

KIC 011099809

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})
011099809-01	OBS	No	0.708389	132.019029	163.2	6.705	8.4	5.3	0.72	5302	0.91	1967.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011099809-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

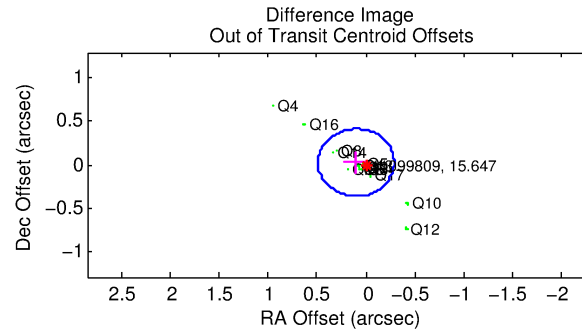
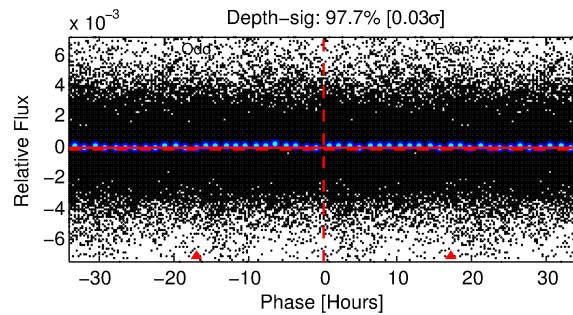
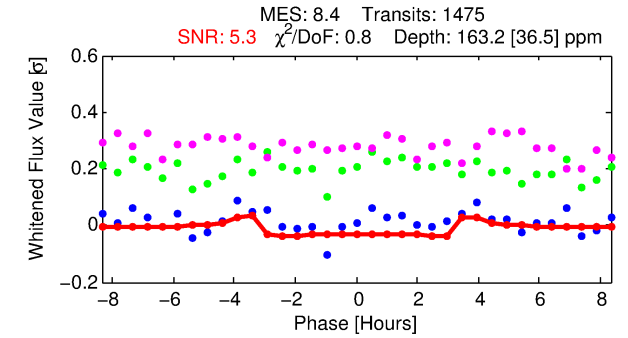
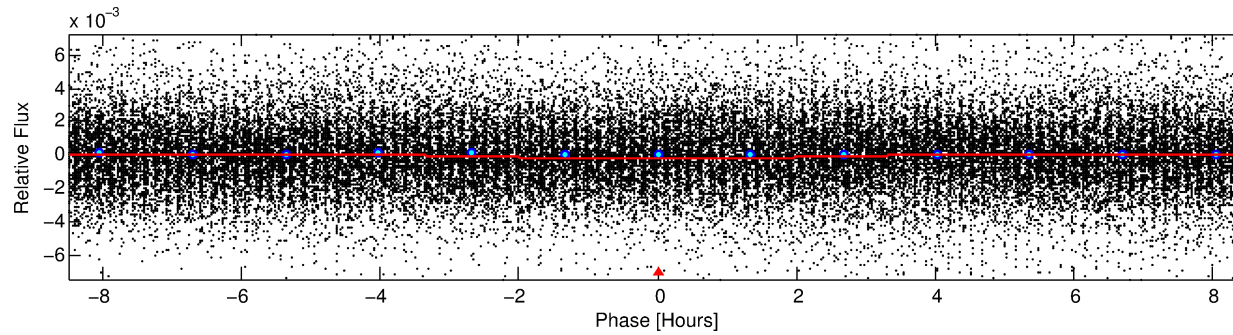
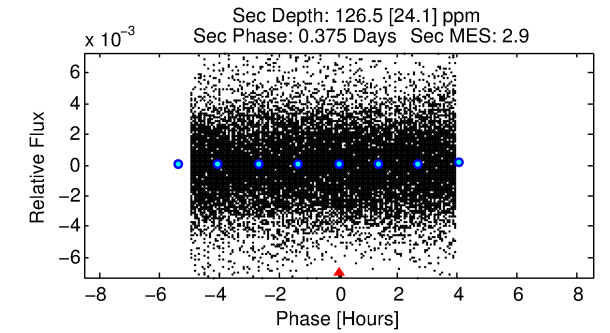
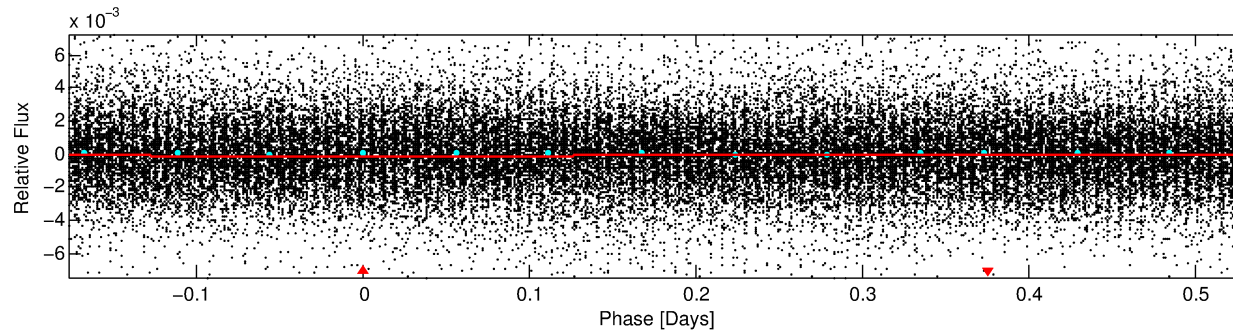
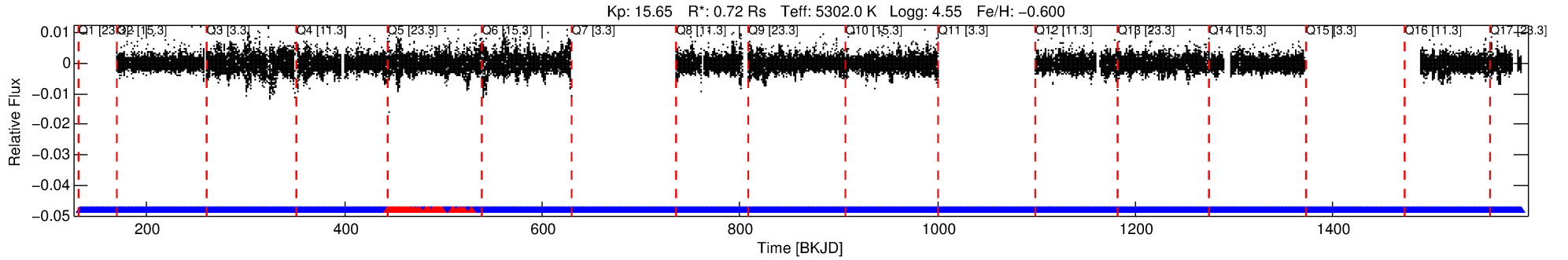
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011099809-01

No Significant Match Found

DV One-Page Summary

KIC: 11099809 Candidate: 1 of 1 Period: 0.708 d



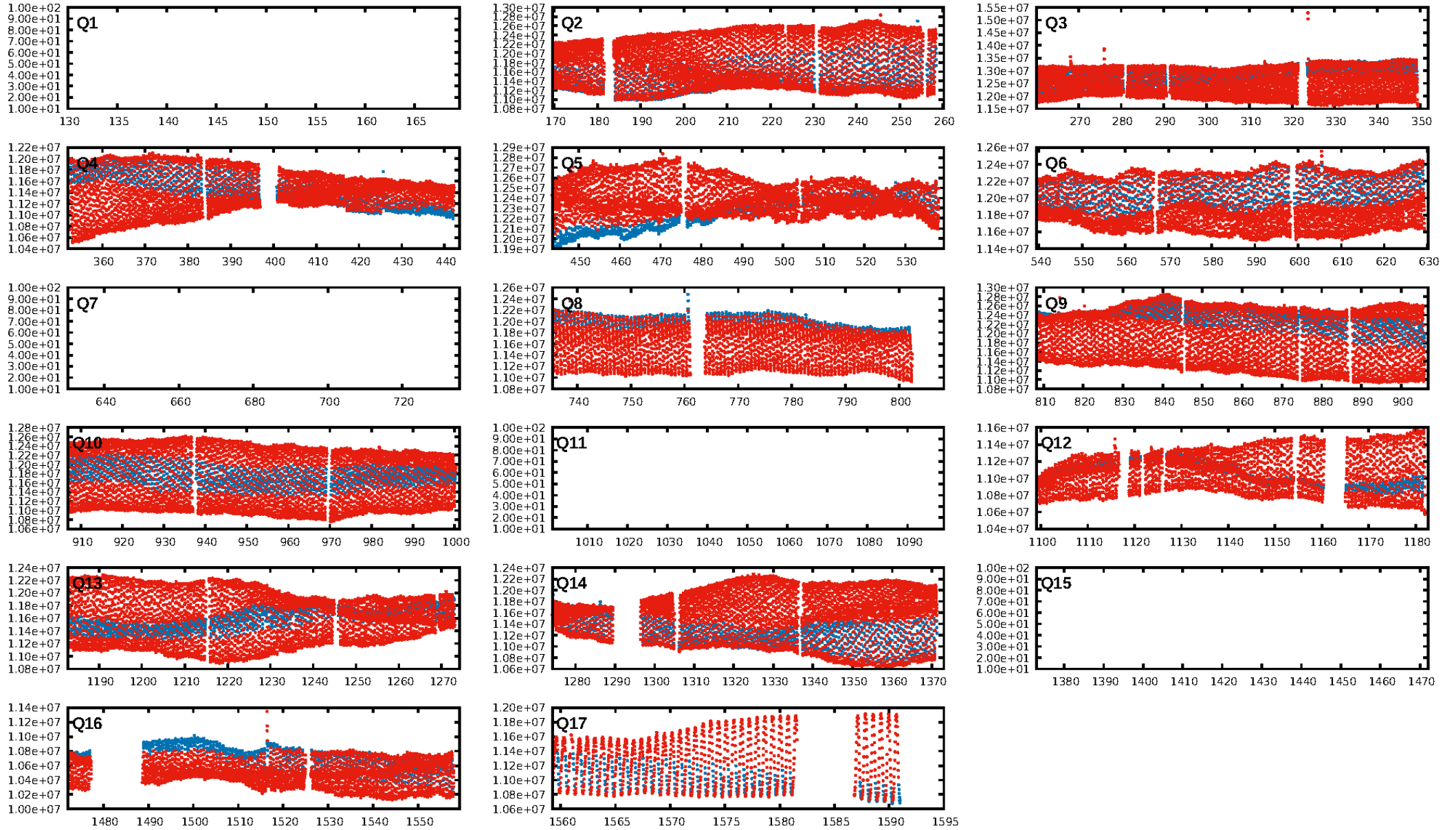
DV Fit Results:

Period = 0.70839 [0.00002] d
Epoch = 132.0190 [0.0041] BKJD
Rp/R* = 0.0115 [0.0101]
a/R* = 1.07 [0.48]
b = 0.02 [151.20]
Seff = 1967.81 [391.91]
Teff = 1698 [85] K
Rp = 0.91 [0.80] Re
a = 0.0137 [0.0014] AU
Ag = 15.83 [27.87] [0.53σ]
Teffp = 5237 [2303] K [1.54σ]

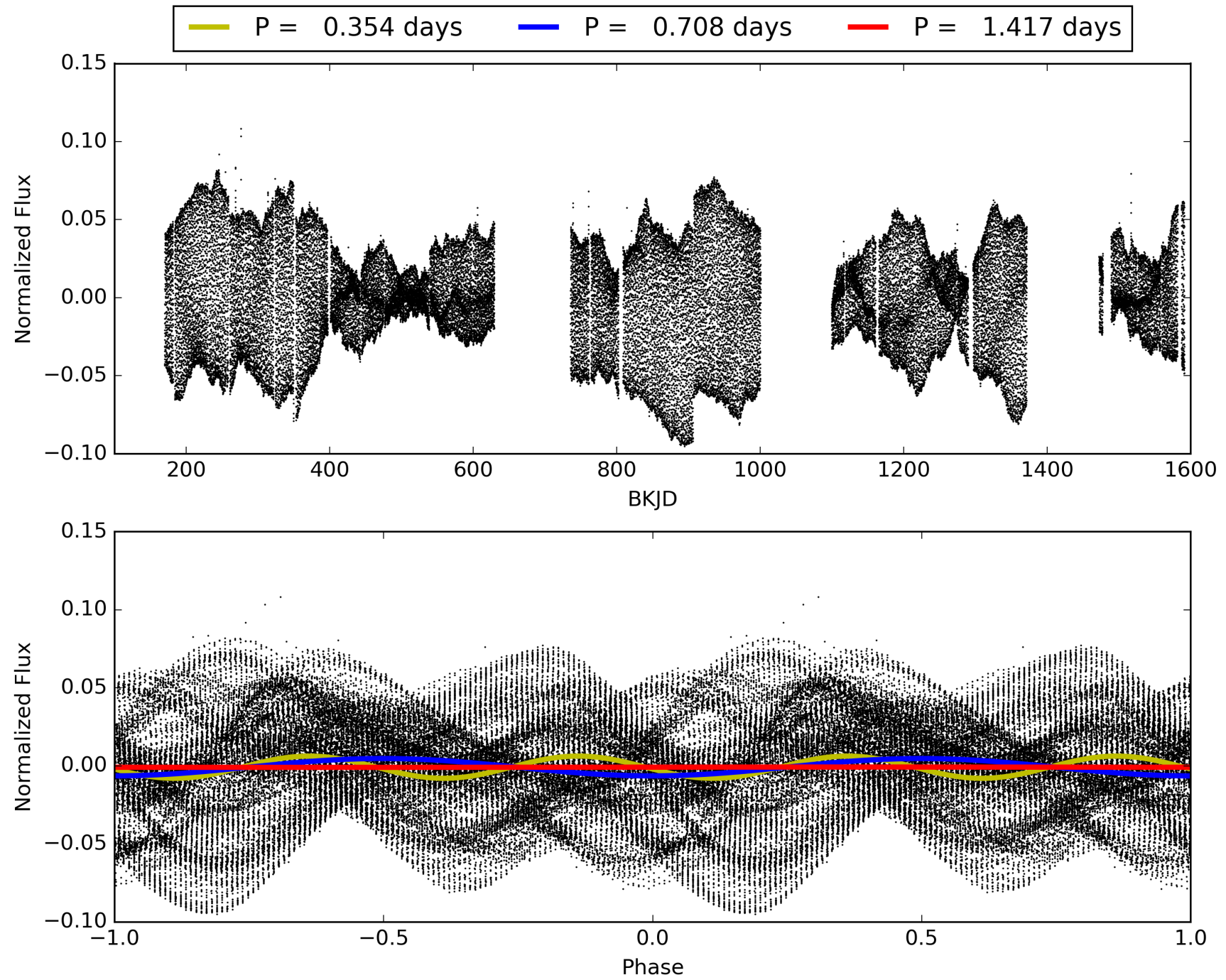
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.96 [1380/1437]
GhostDiagnostic-chr: 2.69
Centroid-sig: 0.9%
Centroid-so: 1.662 arcsec [2.54σ]
OotOffset-rm: 0.104 arcsec [0.80σ]
KicOffset-rm: 0.066 arcsec [0.79σ]
OotOffset-st: 4/1/4/4 [13]
KicOffset-st: 4/1/4/4 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 011099809-01, PDC Light Curves

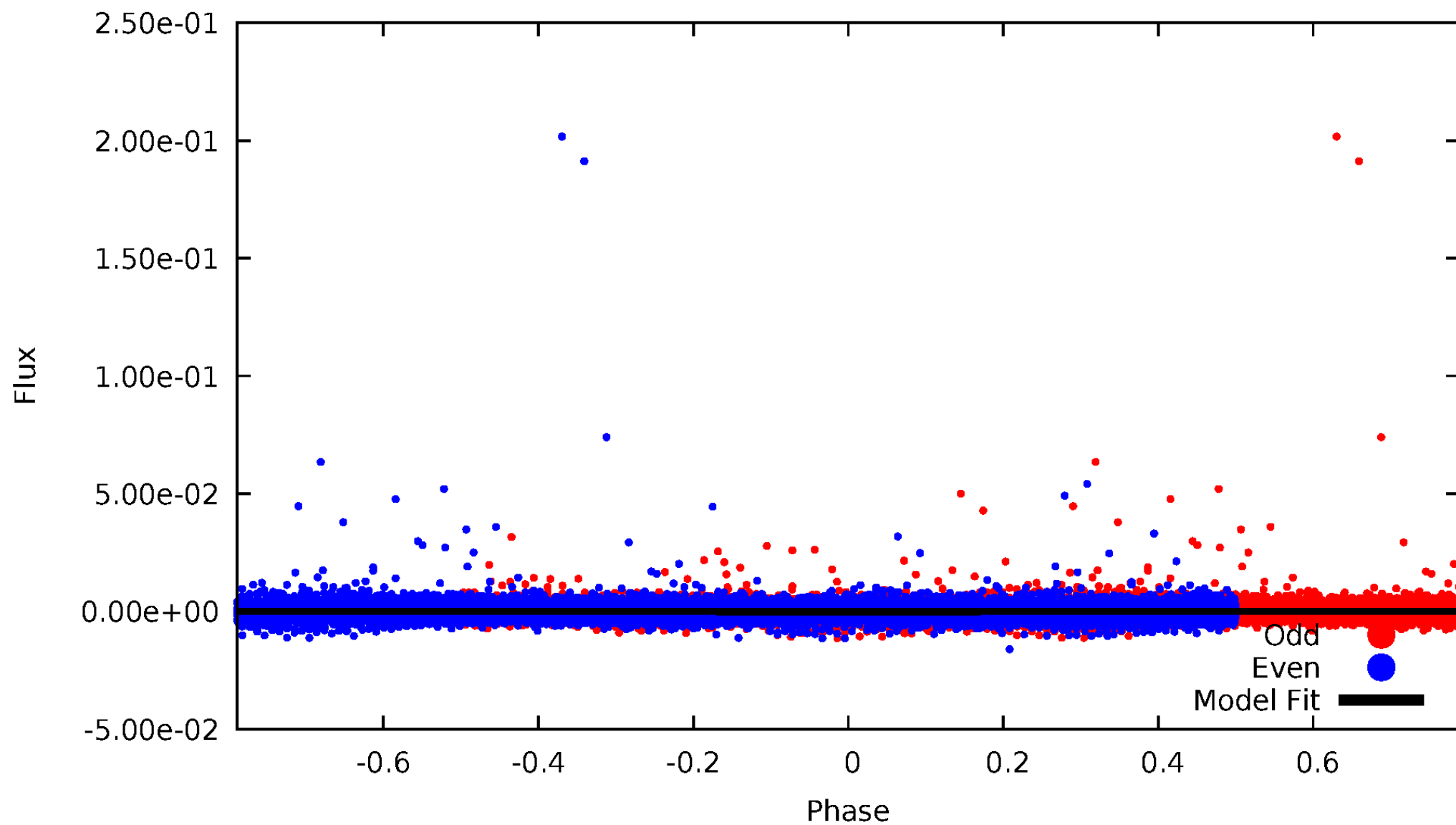


TCE 011099809-01



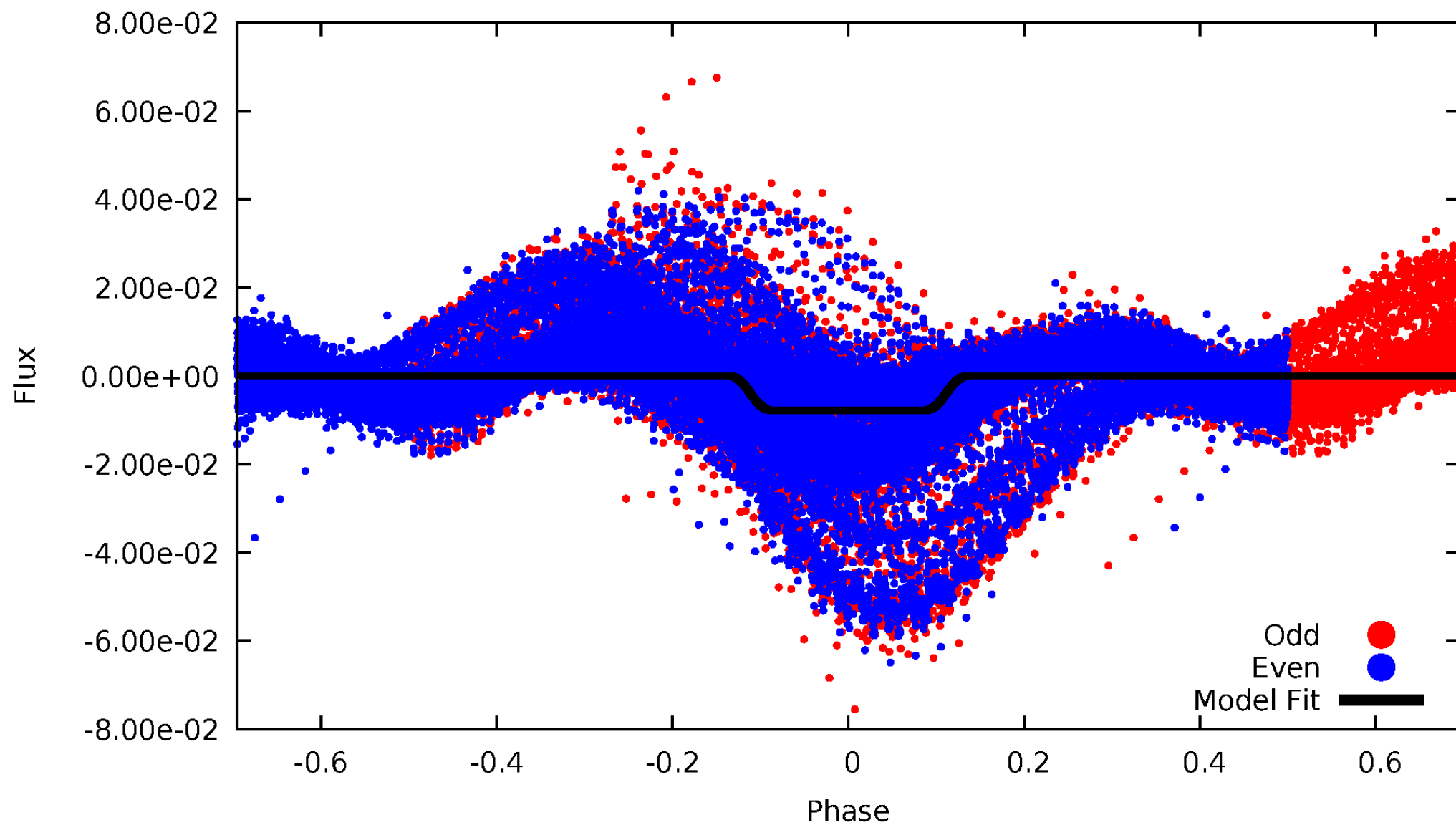
DV Odd/Even

TCE 011099809-01



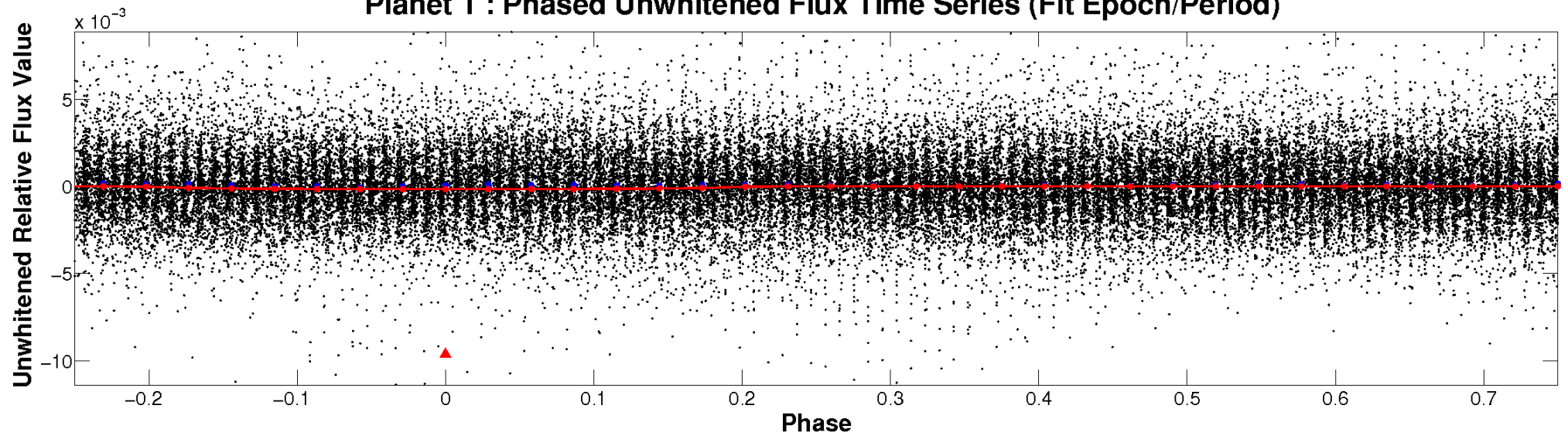
ALT Odd/Even

TCE 011099809-01

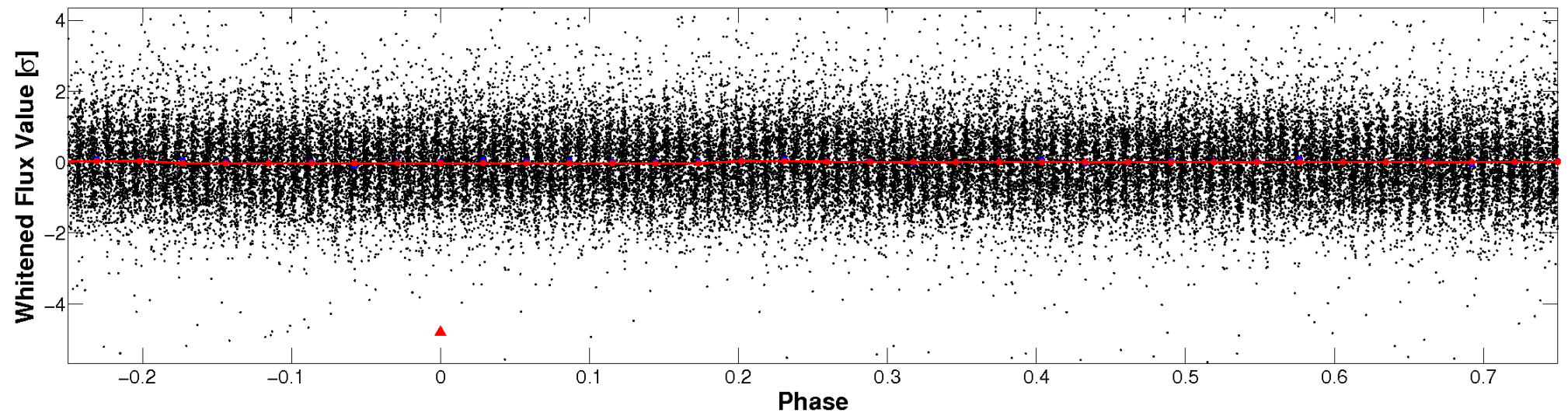


Non-Whitened Vs. Whitened Light Curve

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

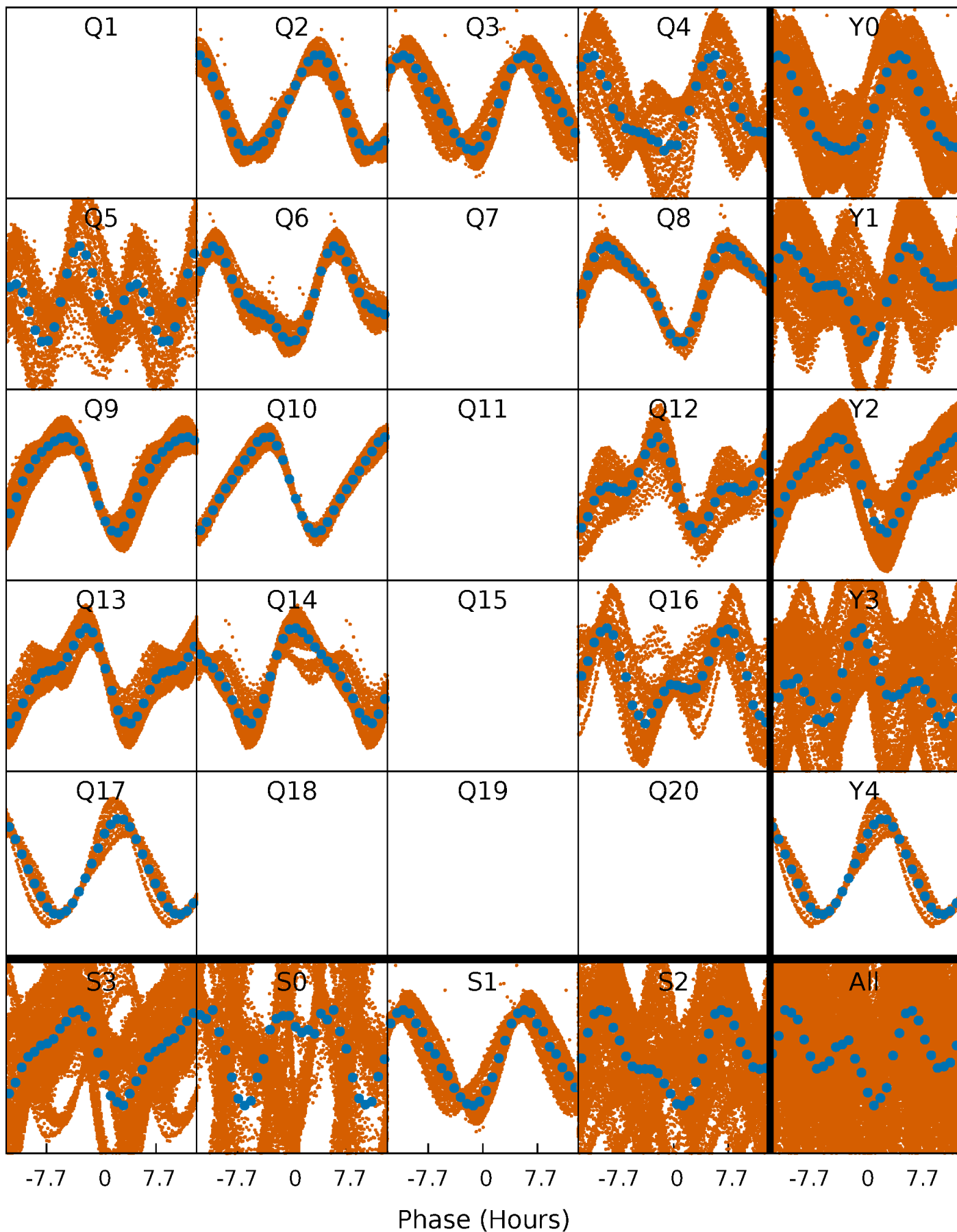


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



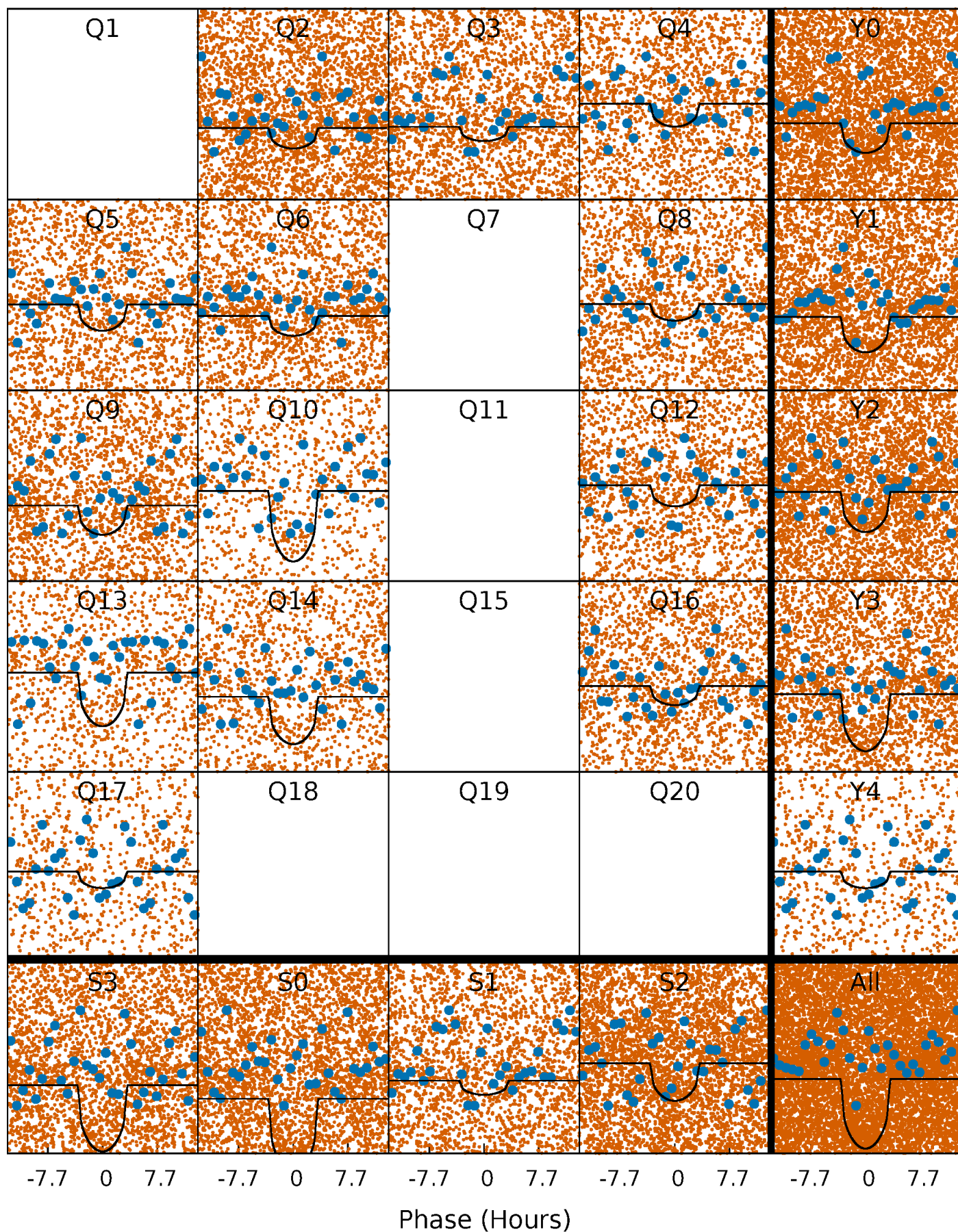
PDC Quarter-Phased Transit Curves

TCE 011099809-01 P= 0.708389 Days $T_0=132.019029$ (BKJD)



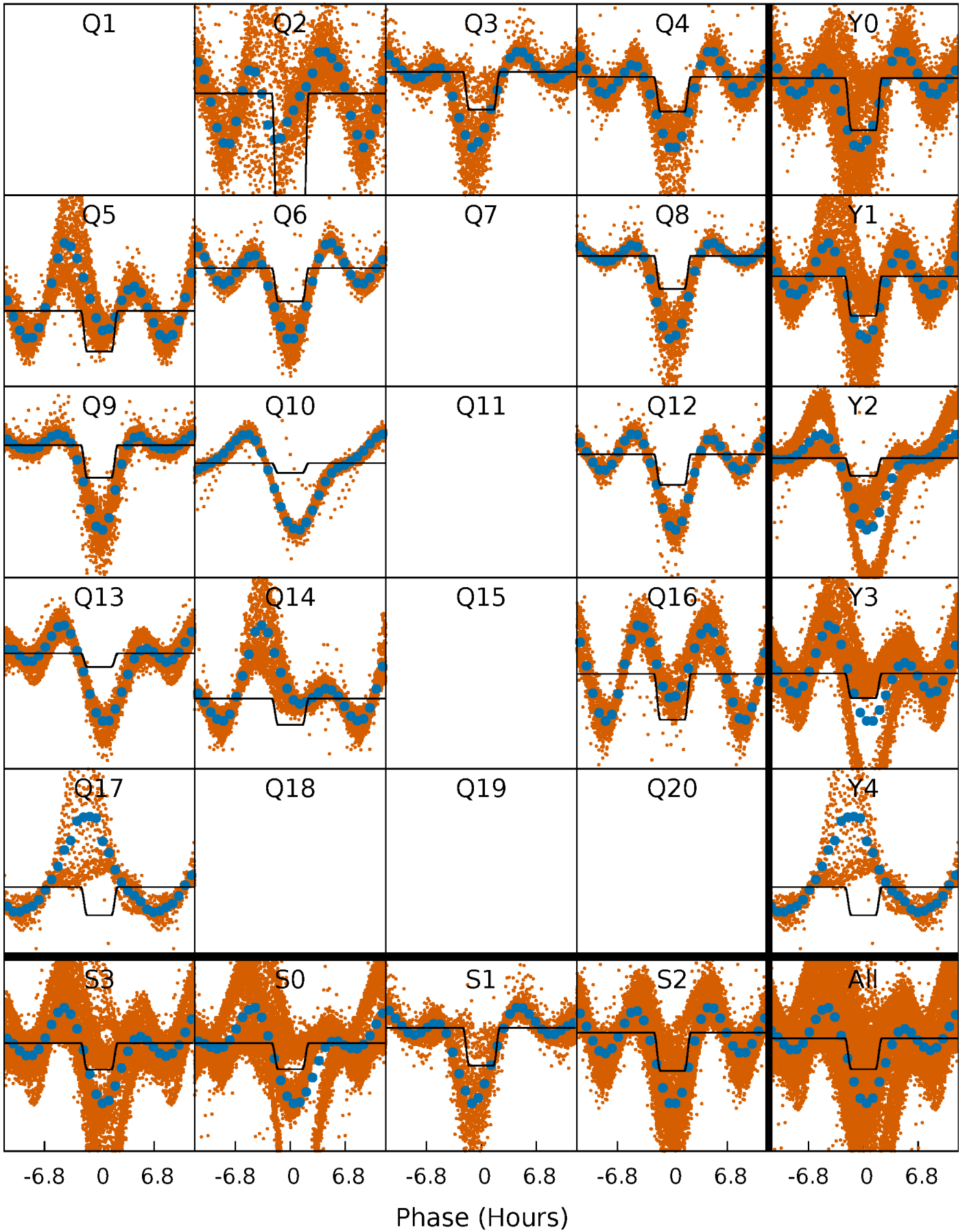
DV Quarter-Phased Transit Curves

TCE 011099809-01 P= 0.708389 Days $T_0=132.019029$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

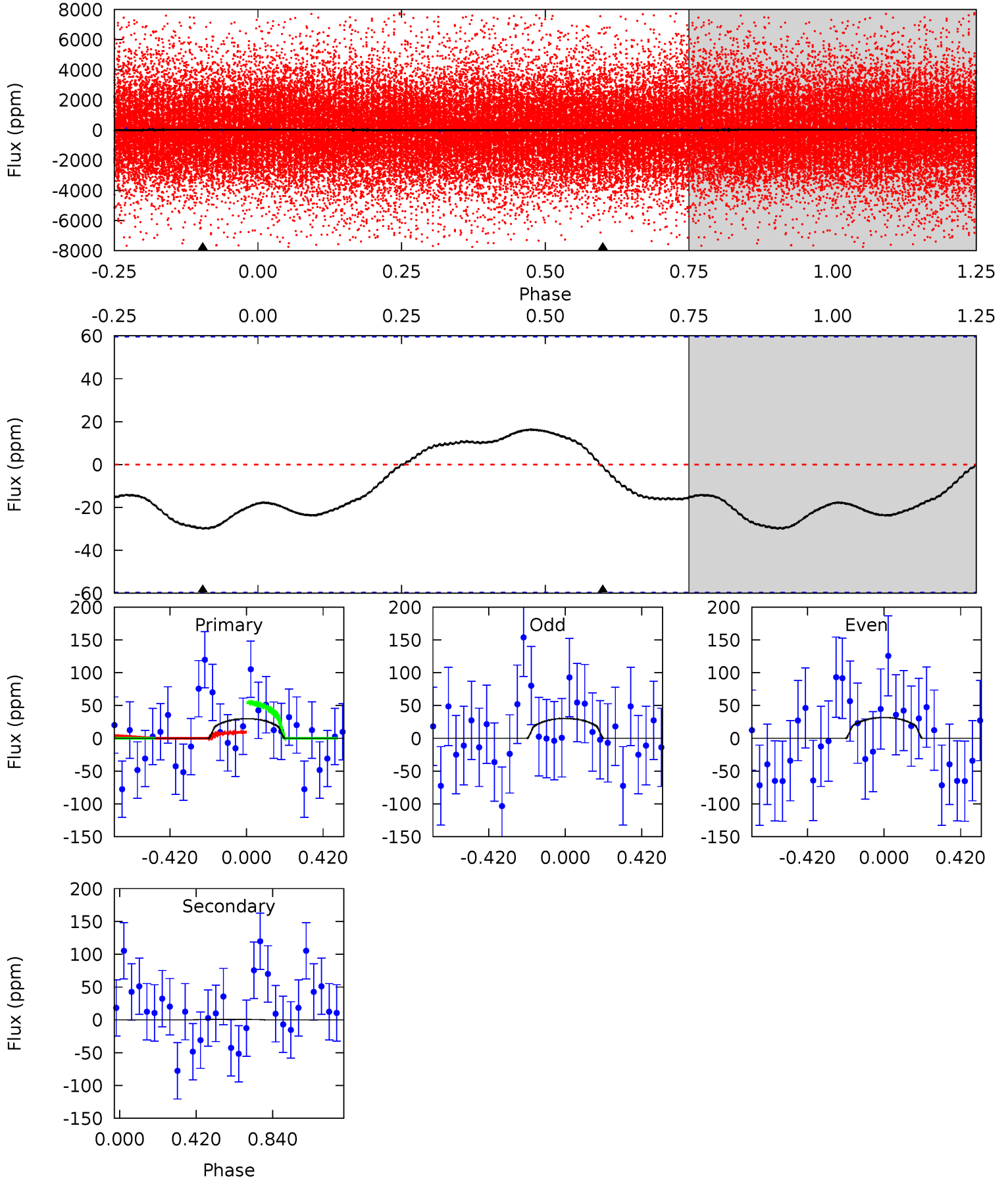
TCE 011099809-01 P= 0.708464 Days $T_0=132.016099$ (BKJD)



DV Model-Shift Uniqueness Test

011099809-01, P = 0.708389 Days, E = 132.019029 Days

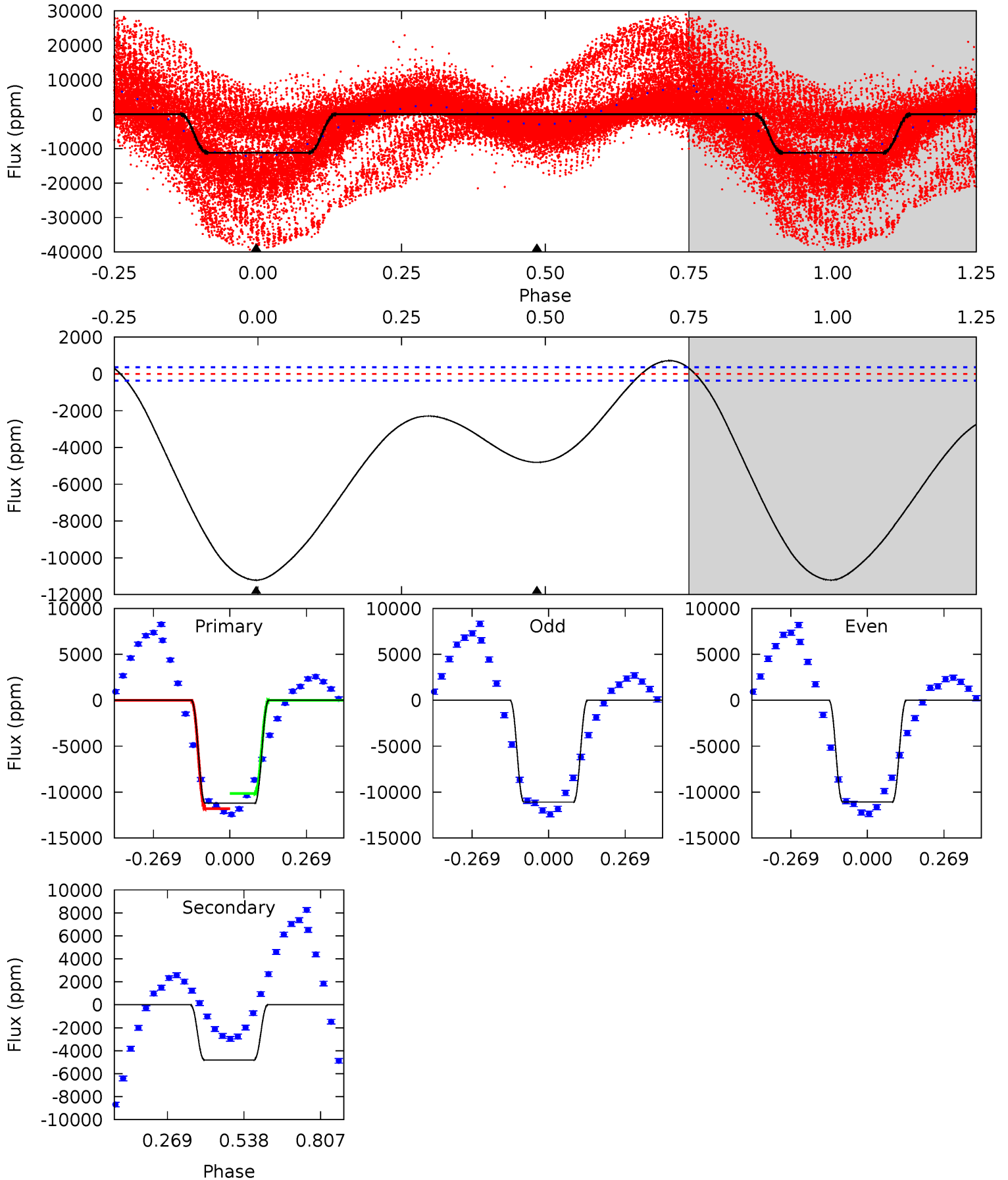
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.13	0.04	0	0	4.25	0.81	0.40	2.13	2.13	0.04	0.04	0.05	2.71	0.35	1.61



Alt Model-Shift Uniqueness Test

011099809-01, P = 0.708464 Days, E = 132.016099 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
134.1	57.5	0	0	4.35	1.11	19.8	134.1	134.1	57.5	57.5	0.07	1.04	0.06	10.1



Stellar Parameters For KIC 011099809

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5302^{+166}_{-166}	$4.555^{+0.088}_{-0.064}$	$-0.600^{+0.350}_{-0.300}$	$0.722^{+0.082}_{-0.082}$	$0.683^{+0.091}_{-0.034}$	$2.553^{+0.957}_{-0.586}$
	+3%/-3%	+2%/-1%	+58%/-50%	+11%/-11%	+13%/-5%	+37%/-23%
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 011099809-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1 ± 14	$1.08^{+0.65}_{-0.65}$	2361^{+107}_{-97}	-2701^{+6074}_{-901}	$-0.013^{+1.654}_{-1.904}$
Alt.	-4811 ± 84	$6.88^{+0.93}_{-0.85}$	2356^{+108}_{-104}	4779^{+272}_{-260}	11^{+3}_{-2}

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

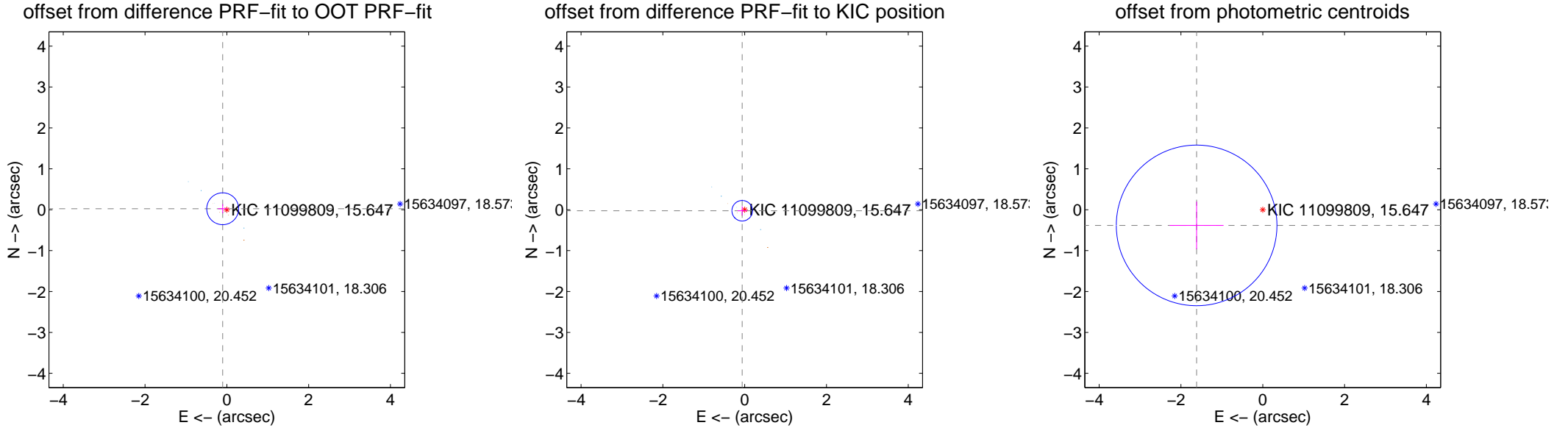
DV Centroid Data

Supplemental centroid analysis for 011099809-01. Kepler magnitude: 15.65. Transit SNR 5.25

There are 7 quarters with good PRF difference image offsets

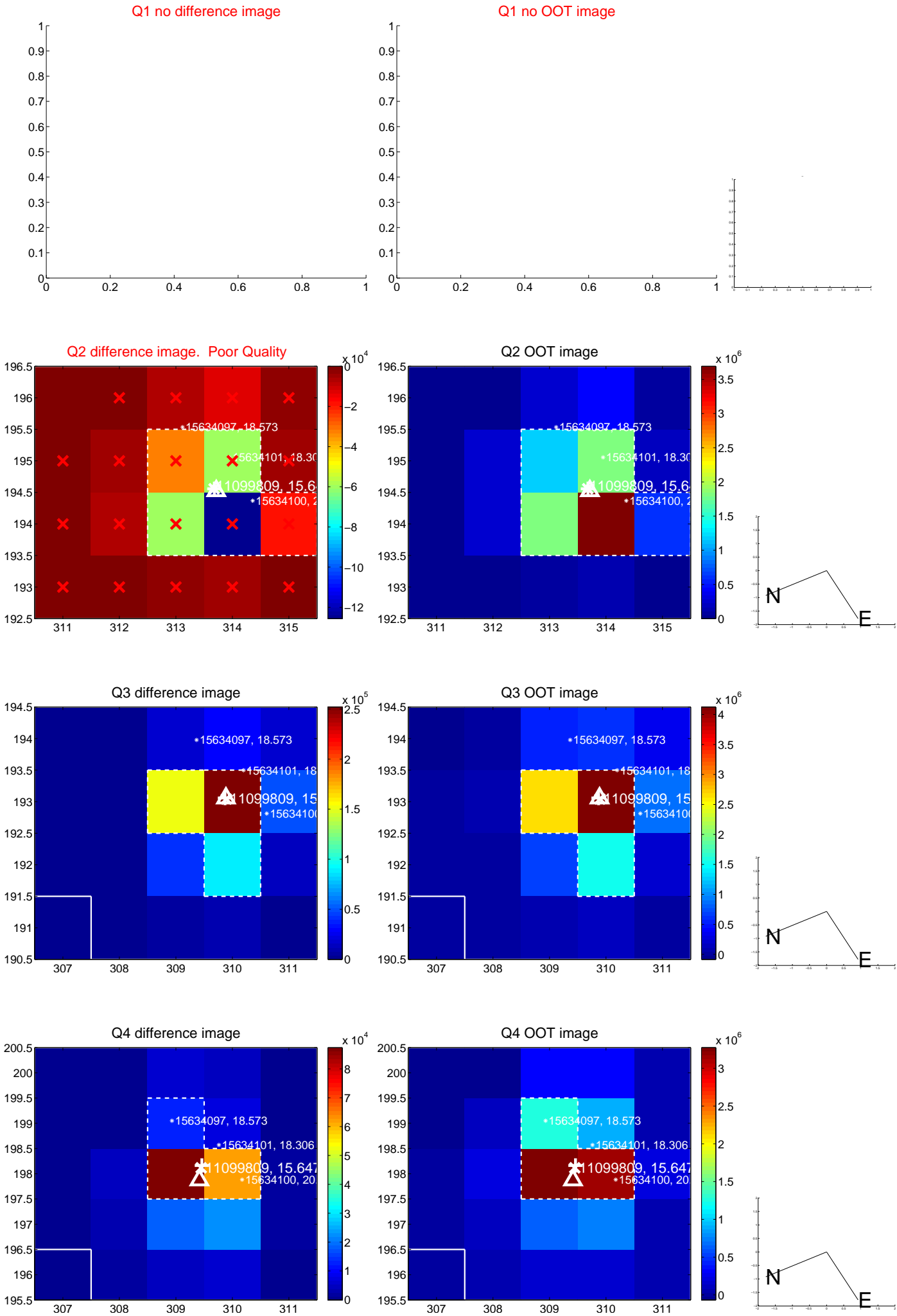
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.104 ± 0.130	0.80	0.102 ± 0.115	0.023 ± 0.113
PRF-fit source offset from KIC position	0.066 ± 0.084	0.79	0.061 ± 0.112	-0.025 ± 0.113
photometric centroid source offset	1.66 ± 0.65	2.54	1.62 ± 0.66	-0.38 ± 0.58

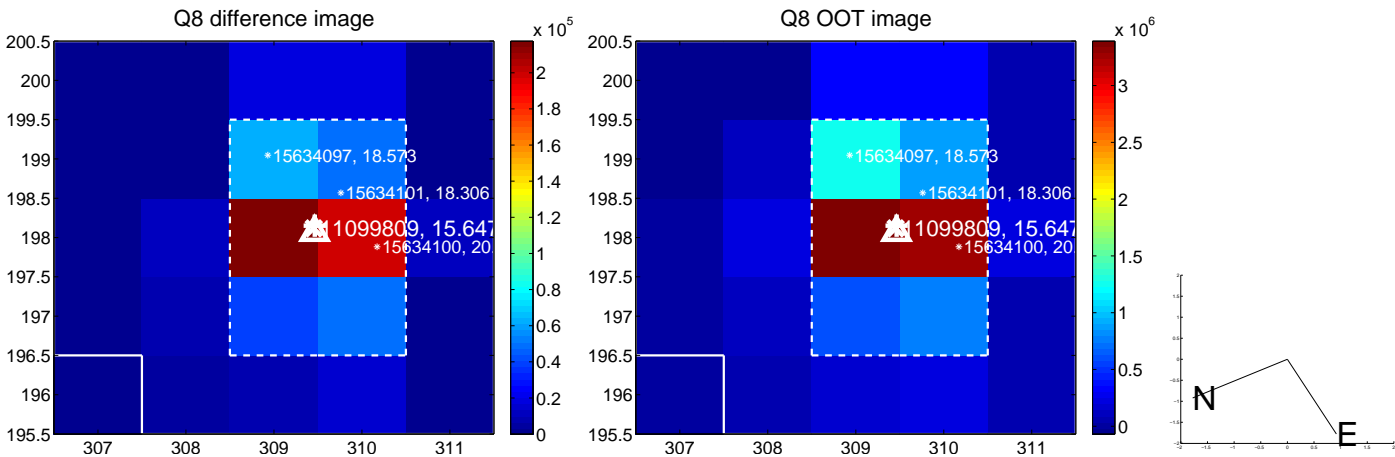
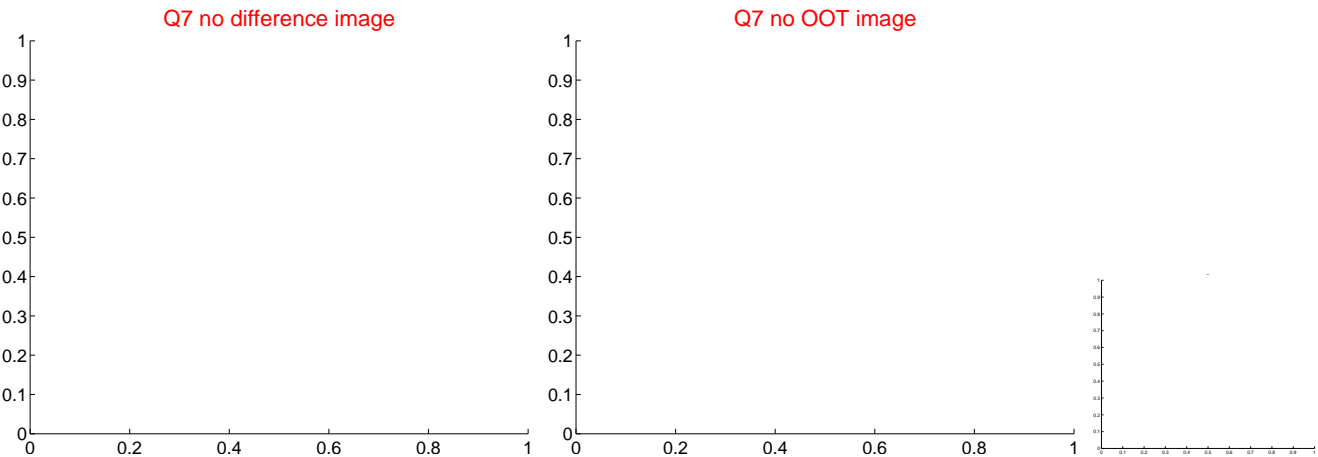
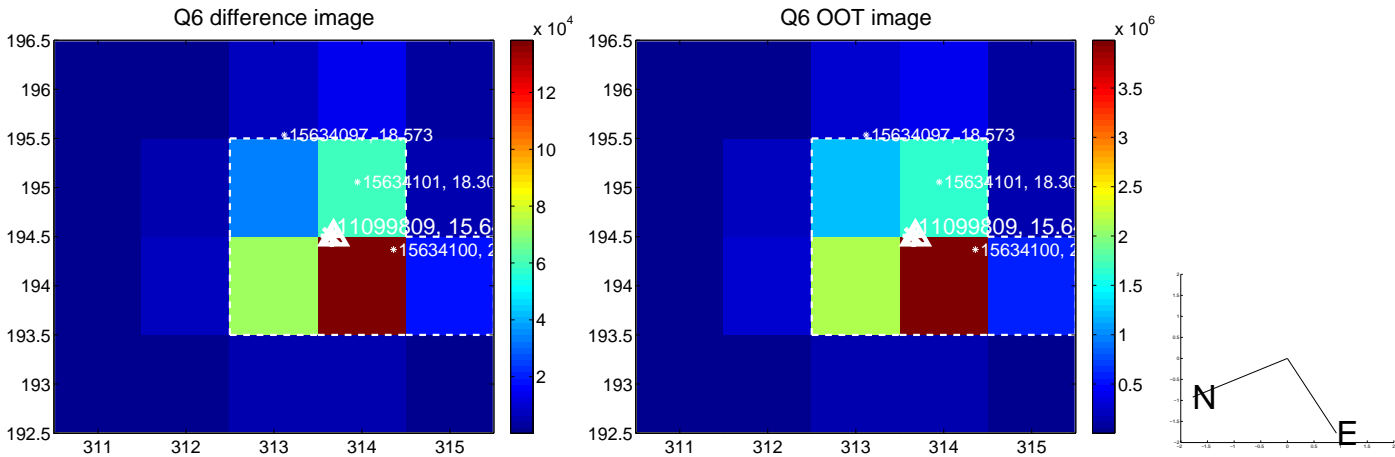
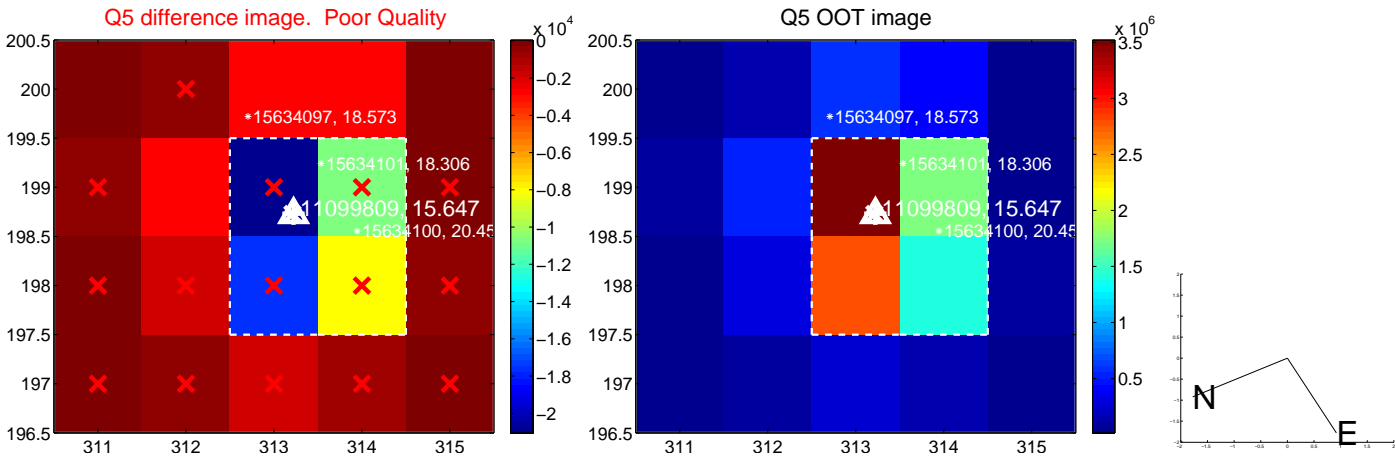


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

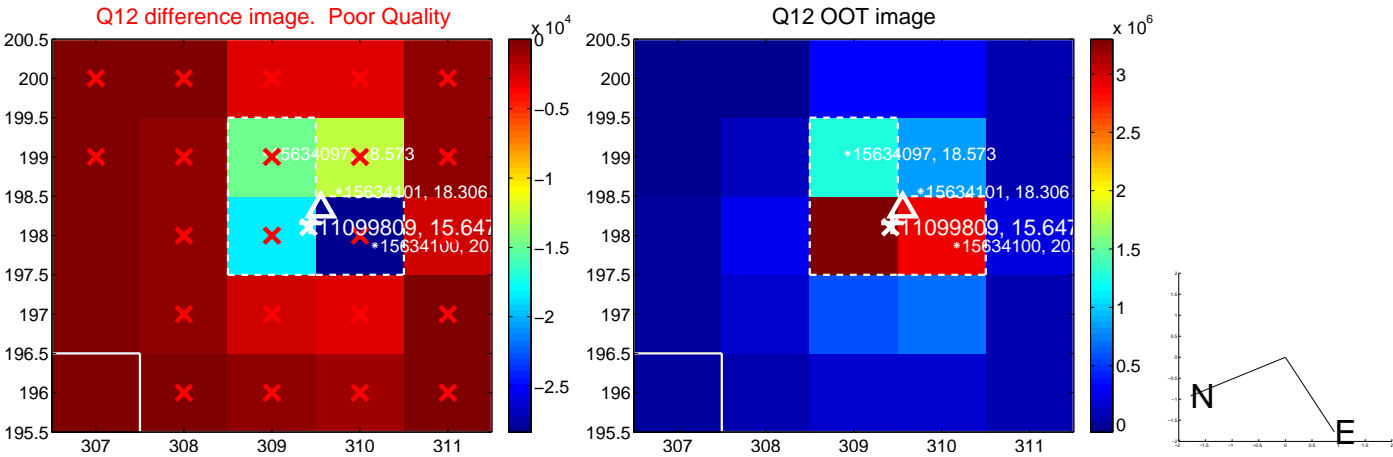
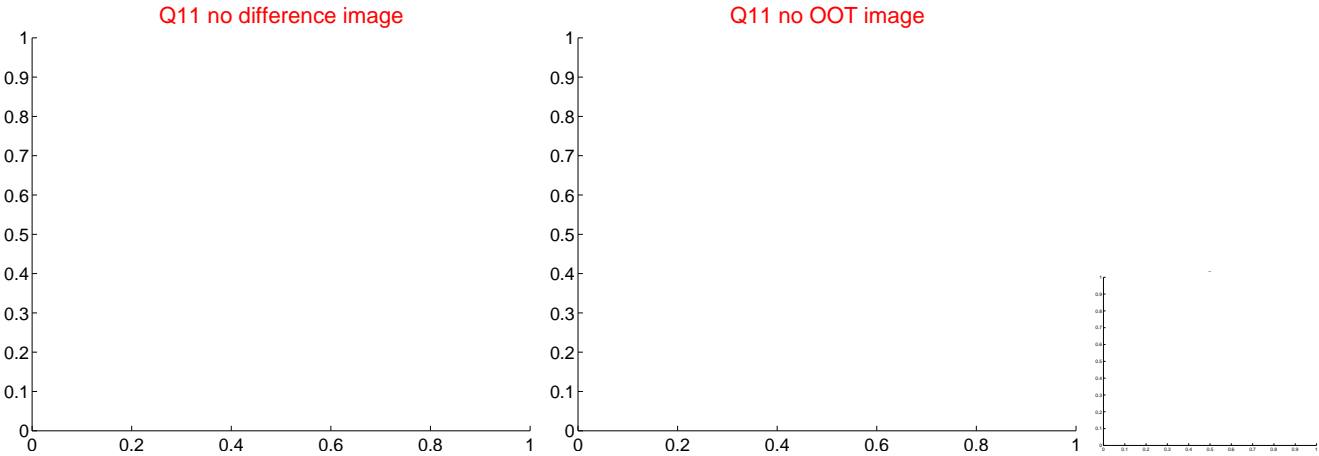
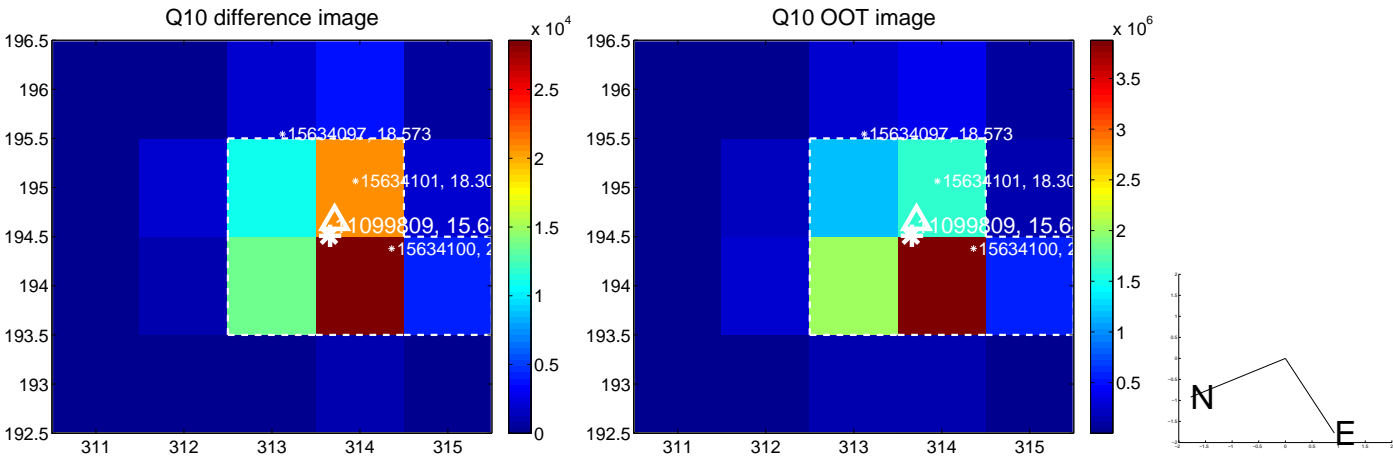
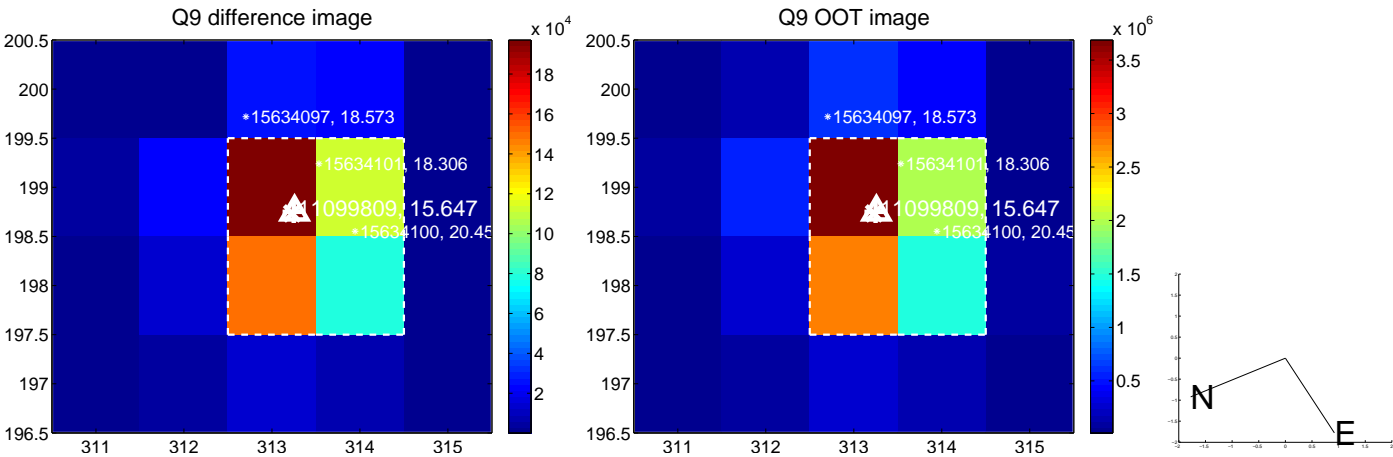
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



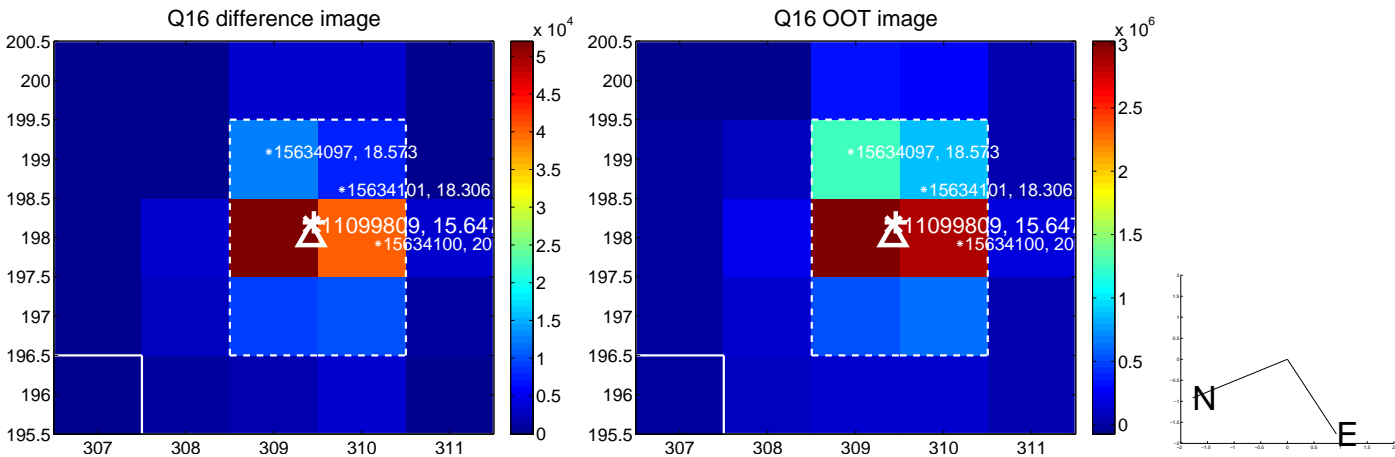
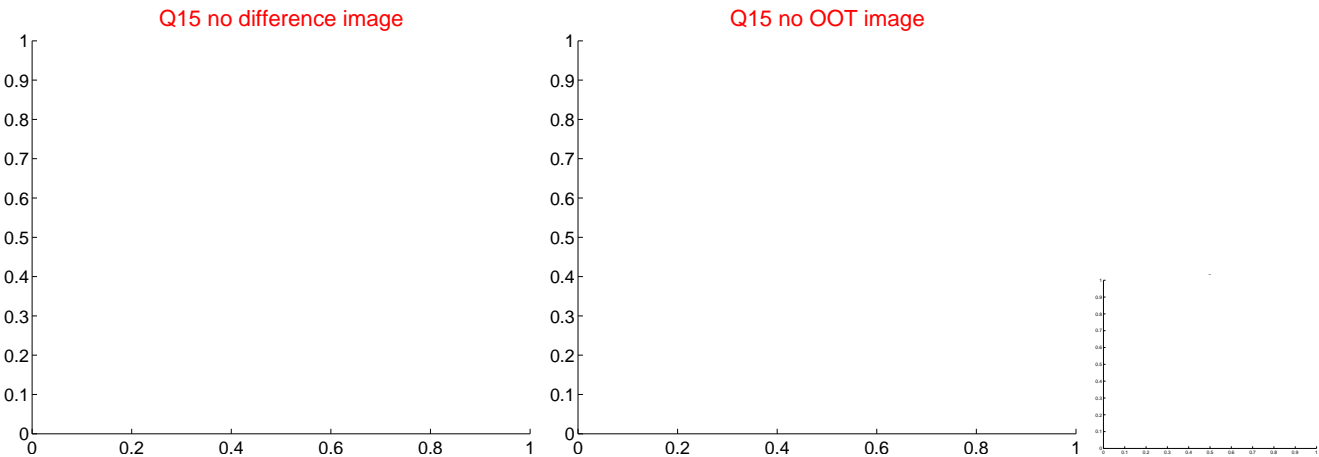
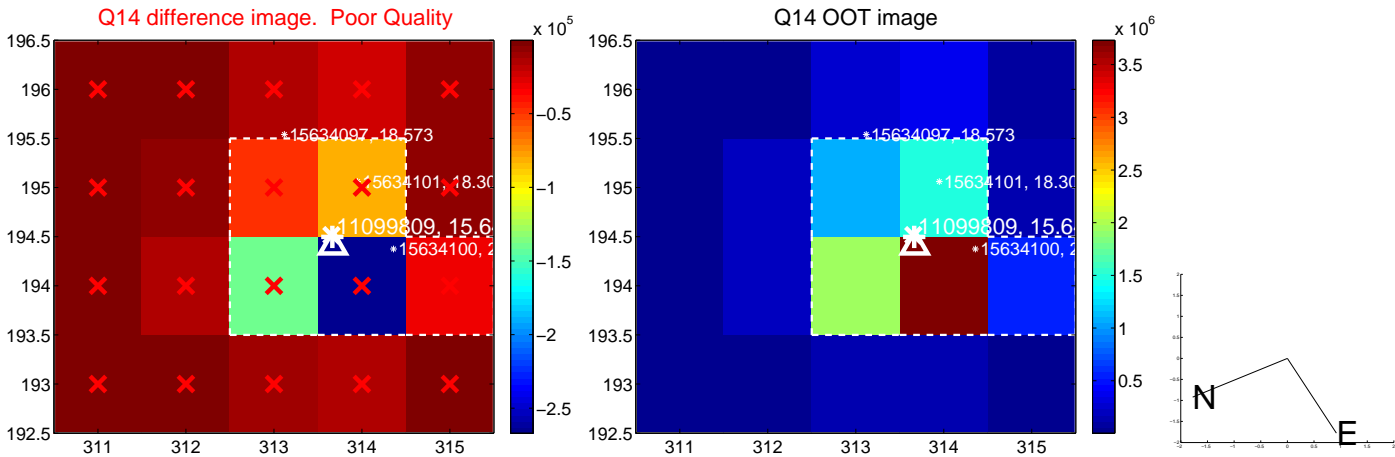
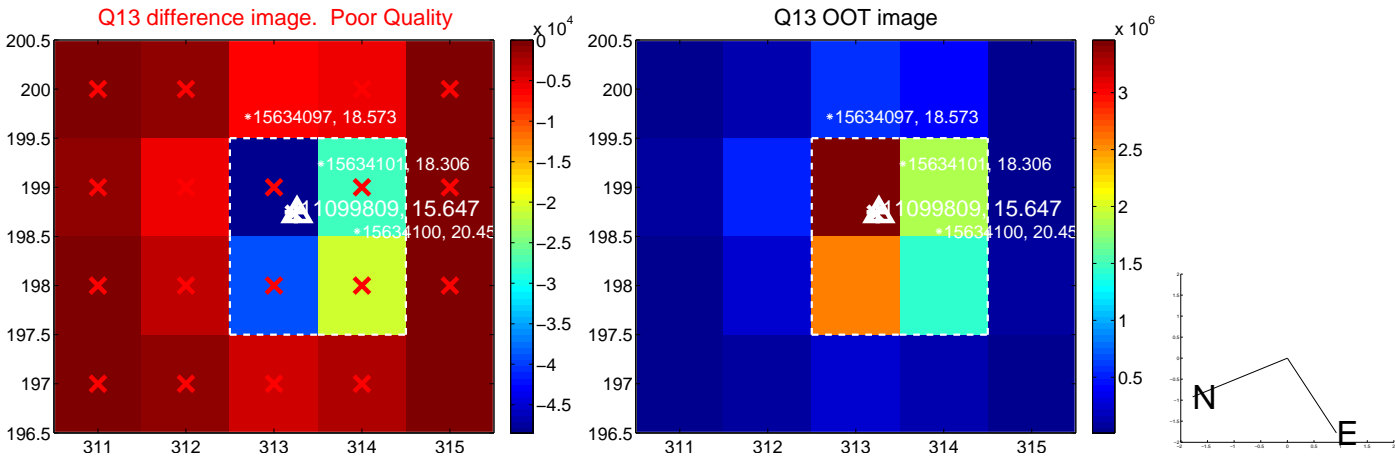
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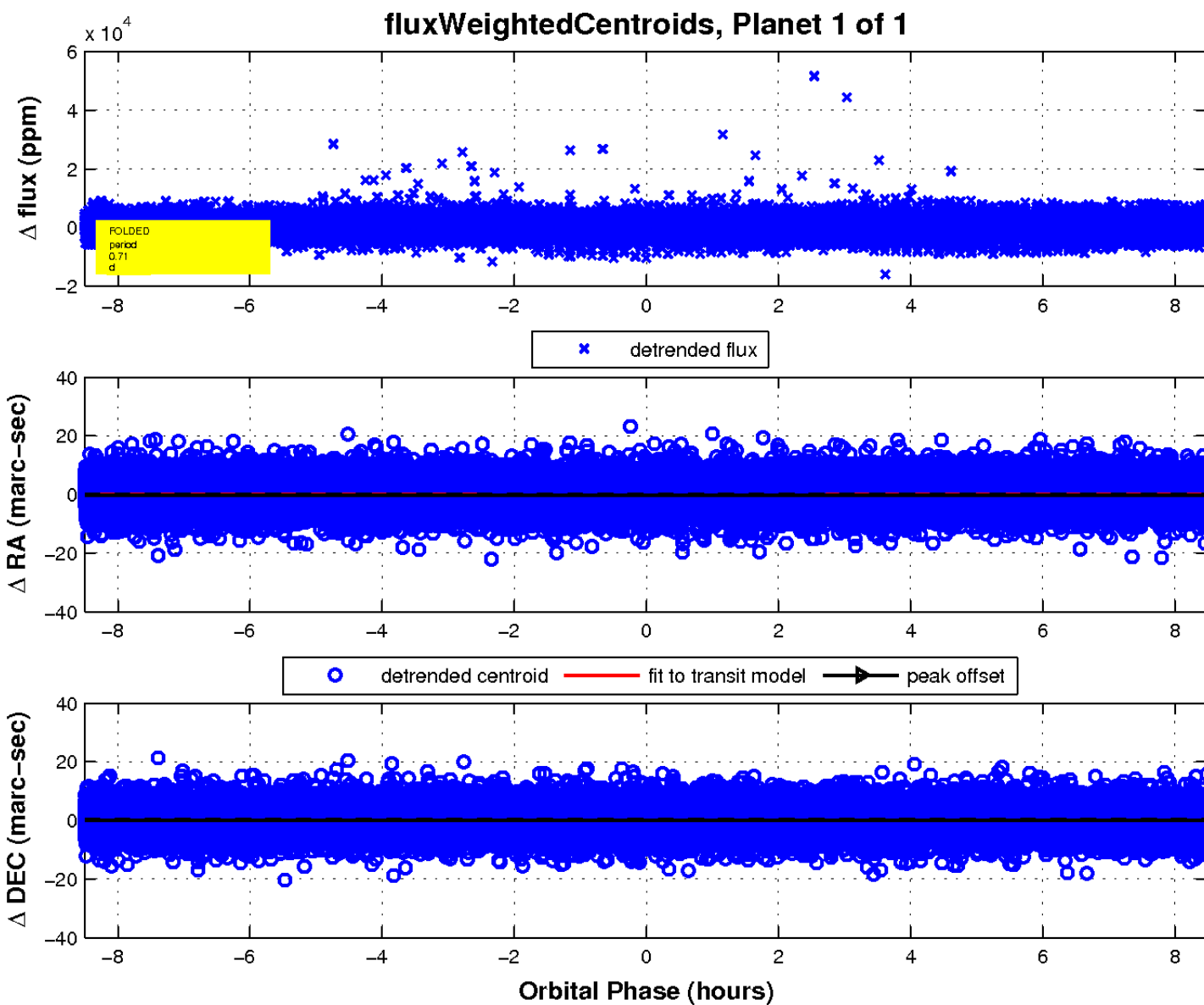
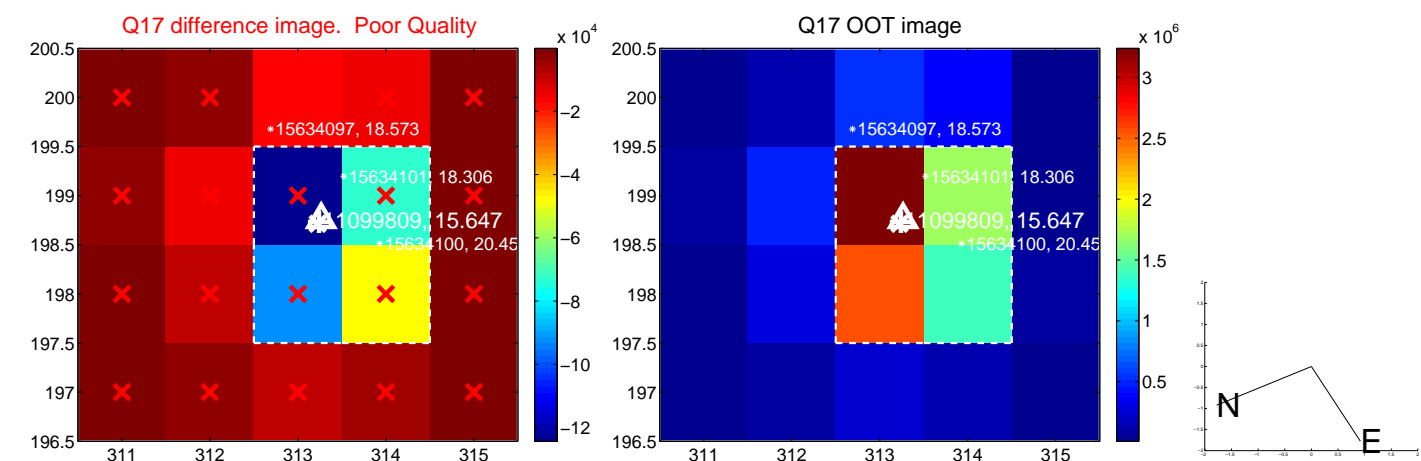
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UKIRT Image

Declination

