

KIC 006290648

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})
006290648-01	OBS	No	1.609447	131.775424	111.2	5.865	8.5	9.3	1.92	7985	2.40	12272.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006290648-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

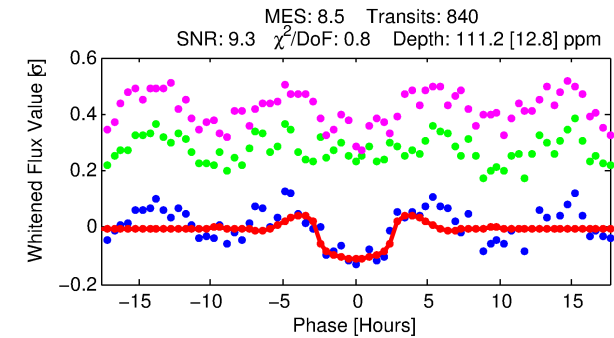
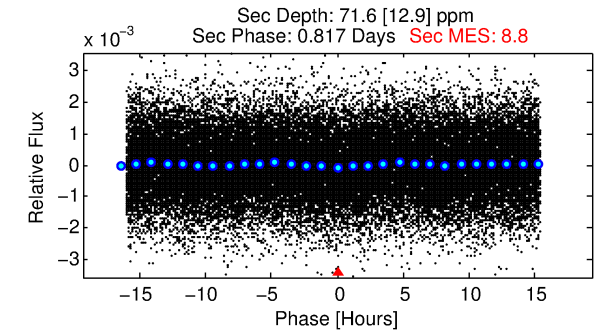
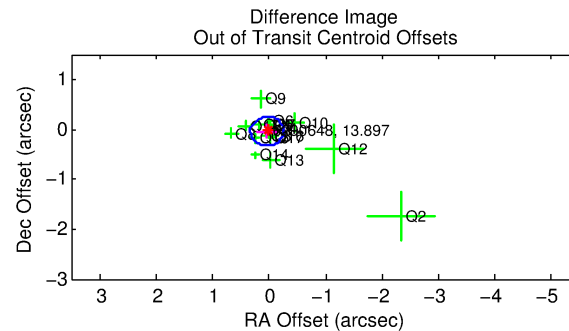
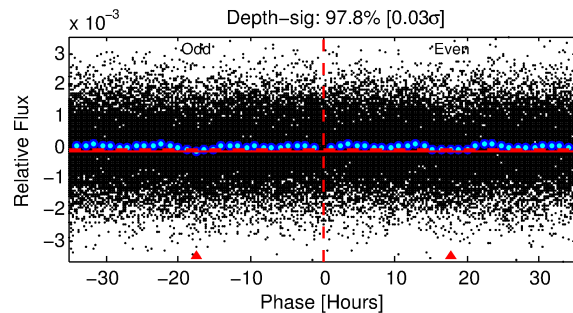
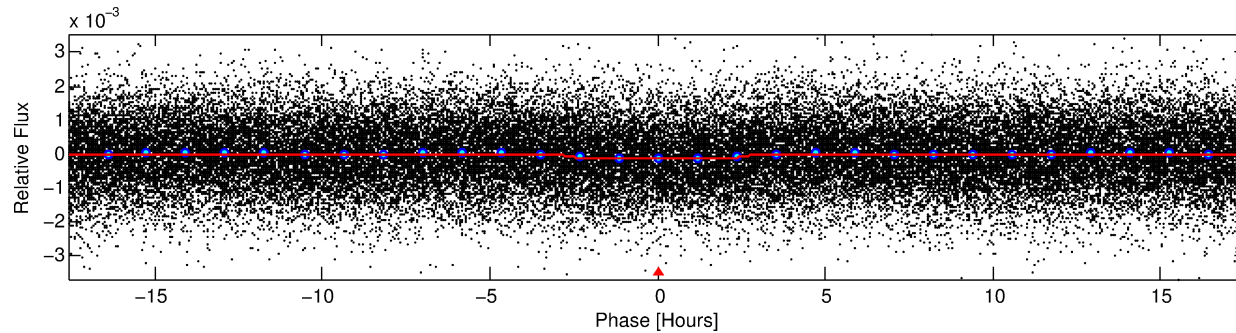
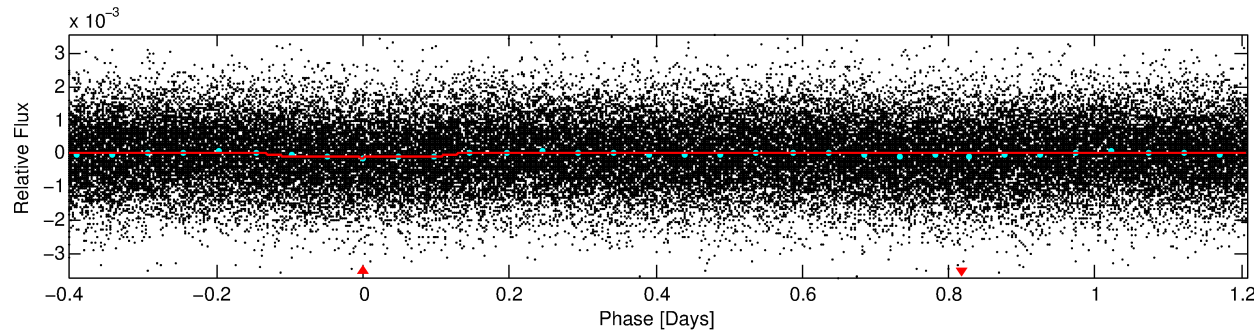
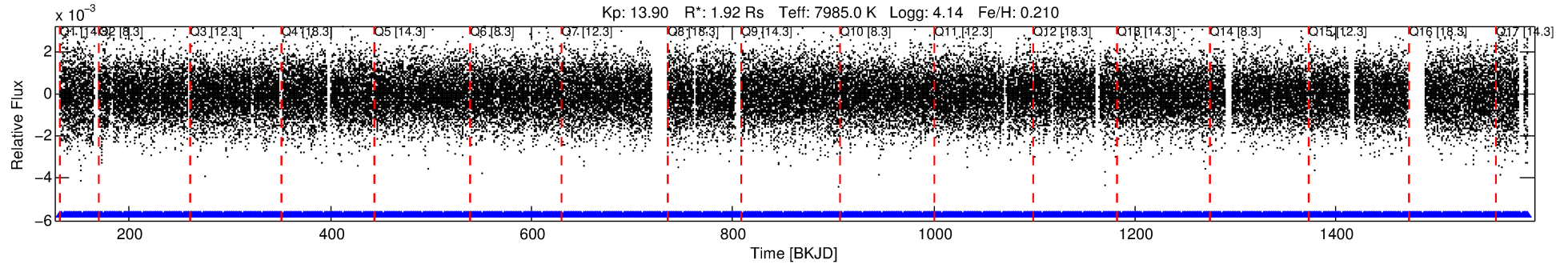
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006290648-01

No Significant Match Found

DV One-Page Summary

KIC: 6290648 Candidate: 1 of 1 Period: 1.609 d



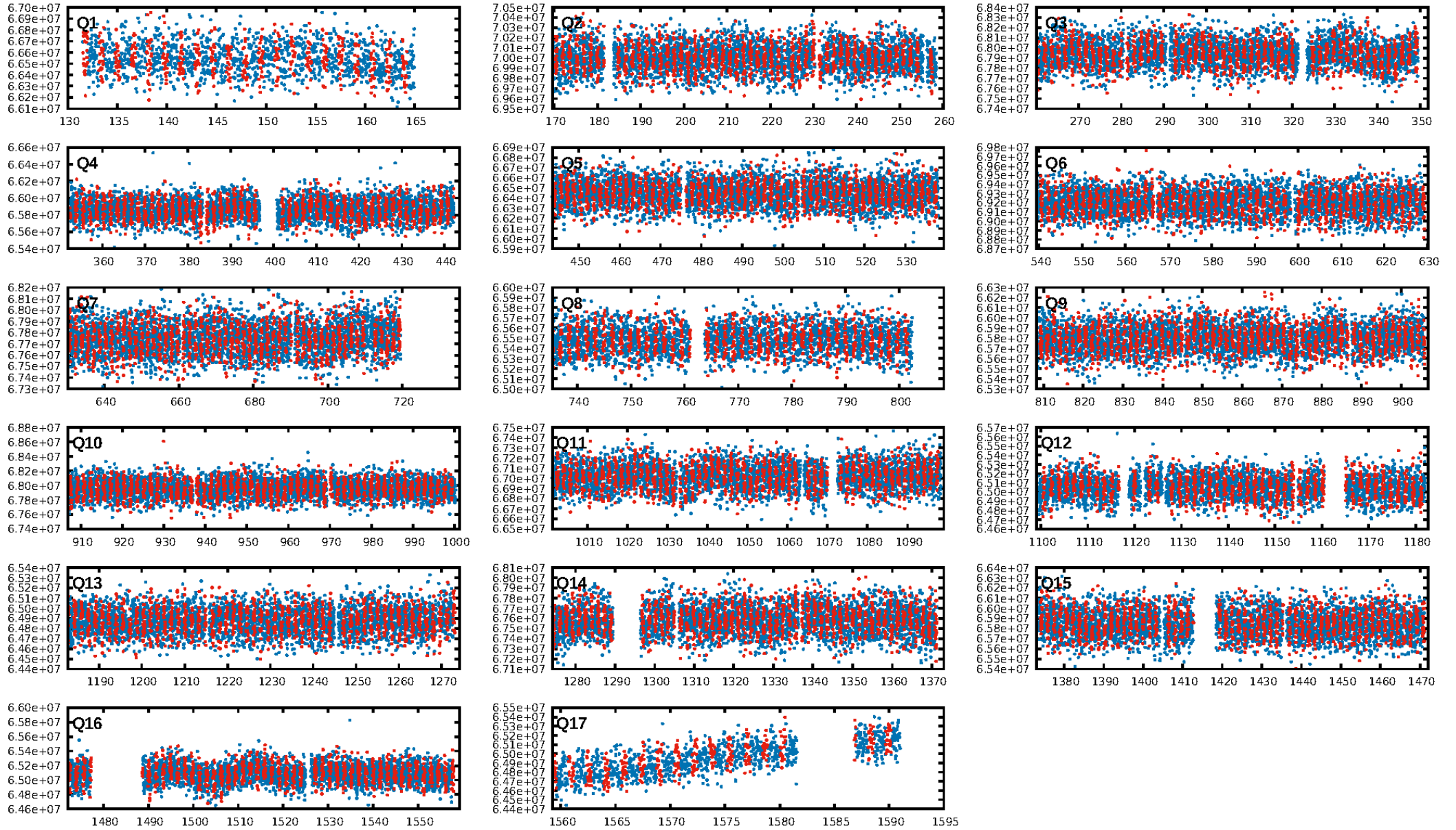
DV Fit Results:

Period = 1.60945 [0.00002] d
Epoch = 131.7754 [0.0058] BKJD
Rp/R* = 0.0114 [0.0019]
a/R* = 1.29 [0.51]
b = 0.92 [0.16]
Seff = 12272.34 [4563.07]
Teq = 2684 [249] K
Rp = 2.40 [0.79] Re
a = 0.0331 [0.0077] AU
Ag = 7.51 [3.80] [1.71 σ]
Teffp = 6869 [727] K [5.45 σ]

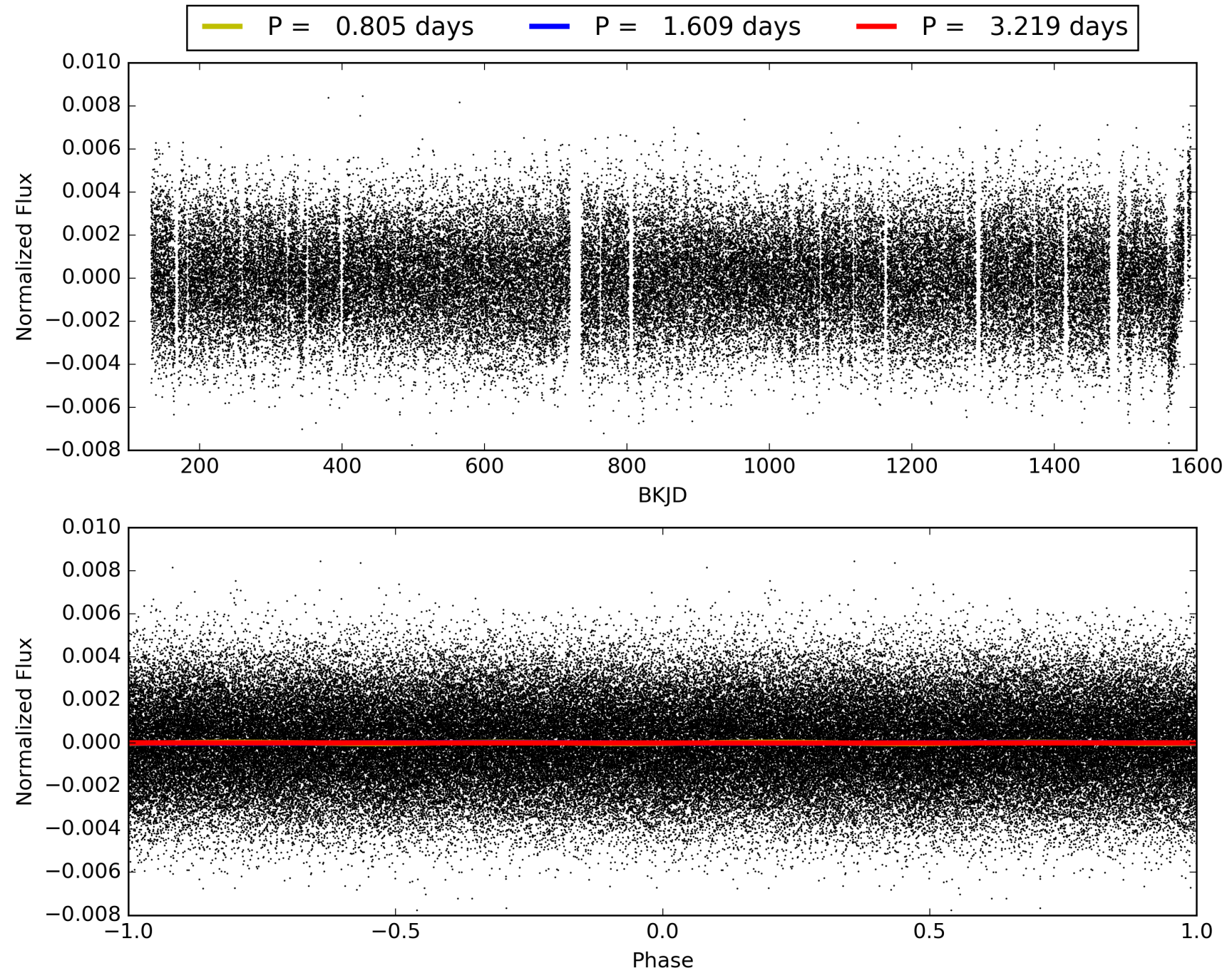
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.39e-12
RollingBand-fgt: 1.00 [802/802]
GhostDiagnostic-chr: 1.597
Centroid-sig: 77.4%
Centroid-so: 0.083 arcsec [0.32 σ]
OotOffset-rm: 0.057 arcsec [0.58 σ]
KicOffset-rm: 0.079 arcsec [0.67 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.65 [11/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006290648-01, PDC Light Curves

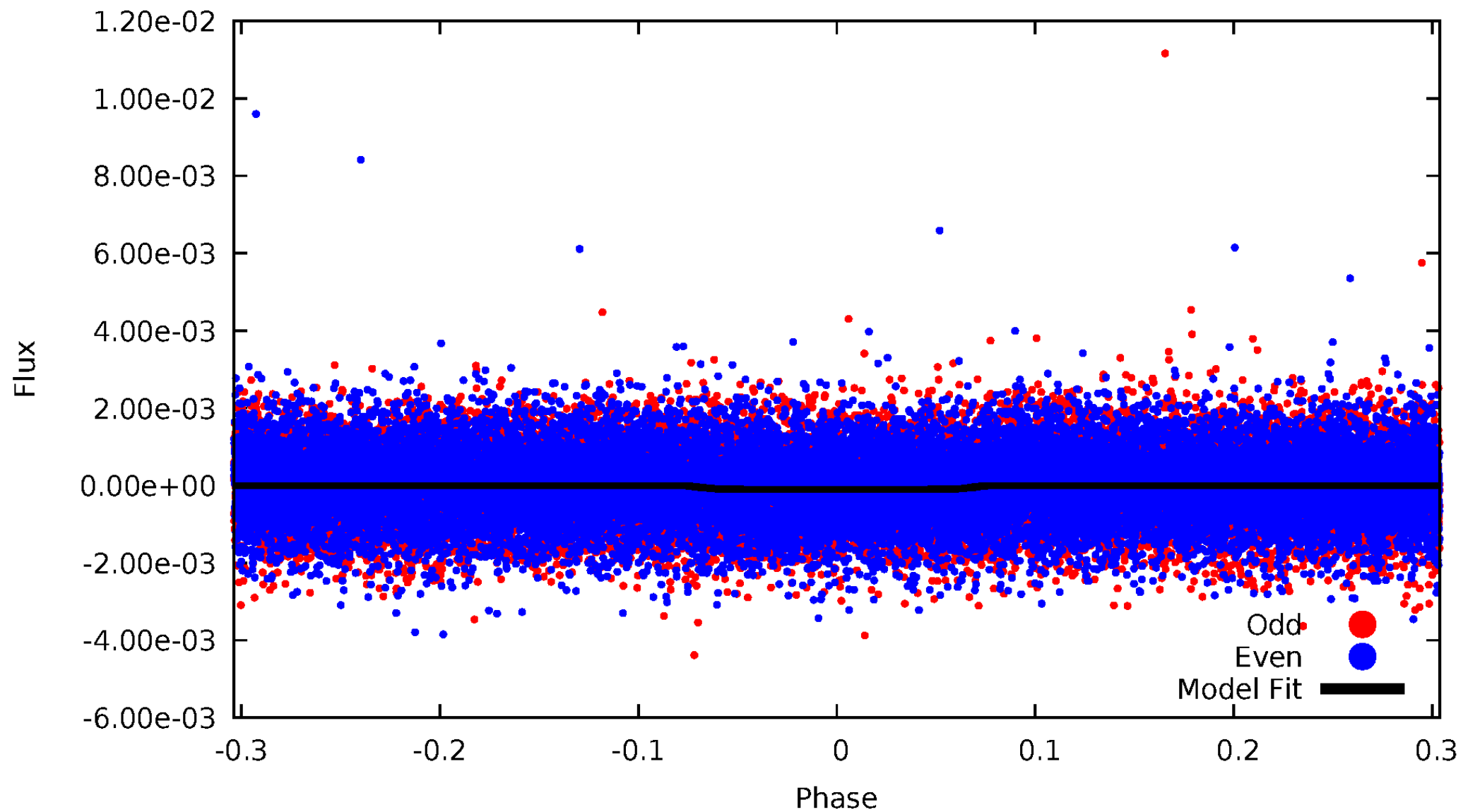


TCE 006290648-01



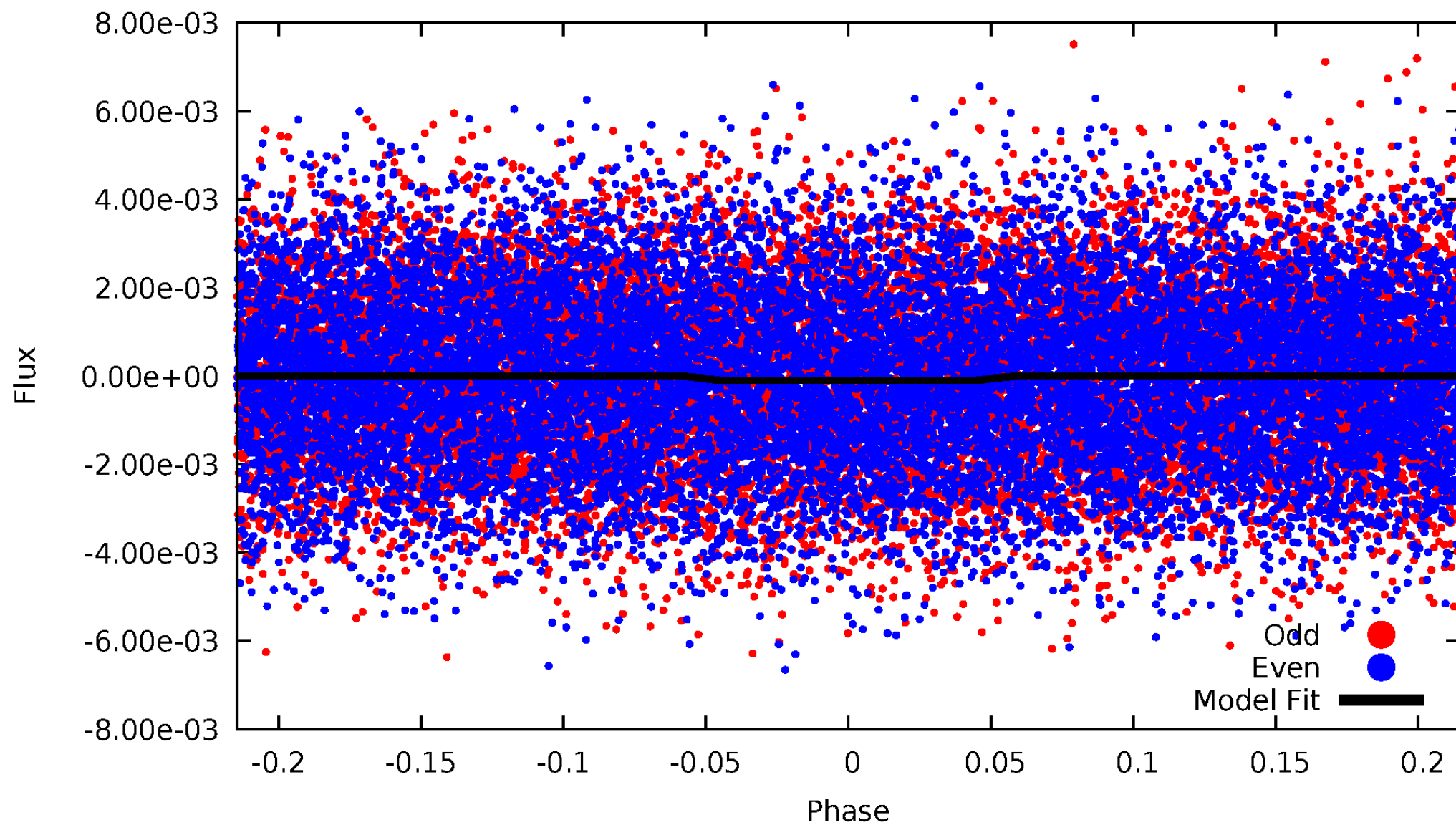
DV Odd/Even

TCE 006290648-01

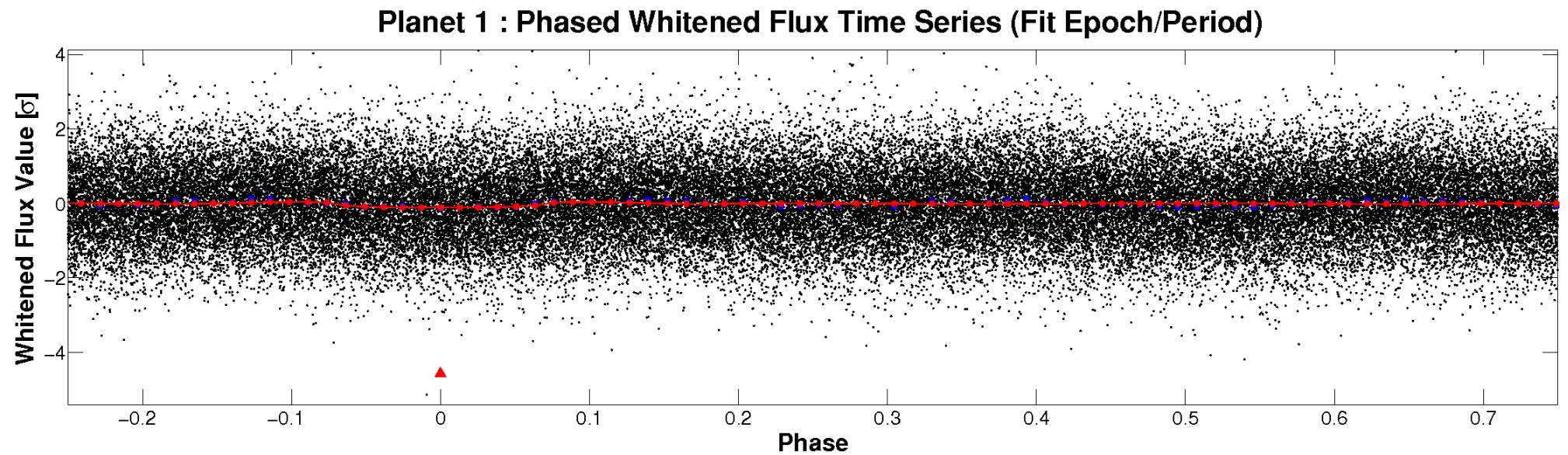
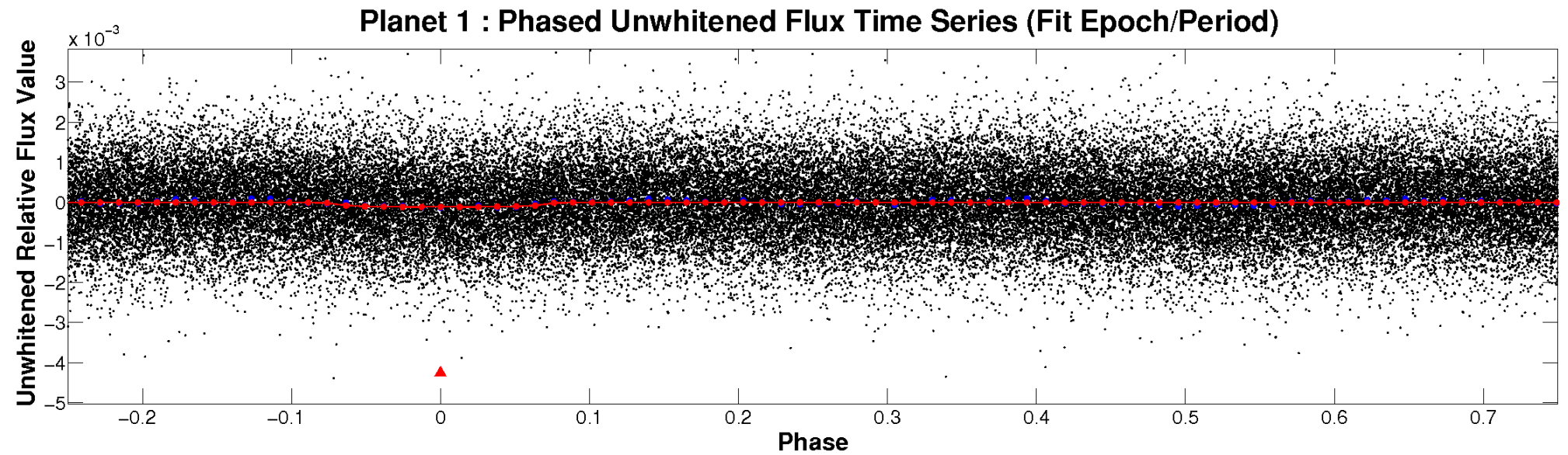


ALT Odd/Even

TCE 006290648-01

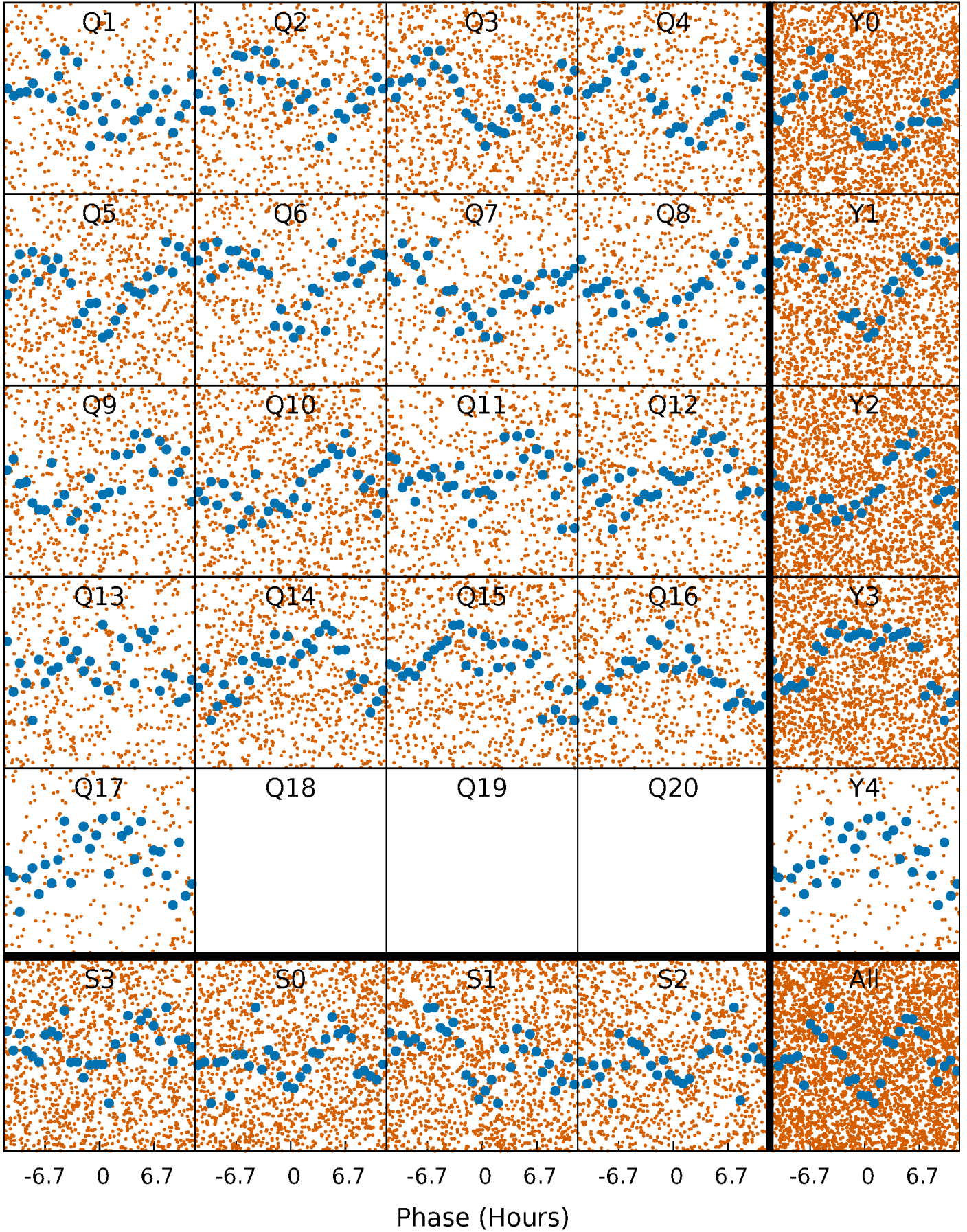


Non-Whitened Vs. Whitened Light Curve



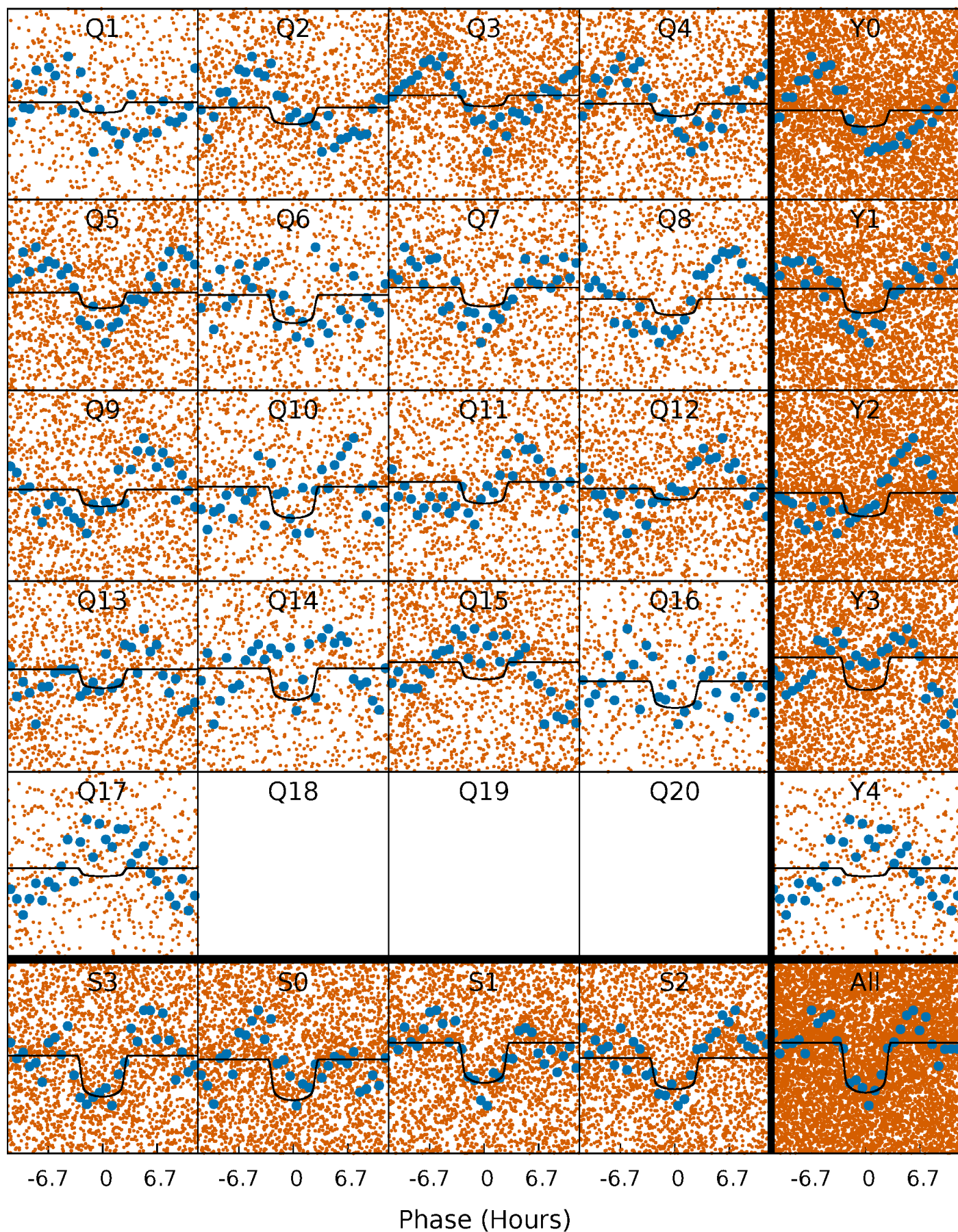
PDC Quarter-Phased Transit Curves

TCE 006290648-01 P= 1.609447 Days $T_0=131.775424$ (BKJD)



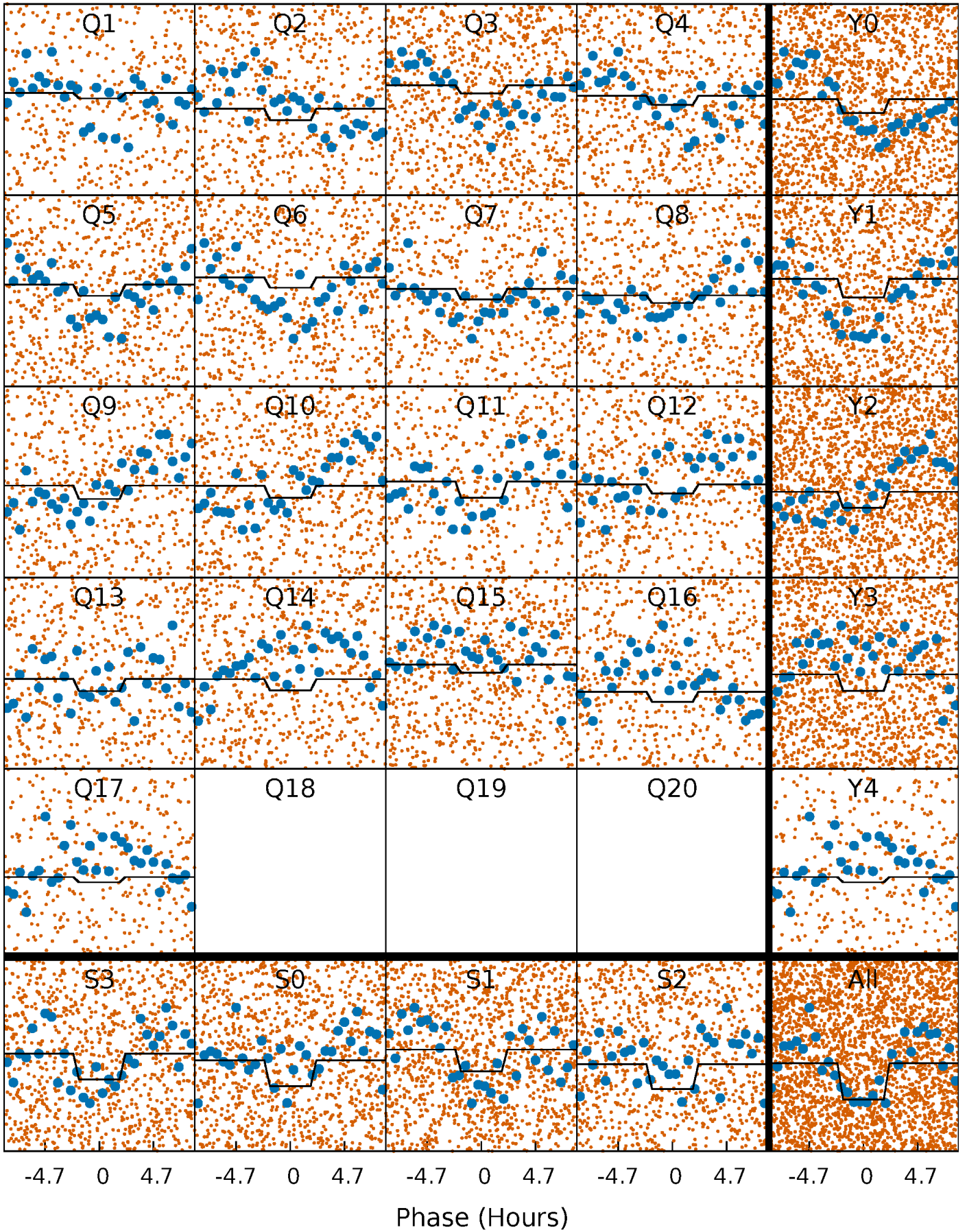
DV Quarter-Phased Transit Curves

TCE 006290648-01 P= 1.609447 Days $T_0=131.775424$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

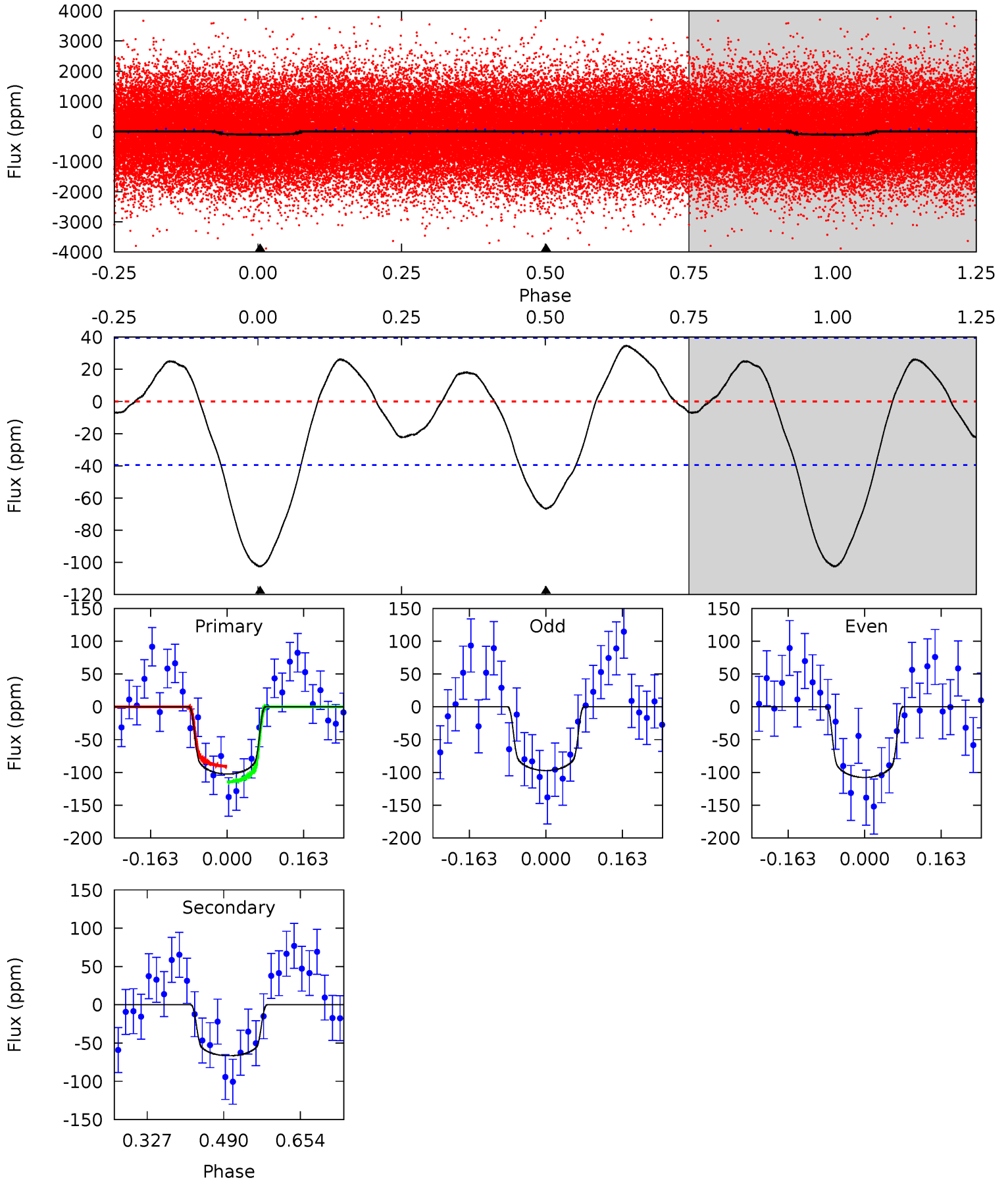
TCE 006290648-01 P= 1.609468 Days $T_0=131.775421$ (BKJD)



DV Model-Shift Uniqueness Test

006290648-01, P = 1.609447 Days, E = 130.165977 Days

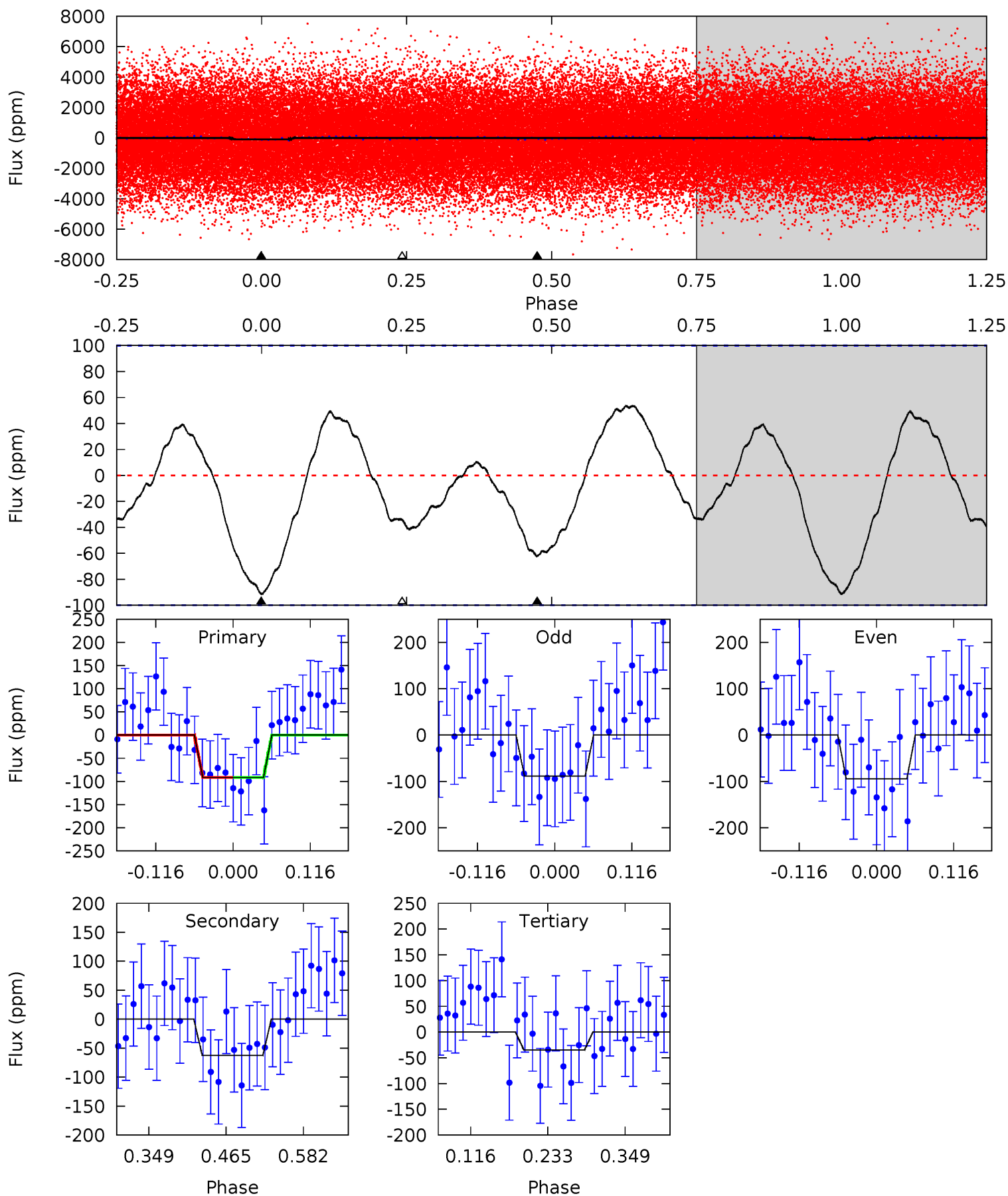
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	7.52	0	0	4.46	1.39	1.57	11.6	11.6	7.52	7.52	0.60	1.15	0.25	1.35



Alt Model-Shift Uniqueness Test

006290648-01, P = 1.609468 Days, E = 130.165953 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.14	2.83	1.57	0	4.53	1.57	1.37	2.58	4.14	1.26	2.83	0.13	0.65	0.37	0.00



Stellar Parameters For KIC 006290648

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7985^{+222}_{-350}	$4.142^{+0.081}_{-0.175}$	$0.210^{+0.150}_{-0.450}$	$1.922^{+0.542}_{-0.292}$	$1.868^{+0.233}_{-0.285}$	$0.371^{+0.155}_{-0.176}$
	+3%/-4%	+2%/-4%	+71%/-214%	+28%/-15%	+12%/-15%	+42%/-47%
Source	KIC0	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 006290648-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-67 ± 9	$2.46^{+0.55}_{-0.45}$	3778^{+262}_{-217}	6446^{+757}_{-574}	$6.643^{+3.027}_{-2.285}$
Alt.	-62 ± 22	$2.06^{+0.50}_{-0.43}$	3785^{+248}_{-222}	6969^{+1232}_{-1051}	$8.576^{+6.456}_{-4.041}$

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 $A_{obs} \gg 1.0$

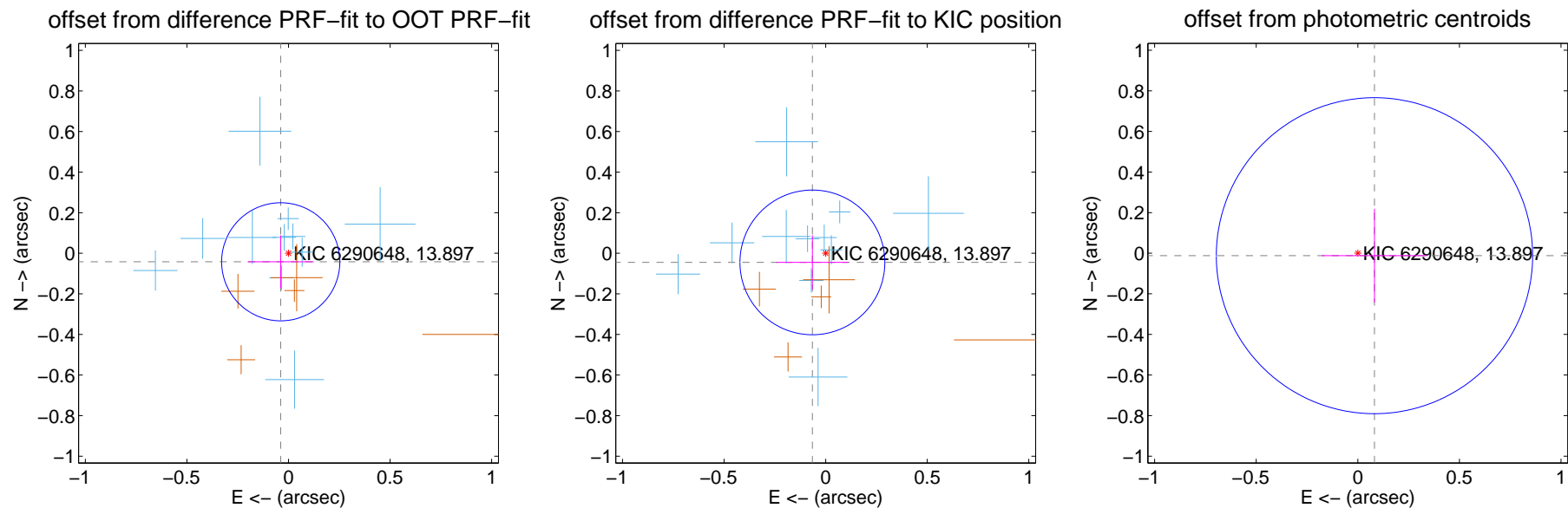
DV Centroid Data

Supplemental centroid analysis for 006290648-01. Kepler magnitude: 13.90. Transit SNR 9.25

There are 11 quarters with good PRF difference image offsets

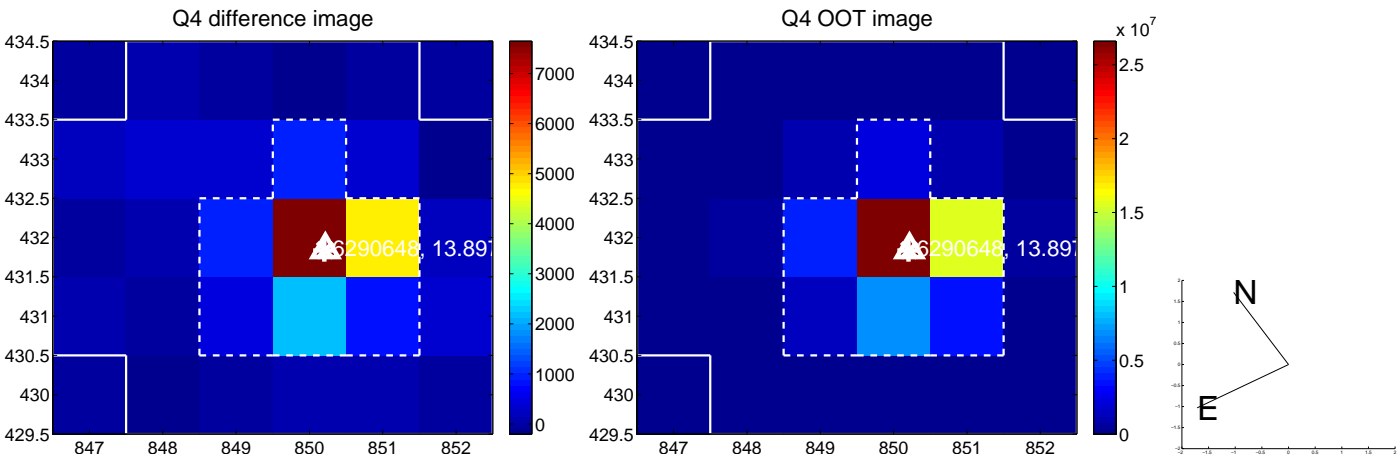
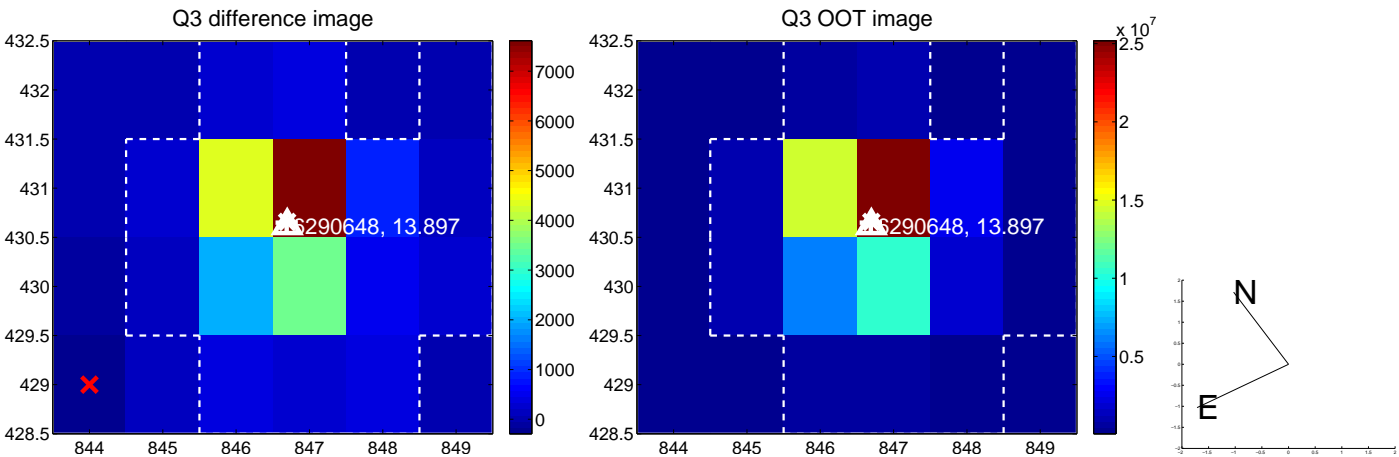
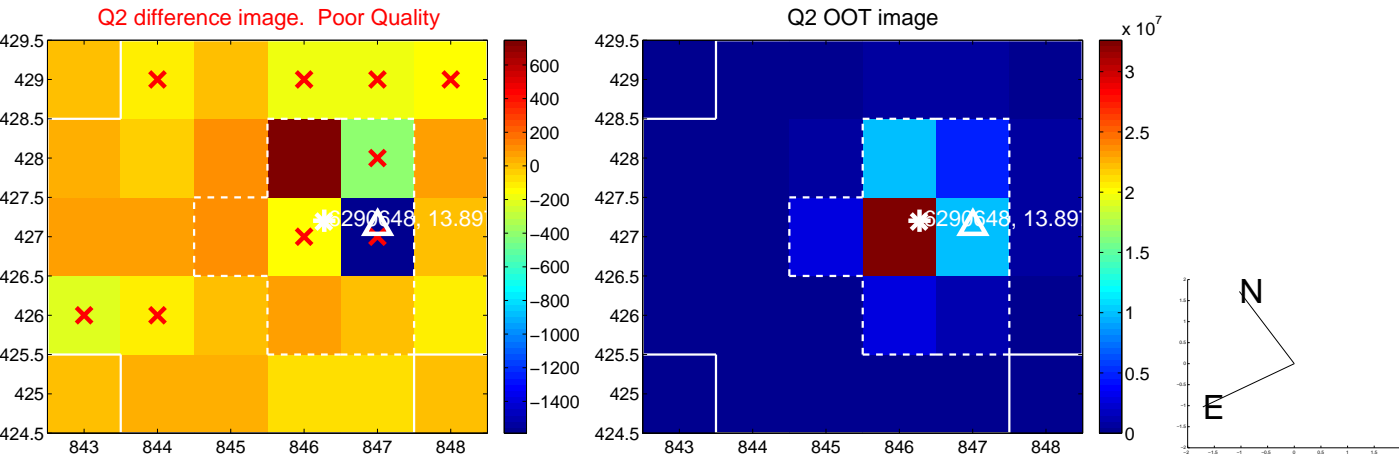
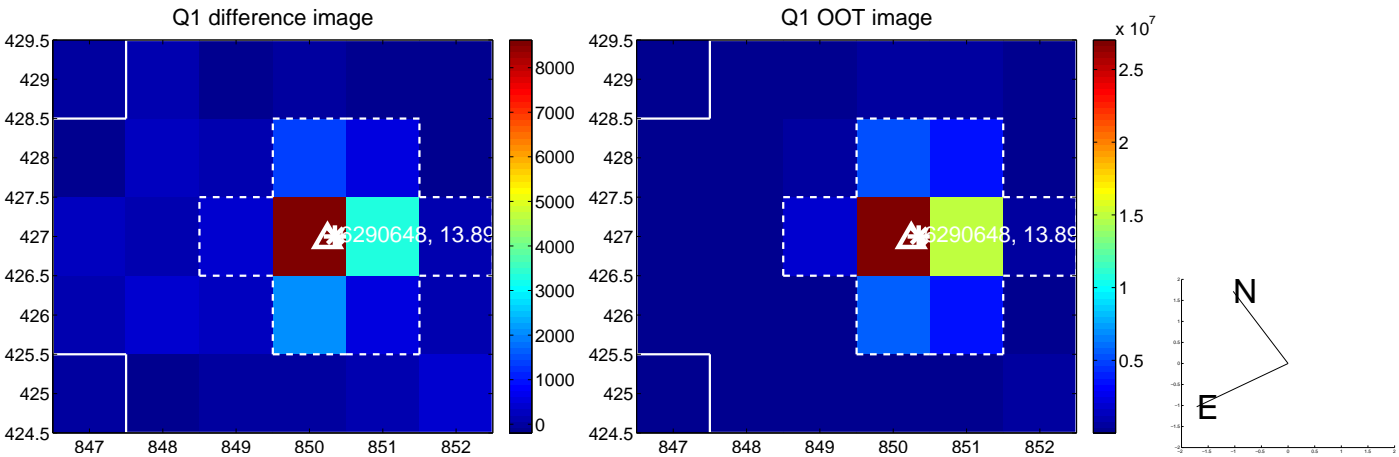
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.057 ± 0.097	0.58	0.038 ± 0.162	-0.042 ± 0.130
PRF-fit source offset from KIC position	0.079 ± 0.119	0.67	0.065 ± 0.177	-0.045 ± 0.133
photometric centroid source offset	0.08 ± 0.26	0.32	-0.08 ± 0.26	-0.01 ± 0.23

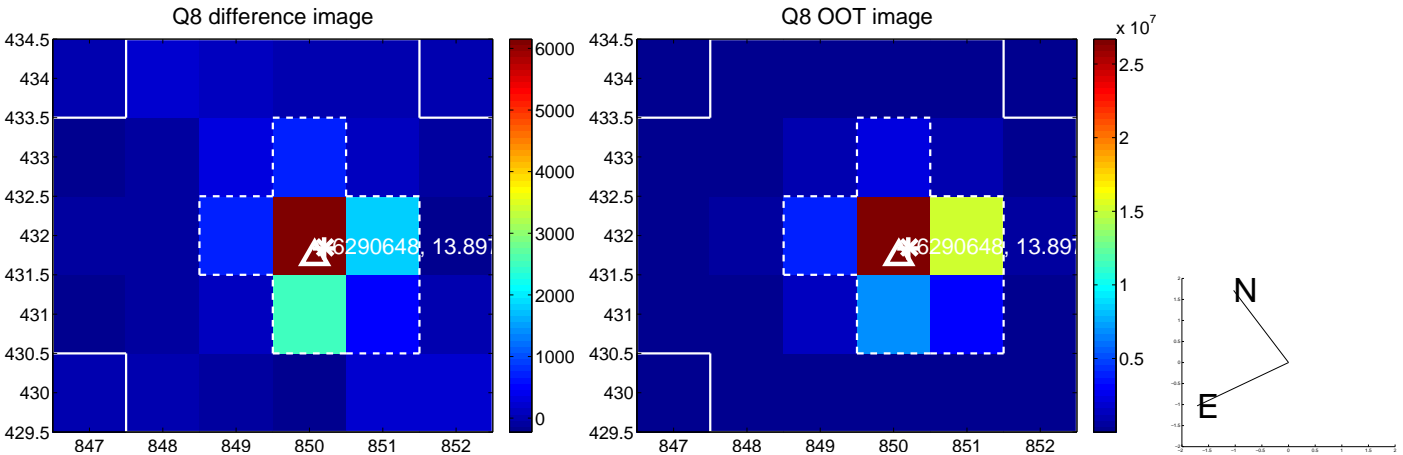
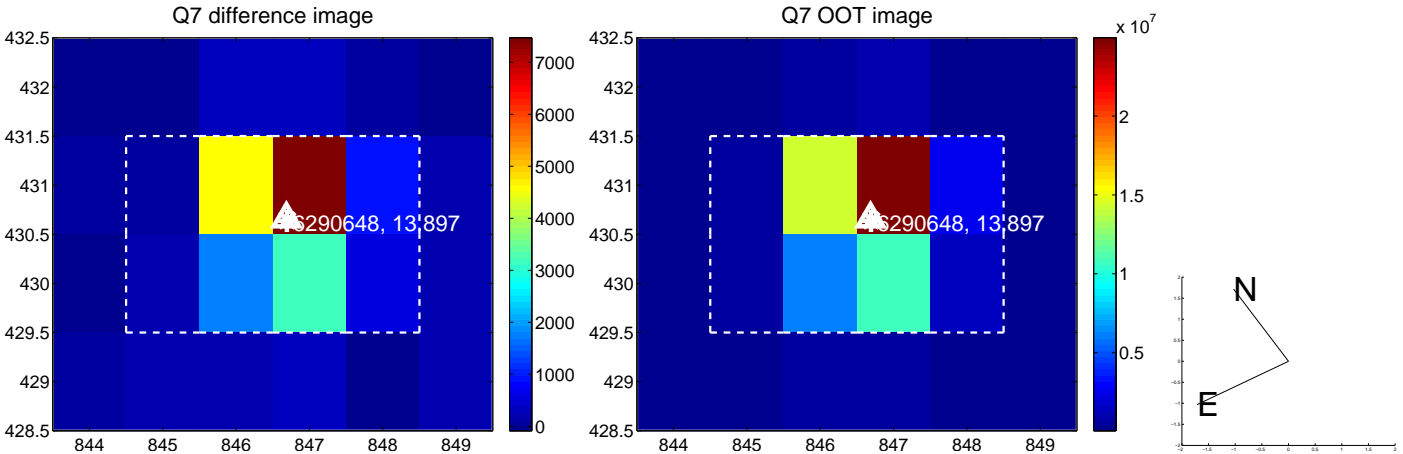
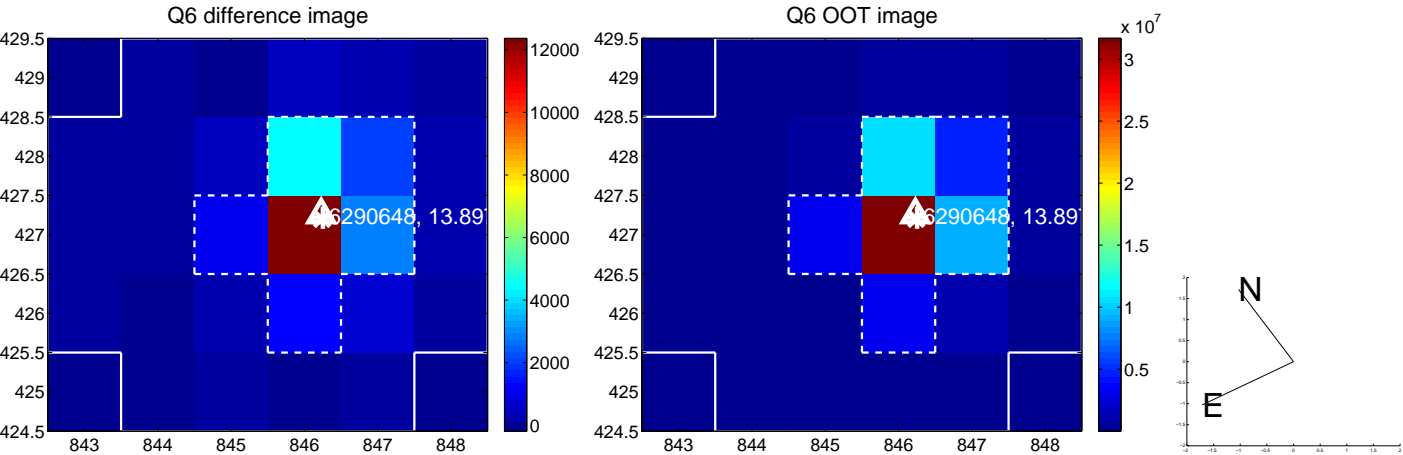
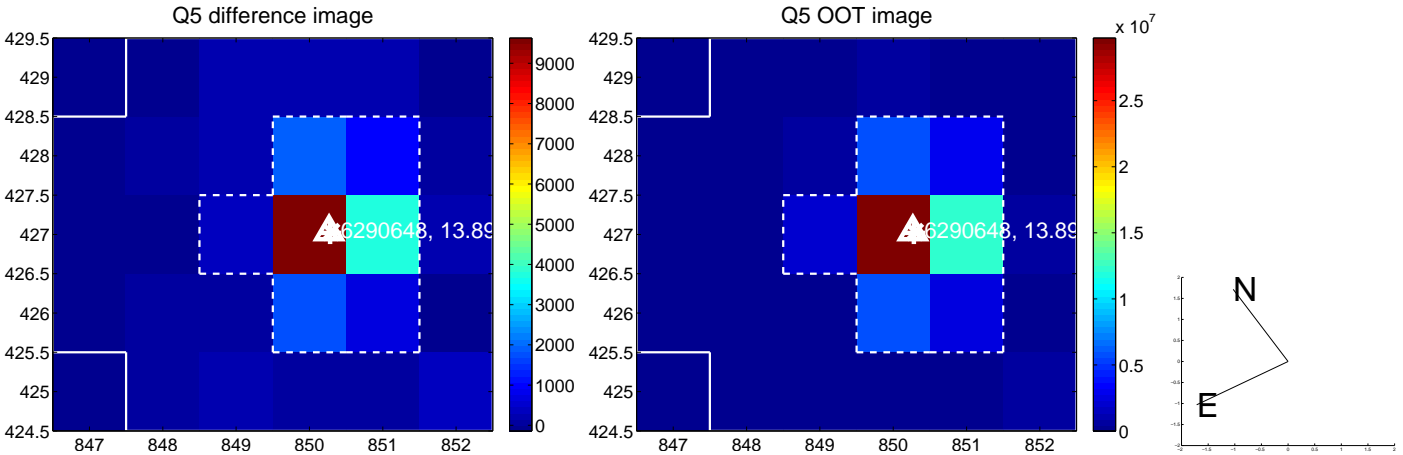


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

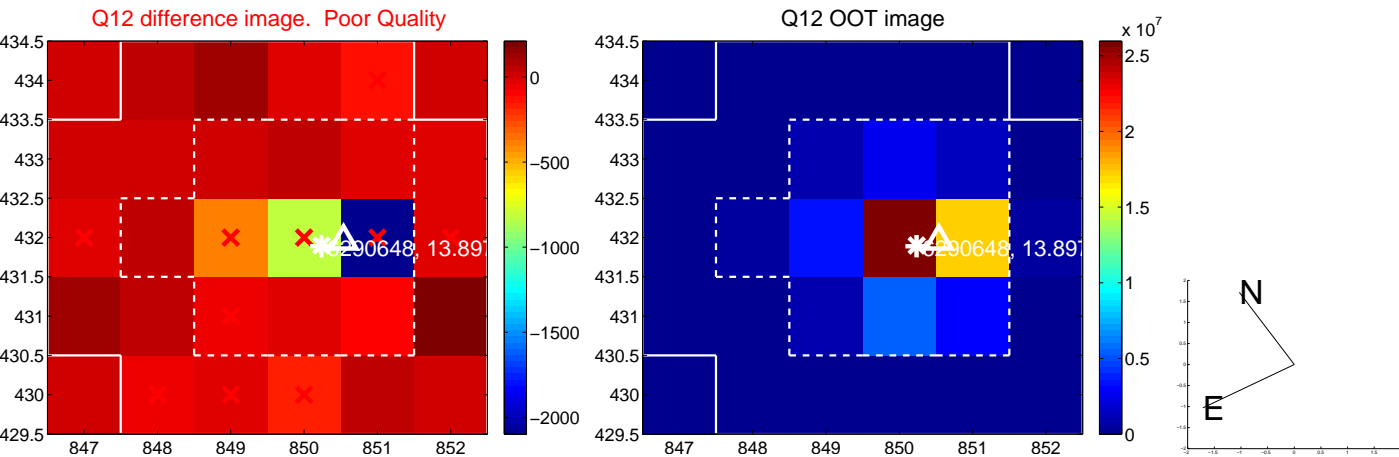
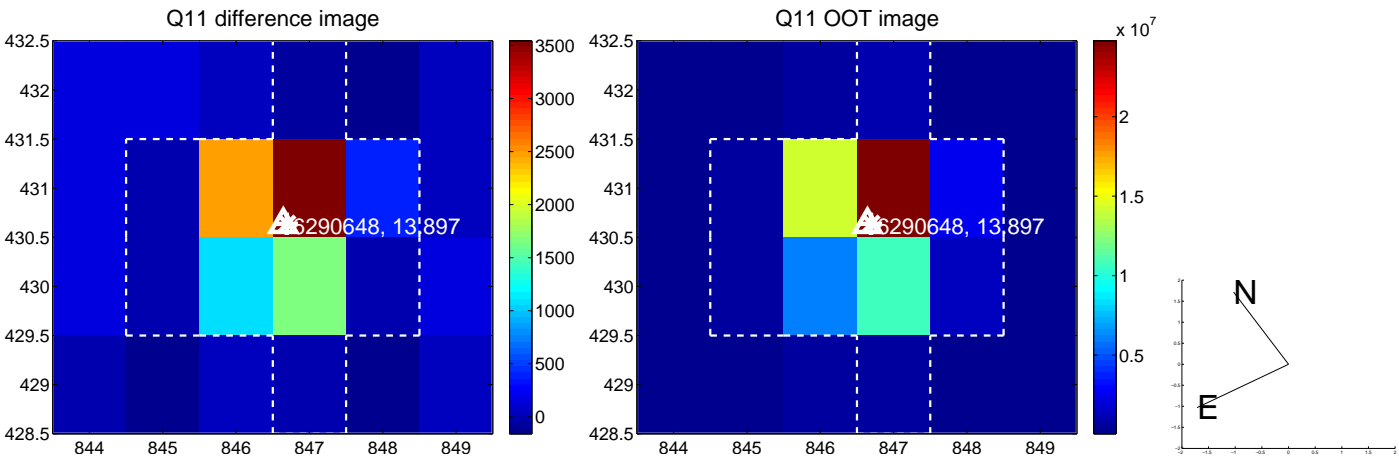
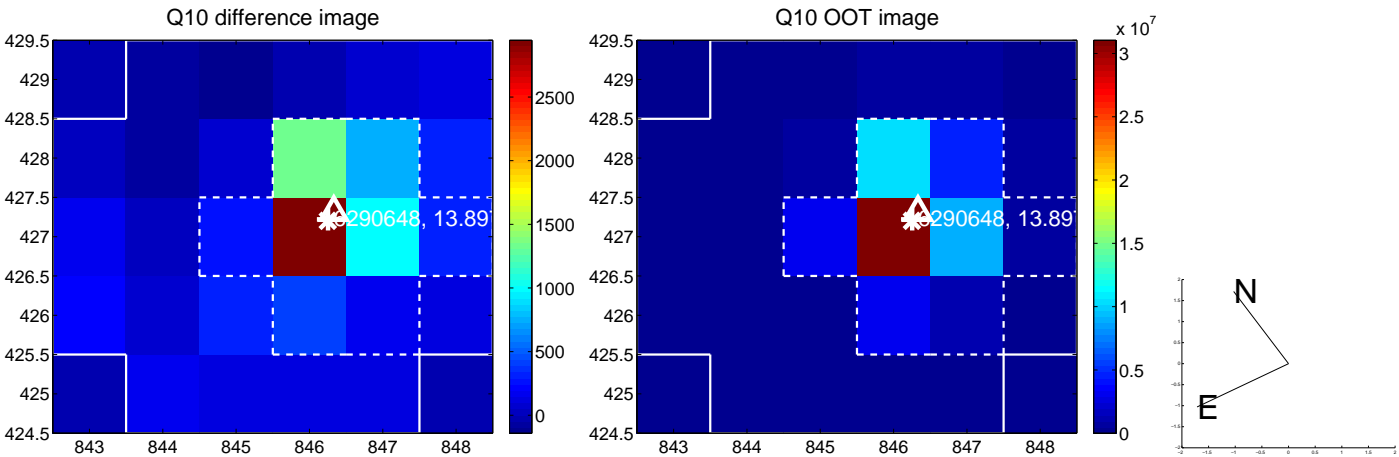
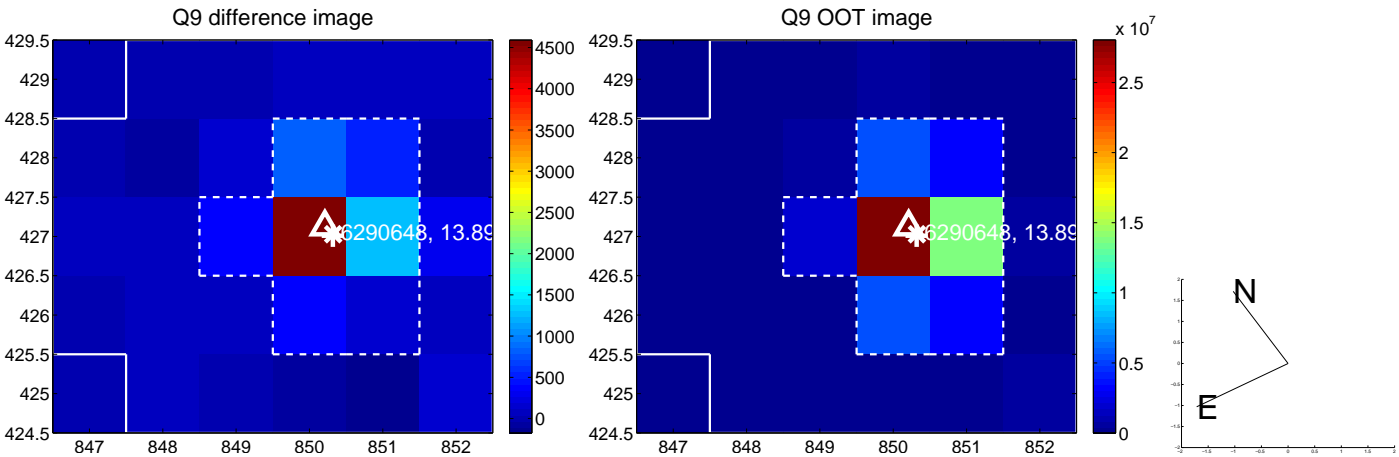
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



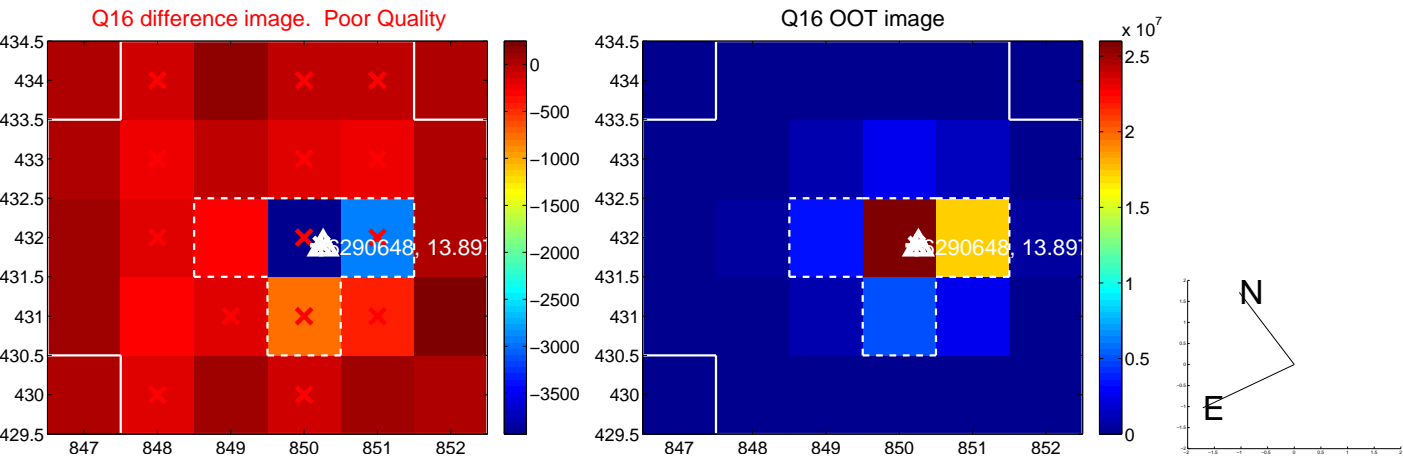
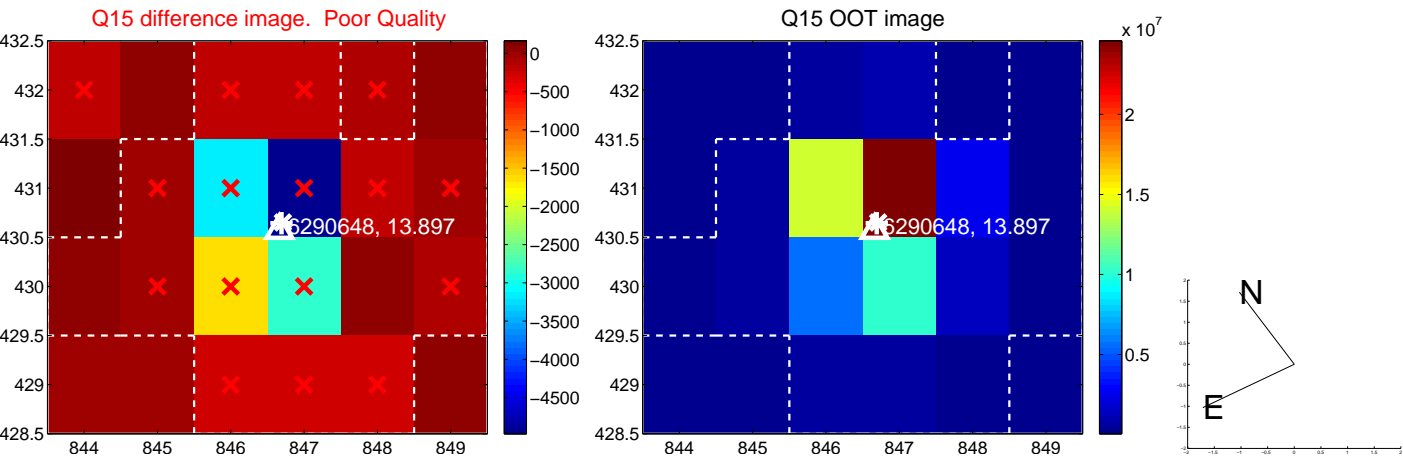
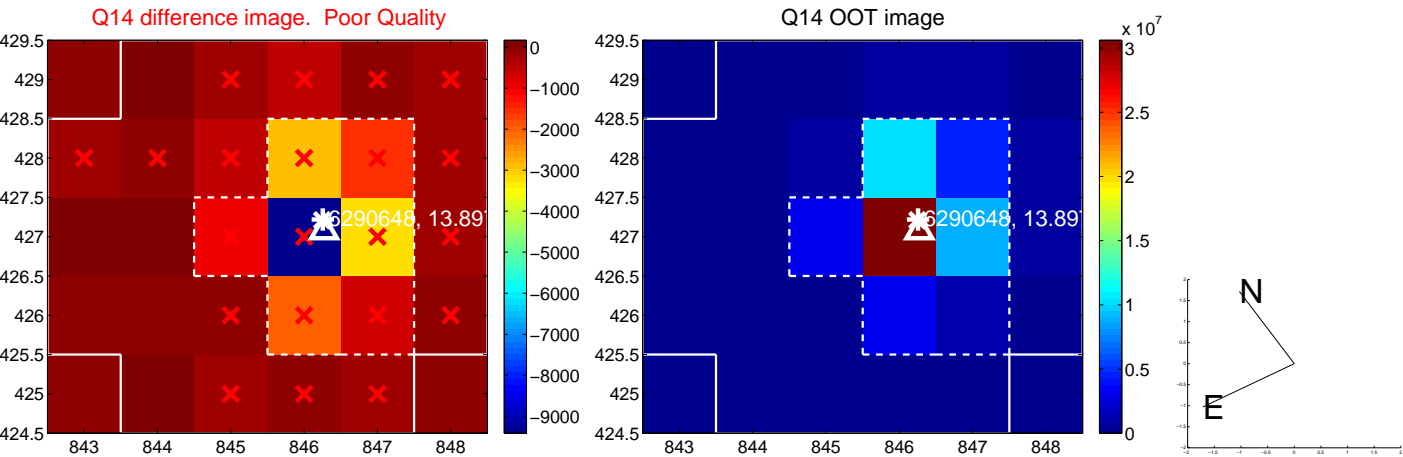
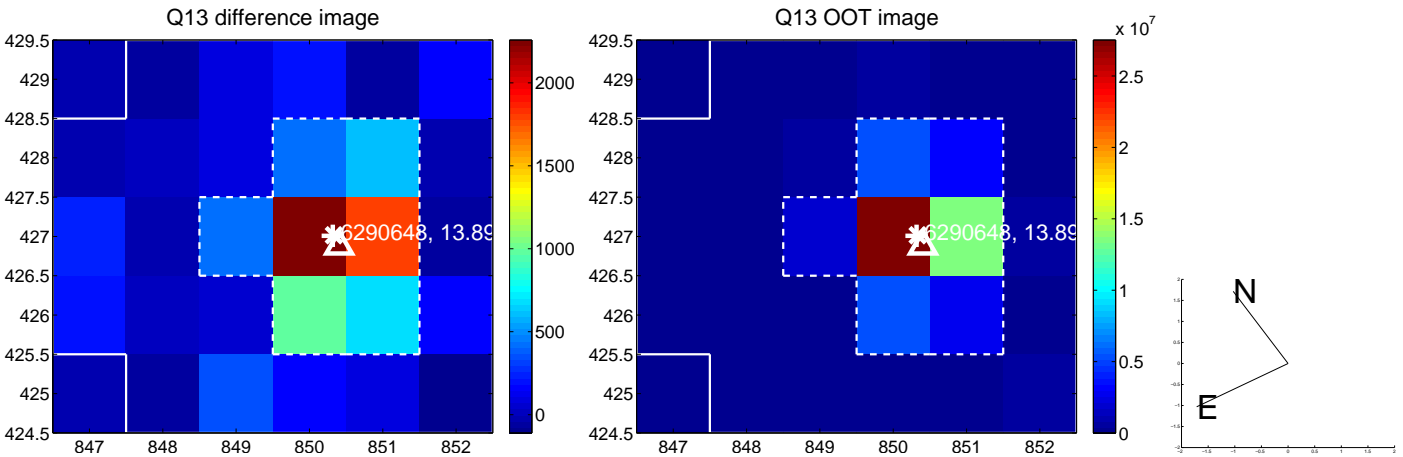
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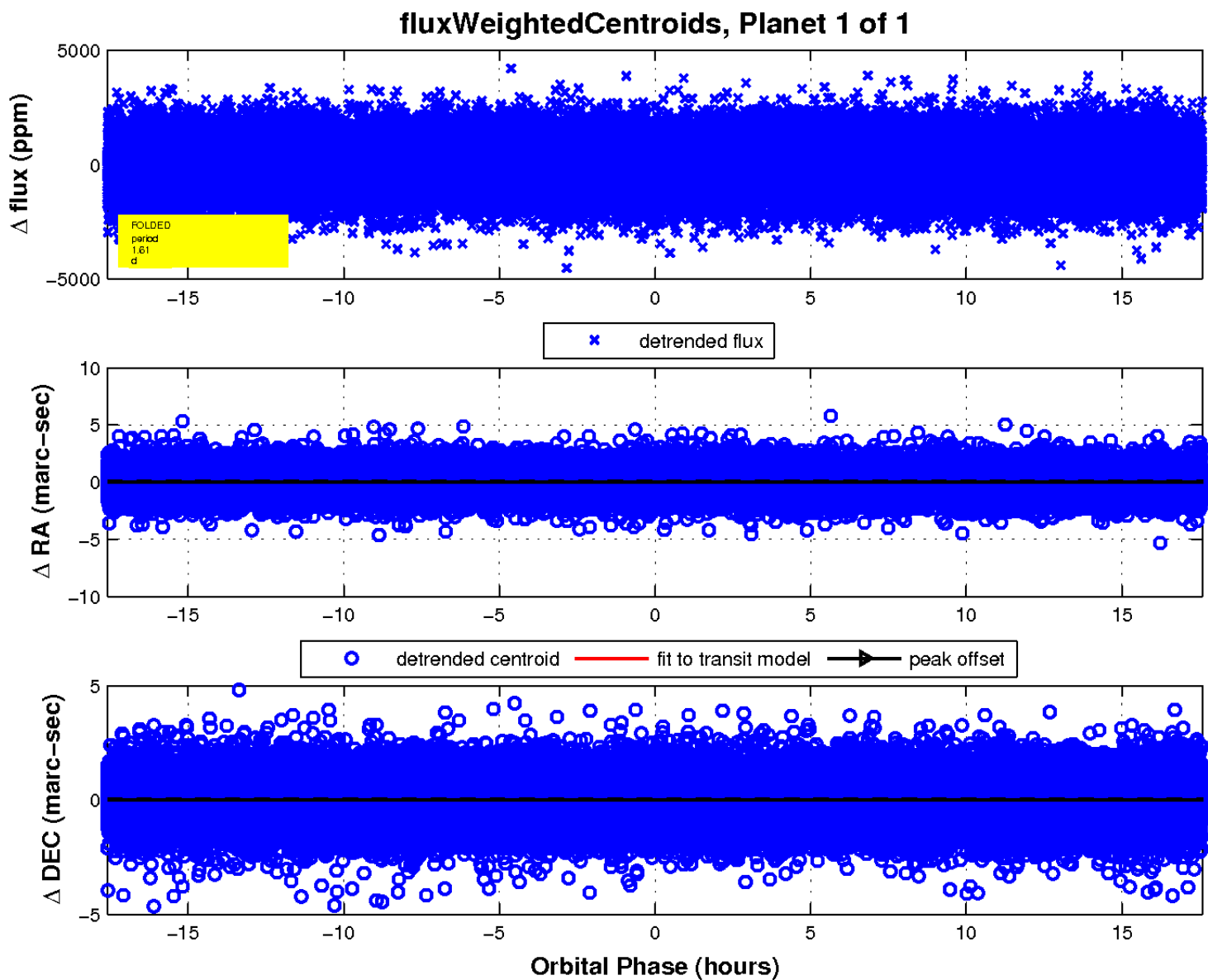
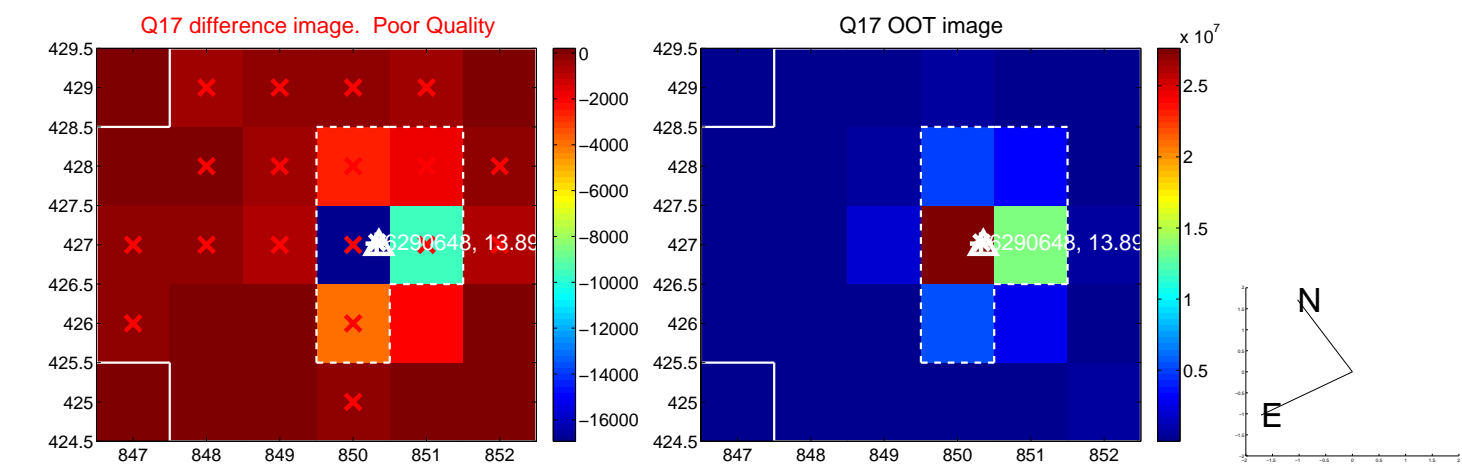
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UKIRT Image

Declination

