

KIC 011126381

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})
011126381-01	OBS	1863.01	33.788843	153.654252	613.9	5.592	31.1	34.0	1.06	6202	2.79	33.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011126381-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

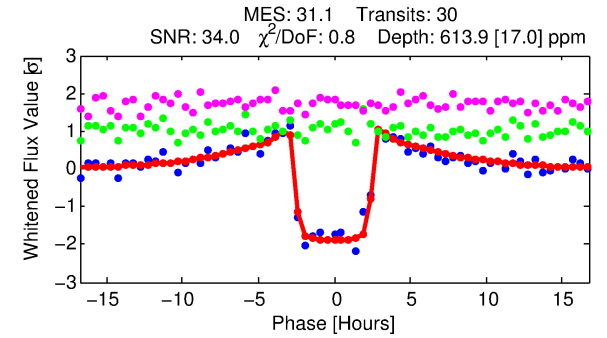
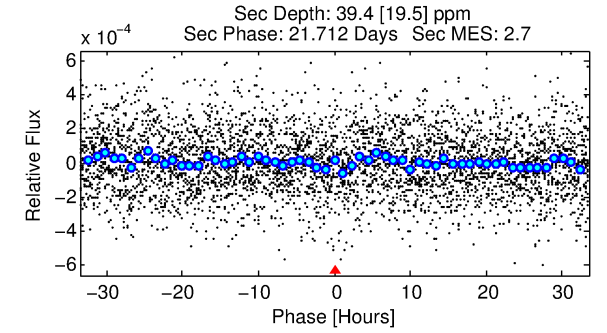
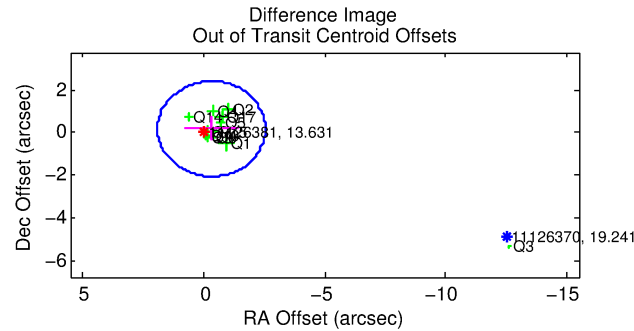
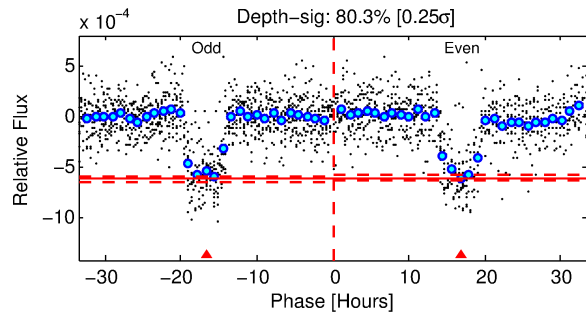
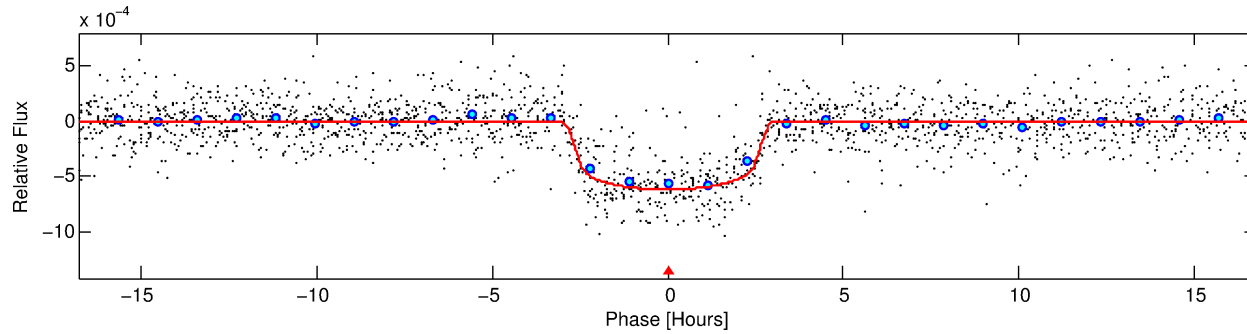
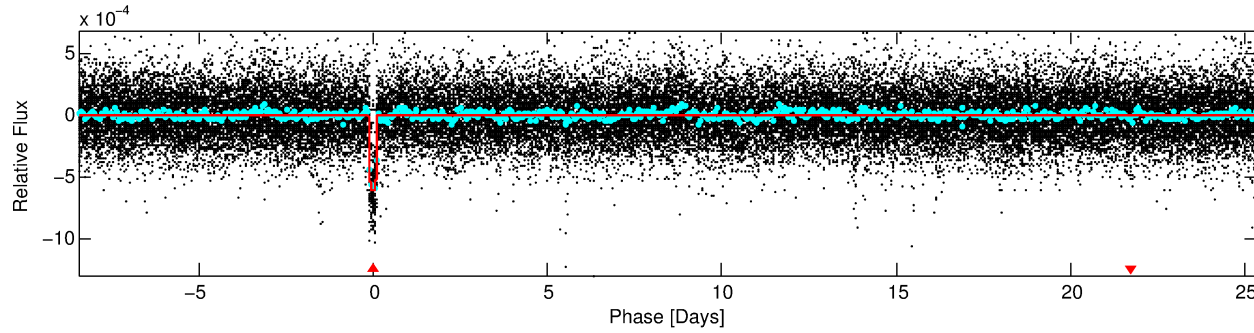
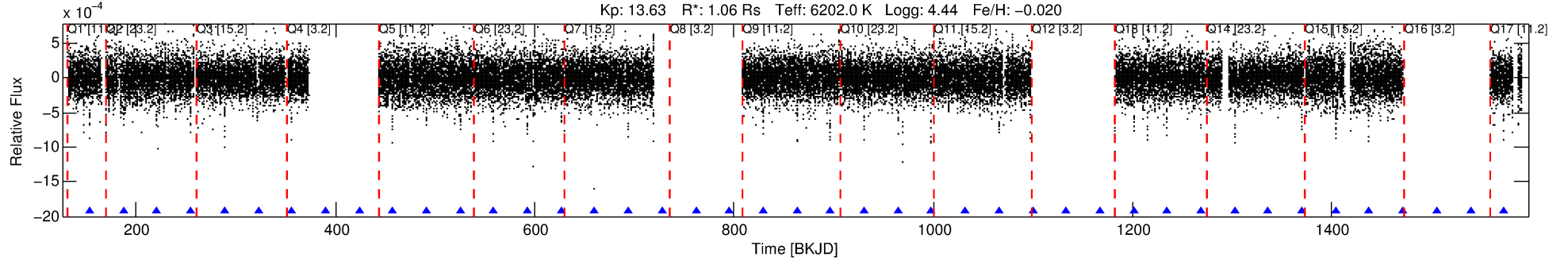
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011126381-01

No Significant Match Found

DV One-Page Summary

KIC: 11126381 Candidate: 1 of 1 Period: 33.789 d
KOI: K01863.01 Corr: 0.990



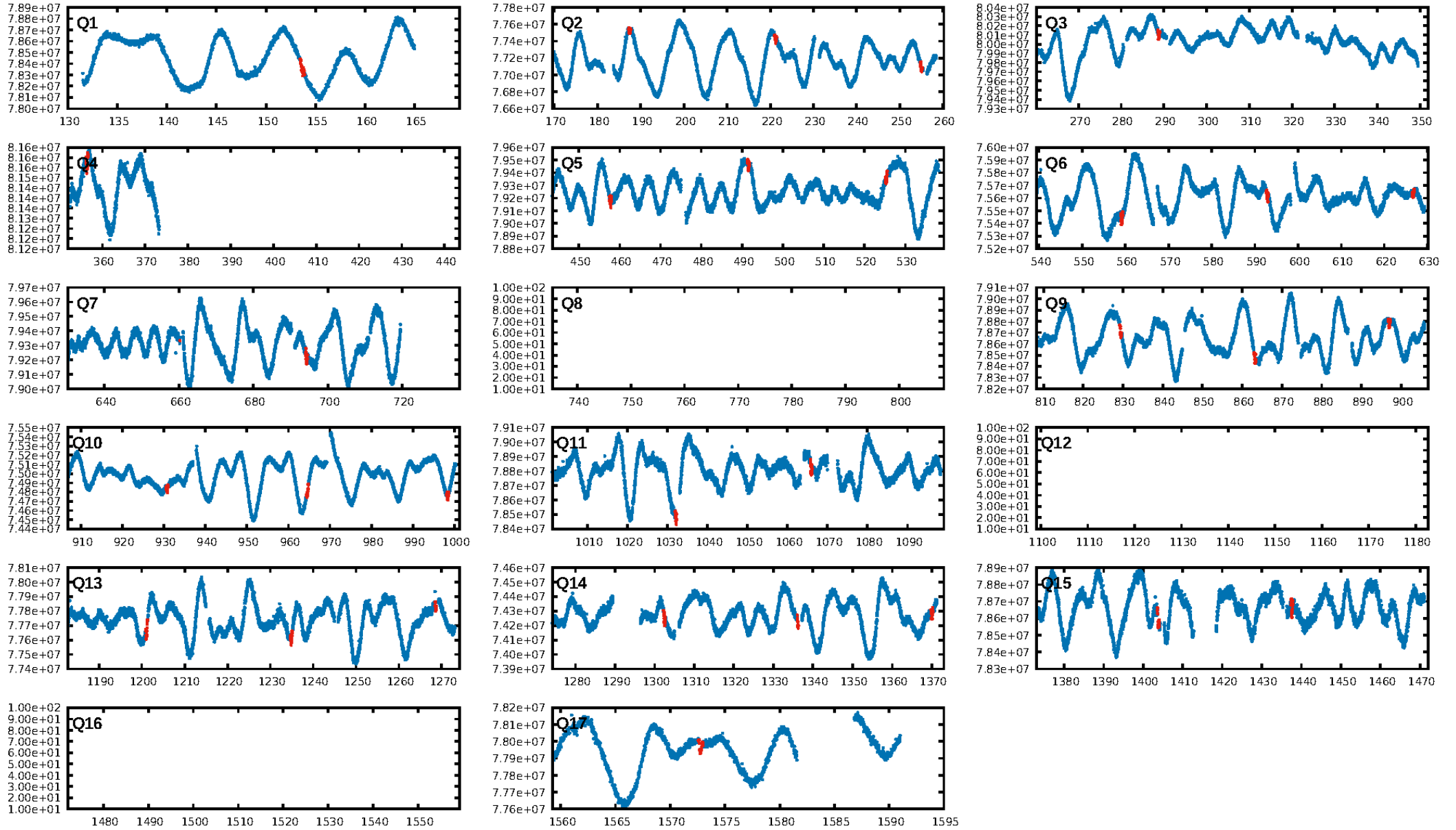
DV Fit Results:

Period = 33.78884 [0.00008] d
Epoch = 153.6543 [0.0020] BKJD
Rp/R* = 0.0241 [0.0032]
a/R* = 35.68 [23.21]
b = 0.67 [0.53]
Seff = 33.07 [13.28]
Teq = 611 [61] K
Rp = 2.79 [0.99] Re
a = 0.2126 [0.0571] AU
Ag = 125.65 [85.10] [1.46 σ]
Teffp = 3165 [456] K [5.55 σ]

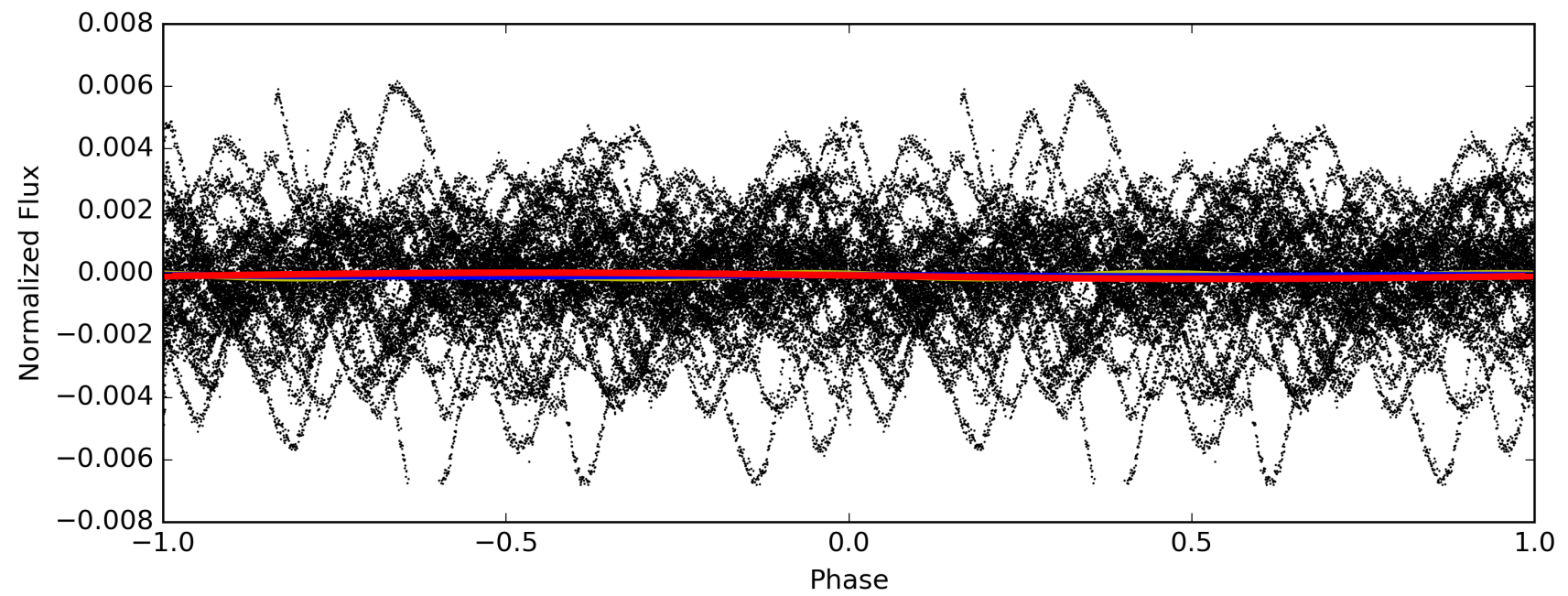
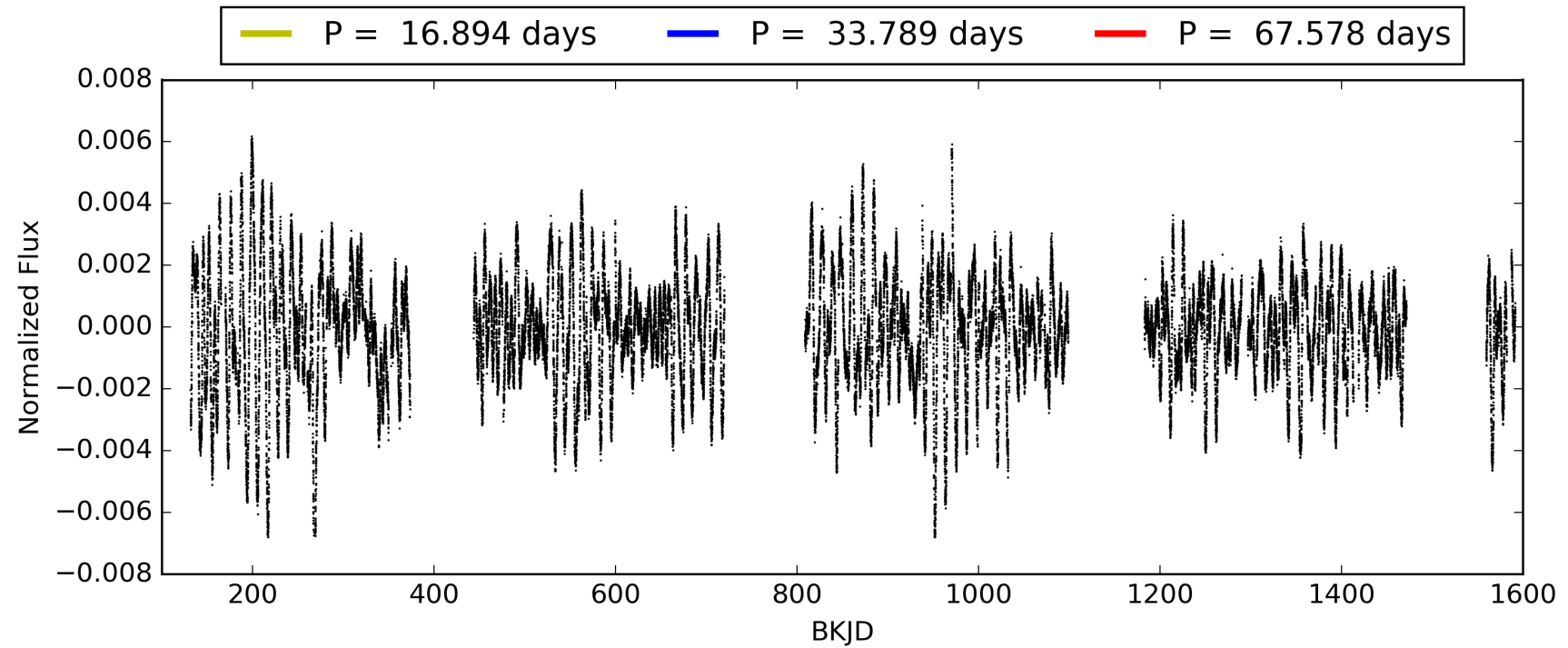
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 39.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.80e-192
RollingBand-fgt: 1.00 [27/27]
GhostDiagnostic-chr: 2.506
Centroid-sig: 23.7%
Centroid-so: 0.116 arcsec [0.48 σ]
OotOffset-rm: 0.368 arcsec [0.50 σ]
KicOffset-rm: 0.307 arcsec [0.87 σ]
OotOffset-st: 4/3/1/4 [12]
KicOffset-st: 4/3/1/4 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011126381-01, PDC Light Curves

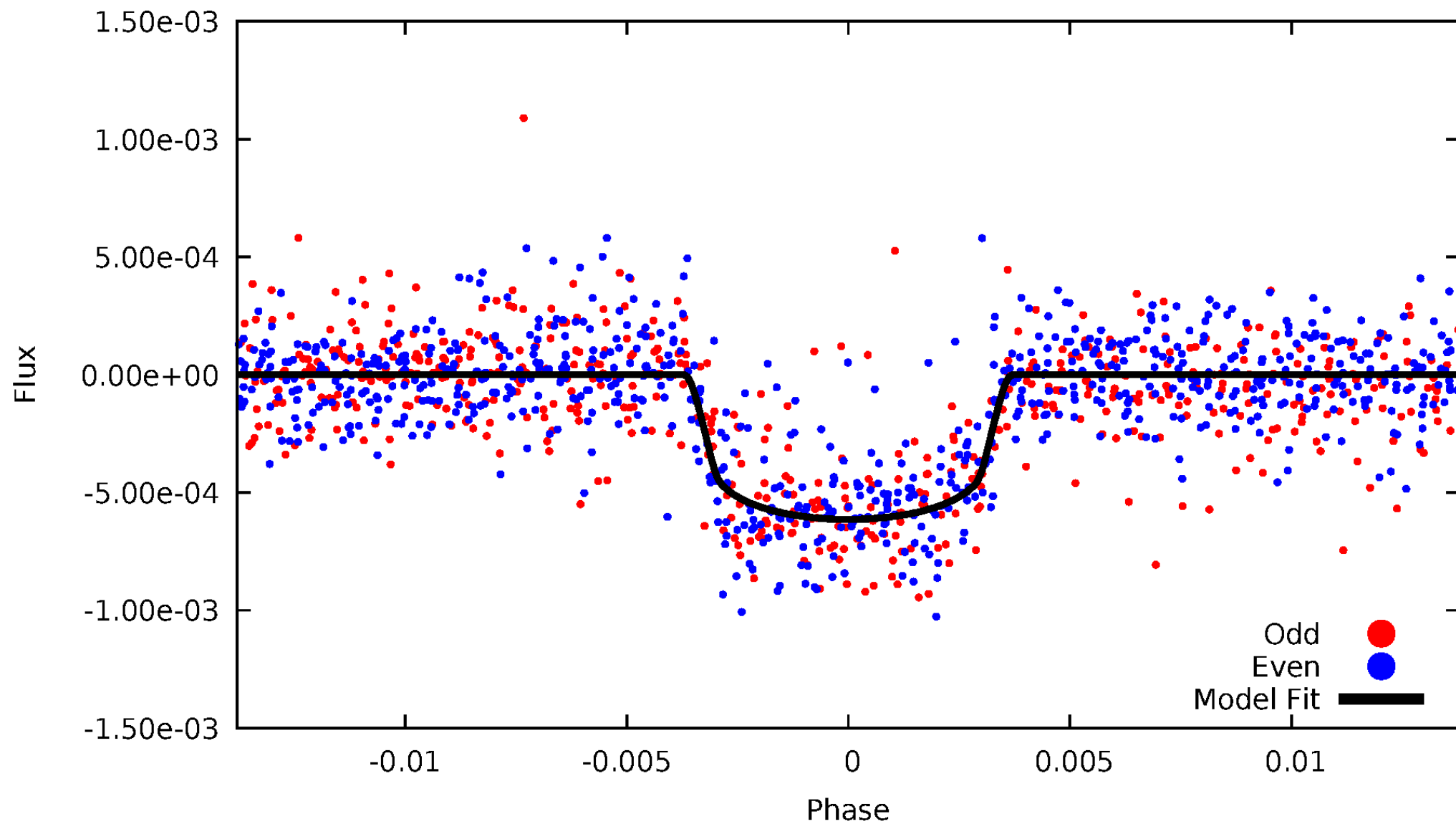


TCE 011126381-01



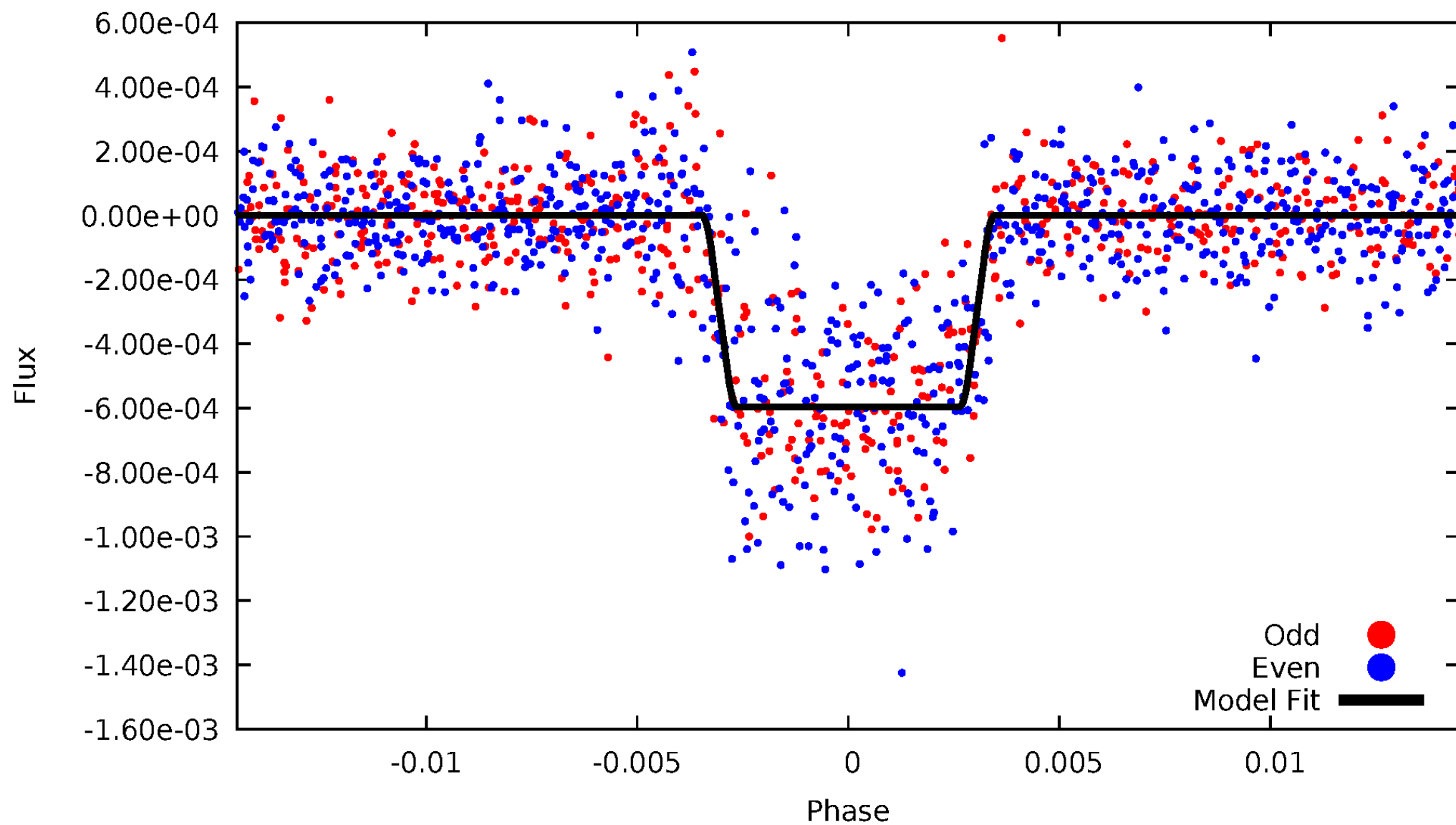
DV Odd/Even

TCE 011126381-01



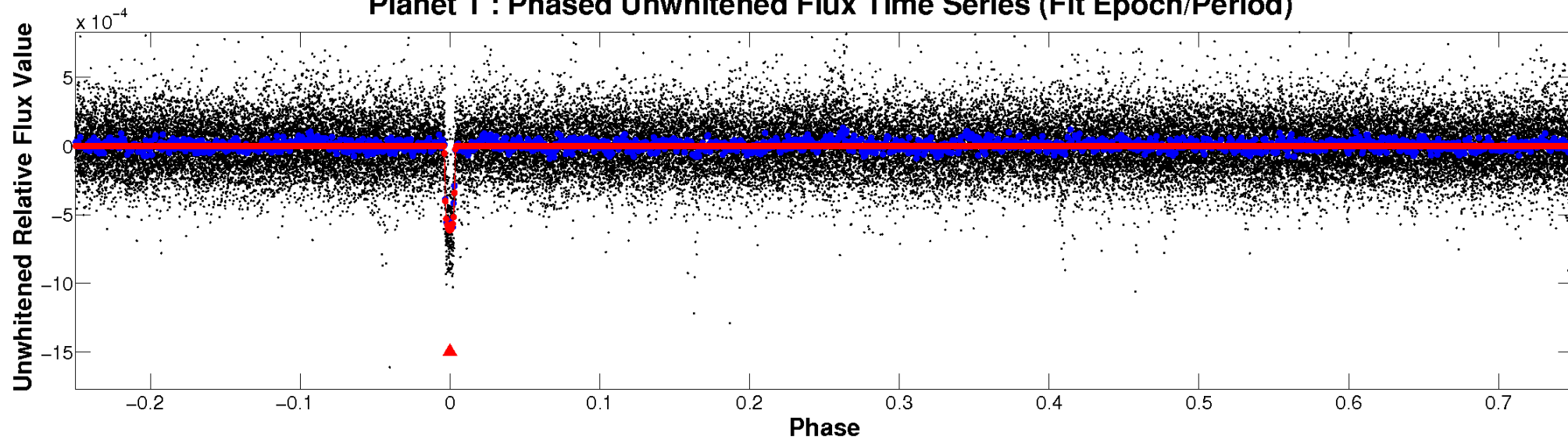
ALT Odd/Even

TCE 011126381-01

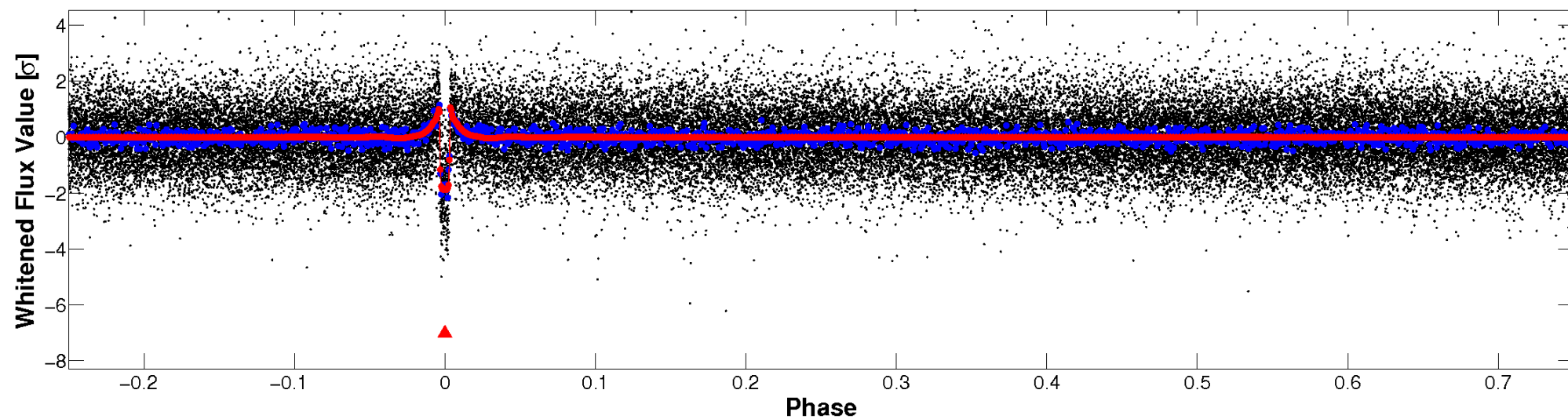


Non-Whitened Vs. Whitened Light Curve

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

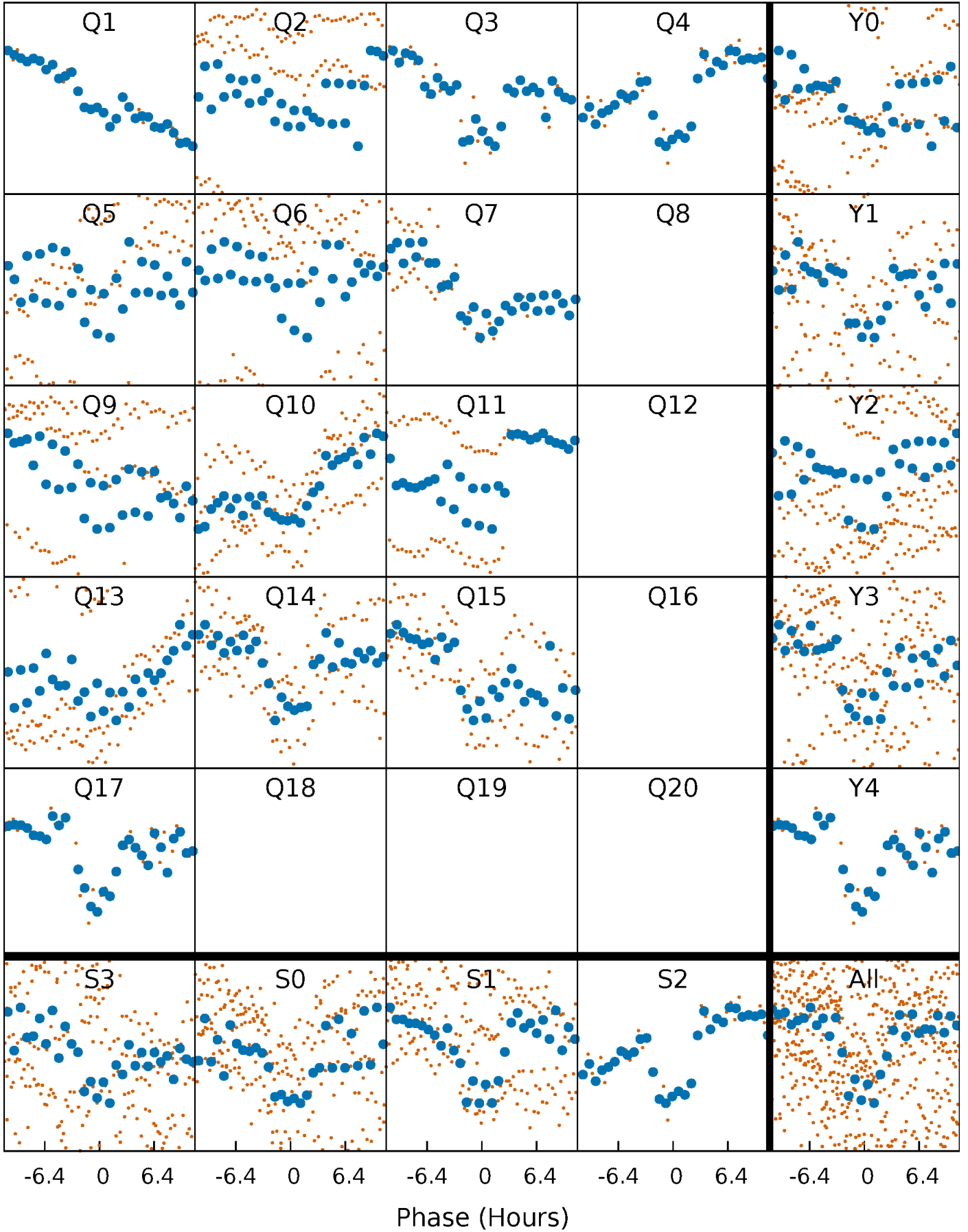


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



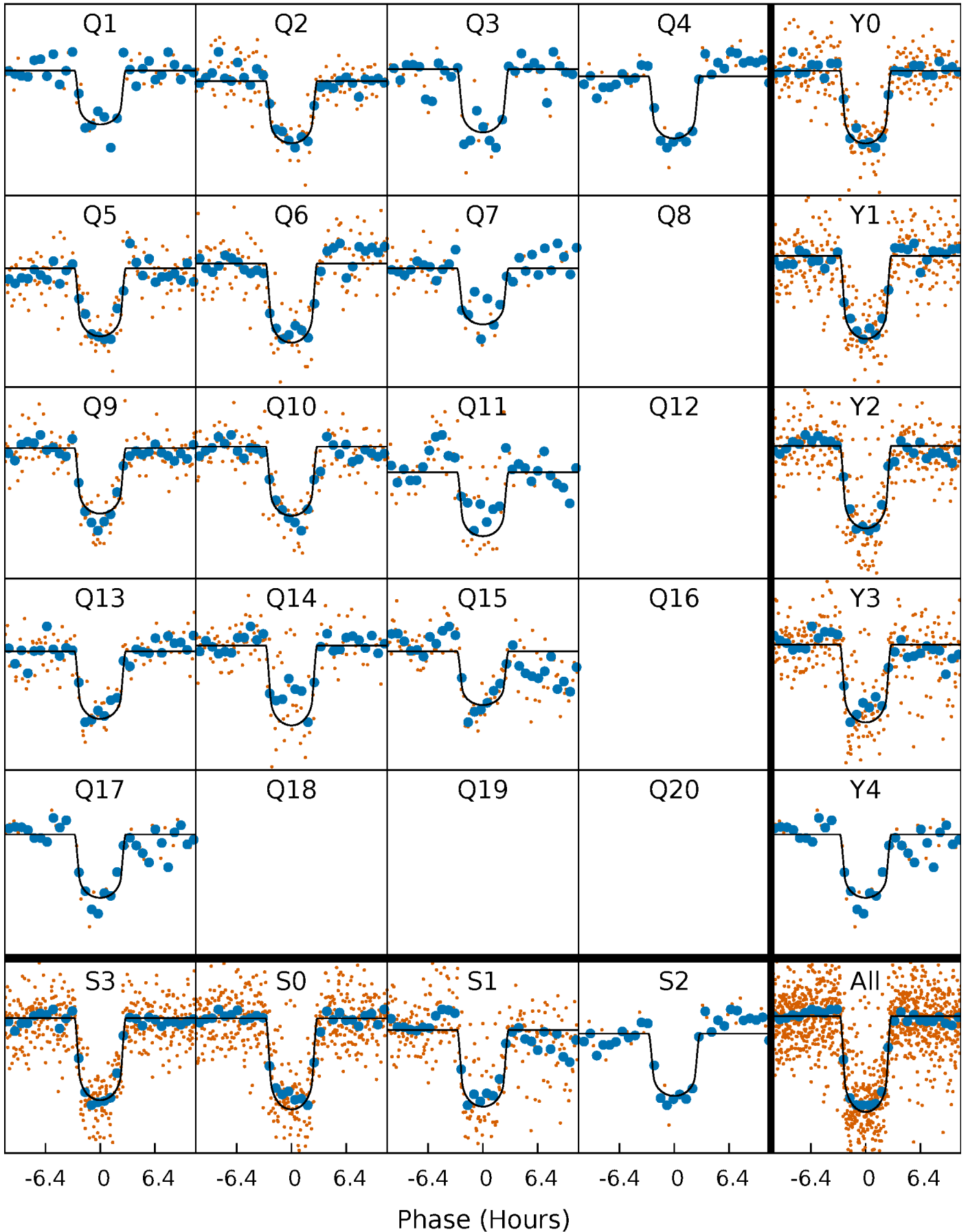
PDC Quarter-Phased Transit Curves

TCE 011126381-01 P= 33.788843 Days $T_0=153.654252$ (BKJD)



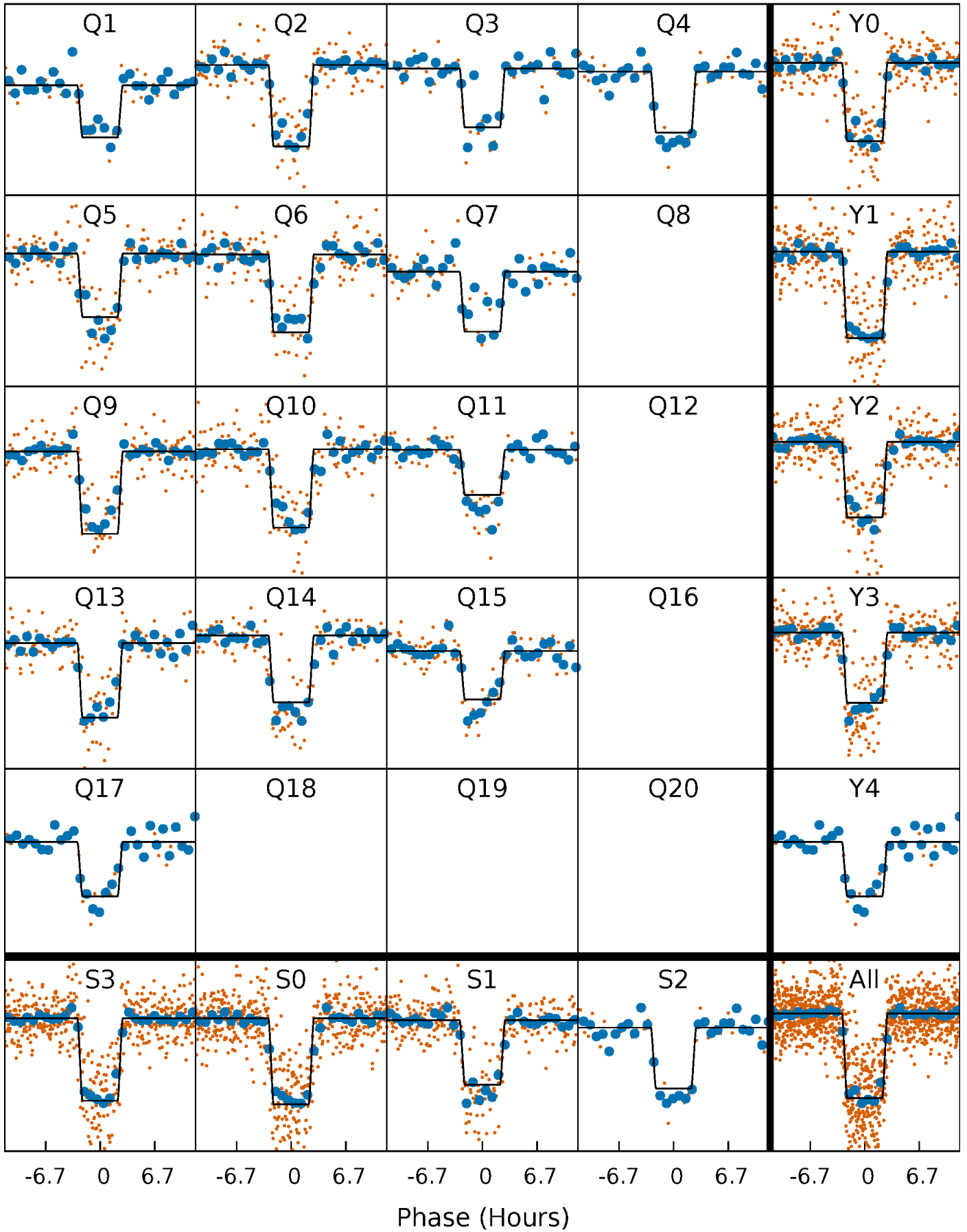
DV Quarter-Phased Transit Curves

TCE 011126381-01 P= 33.788843 Days $T_0=153.654252$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

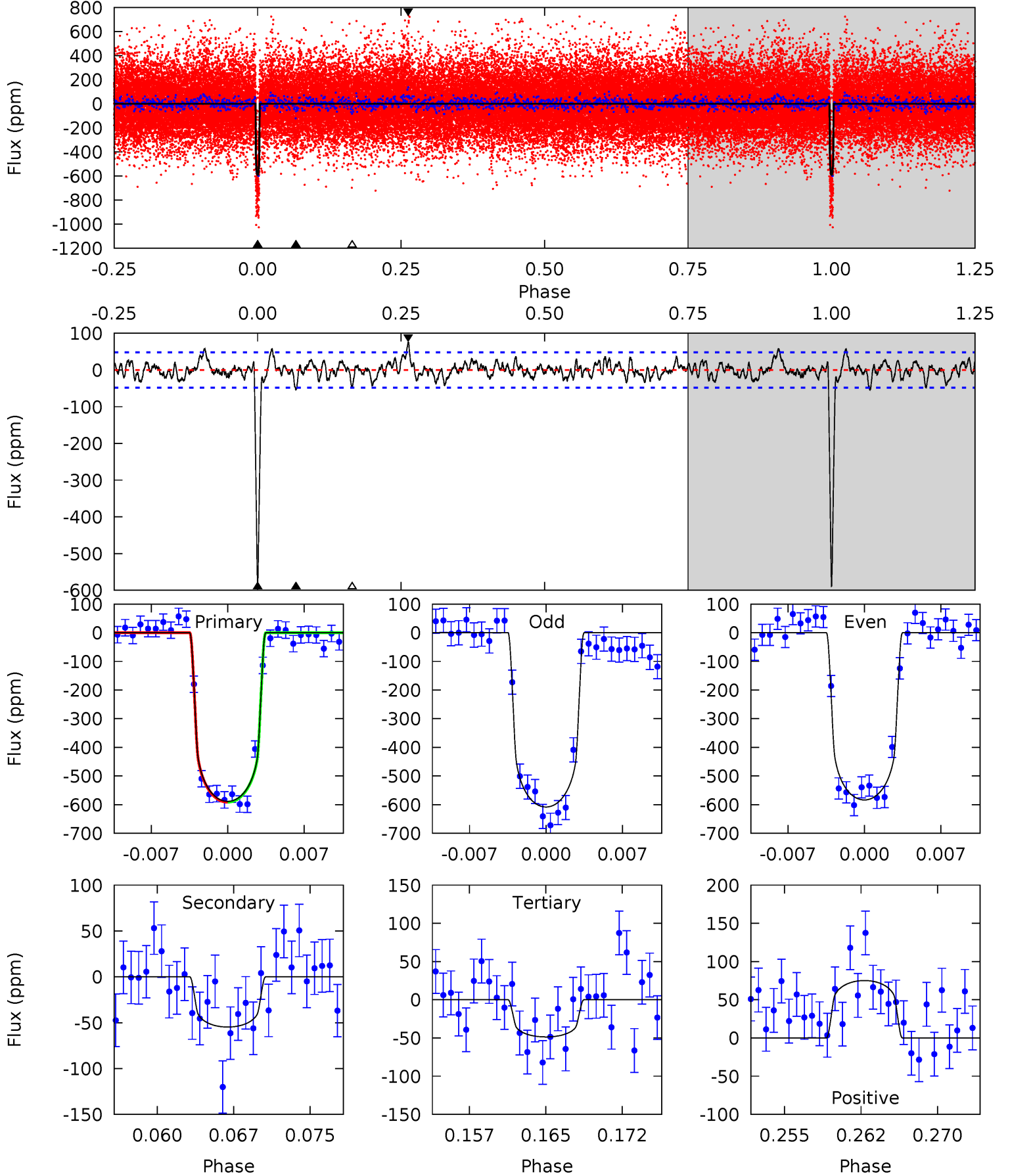
TCE 011126381-01 P= 33.788685 Days $T_0=153.656099$ (BKJD)



DV Model-Shift Uniqueness Test

011126381-01, $P = 33.788843$ Days, $E = 119.865409$ Days

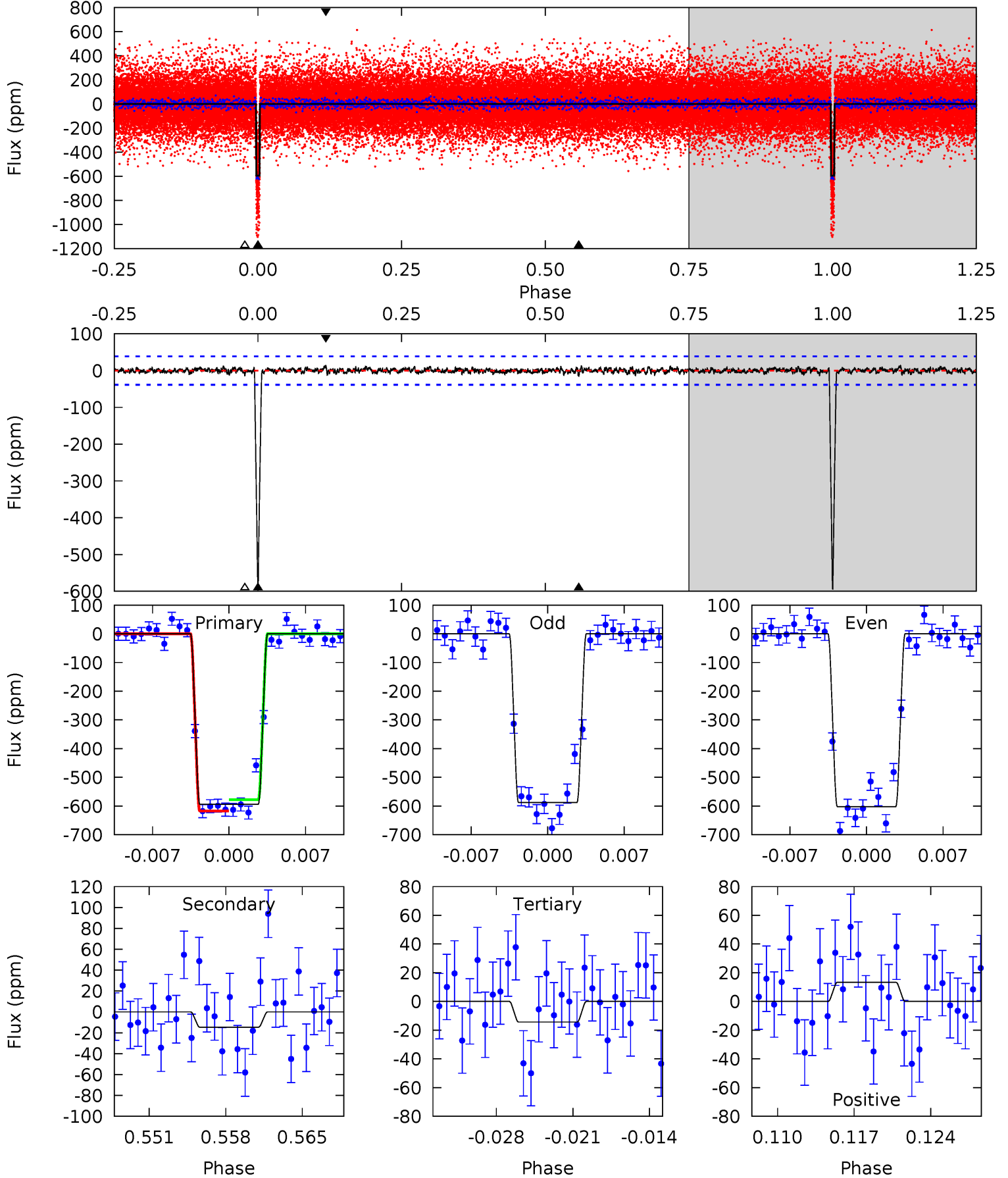
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
62.2	5.79	5.14	7.94	5.08	2.67	1.84	57.1	54.3	0.64	-2.16	1.28	0.92	0.11	0.01



Alt Model-Shift Uniqueness Test

011126381-01, P = 33.788685 Days, E = 119.867414 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
78.4	1.94	1.89	1.76	5.10	2.70	0.55	76.5	76.7	0.05	0.18	0.94	1.03	0.02	2.60



Stellar Parameters For KIC 011126381

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6202^{+166}_{-203}	$4.436^{+0.054}_{-0.202}$	$-0.020^{+0.250}_{-0.350}$	$1.062^{+0.349}_{-0.116}$	$1.122^{+0.153}_{-0.137}$	$1.320^{+0.374}_{-0.698}$
	+3%/-3%	+1%/-5%	+1250%/-1750%	+33%/-11%	+14%/-12%	+28%/-53%
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 011126381-01 / KOI 1863.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-55 ± 9	$2.92^{+0.57}_{-0.45}$	868^{+71}_{-38}	3812^{+228}_{-215}	157^{+67}_{-49}
Alt.	-15 ± 8	$2.93^{+0.61}_{-0.45}$	872^{+62}_{-41}	3077^{+256}_{-305}	40^{+28}_{-22}

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 $A_{obs} \gg 1.0$

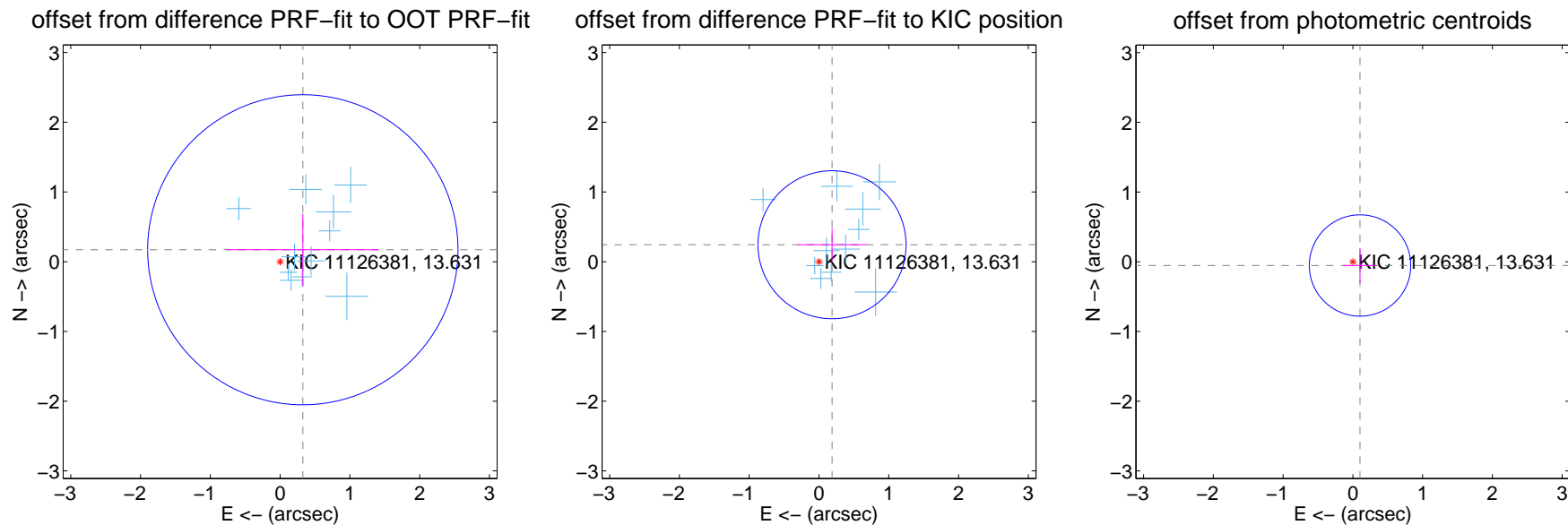
DV Centroid Data

Supplemental centroid analysis for 011126381-01. Kepler magnitude: 13.63. Transit SNR 34.03

There are 12 quarters with good PRF difference image offsets

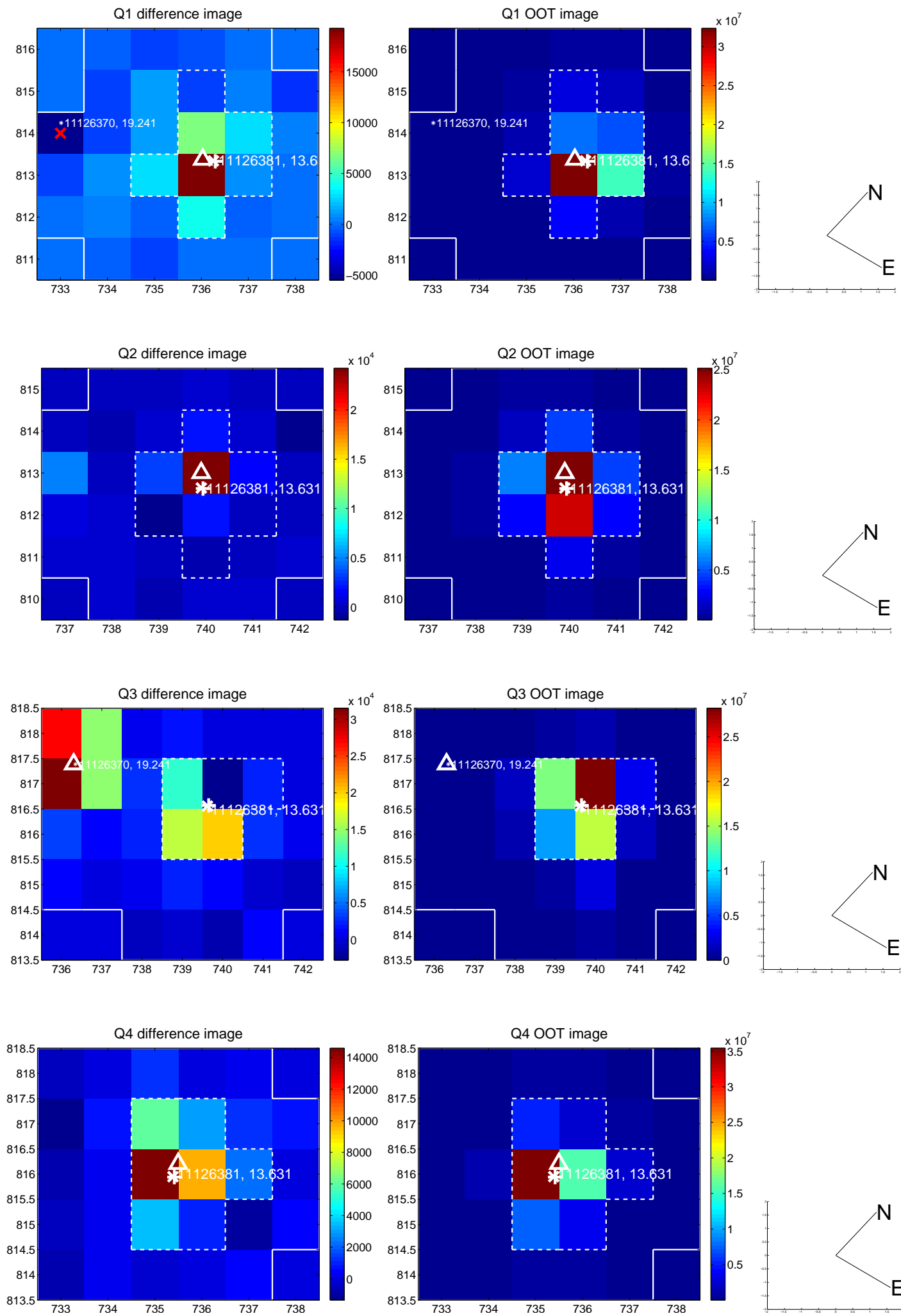
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.368 ± 0.741	0.50	-0.325 ± 1.087	0.171 ± 0.517
PRF-fit source offset from KIC position	0.307 ± 0.354	0.87	-0.187 ± 0.491	0.243 ± 0.237
photometric centroid source offset	0.12 ± 0.24	0.48	-0.10 ± 0.24	-0.05 ± 0.25

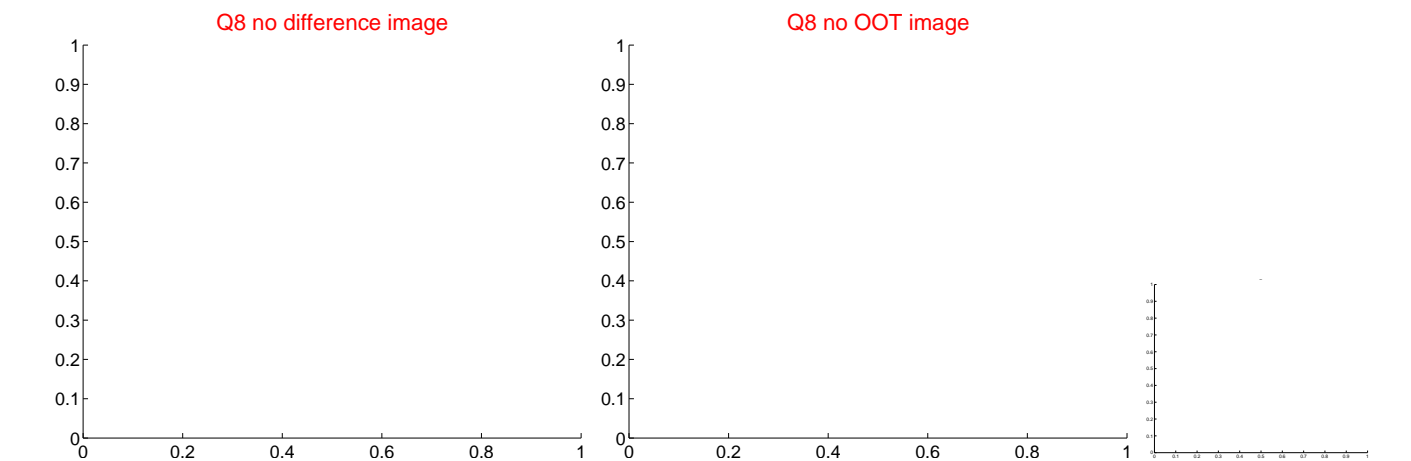
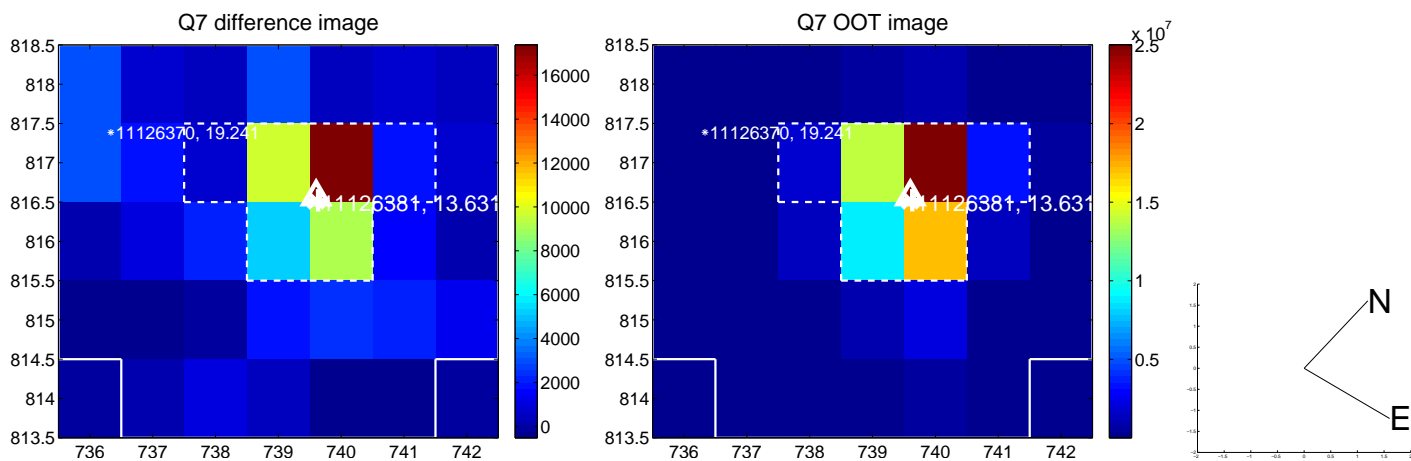
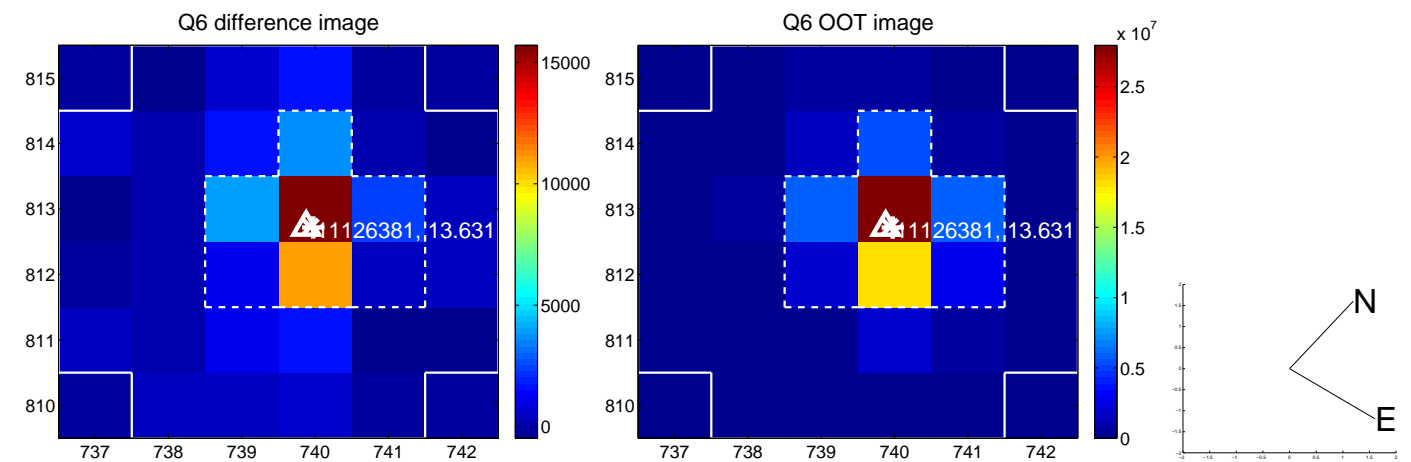
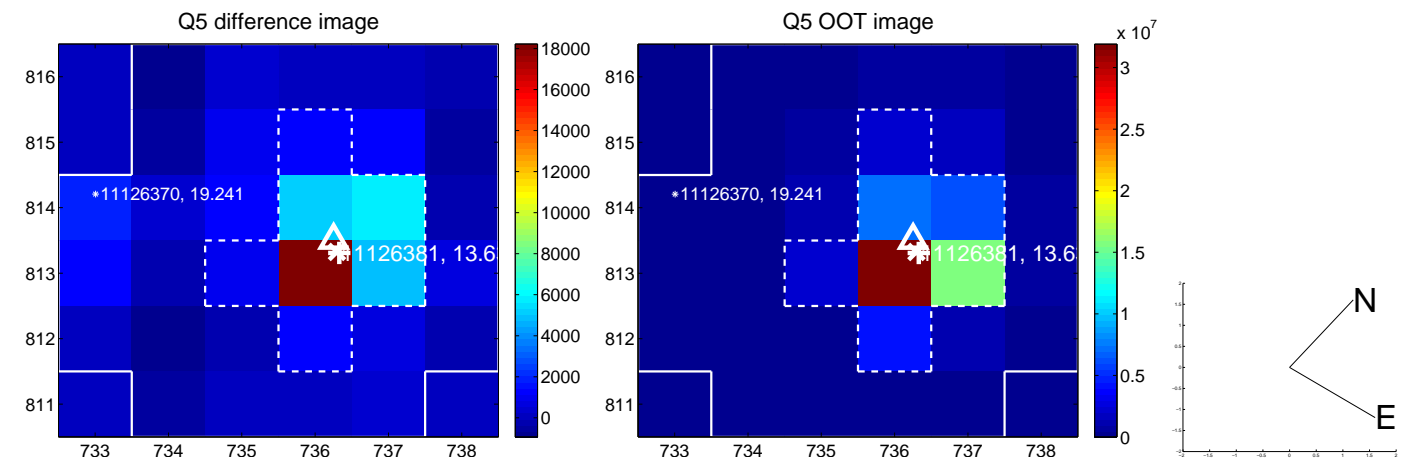


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

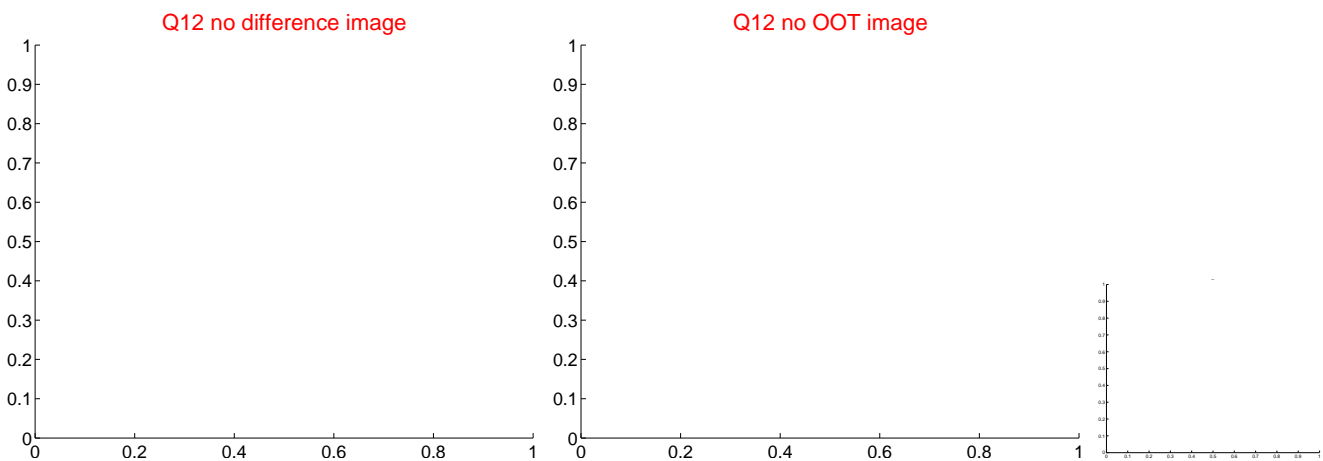
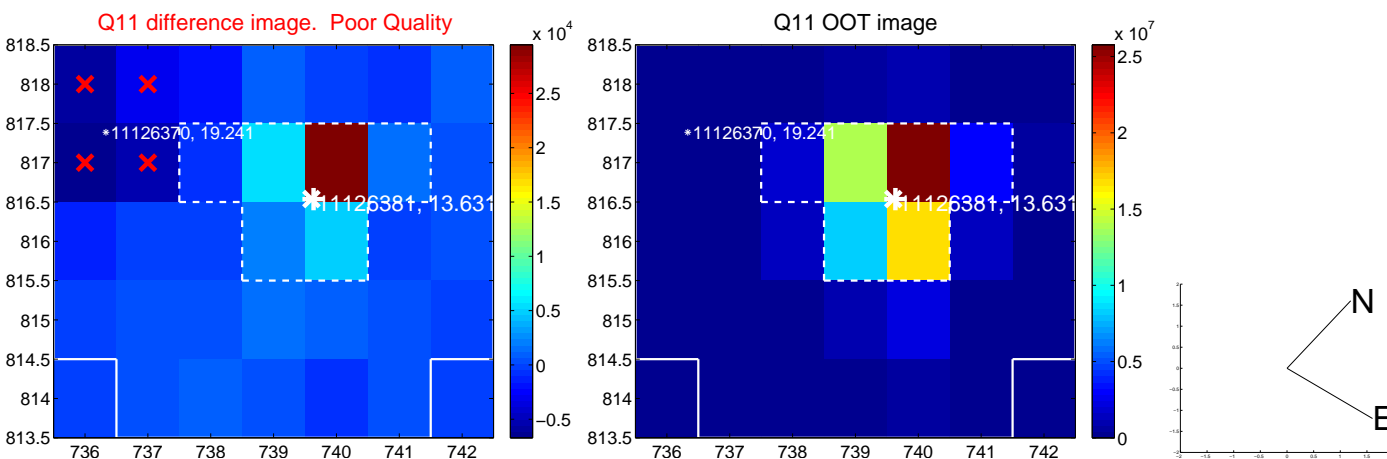
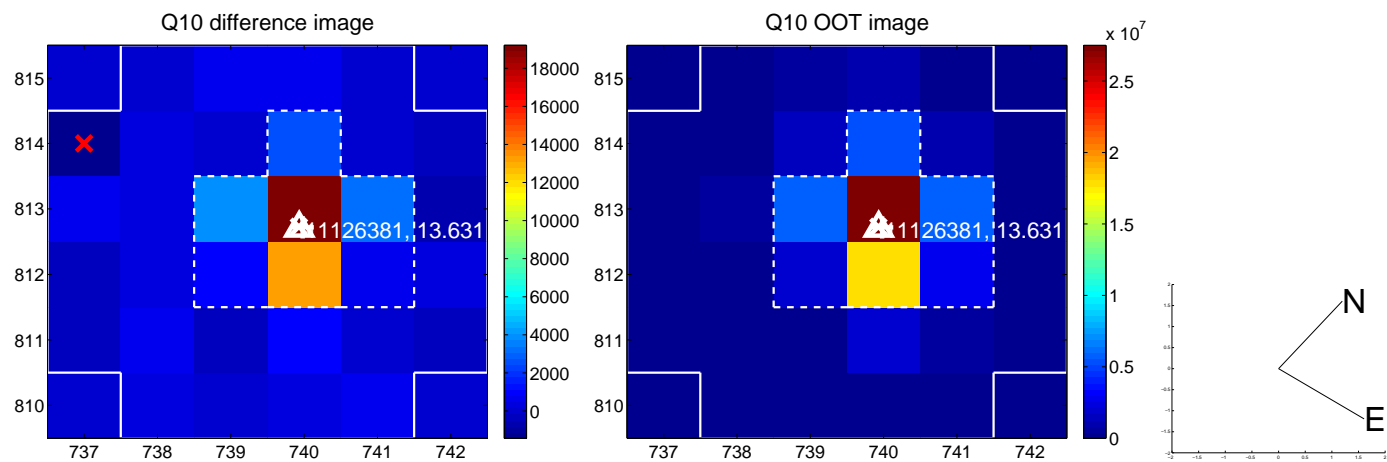
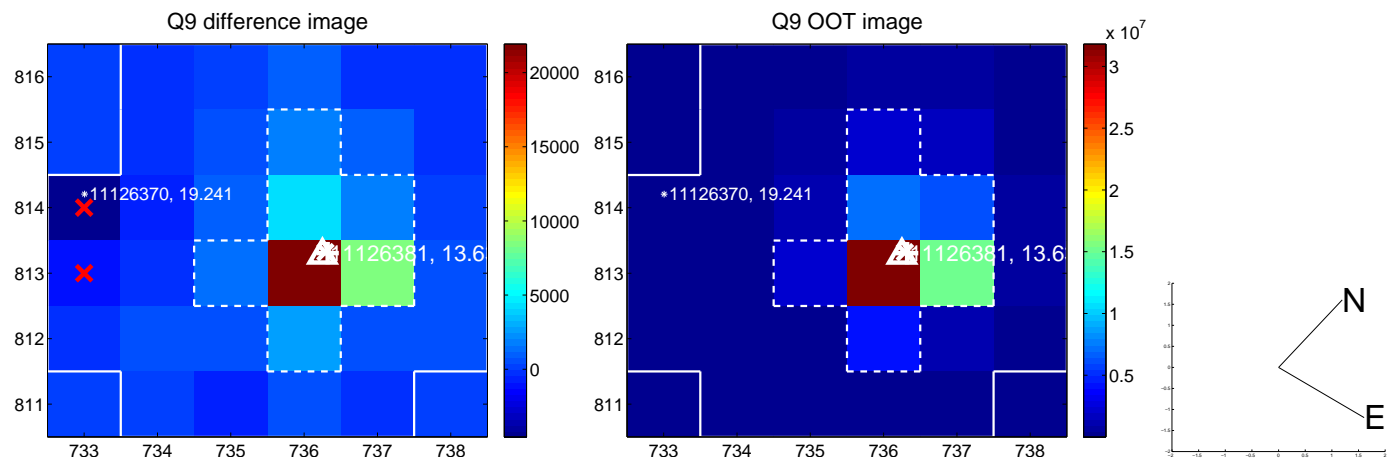
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



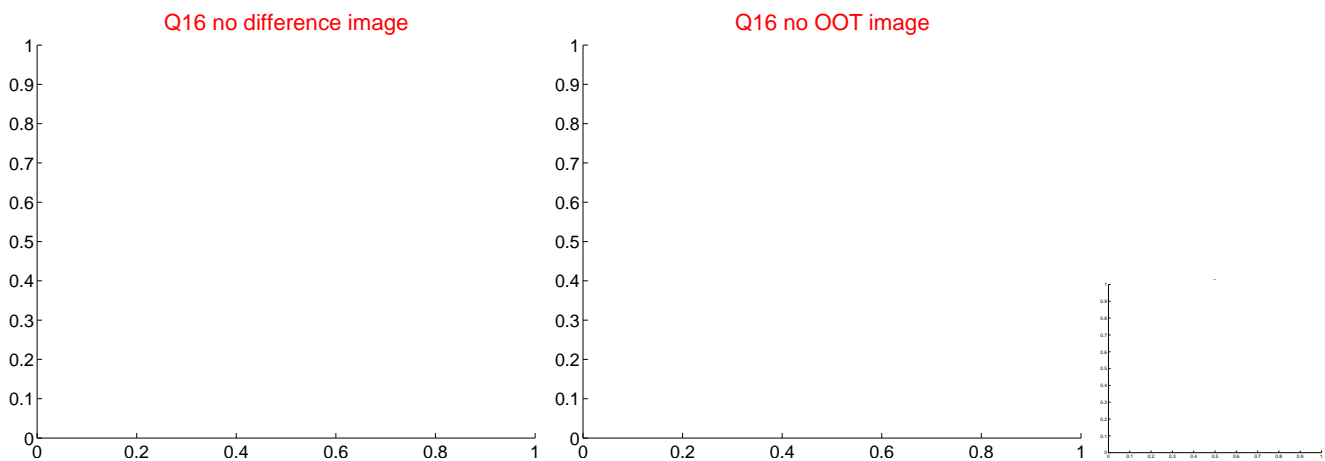
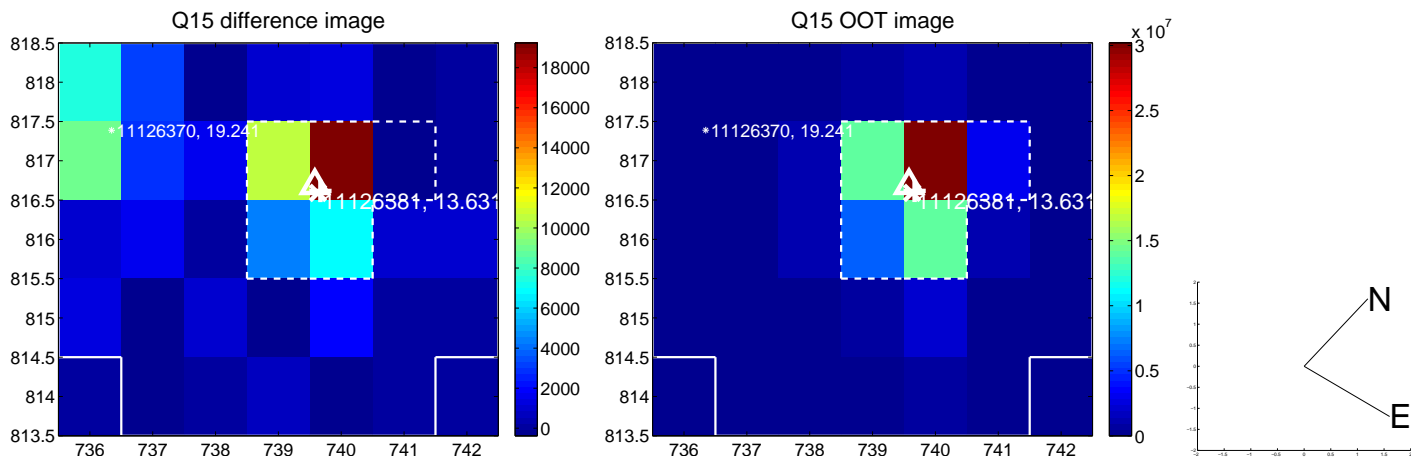
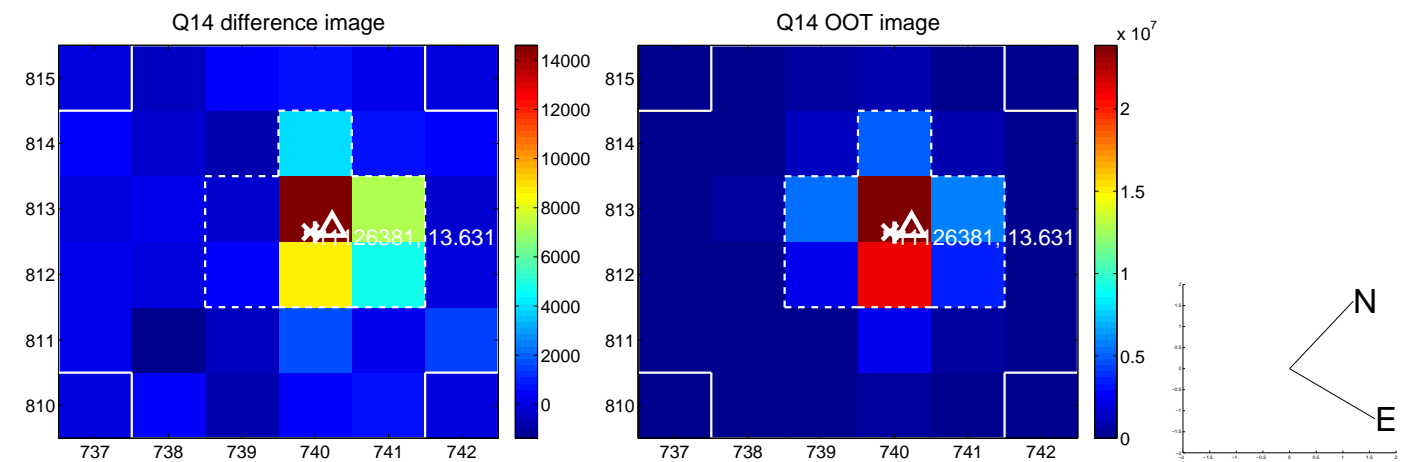
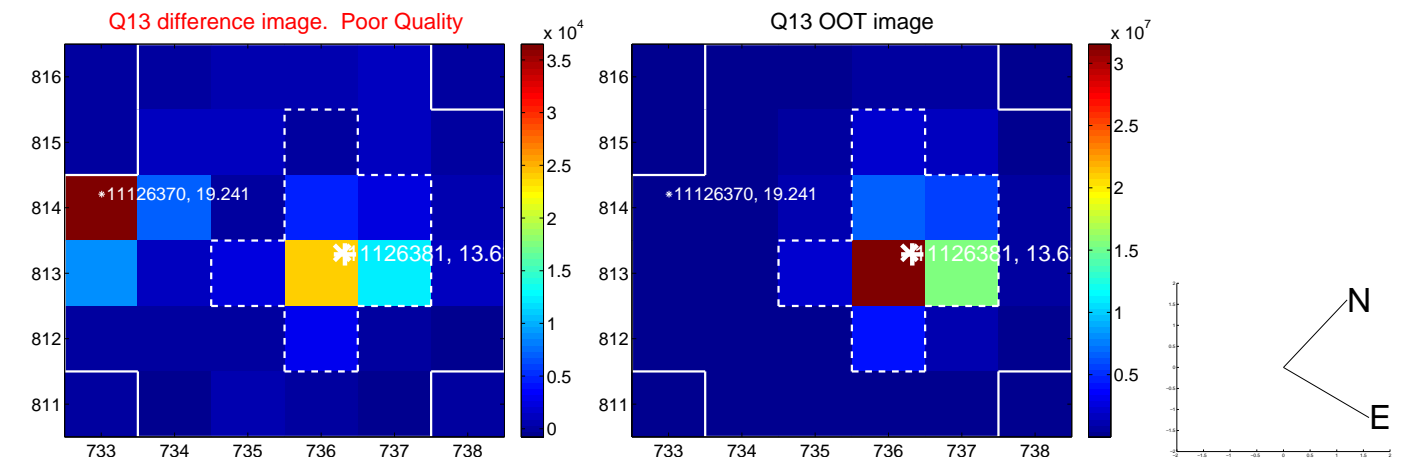
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



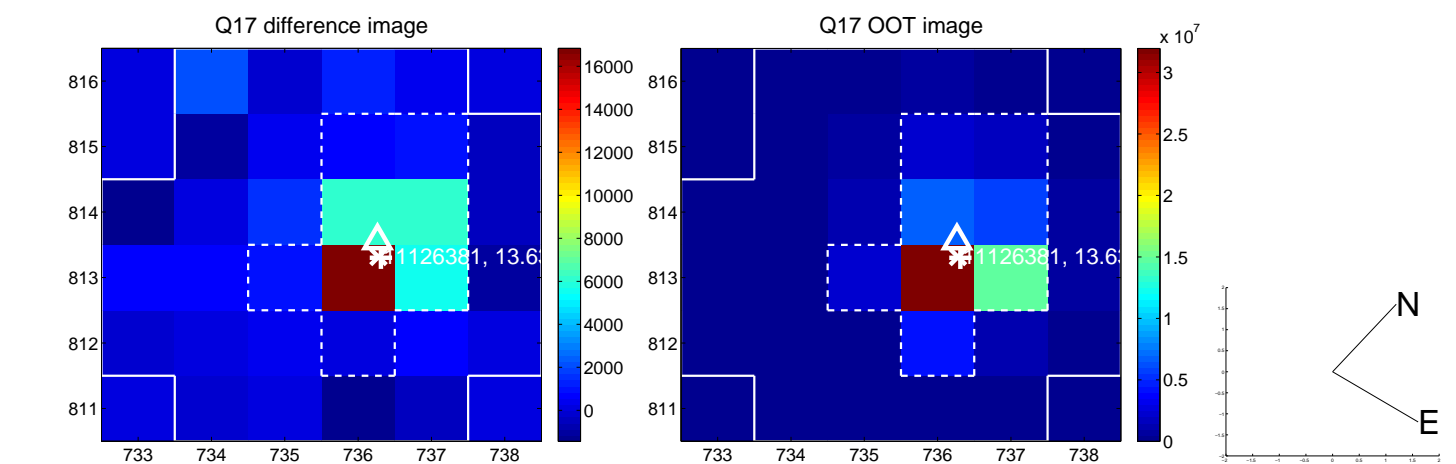
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



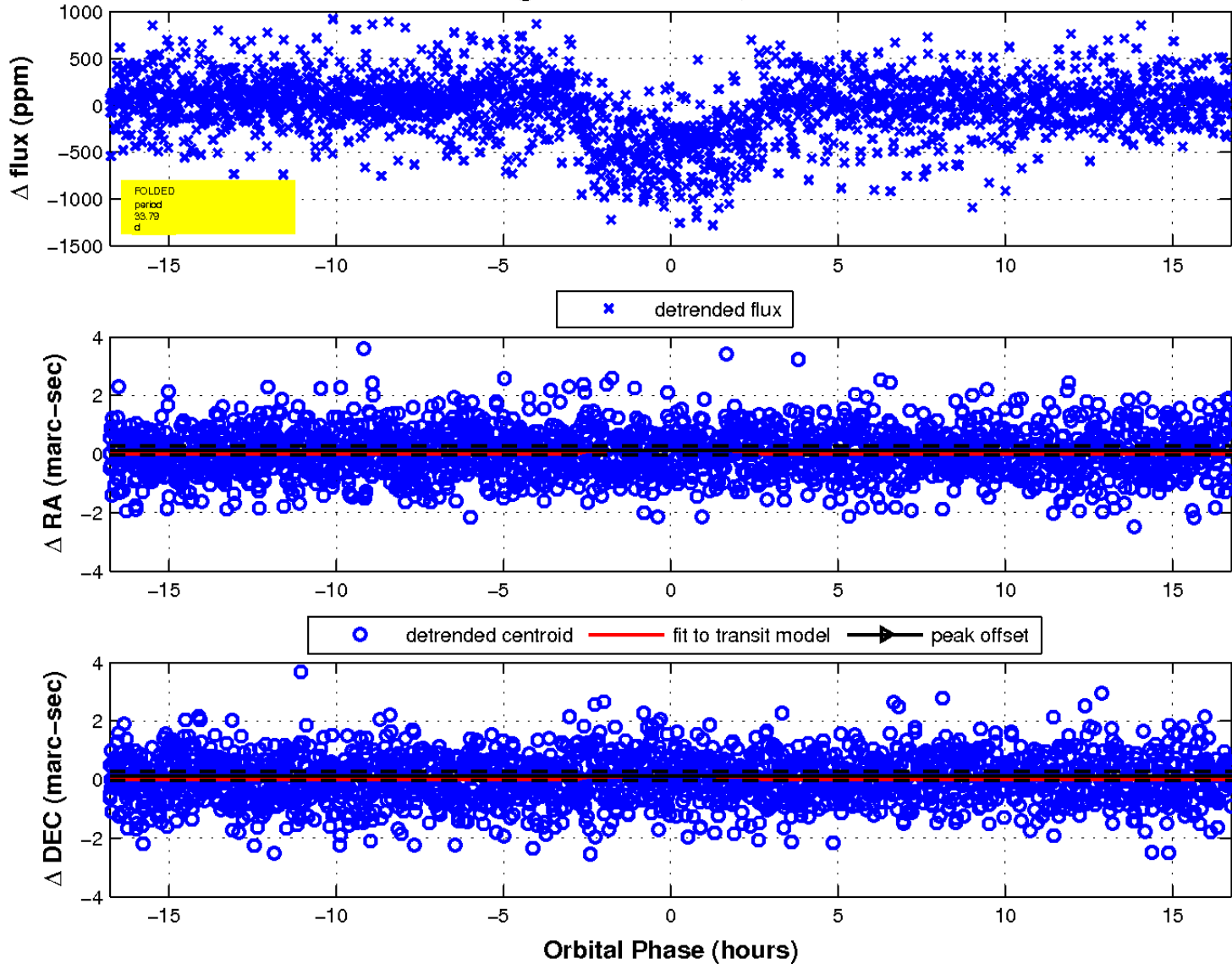
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

