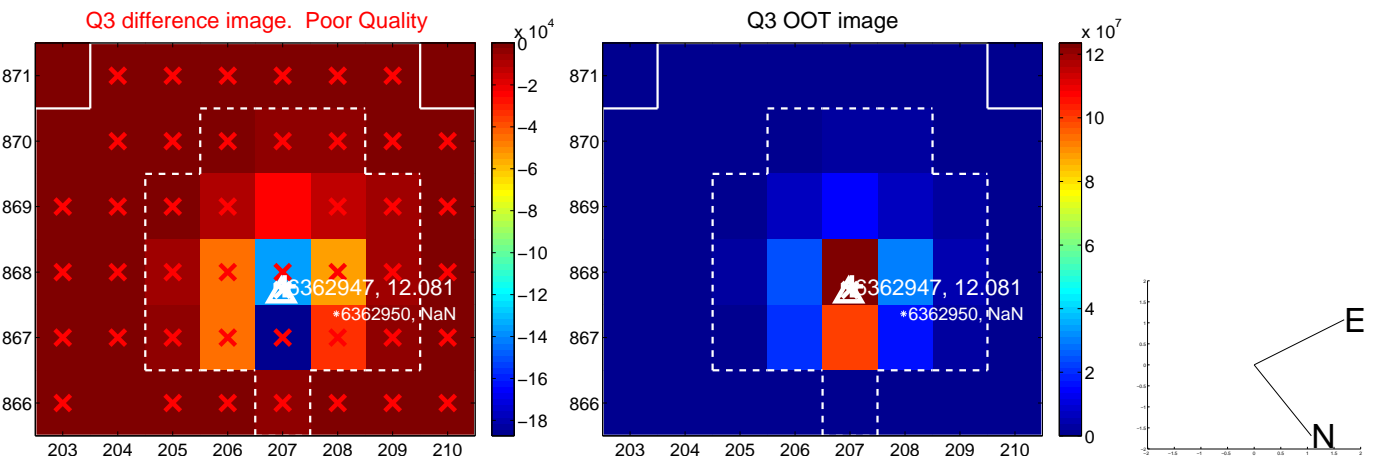
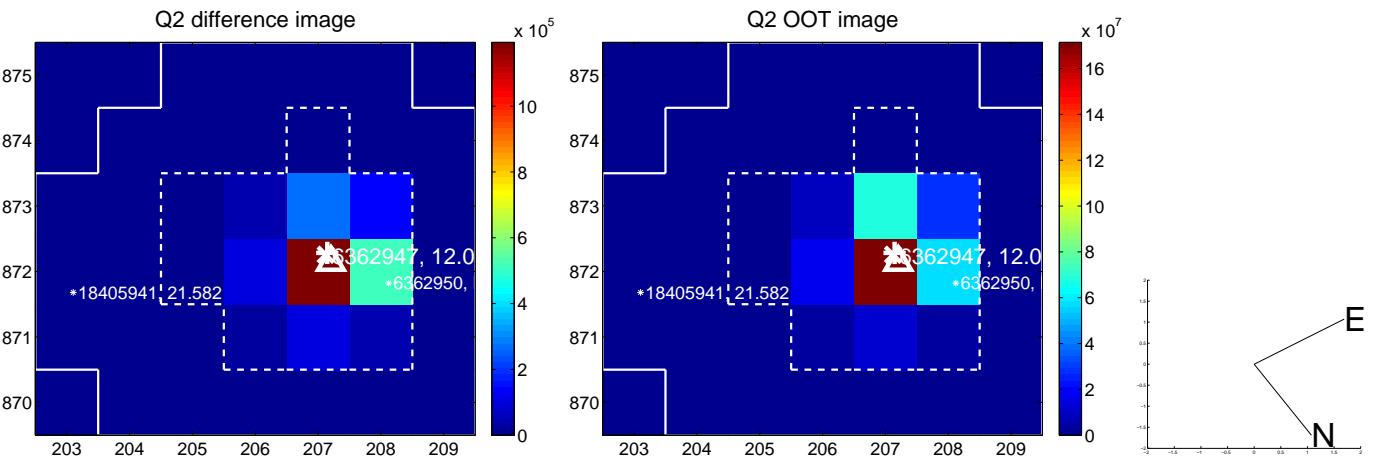
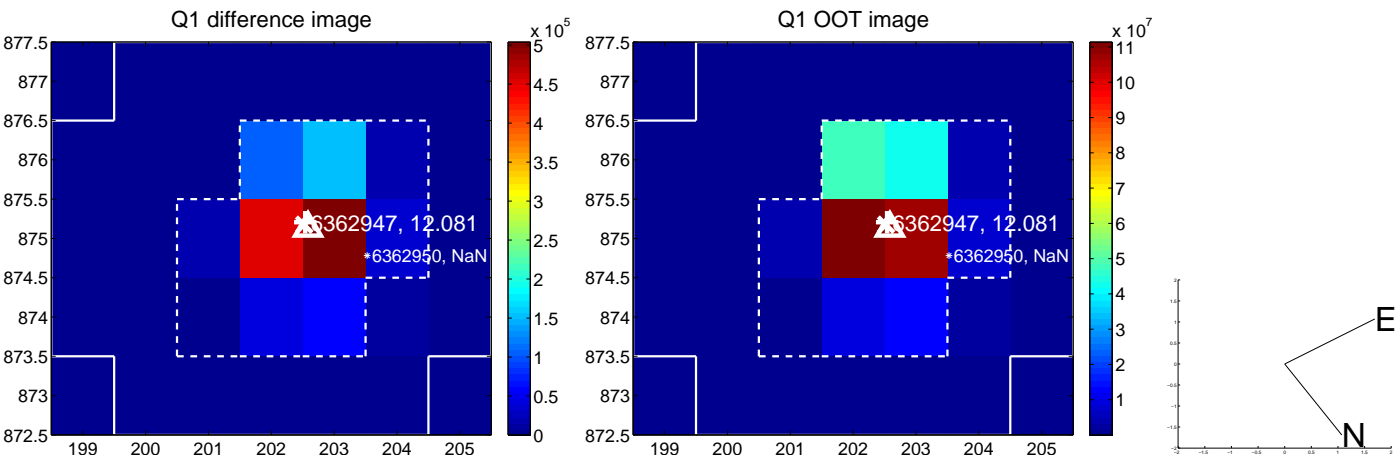
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.101 ± 0.170	0.59	0.004 ± 0.077	-0.101 ± 0.170
PRF-fit source offset from KIC position	0.225 ± 0.139	1.61	0.160 ± 0.077	-0.158 ± 0.165
photometric centroid source offset	0.49 ± 0.29	1.71	-0.49 ± 0.29	-0.05 ± 0.27

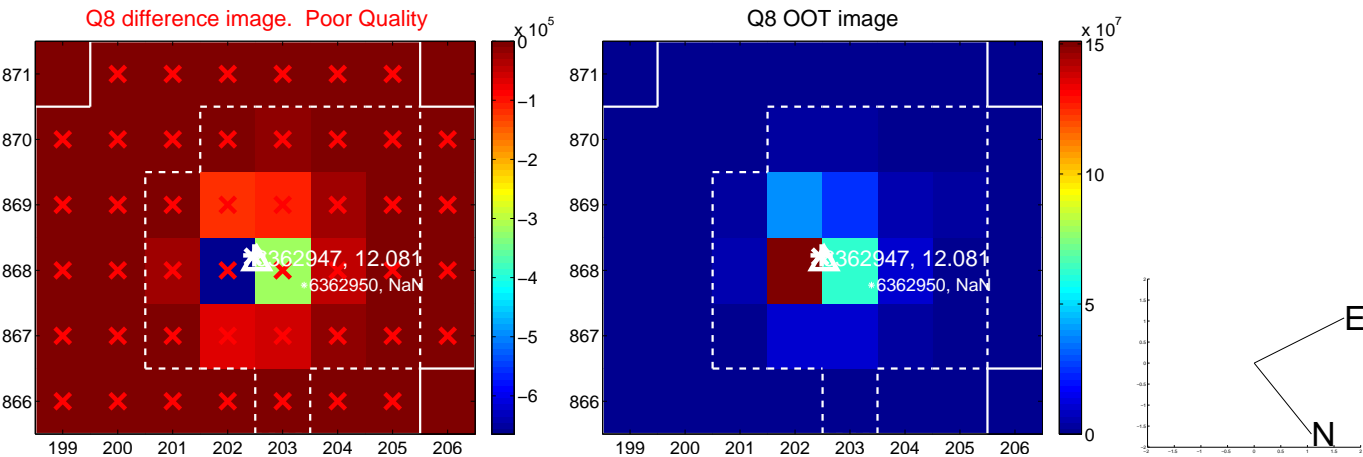
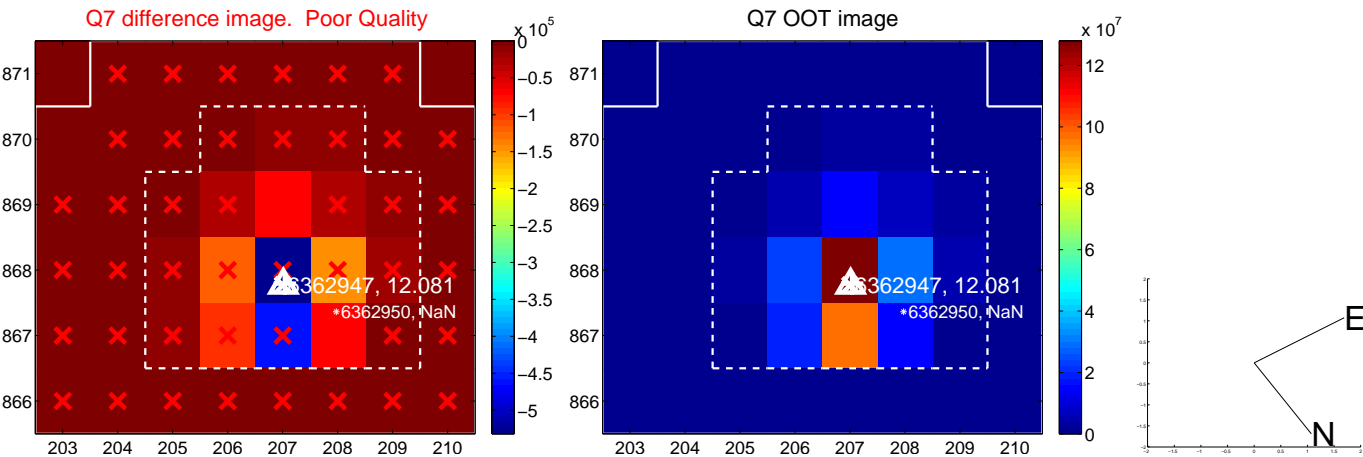
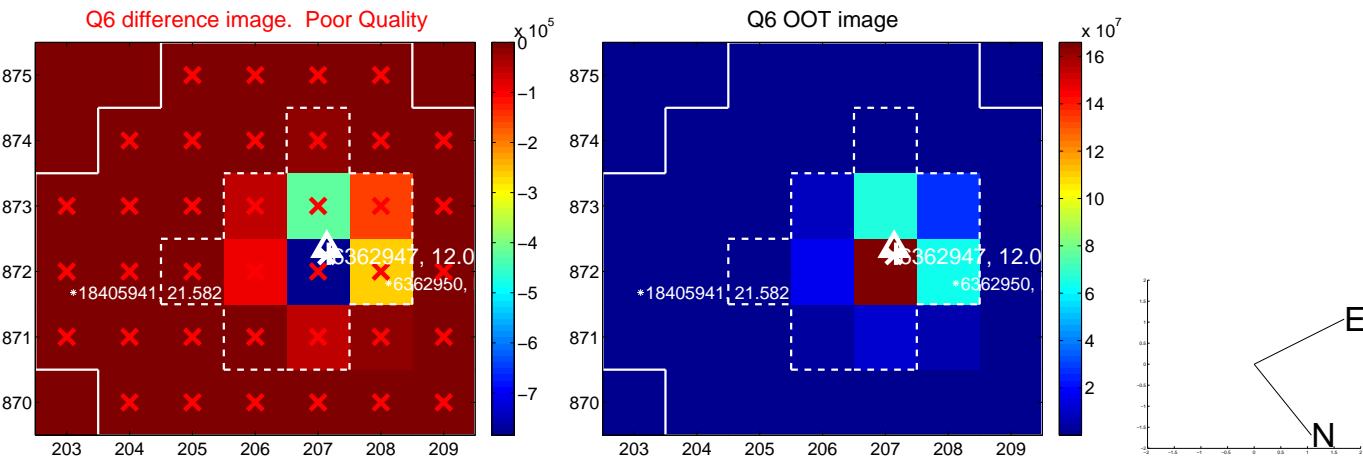
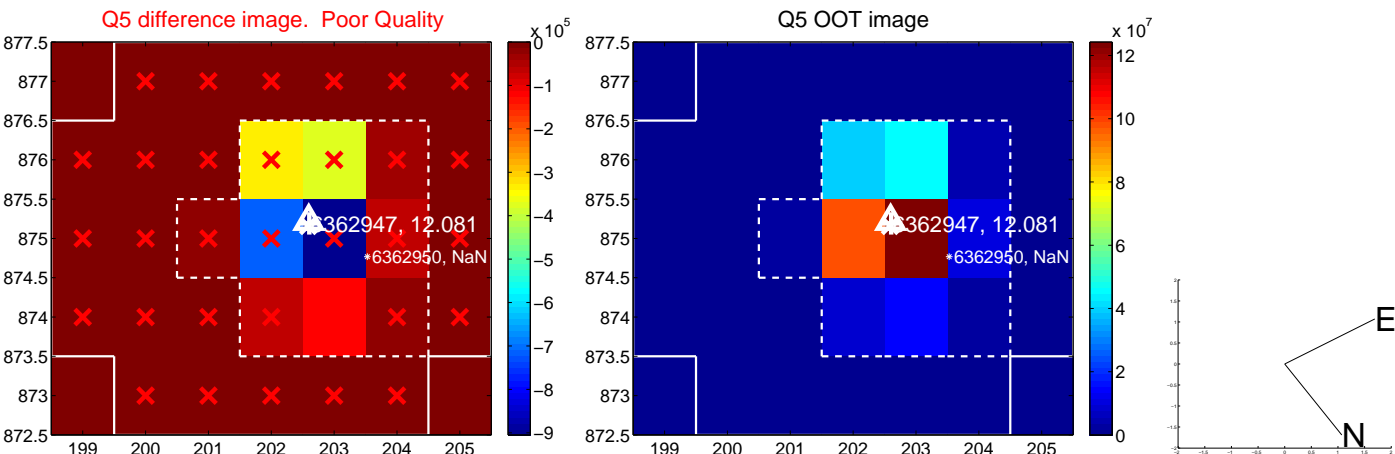


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

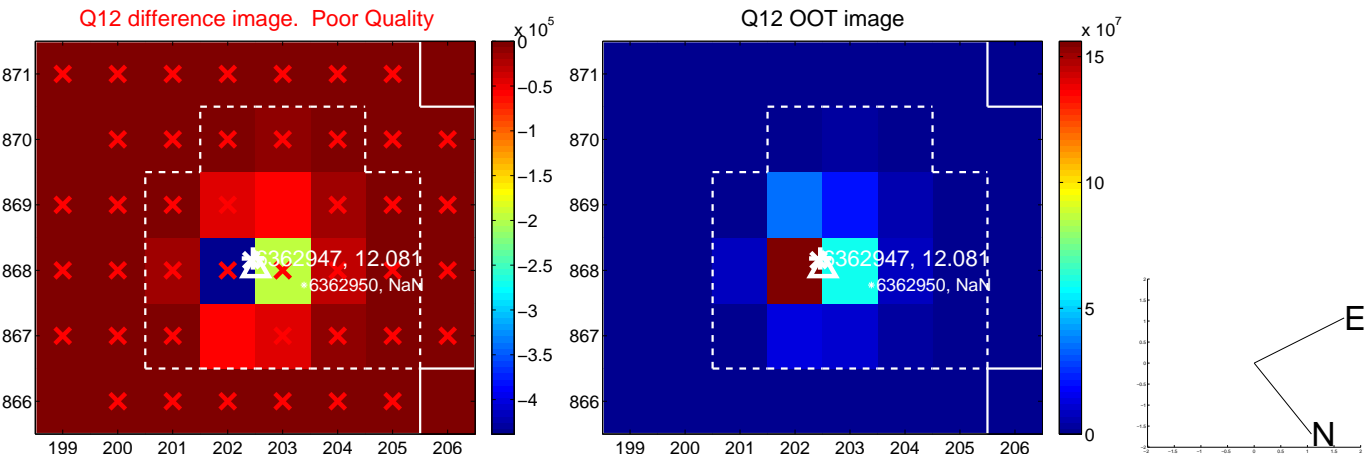
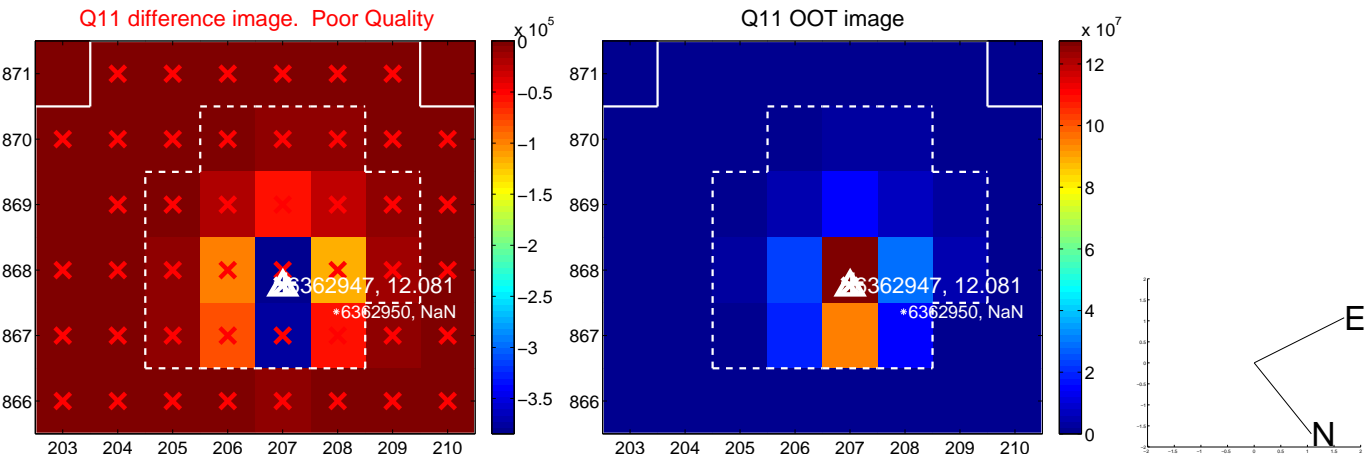
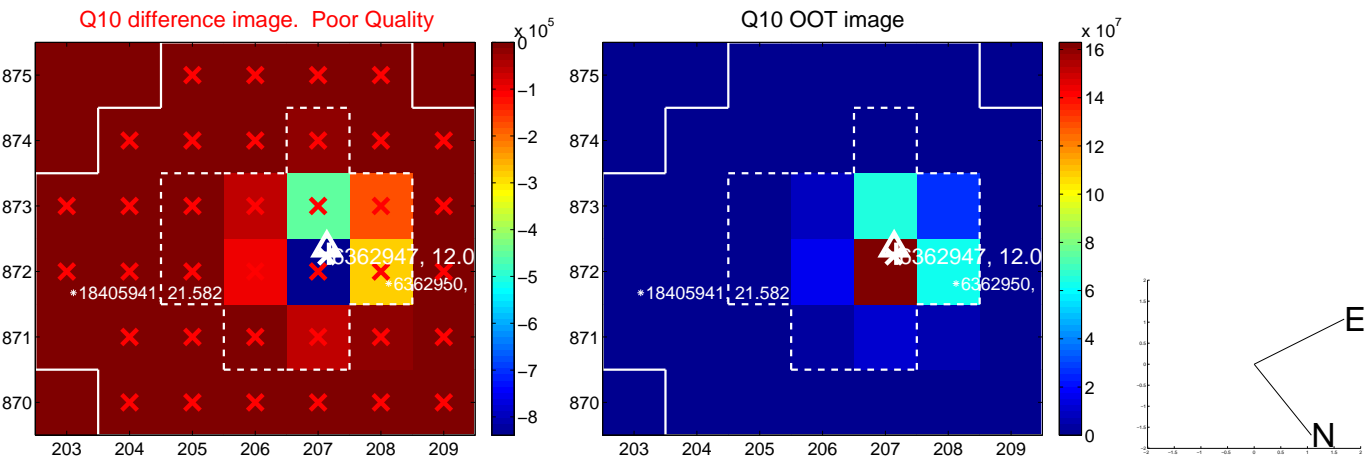
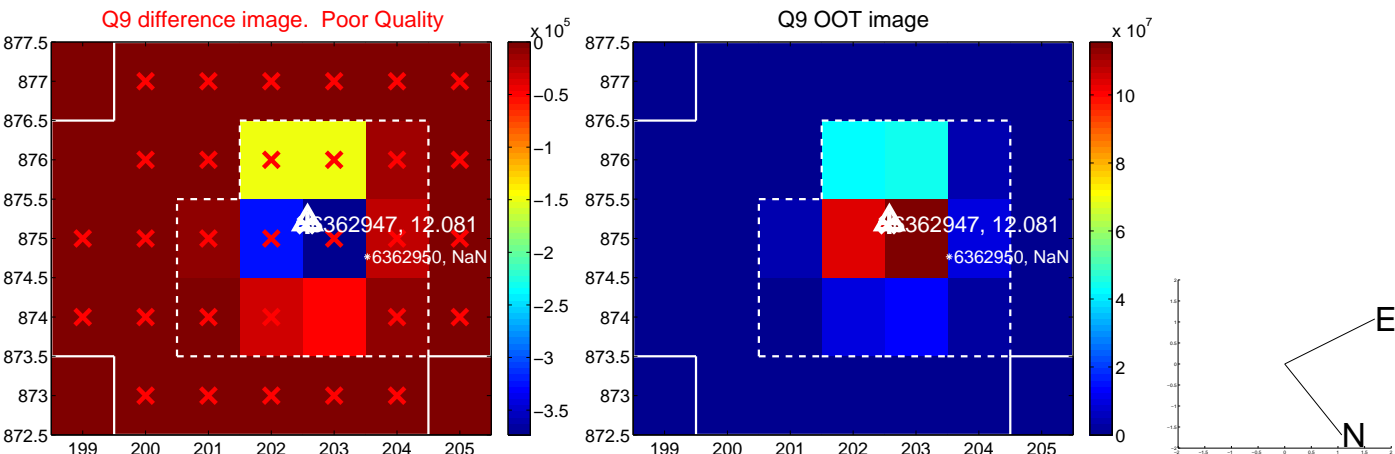
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



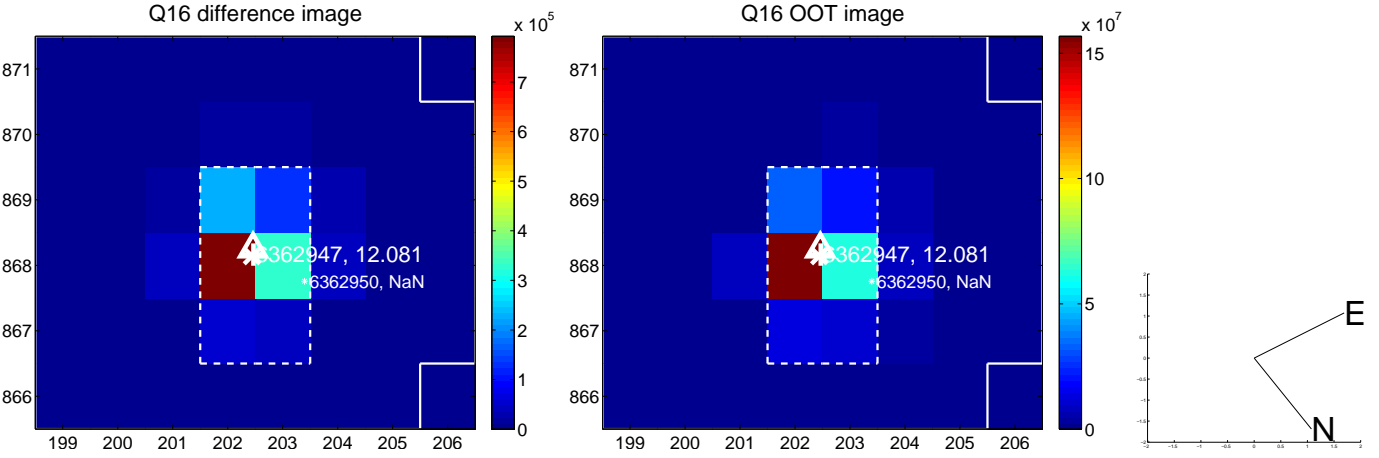
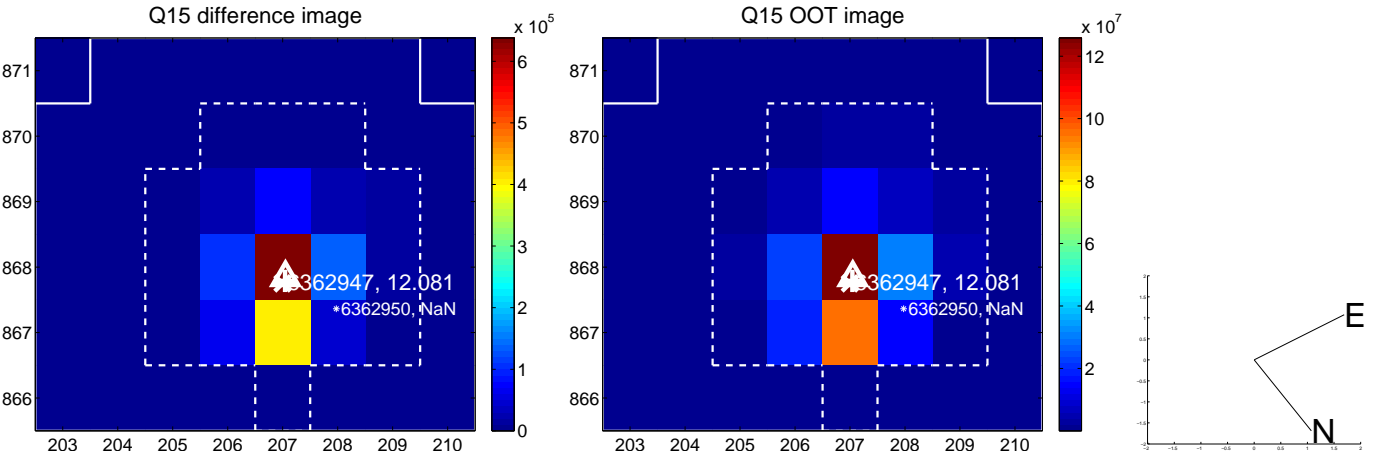
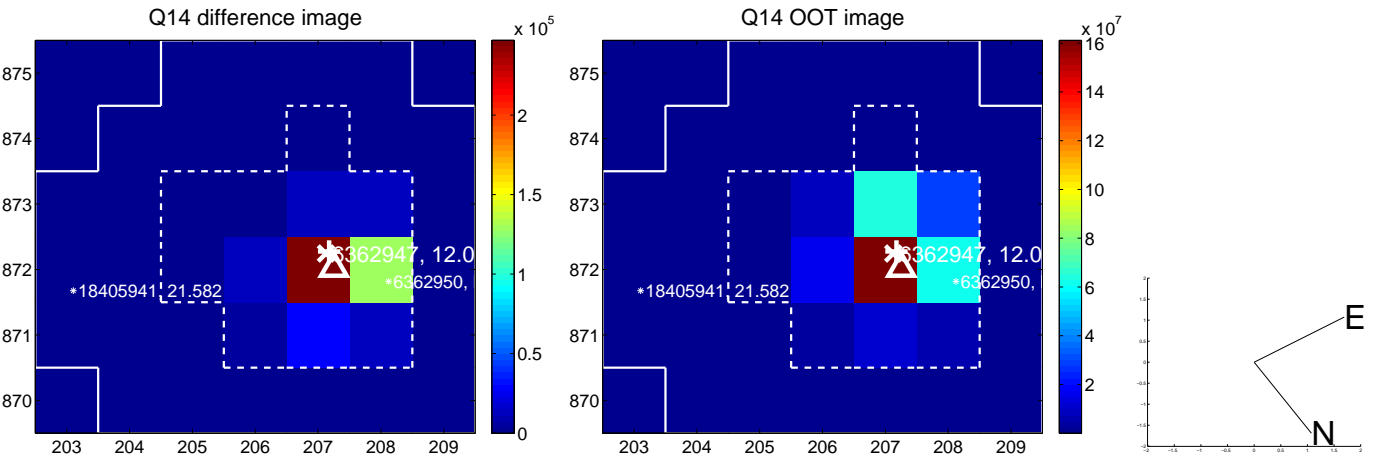
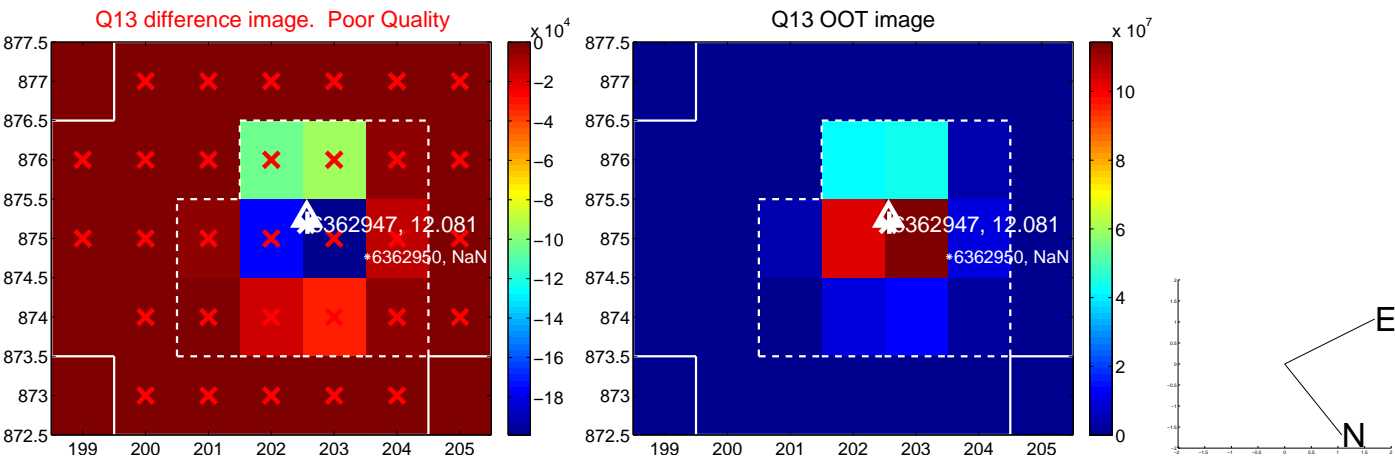
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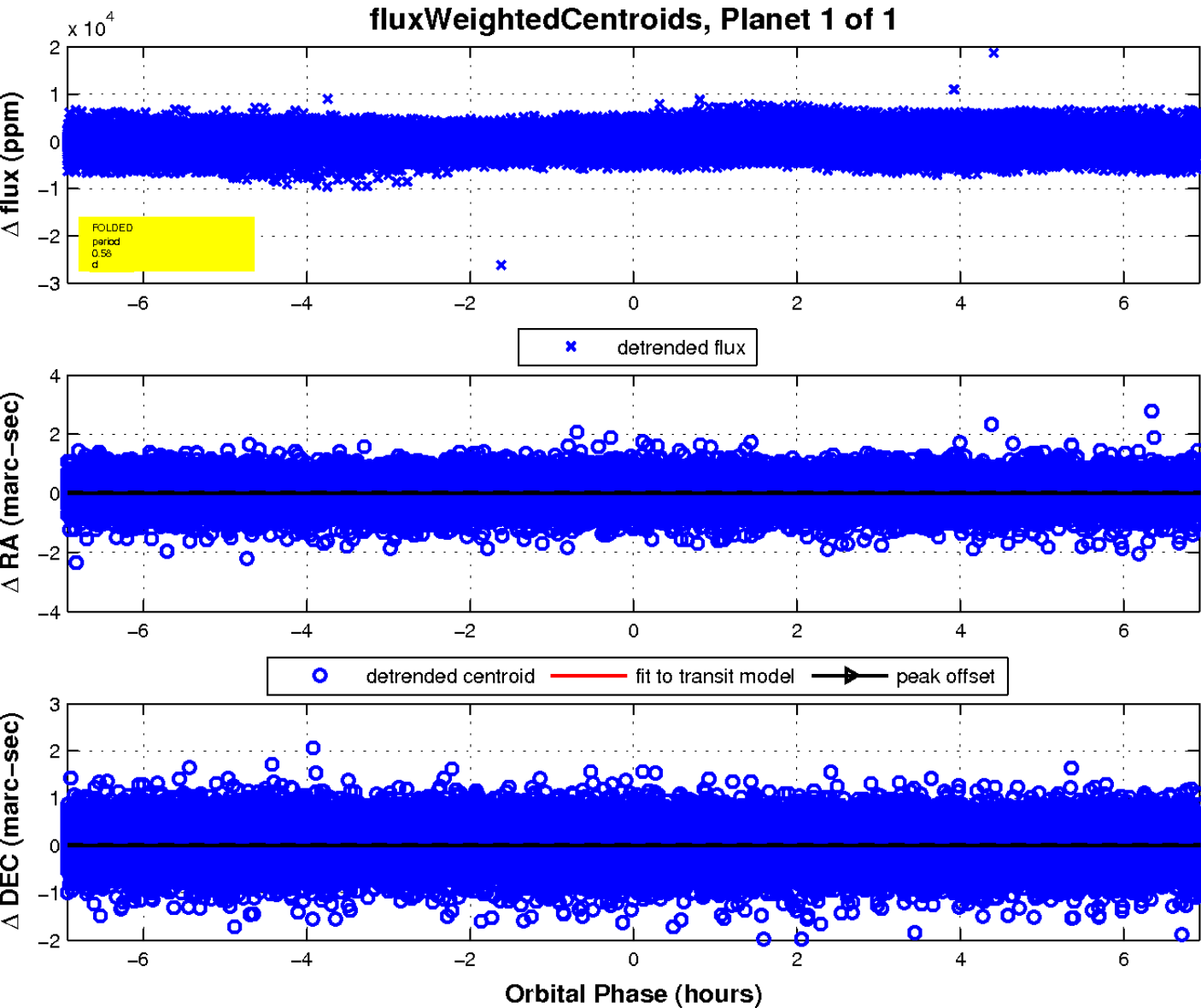
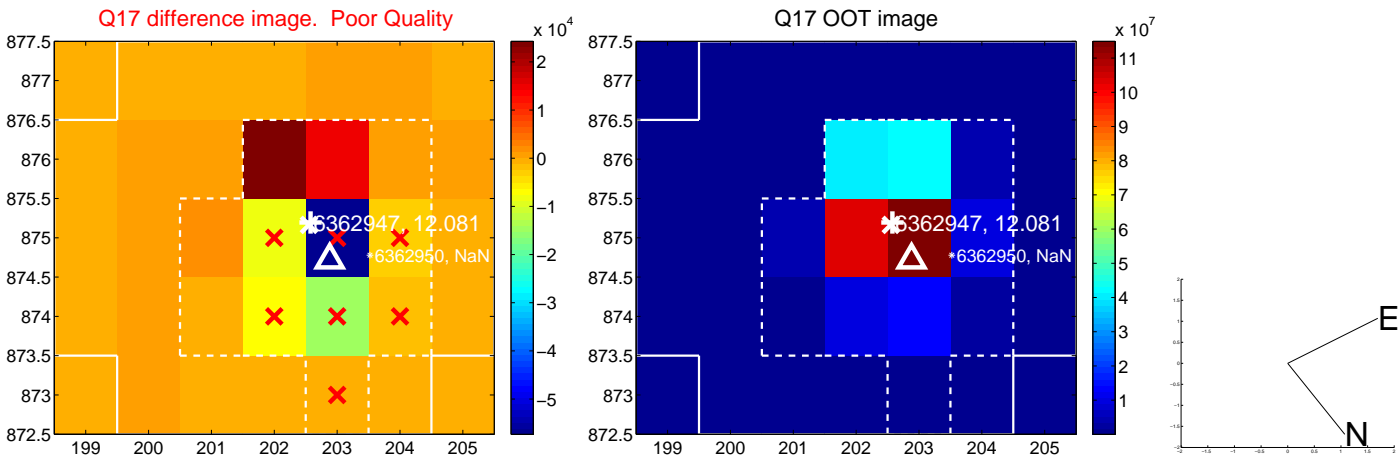
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

