

KIC 006200810

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})
006200810-01	OBS	3397.01	35.875458	147.509574	367.3	4.230	10.4	11.1	1.22	6559	2.72	47.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006200810-01	OBS	PC	0.97	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.

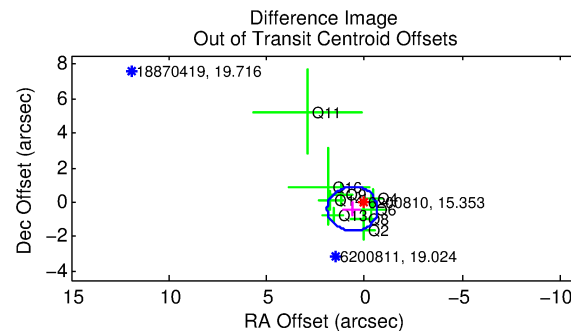
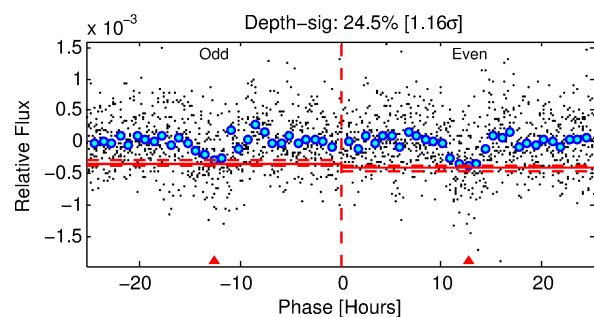
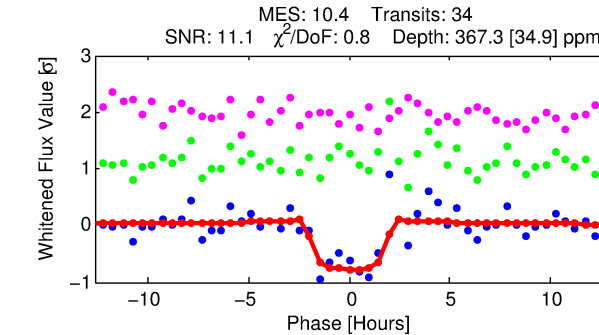
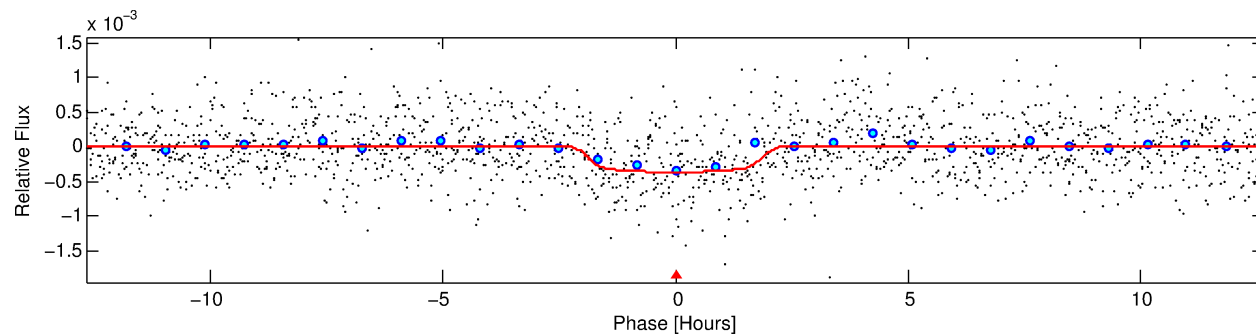
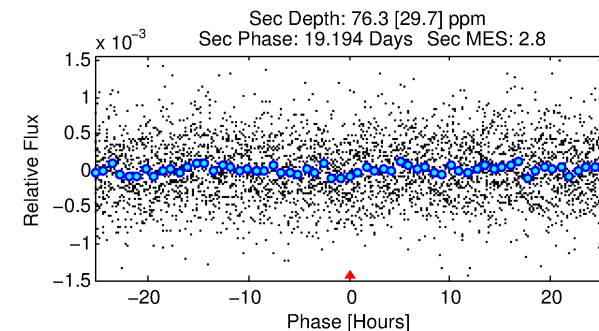
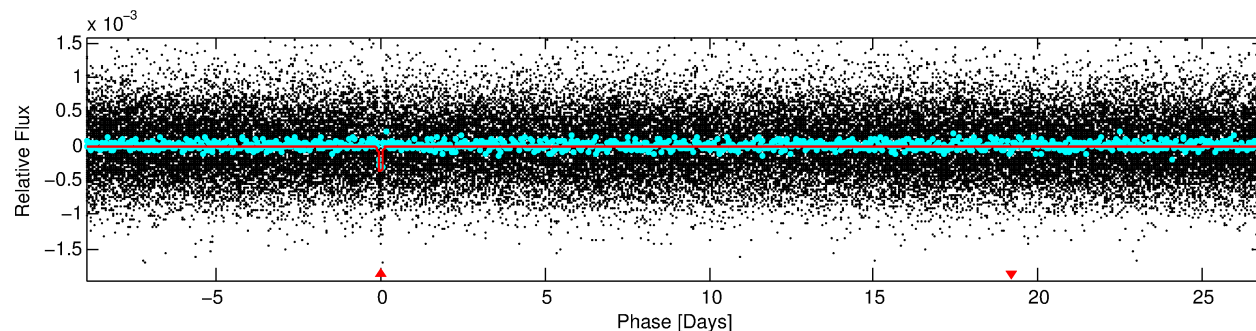
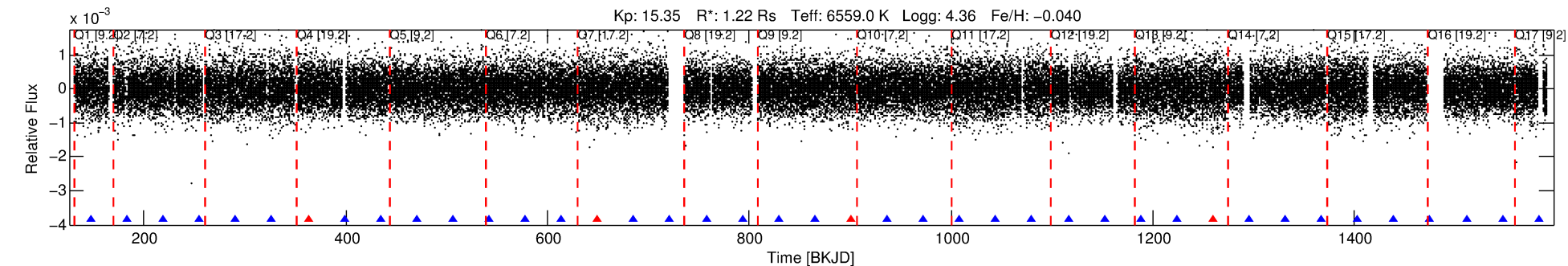
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006200810-01

No Significant Match Found

DV One-Page Summary

KIC: 6200810 Candidate: 1 of 1 Period: 35.875 d
KOI: K03397.01 Corr: 0.972



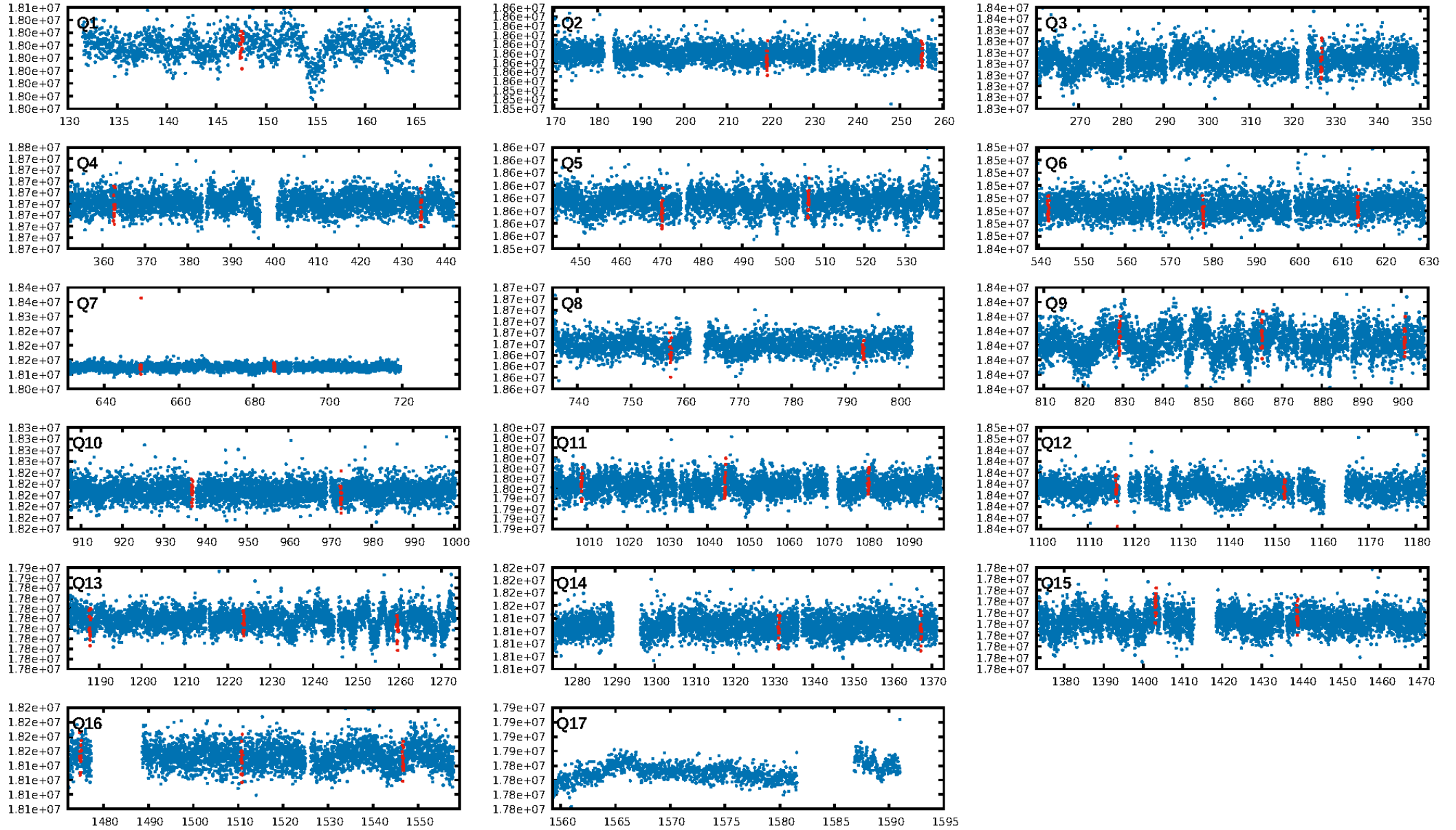
DV Fit Results:

Period = 35.87546 [0.00035] d
Epoch = 147.5096 [0.0081] BKJD
Rp/R* = 0.0205 [0.0044]
a/R* = 31.72 [36.75]
b = 0.90 [0.26]
Seff = 47.24 [17.97]
Teq = 668 [64] K
Rp = 2.72 [1.03] Re
a = 0.2282 [0.0574] AU
Ag = 295.71 [200.41] [1.47σ]
Teffp = 4286 [643] K [5.60σ]

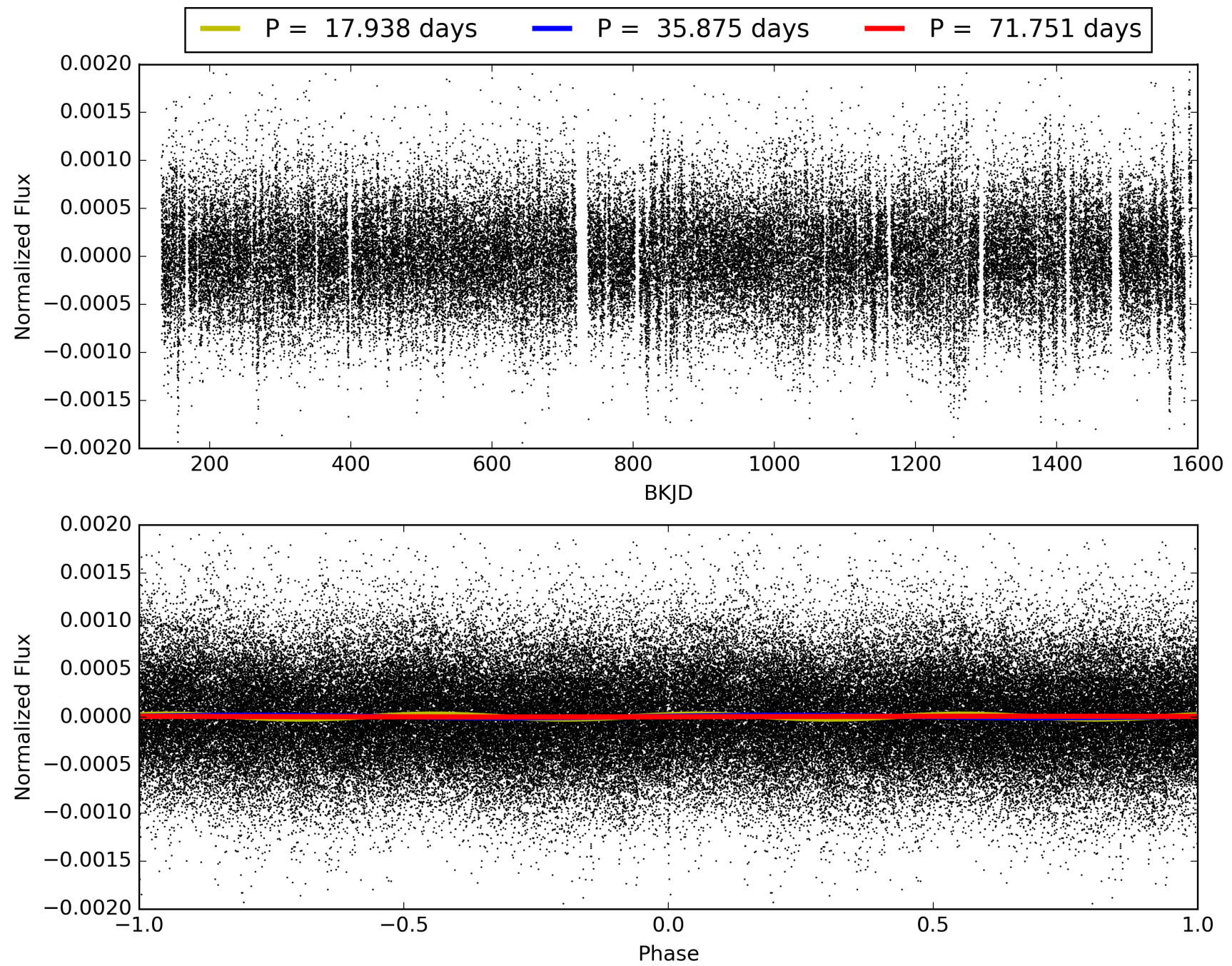
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 22.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.55e-25
RollingBand-fgt: 0.88 [29/33]
GhostDiagnostic-chr: 0.6444
Centroid-sig: 19.2%
Centroid-so: 1.136 arcsec [0.96σ]
OotOffset-rm: 0.737 arcsec [1.72σ]
KicOffset-rm: 0.724 arcsec [1.69σ]
OotOffset-st: 3/1/3/2 [9]
KicOffset-st: 3/1/3/2 [9]
DiffImageQuality-fgm: 0.56 [5/9]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 006200810-01, PDC Light Curves

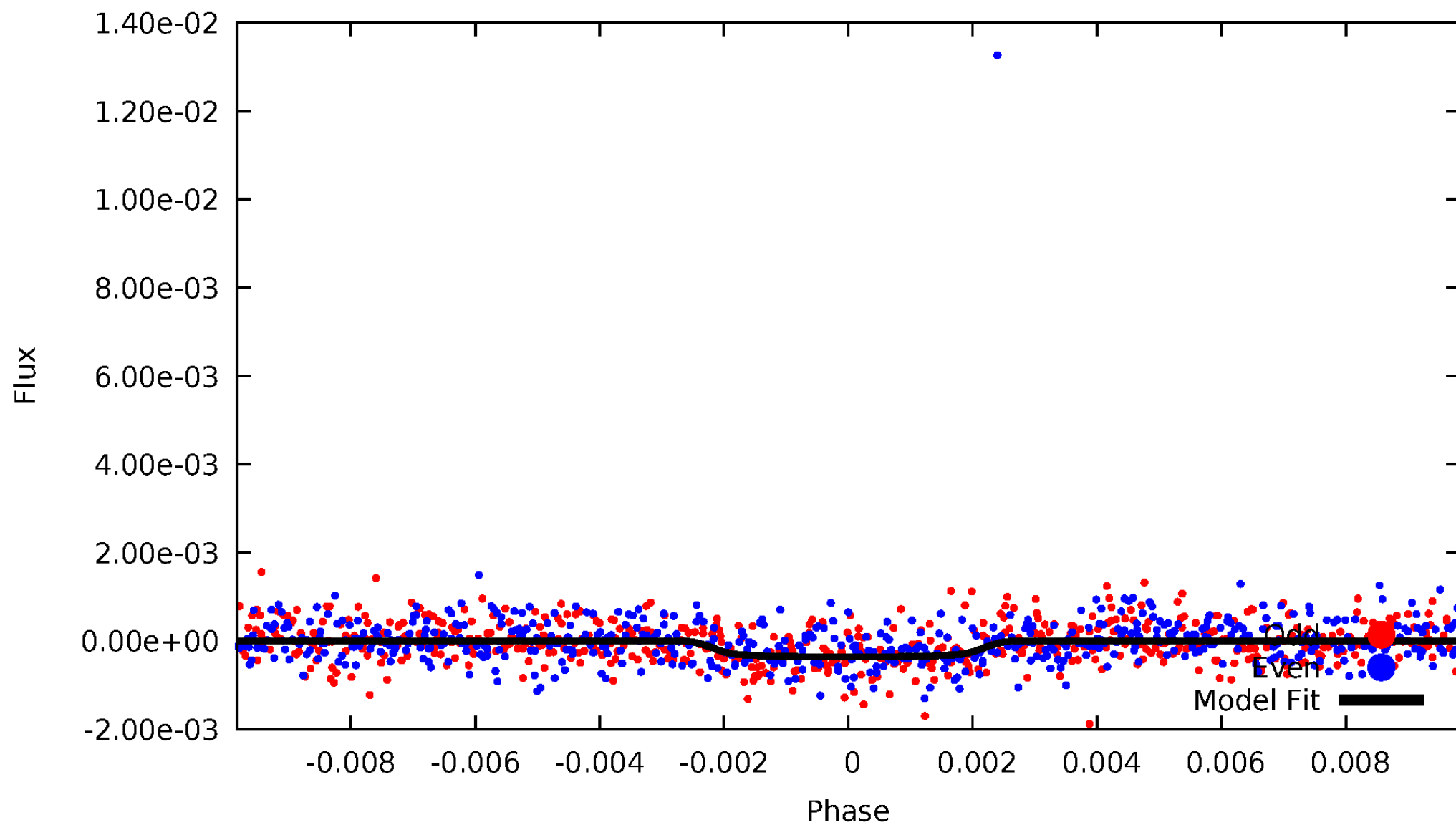


TCE 006200810-01



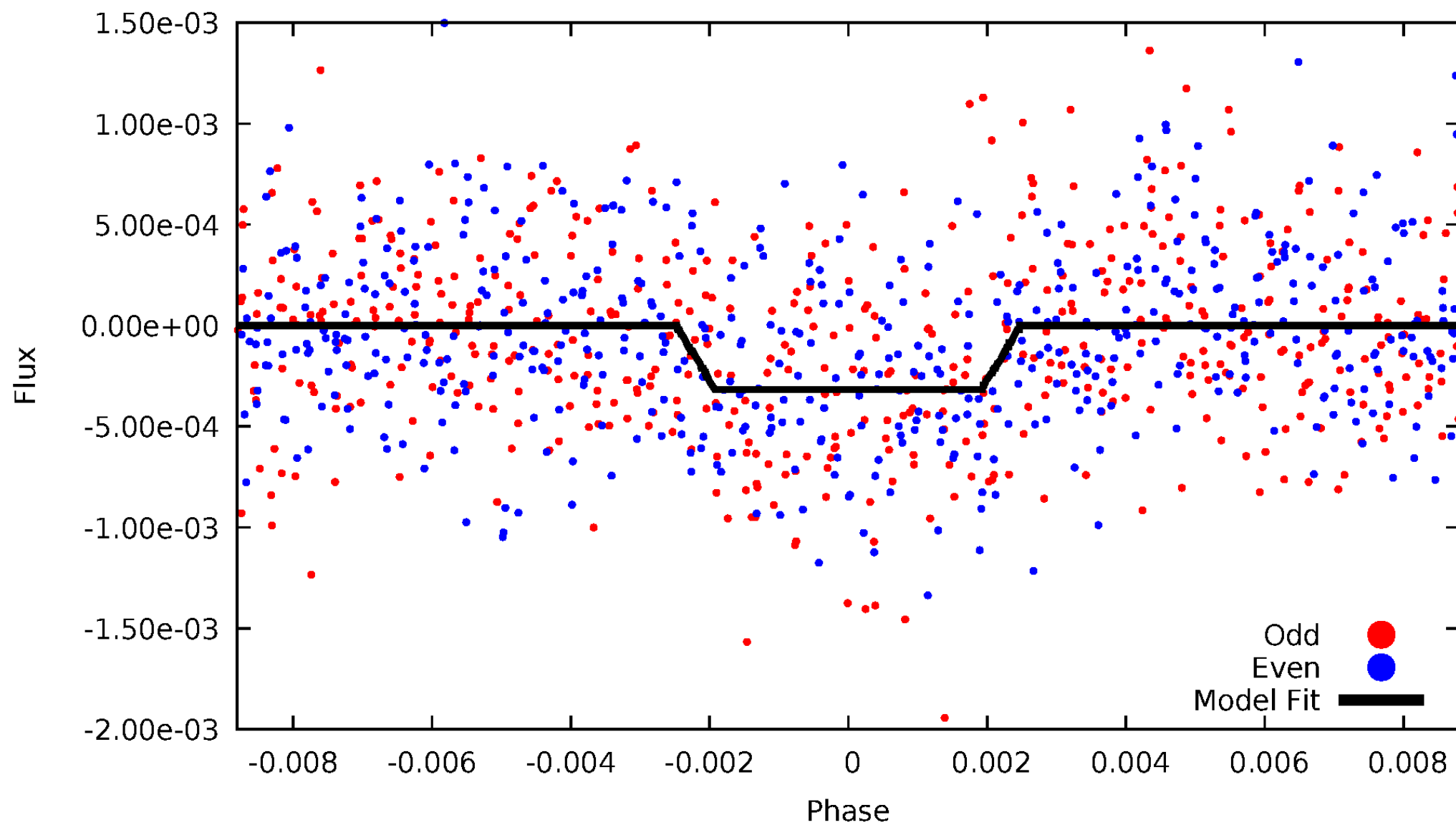
DV Odd/Even

TCE 006200810-01

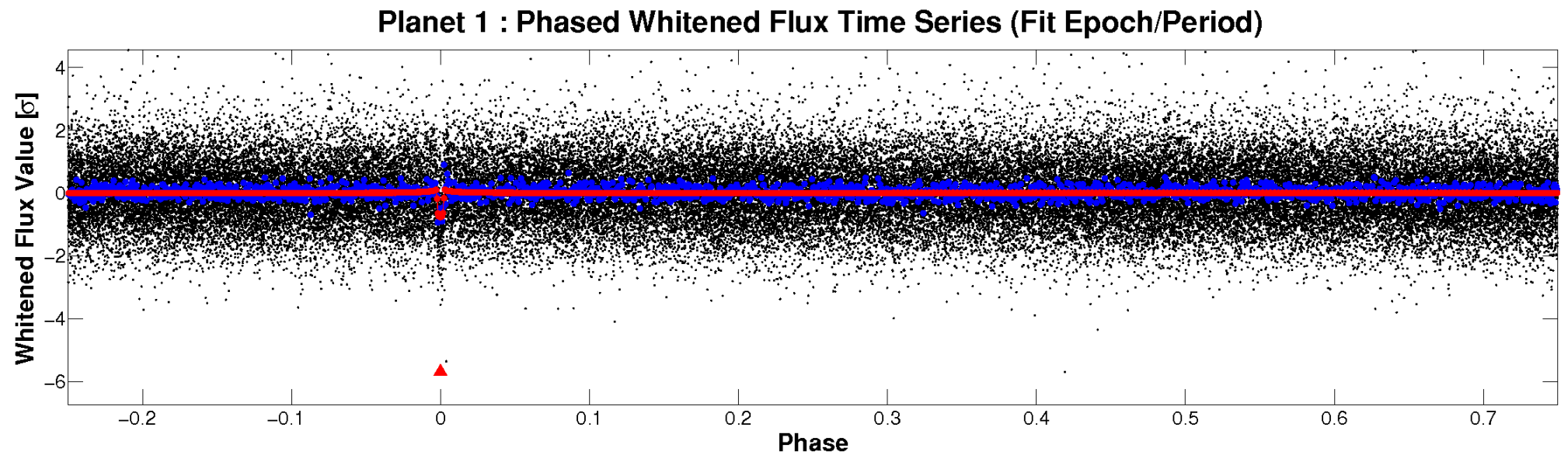
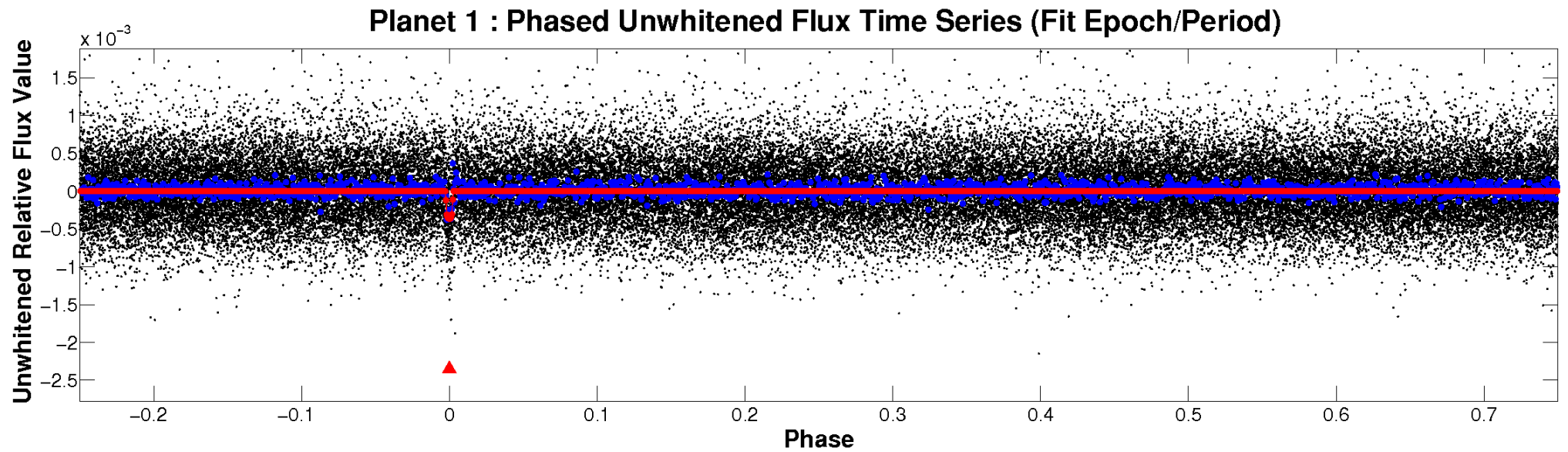


ALT Odd/Even

TCE 006200810-01

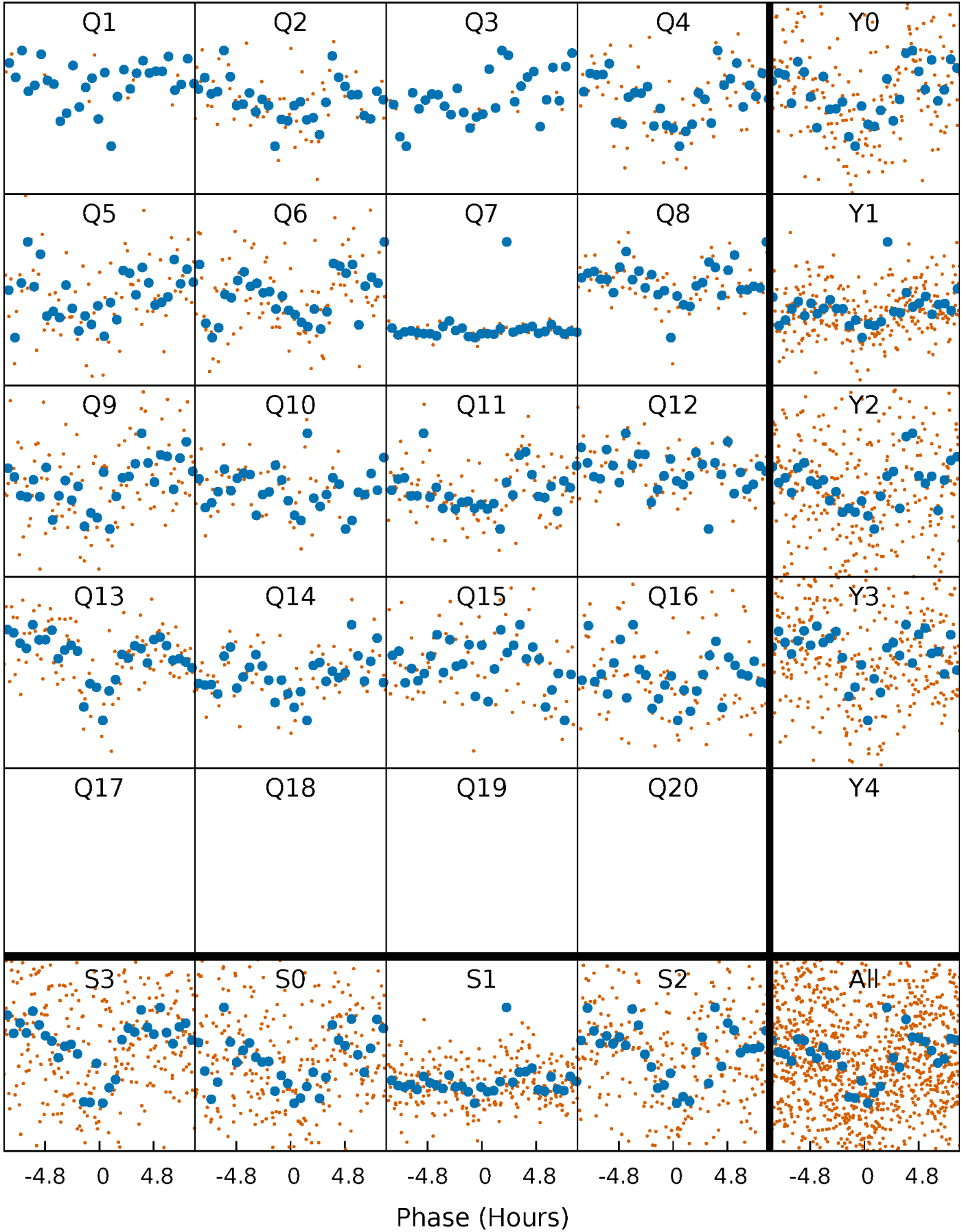


Non-Whitened Vs. Whitened Light Curve



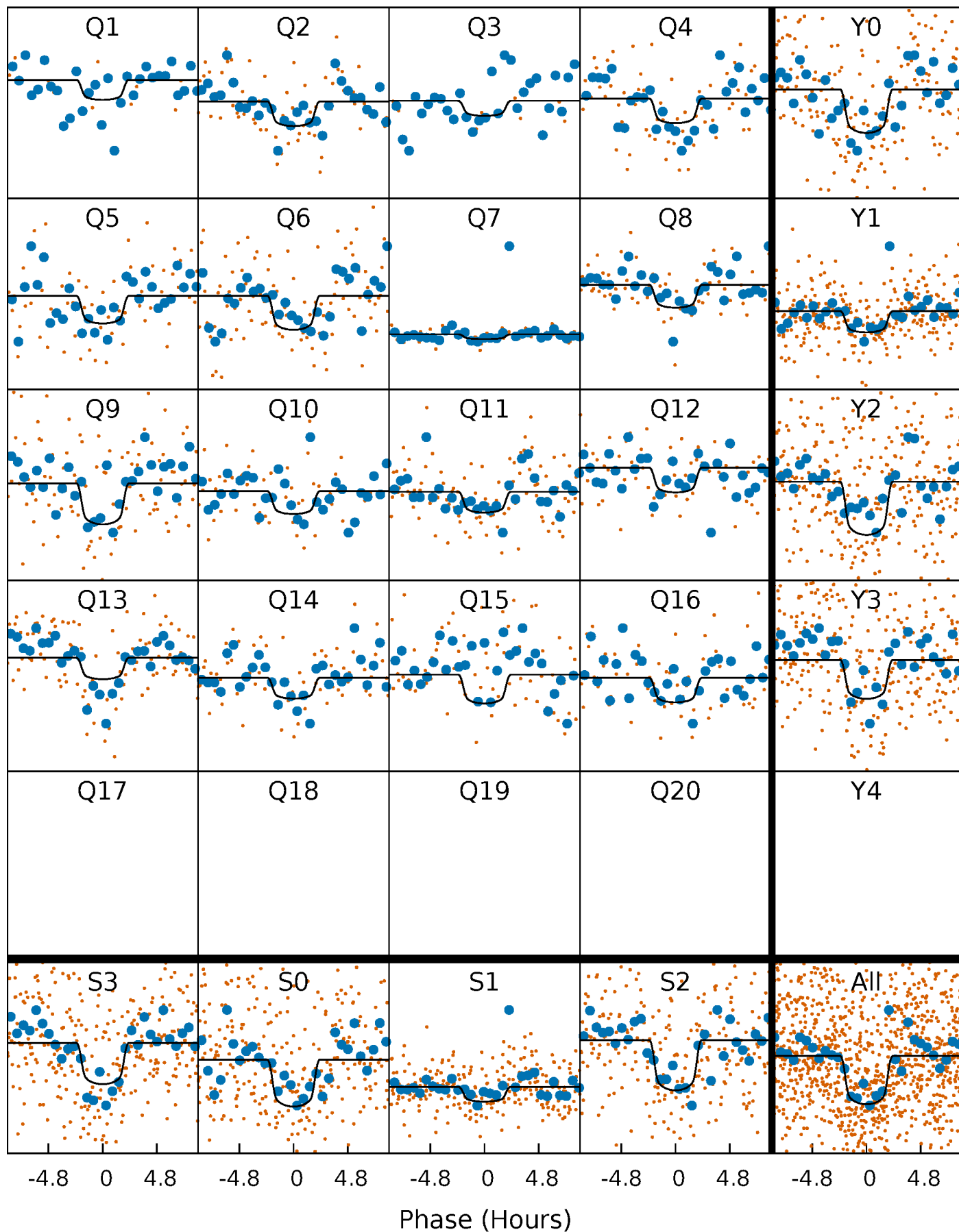
PDC Quarter-Phased Transit Curves

TCE 006200810-01 P= 35.875458 Days $T_0=147.509574$ (BKJD)



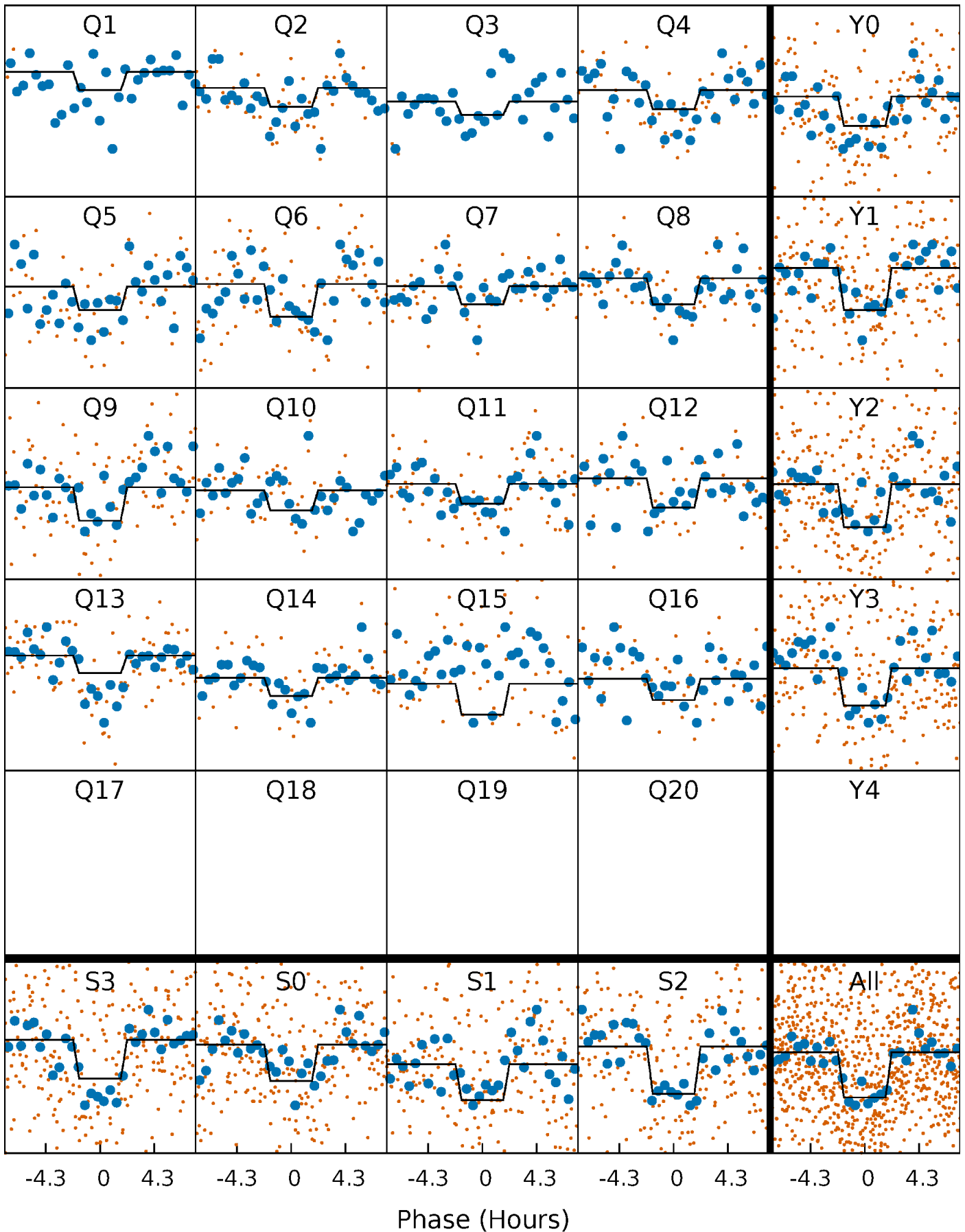
DV Quarter-Phased Transit Curves

TCE 006200810-01 P= 35.875458 Days $T_0=147.509574$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

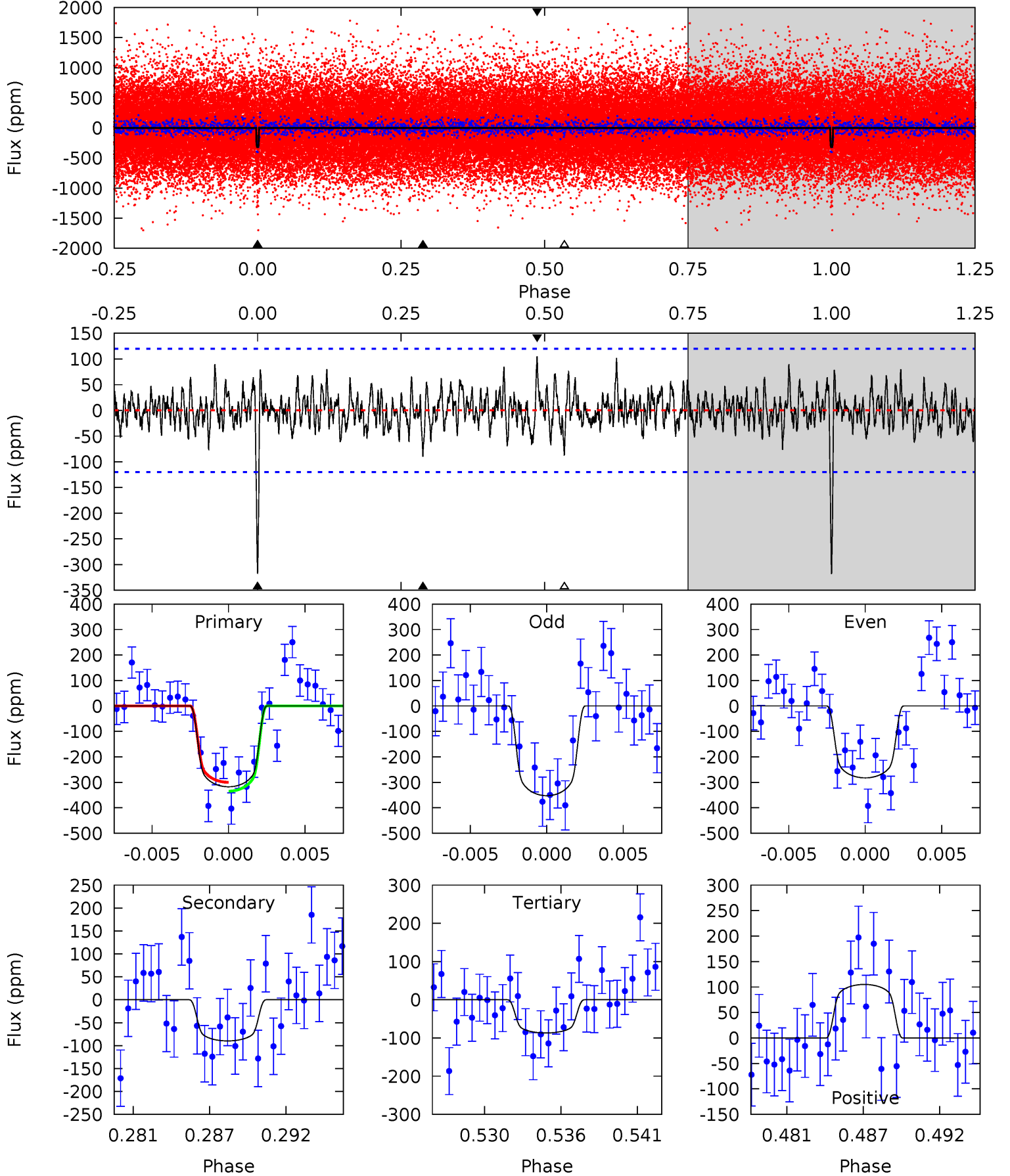
TCE 006200810-01 P= 35.875183 Days $T_0=147.512485$ (BKJD)



DV Model-Shift Uniqueness Test

006200810-01, $P = 35.875458$ Days, $E = 111.634116$ Days

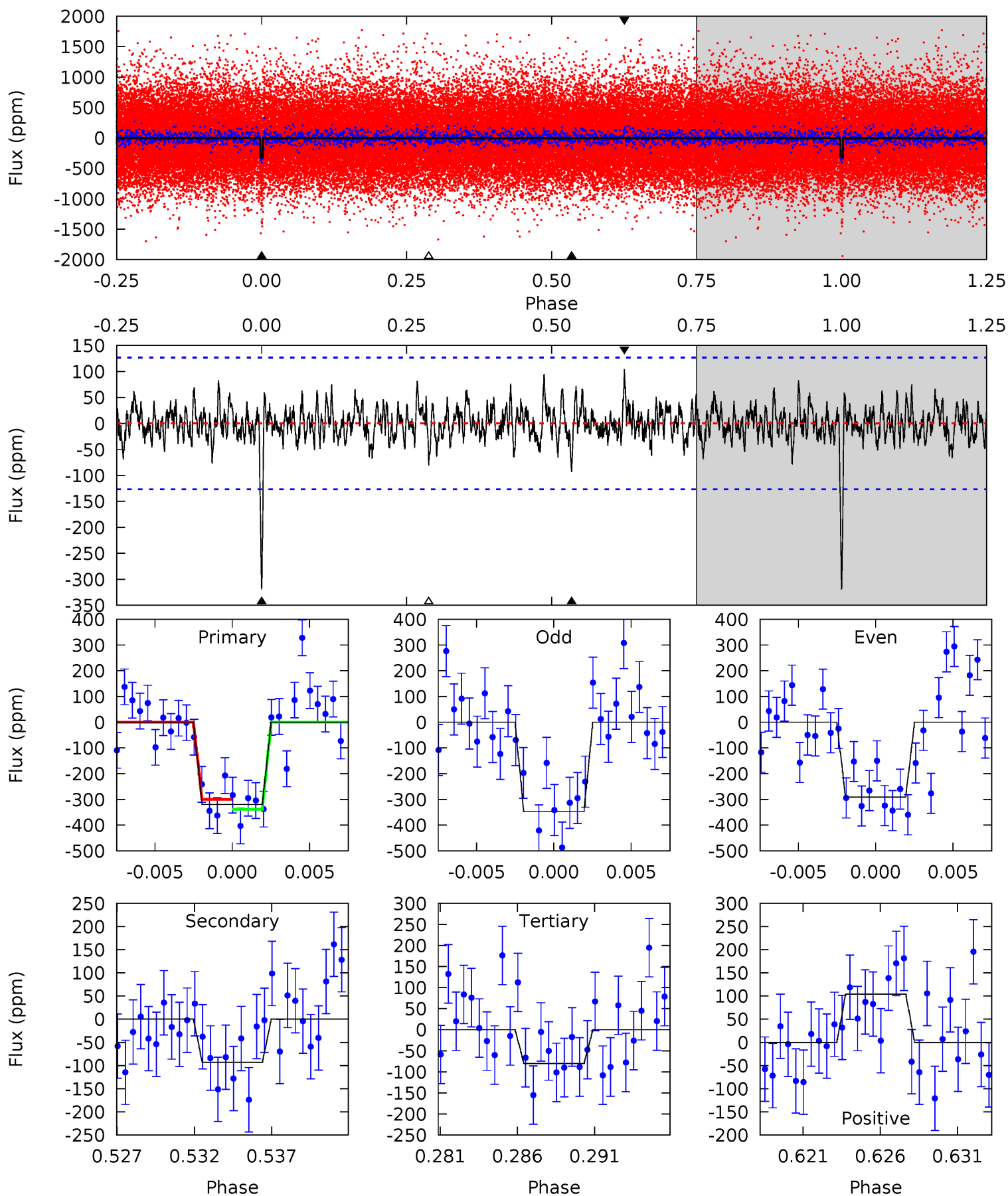
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	3.85	3.72	4.50	5.14	2.78	1.18	9.88	9.11	0.12	-0.66	1.50	1.08	0.25	0.75



Alt Model-Shift Uniqueness Test

006200810-01, $P = 35.875183$ Days, $E = 111.637302$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	3.80	3.27	4.24	5.16	2.81	1.08	9.73	8.75	0.53	-0.44	1.15	1.09	0.25	0.78



Stellar Parameters For KIC 006200810

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6559^{+158}_{-248}	$4.357^{+0.065}_{-0.182}$	$-0.040^{+0.250}_{-0.350}$	$1.218^{+0.382}_{-0.153}$	$1.235^{+0.176}_{-0.176}$	$0.963^{+0.338}_{-0.488}$
	+2%/-4%	+1%/-4%	+625%/-875%	+31%/-13%	+14%/-14%	+35%/-51%
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 006200810-01 / KOI 3397.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-90 ± 23	$2.81^{+0.70}_{-0.69}$	947^{+66}_{-46}	4615^{+541}_{-428}	323^{+238}_{-140}
Alt.	-93 ± 25	$2.40^{+0.75}_{-0.63}$	943^{+63}_{-49}	4902^{+799}_{-540}	456^{+420}_{-223}

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 $A_{obs} \gg 1.0$

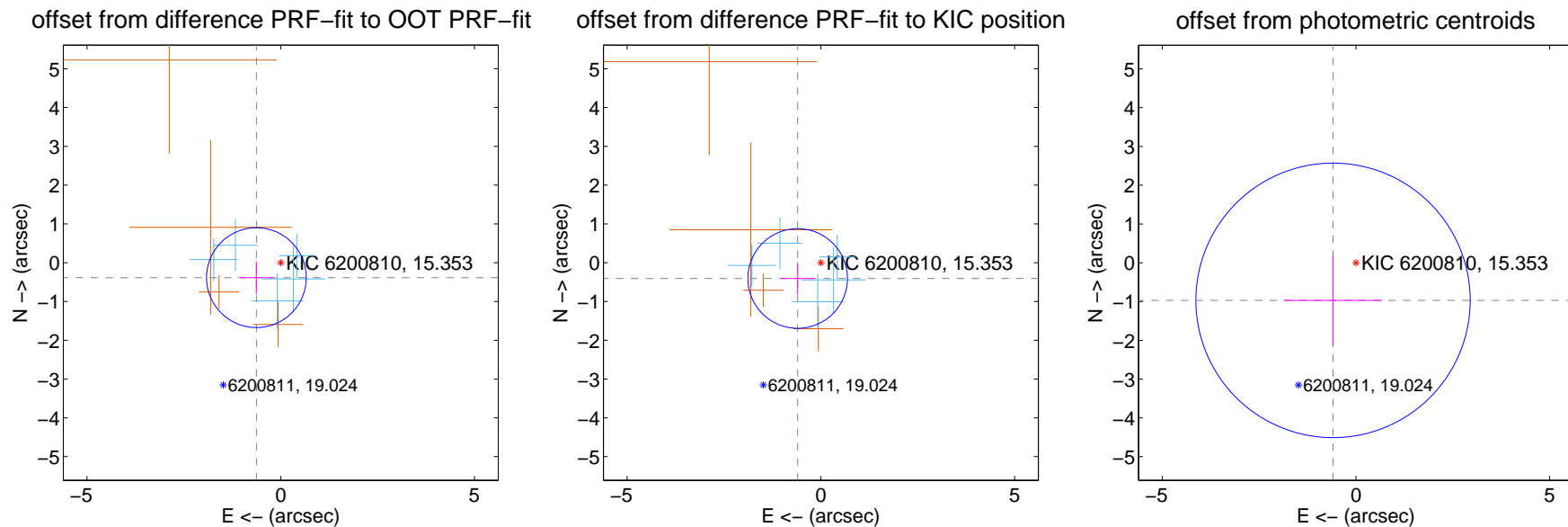
DV Centroid Data

Supplemental centroid analysis for 006200810-01. Kepler magnitude: 15.35. Transit SNR 11.06

There are 5 quarters with good PRF difference image offsets

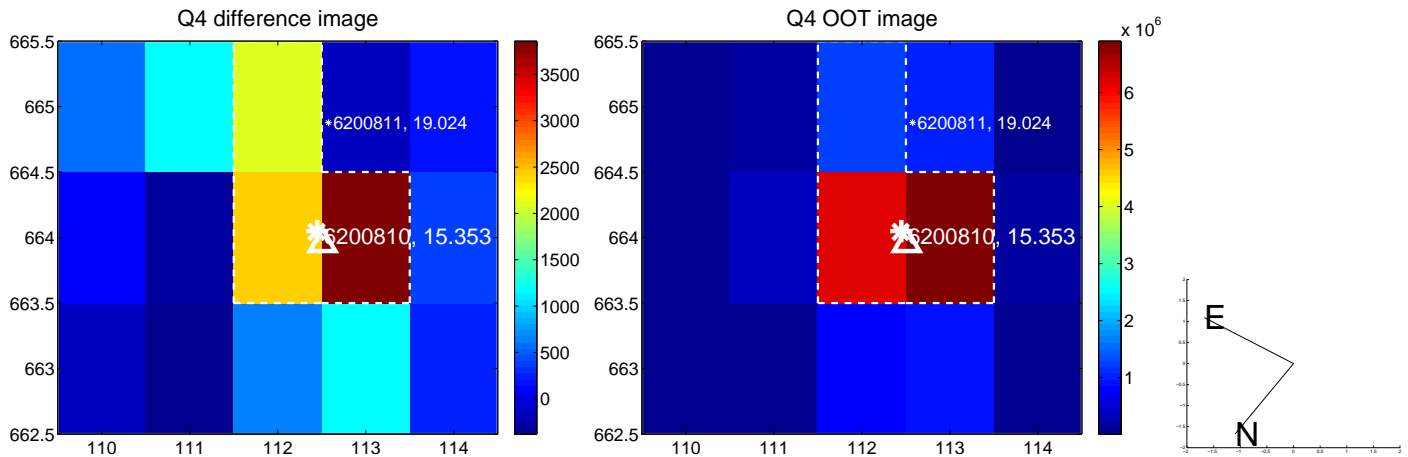
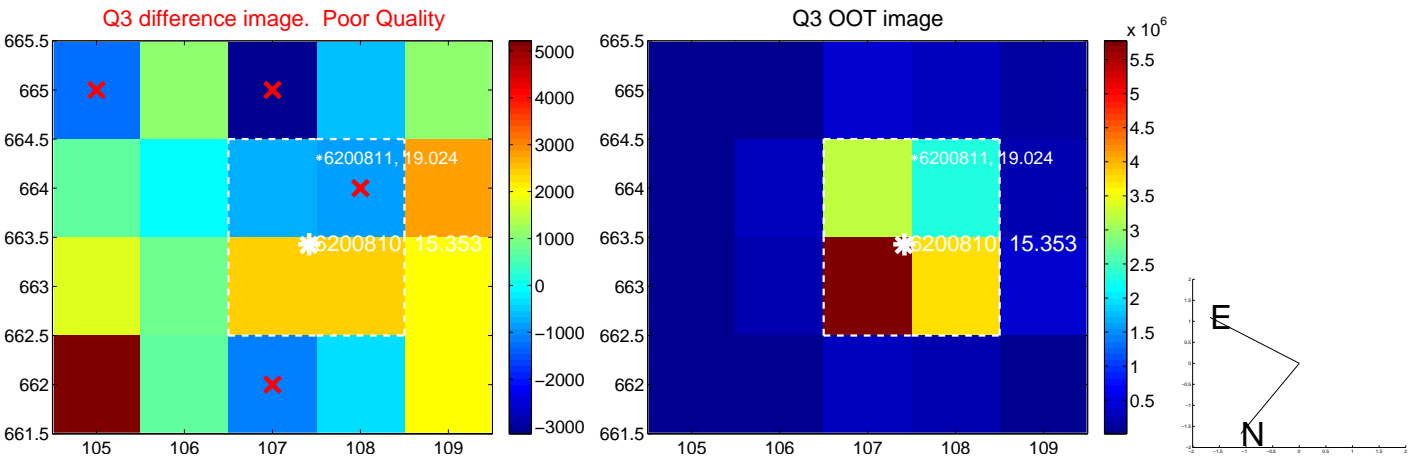
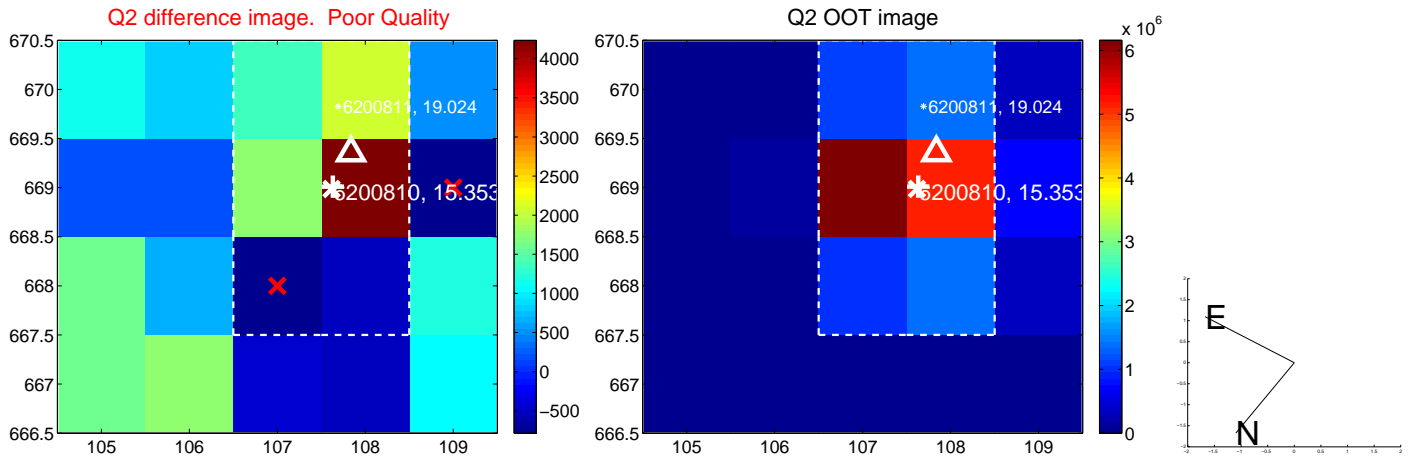
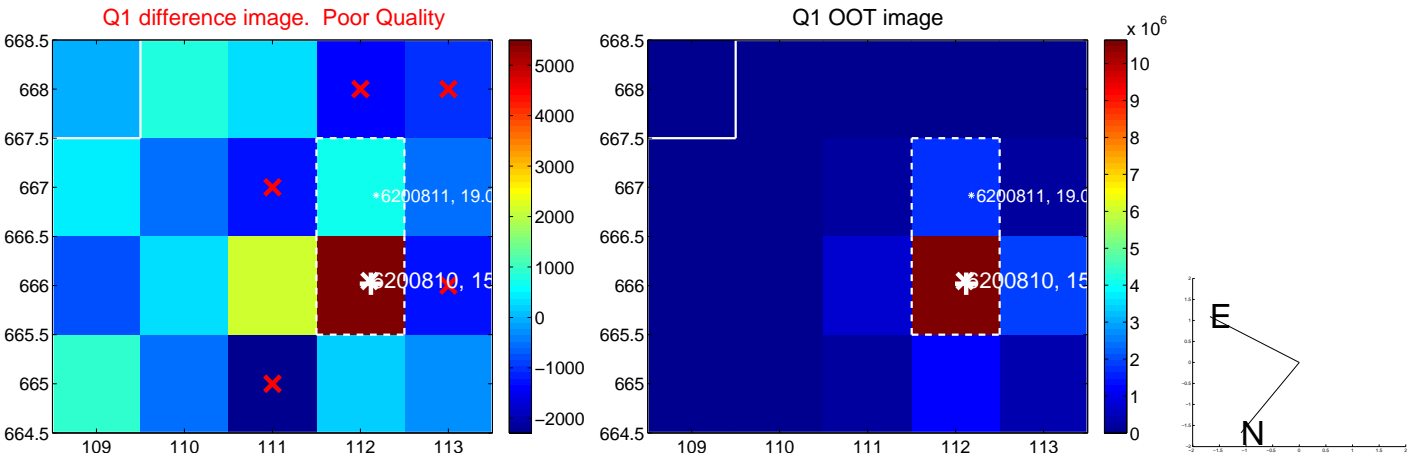
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.737 ± 0.429	1.72	0.628 ± 0.433	-0.386 ± 0.417
PRF-fit source offset from KIC position	0.724 ± 0.428	1.69	0.599 ± 0.433	-0.408 ± 0.417
photometric centroid source offset	1.14 ± 1.18	0.96	0.59 ± 1.27	-0.97 ± 1.15

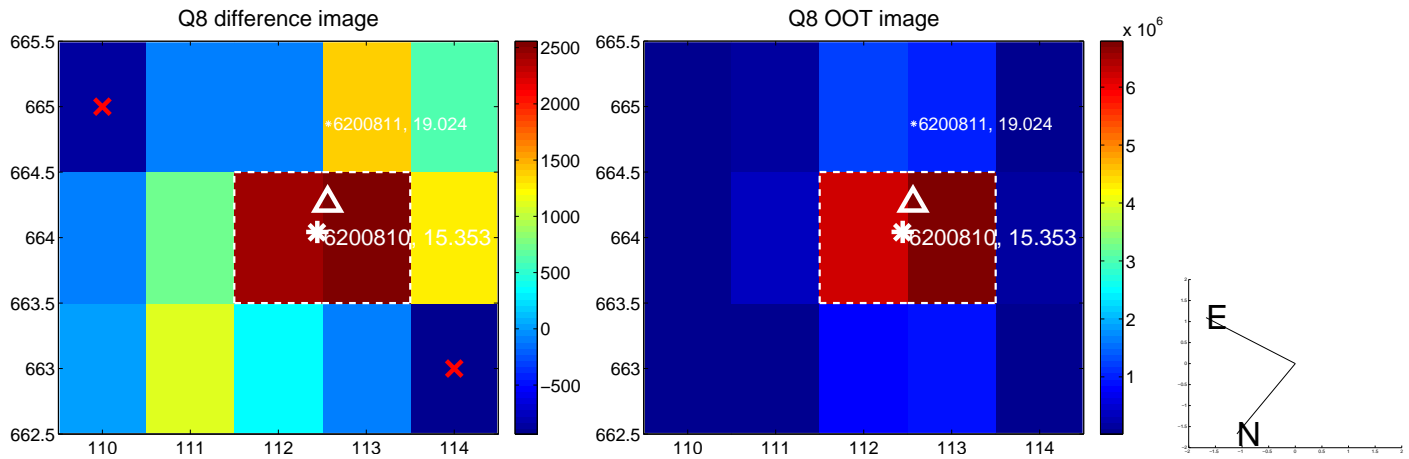
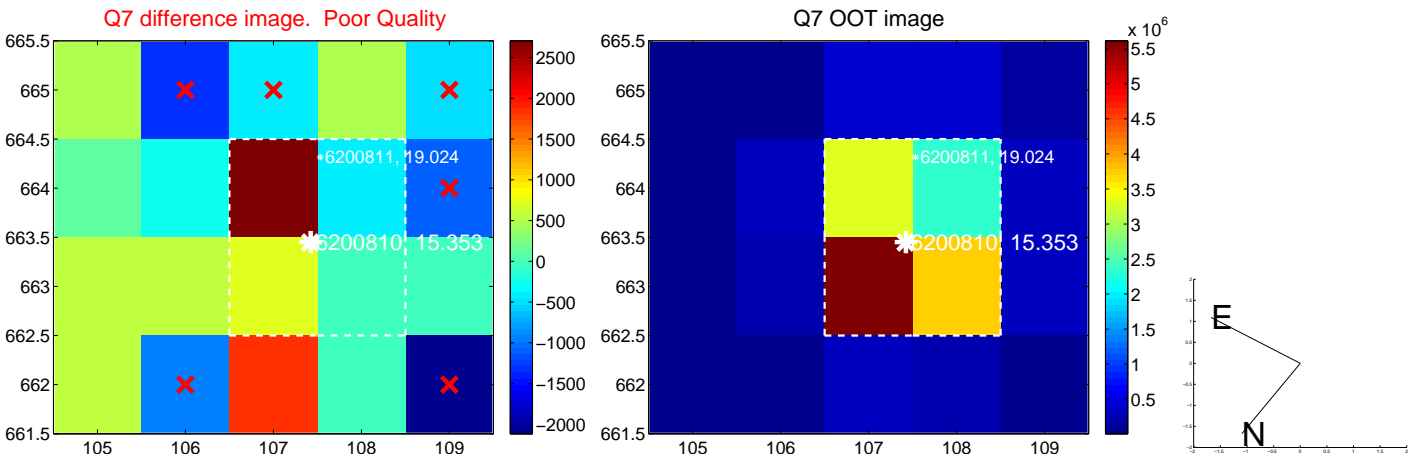
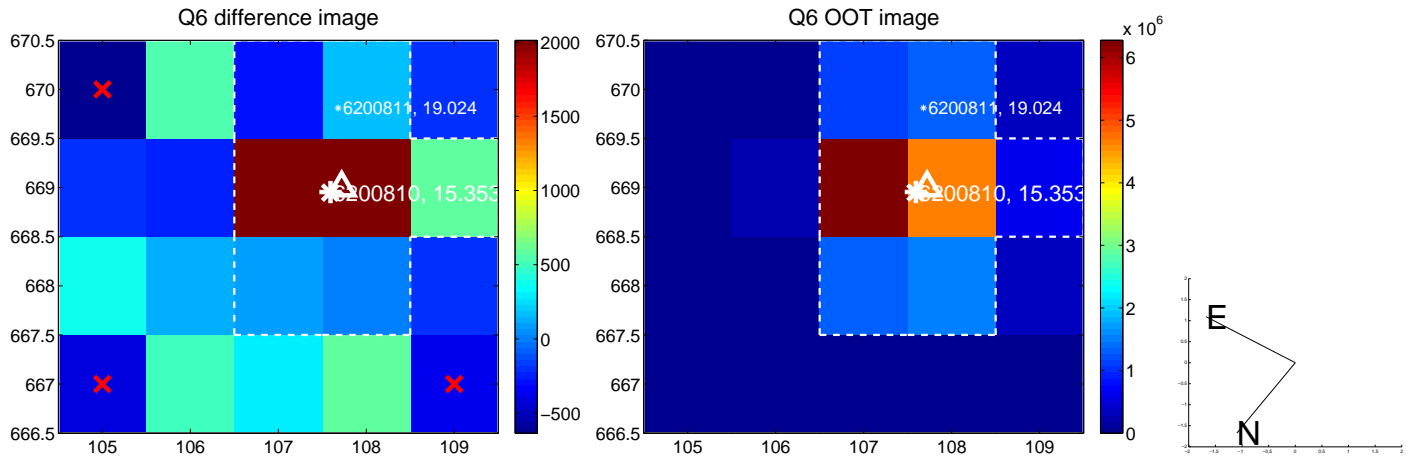
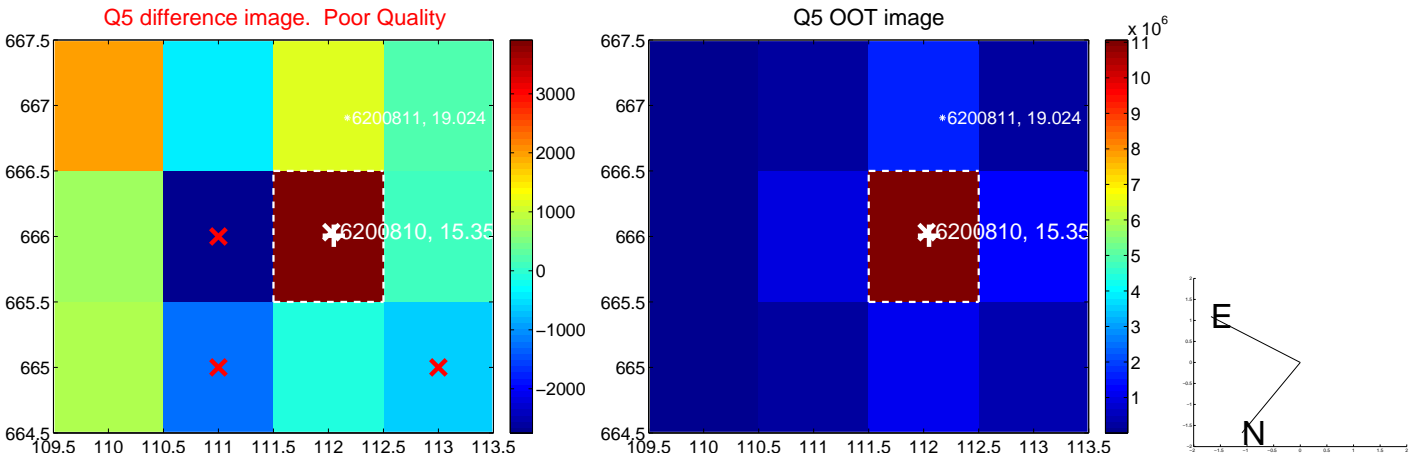


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

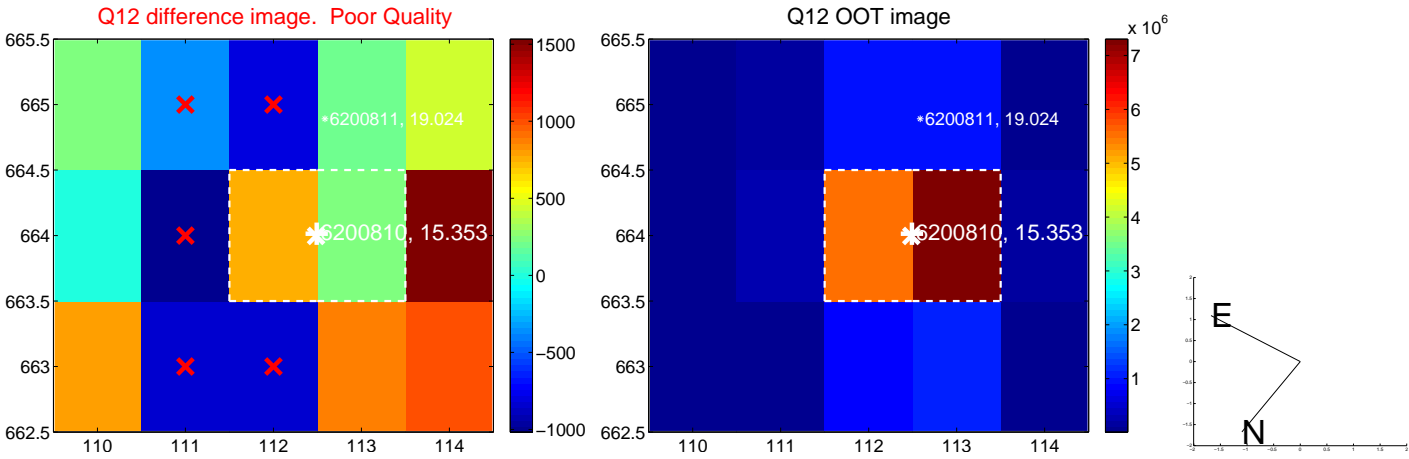
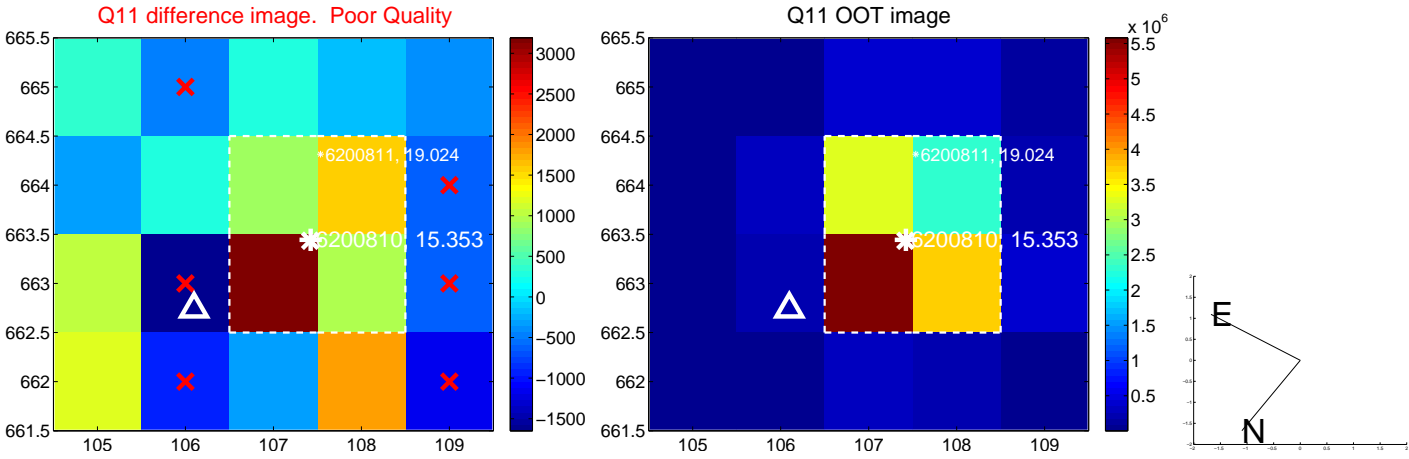
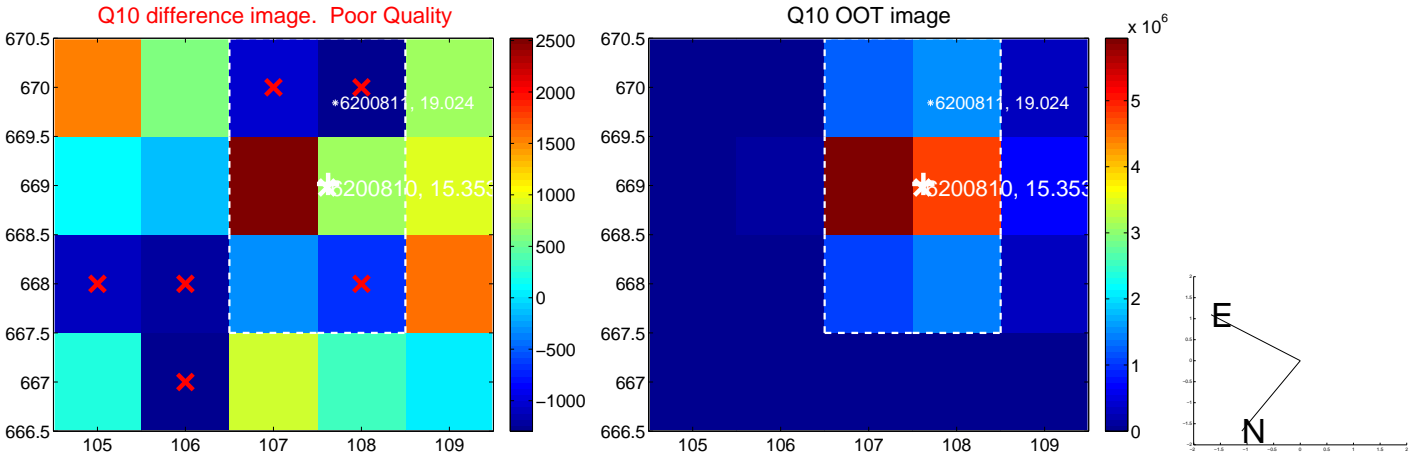
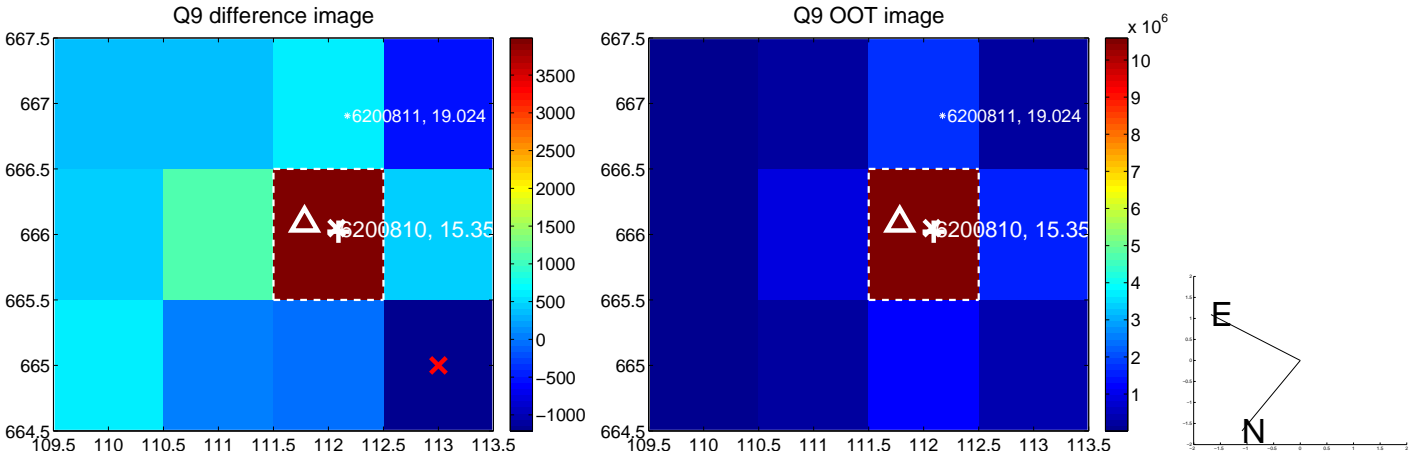
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



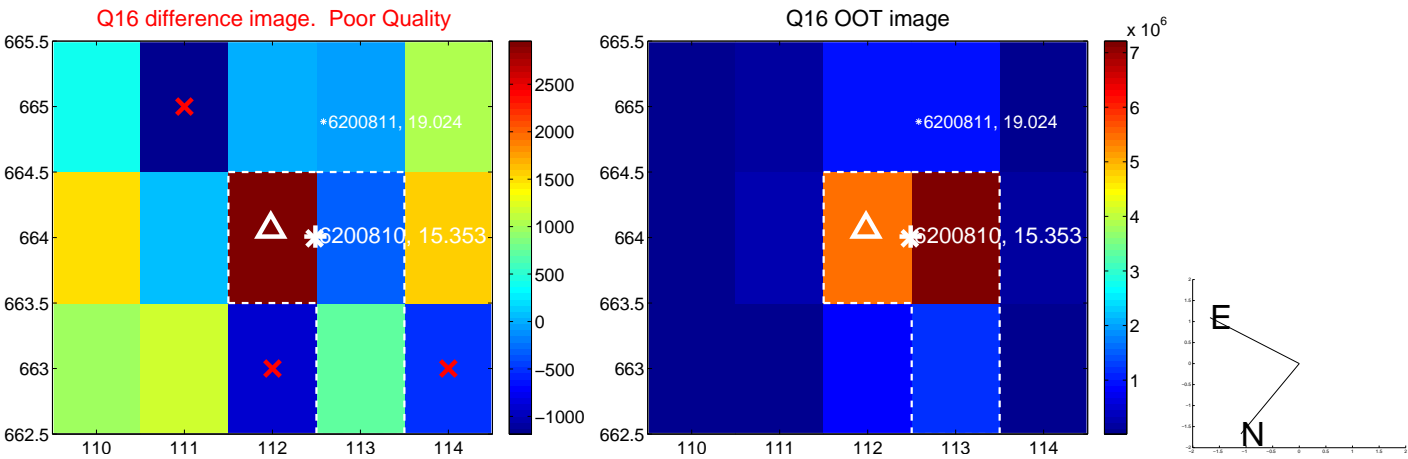
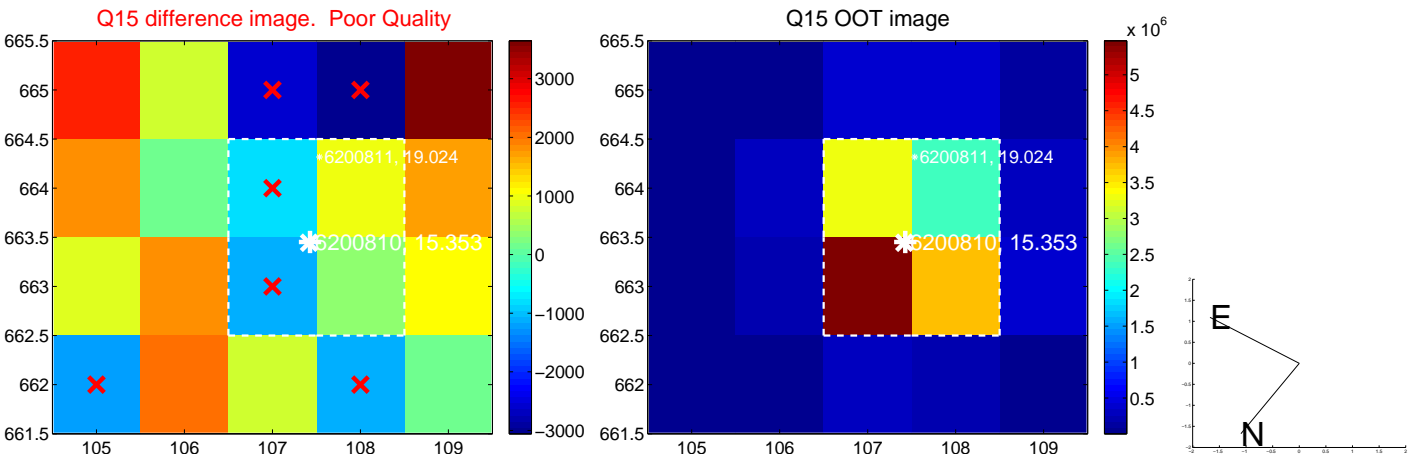
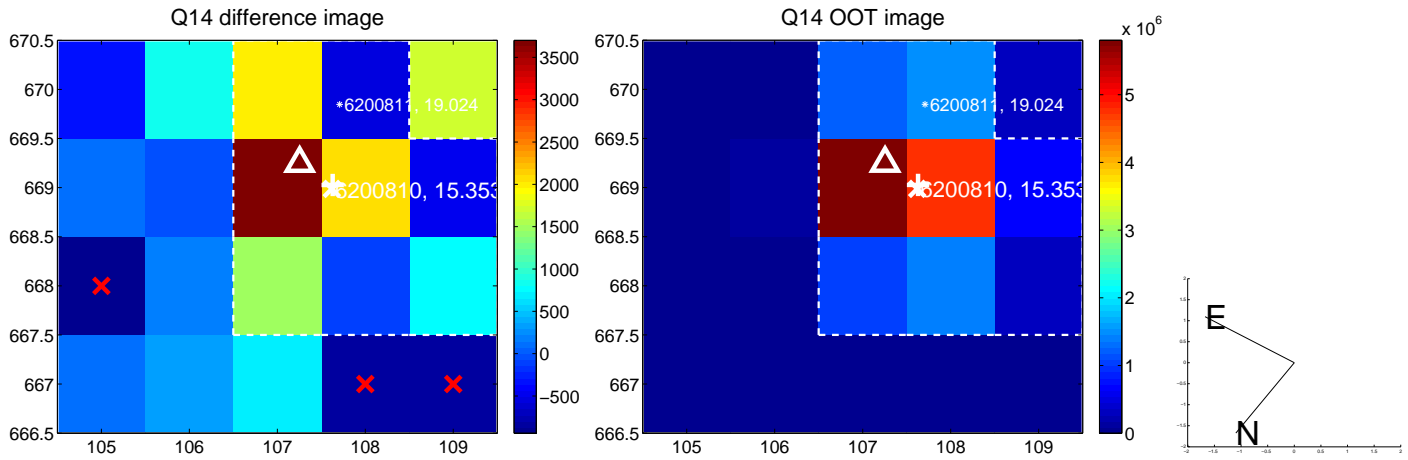
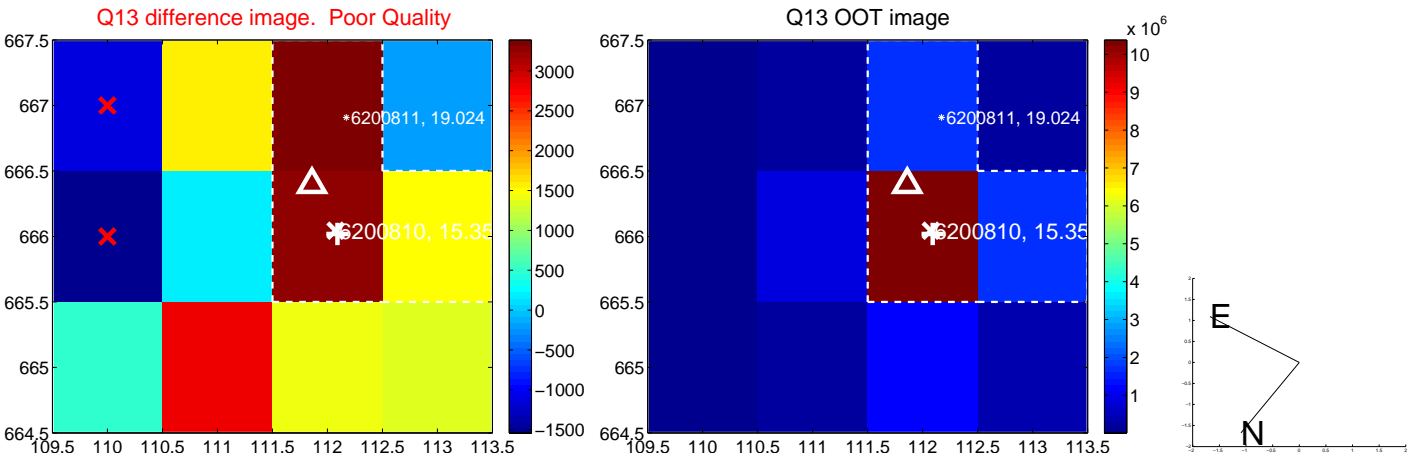
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



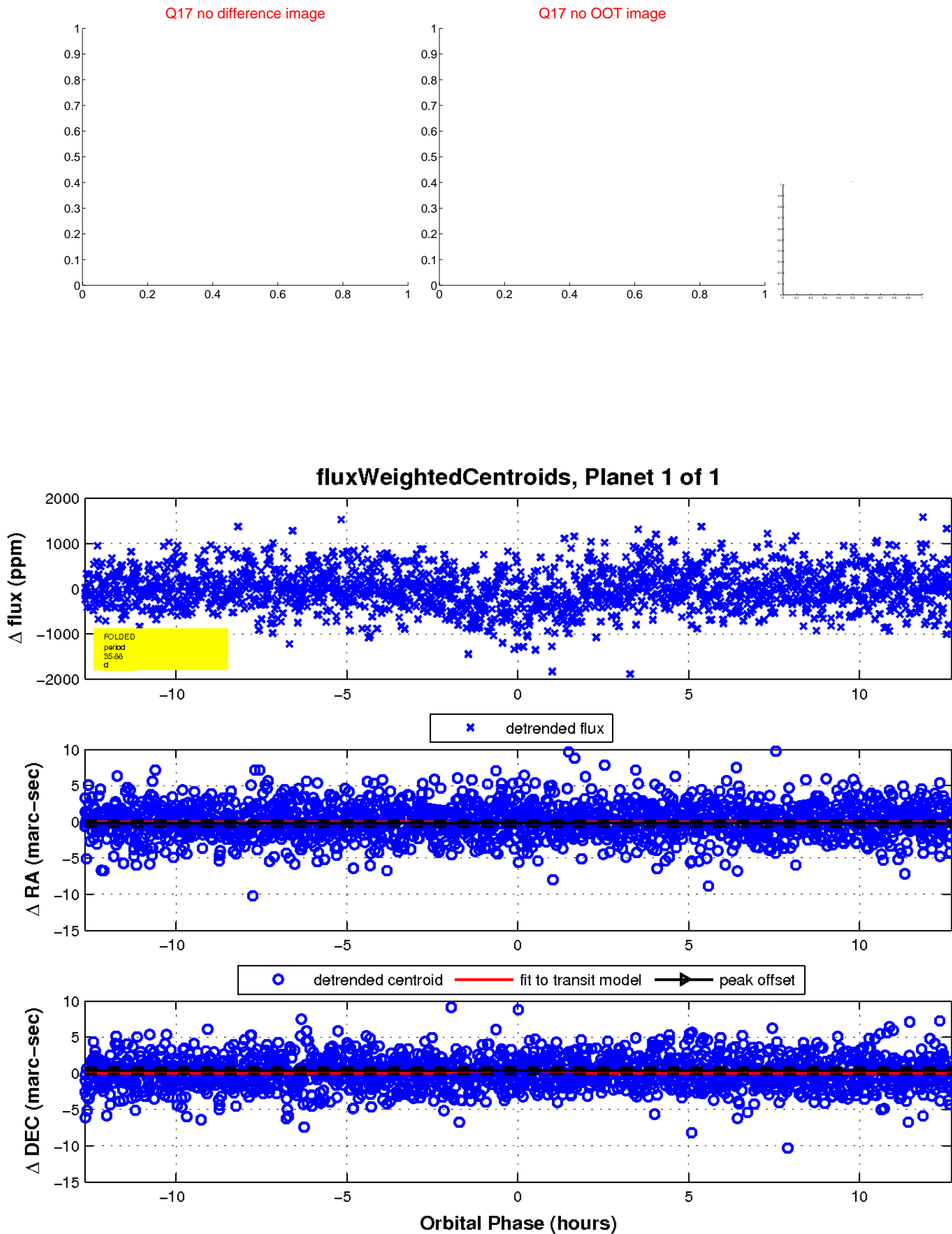
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UKIRT Image

Declination

