

KIC 011244571

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})
011244571-01	OBS	7427.01	7.893301	133.835113	42.6	6.508	7.8	8.3	1.11	6306	0.81	290.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011244571-01	OBS	PC	0.85	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.

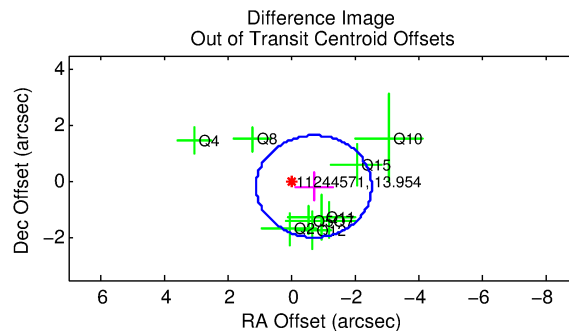
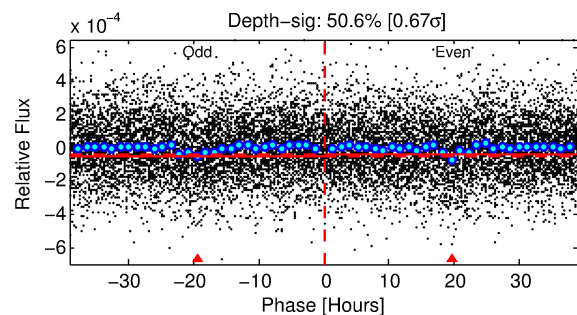
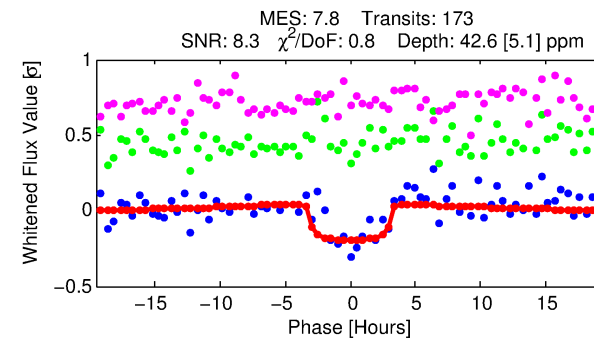
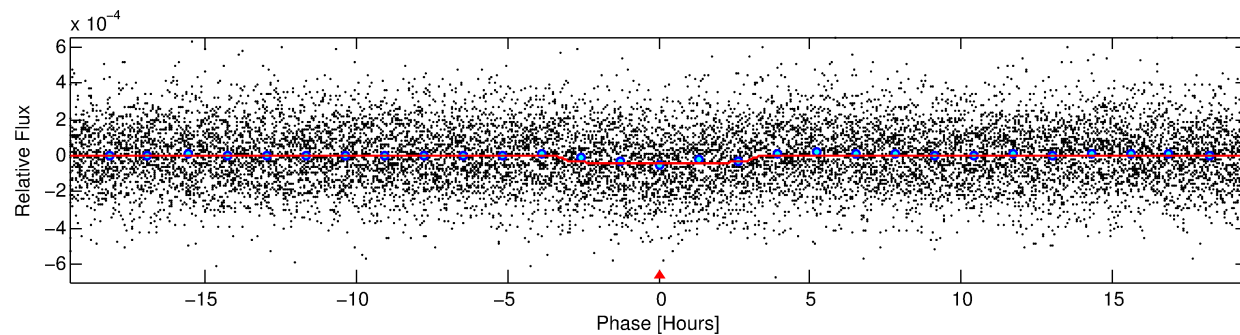
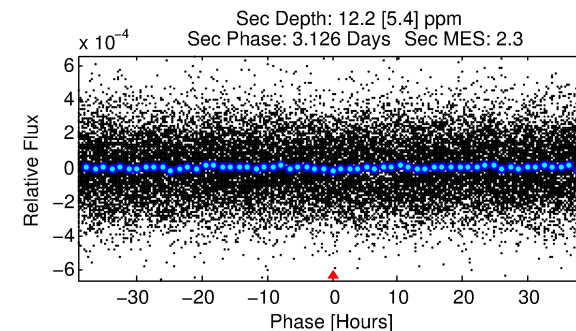
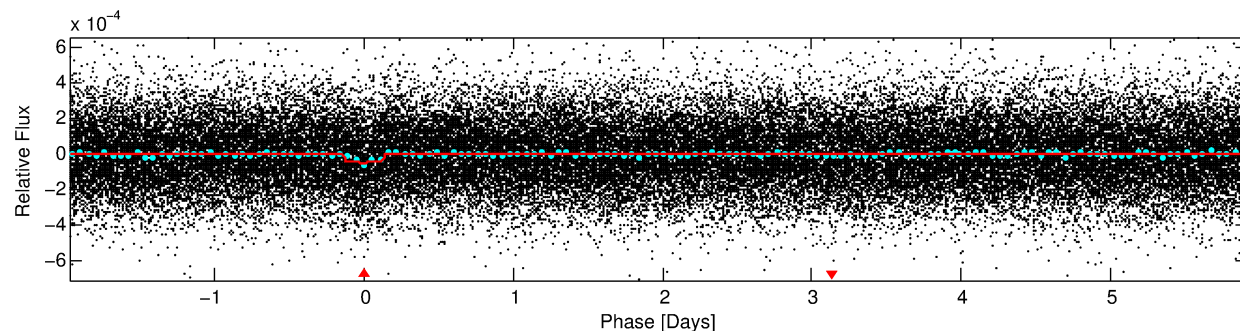
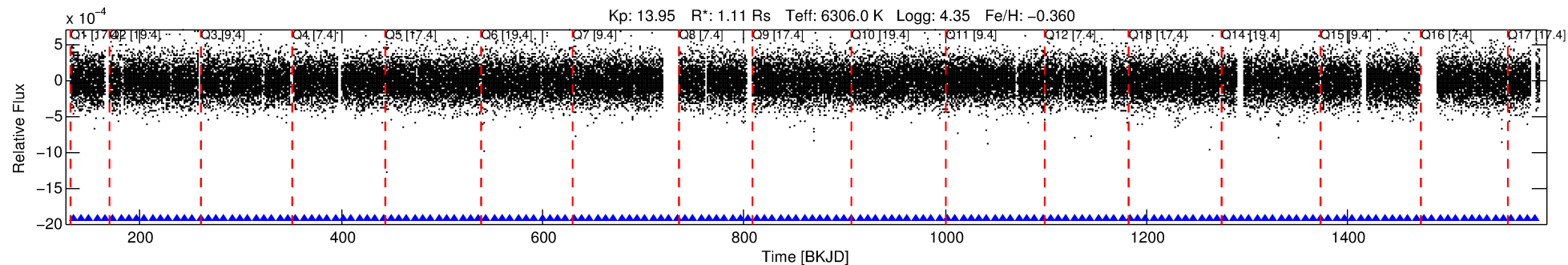
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011244571-01

No Significant Match Found

DV One-Page Summary

KIC: 11244571 Candidate: 1 of 1 Period: 7.893 d
KOI: K07427.01 Corr: 0.952



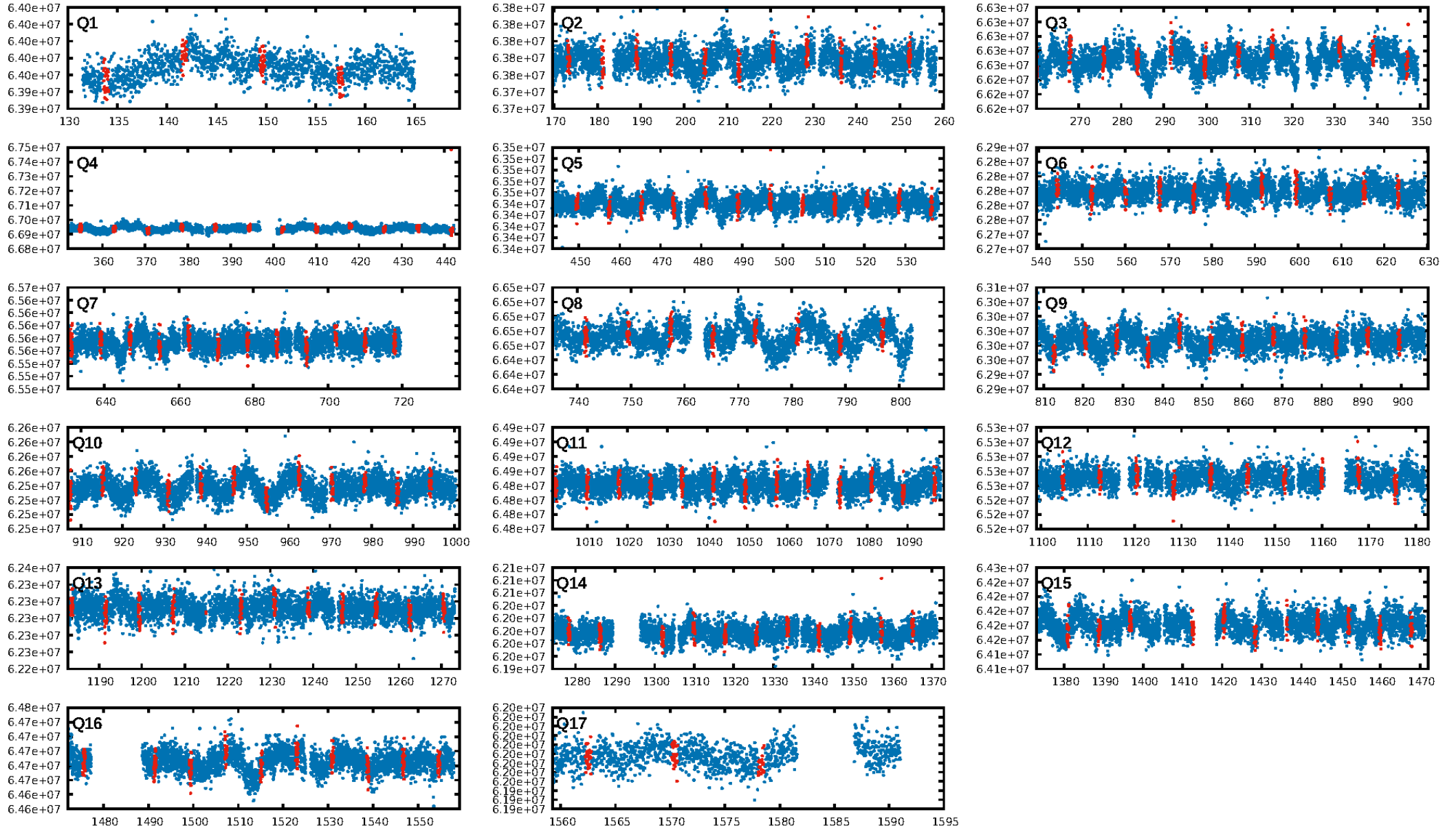
DV Fit Results:

Period = 7.89330 [0.00011] d
Epoch = 133.8351 [0.0107] BKJD
Rp/R* = 0.0067 [0.0028]
a/R* = 5.22 [11.66]
b = 0.84 [0.82]
Seff = 290.30 [107.61]
Teq = 1053 [98] K
Rp = 0.81 [0.42] Re
a = 0.0775 [0.0188] AU
Ag = 60.63 [61.49] [0.97σ]
Teffp = 4541 [1092] K [3.18σ]

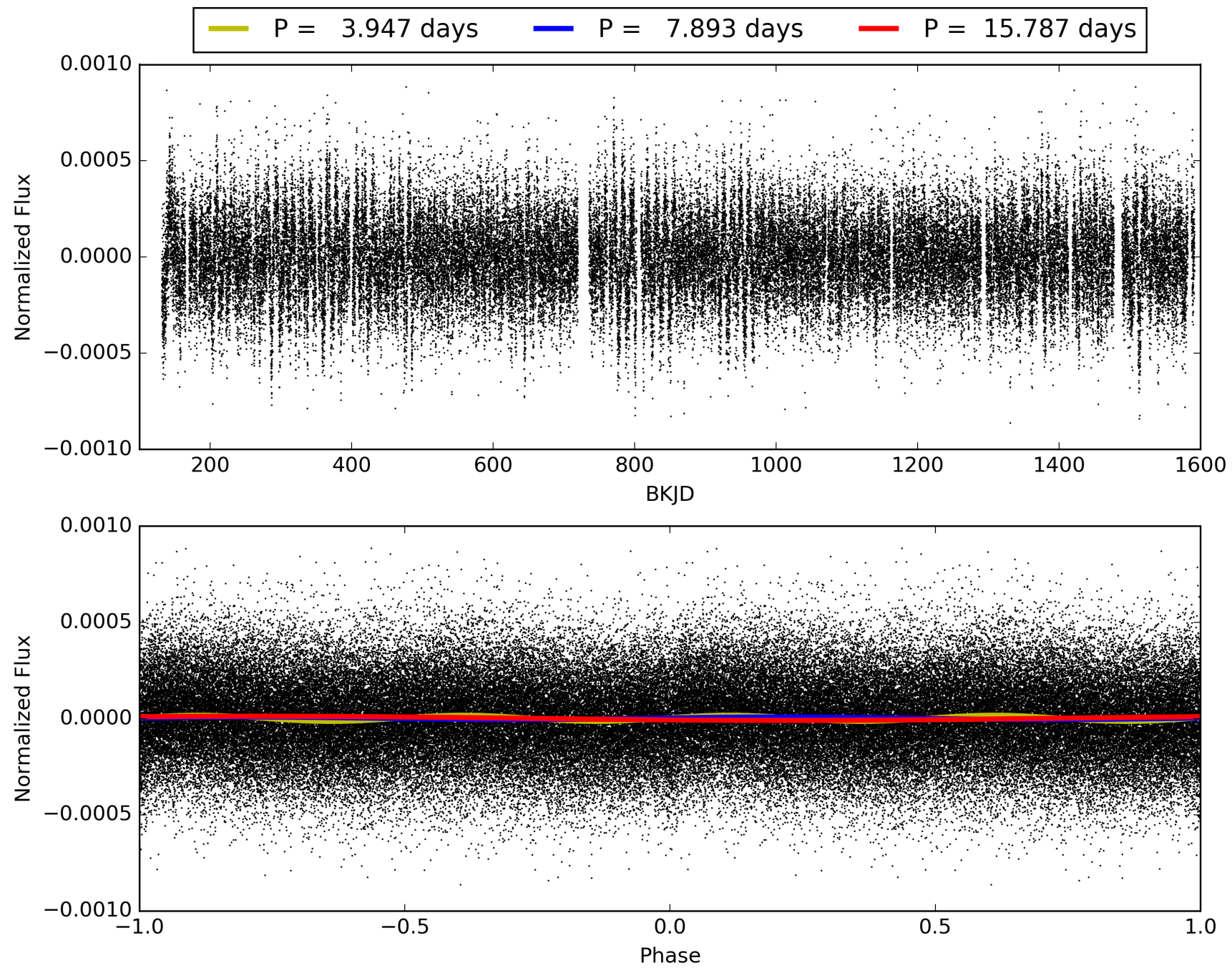
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.89e-15
RollingBand-fgt: 1.00 [166/166]
GhostDiagnostic-chr: 15.63
Centroid-sig: 60.5%
Centroid-so: 0.801 arcsec [0.64σ]
OotOffset-rm: 0.745 arcsec [1.23σ]
OotOffset-st: 2/3/3/1 [9]
KicOffset-rm: 0.656 arcsec [1.29σ]
KicOffset-st: 2/3/3/1 [9]
DiffImageQuality-fgm: 0.78 [7/9]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011244571-01, PDC Light Curves

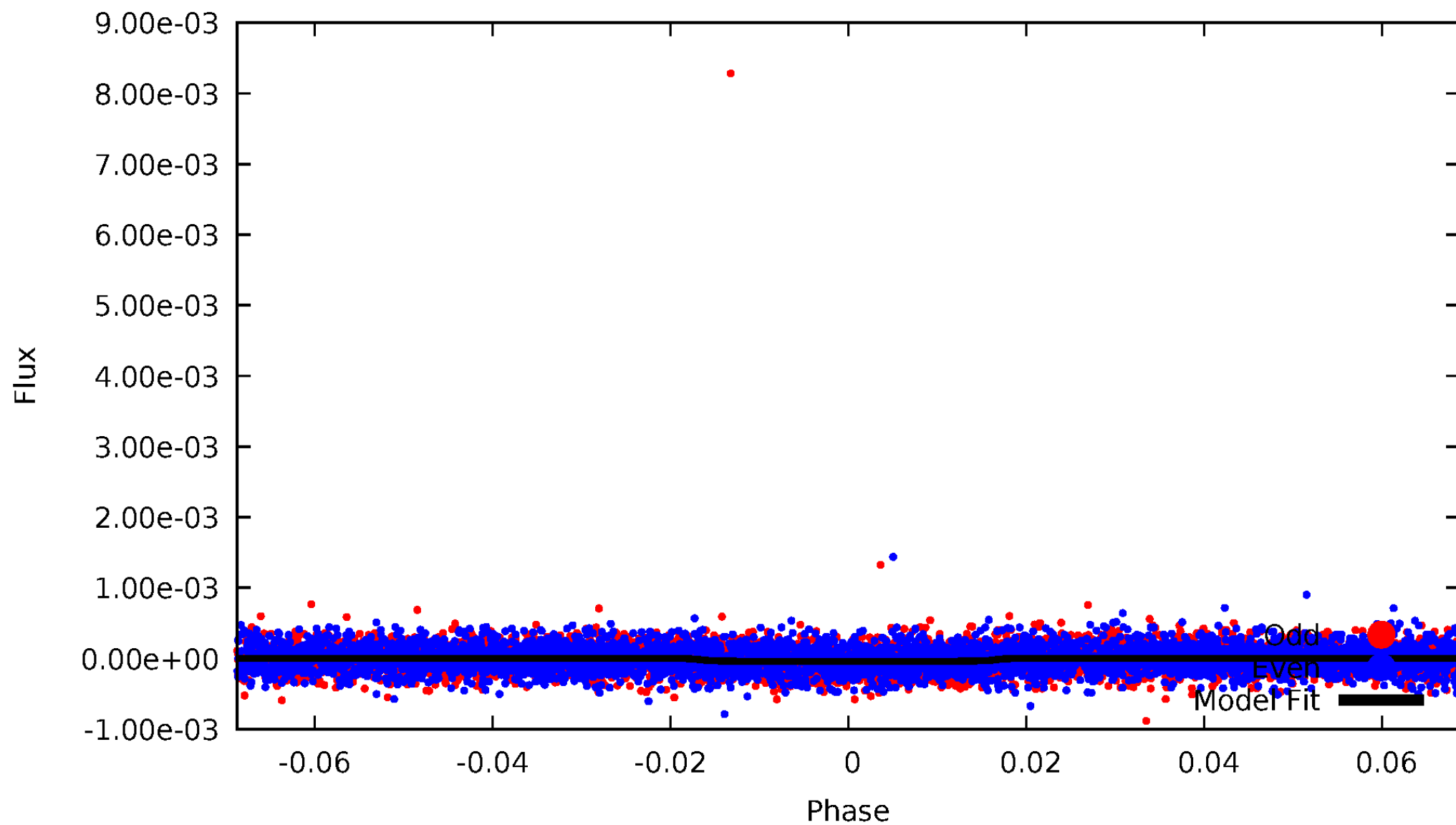


TCE 011244571-01



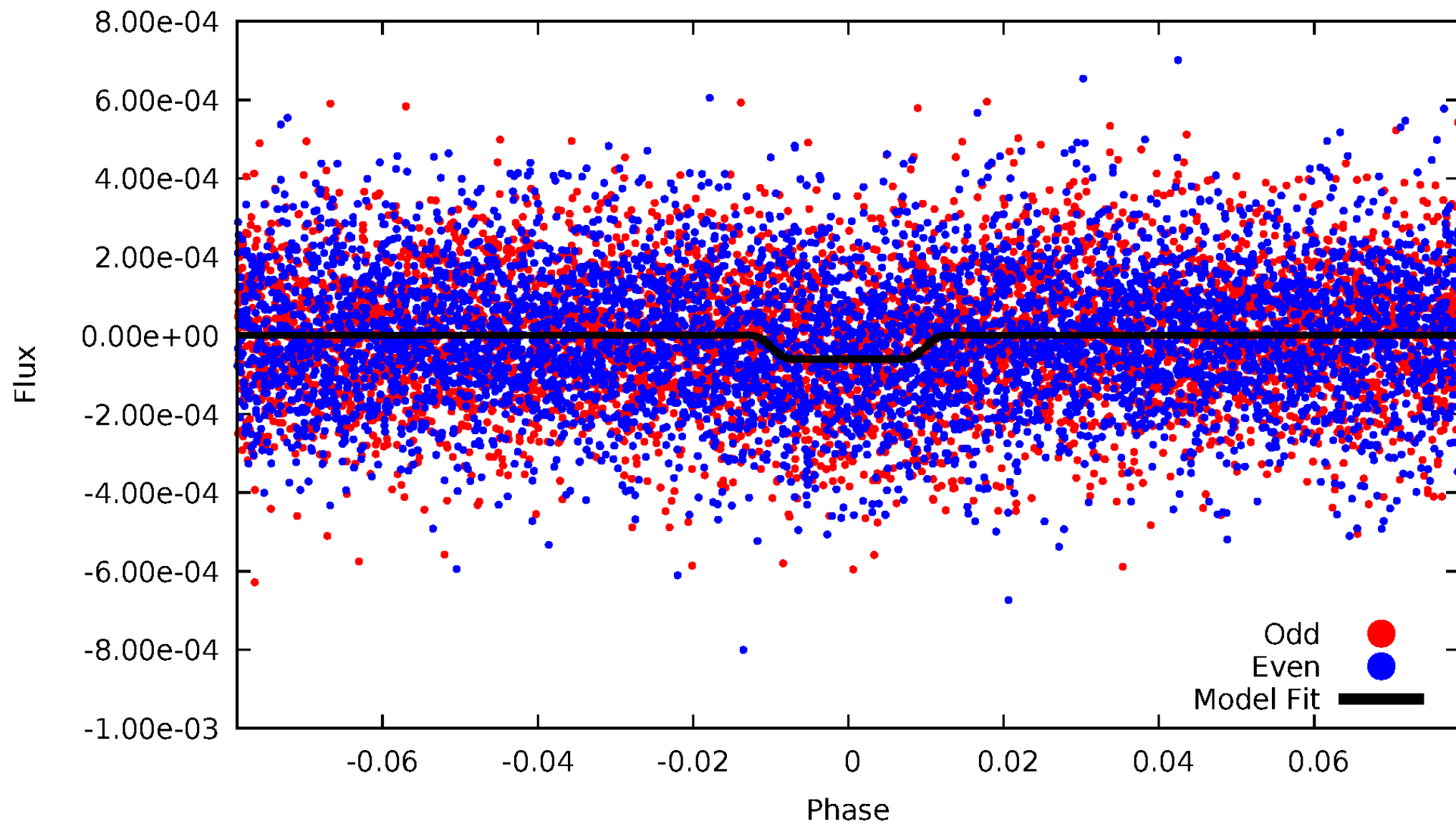
DV Odd/Even

TCE 011244571-01



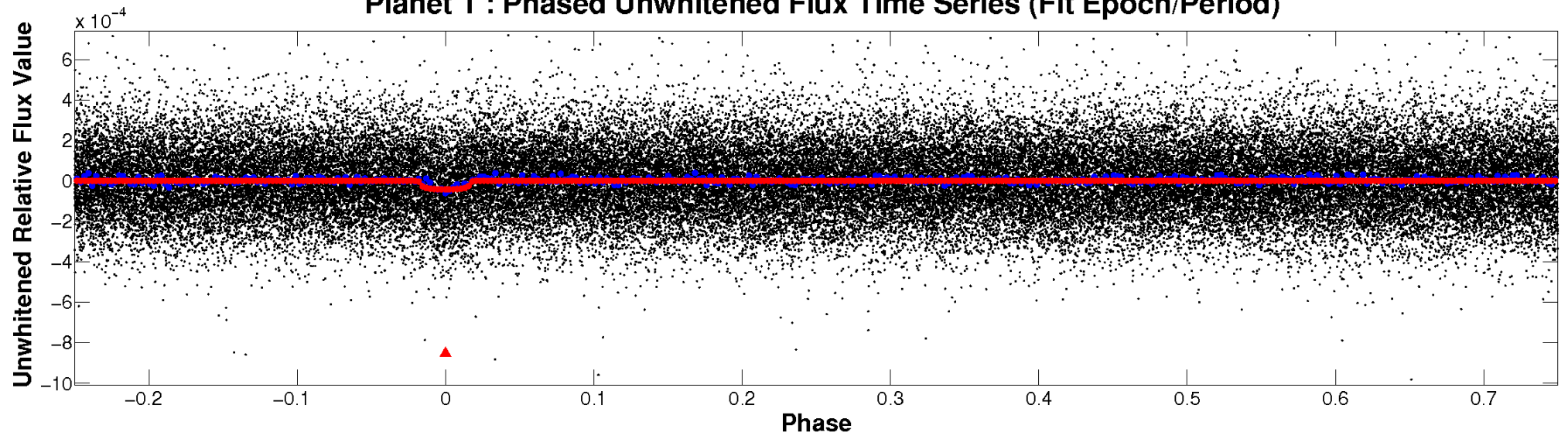
ALT Odd/Even

TCE 011244571-01

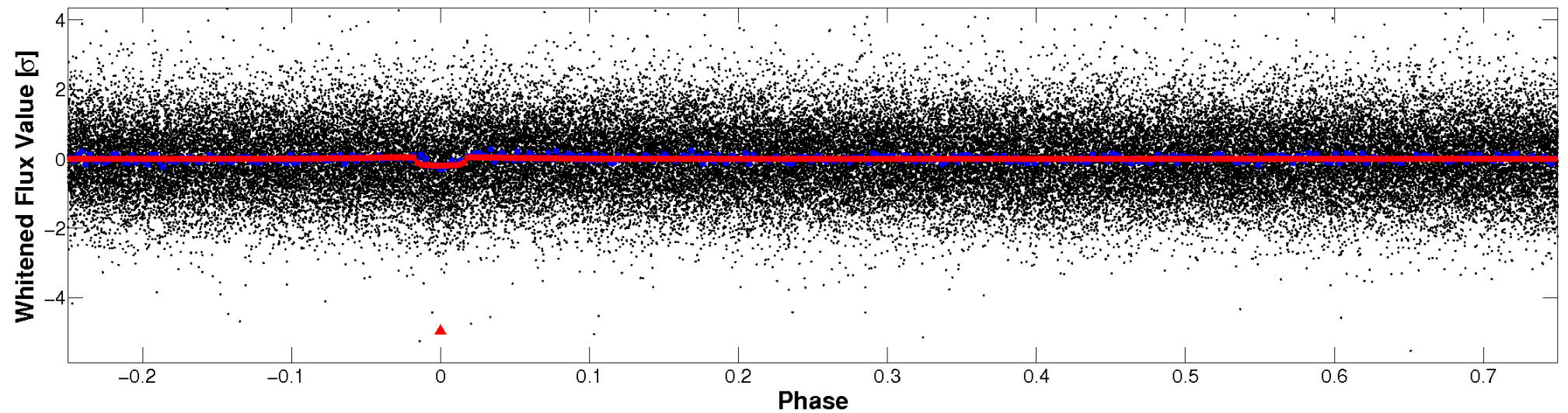


Non-Whitened Vs. Whitened Light Curve

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

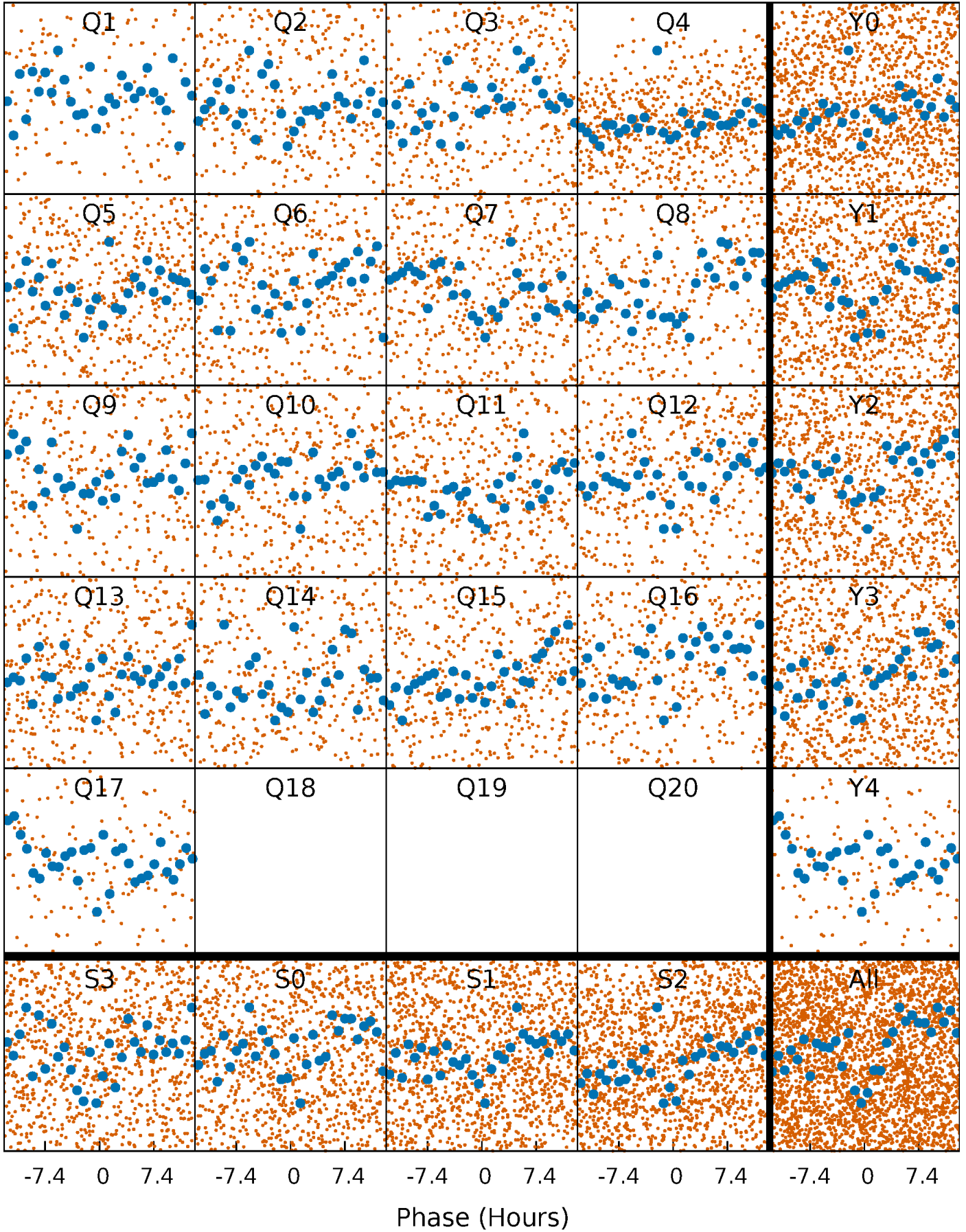


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



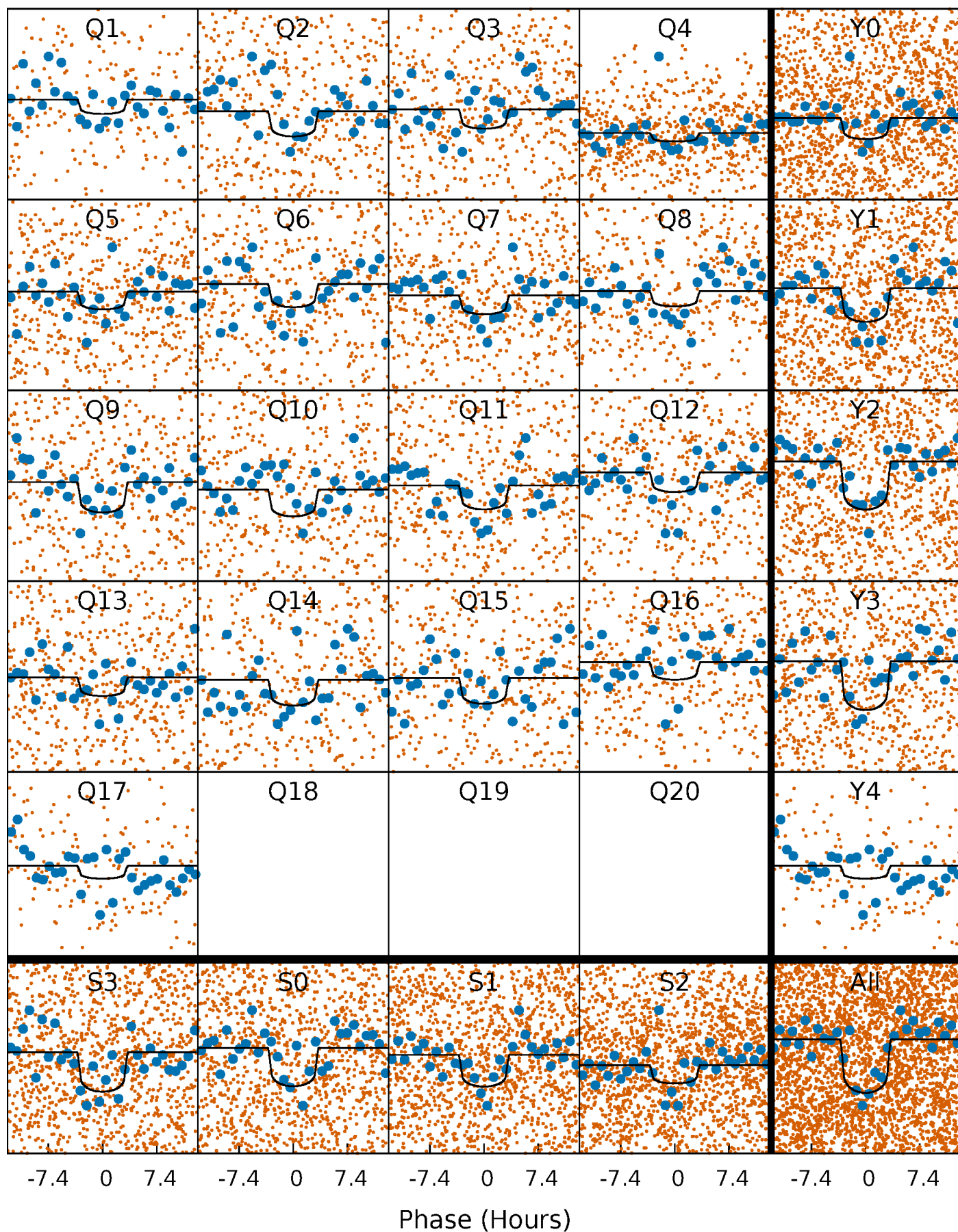
PDC Quarter-Phased Transit Curves

TCE 011244571-01 P= 7.893301 Days $T_0=133.835113$ (BKJD)



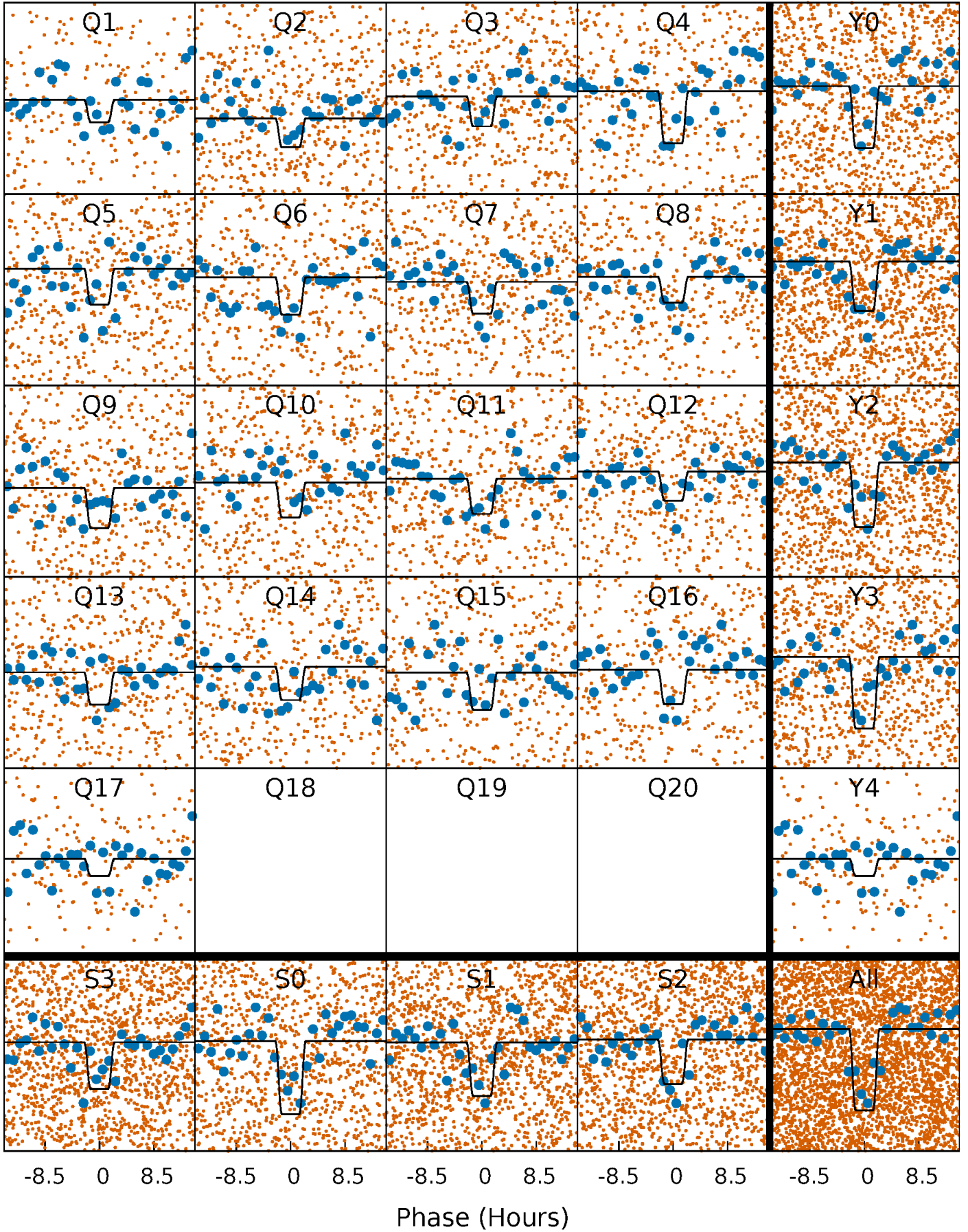
DV Quarter-Phased Transit Curves

TCE 011244571-01 P= 7.893301 Days $T_0=133.835113$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

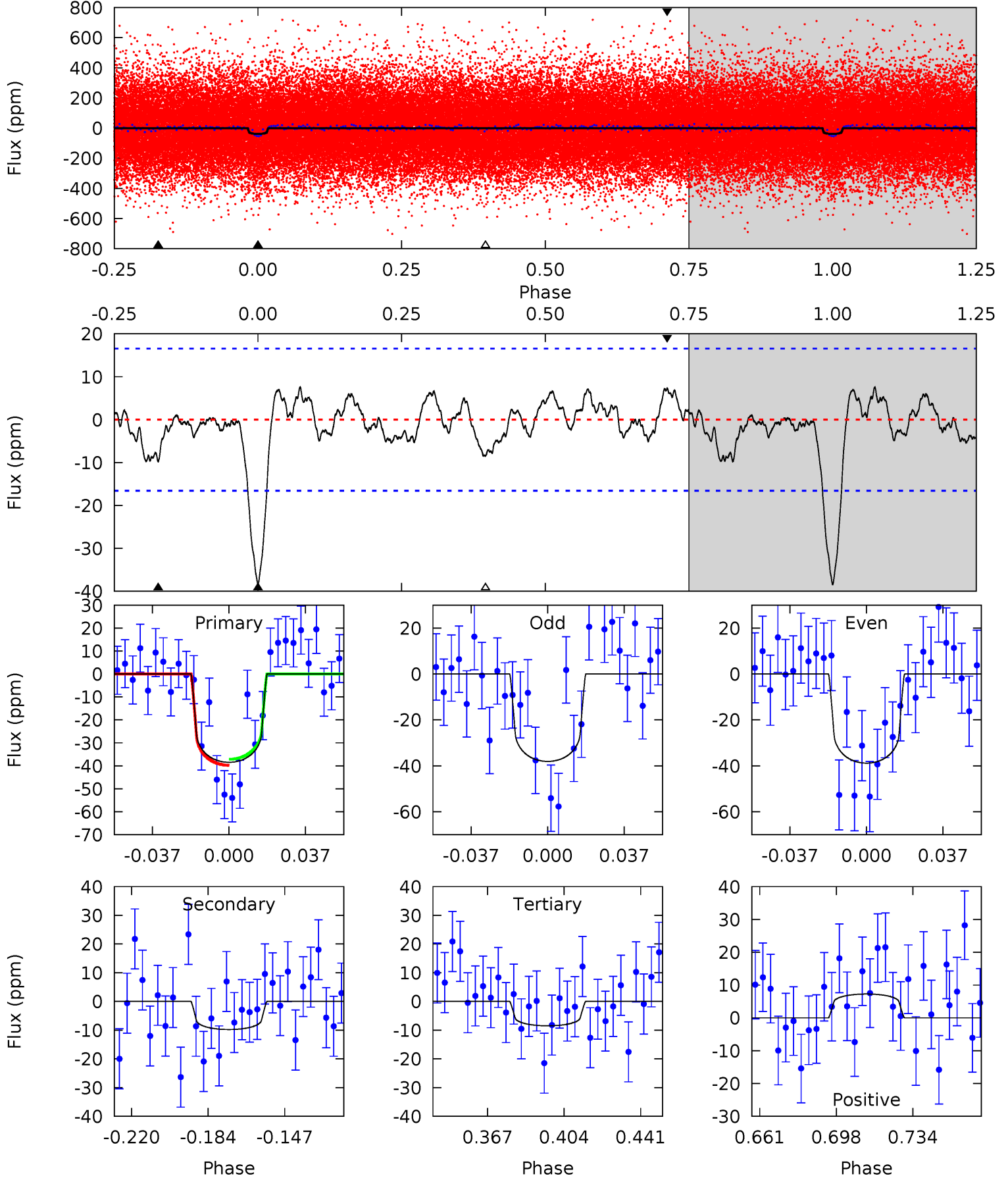
TCE 011244571-01 P= 7.893233 Days $T_0=133.840605$ (BKJD)



DV Model-Shift Uniqueness Test

011244571-01, $P = 7.893301$ Days, $E = 125.941812$ Days

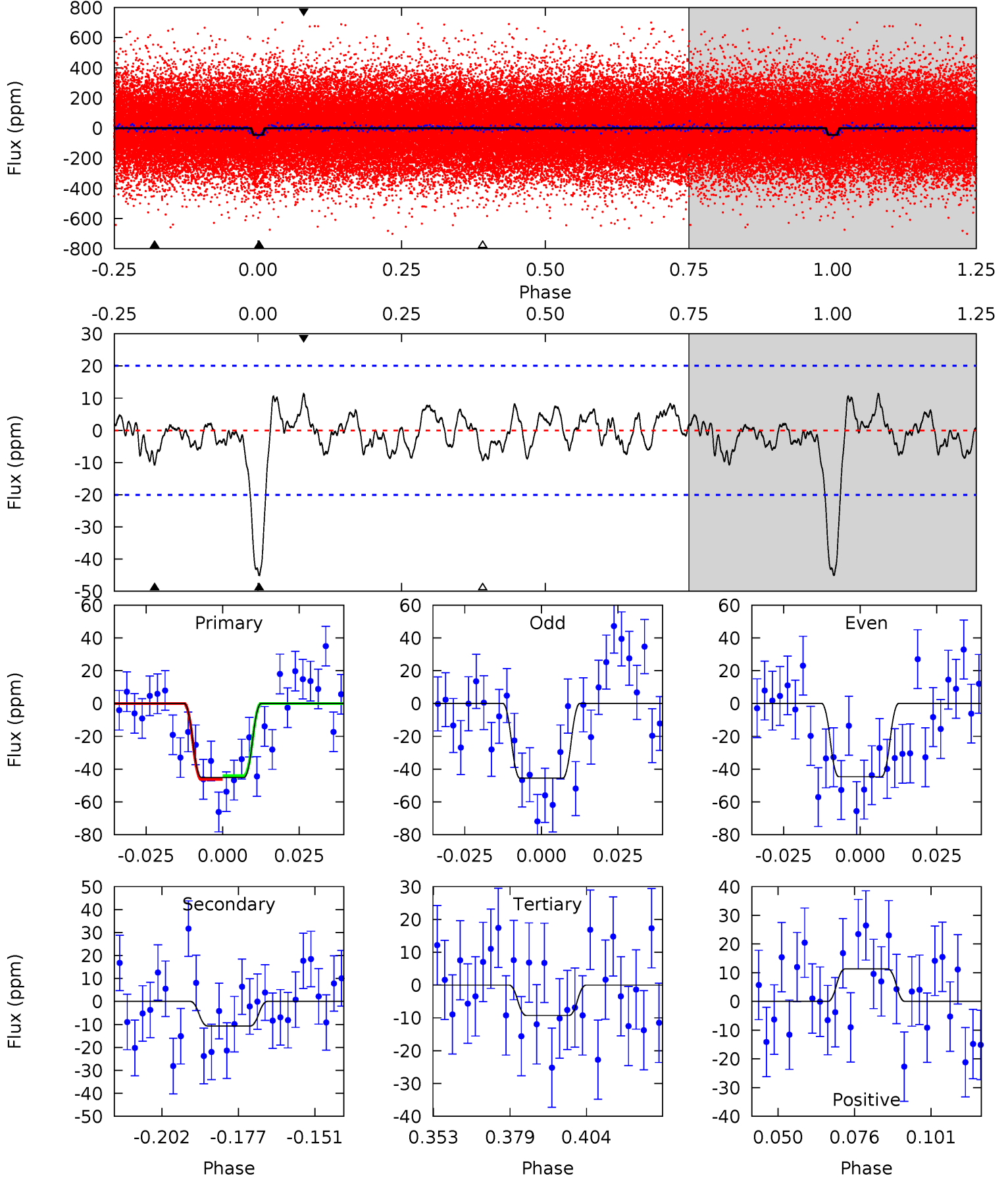
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	2.81	2.44	2.09	4.77	2.09	1.02	8.63	8.98	0.37	0.72	0.11	0.93	0.16	0.38



Alt Model-Shift Uniqueness Test

011244571-01, P = 7.893233 Days, E = 125.947372 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	2.58	2.24	2.74	4.85	2.24	1.04	8.65	8.15	0.34	-0.16	0.11	0.93	0.20	0.26



Stellar Parameters For KIC 011244571

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6306^{+170}_{-207}	$4.346^{+0.108}_{-0.186}$	$-0.360^{+0.300}_{-0.300}$	$1.109^{+0.327}_{-0.176}$	$0.991^{+0.159}_{-0.106}$	$1.025^{+0.580}_{-0.500}$
	+3%/-3%	+2%/-4%	+83%/-83%	+29%/-16%	+16%/-11%	+57%/-49%
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 011244571-01 / KOI 7427.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 3	$0.85^{+0.40}_{-0.37}$	1483^{+110}_{-83}	4404^{+1254}_{-584}	43^{+92}_{-25}
Alt.	-11 ± 4	$0.96^{+0.39}_{-0.38}$	1487^{+100}_{-84}	4305^{+993}_{-579}	37^{+67}_{-21}

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 $A_{\text{obs}} \gg 1.0$

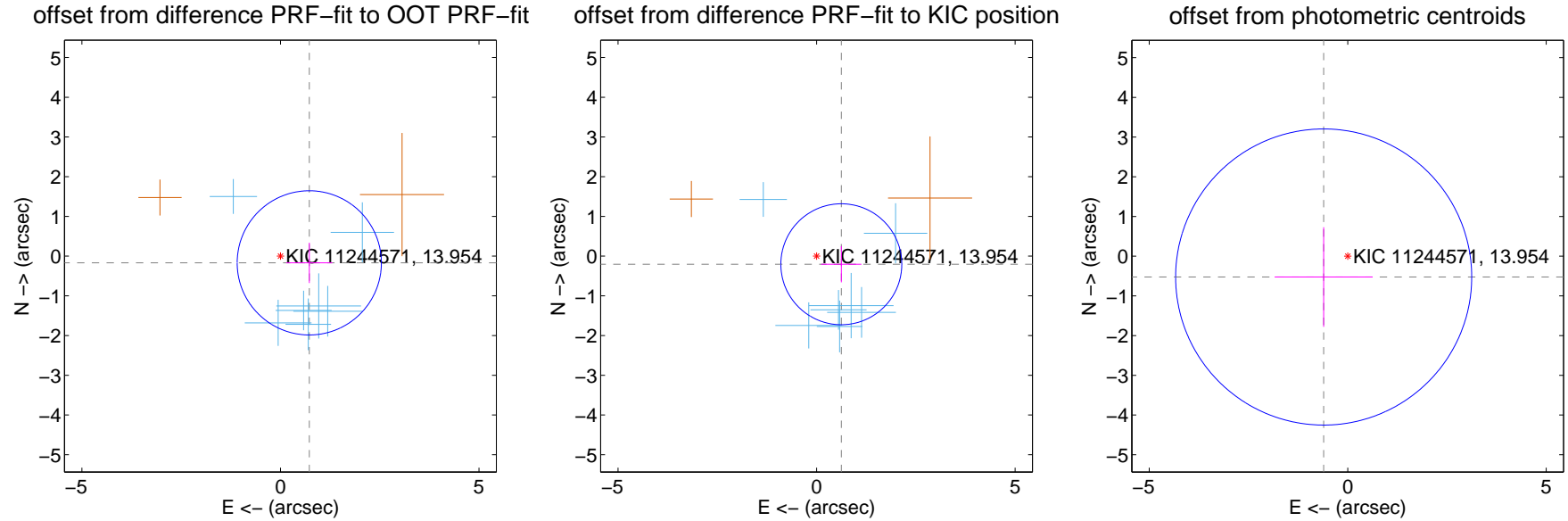
DV Centroid Data

Supplemental centroid analysis for 011244571-01. Kepler magnitude: 13.95. Transit SNR 8.27

There are 7 quarters with good PRF difference image offsets

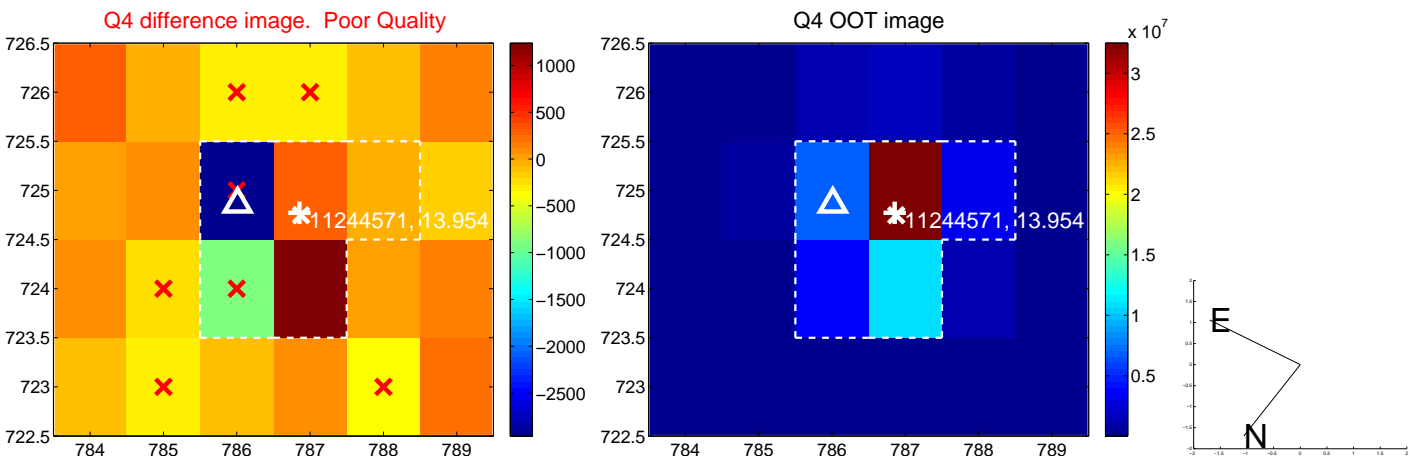
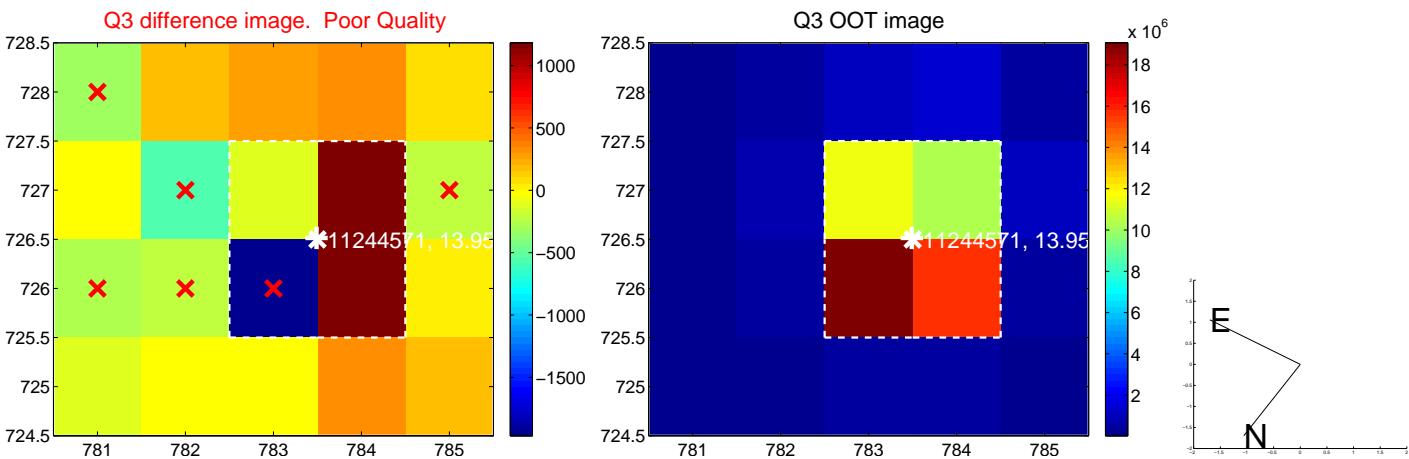
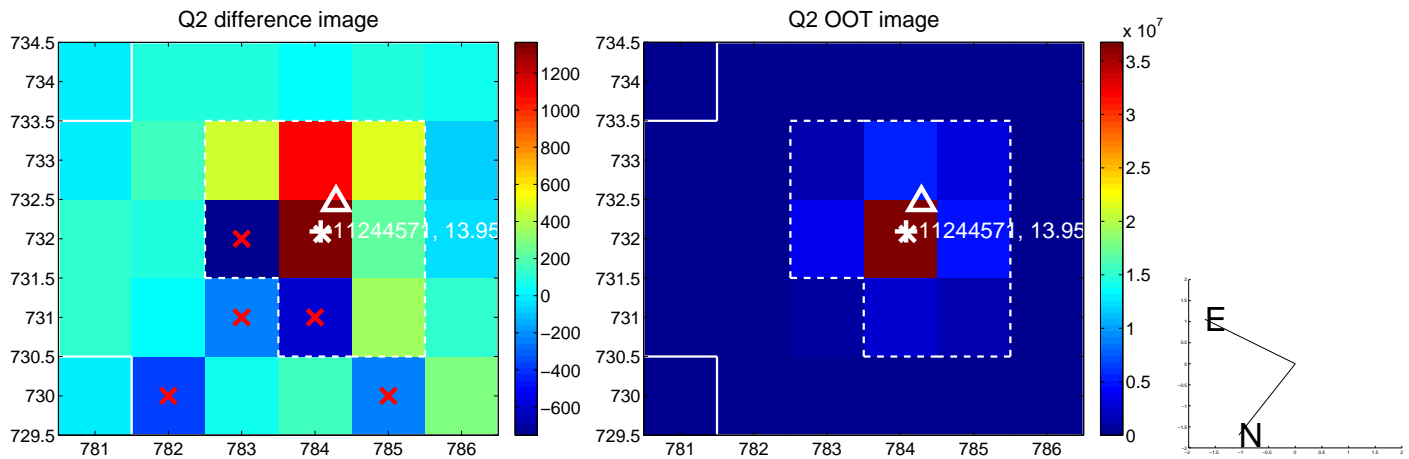
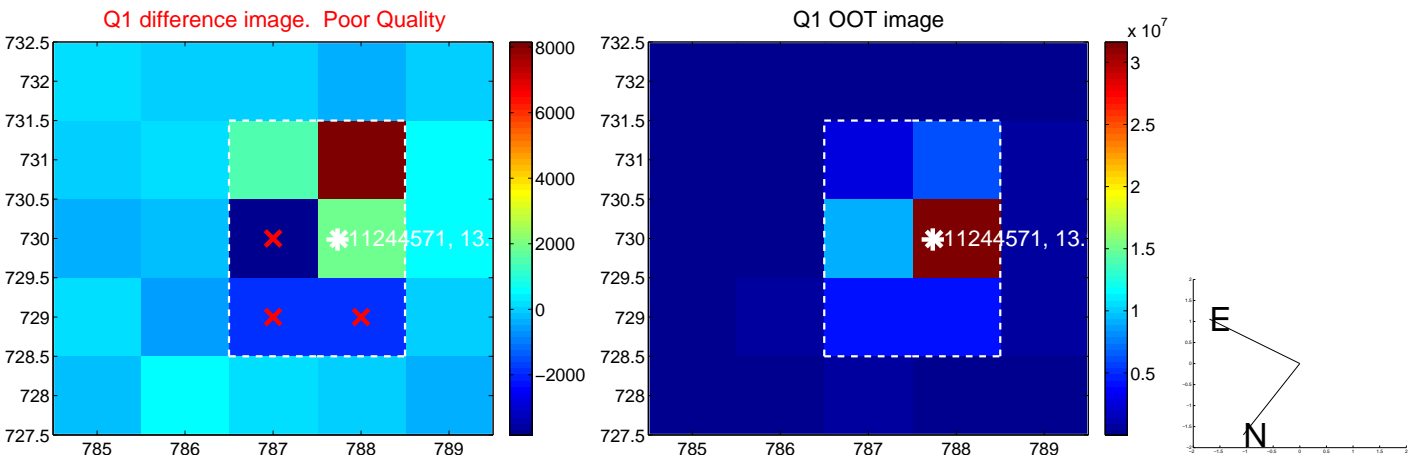
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.745 ± 0.605	1.23	-0.726 ± 0.580	-0.169 ± 0.508
PRF-fit source offset from KIC position	0.656 ± 0.508	1.29	-0.623 ± 0.504	-0.205 ± 0.456
photometric centroid source offset	0.80 ± 1.24	0.64	0.61 ± 1.23	-0.52 ± 1.25

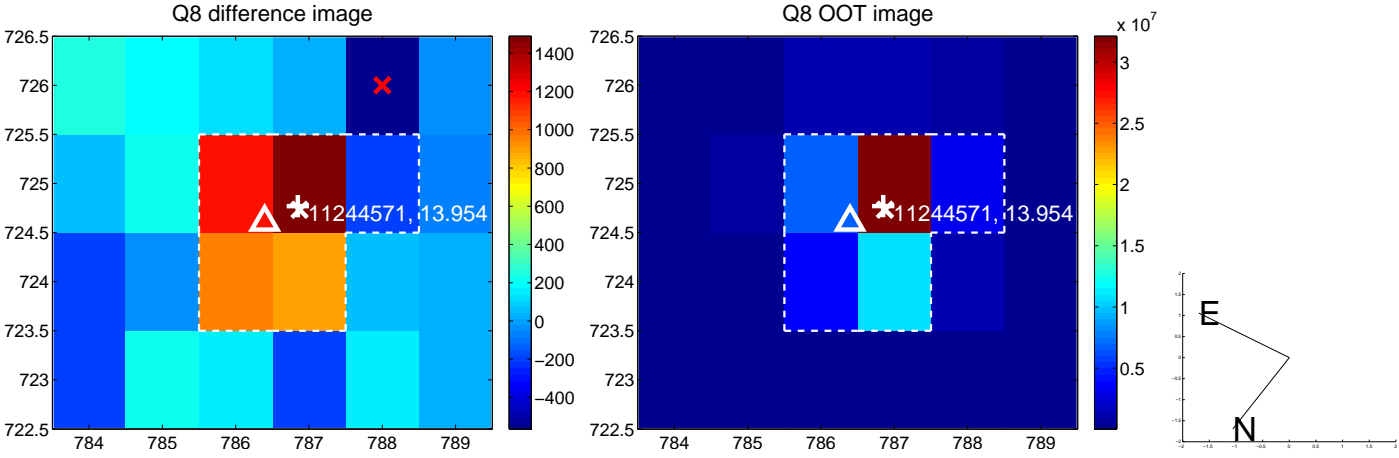
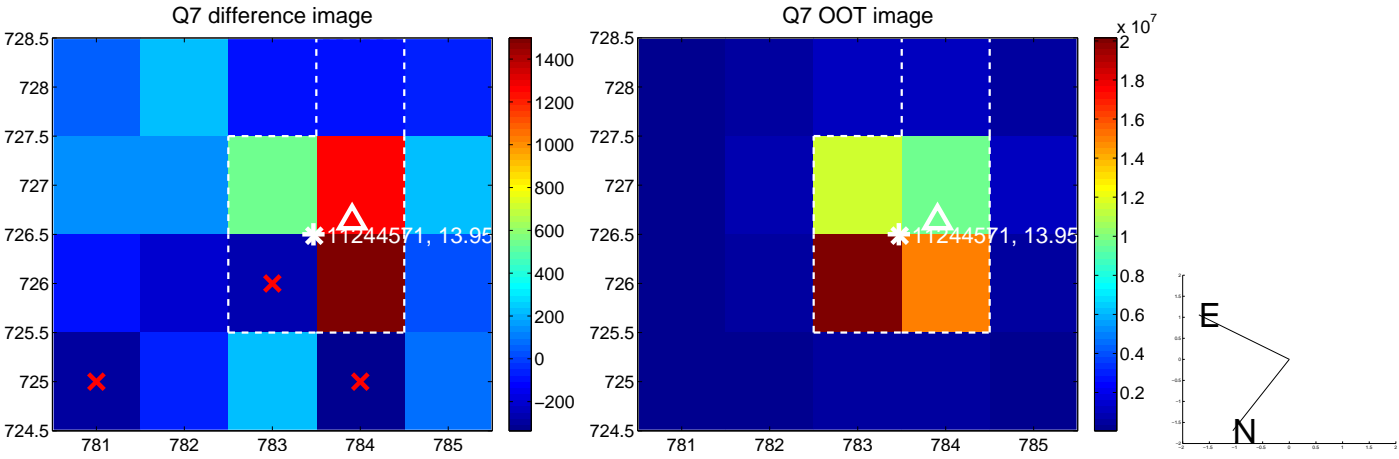
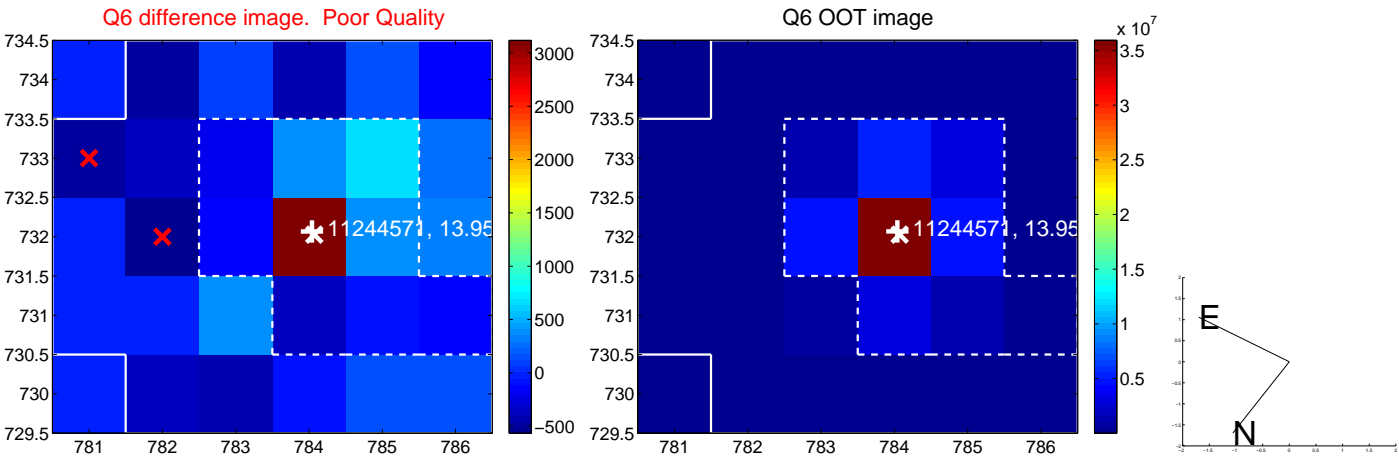
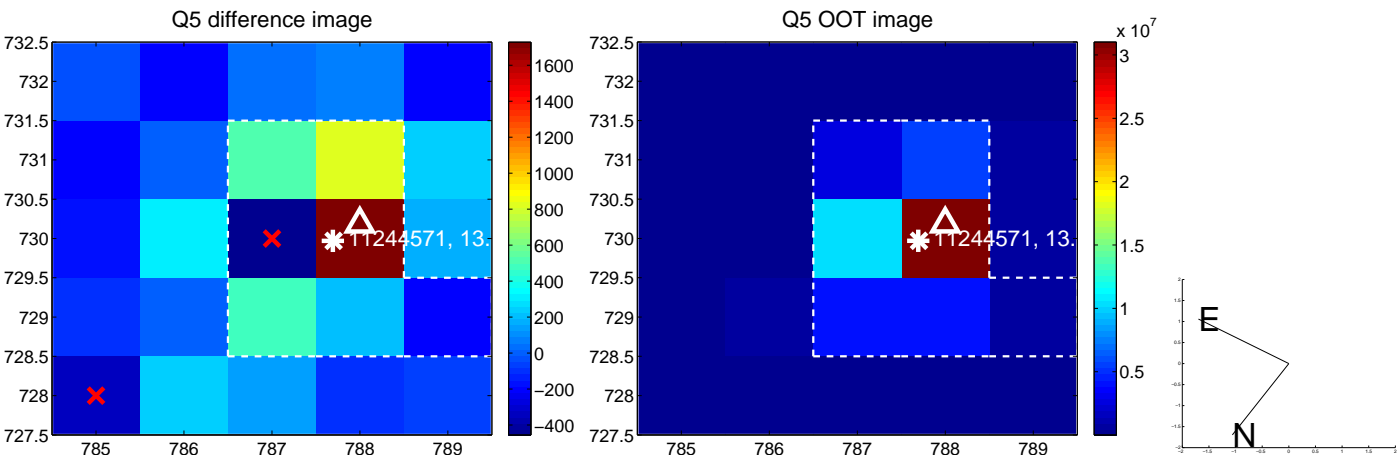


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

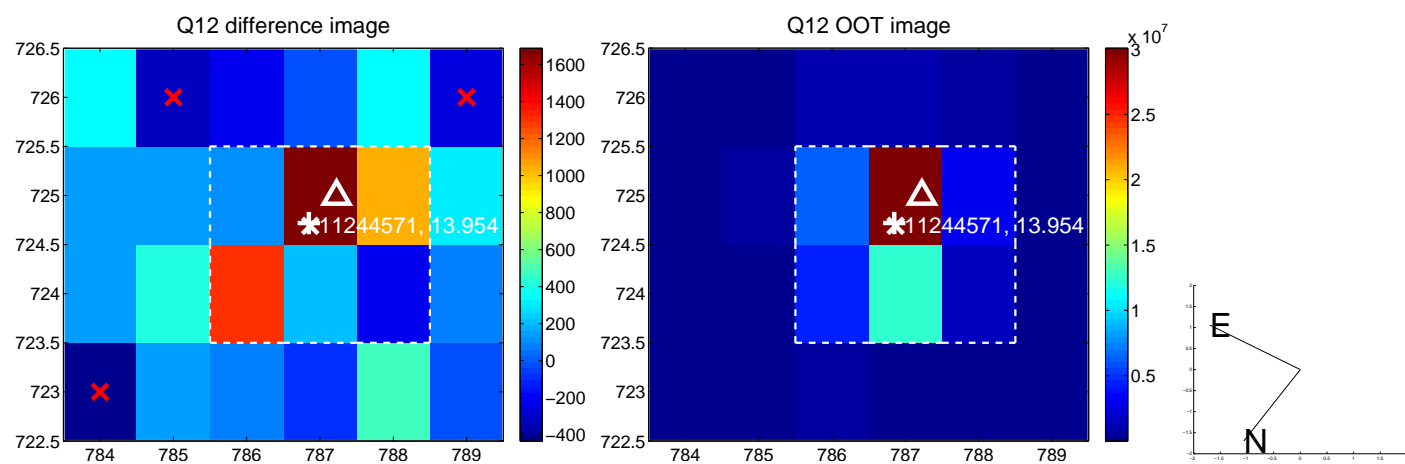
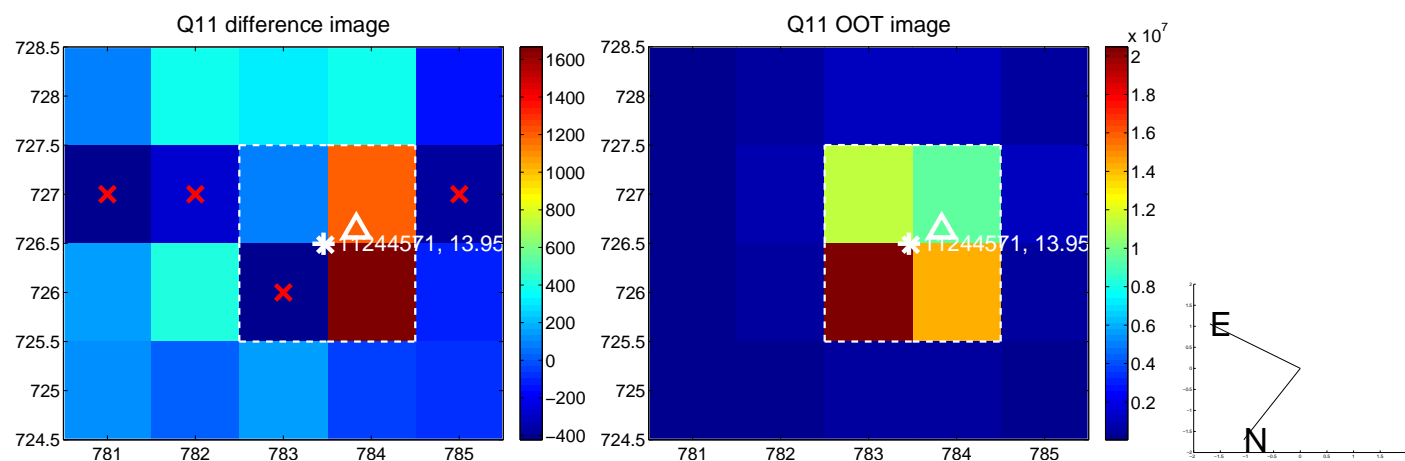
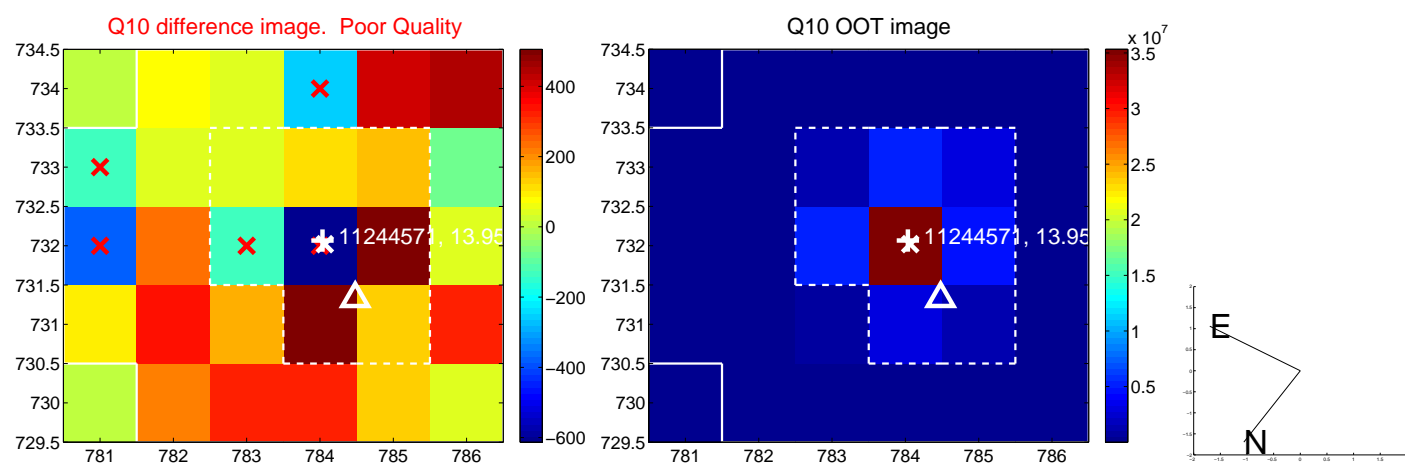
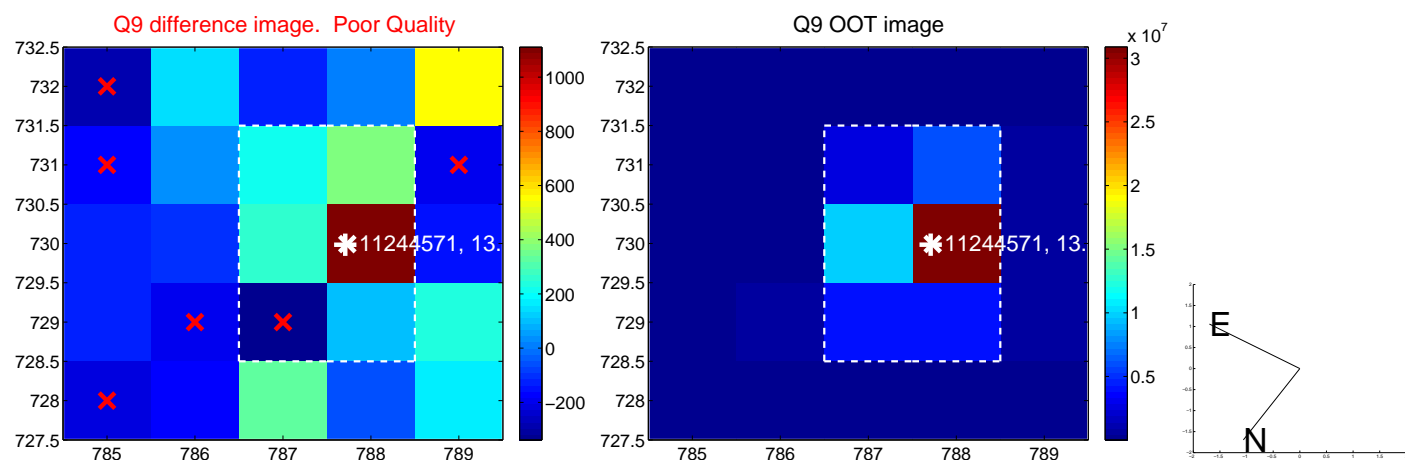
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



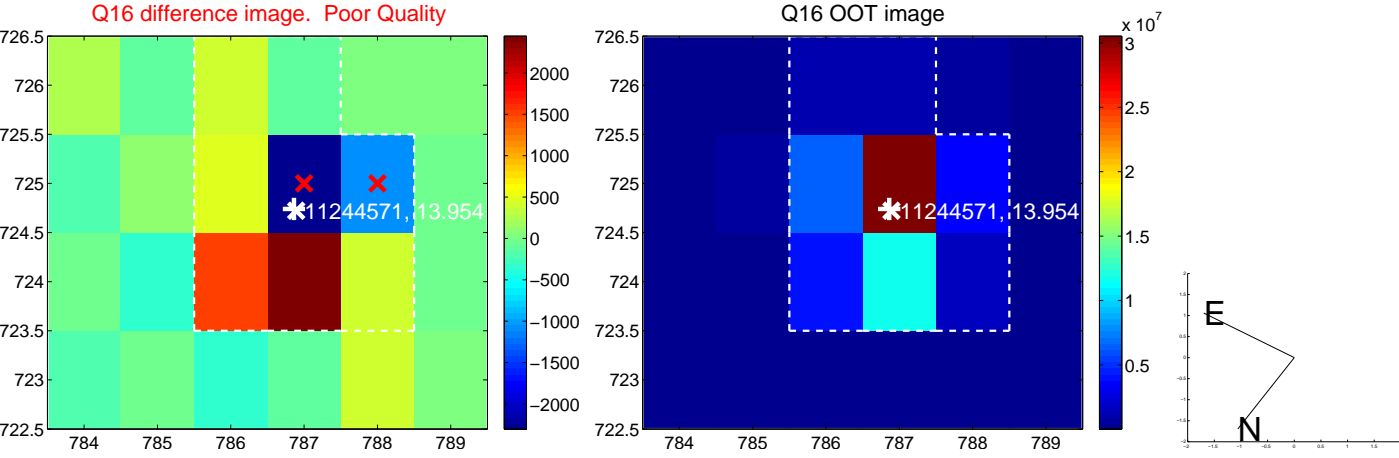
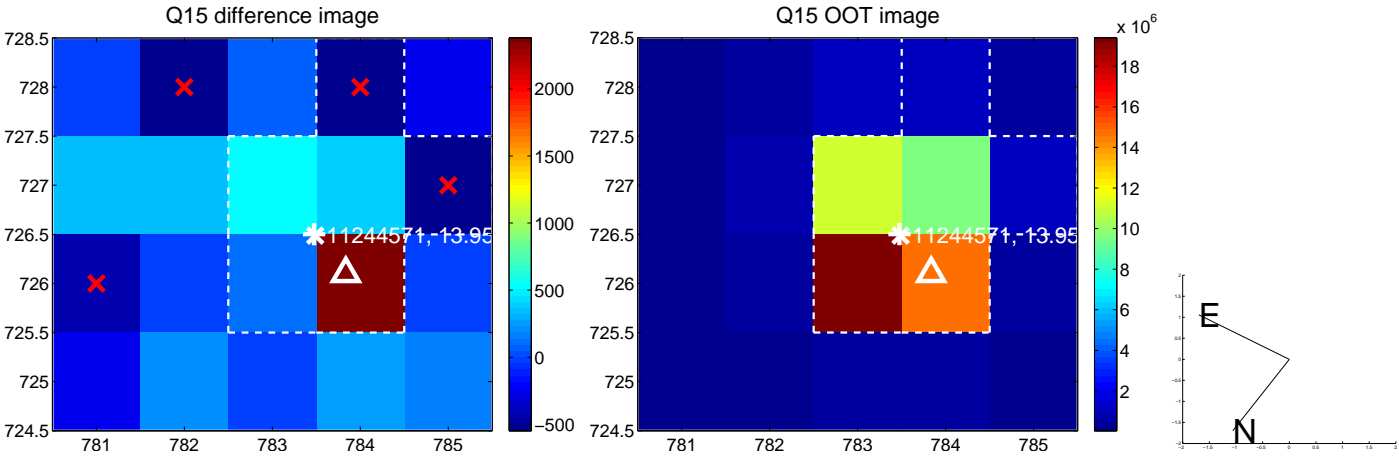
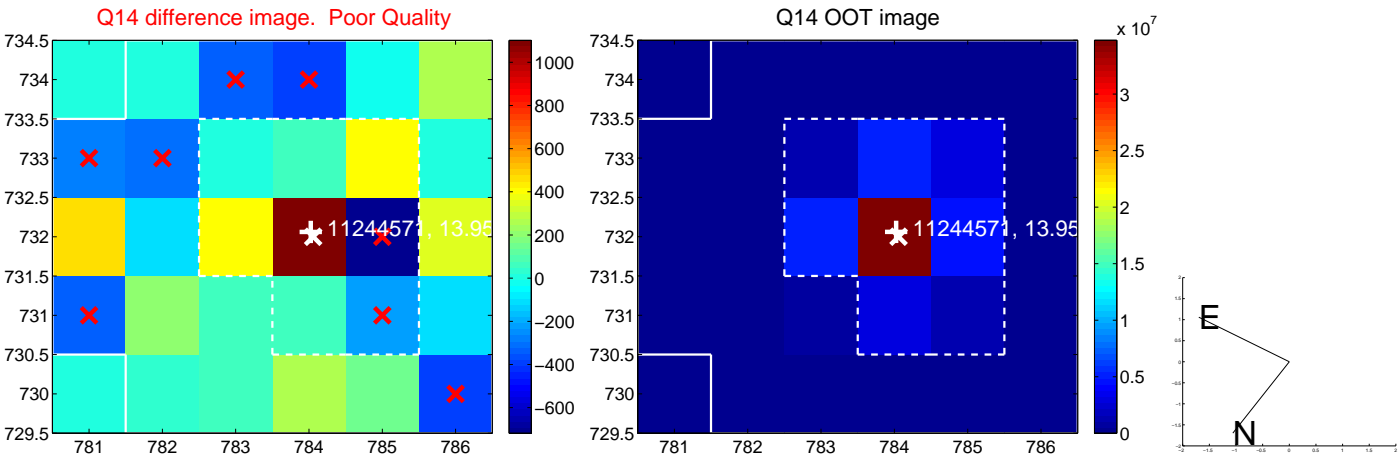
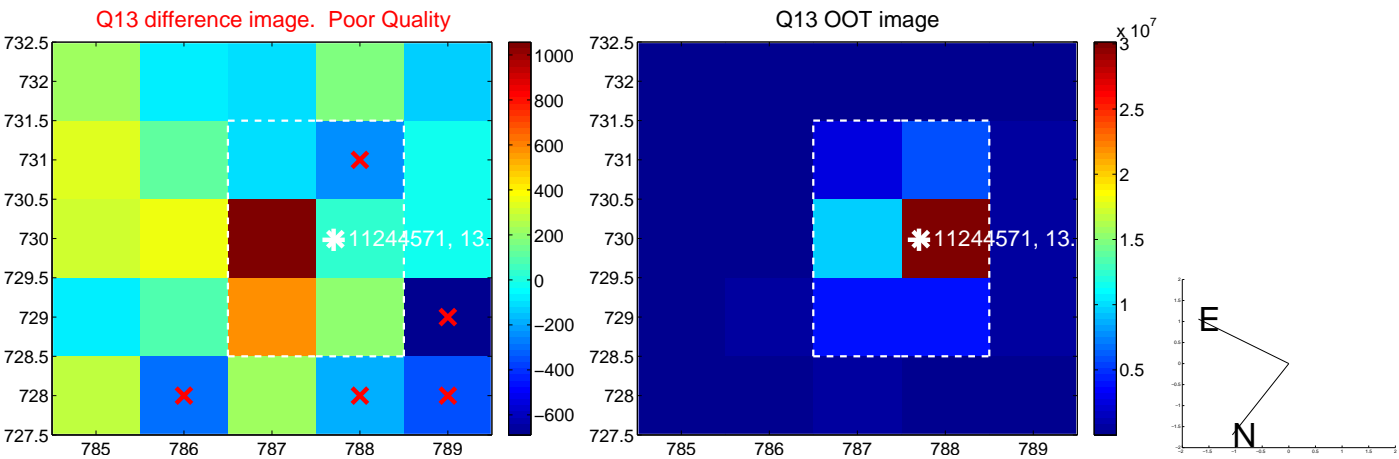
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



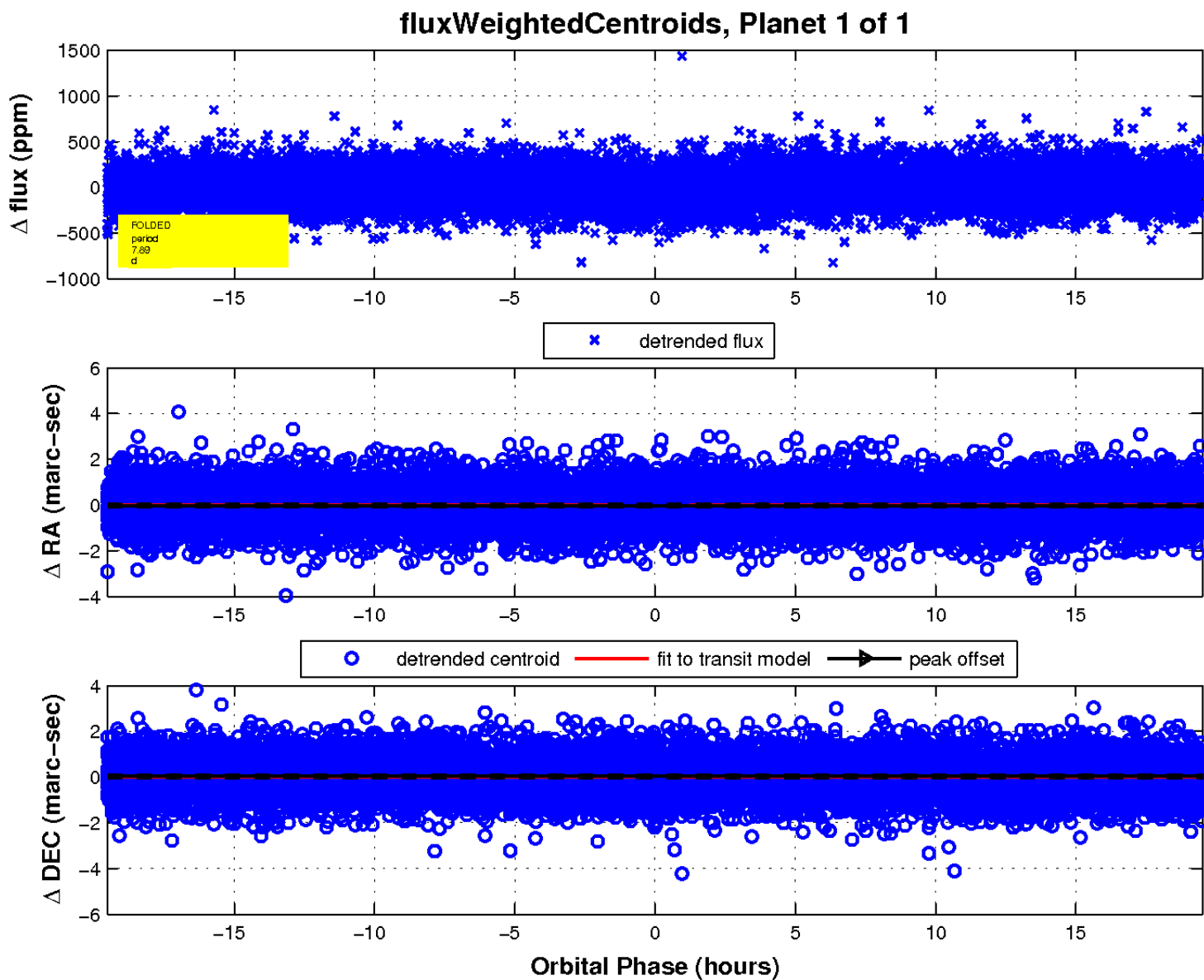
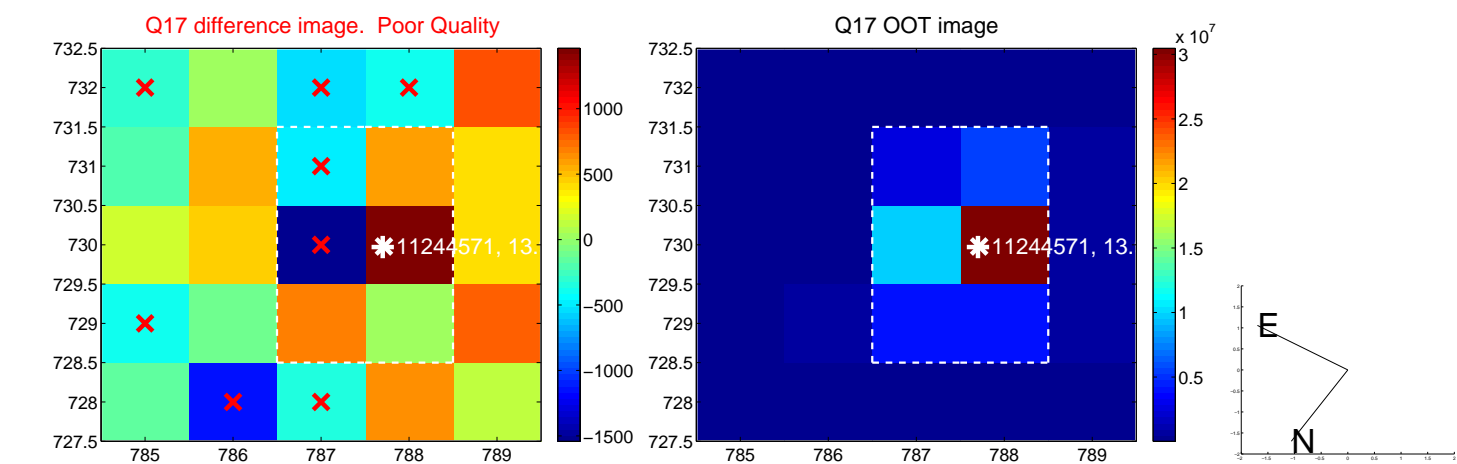
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UKIRT Image

Declination

