

KIC 006619830

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})
006619830-01	OBS	No	1.043355	132.525897	193.5	9.678	13.6	1.2	0.88	5635	1.51	2080.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006619830-01	OBS	FP	0.00	1	0	0	0	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.

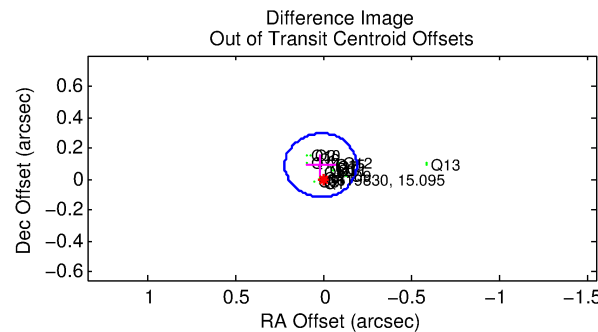
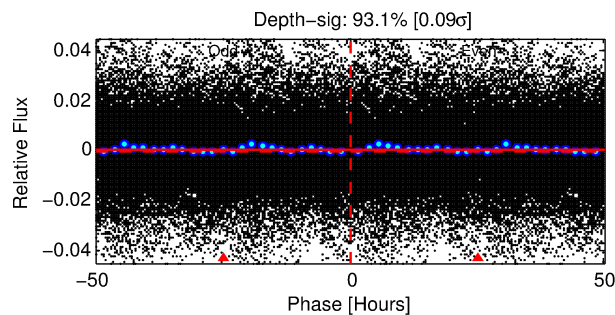
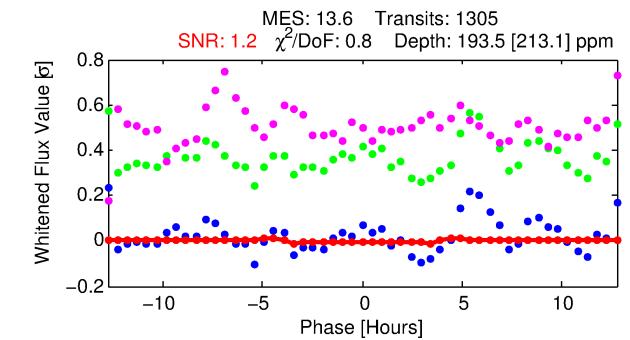
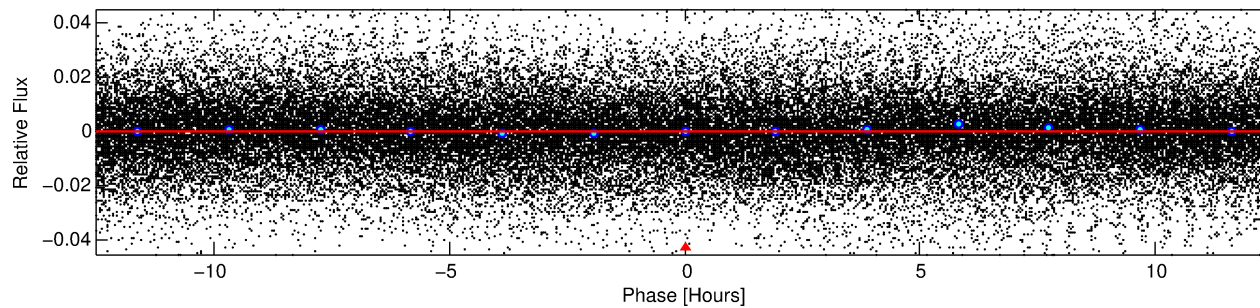
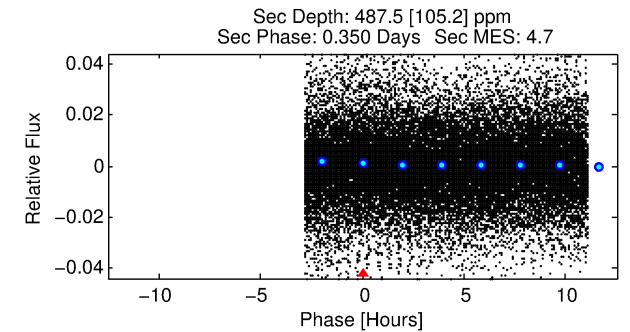
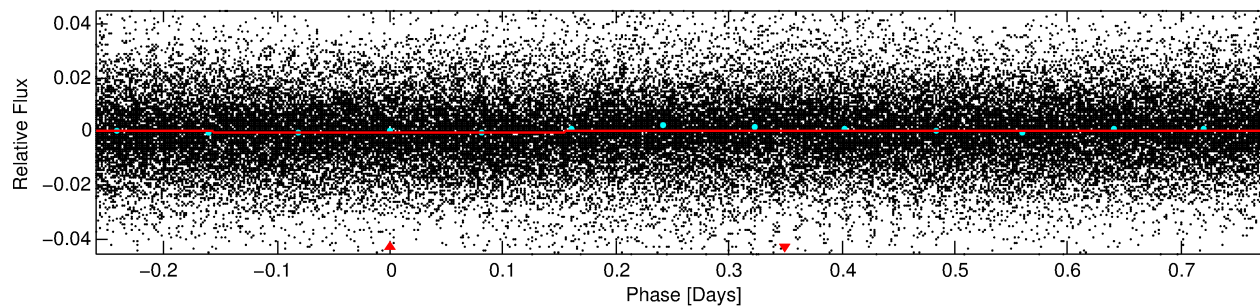
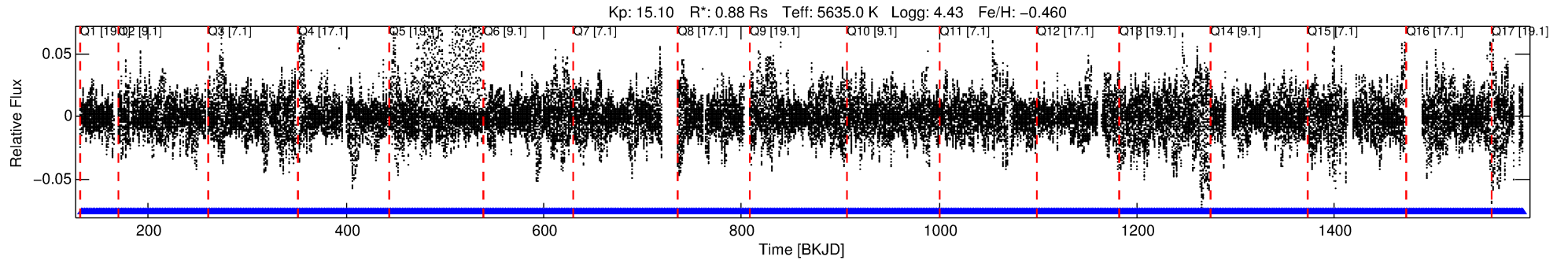
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006619830-01

No Significant Match Found

DV One-Page Summary

KIC: 6619830 Candidate: 1 of 1 Period: 1.043 d



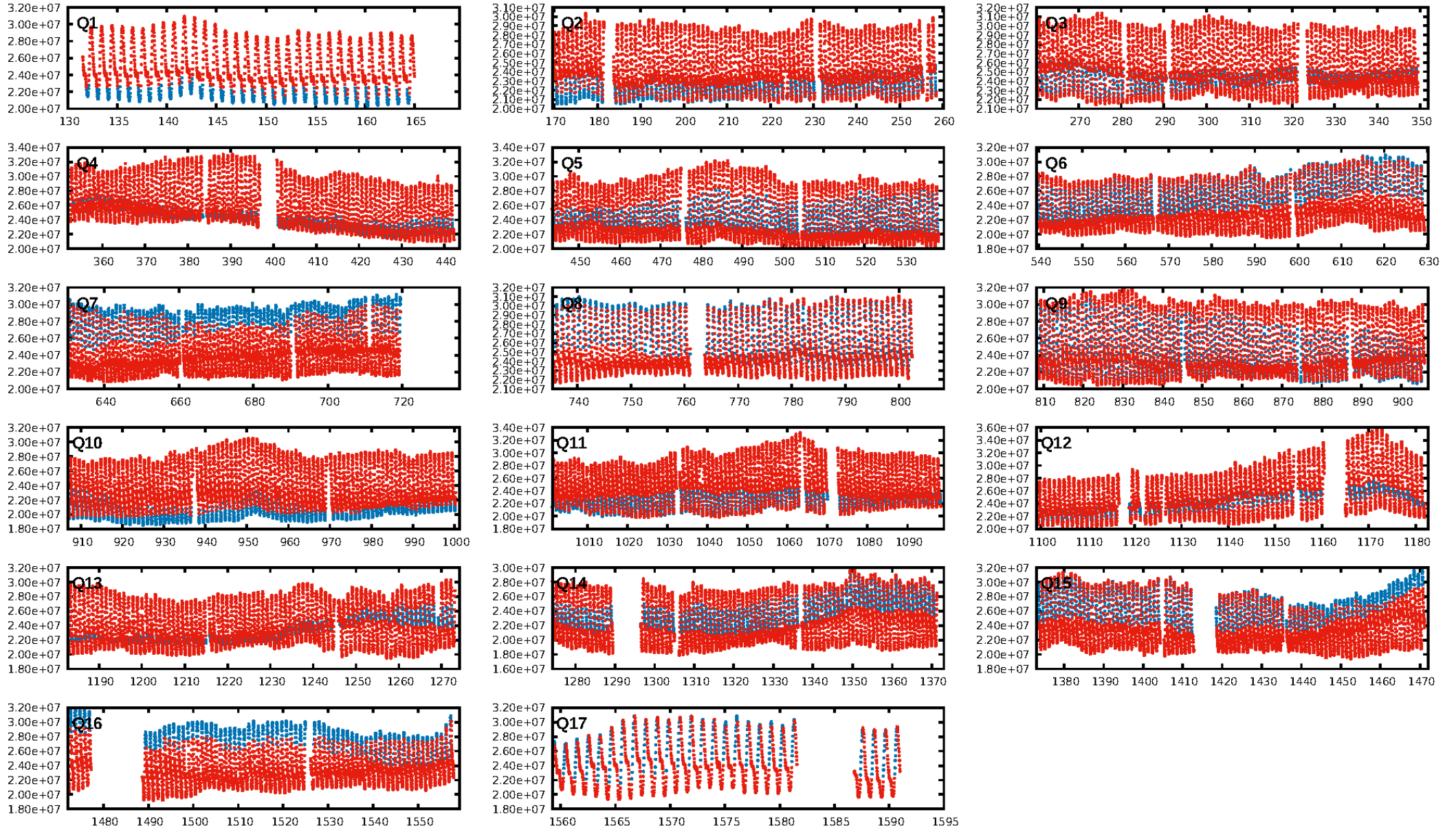
DV Fit Results:

Period = 1.04336 [0.00009] d
Epoch = 132.5259 [0.0202] BKJD
Rp/R* = 0.0157 [0.0084]
a/R* = 1.03 [0.02]
b = 0.93 [0.06]
Seff = 2080.63 [687.23]
Teff = 1722 [142] K
Rp = 1.51 [0.89] Re
a = 0.0184 [0.0038] AU
Ag = 39.71 [45.02] [0.86σ]
Teffp = 6684 [1835] K [2.70σ]

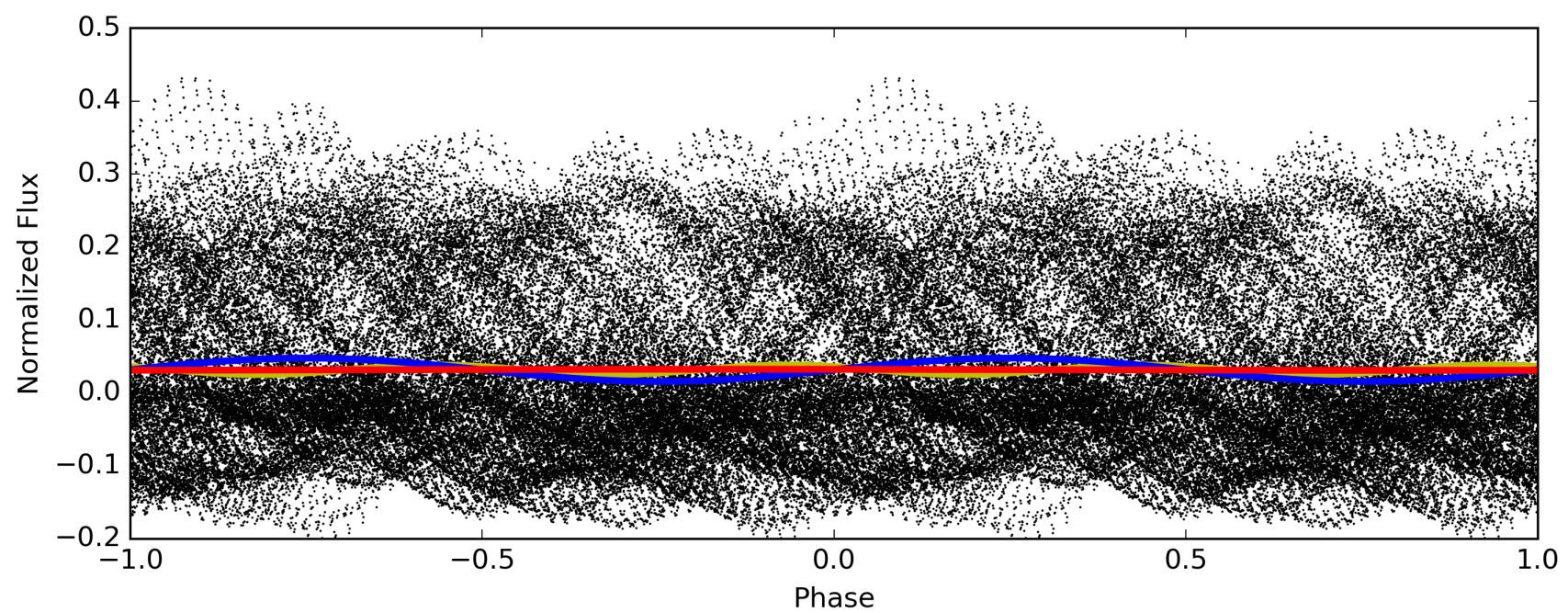
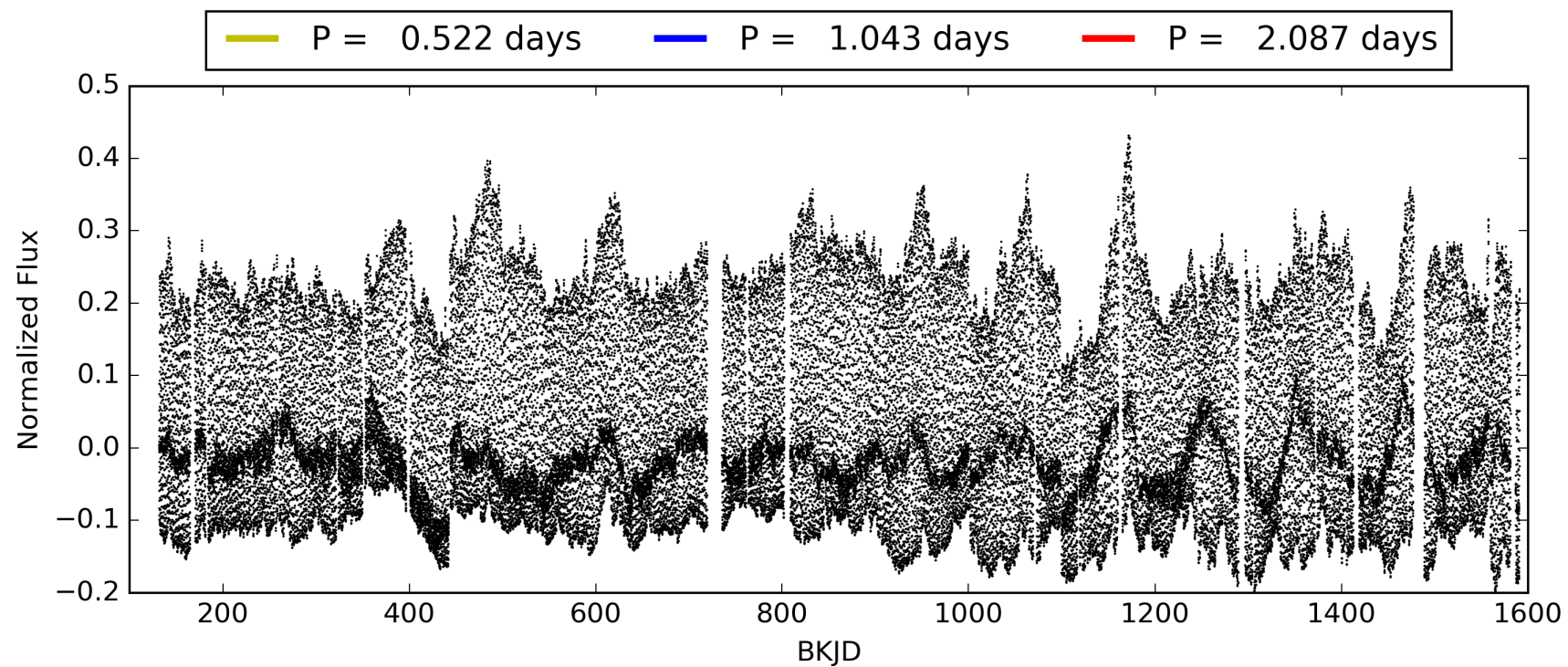
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1245/1245]
GhostDiagnostic-chr: -0.5006
Centroid-sig: 0.7%
Centroid-so: 0.521 arcsec [1.89σ]
OotOffset-rm: 0.092 arcsec [1.35σ]
KicOffset-rm: 0.065 arcsec [0.92σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006619830-01, PDC Light Curves

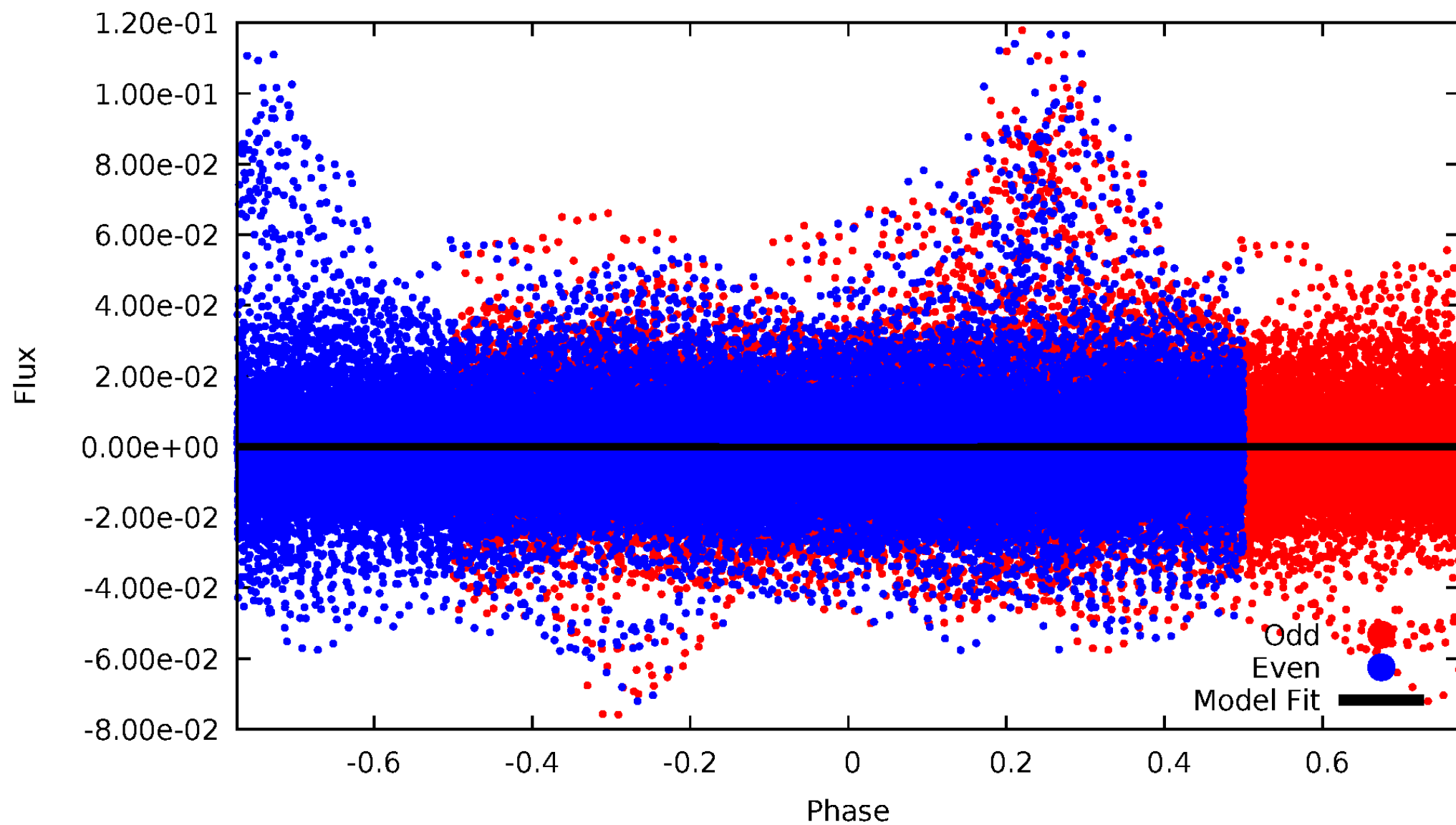


TCE 006619830-01



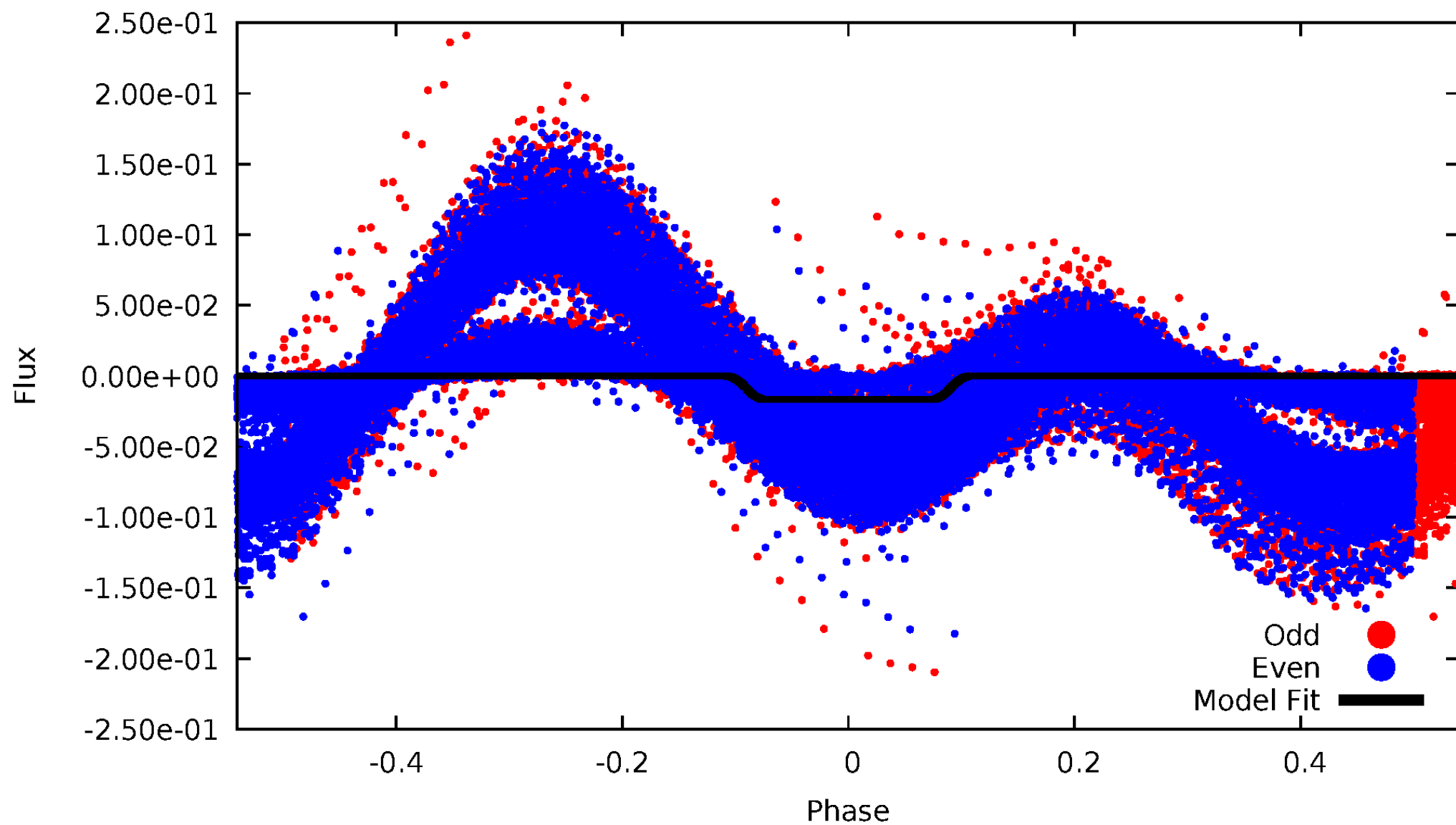
DV Odd/Even

TCE 006619830-01



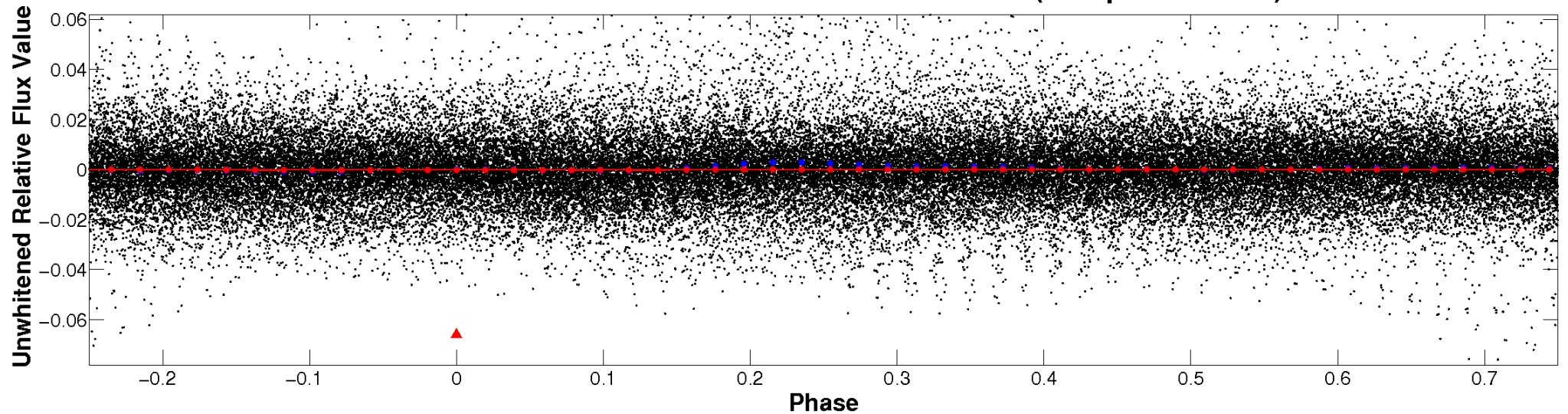
ALT Odd/Even

TCE 006619830-01

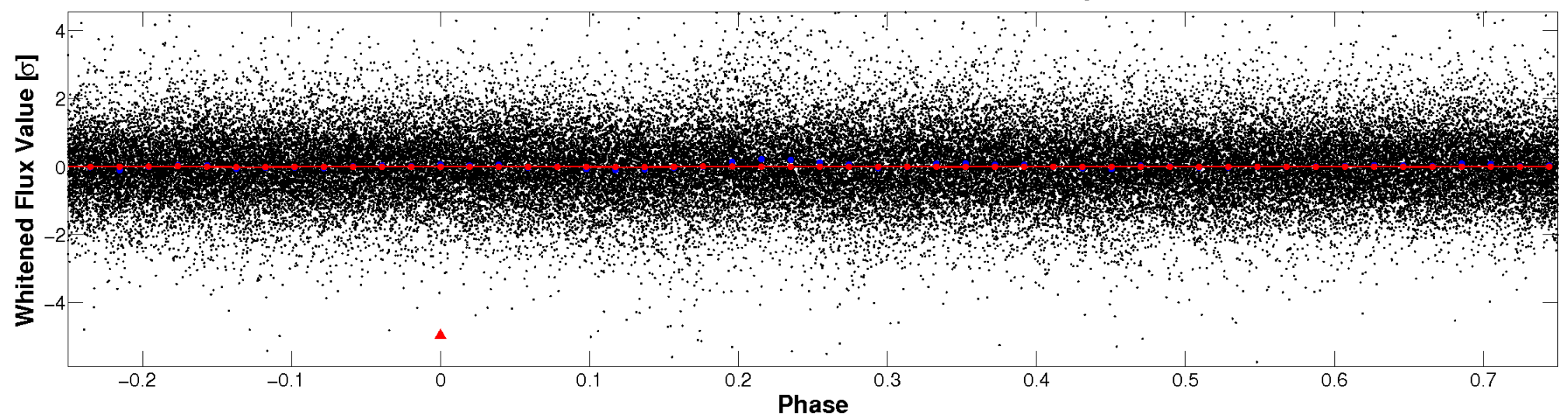


Non-Whitened Vs. Whitened Light Curve

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

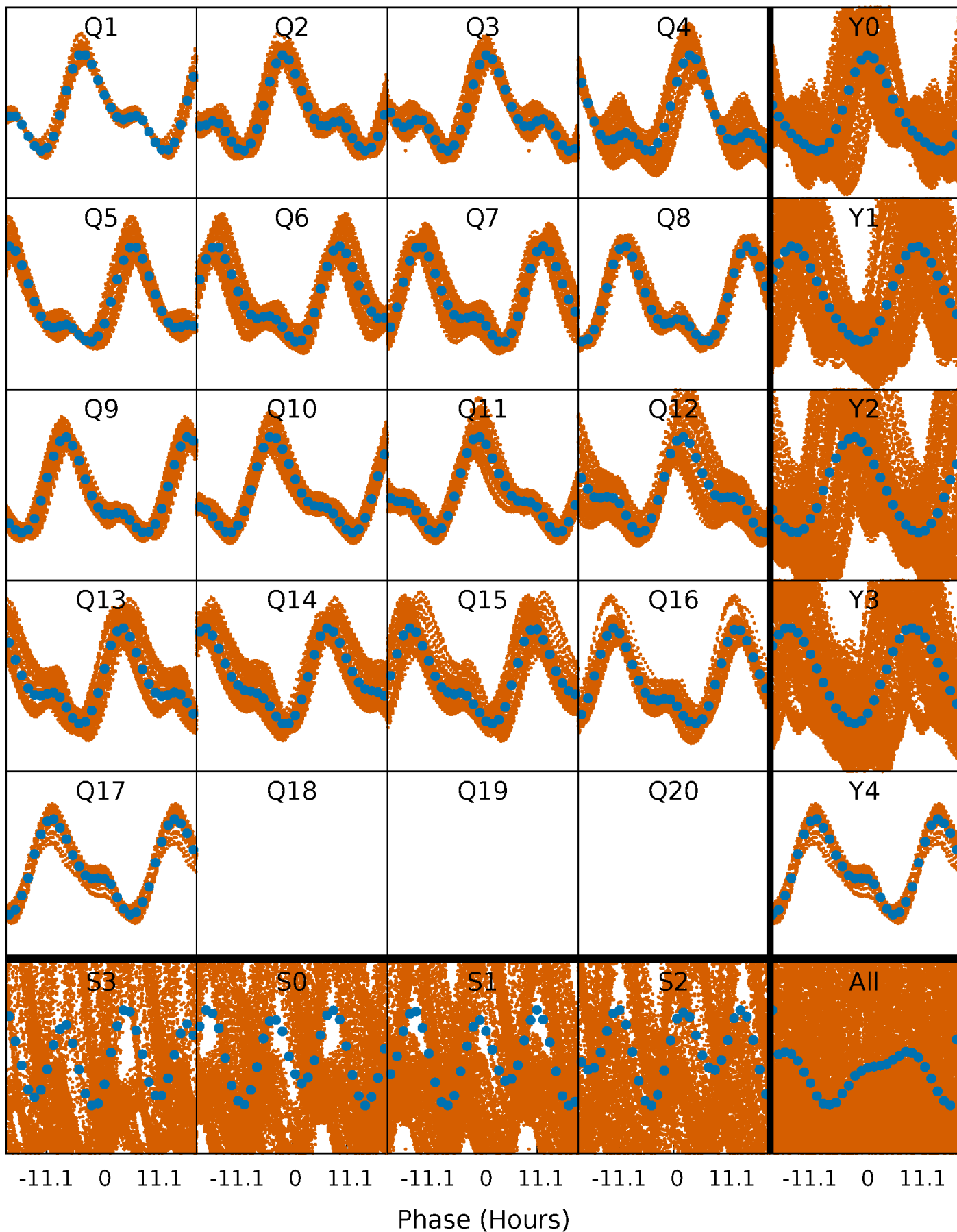


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



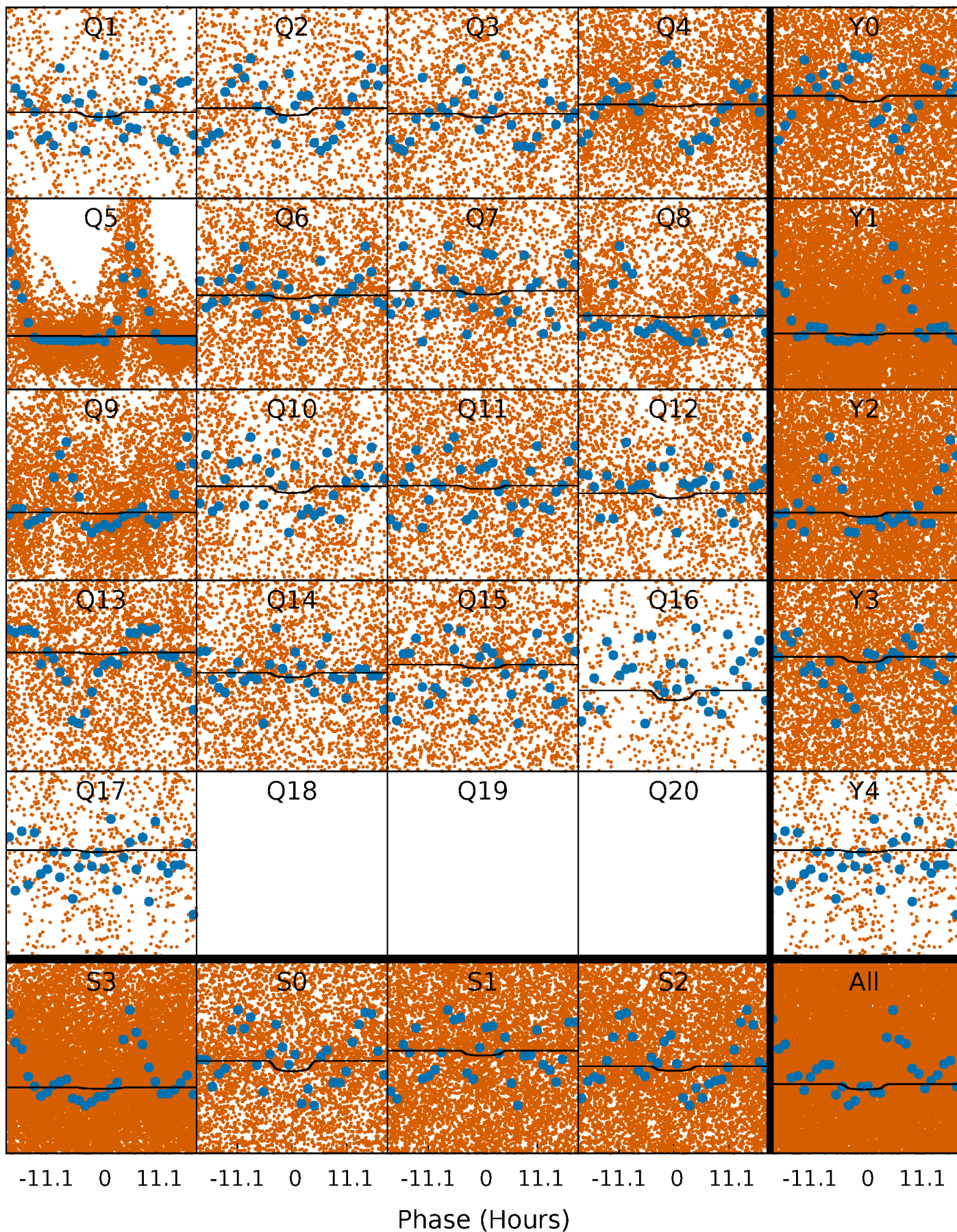
PDC Quarter-Phased Transit Curves

TCE 006619830-01 P= 1.043355 Days $T_0=132.525897$ (BKJD)



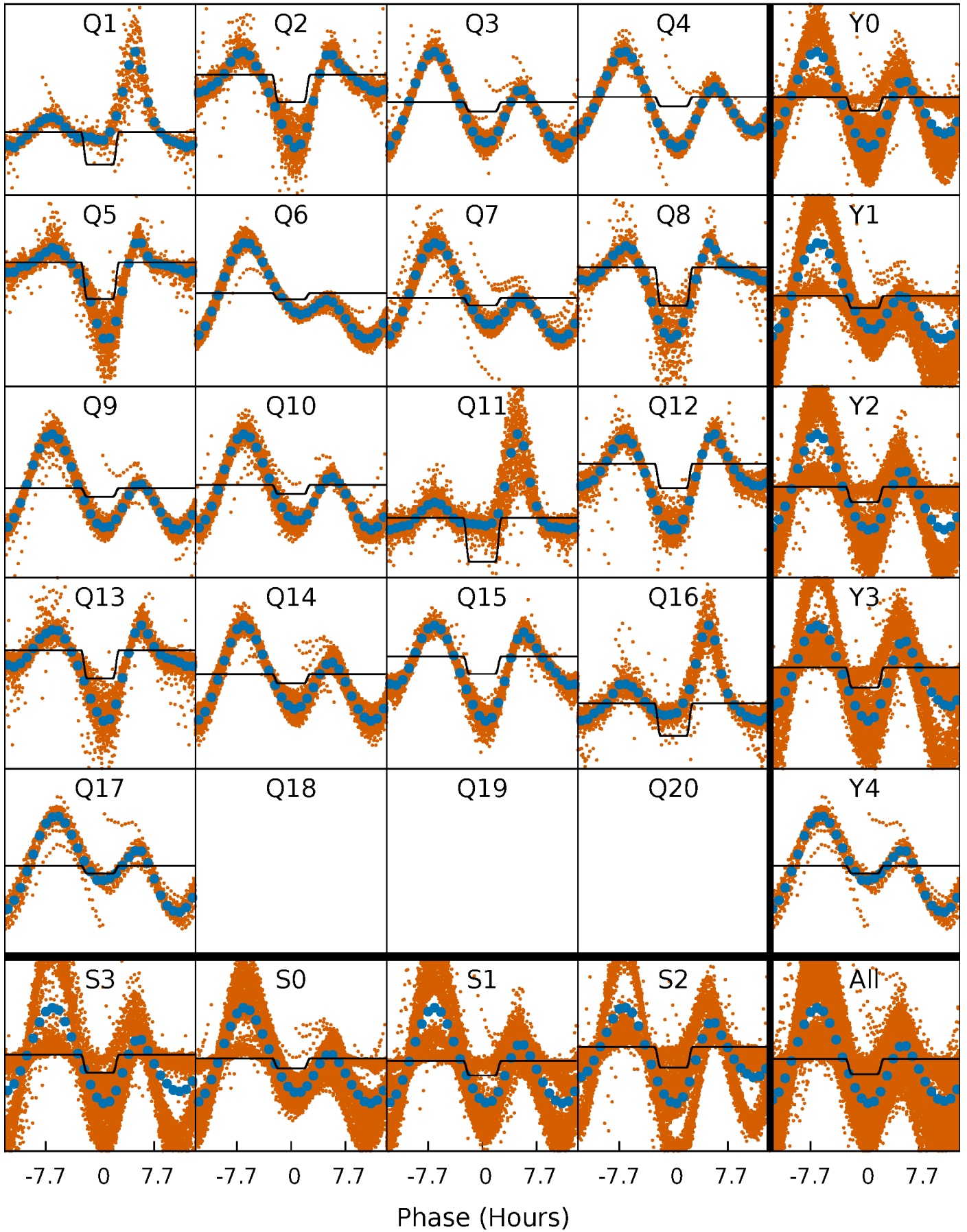
DV Quarter-Phased Transit Curves

TCE 006619830-01 P= 1.043355 Days $T_0=132.525897$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

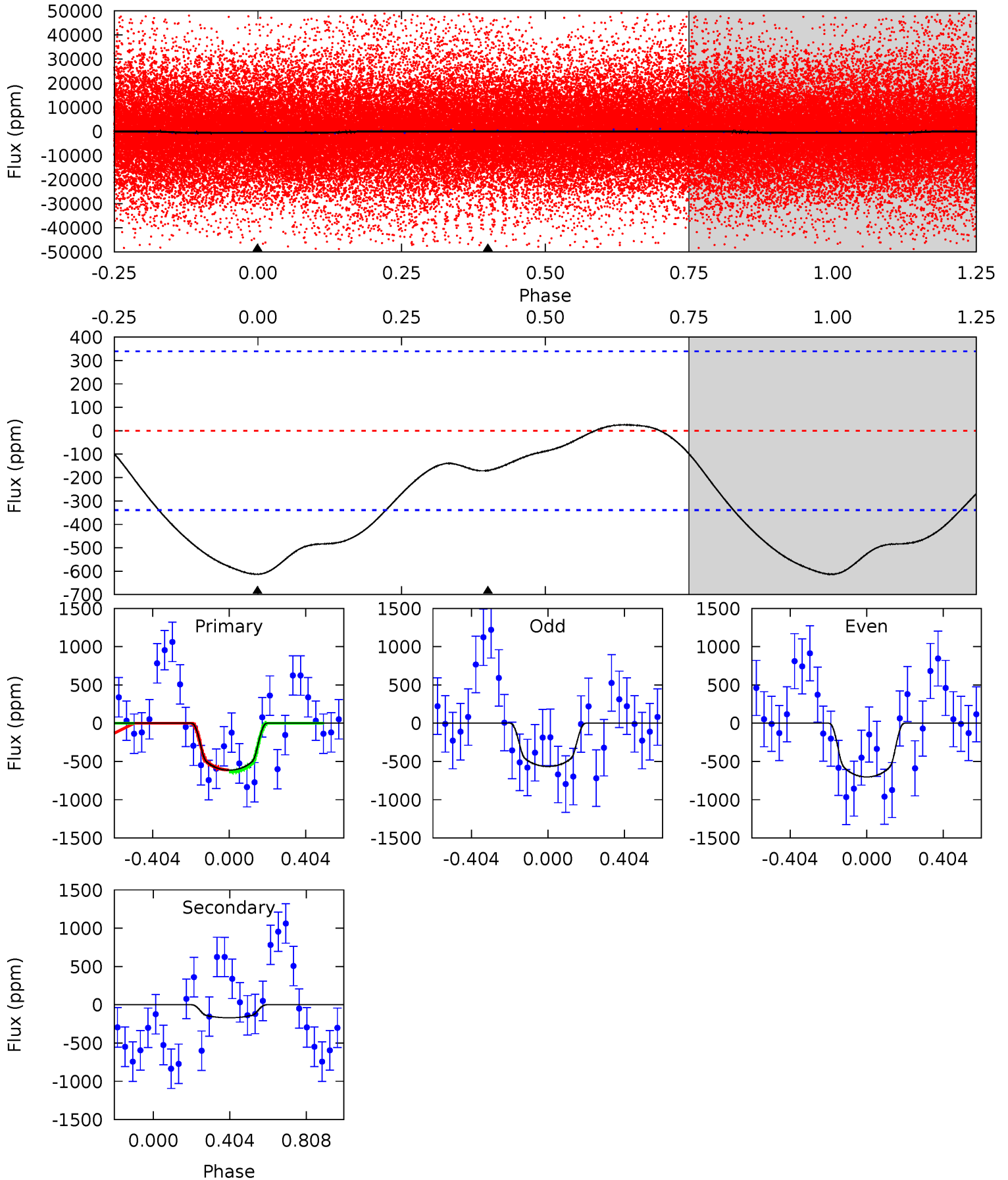
TCE 006619830-01 P= 1.044680 Days $T_0=131.567141$ (BKJD)



DV Model-Shift Uniqueness Test

006619830-01, P = 1.043355 Days, E = 131.482542 Days

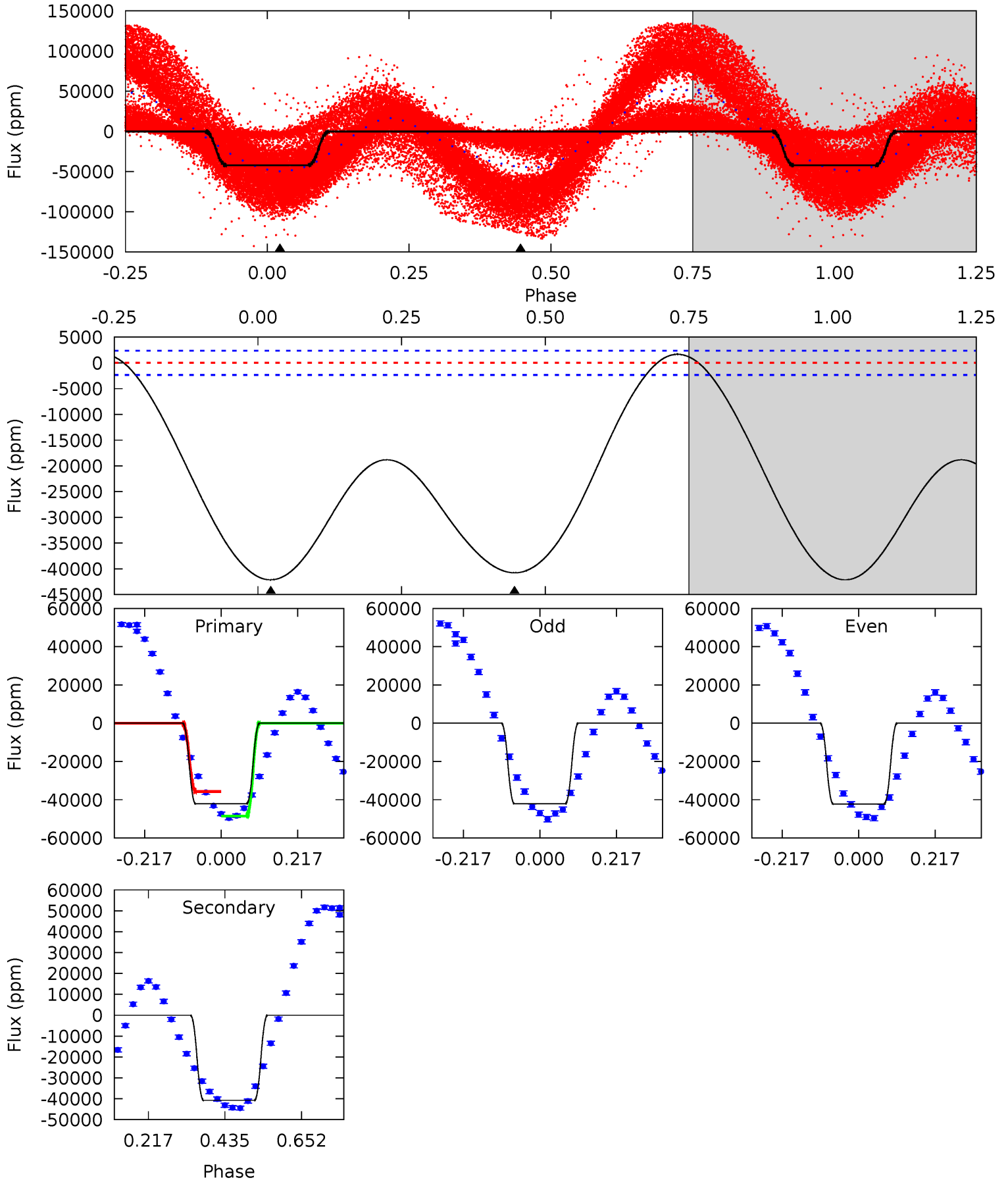
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.70	2.13	0	0	4.26	0.83	0.46	7.70	7.70	2.13	2.13	0.86	0.80	0.04	0.16



Alt Model-Shift Uniqueness Test

006619830-01, P = 1.044680 Days, E = 130.522461 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
78.7	76.1	0	0	4.40	1.23	3.59	78.7	78.7	76.1	76.1	0.09	0.98	0.04	16.2



Stellar Parameters For KIC 006619830

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5635^{+169}_{-169}	$4.429^{+0.140}_{-0.171}$	$-0.460^{+0.300}_{-0.300}$	$0.884^{+0.213}_{-0.142}$	$0.766^{+0.115}_{-0.044}$	$1.562^{+1.122}_{-0.693}$
	+3%/-3%	+3%/-4%	+65%/-65%	+24%/-16%	+15%/-6%	+72%/-44%
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 006619830-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-170 ± 80	$1.56^{+0.87}_{-0.76}$	2411^{+166}_{-133}	5072^{+1994}_{-957}	12^{+37}_{-8}
Alt.	-40771 ± 536	$12.69^{+1.92}_{-1.48}$	2415^{+157}_{-136}	7162^{+372}_{-392}	50^{+14}_{-12}

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

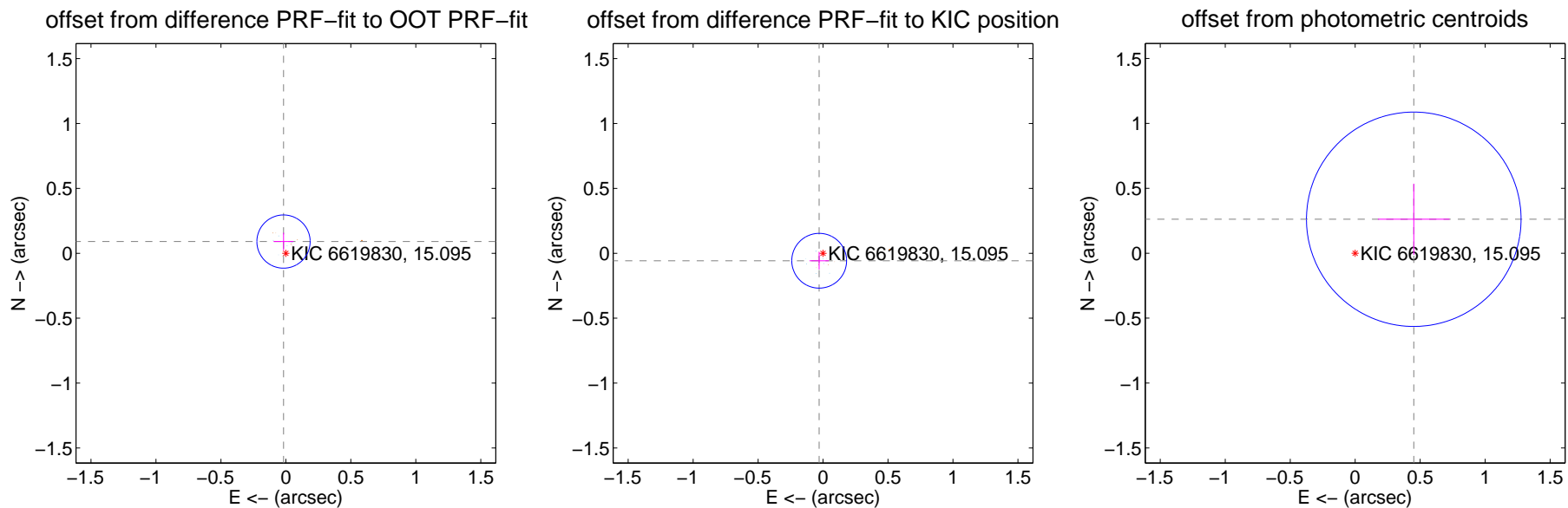
DV Centroid Data

Supplemental centroid analysis for 006619830-01. Kepler magnitude: 15.10. Transit SNR 1.17

There are 9 quarters with good PRF difference image offsets

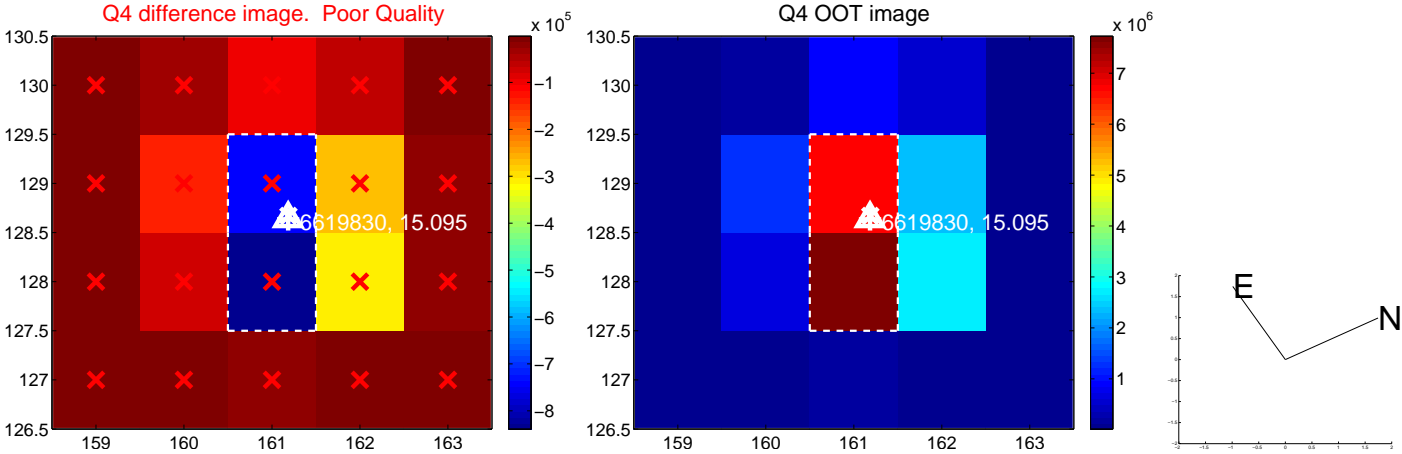
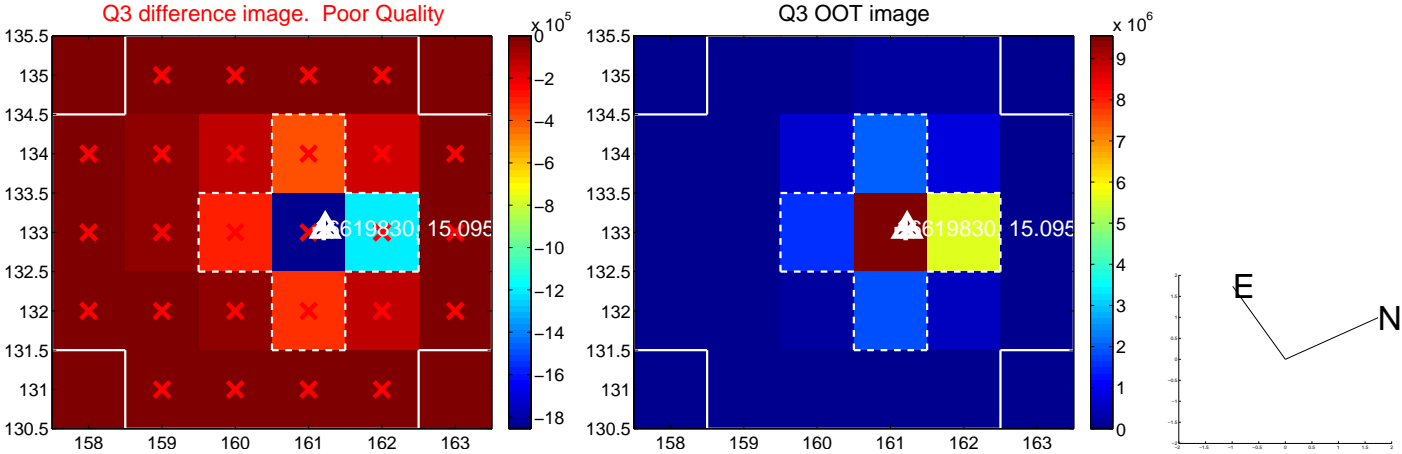
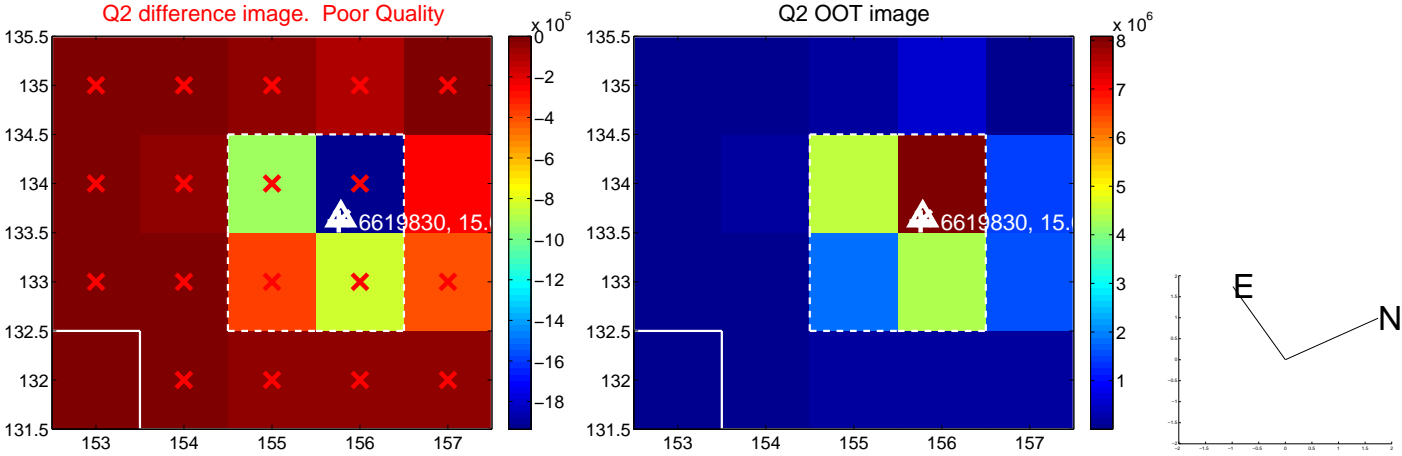
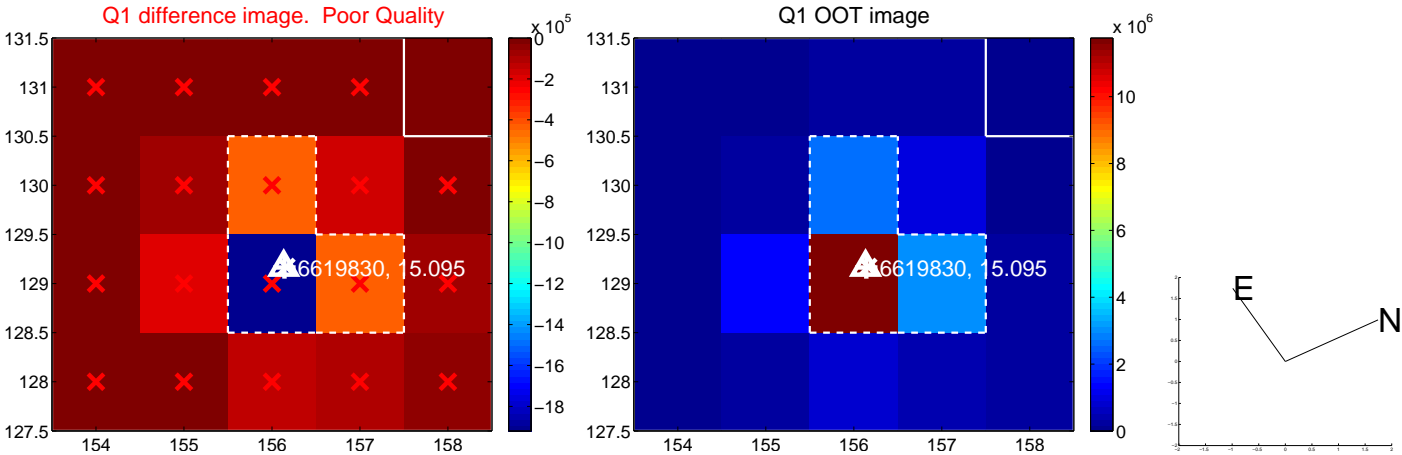
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.092 ± 0.068	1.35	0.018 ± 0.076	0.090 ± 0.068
PRF-fit source offset from KIC position	0.065 ± 0.070	0.92	0.030 ± 0.075	-0.057 ± 0.068
photometric centroid source offset	0.52 ± 0.28	1.89	-0.45 ± 0.28	0.26 ± 0.27

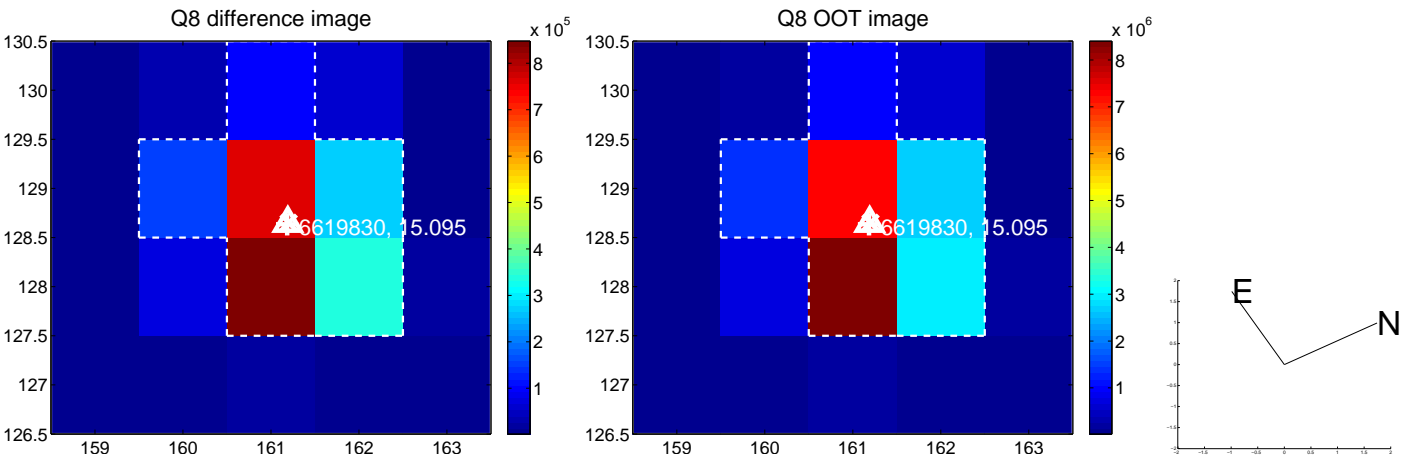
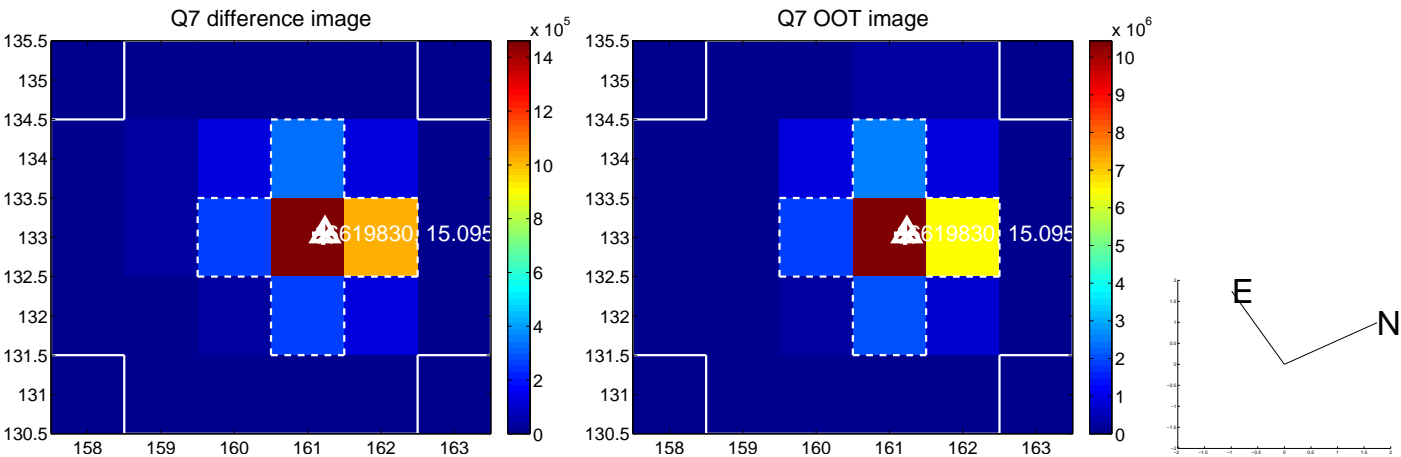
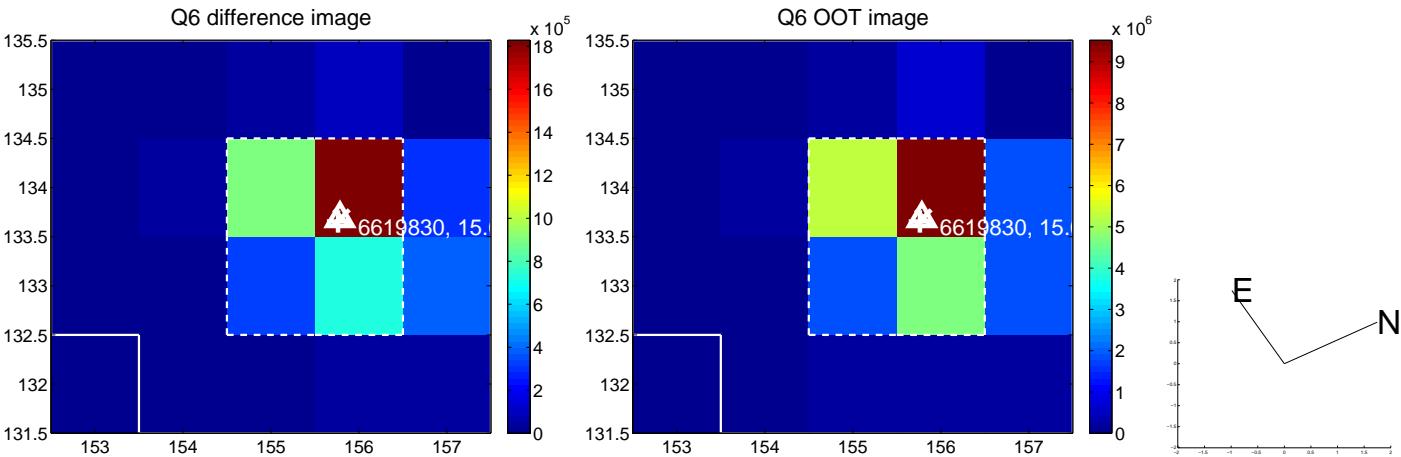
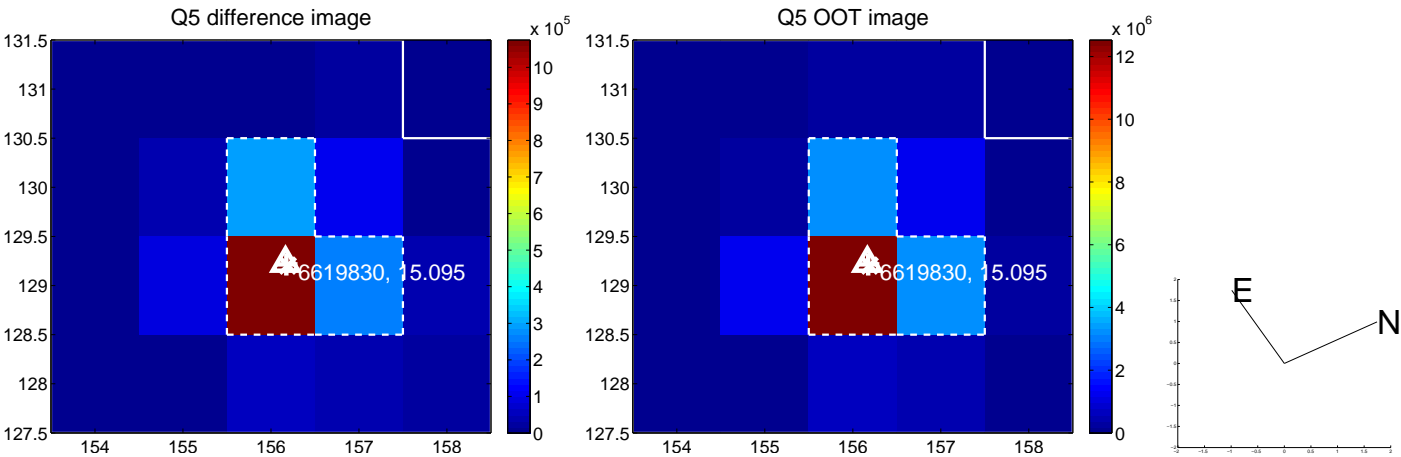


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

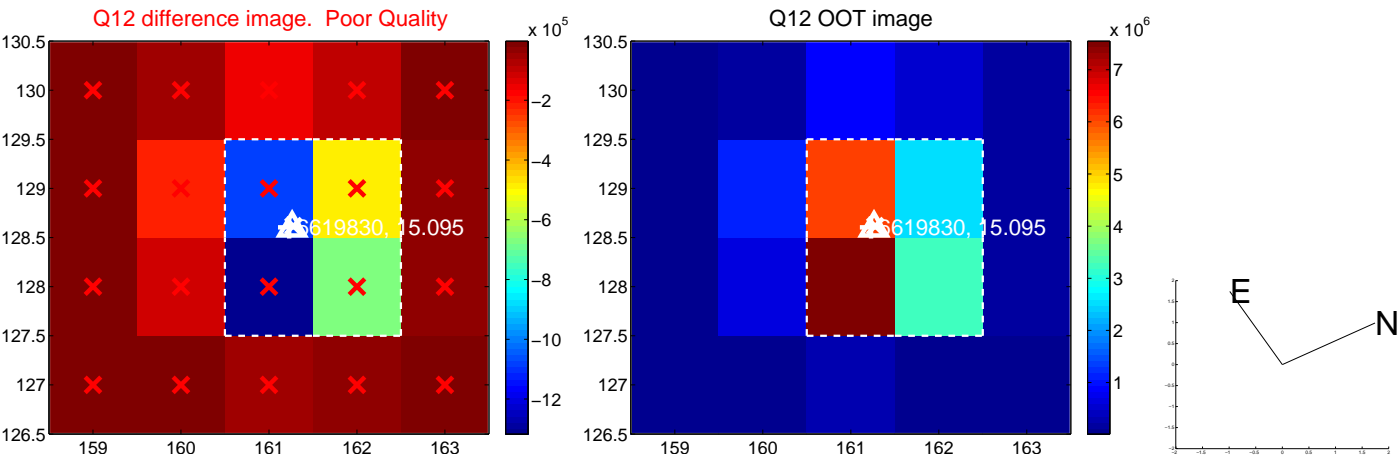
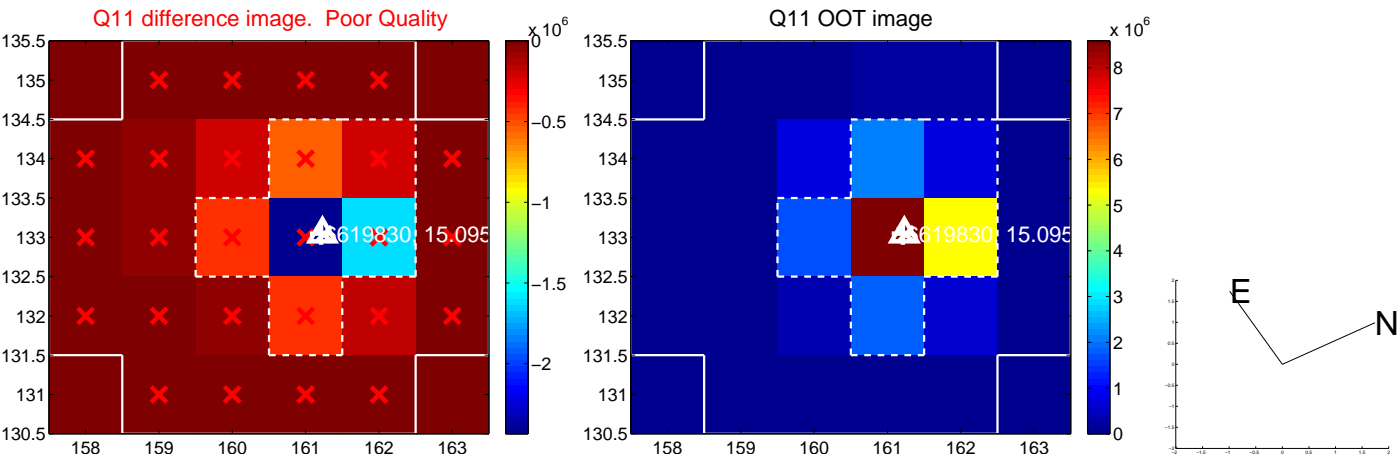
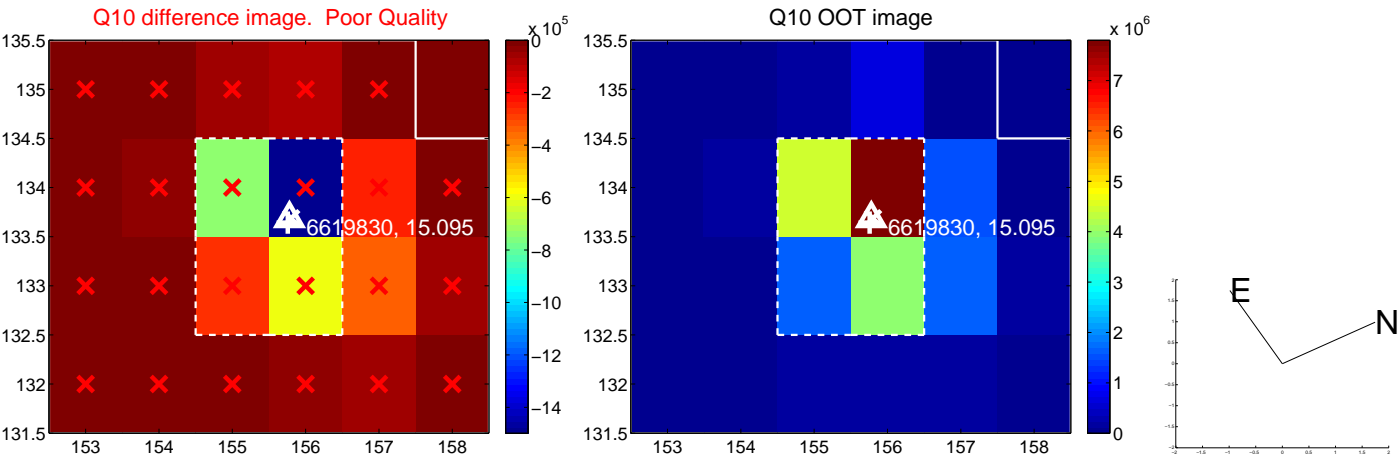
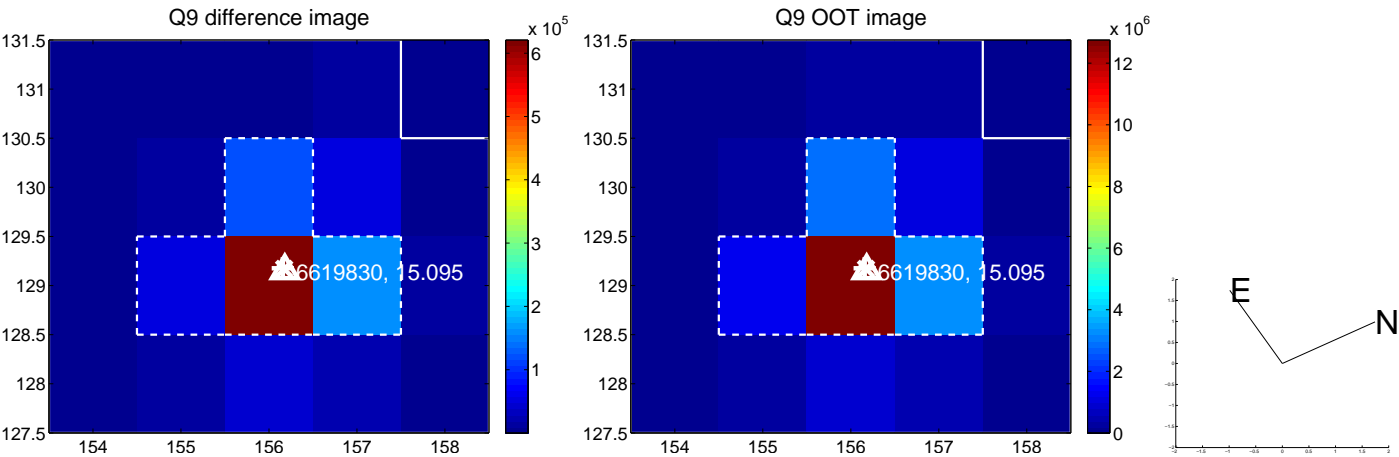
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



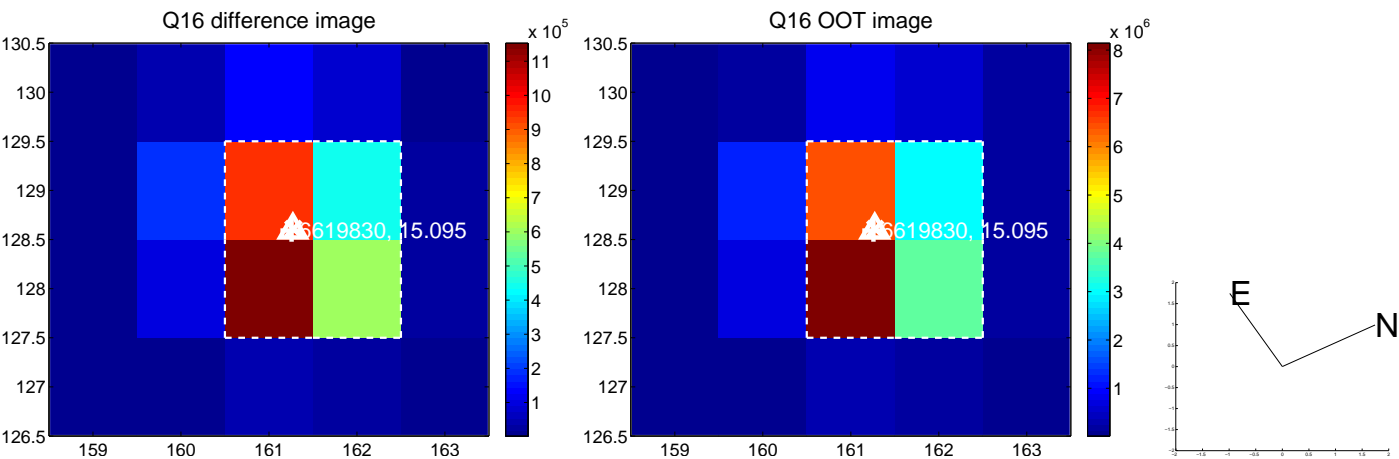
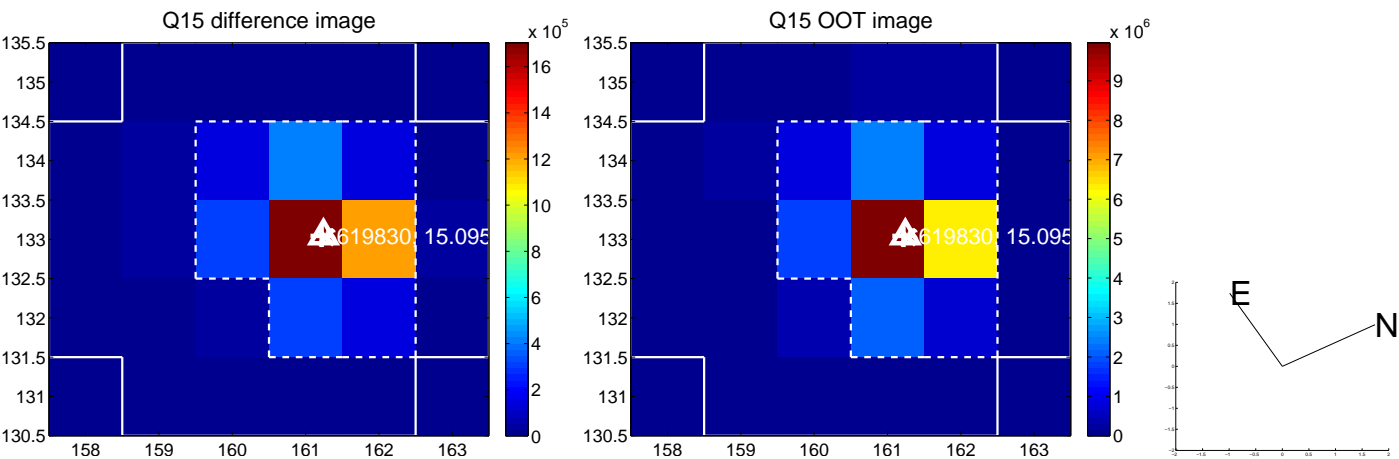
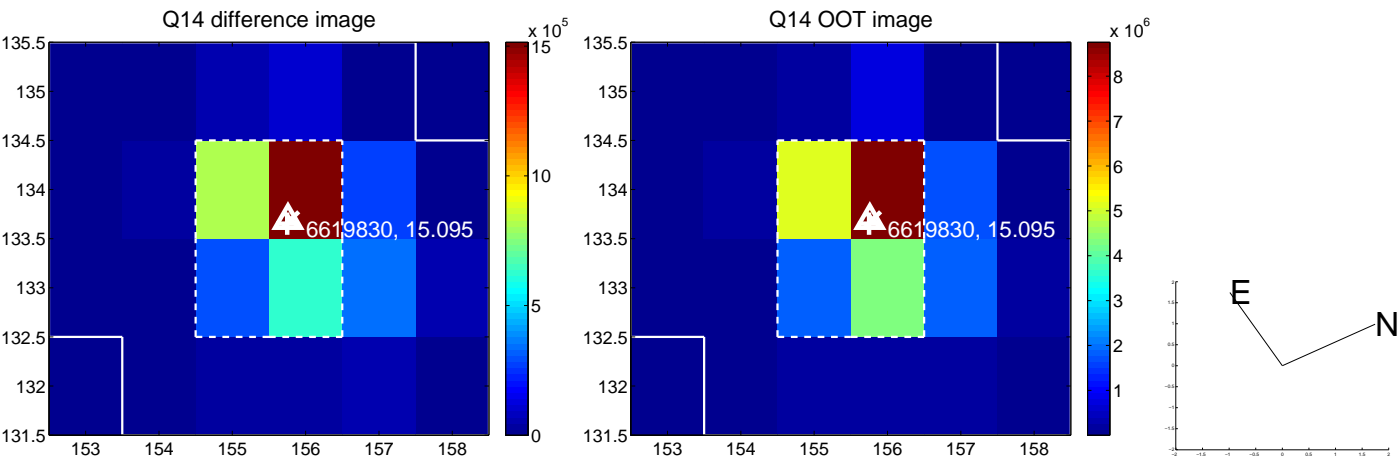
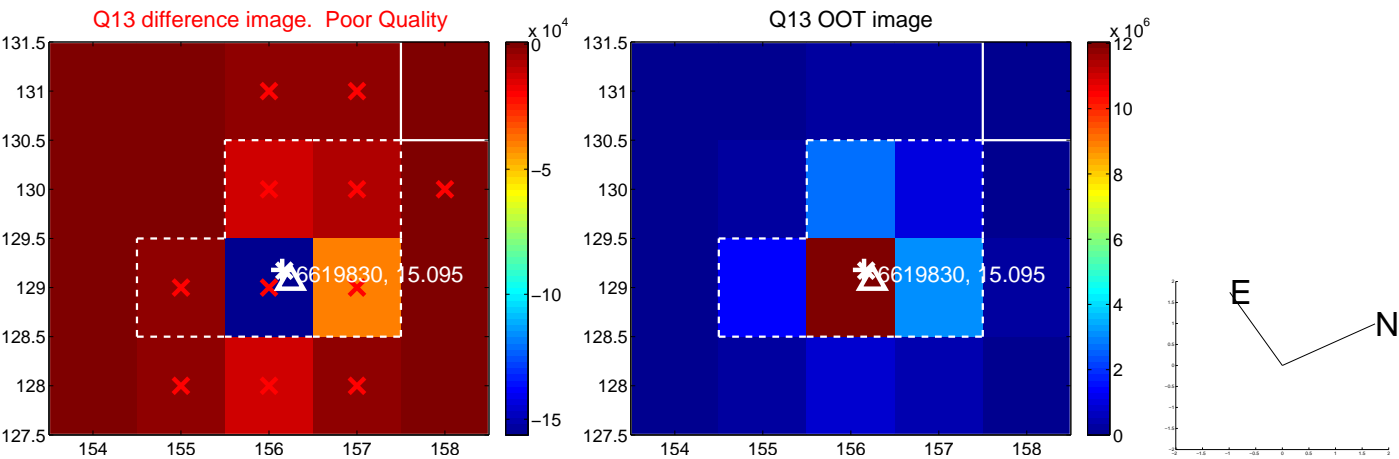
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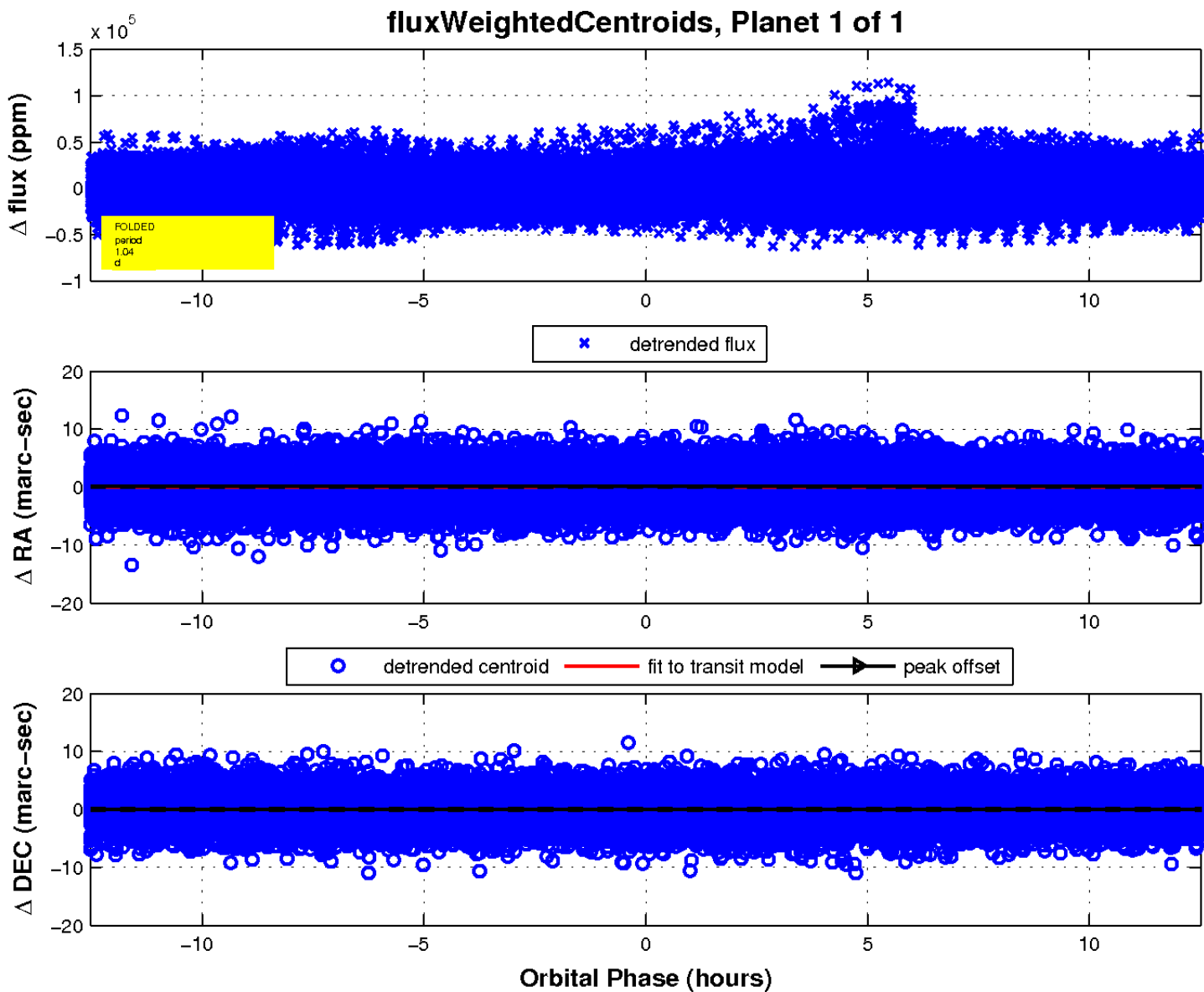
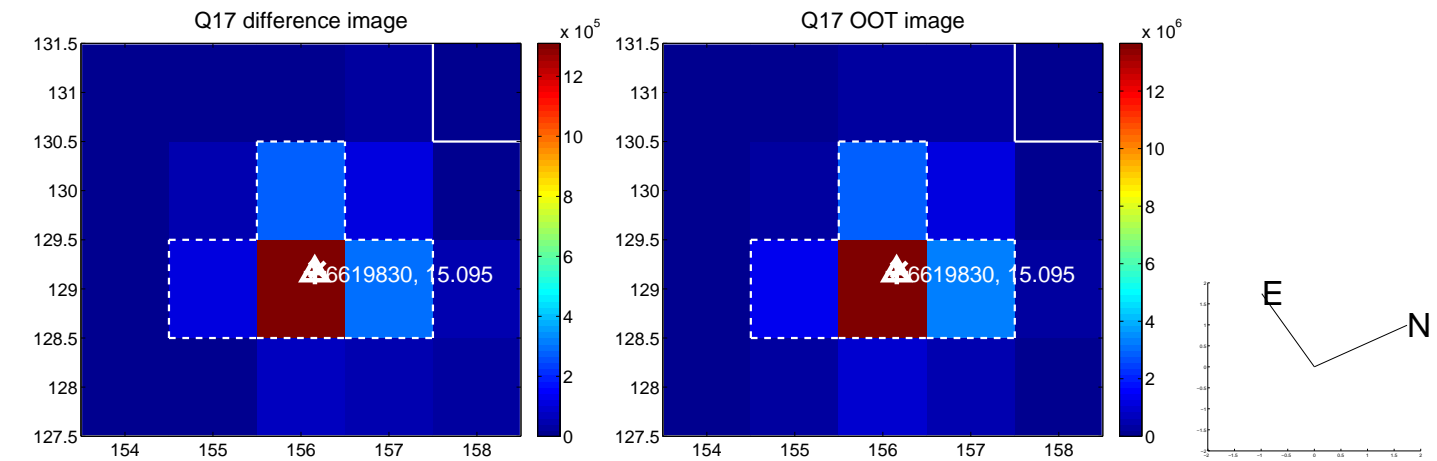
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

