

KIC 009908496

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})
009908496-01	OBS	No	1.196145	132.624085	7.8	8.895	8.6	4.9	4.61	6939	1.37	57655.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009908496-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED

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

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

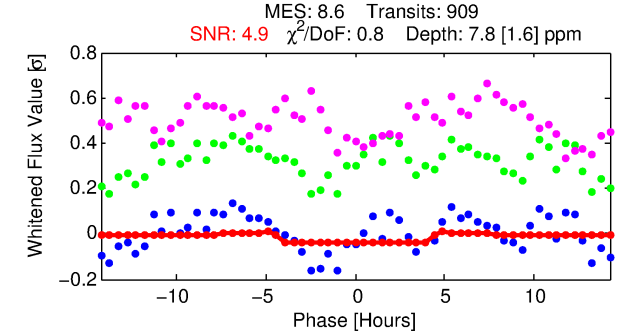
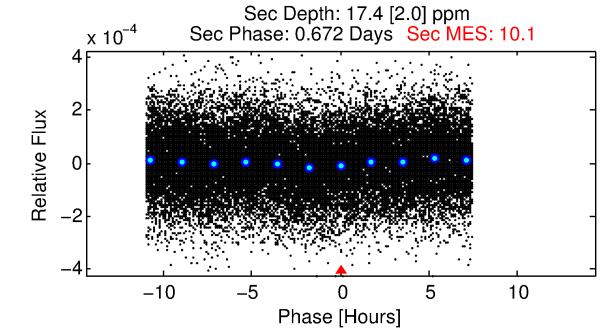
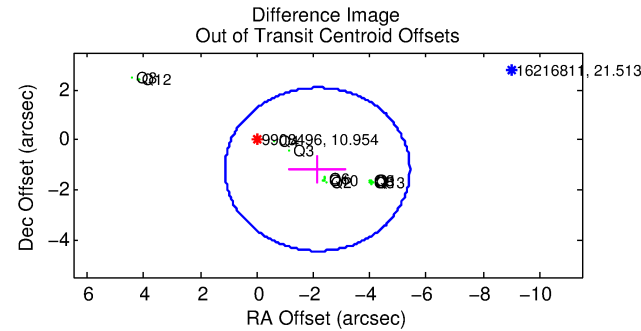
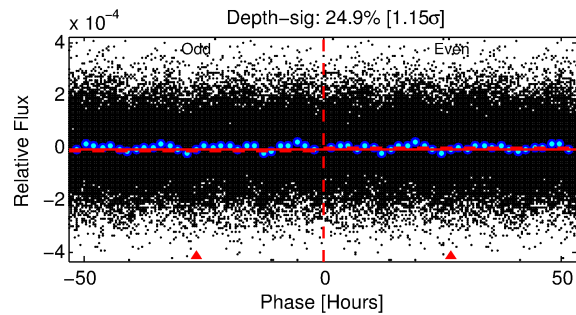
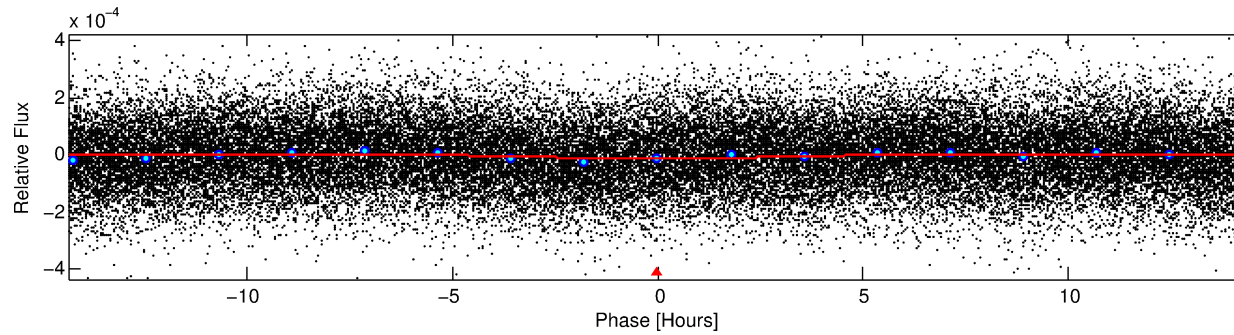
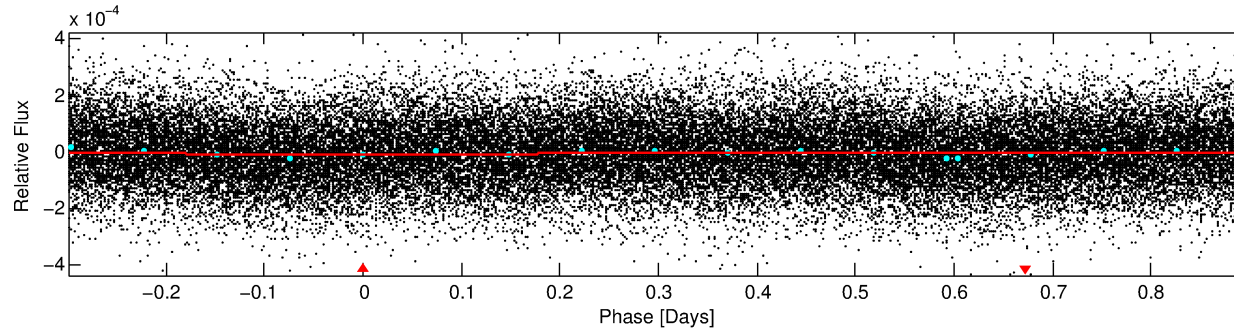
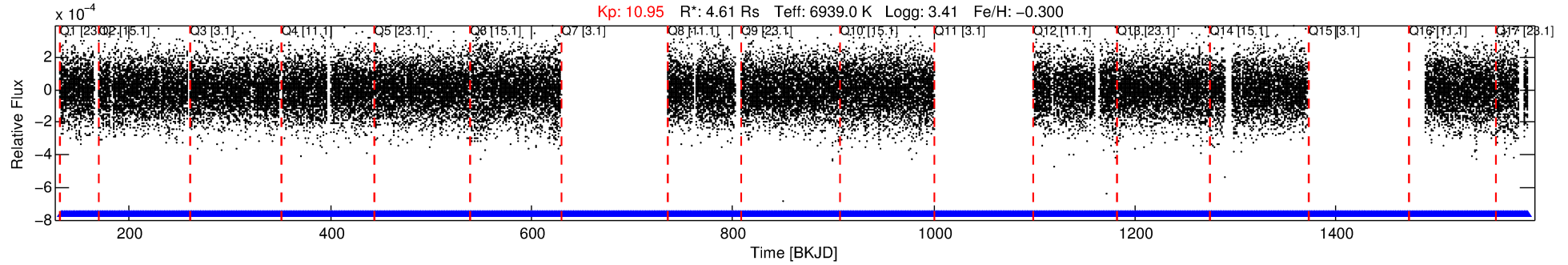
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009908496-01

No Significant Match Found

DV One-Page Summary

KIC: 9908496 Candidate: 1 of 1 Period: 1.196 d



DV Fit Results:

Period = 1.19615 [0.00004] d
Epoch = 132.6241 [0.0098] BKJD
Rp/R* = 0.0027 [0.0024]
a/R* = 1.13 [1.25]
b = 0.66 [4.55]
Seff = 57655.05 [38886.55]
Teq = 3951 [666] K
Rp = 1.37 [1.33] Re
a = 0.0277 [0.0114] AU
Ag = 3.94 [7.36] [0.40 σ]
Teffp = 8604 [3769] K [1.22 σ]

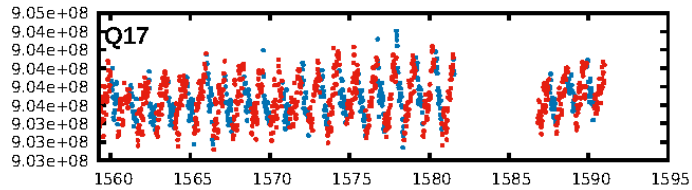
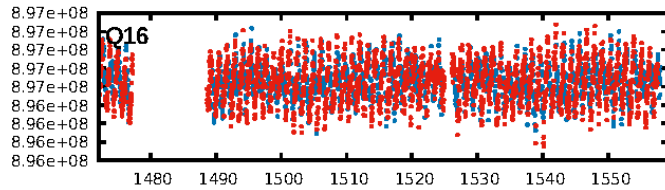
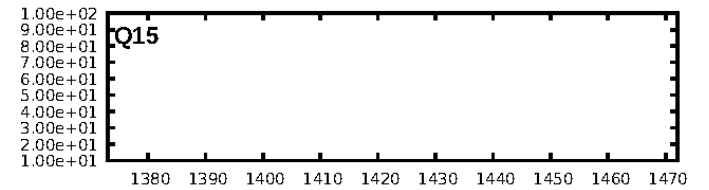
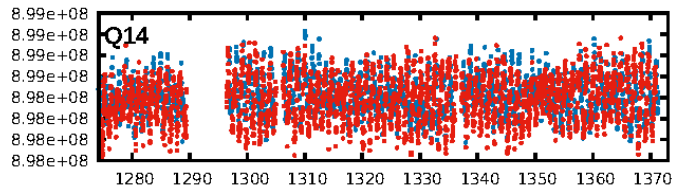
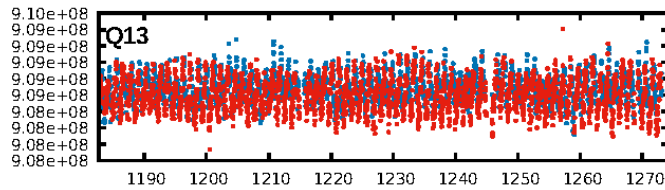
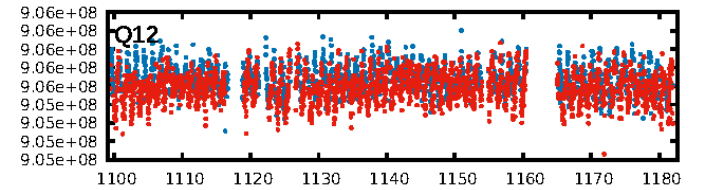
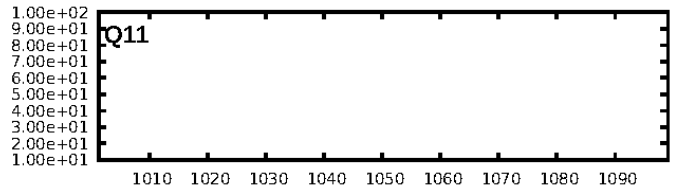
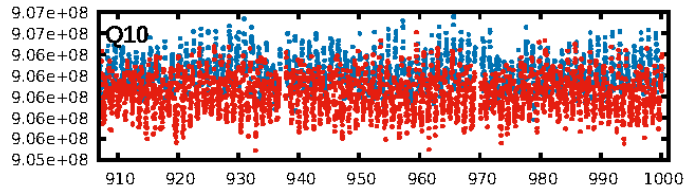
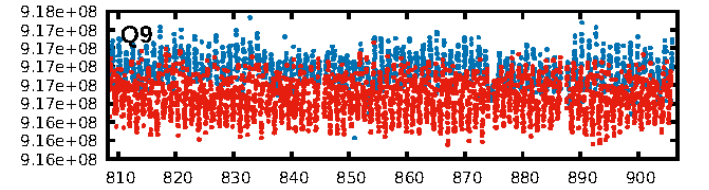
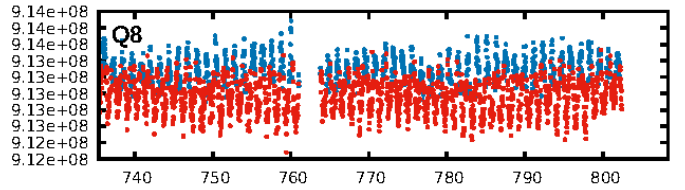
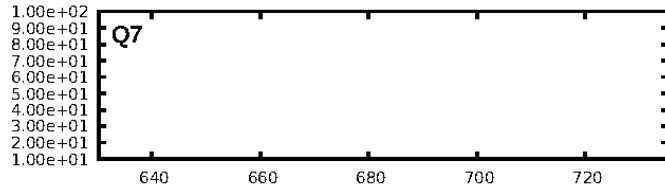
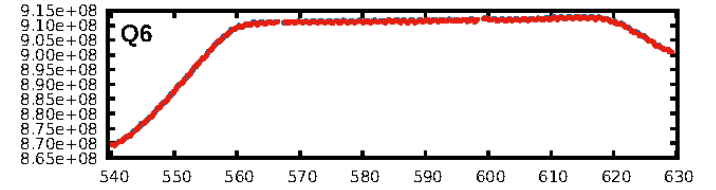
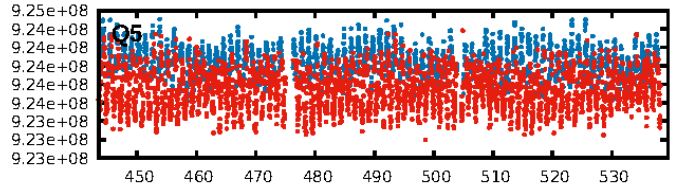
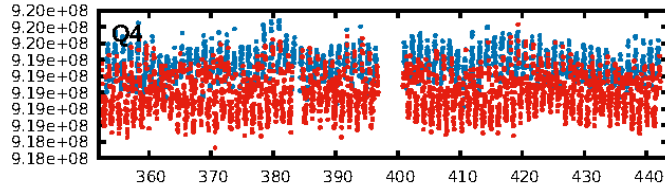
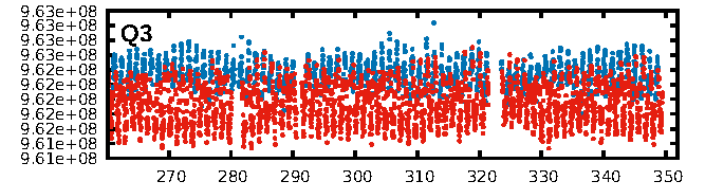
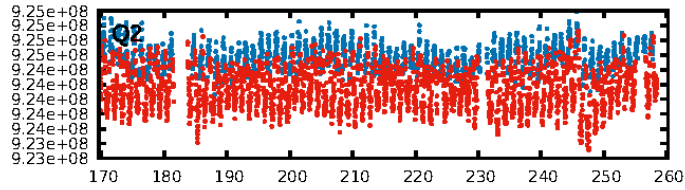
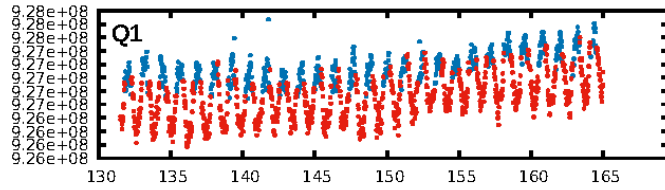
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.04e-44
RollingBand-fgt: 1.00 [857/857]
GhostDiagnostic-chr: 6.905
Centroid-sig: 48.1%
Centroid-so: 2.214 arcsec [0.95 σ]
OotOffset-rm: 2.454 arcsec [2.25 σ]
KicOffset-rm: 2.710 arcsec [3.10 σ]
OotOffset-st: 3/1/3/4 [11]
KicOffset-st: 3/1/3/4 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 1.00 [14/14]

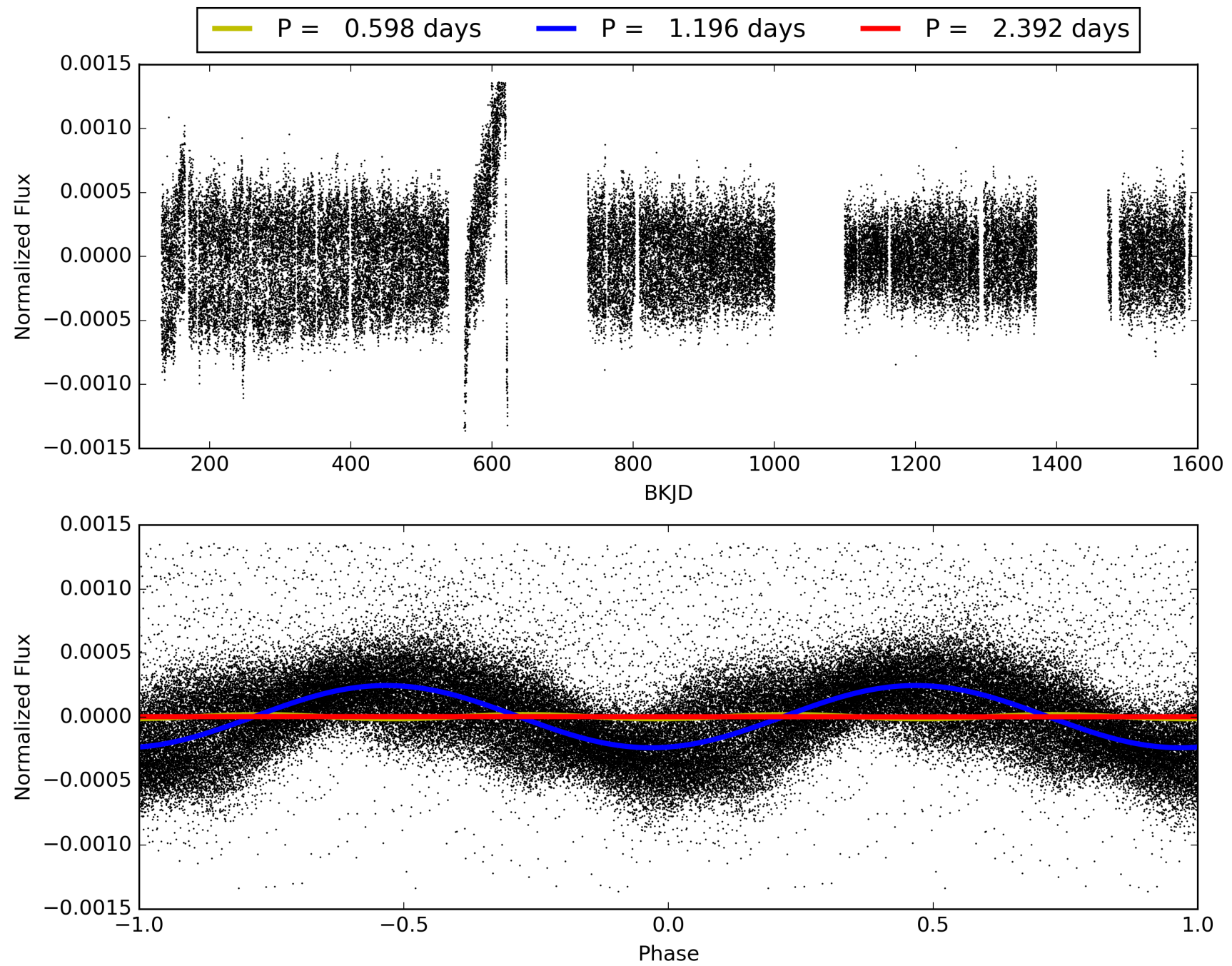
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:25:42 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 009908496-01, PDC Light Curves

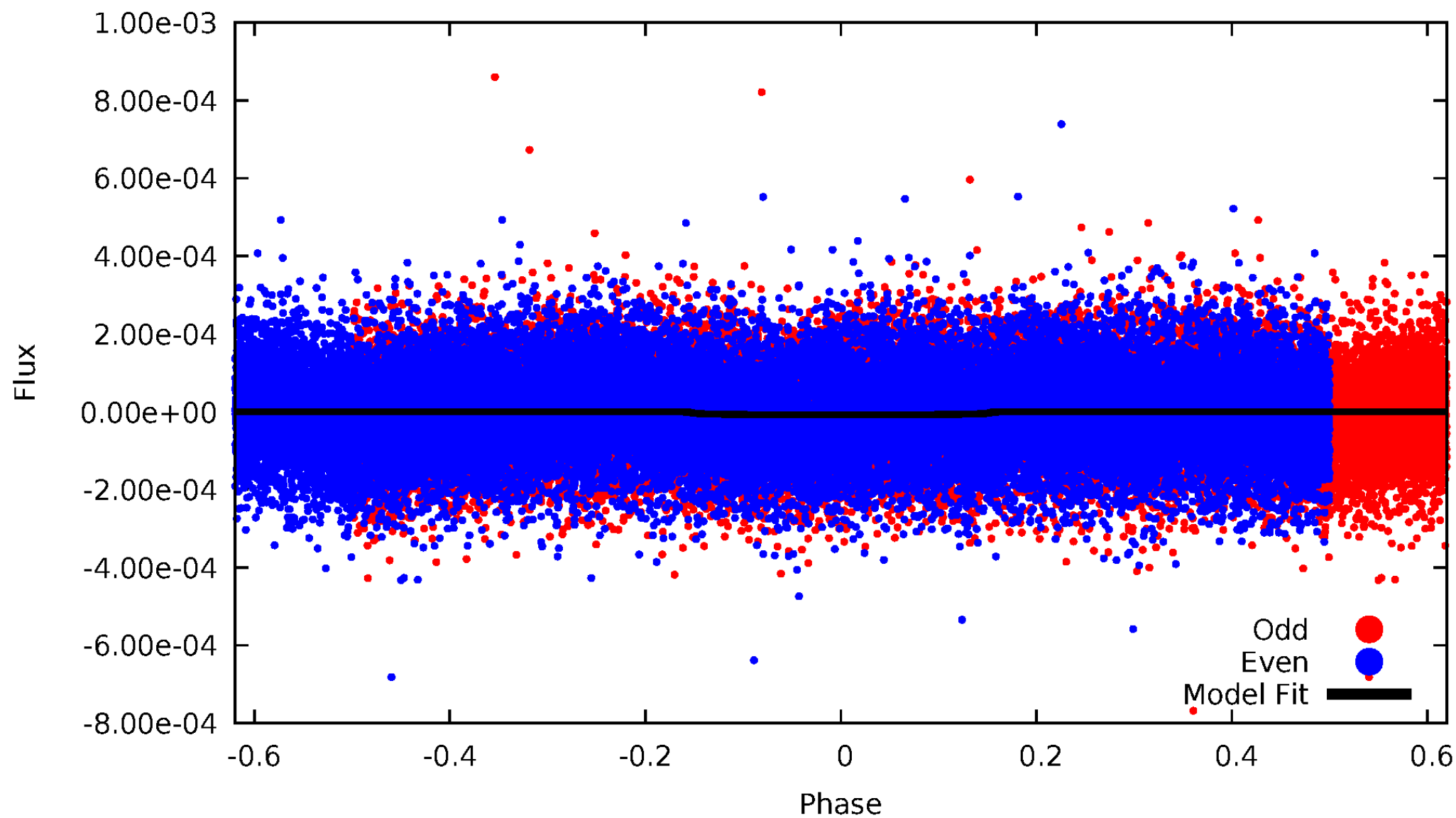


TCE 009908496-01



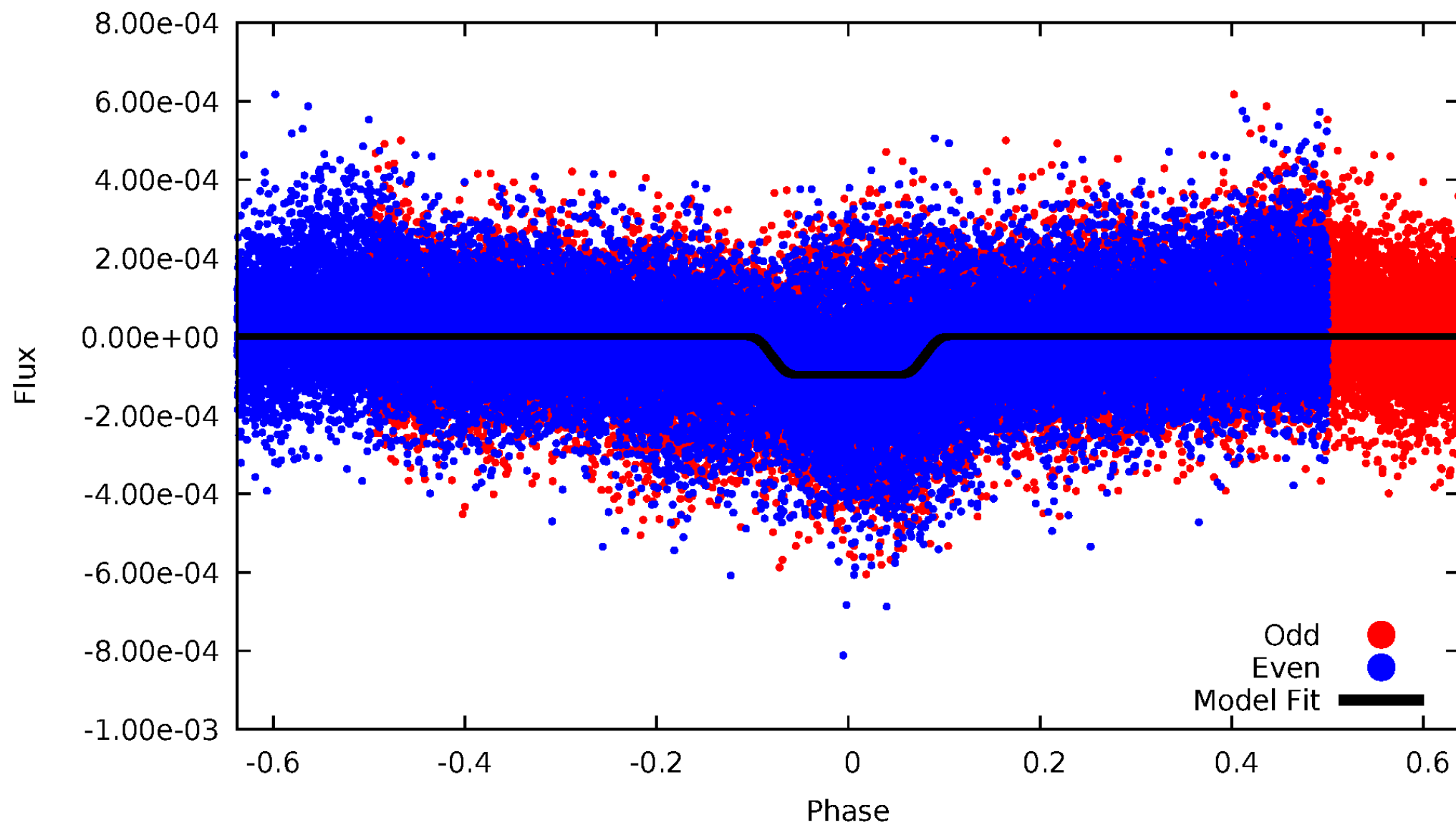
DV Odd/Even

TCE 009908496-01



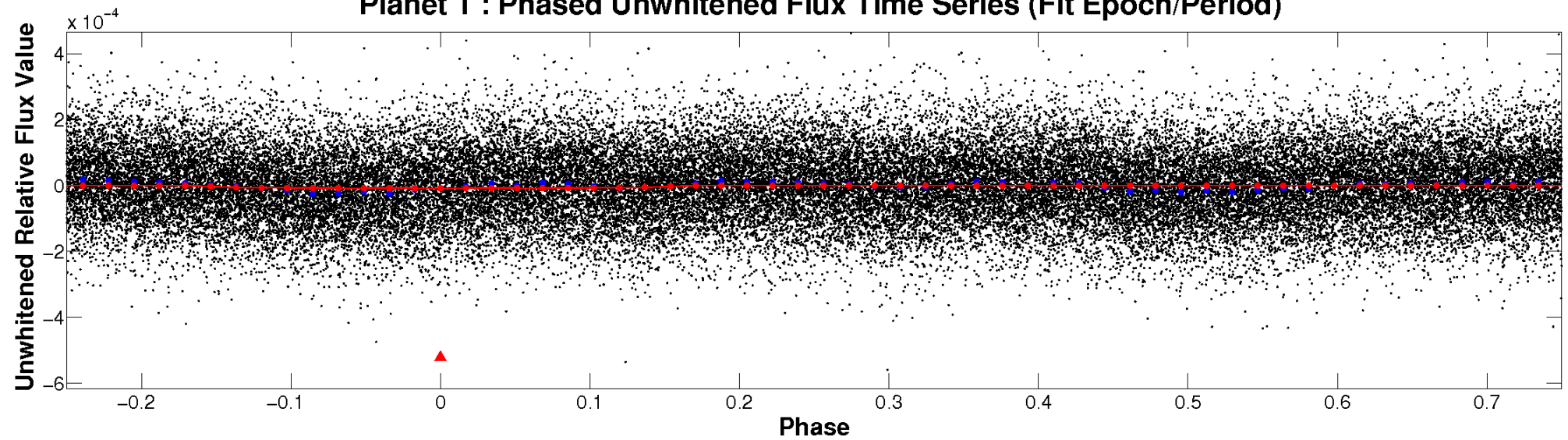
ALT Odd/Even

TCE 009908496-01

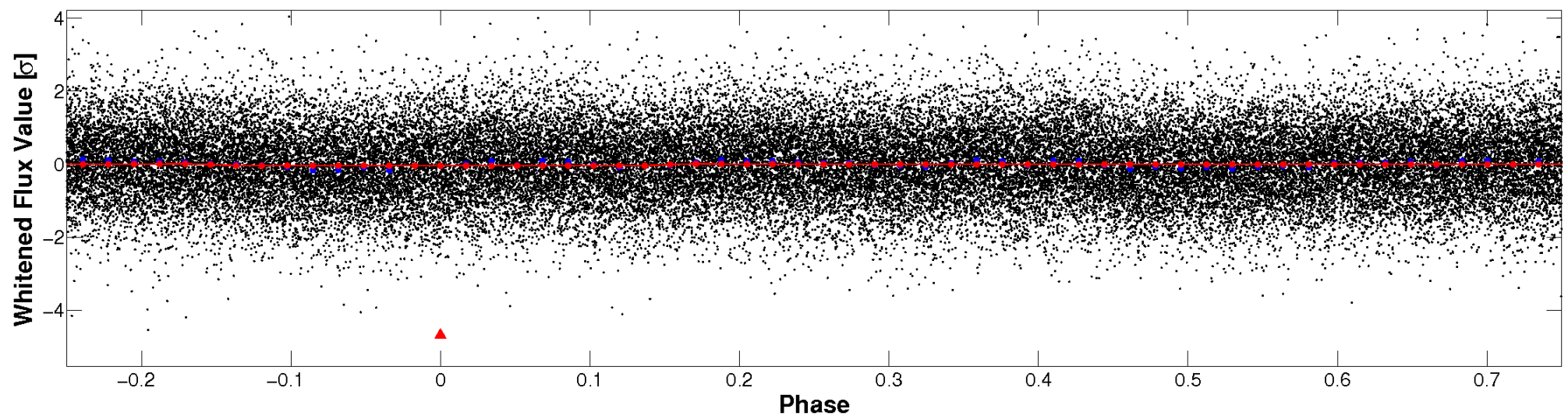


Non-Whitened Vs. Whitened Light Curve

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

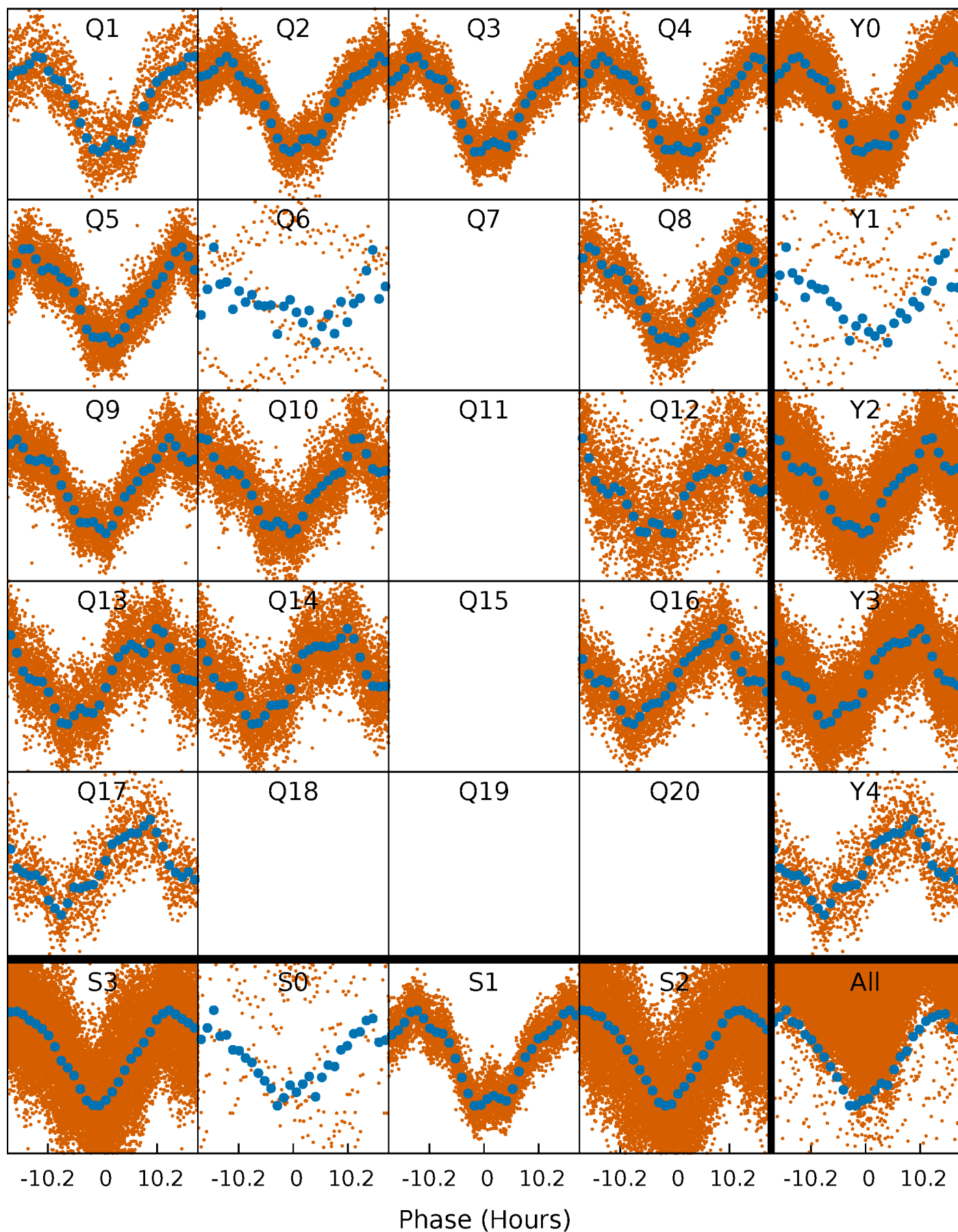


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



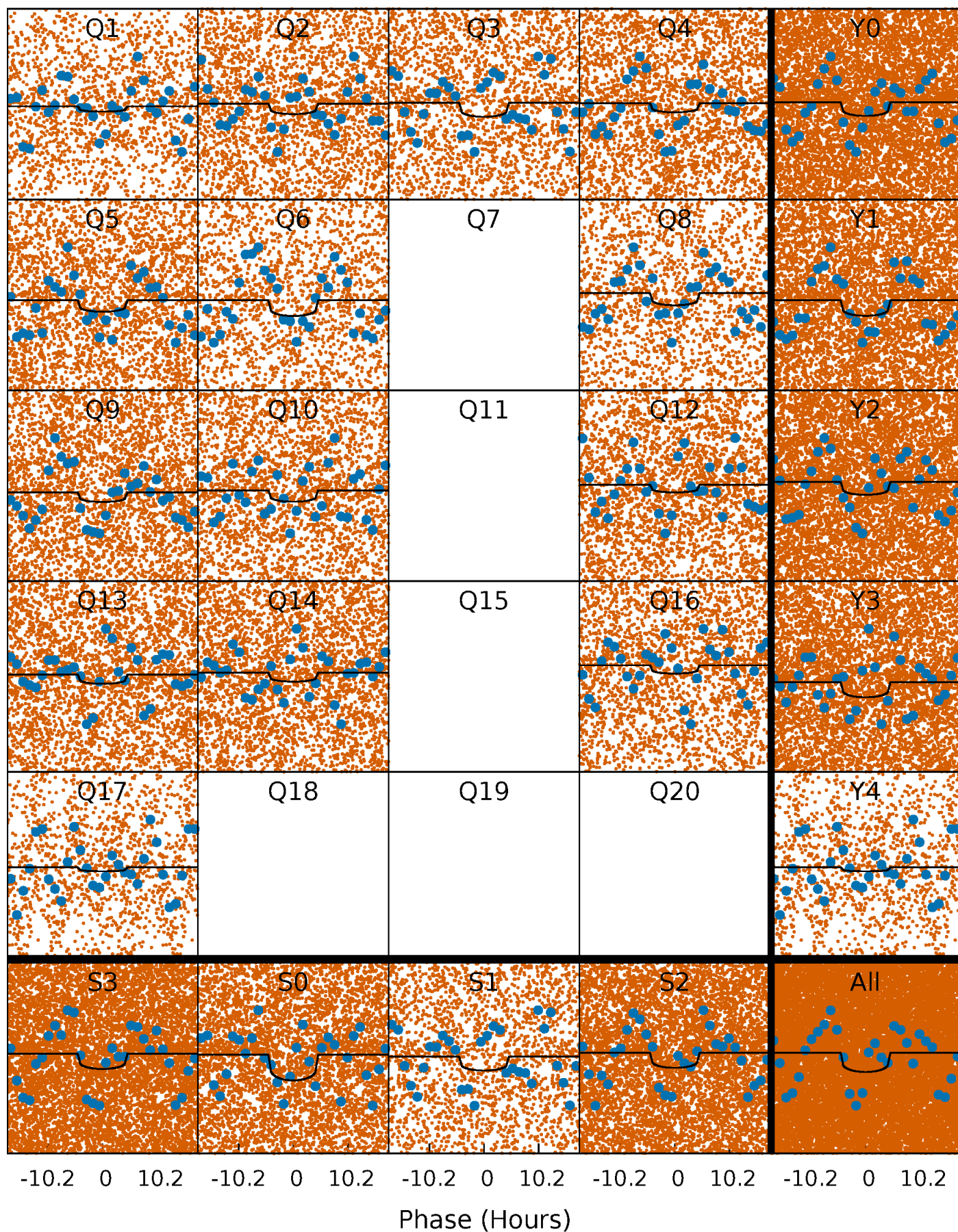
PDC Quarter-Phased Transit Curves

TCE 009908496-01 P= 1.196145 Days $T_0=132.624085$ (BKJD)



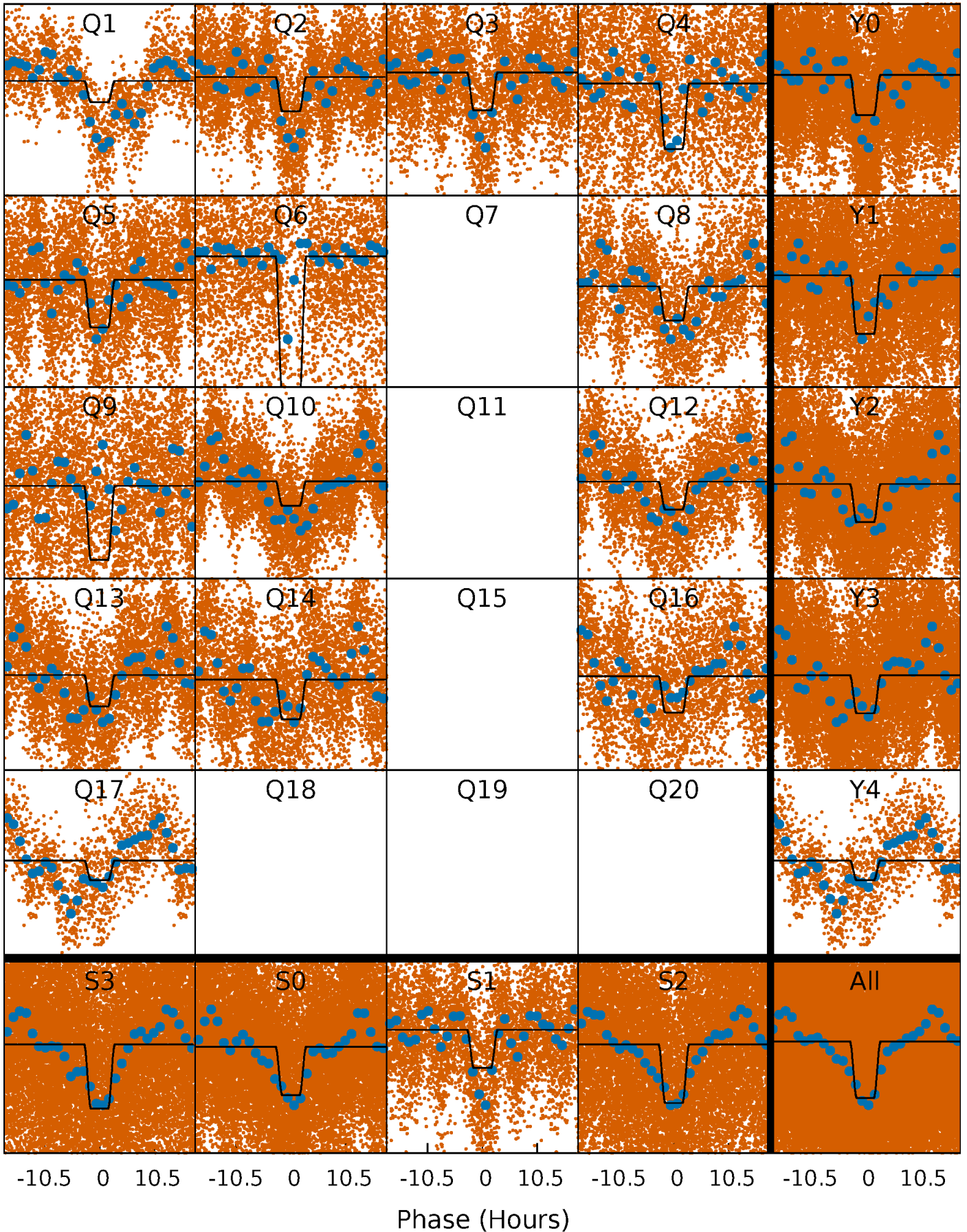
DV Quarter-Phased Transit Curves

TCE 009908496-01 P= 1.196145 Days $T_0=132.624085$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

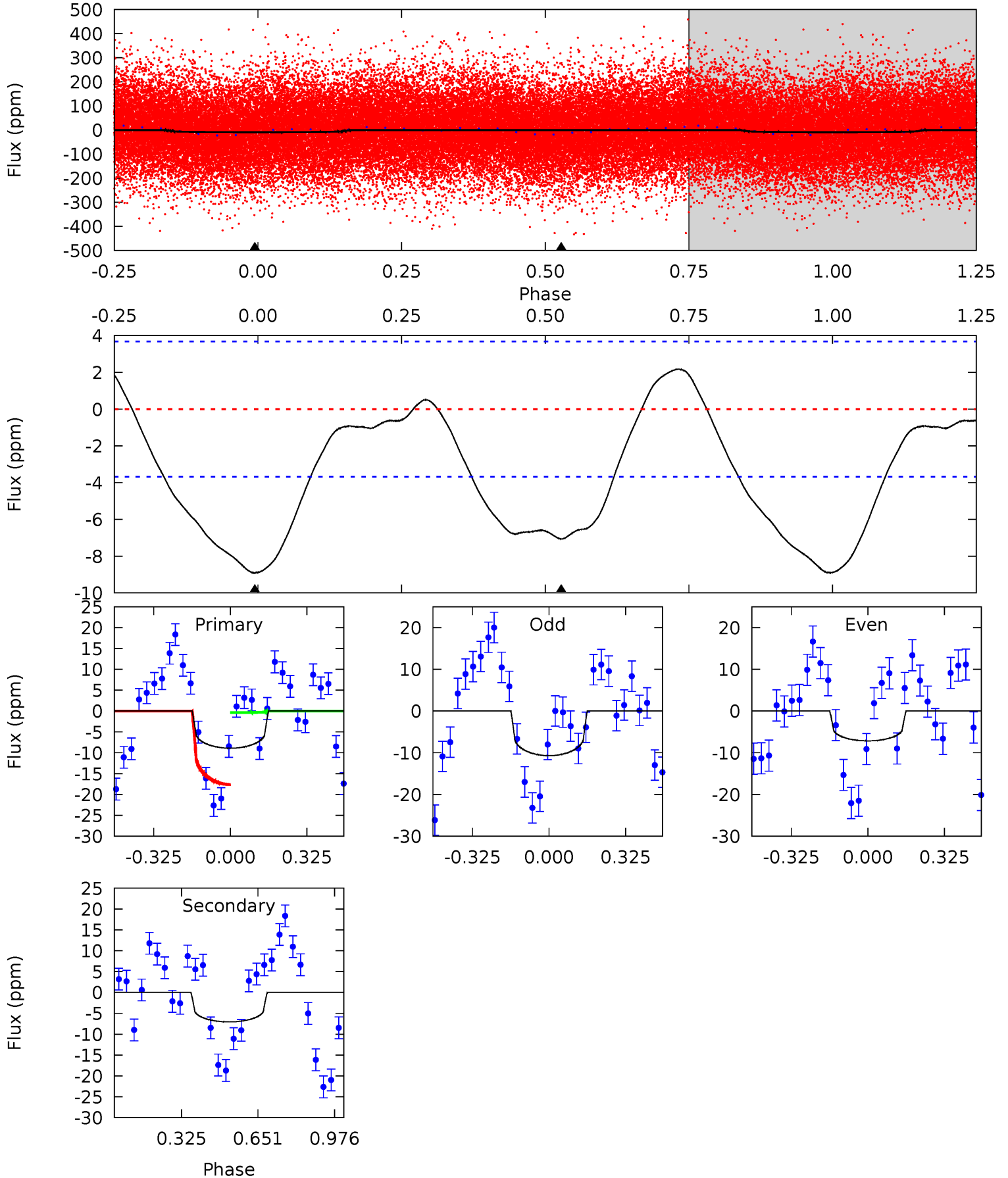
TCE 009908496-01 P= 1.196130 Days $T_0=132.537095$ (BKJD)



DV Model-Shift Uniqueness Test

009908496-01, P = 1.196145 Days, E = 131.427940 Days

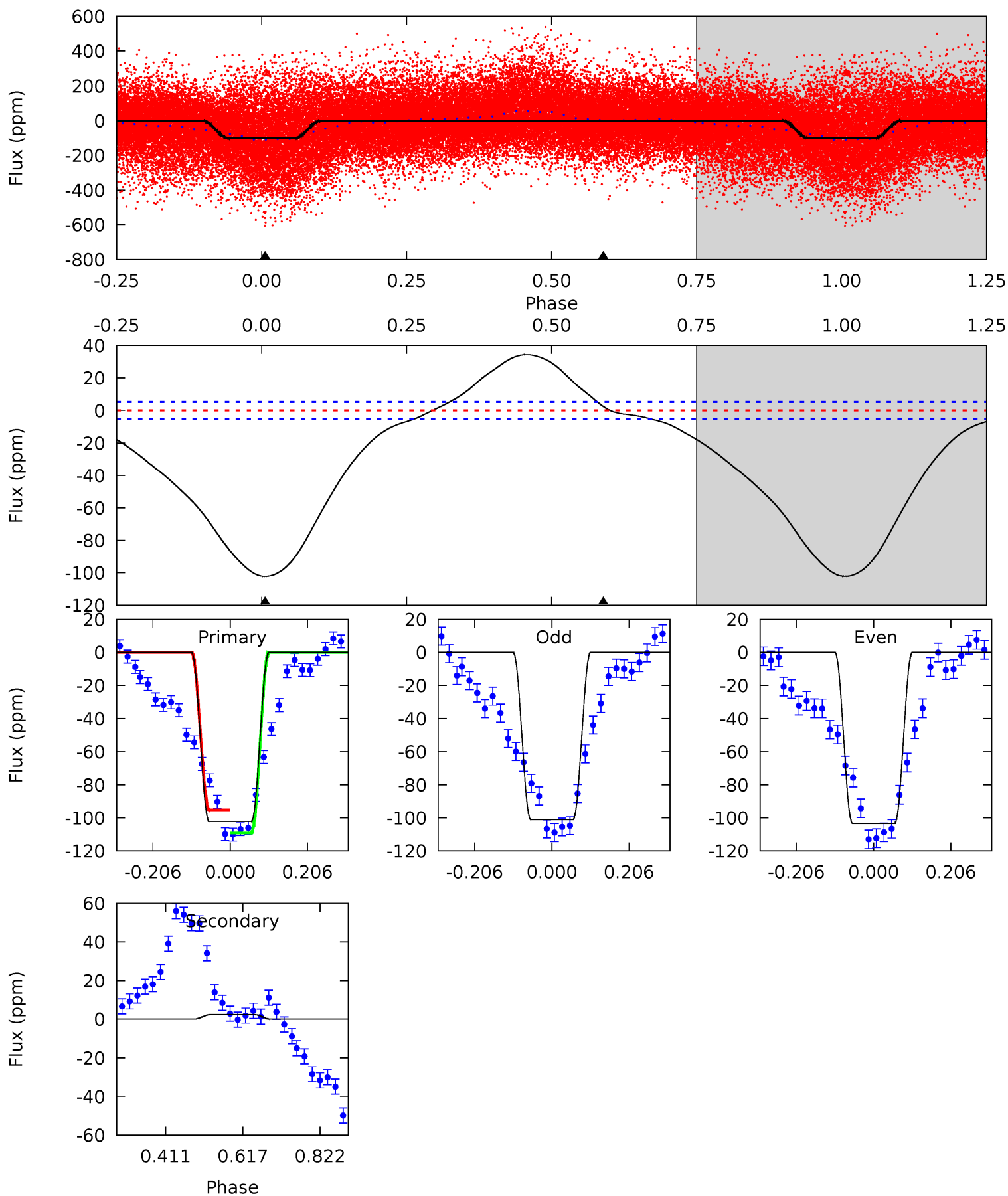
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	8.27	0	0	4.31	0.98	0.82	10.4	10.4	8.27	8.27	2.10	1.02	0.20	10.2



Alt Model-Shift Uniqueness Test

009908496-01, P = 1.196130 Days, E = 131.340965 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
87.0	-2.05	0	0	4.41	1.27	9.01	87.0	87.0	-2.05	-2.05	0.99	0.98	0.25	5.99



Stellar Parameters For KIC 009908496

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6939^{+166}_{-207}	$3.406^{+0.391}_{-0.046}$	$-0.300^{+0.350}_{-0.250}$	$4.610^{+0.346}_{-1.961}$	$1.975^{+0.119}_{-0.447}$	$0.028^{+0.098}_{-0.004}$
	+2%/-3%	+11%/-1%	+117%/-83%	+8%/-43%	+6%/-23%	+347%/-15%
Source	PHO1	FLK73	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 009908496-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-7 ± 1	$1.37^{+1.08}_{-0.87}$	5355^{+273}_{-544}	6120^{+6263}_{-2069}	$1.573^{+9.764}_{-1.102}$
Alt.	2 ± 1	$4.51^{+1.35}_{-1.31}$	5336^{+293}_{-548}	-4671^{+338}_{-214}	$-0.048^{+0.027}_{-0.063}$

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 $A_{obs} \gg 1.0$

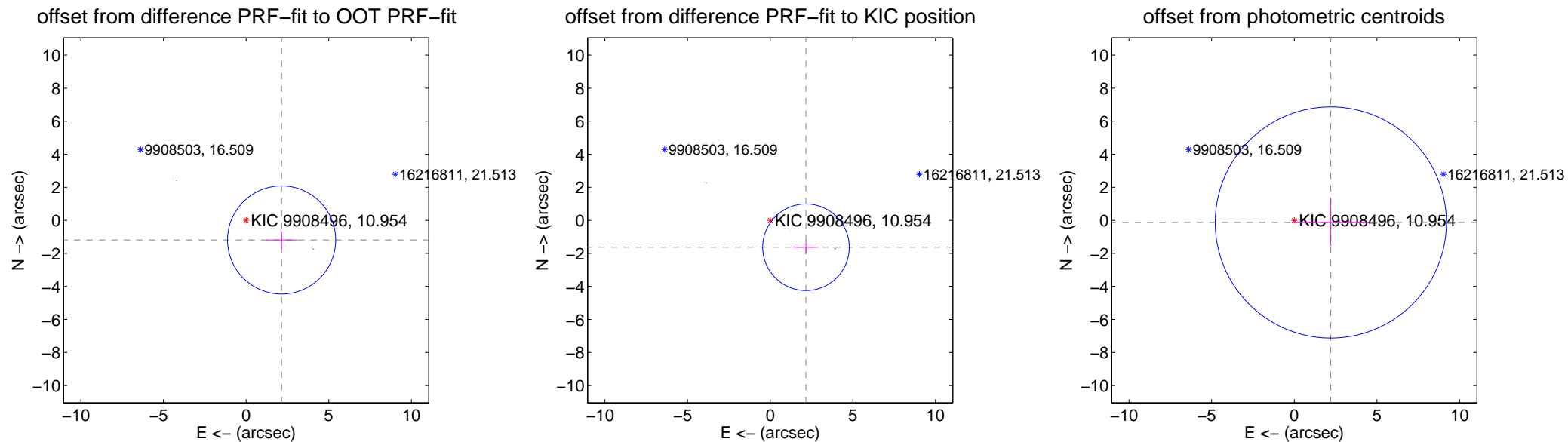
DV Centroid Data

Supplemental centroid analysis for 009908496-01. **Kepler magnitude: 10.95.** Transit SNR 4.92

There are 7 quarters with good PRF difference image offsets

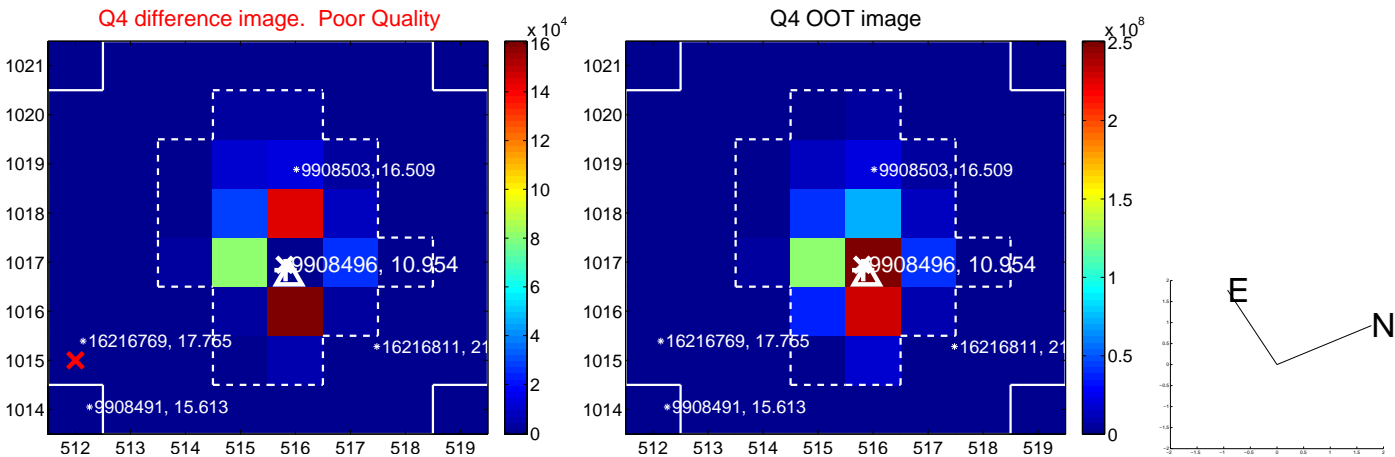
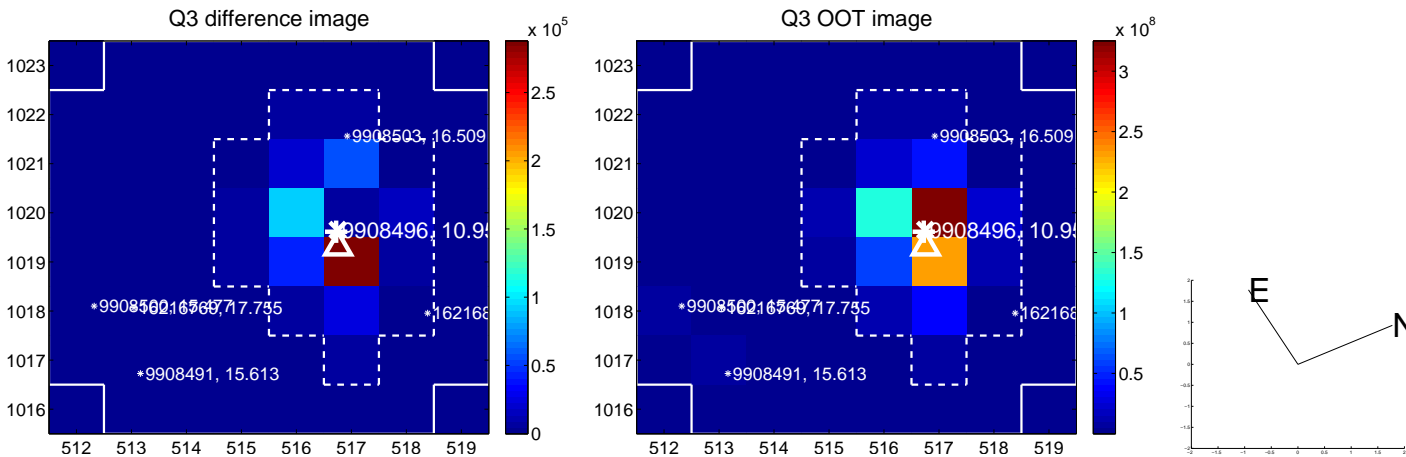
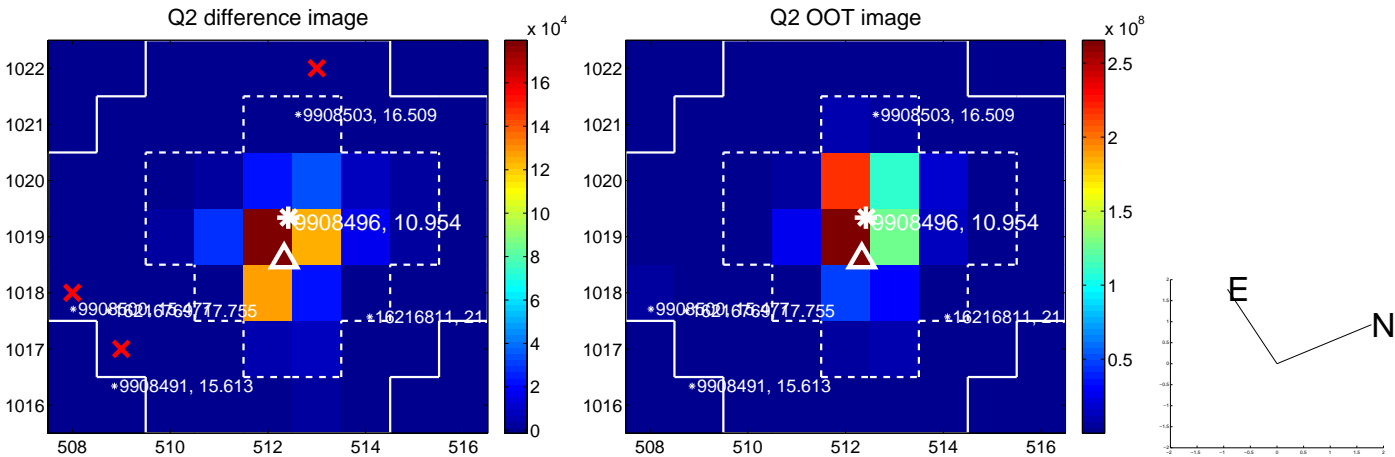
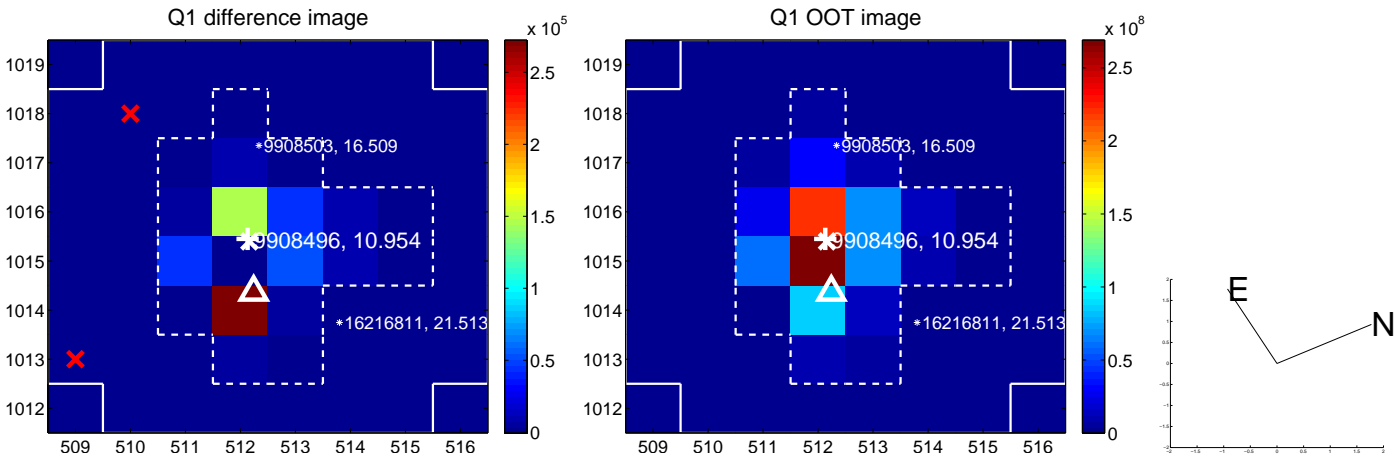
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.454 ± 1.091	2.25	-2.147 ± 0.974	-1.189 ± 0.506
PRF-fit source offset from KIC position	2.710 ± 0.873	3.10	-2.164 ± 0.783	-1.631 ± 0.424
photometric centroid source offset	2.21 ± 2.33	0.95	-2.21 ± 2.33	-0.13 ± 1.43

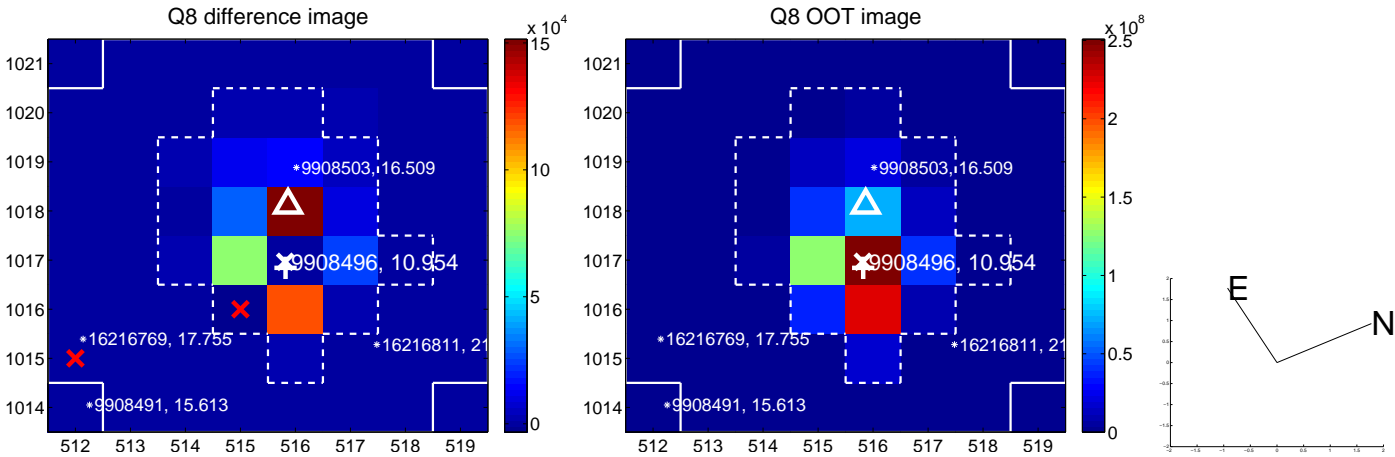
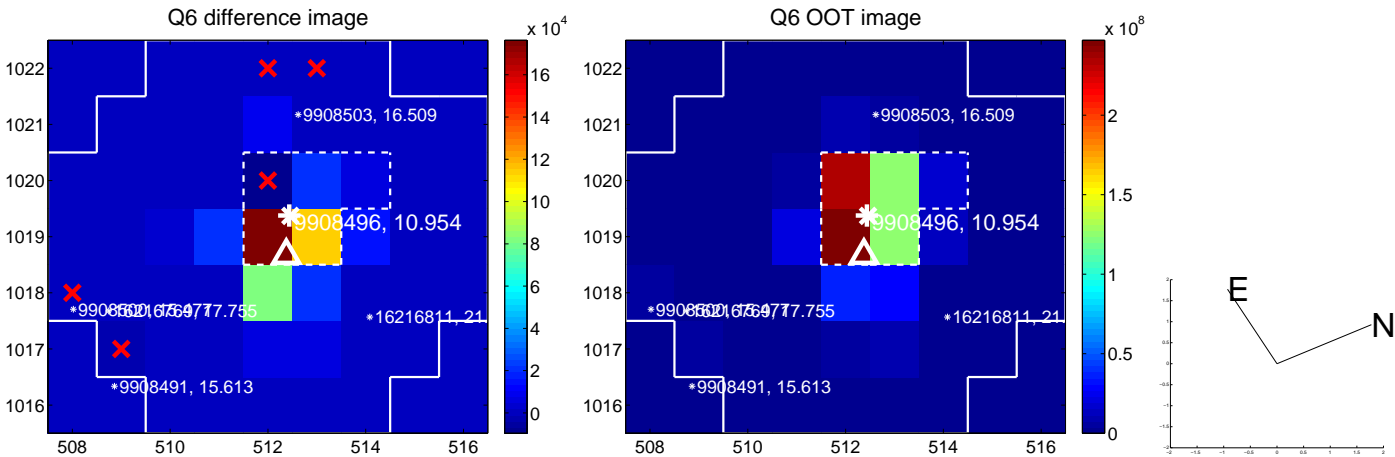
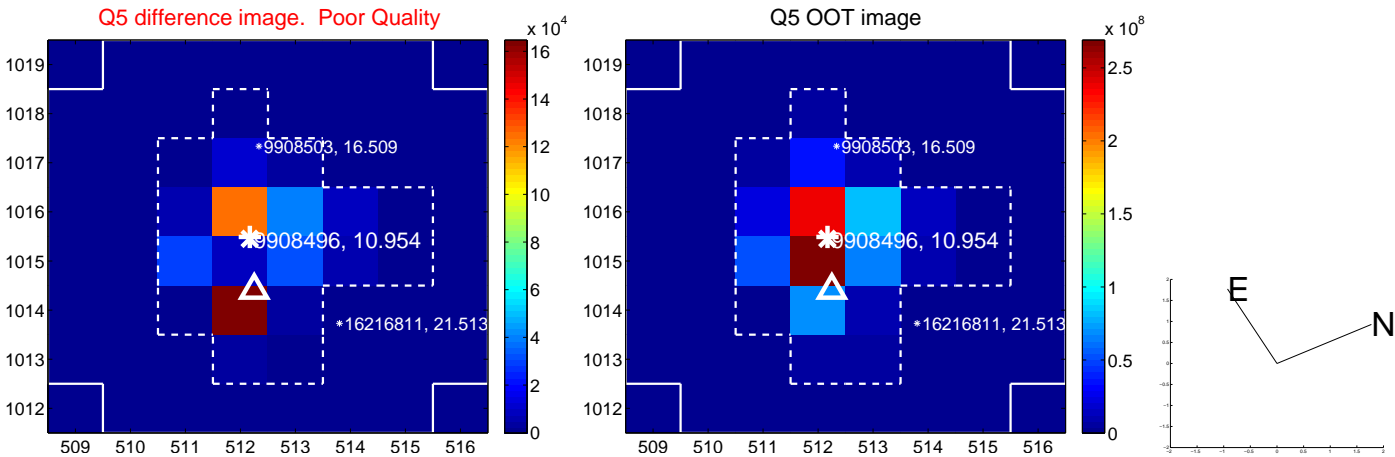


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

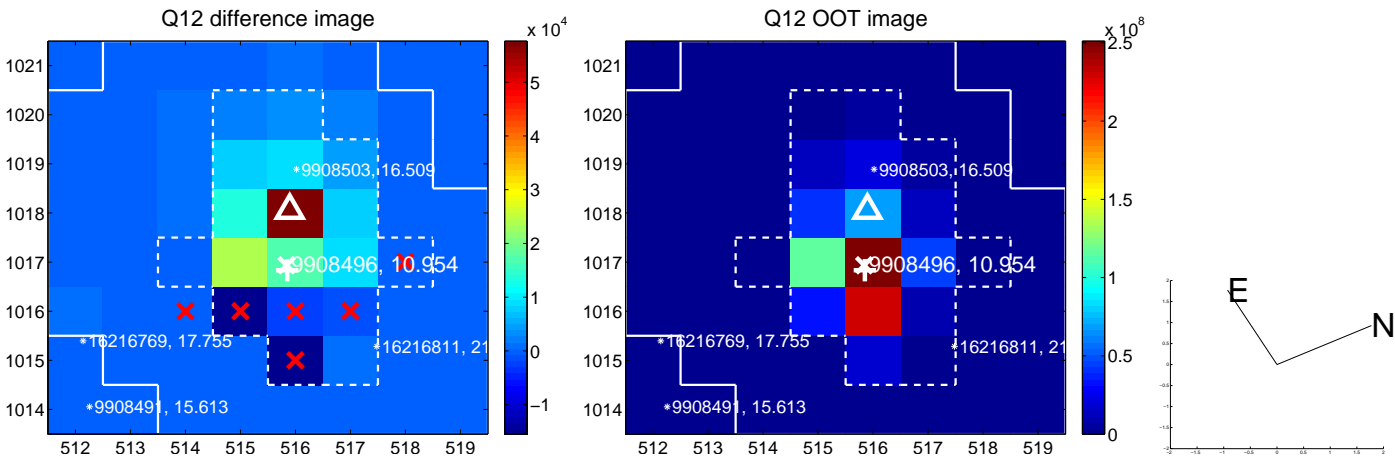
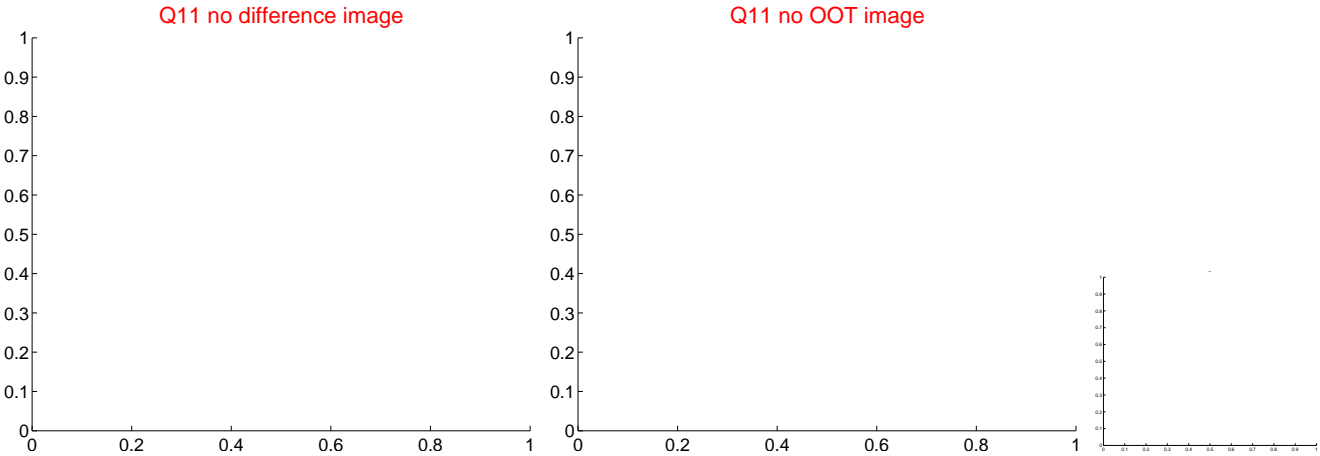
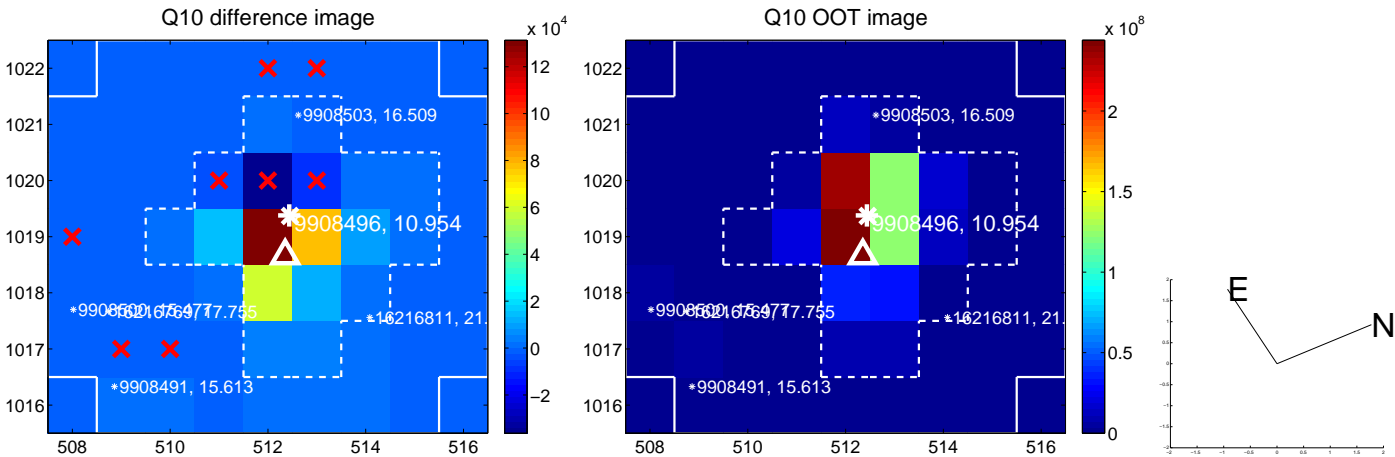
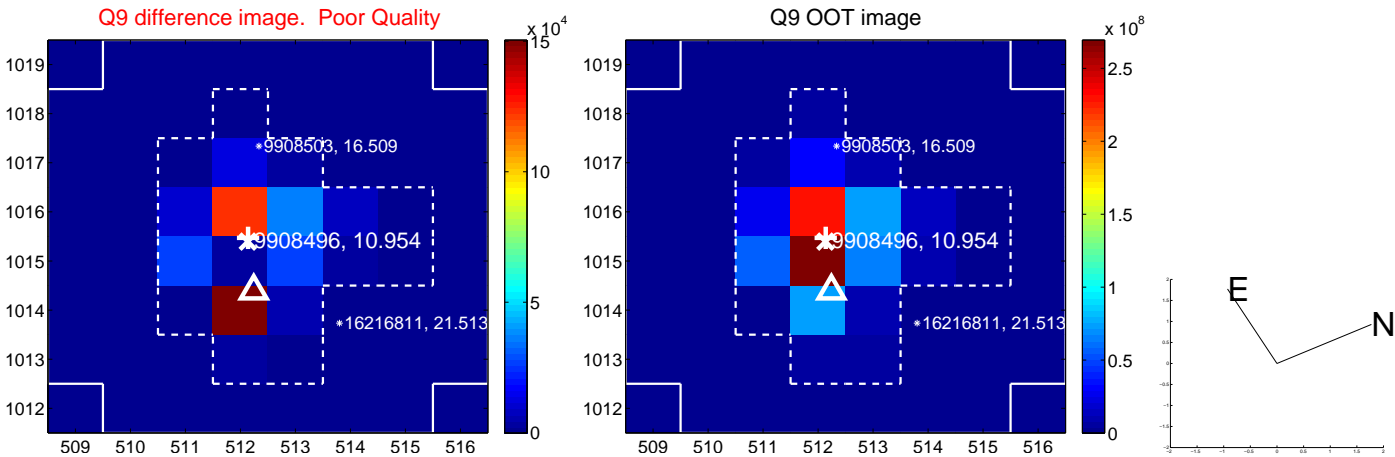
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



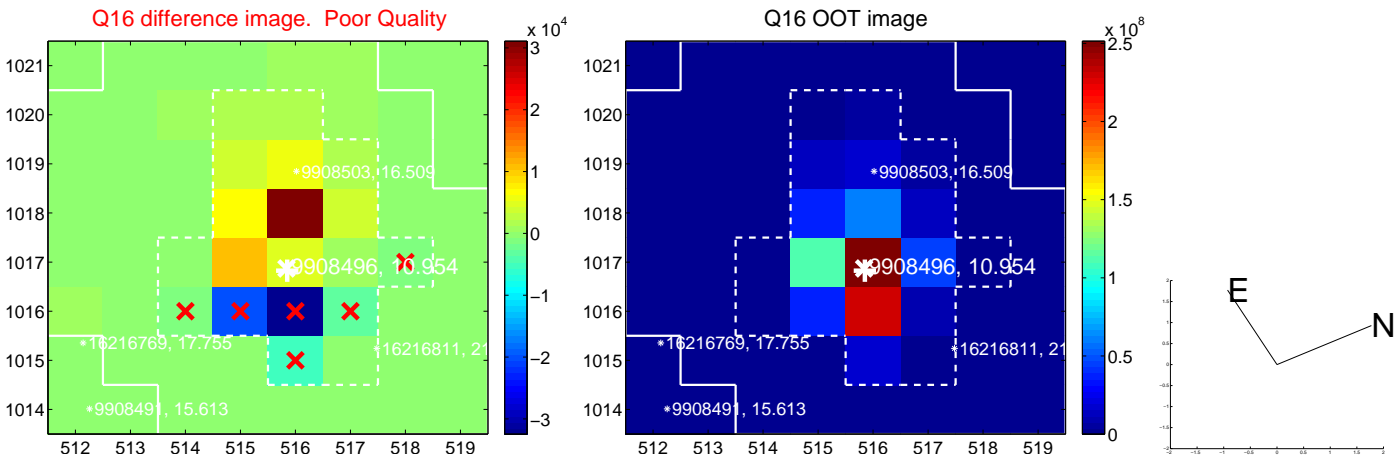
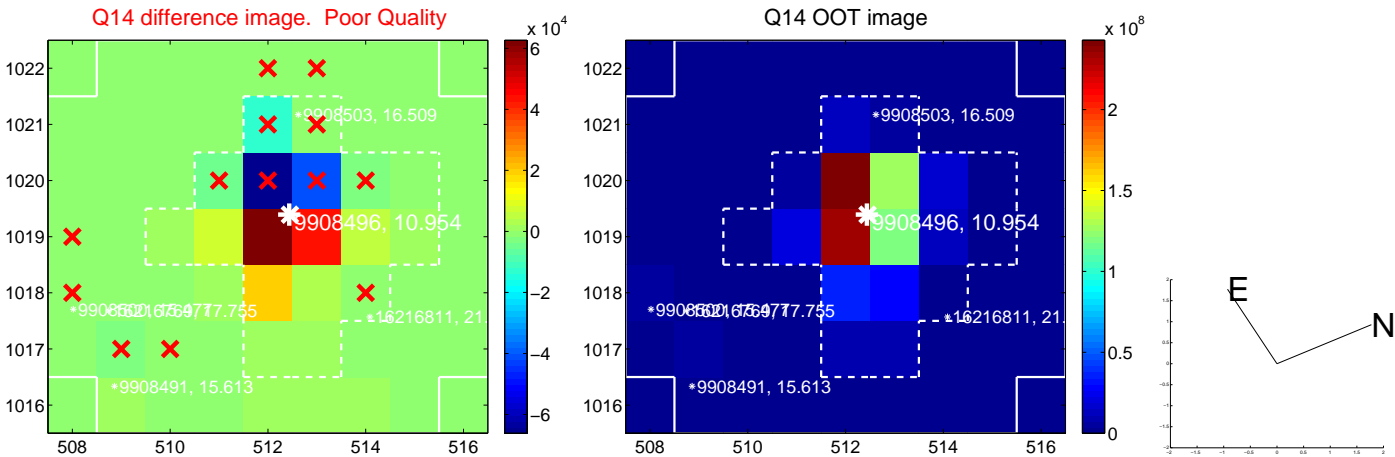
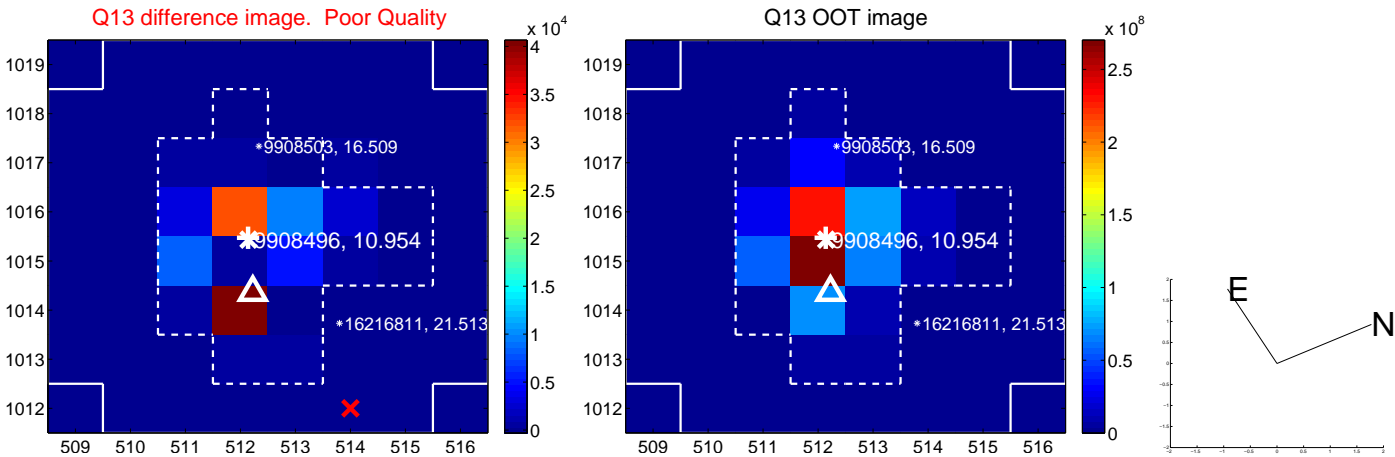
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



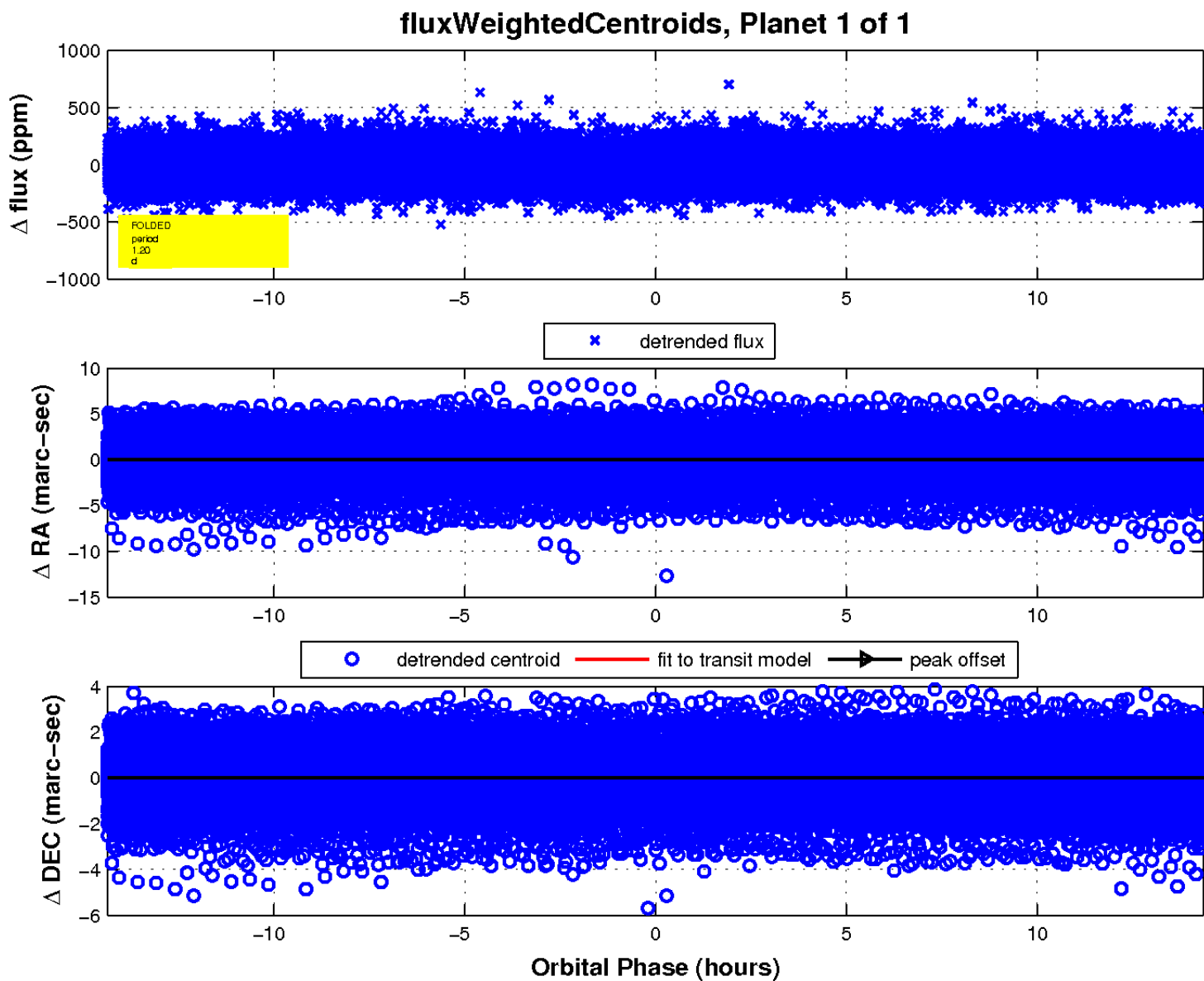
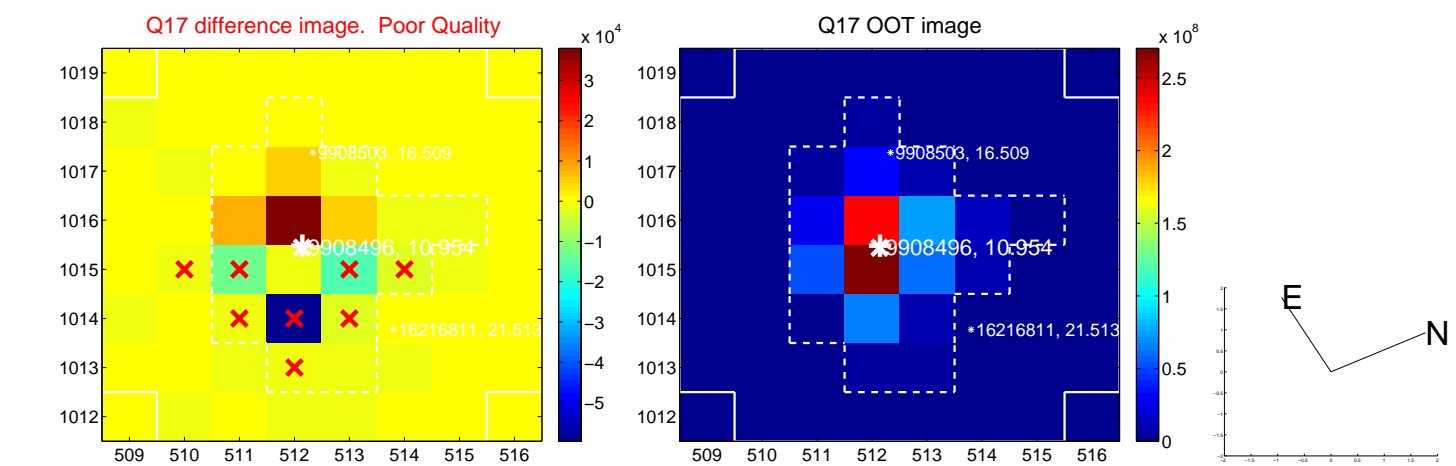
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UKIRT Image

Declination

