

KIC 011874577

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})
011874577-01	OBS	2779.01	34.458572	147.824748	418.8	7.375	19.6	21.4	0.86	6161	1.85	23.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011874577-01	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.

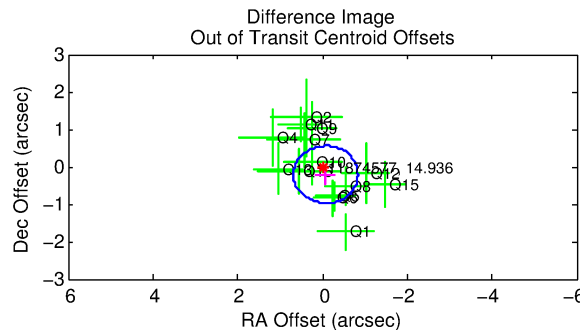
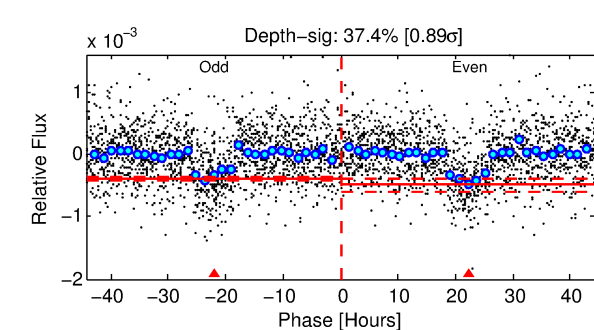
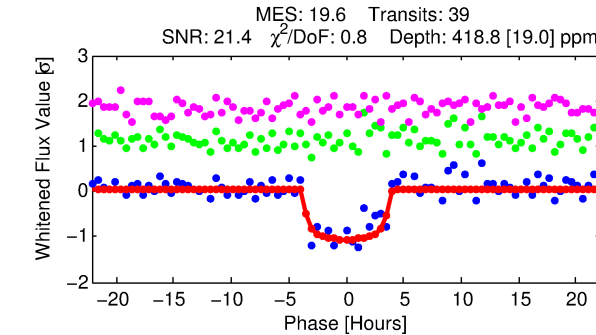
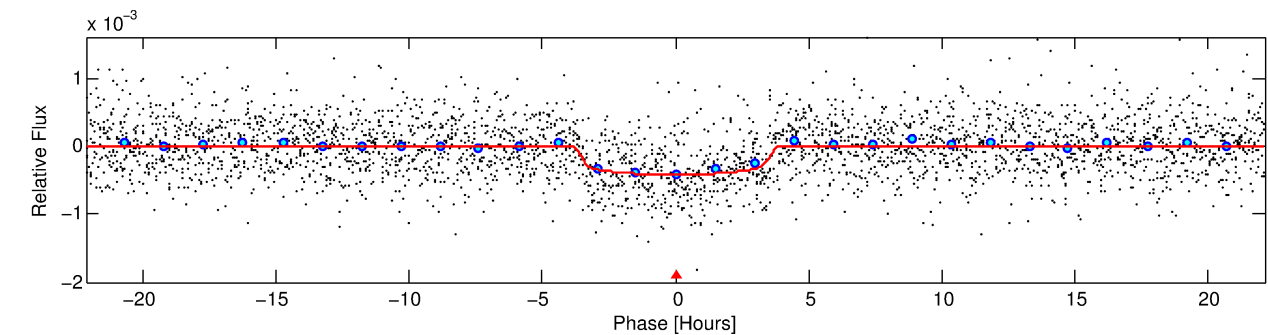
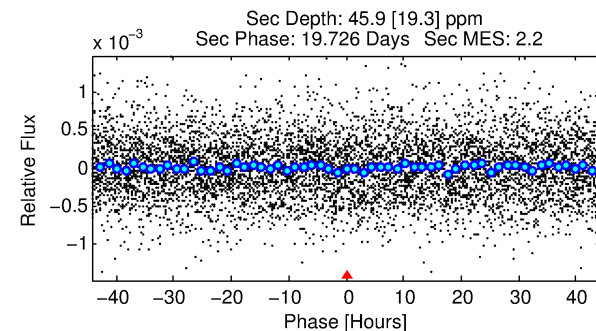
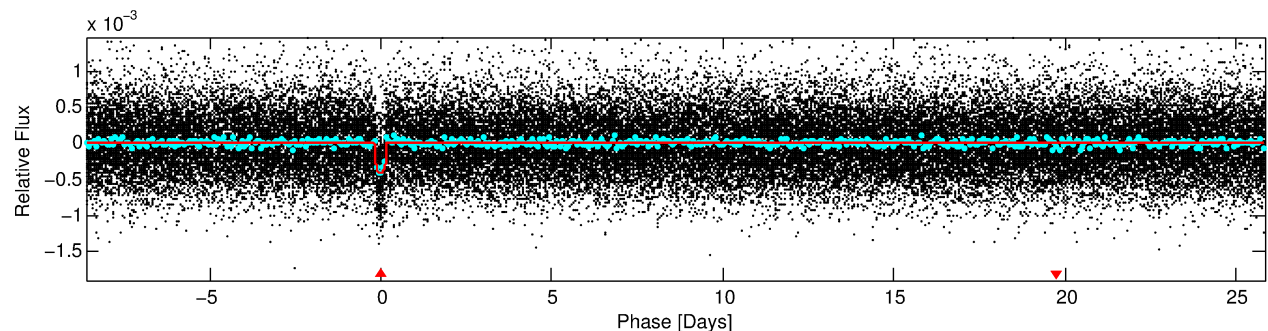
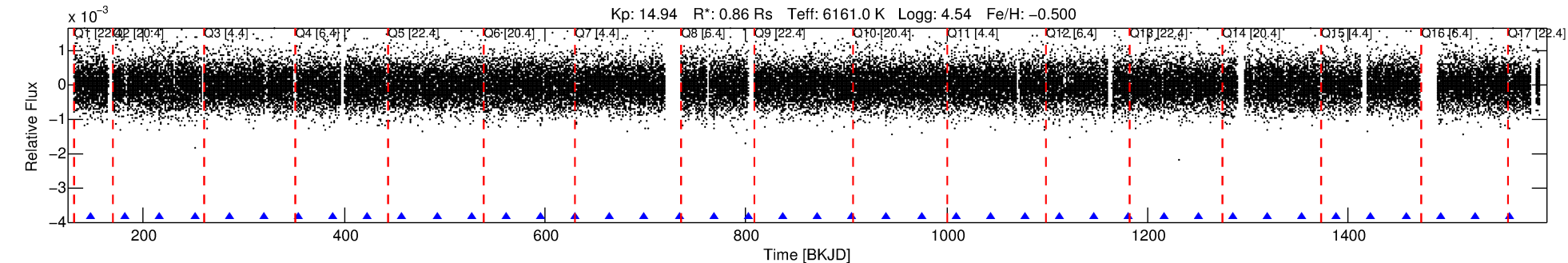
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011874577-01

No Significant Match Found

DV One-Page Summary

KIC: 11874577 Candidate: 1 of 1 Period: 34.459 d
KOI: K02779.01 Corr: 0.992



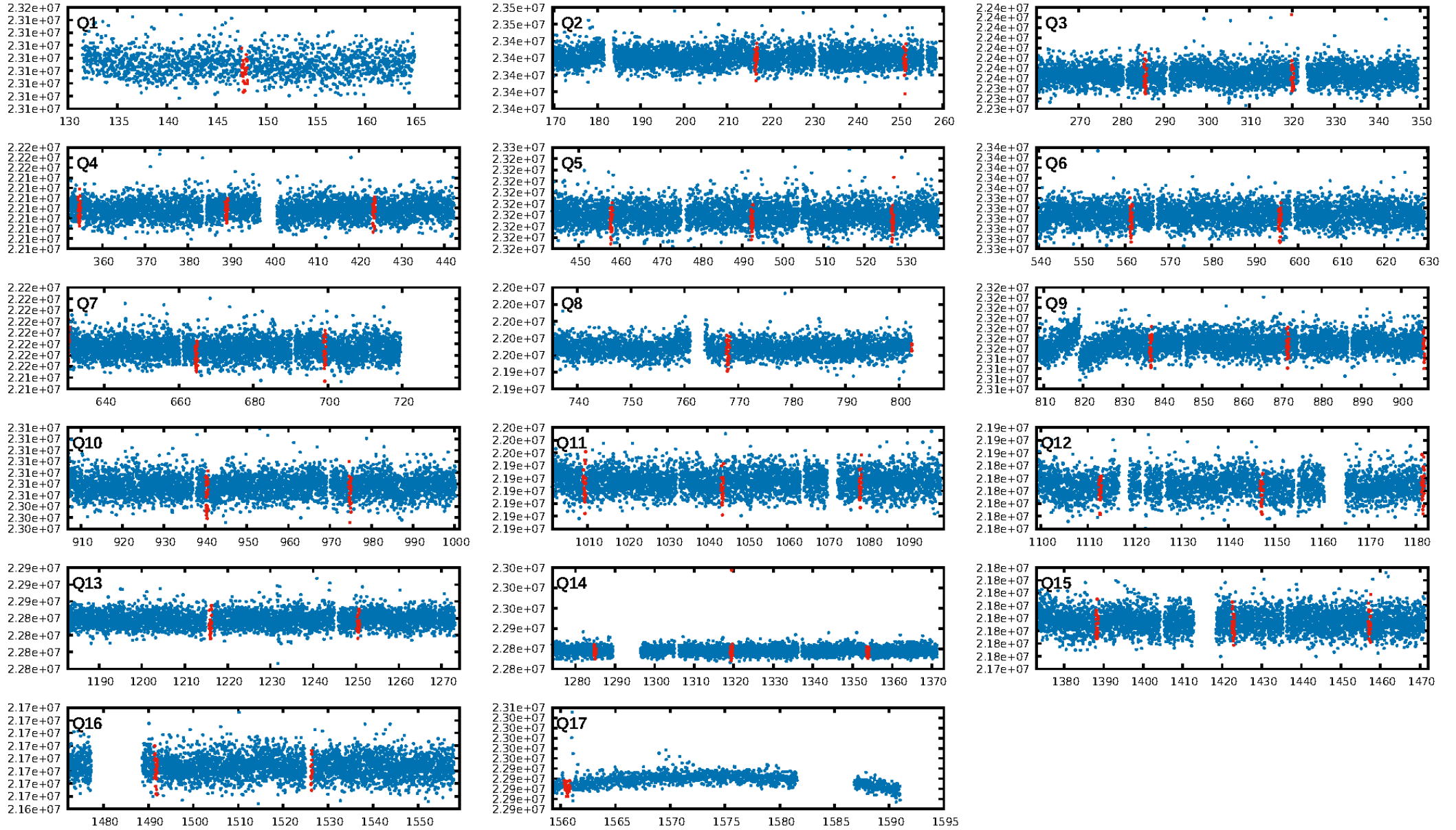
DV Fit Results:

Period = 34.45857 [0.00026] d
Epoch = 147.8247 [0.0064] BKJD
Rp/R* = 0.0197 [0.0069]
a/R* = 28.99 [52.89]
b = 0.62 [1.85]
Seff = 23.09 [8.74]
Teq = 559 [53] K
Rp = 1.85 [0.83] Re
a = 0.2038 [0.0491] AU
Ag = 305.93 [272.19] [1.12σ]
Teffp = 3614 [747] K [4.08σ]

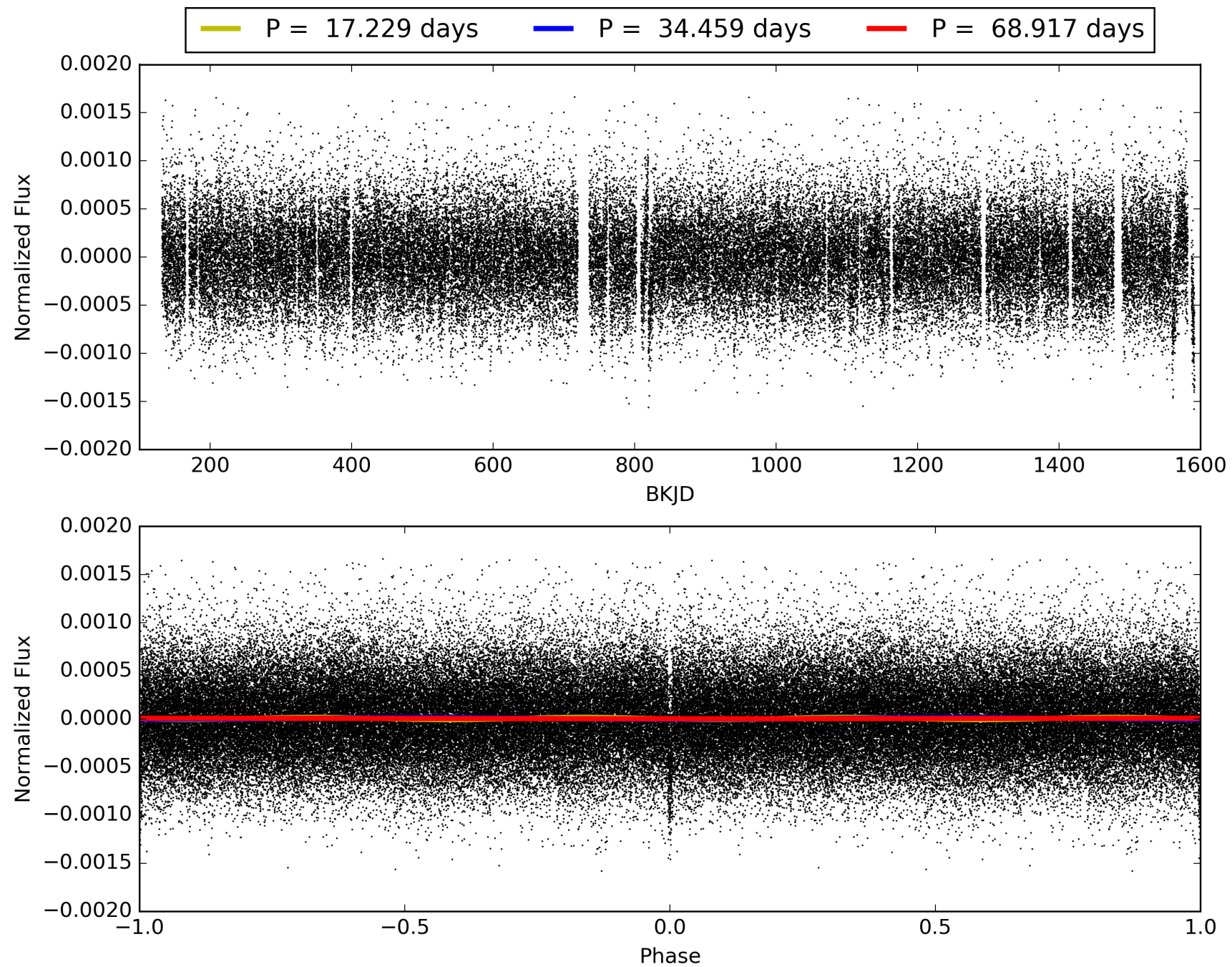
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.52e-83
RollingBand-fgt: 1.00 [37/37]
GhostDiagnostic-chr: 15.31
Centroid-sig: 0.8%
Centroid-so: 1.606 arcsec [2.33σ]
OotOffset-rm: 0.225 arcsec [0.88σ]
KicOffset-rm: 0.288 arcsec [1.07σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 011874577-01, PDC Light Curves

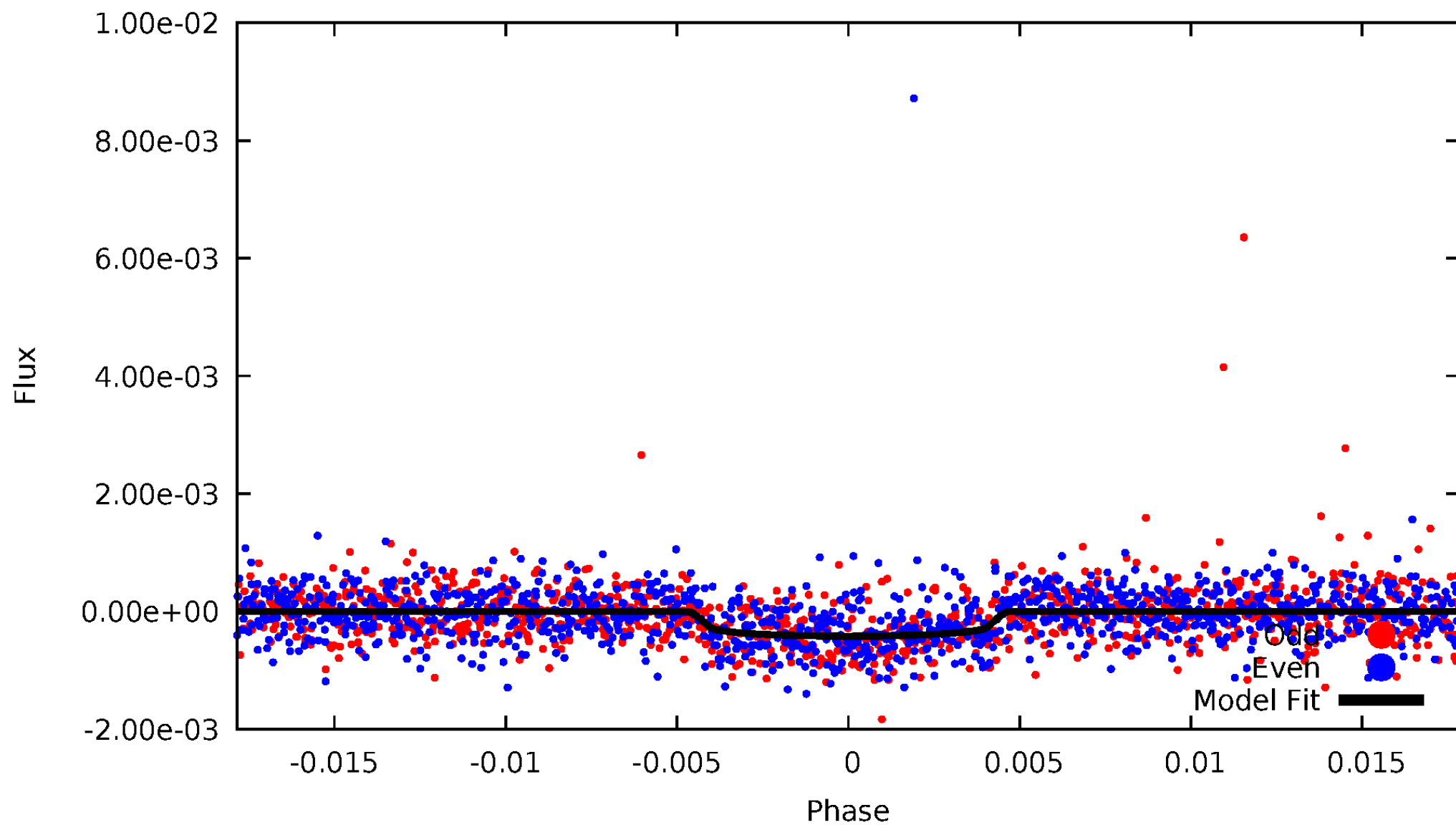


TCE 011874577-01



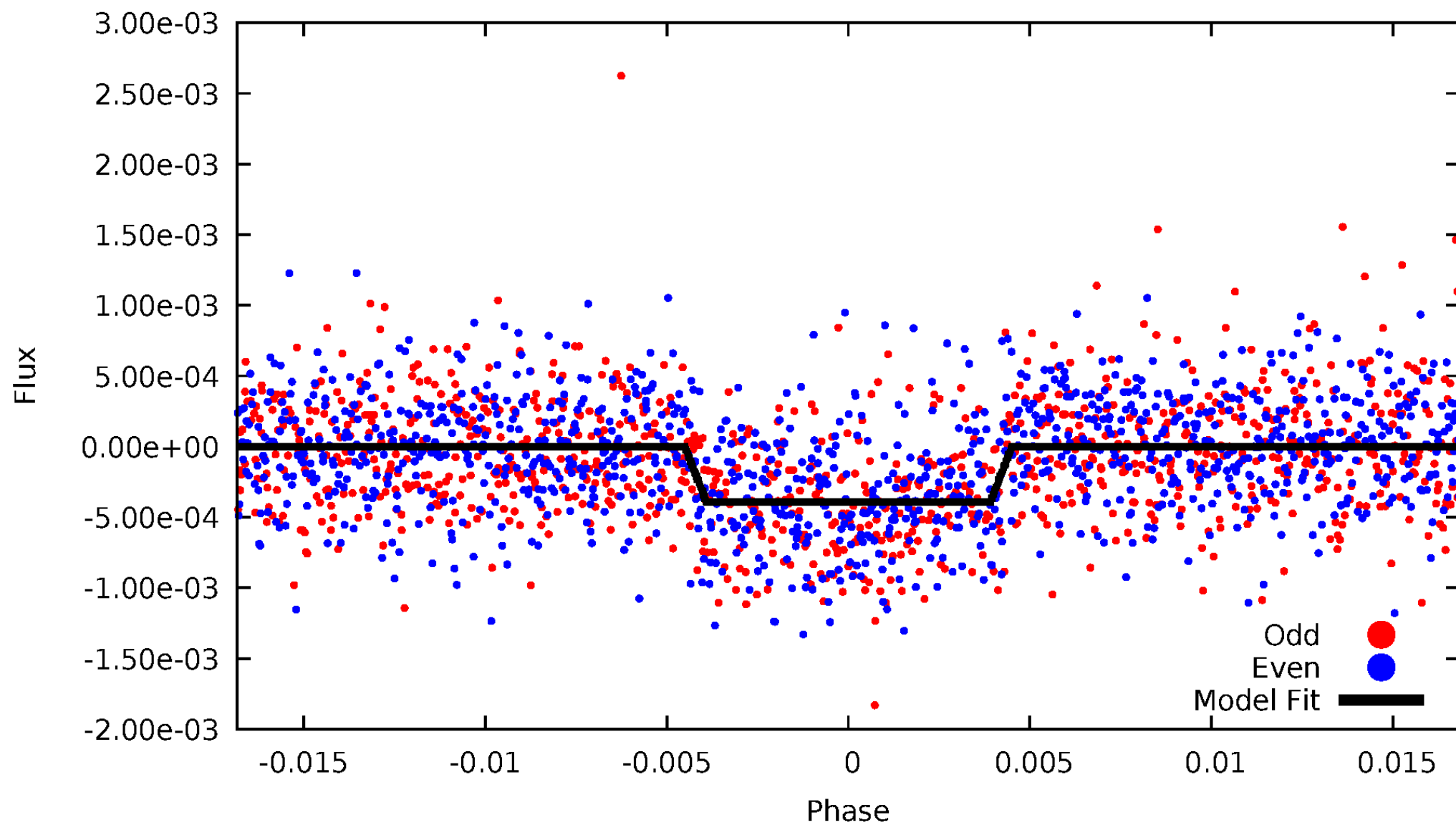
DV Odd/Even

TCE 011874577-01

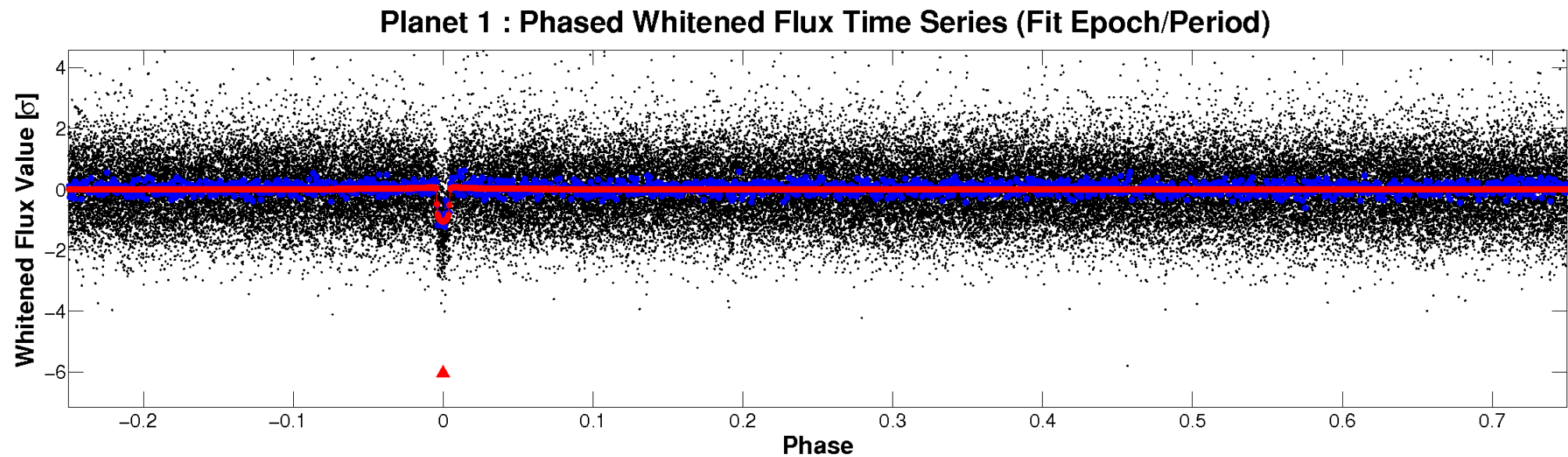
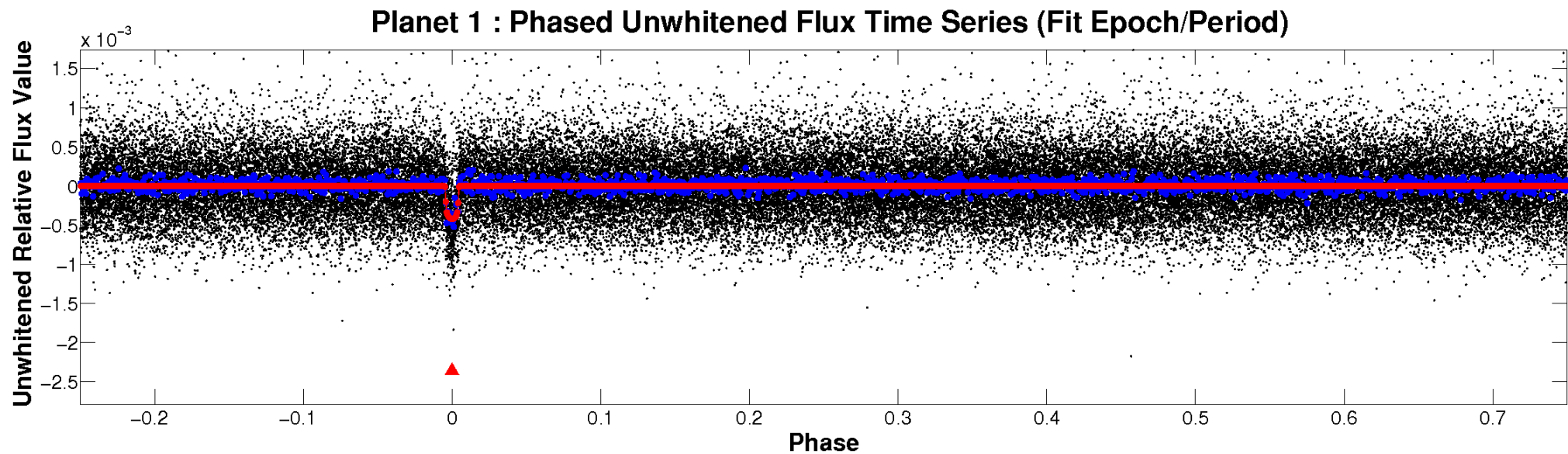


ALT Odd/Even

TCE 011874577-01

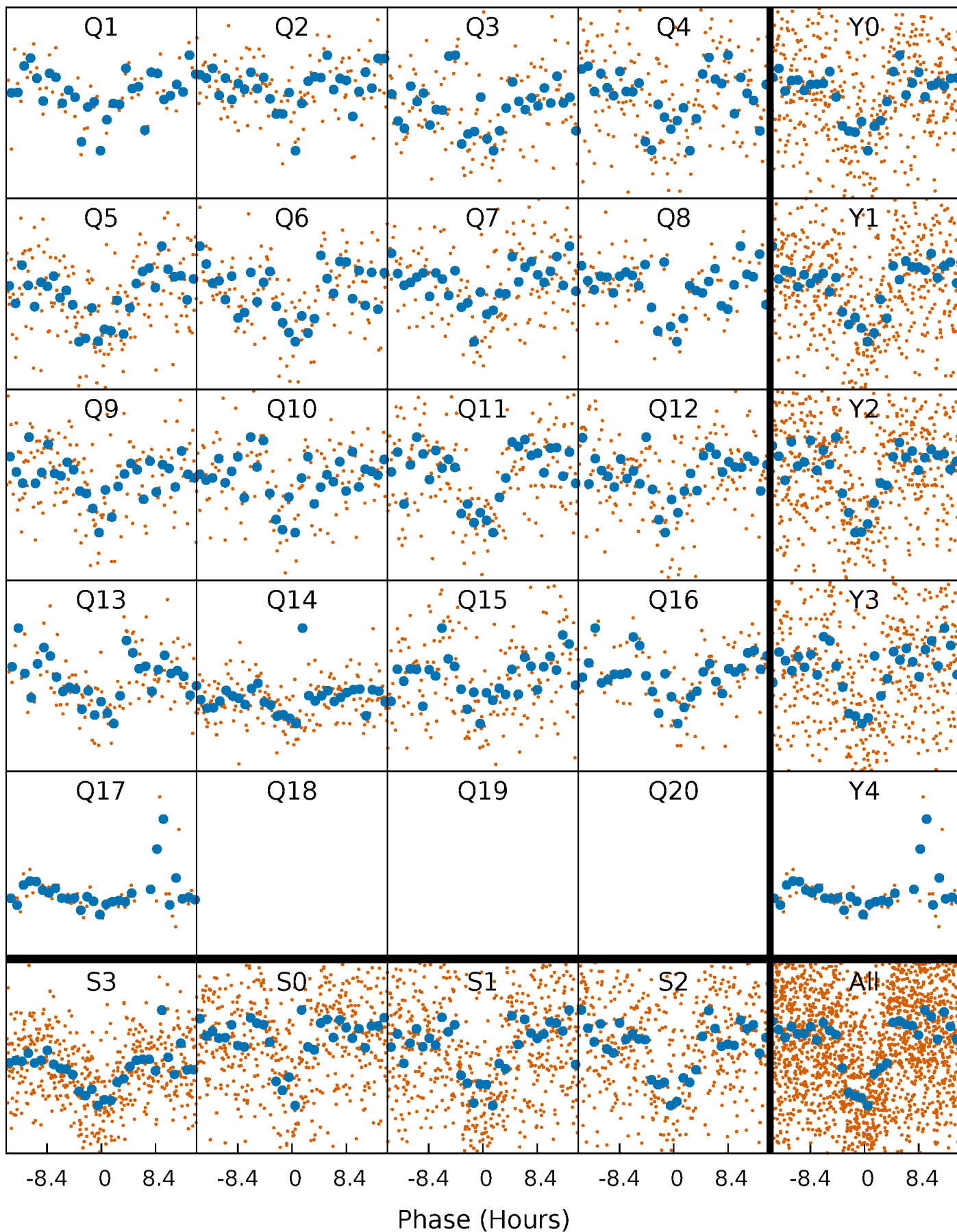


Non-Whitened Vs. Whitened Light Curve



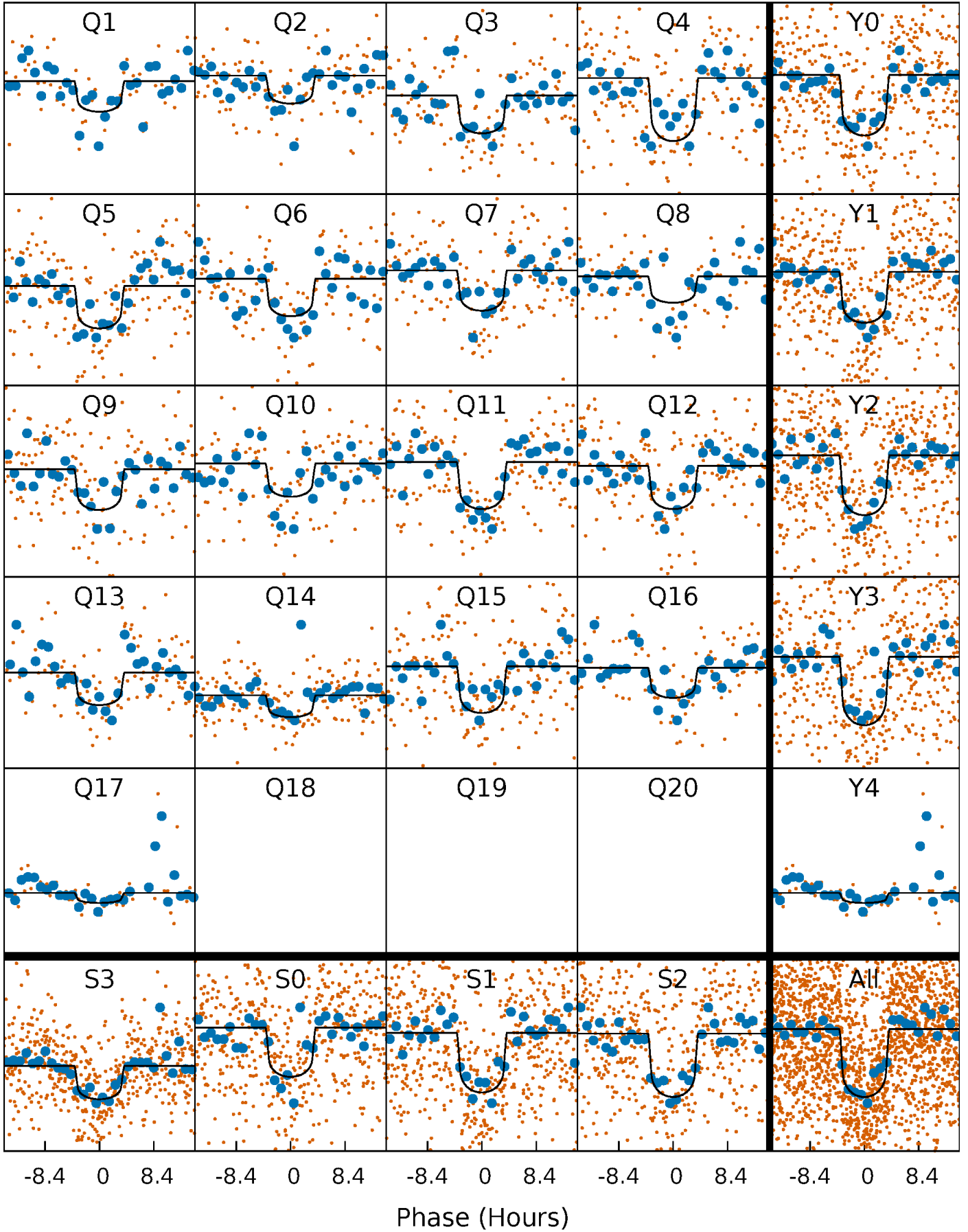
PDC Quarter-Phased Transit Curves

TCE 011874577-01 P= 34.458572 Days $T_0=147.824748$ (BKJD)



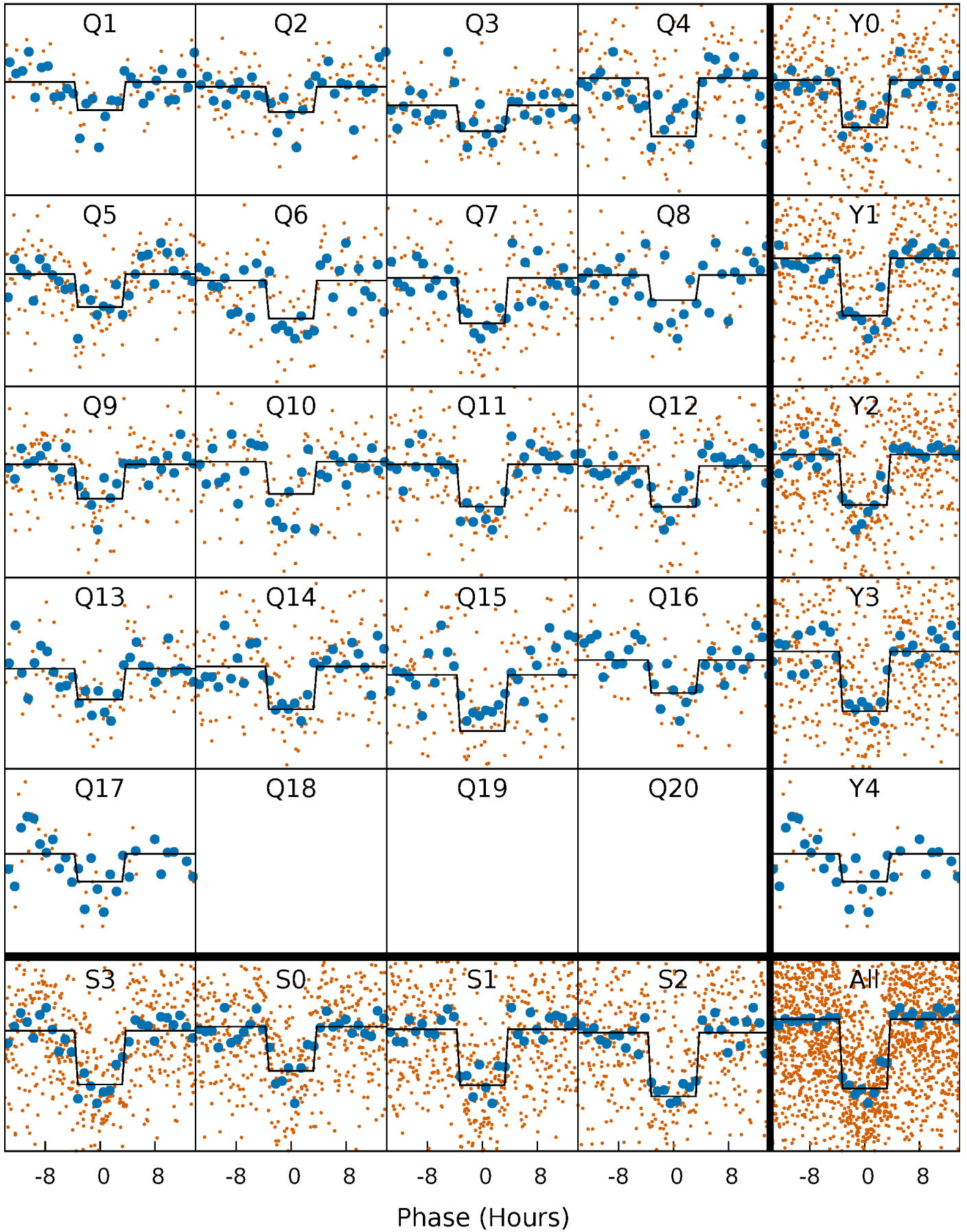
DV Quarter-Phased Transit Curves

TCE 011874577-01 P= 34.458572 Days $T_0=147.824748$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

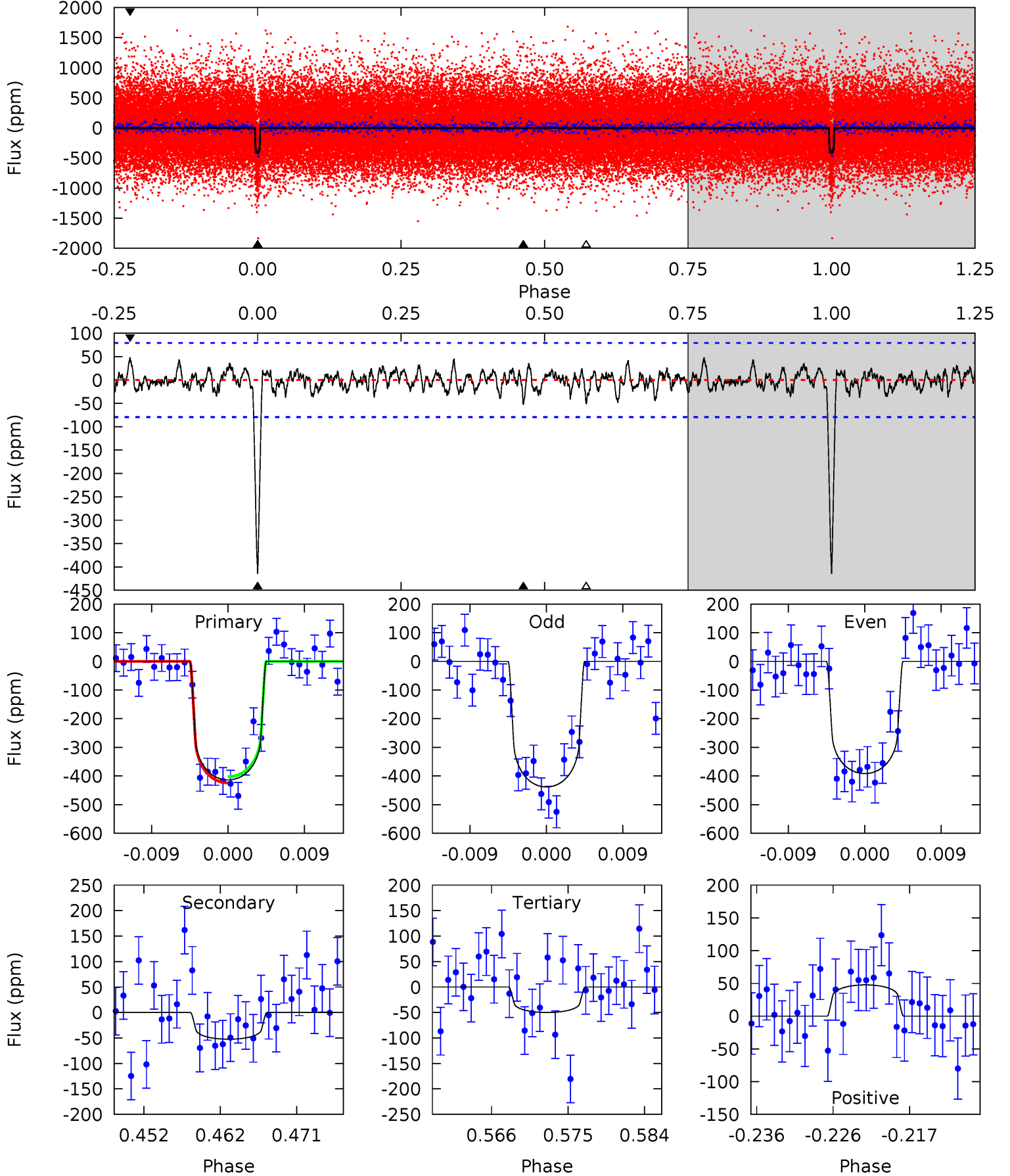
TCE 011874577-01 P= 34.458179 Days $T_0=147.834440$ (BKJD)



DV Model-Shift Uniqueness Test

011874577-01, $P = 34.458572$ Days, $E = 113.366176$ Days

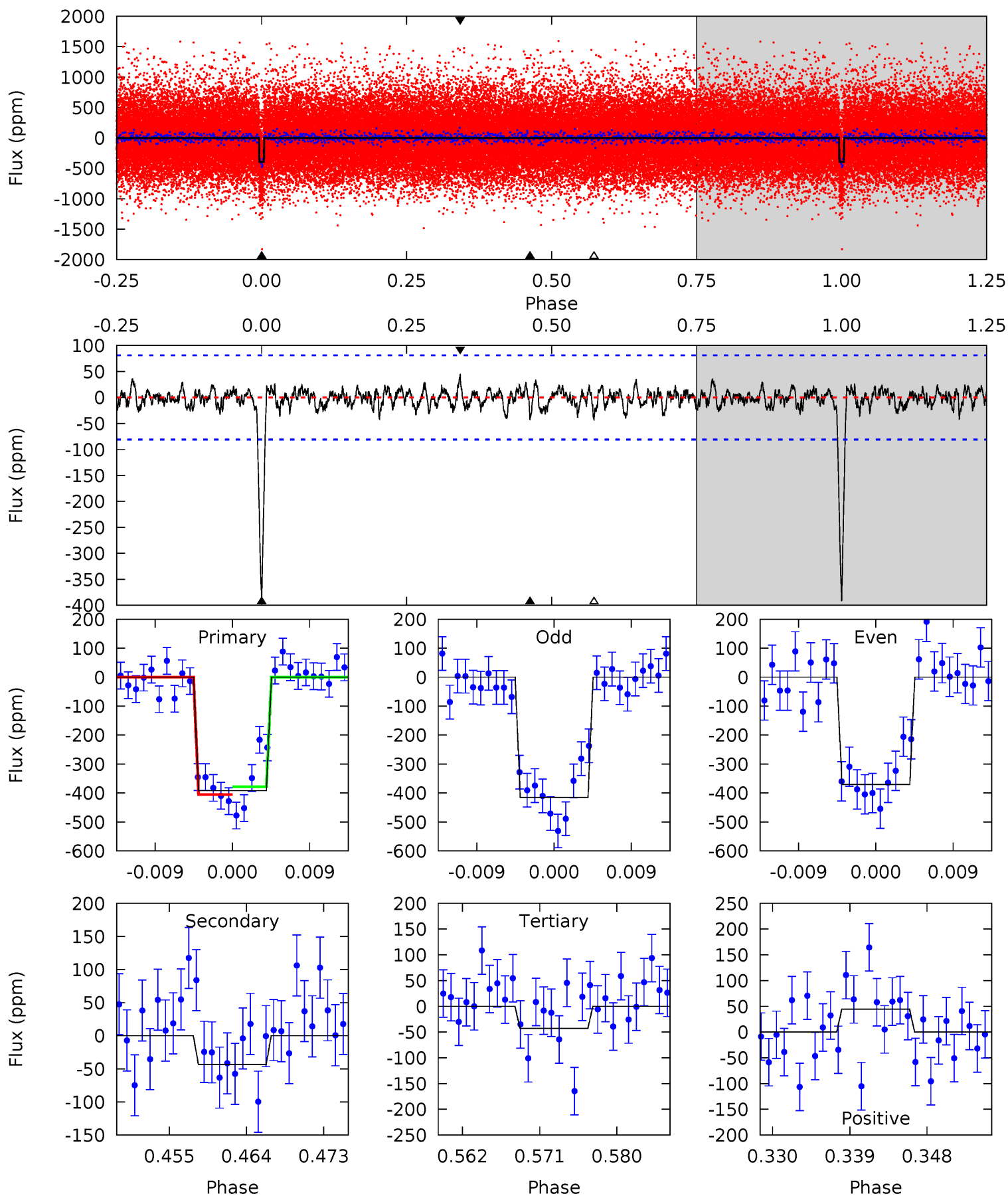
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.3	3.33	3.18	3.03	5.04	2.60	1.00	23.1	23.2	0.16	0.30	1.48	0.94	0.10	0.68



Alt Model-Shift Uniqueness Test

011874577-01, P = 34.458179 Days, E = 113.376261 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.4	2.69	2.68	2.77	5.05	2.61	0.86	21.7	21.7	0.01	-0.08	1.39	0.98	0.10	0.85



Stellar Parameters For KIC 011874577

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6161^{+166}_{-203}	$4.545^{+0.046}_{-0.196}$	$-0.500^{+0.300}_{-0.300}$	$0.862^{+0.243}_{-0.076}$	$0.950^{+0.095}_{-0.116}$	$2.089^{+0.397}_{-1.044}$
	+3%/-3%	+1%/-4%	+60%/-60%	+28%/-9%	+10%/-12%	+19%/-50%
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 011874577-01 / KOI 2779.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-52 ± 16	$1.94^{+0.73}_{-0.66}$	797^{+47}_{-36}	4002^{+740}_{-442}	299^{+422}_{-148}
Alt.	-43 ± 16	$1.91^{+0.73}_{-0.66}$	796^{+51}_{-35}	3893^{+738}_{-450}	250^{+389}_{-128}

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 $A_{obs} \gg 1.0$

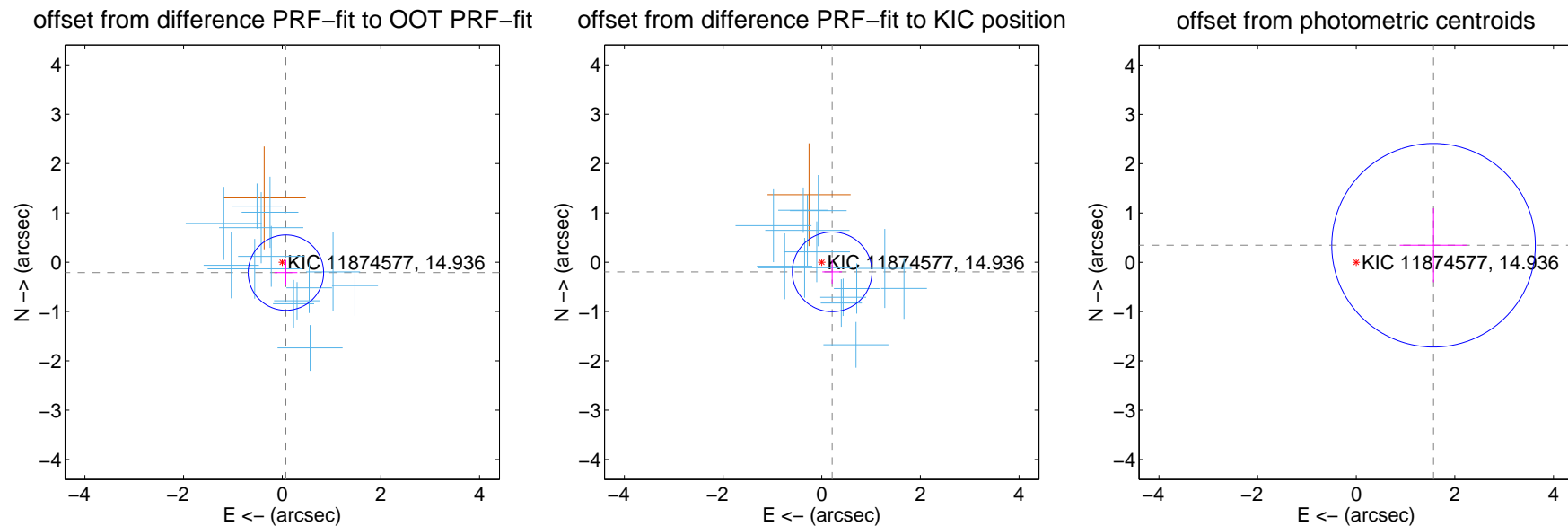
DV Centroid Data

Supplemental centroid analysis for 011874577-01. Kepler magnitude: 14.94. Transit SNR 21.36

There are 13 quarters with good PRF difference image offsets

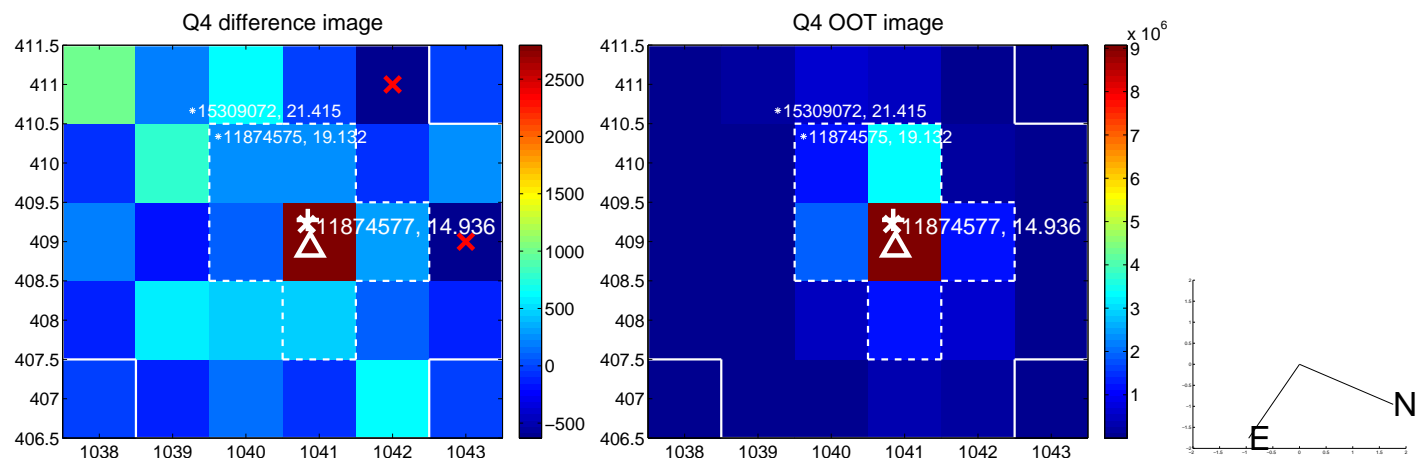
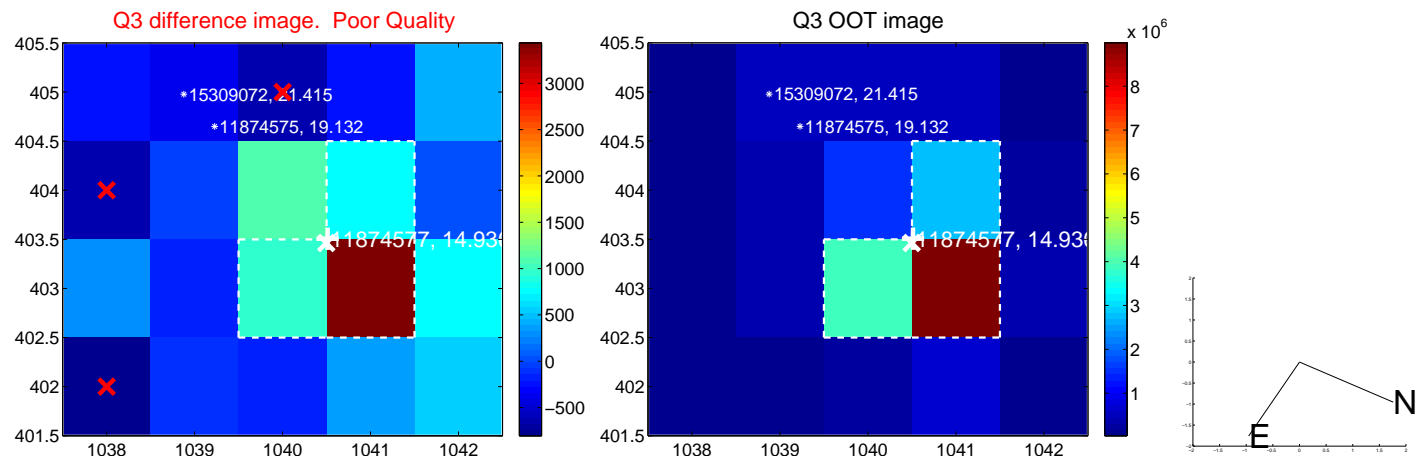
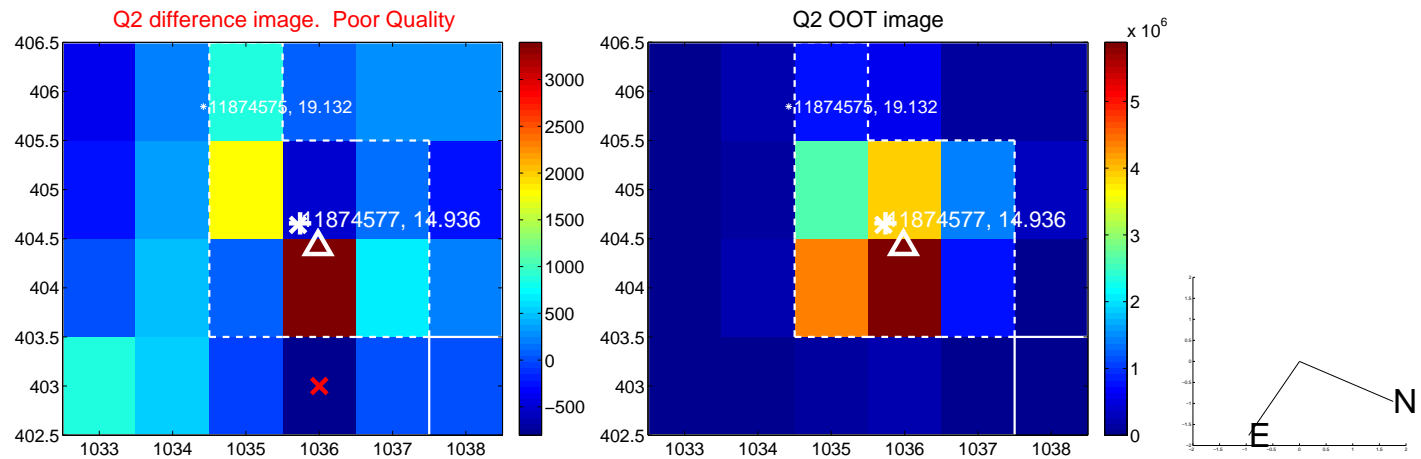
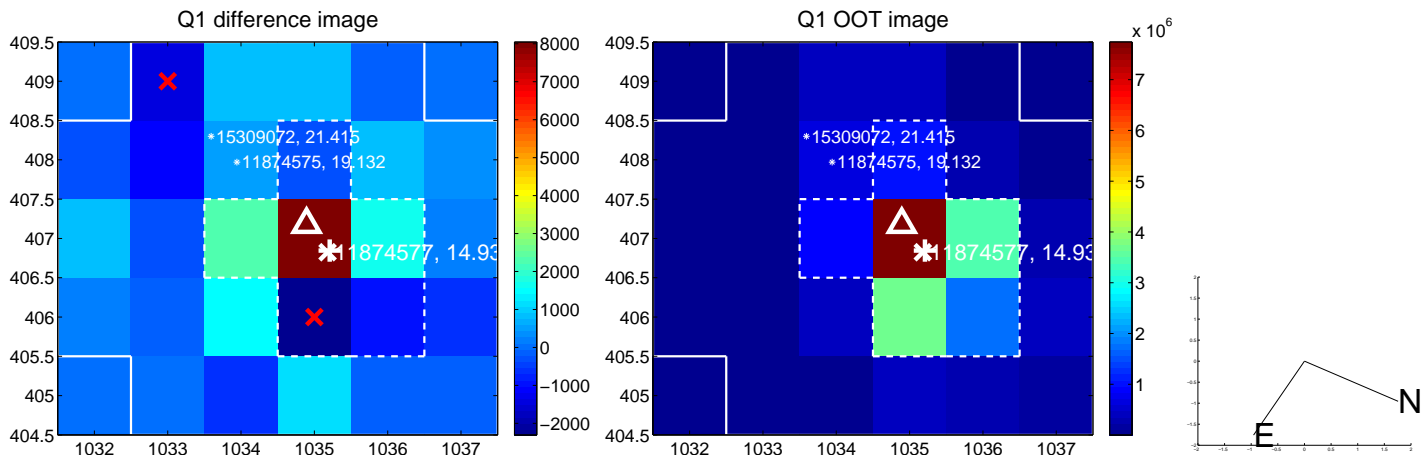
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.225 ± 0.255	0.88	-0.075 ± 0.233	-0.212 ± 0.257
PRF-fit source offset from KIC position	0.288 ± 0.269	1.07	-0.212 ± 0.198	-0.196 ± 0.240
photometric centroid source offset	1.61 ± 0.69	2.33	-1.57 ± 0.68	0.35 ± 0.75

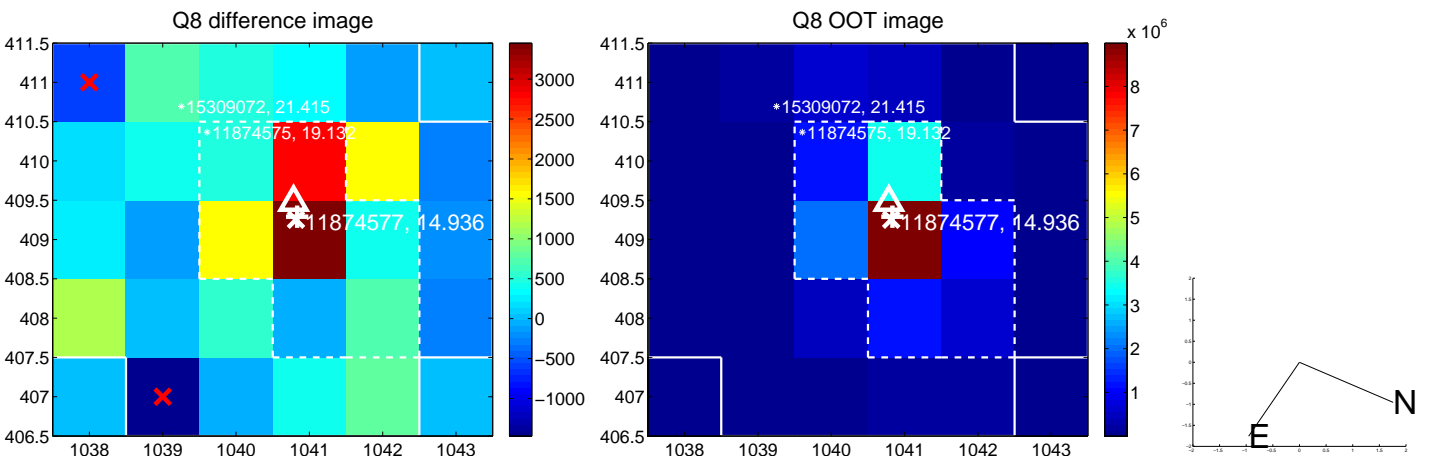
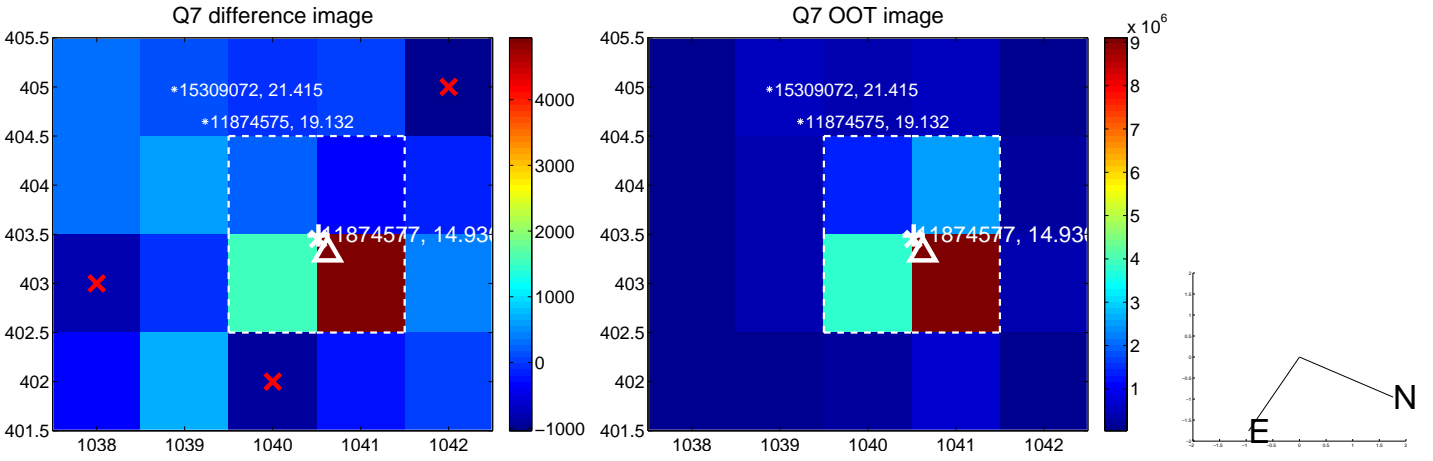
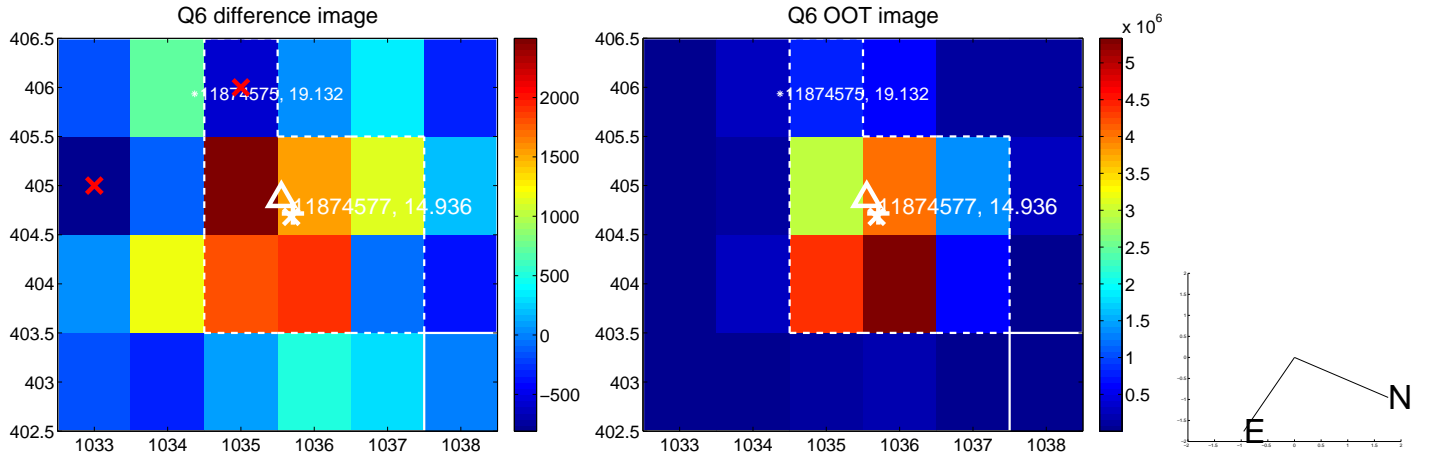
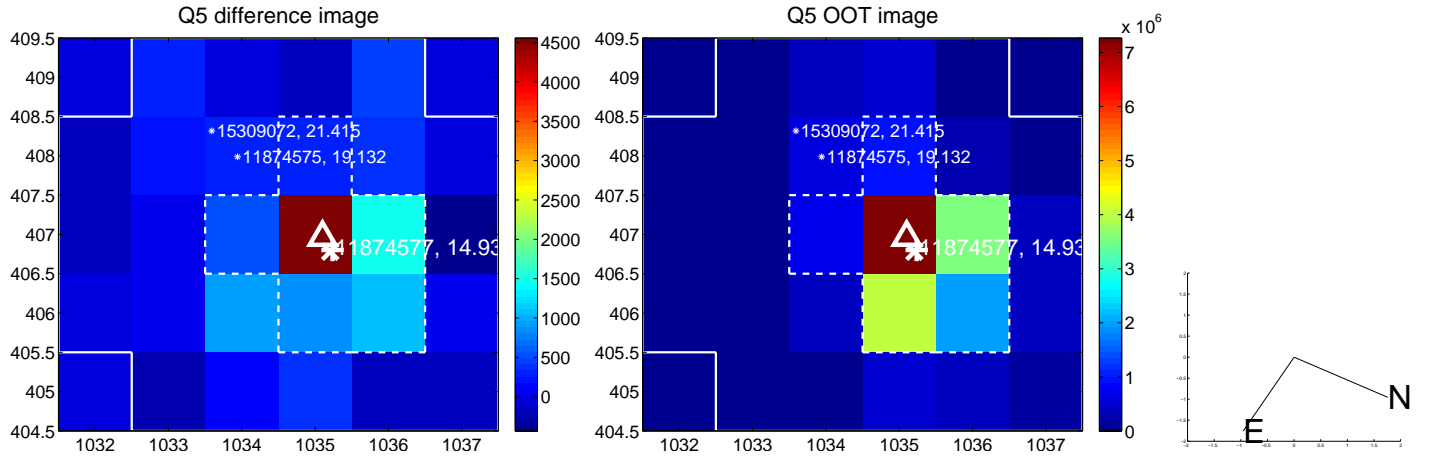


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

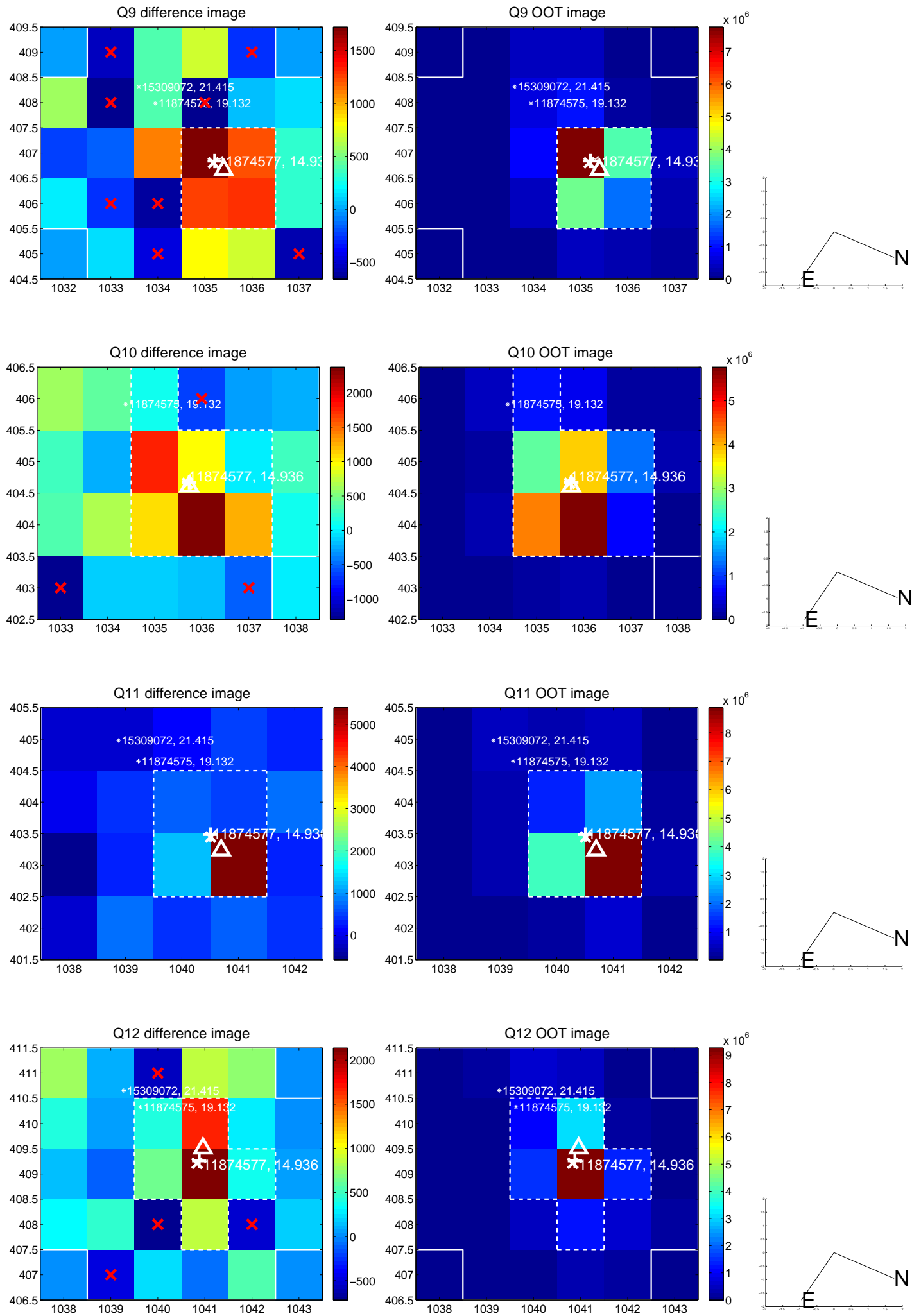
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



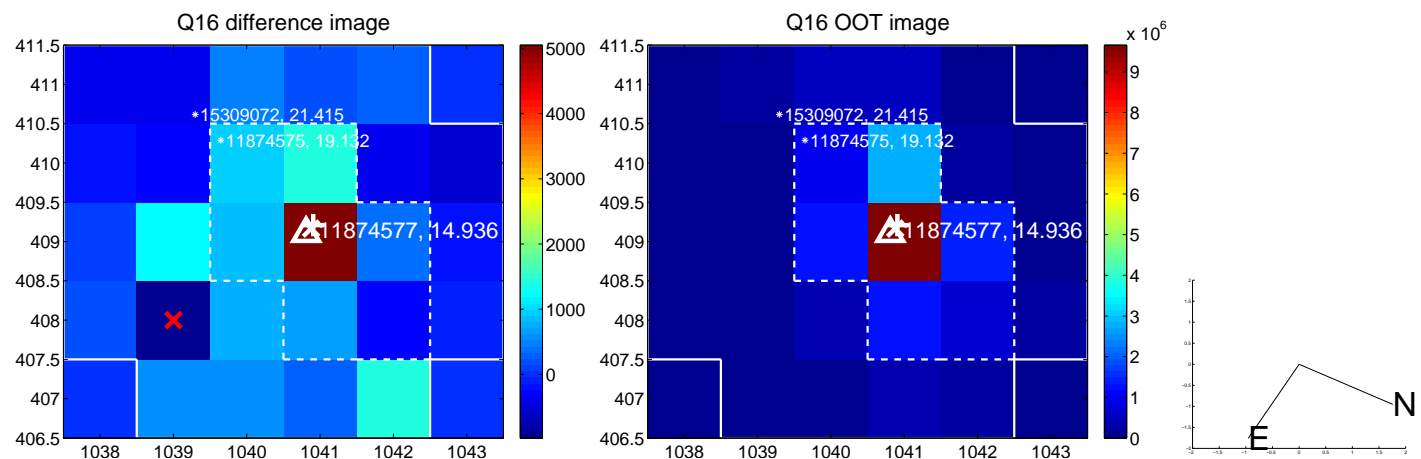
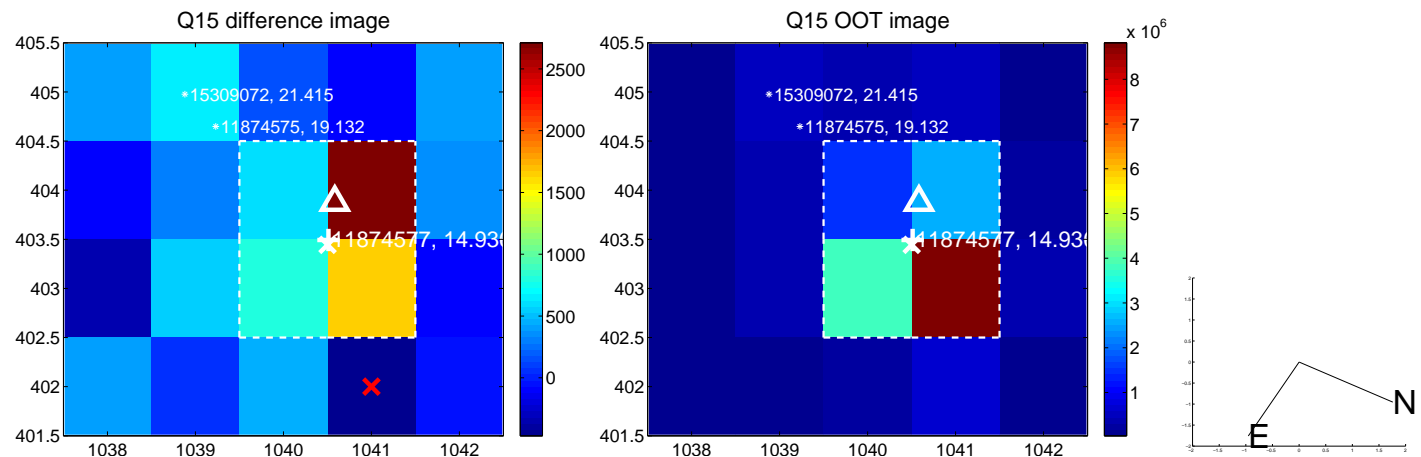
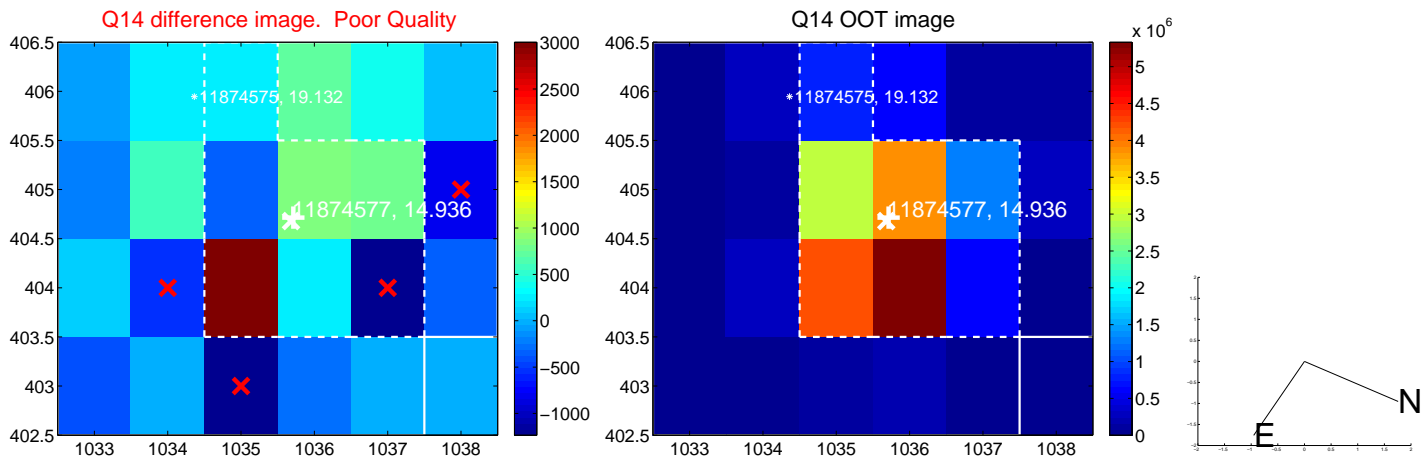
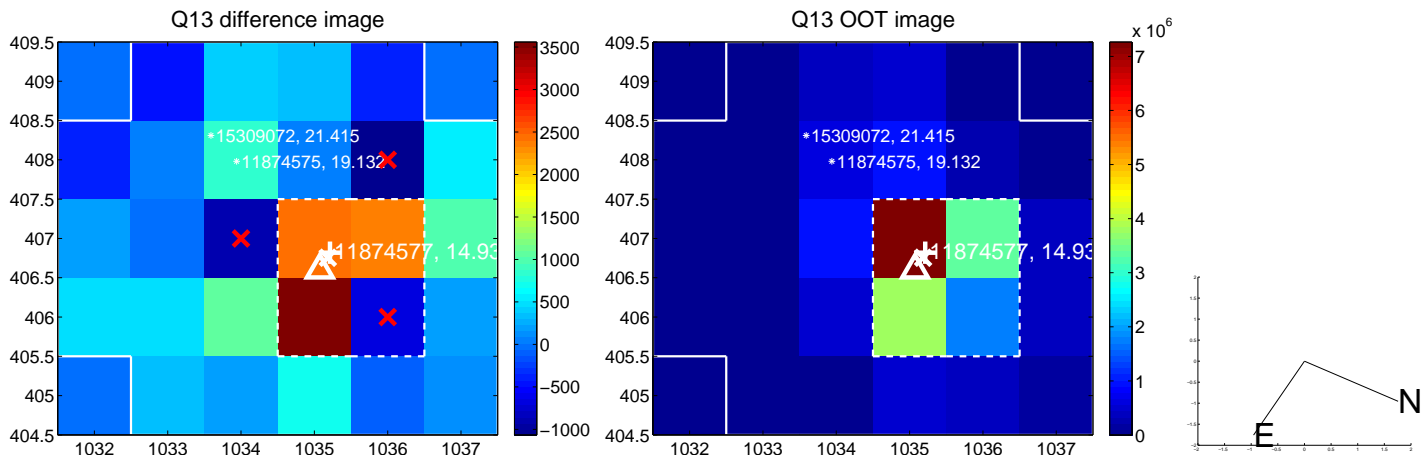
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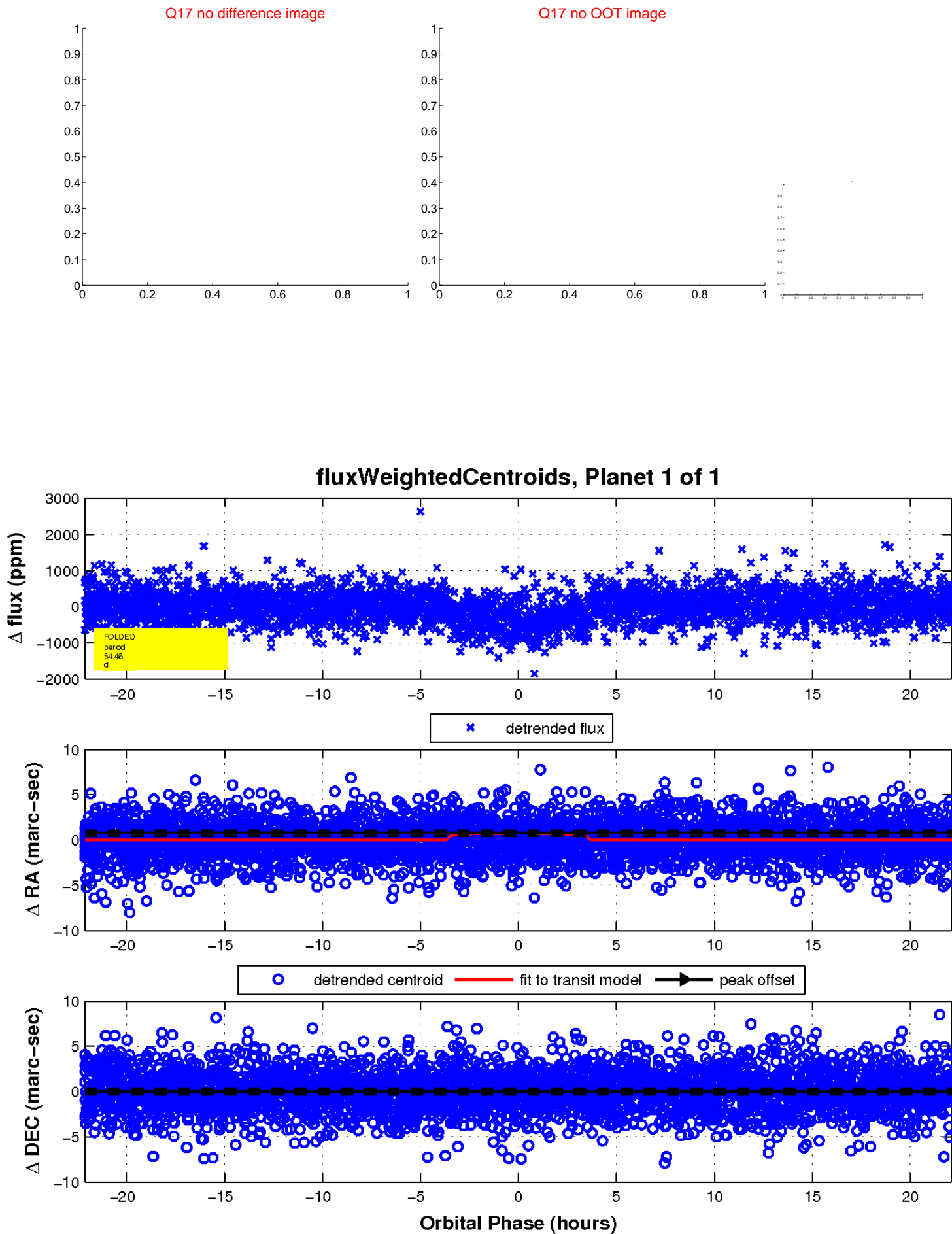
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UKIRT Image

Declination

