

KIC 009182484

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})
009182484-01	OBS	No	3.190148	132.624217	40.9	20.367	8.8	7.1	1.97	6302	1.26	2670.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009182484-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS

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

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

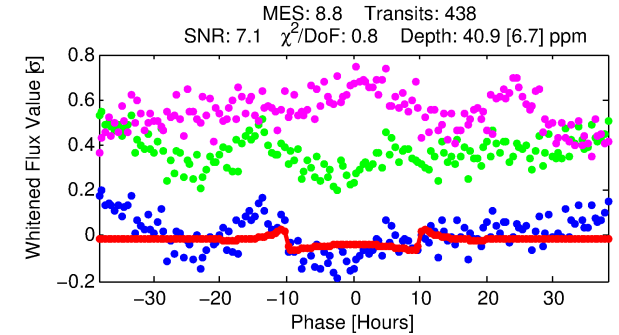
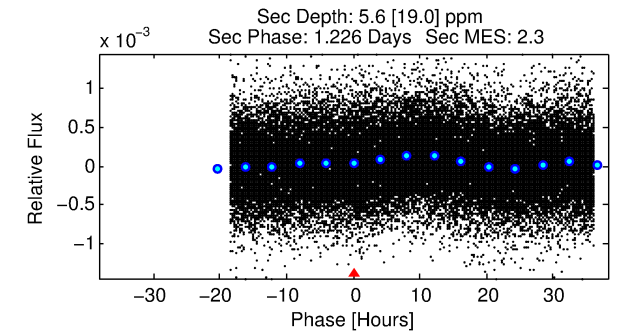
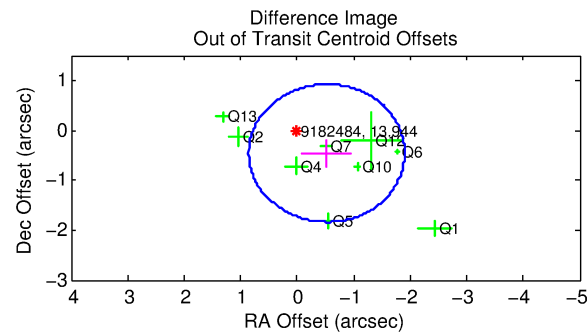
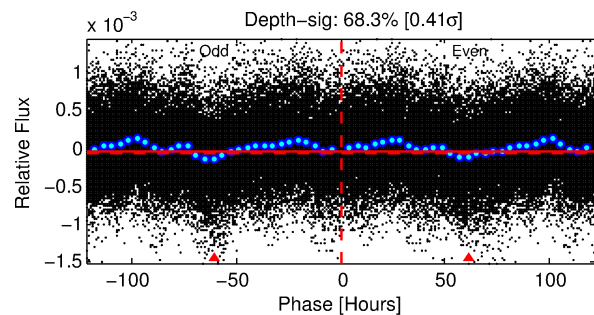
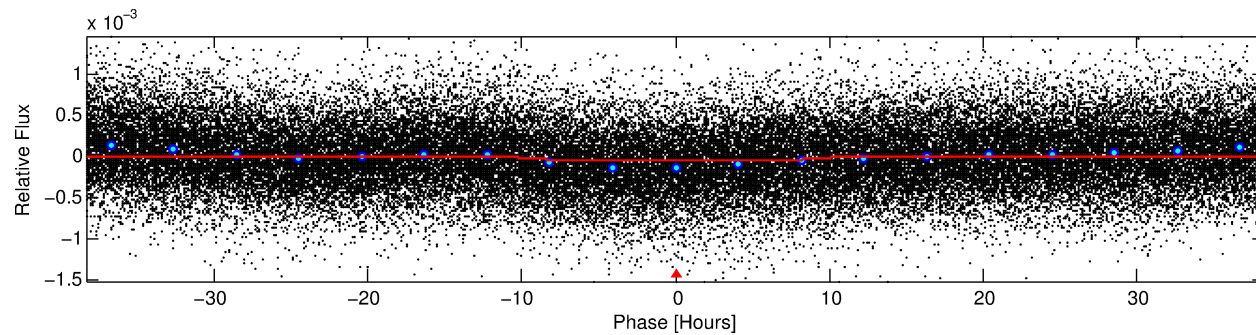
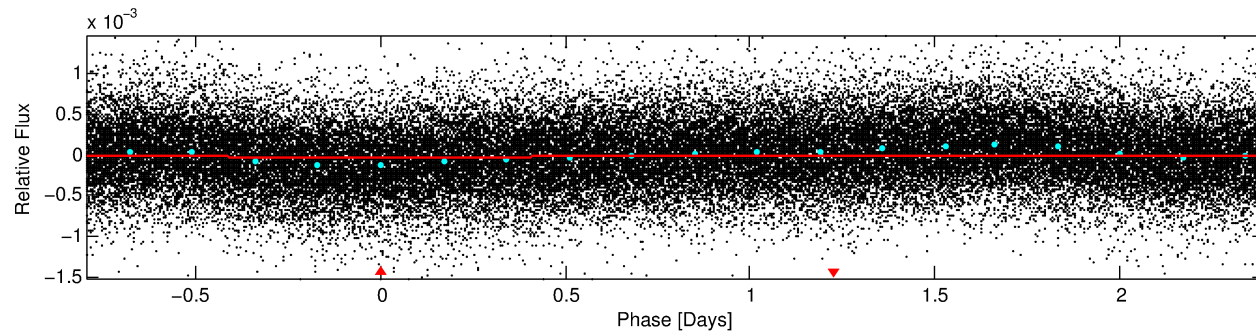
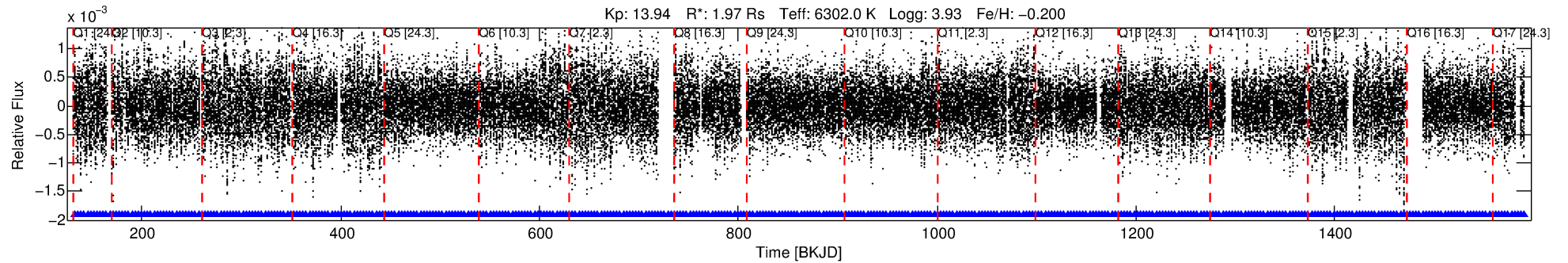
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009182484-01

No Significant Match Found

DV One-Page Summary

KIC: 9182484 Candidate: 1 of 1 Period: 3.190 d



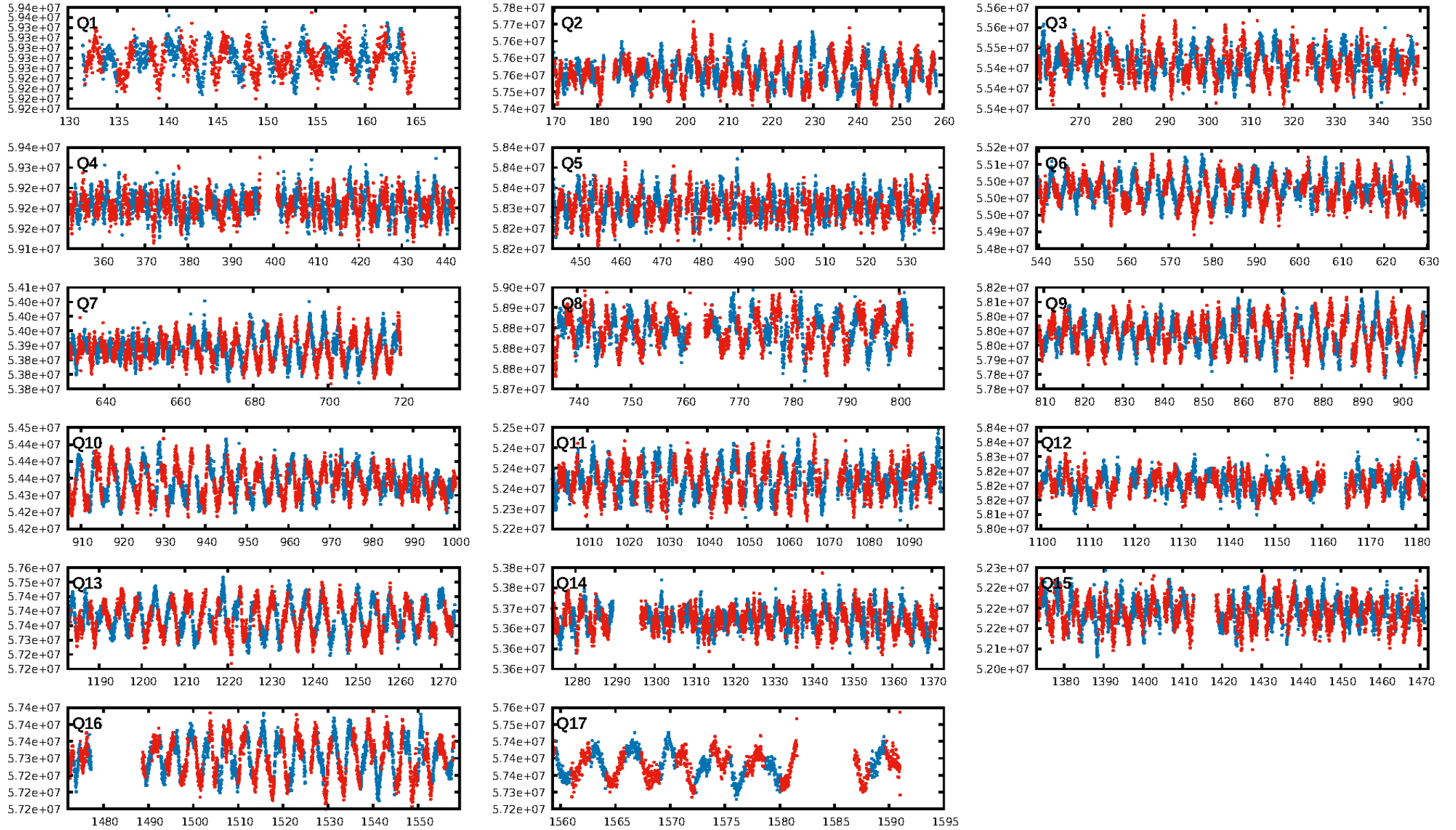
DV Fit Results:

Period = 3.19015 [0.00006] d
Epoch = 132.6242 [0.0106] BKJD
Rp/R* = 0.0059 [0.0052]
a/R* = 1.36 [2.88]
b = 0.00 [1084.87]
Seff = 2670.76 [1880.76]
Teq = 1833 [323] K
Rp = 1.26 [1.25] Re
a = 0.0452 [0.0194] AU
Ag = 3.97 [15.48] [0.19 σ]
Teffp = 4000 [3843] K [0.56 σ]

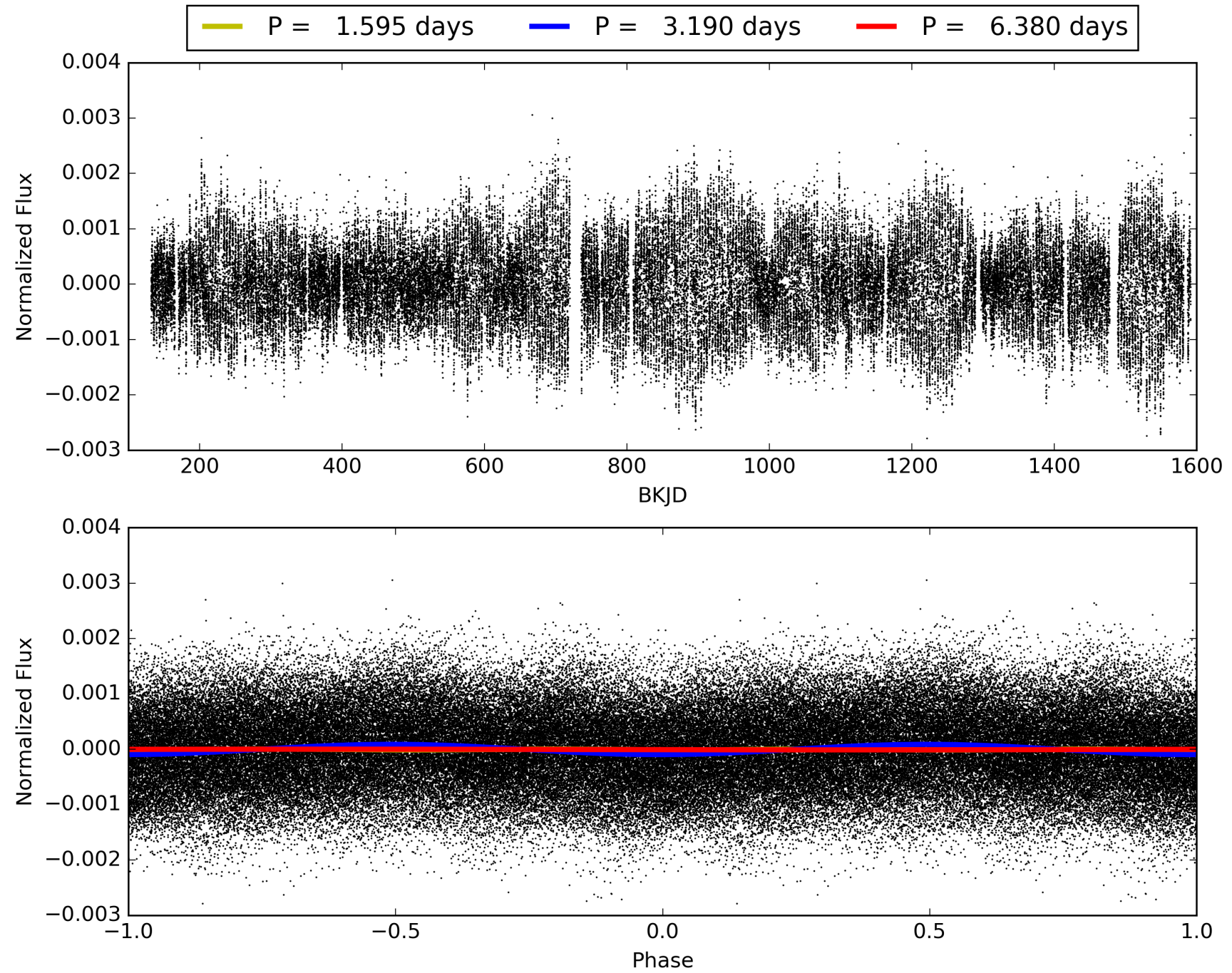
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.64e-27
RollingBand-fgt: 1.00 [418/418]
GhostDiagnostic-chr: 1.689
Centroid-sig: 0.0%
Centroid-so: 3.340 arcsec [2.94 σ]
OotOffset-rm: 0.694 arcsec [1.51 σ]
KicOffset-rm: 0.427 arcsec [1.12 σ]
OotOffset-st: 3/1/2/3 [9]
KicOffset-st: 3/1/2/3 [9]
DiffImageQuality-fgm: 0.89 [8/9]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 009182484-01, PDC Light Curves

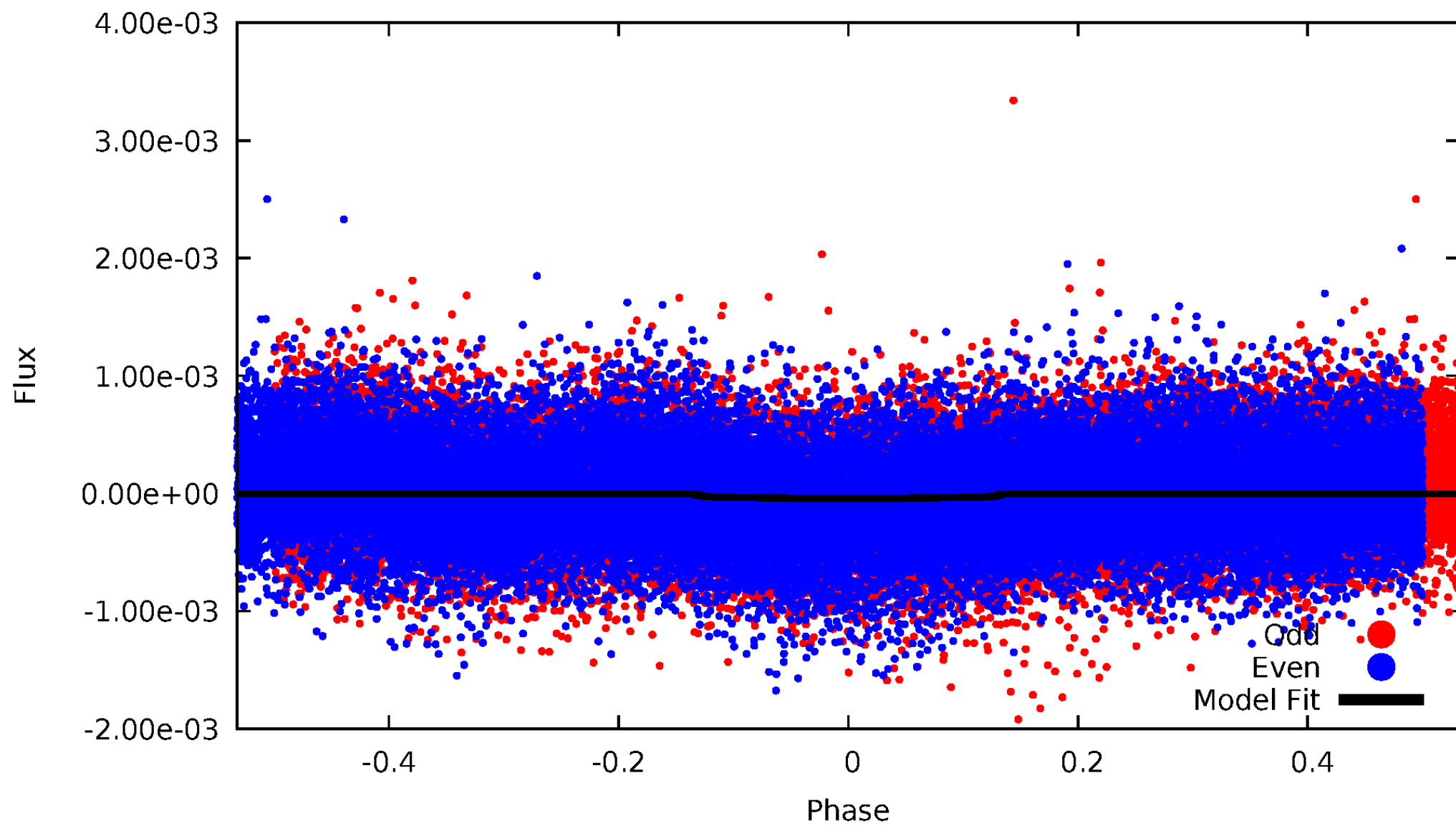


TCE 009182484-01



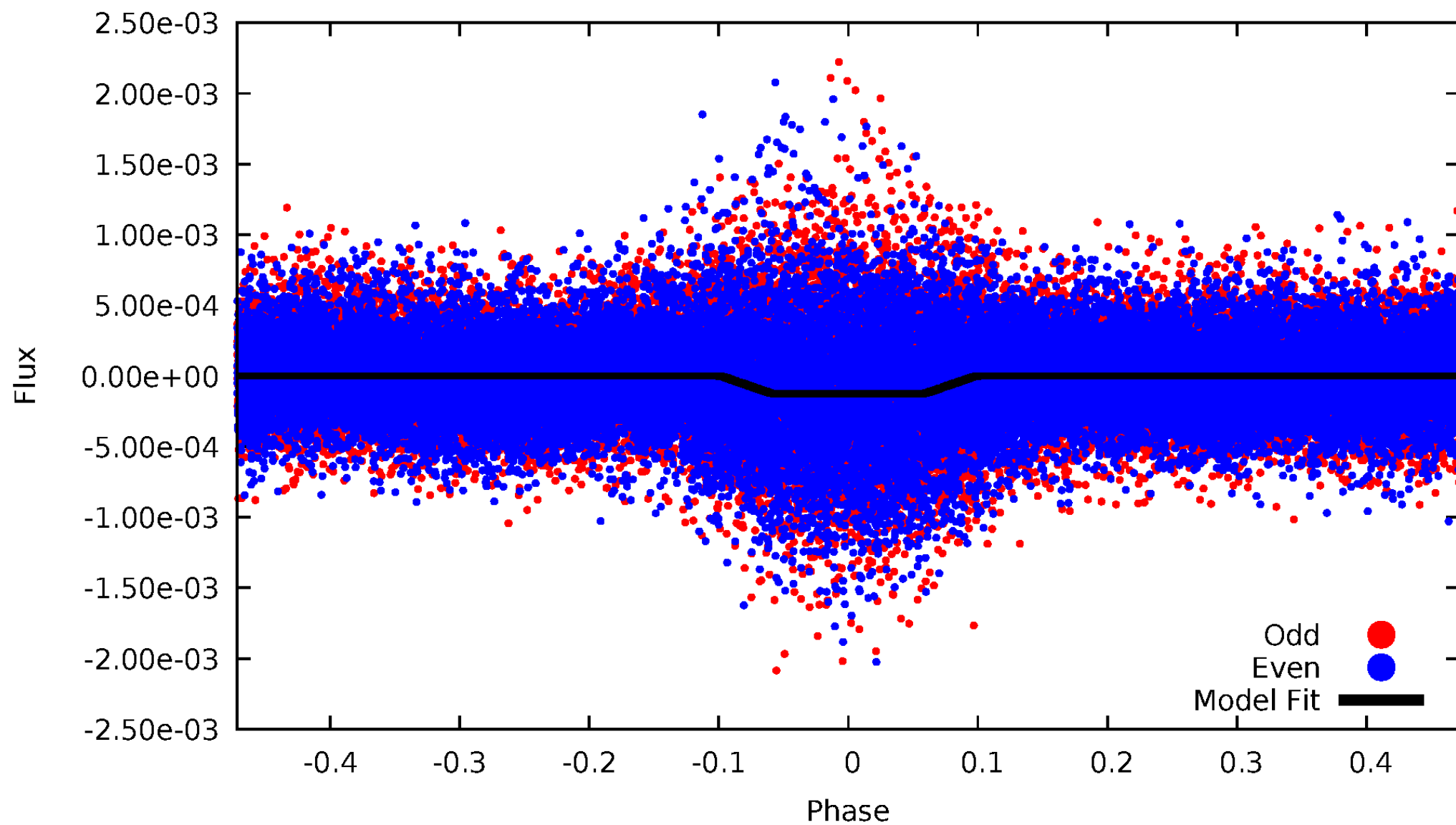
DV Odd/Even

TCE 009182484-01

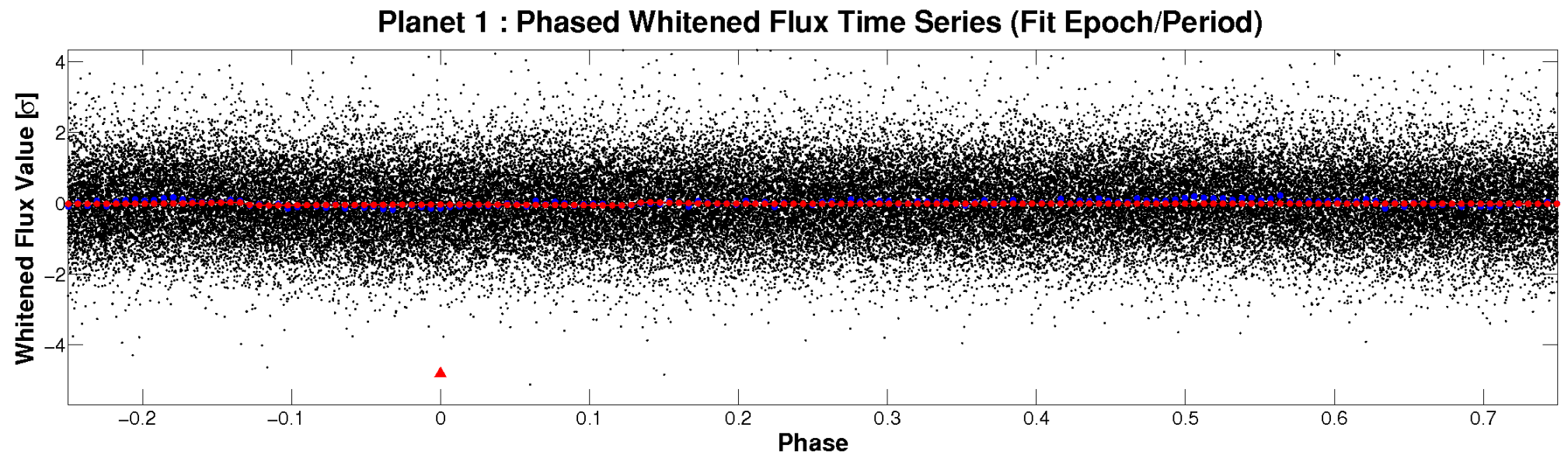
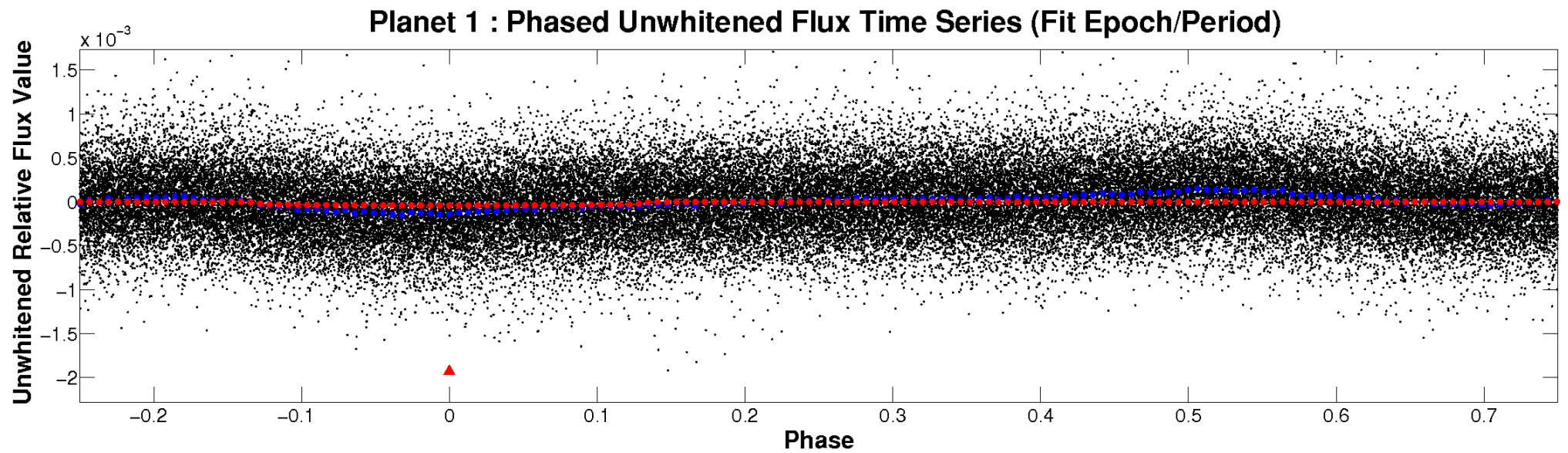


ALT Odd/Even

TCE 009182484-01

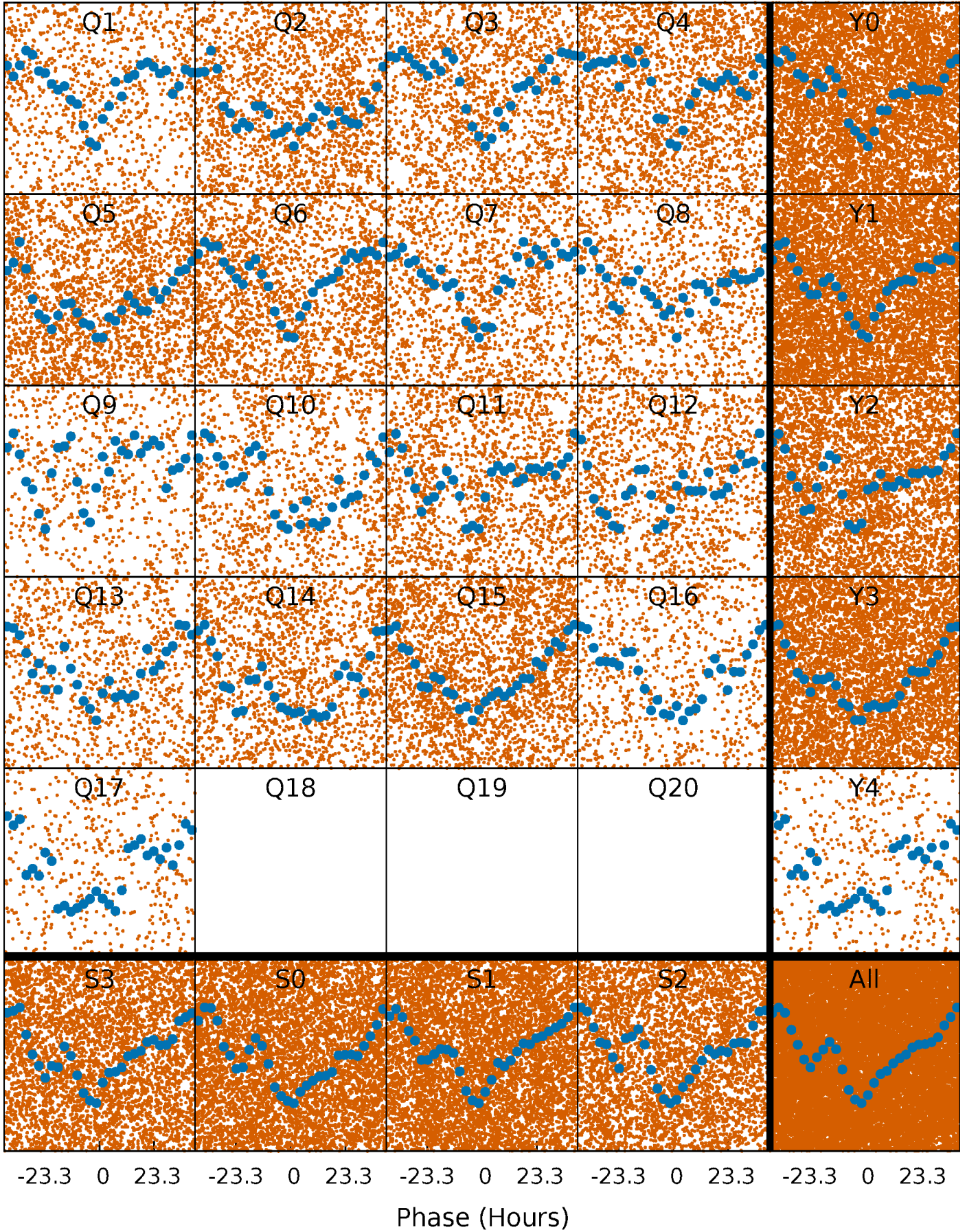


Non-Whitened Vs. Whitened Light Curve



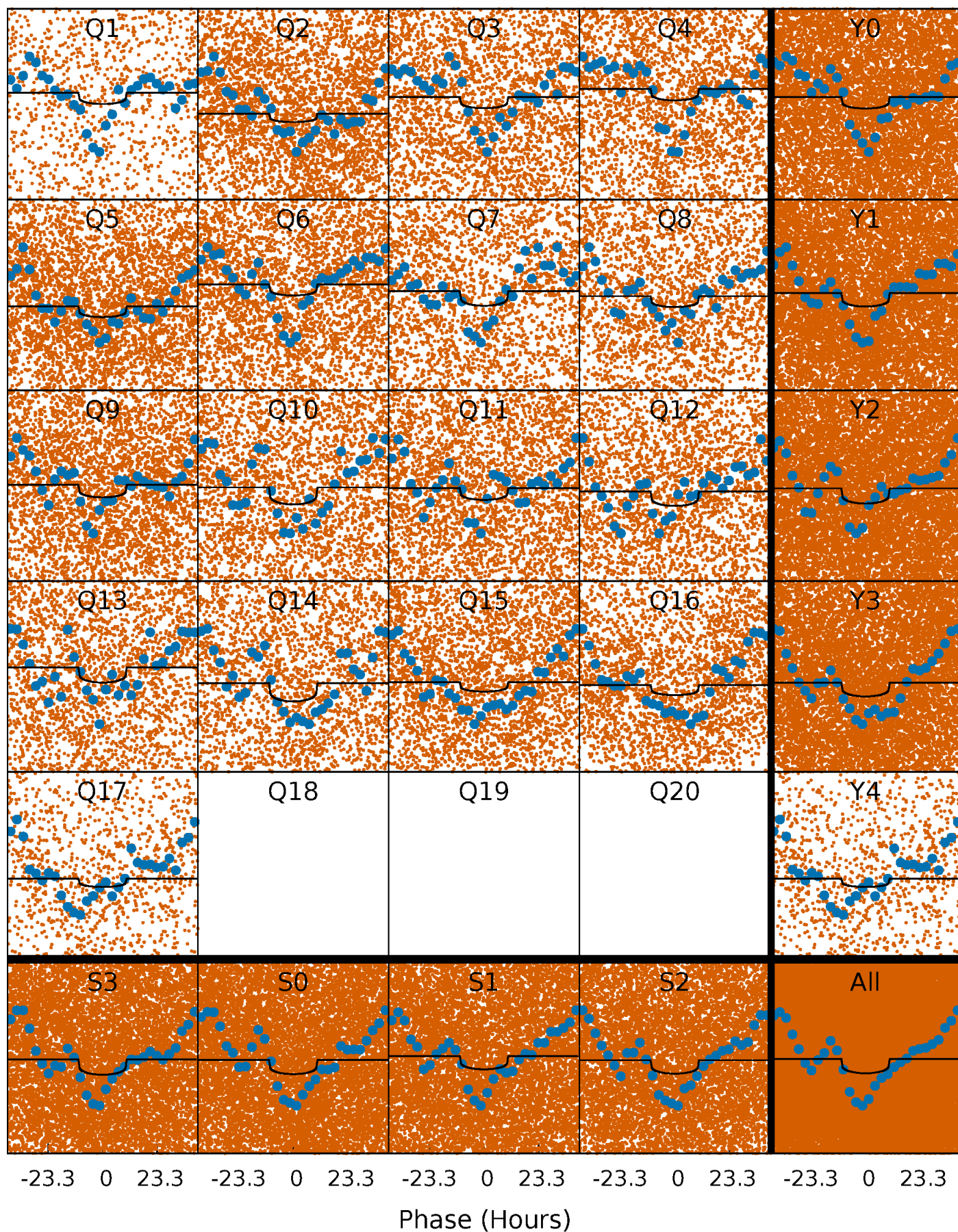
PDC Quarter-Phased Transit Curves

TCE 009182484-01 P= 3.190148 Days $T_0=132.624217$ (BKJD)



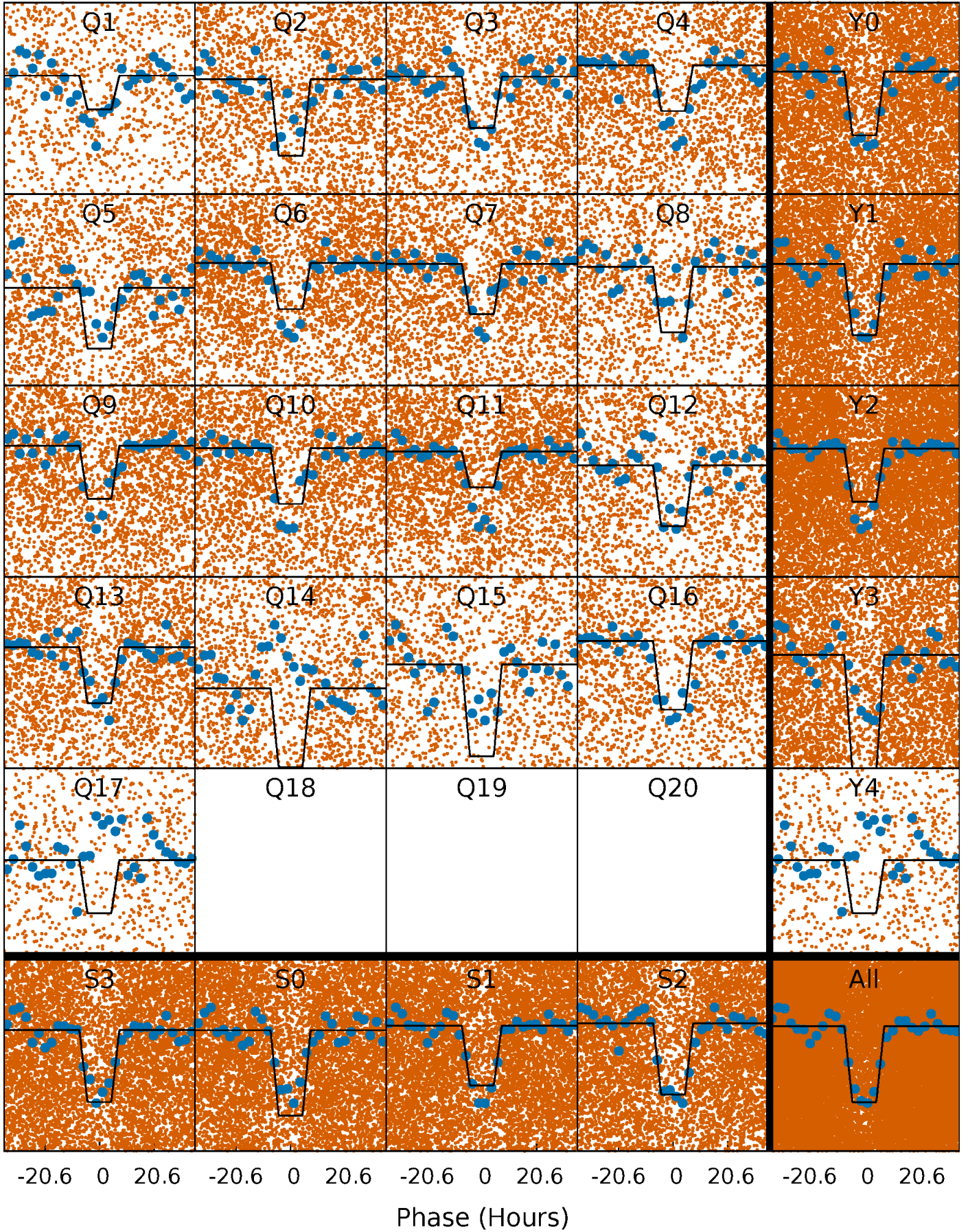
DV Quarter-Phased Transit Curves

TCE 009182484-01 P= 3.190148 Days $T_0=132.624217$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

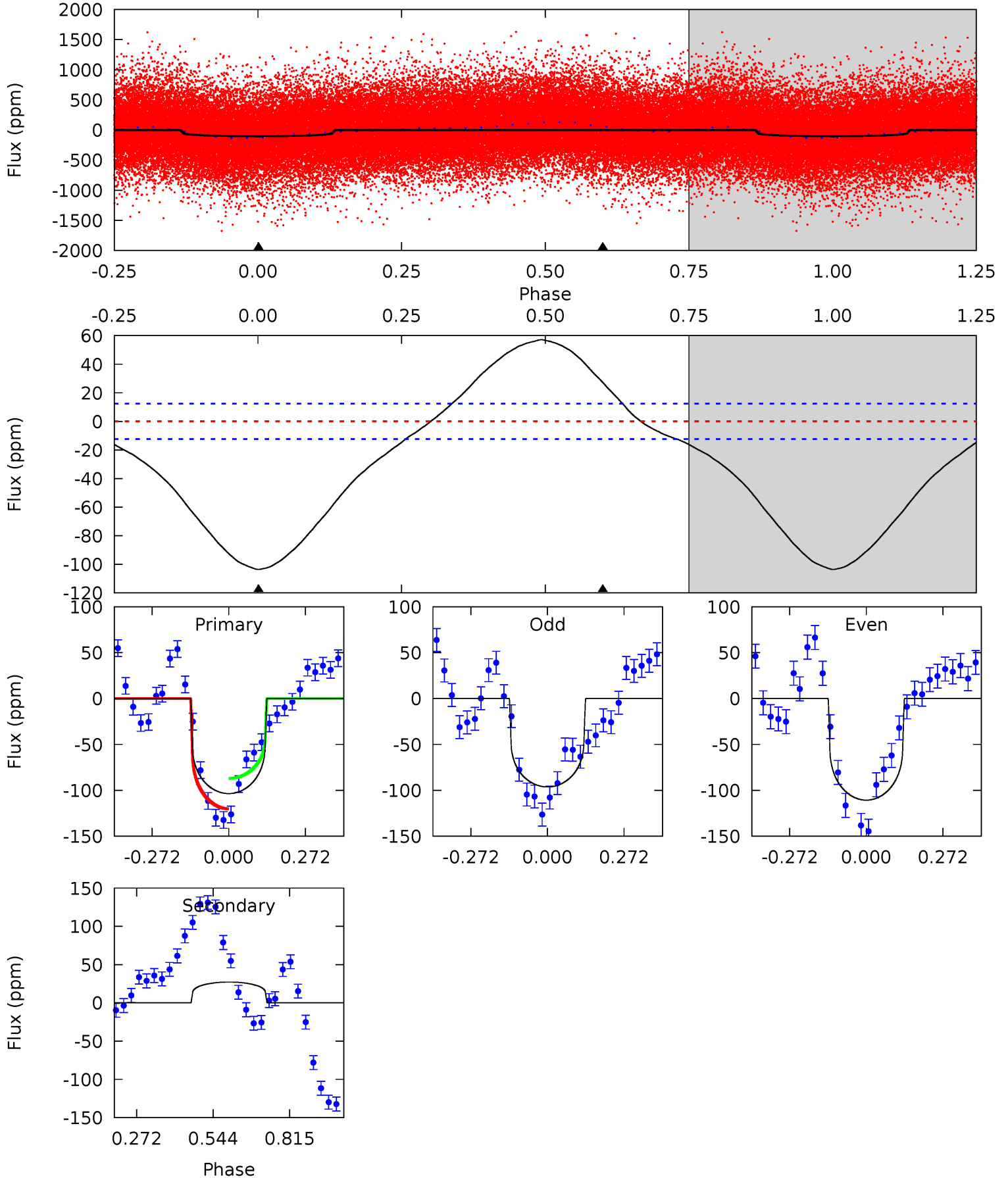
TCE 009182484-01 P= 3.189608 Days $T_0=132.591788$ (BKJD)



DV Model-Shift Uniqueness Test

009182484-01, P = 3.190148 Days, E = 129.434069 Days

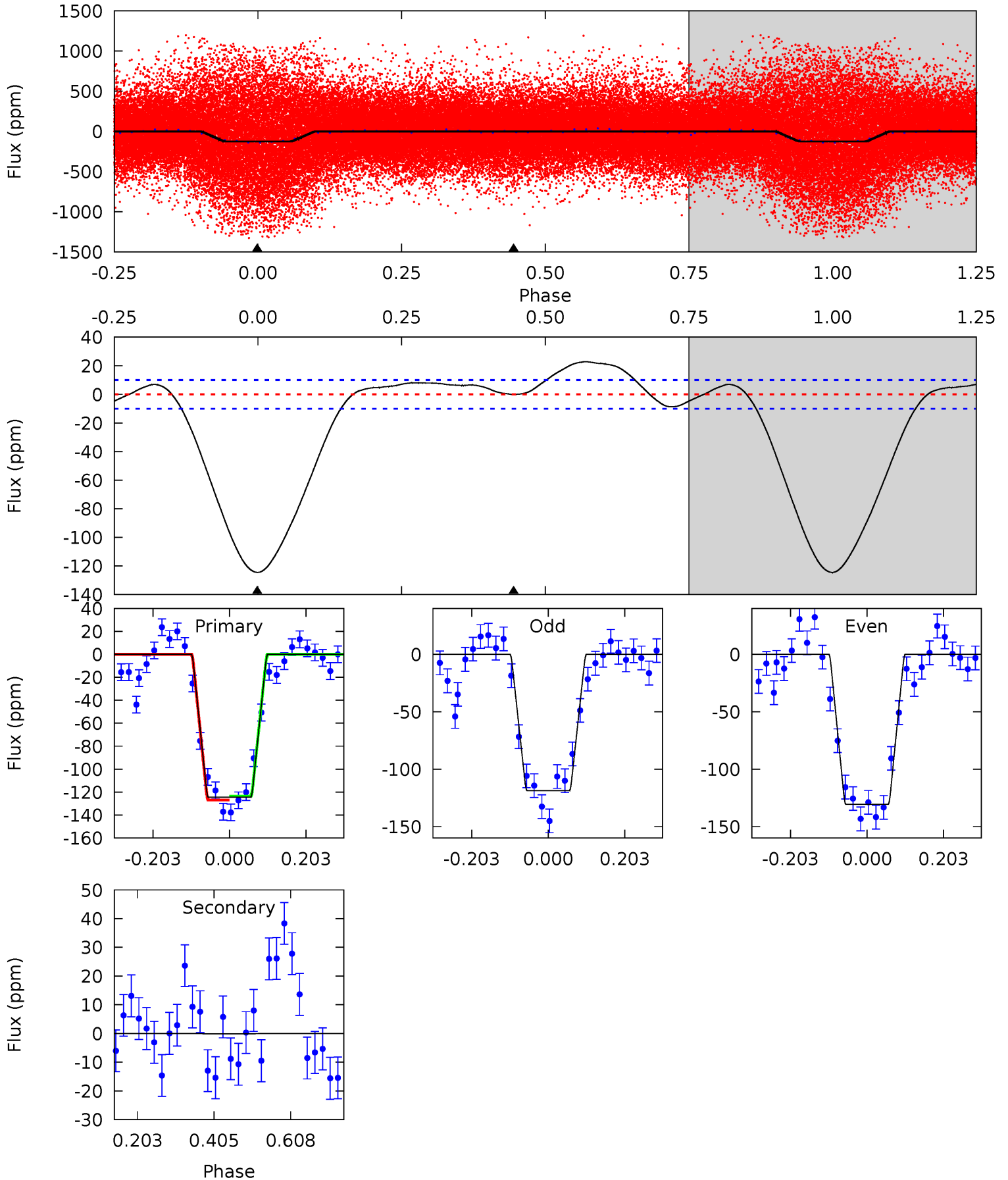
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.5	-9.61	0	0	4.35	1.10	3.22	36.5	36.5	-9.61	-9.61	2.54	1.25	0.36	5.86



Alt Model-Shift Uniqueness Test

009182484-01, P = 3.189608 Days, E = 129.402180 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.7	0.06	0	0	4.41	1.27	2.58	54.7	54.7	0.06	0.06	2.59	0.85	0.15	0.75



Stellar Parameters For KIC 009182484

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6302^{+194}_{-233}	$3.934^{+0.405}_{-0.135}$	$-0.200^{+0.300}_{-0.300}$	$1.965^{+0.537}_{-0.872}$	$1.208^{+0.195}_{-0.216}$	$0.224^{+0.706}_{-0.091}$
	+3%/-4%	+10%/-3%	+150%/-150%	+27%/-44%	+16%/-18%	+315%/-40%
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 009182484-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	27 ± 3	$1.31^{+0.98}_{-0.81}$	2489^{+226}_{-275}	-5562^{+1043}_{-4175}	$-17.198^{+11.328}_{-110.613}$
Alt.	-0 ± 2	$2.26^{+1.22}_{-1.01}$	2505^{+208}_{-296}	-2748^{+5632}_{-504}	$0.052^{+0.687}_{-0.608}$

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

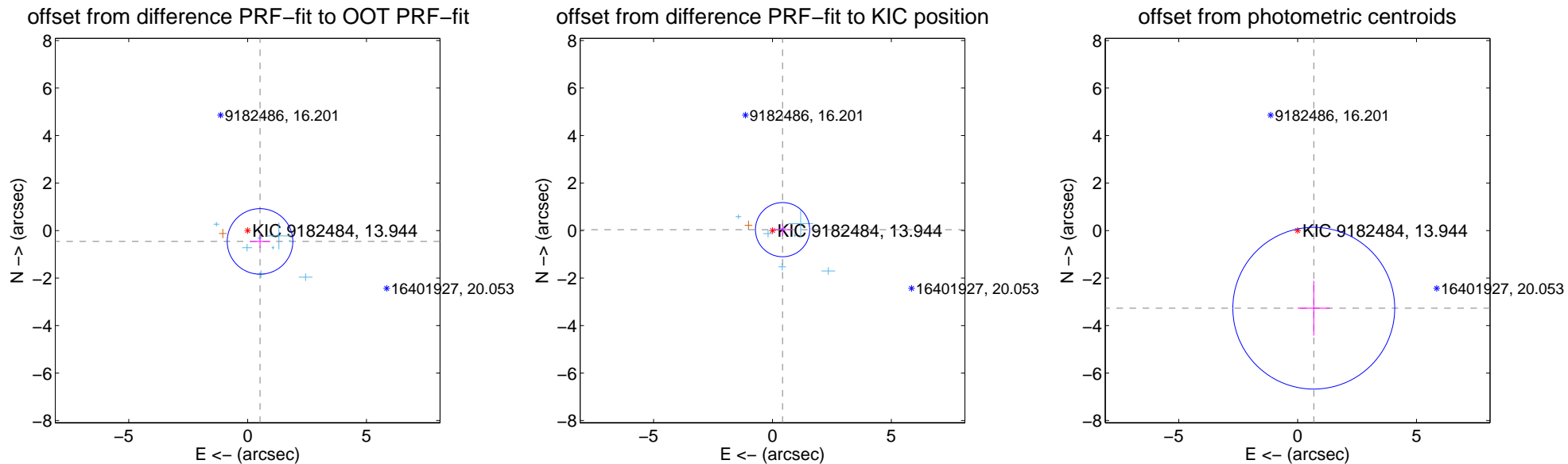
DV Centroid Data

Supplemental centroid analysis for 009182484-01. Kepler magnitude: 13.94. Transit SNR 7.13

There are 8 quarters with good PRF difference image offsets

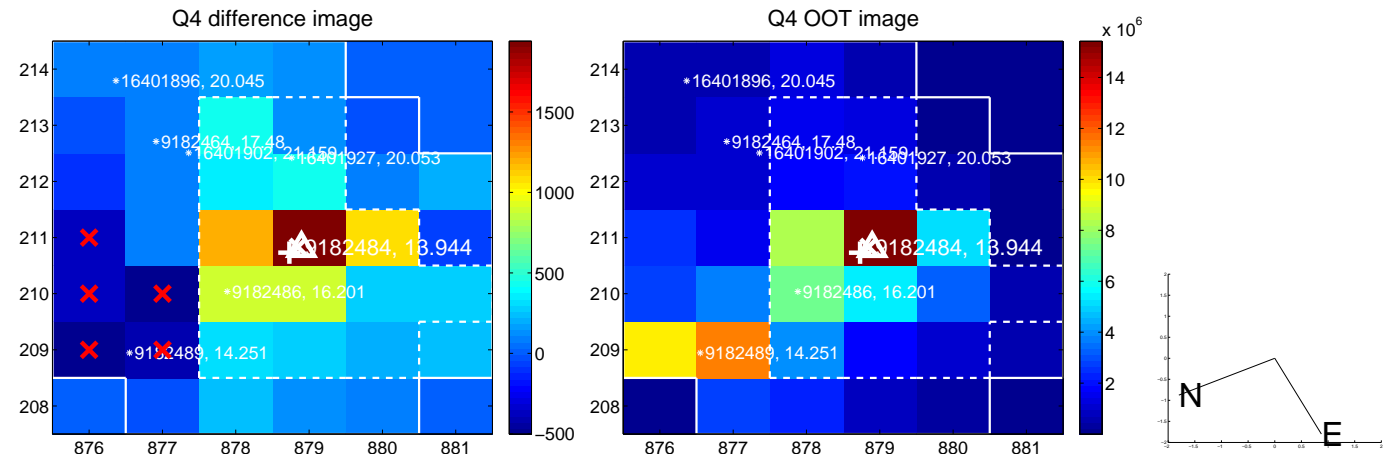
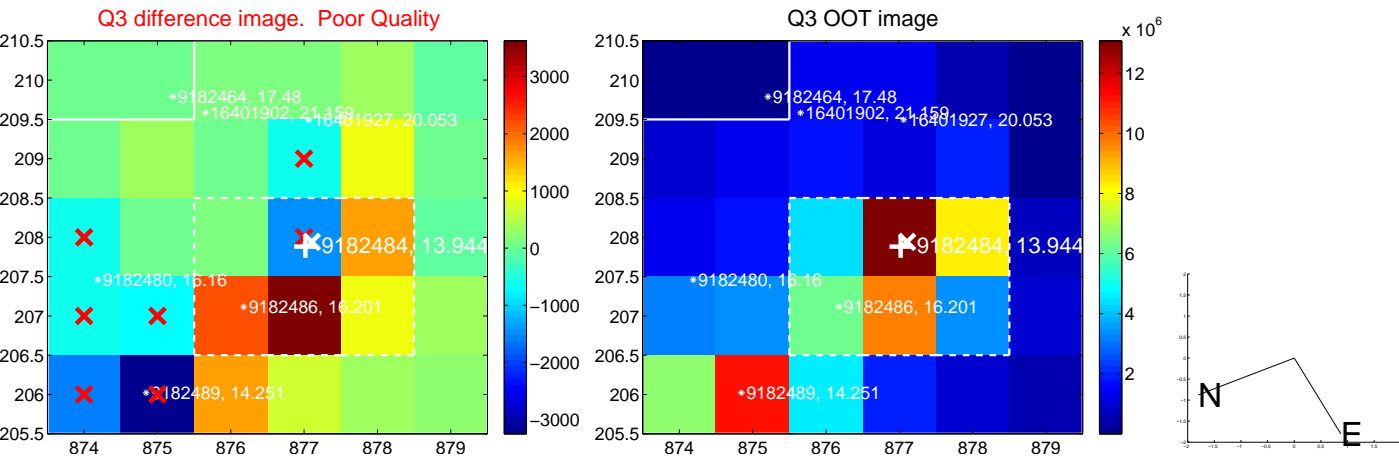
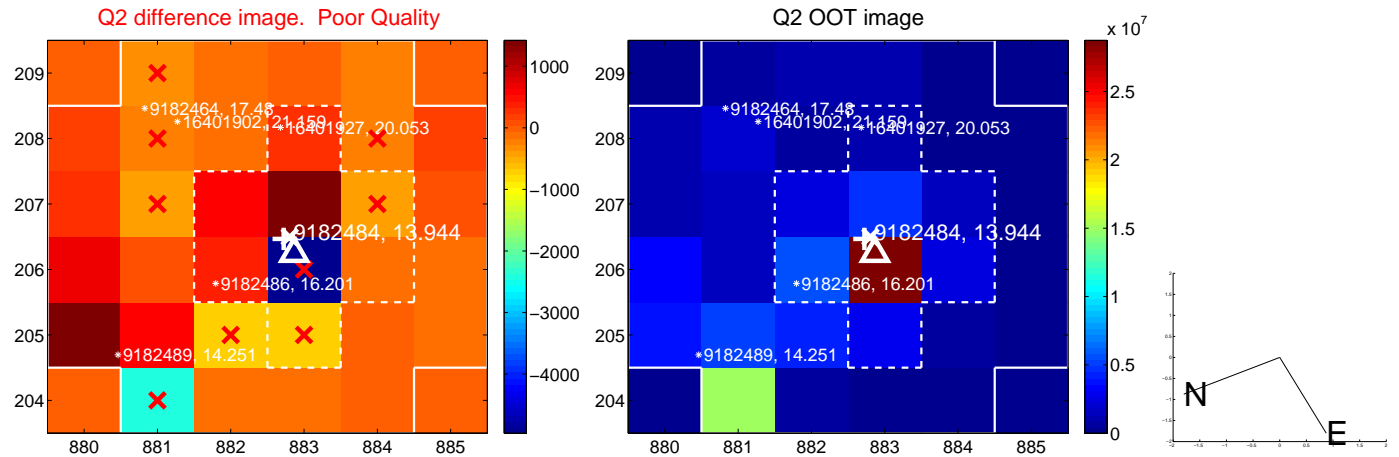
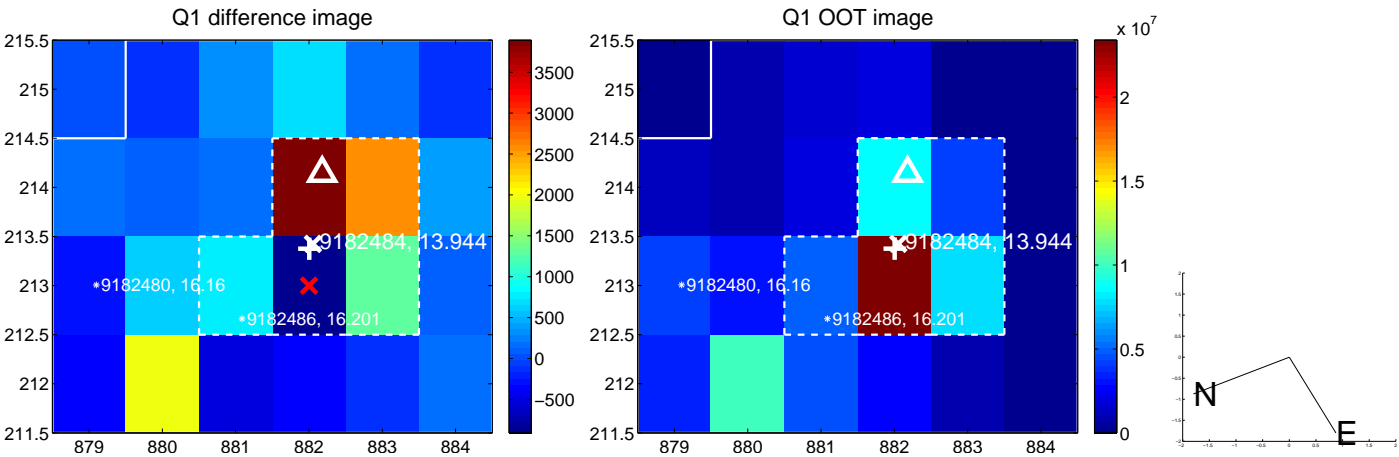
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.694 ± 0.460	1.51	-0.522 ± 0.431	-0.458 ± 0.271
PRF-fit source offset from KIC position	0.427 ± 0.380	1.12	-0.425 ± 0.392	0.038 ± 0.260
photometric centroid source offset	3.34 ± 1.14	2.94	-0.68 ± 0.68	-3.27 ± 1.15

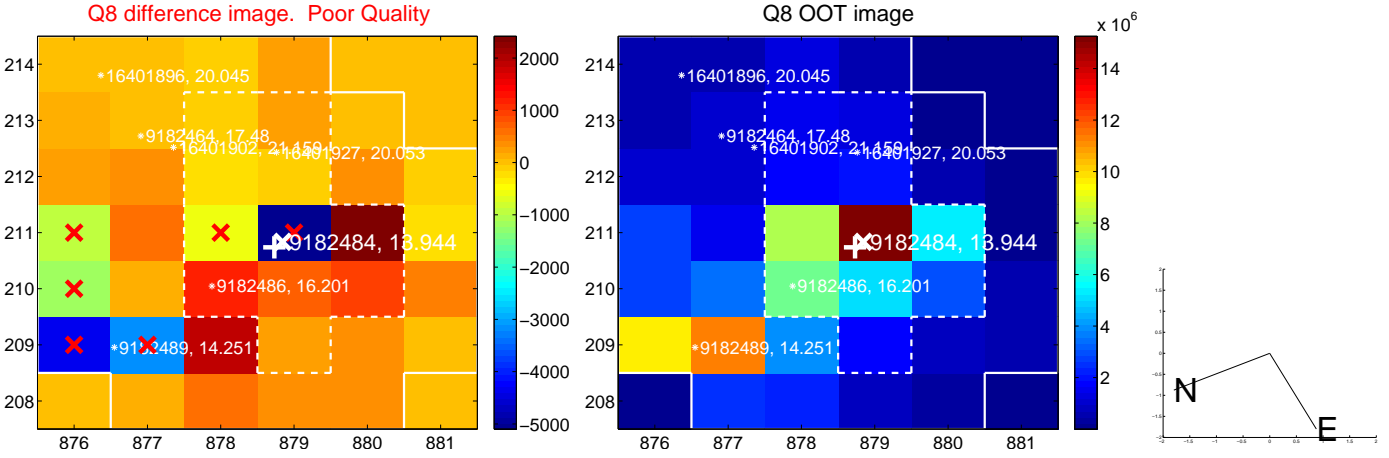
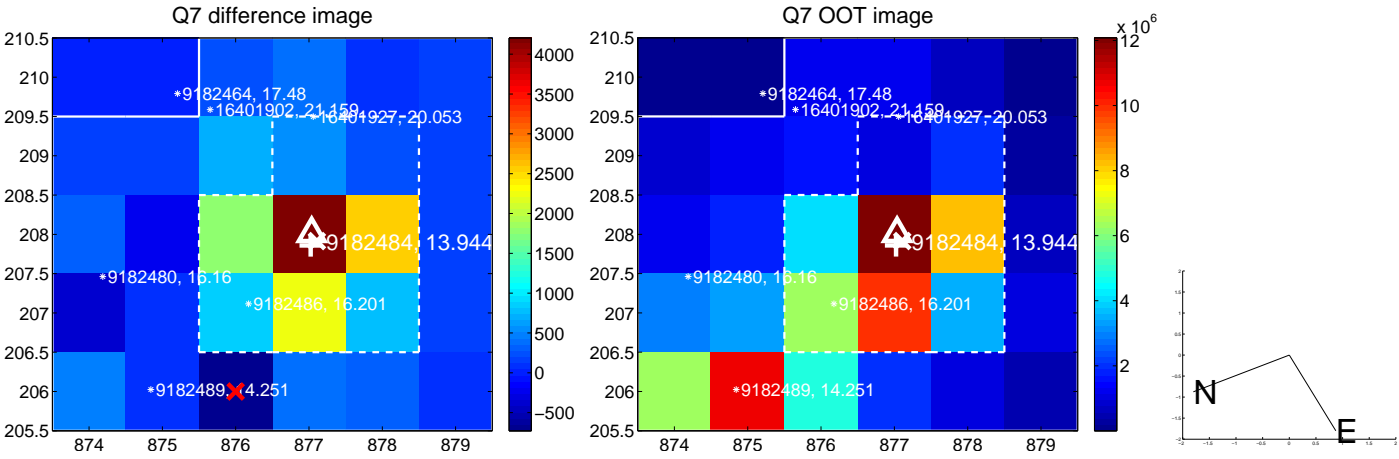
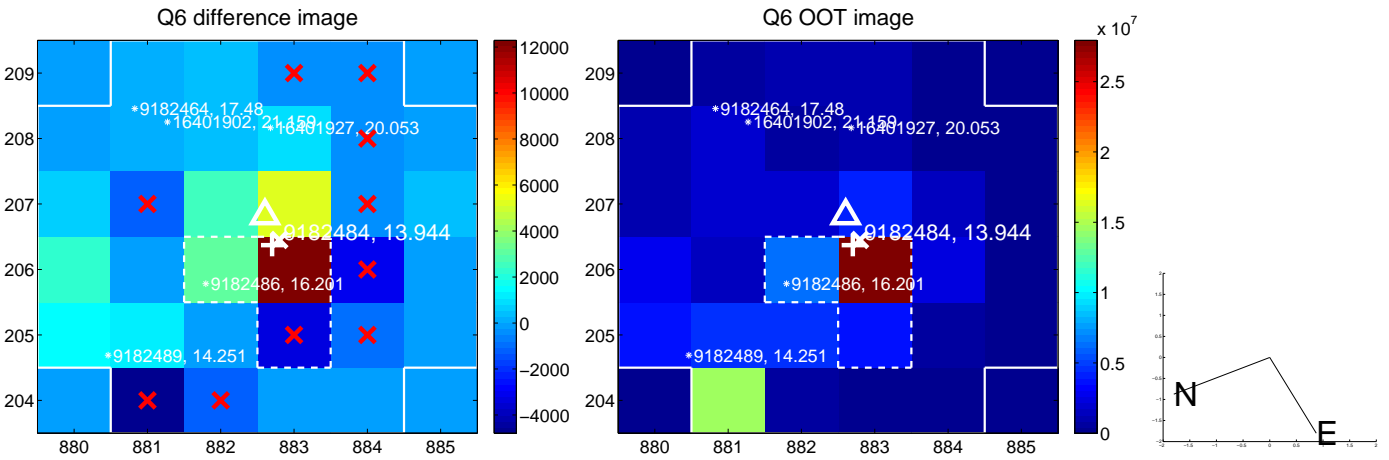
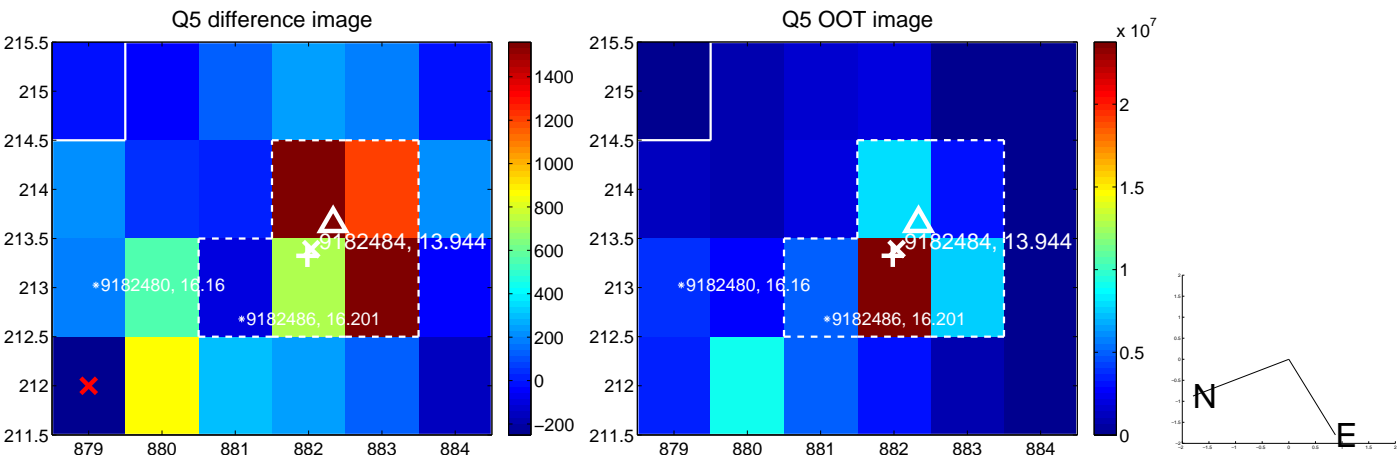


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

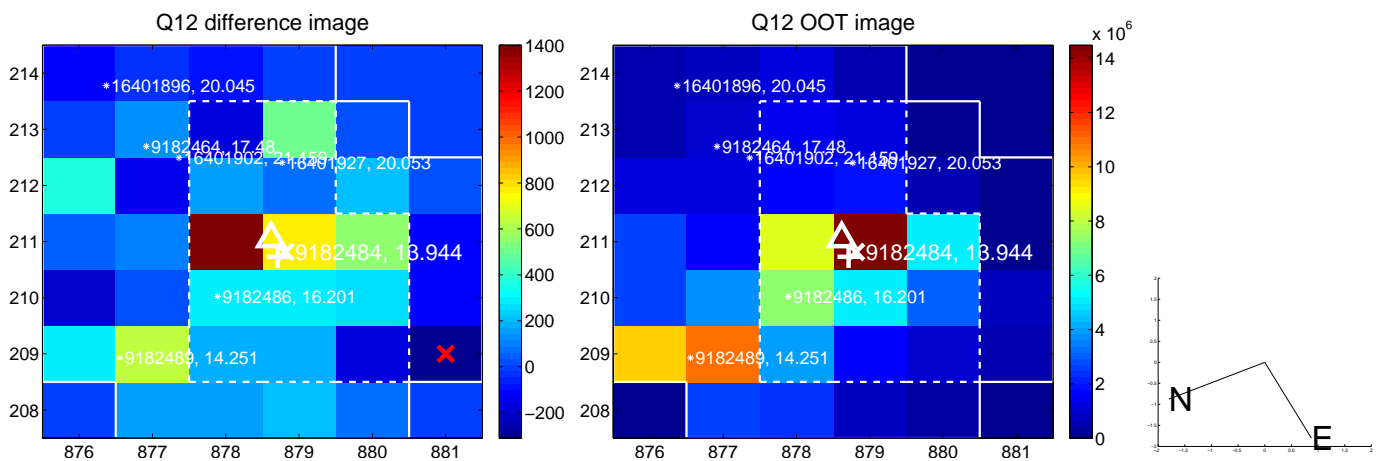
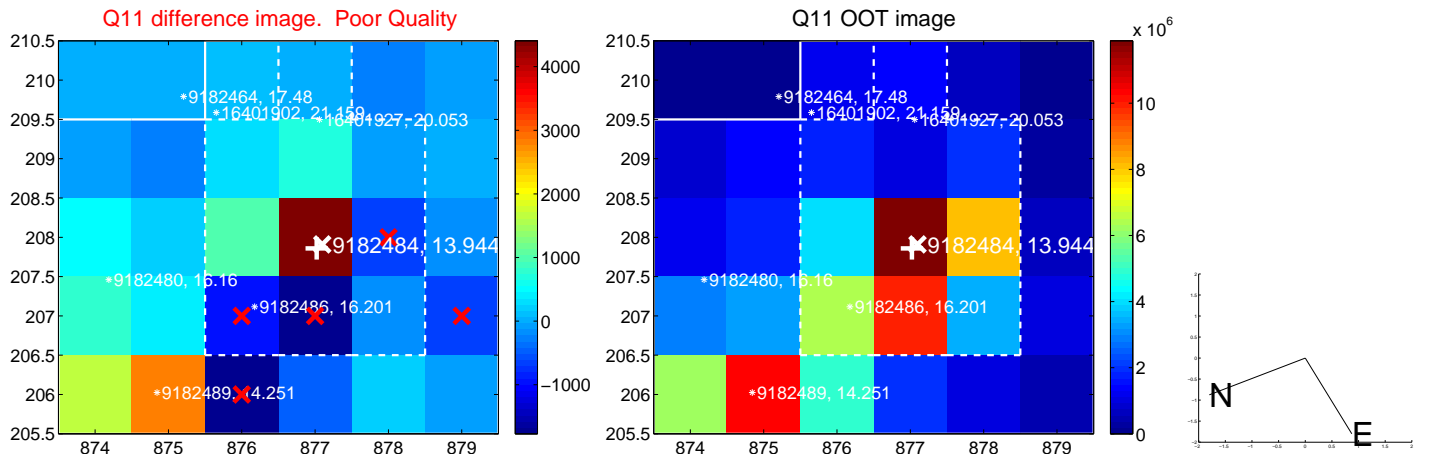
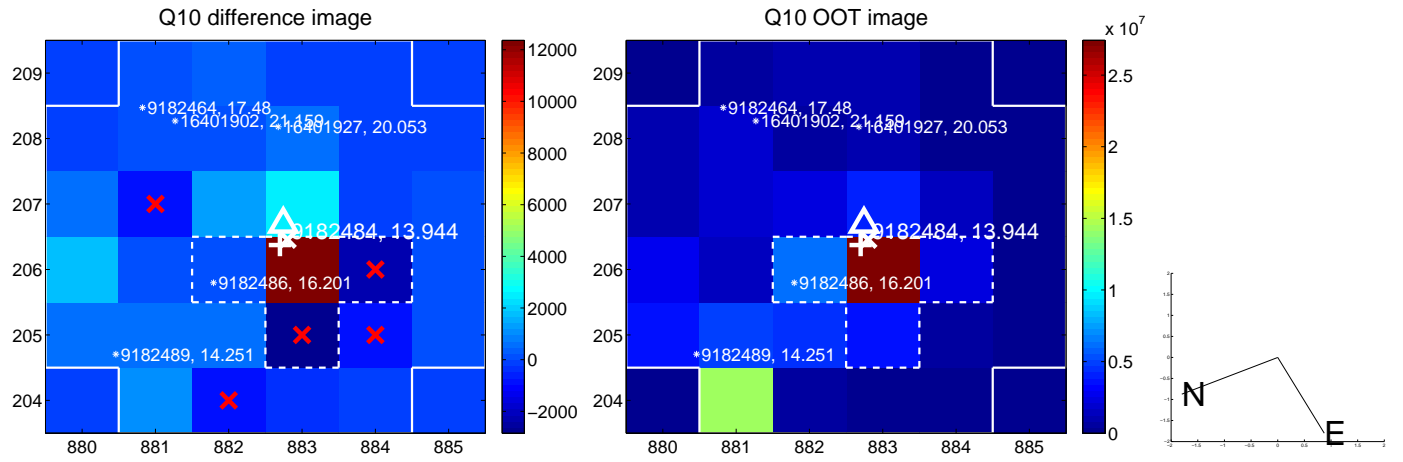
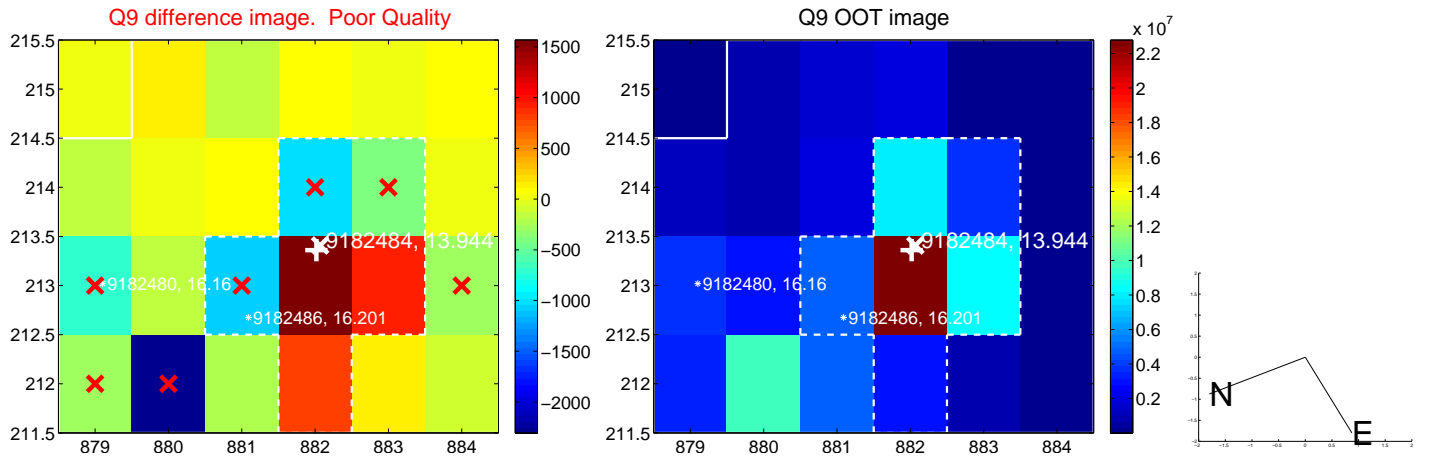
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



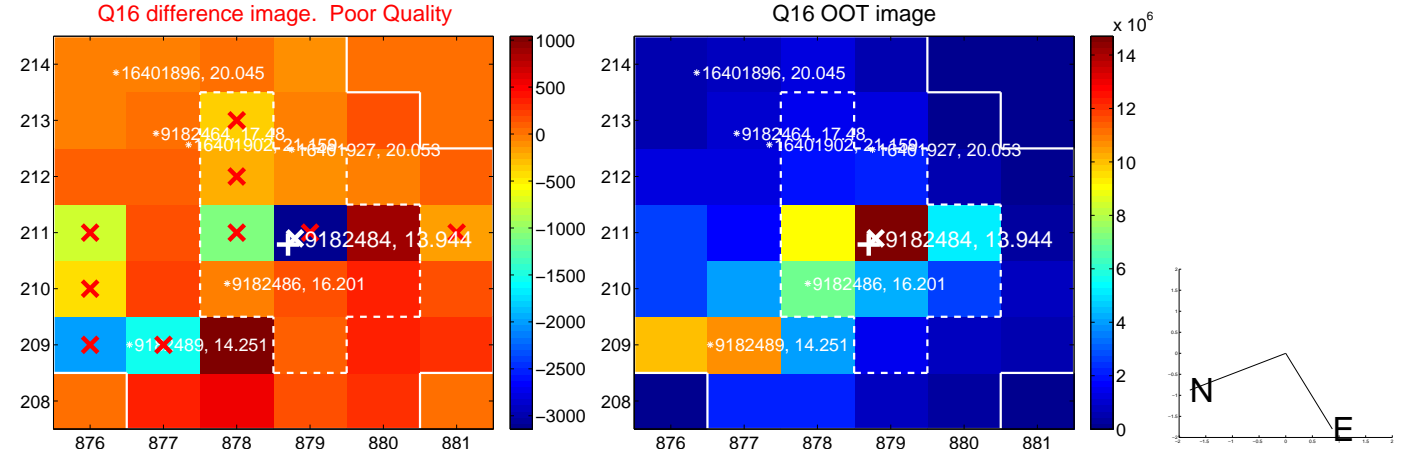
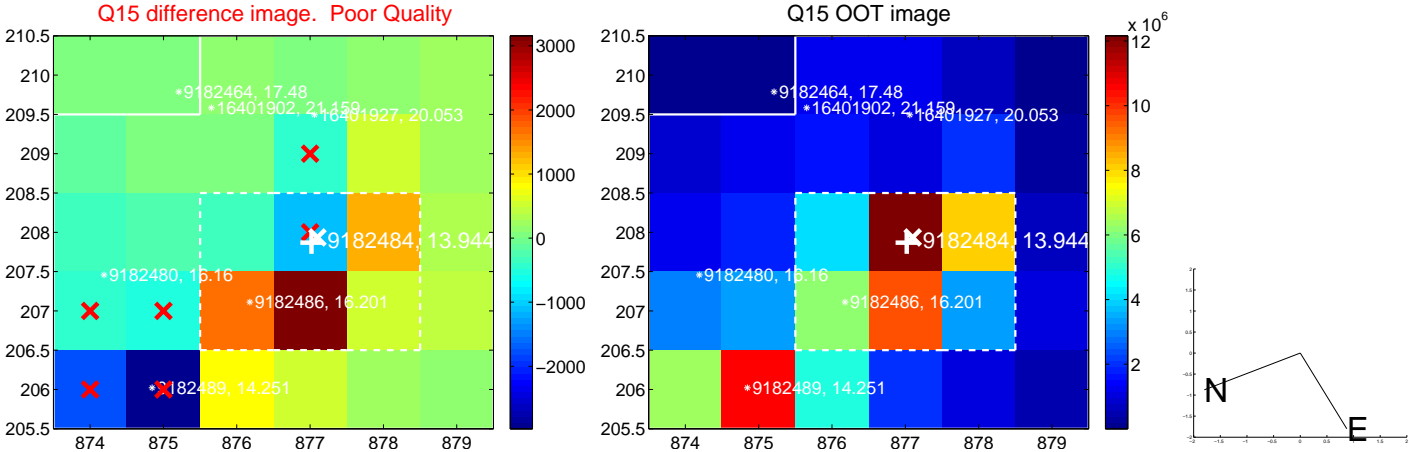
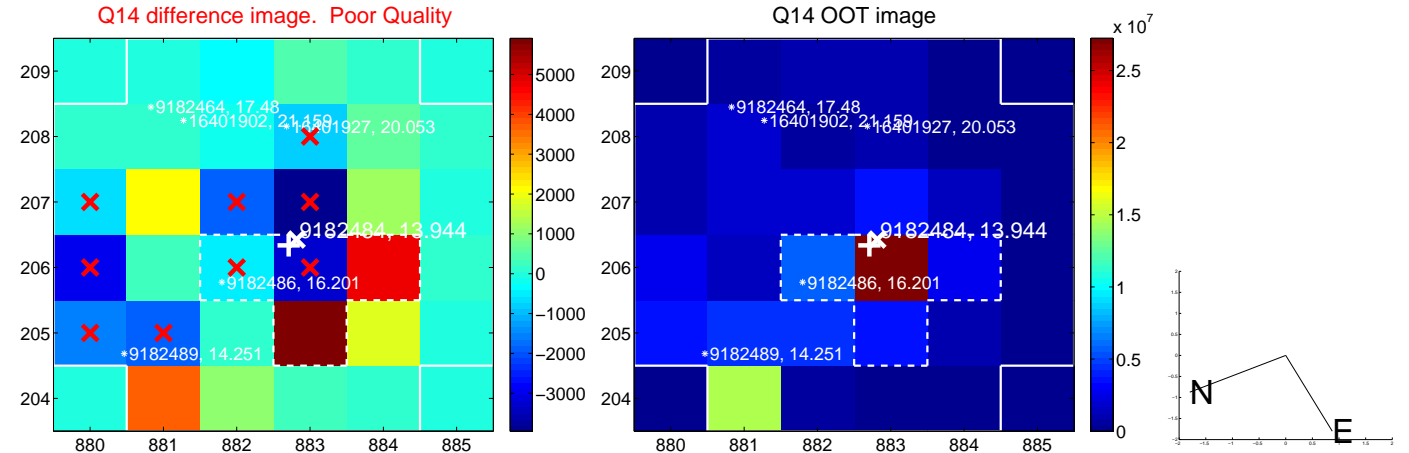
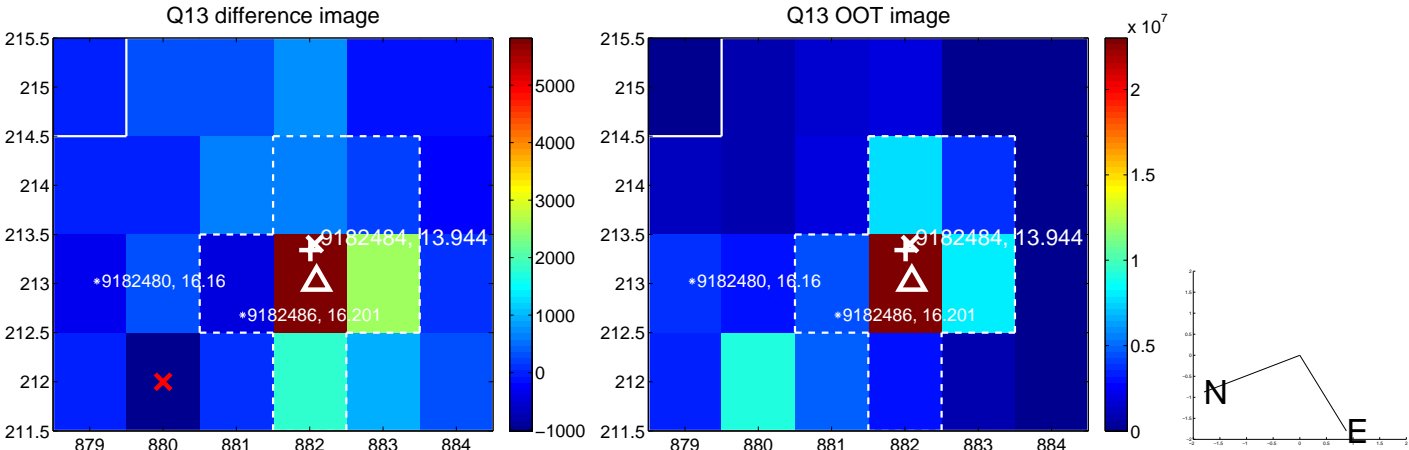
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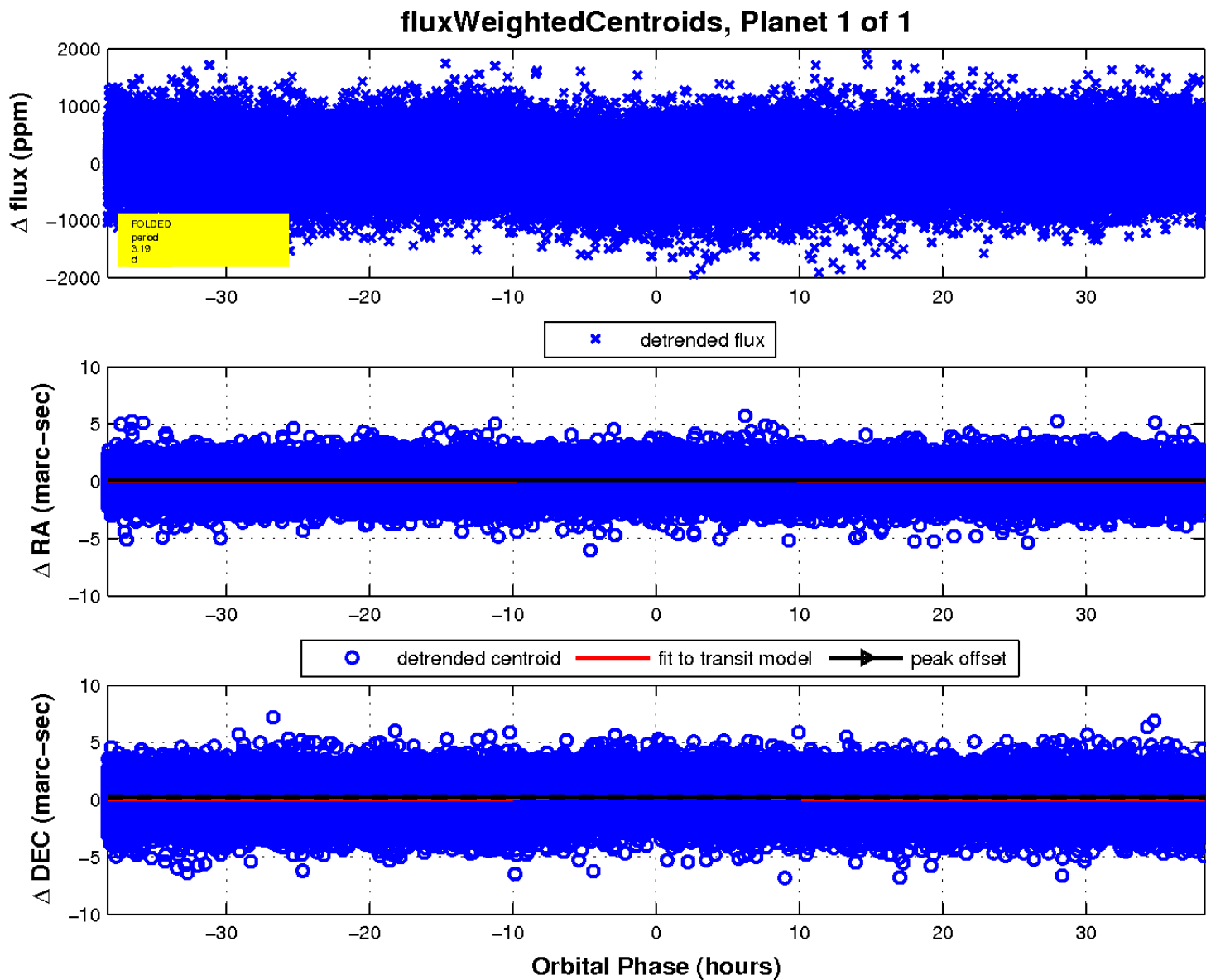
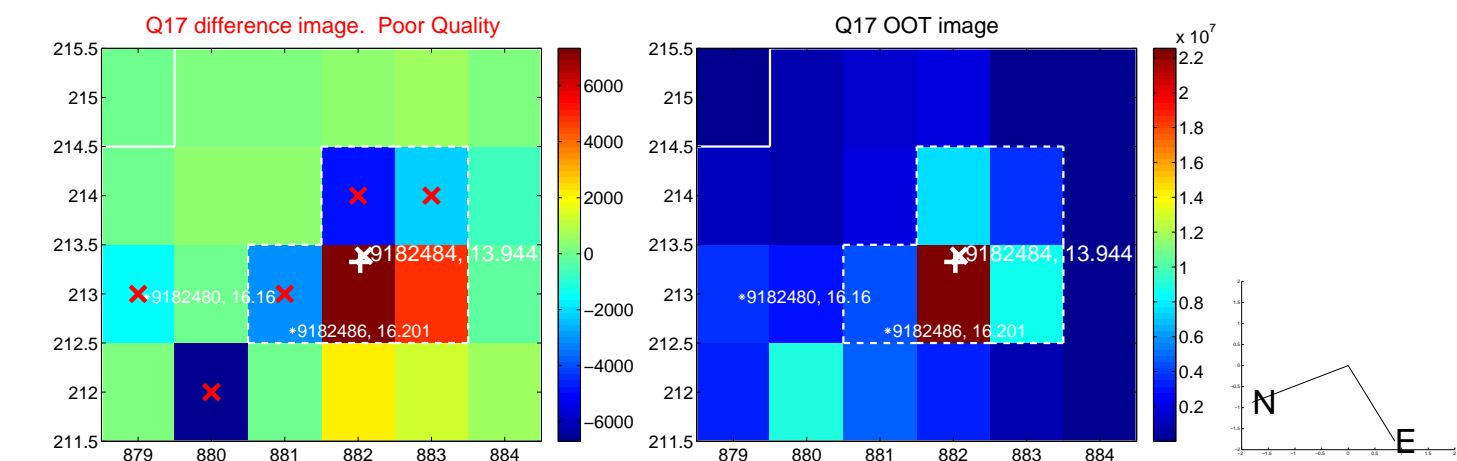
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UKIRT Image

Declination

