

KIC 009052883

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})
009052883-01	OBS	No	5.188866	135.154748	62.9	21.691	13.5	16.6	2.07	7505	1.91	2508.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009052883-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

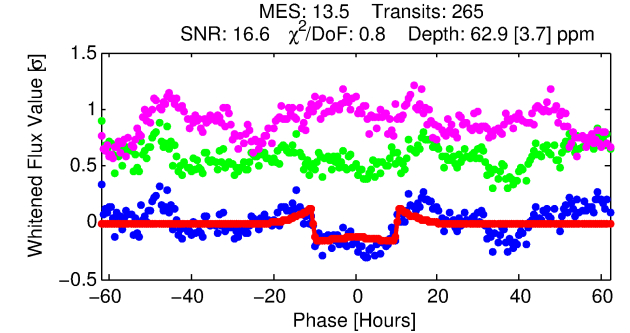
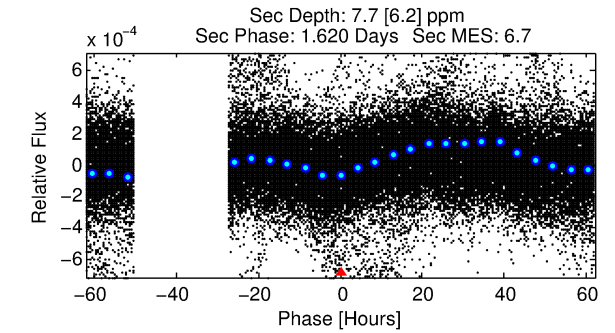
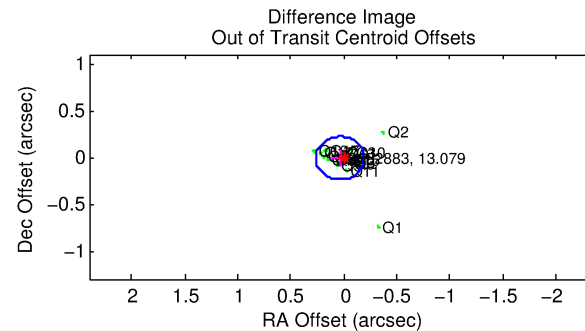
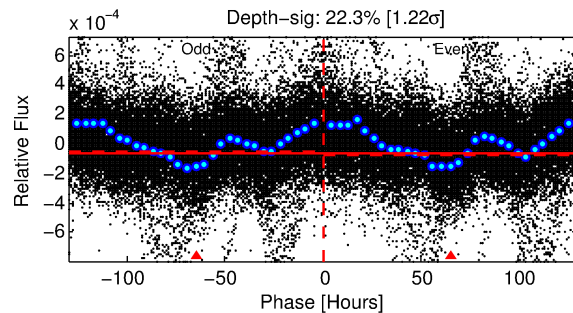
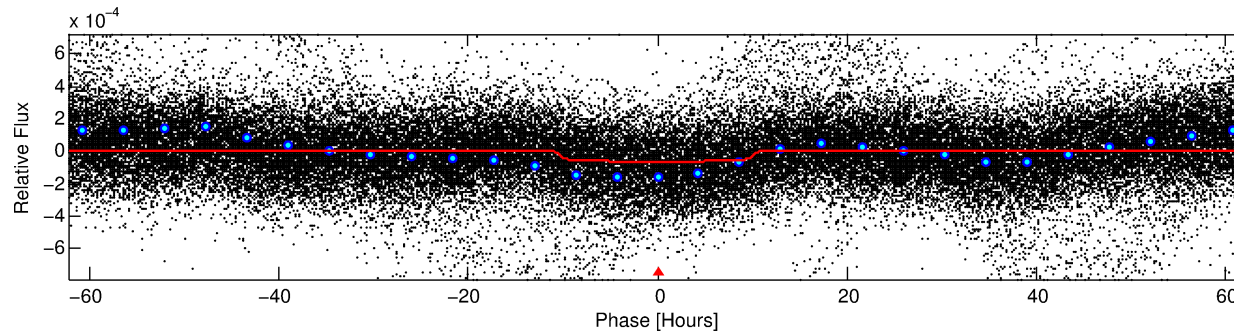
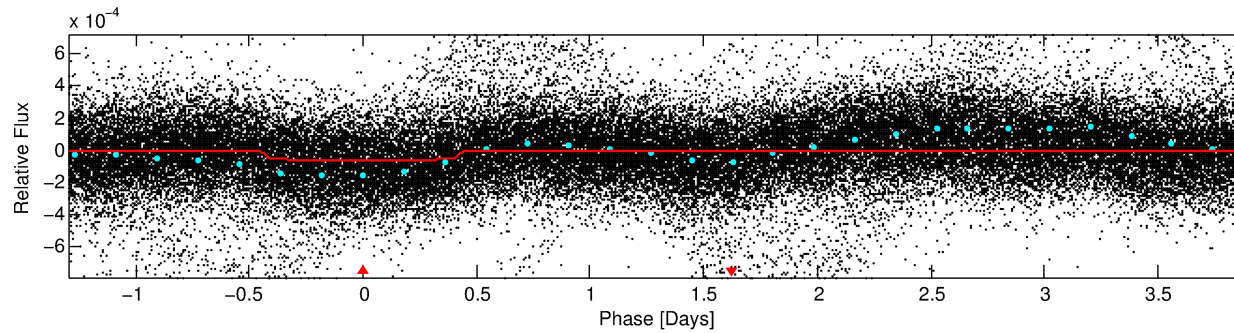
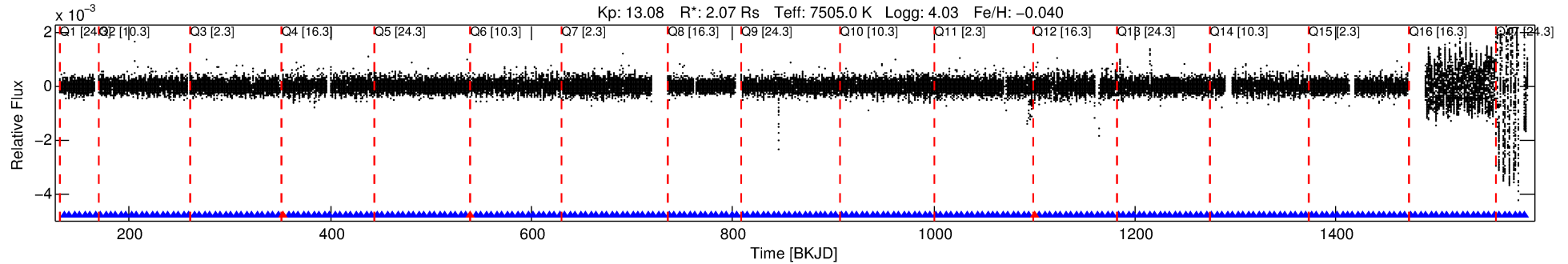
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009052883-01

No Significant Match Found

DV One-Page Summary

KIC: 9052883 Candidate: 1 of 1 Period: 5.189 d



DV Fit Results:

Period = 5.18887 [0.00006] d
Epoch = 135.1547 [0.0082] BKJD
Rp/R* = 0.0084 [0.0004]
a/R* = 1.24 [0.09]
b = 0.91 [0.04]
Seff = 2508.46 [902.78]
Teq = 1805 [162] K
Rp = 1.91 [0.50] Re
a = 0.0698 [0.0152] AU
Ag = 5.67 [4.95] [0.94 σ]
Teff = 4305 [893] K [2.76 σ]

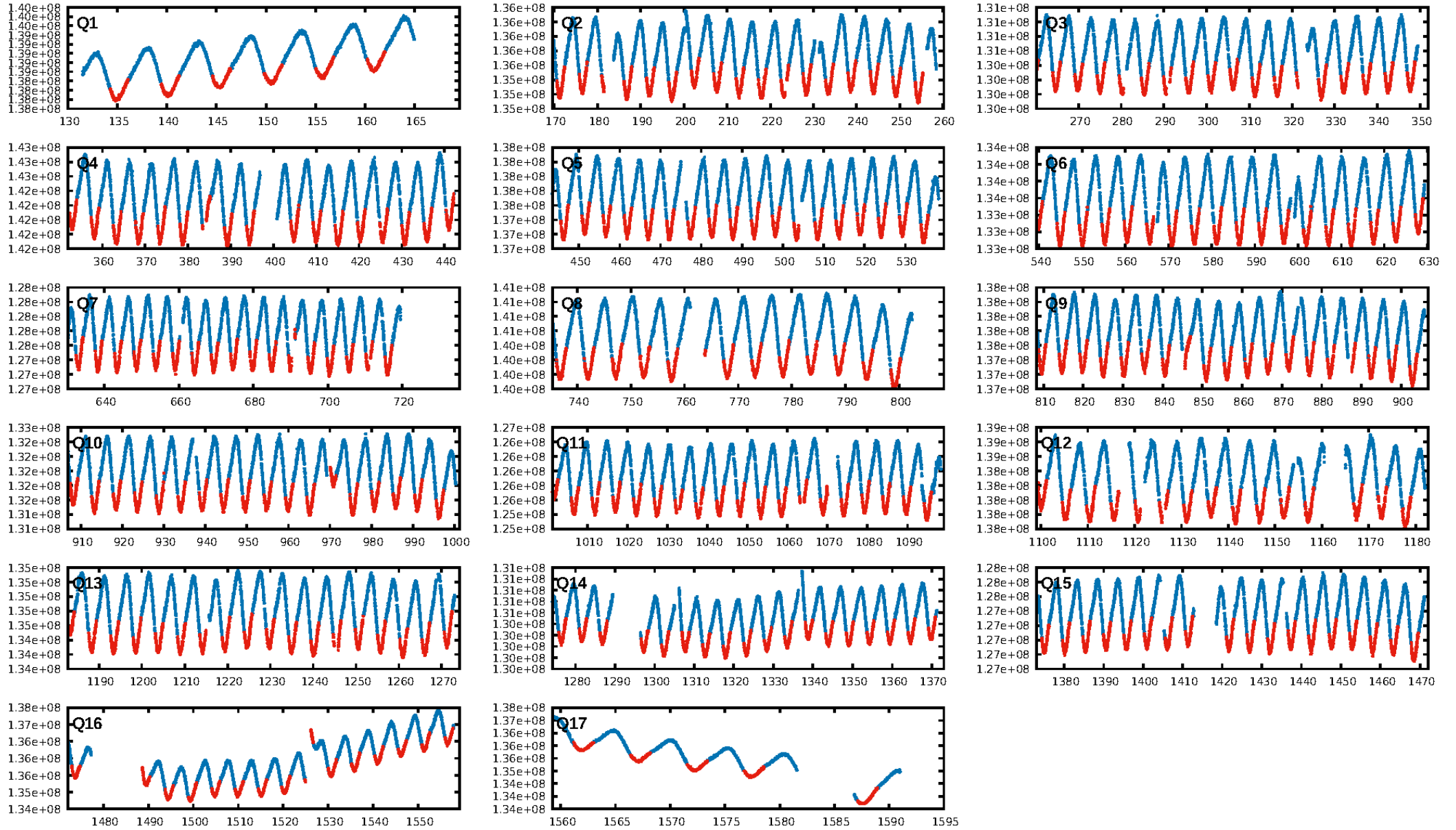
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.81e-44
RollingBand-fgt: 0.99 [251/254]
GhostDiagnostic-chr: 0.3237
Centroid-sig: 6.2%
Centroid-so: 0.808 arcsec [1.68 σ]
OotOffset-rm: 0.036 arcsec [0.47 σ]
KicOffset-rm: 0.037 arcsec [0.46 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

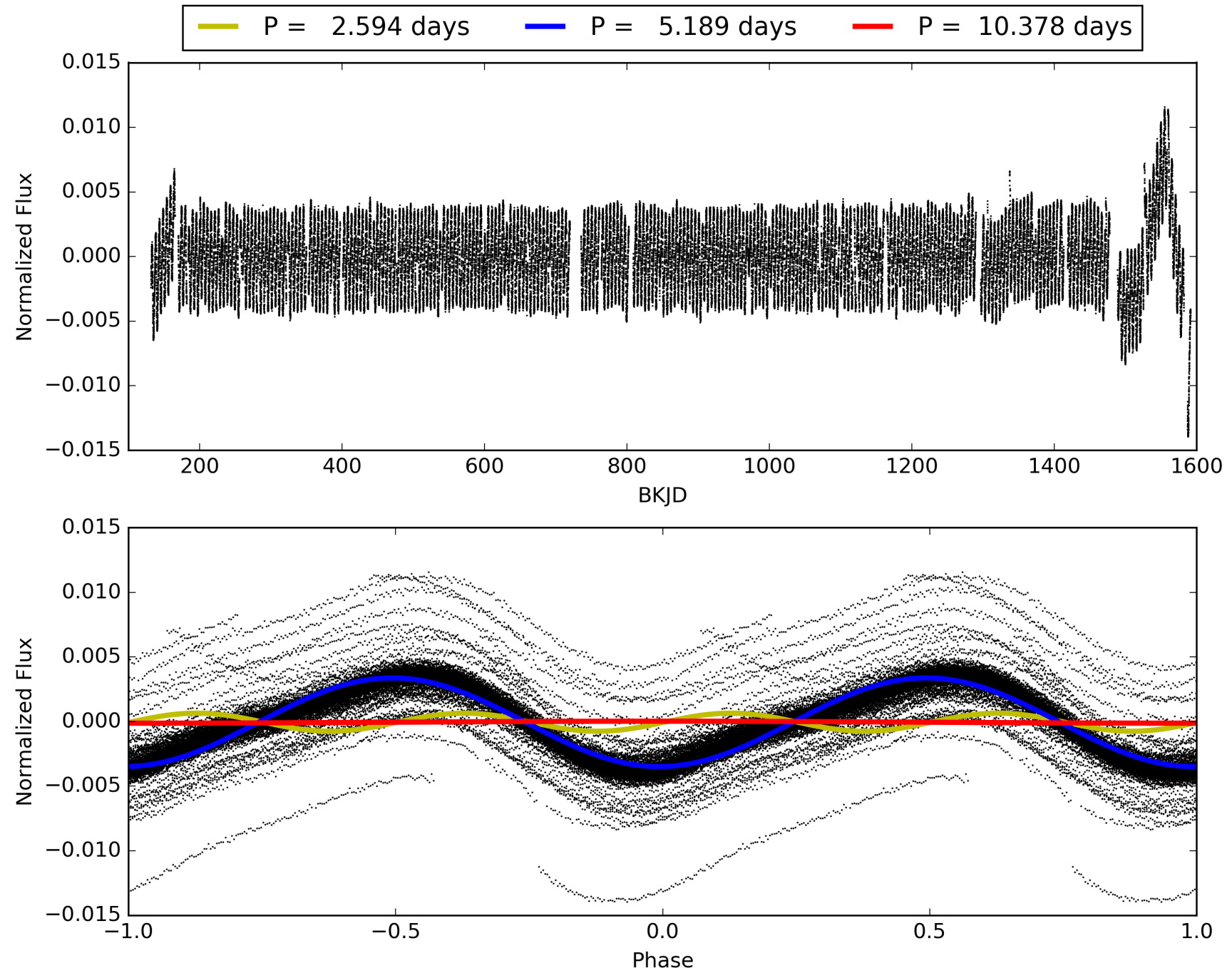
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:33:09 Z

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

TCE 009052883-01, PDC Light Curves

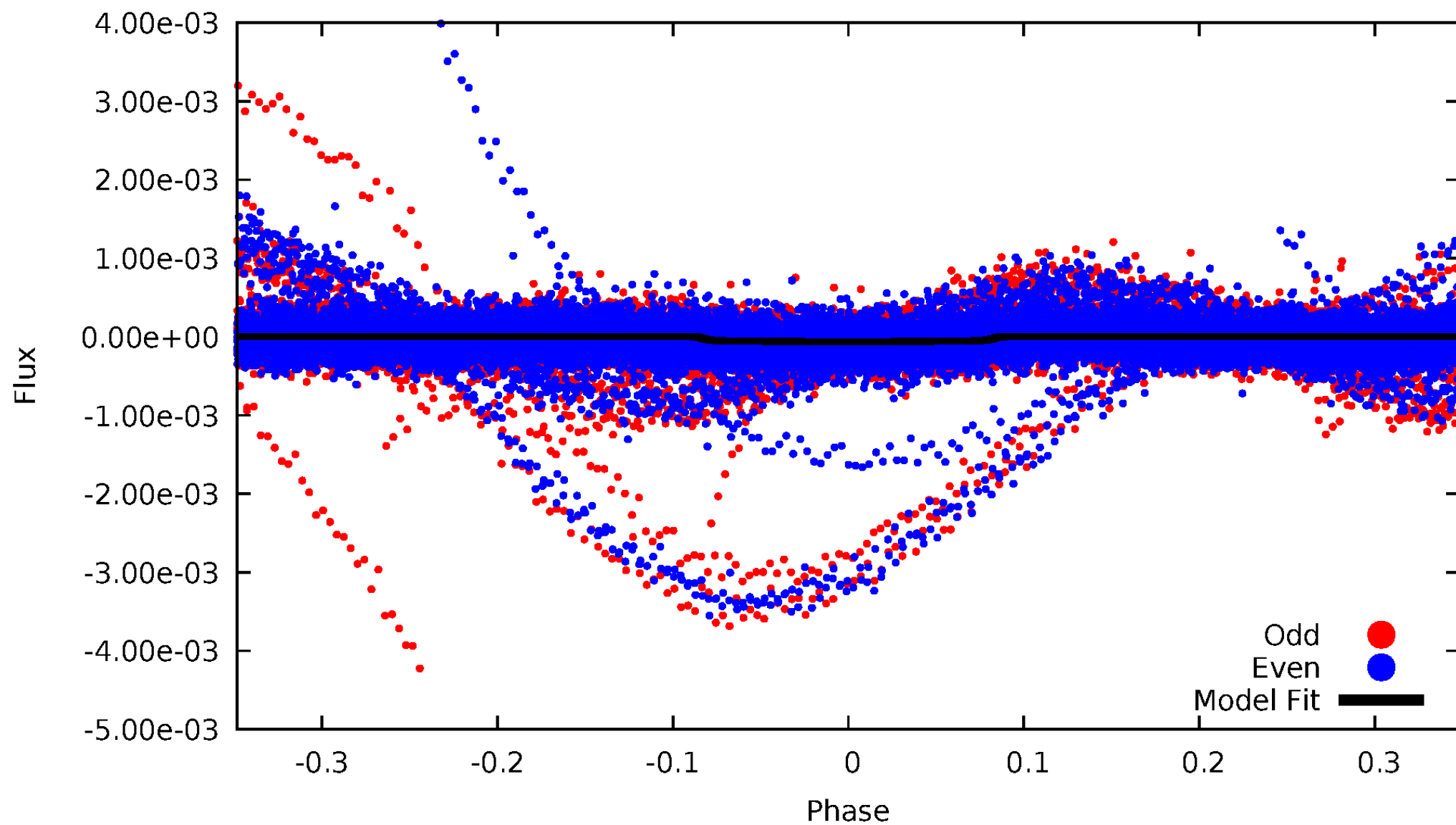


TCE 009052883-01



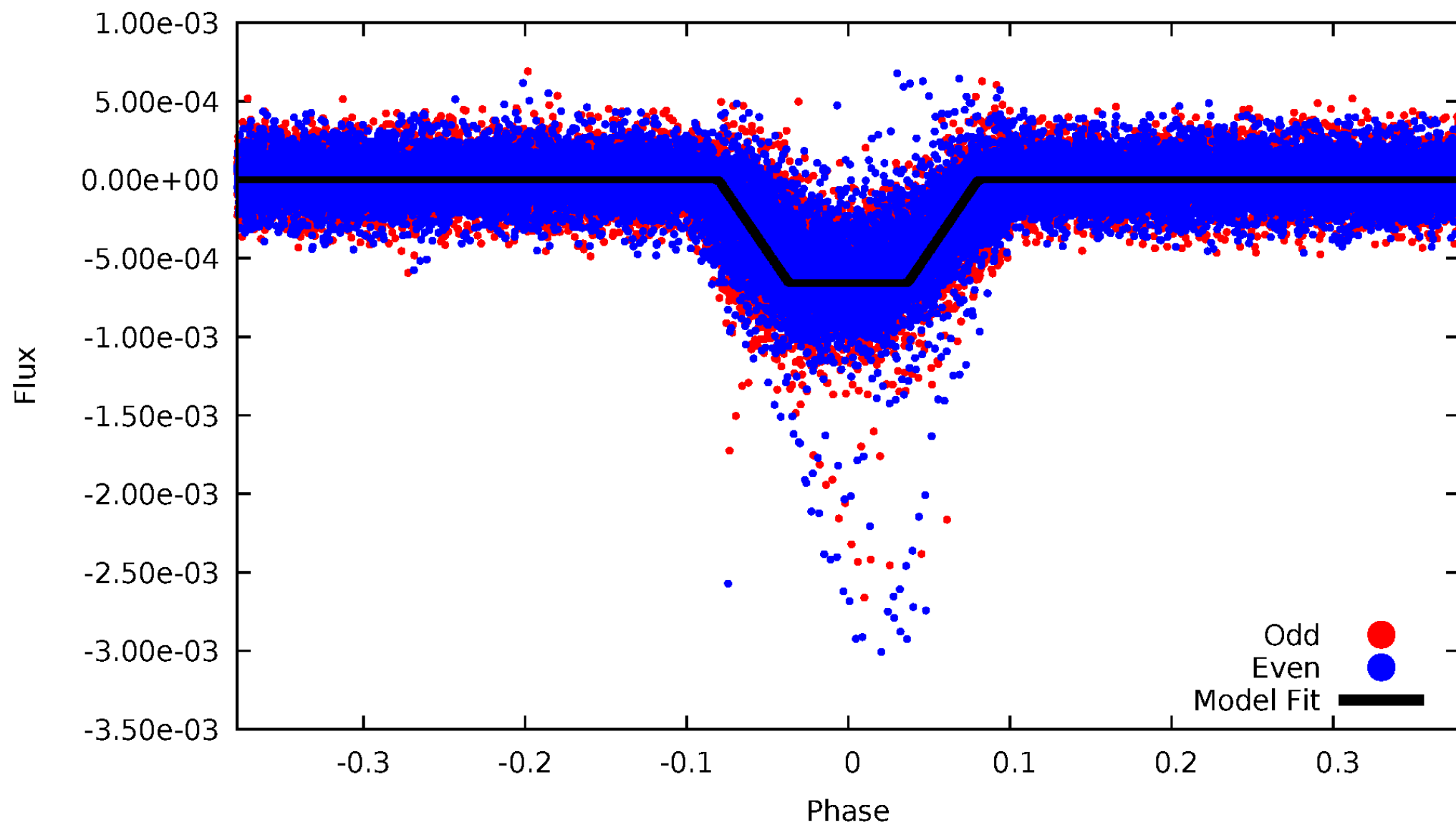
DV Odd/Even

TCE 009052883-01

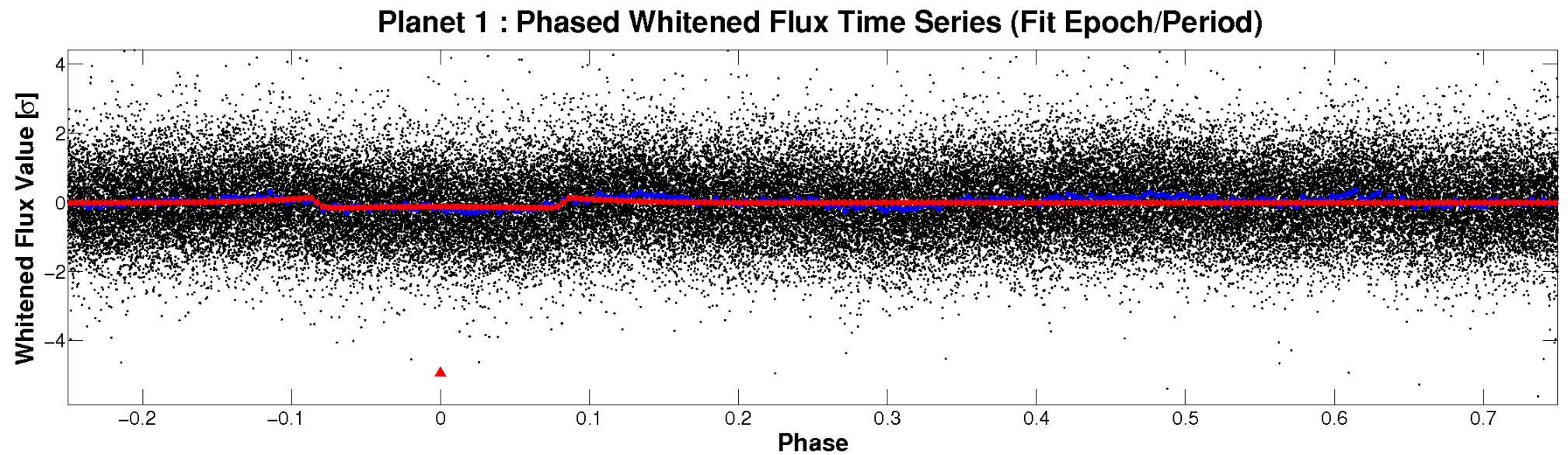
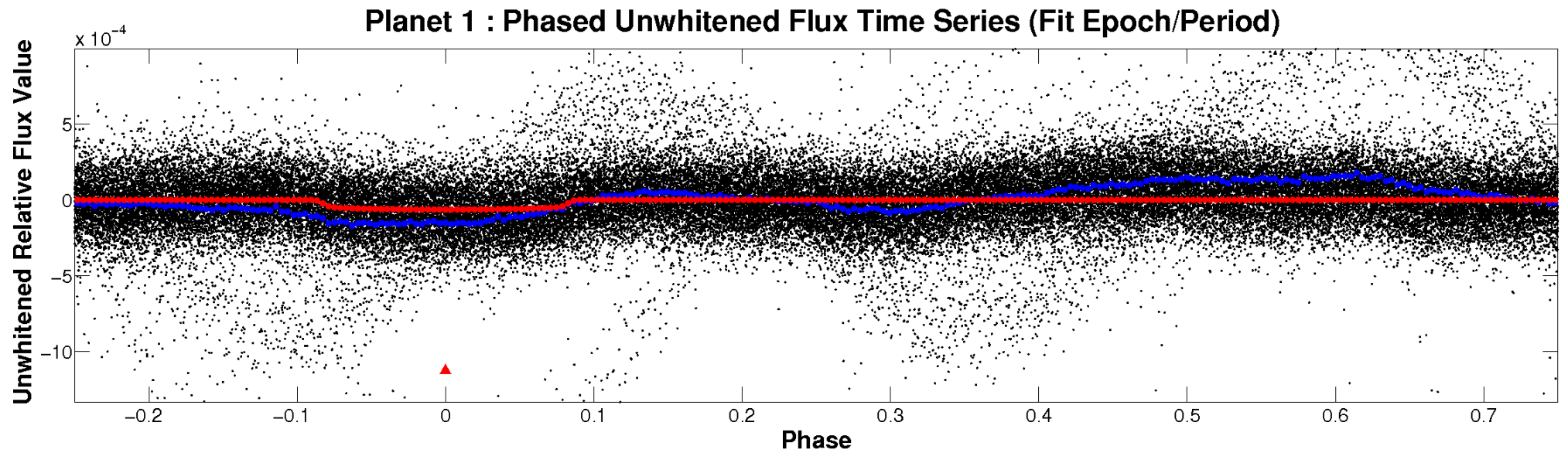


ALT Odd/Even

TCE 009052883-01

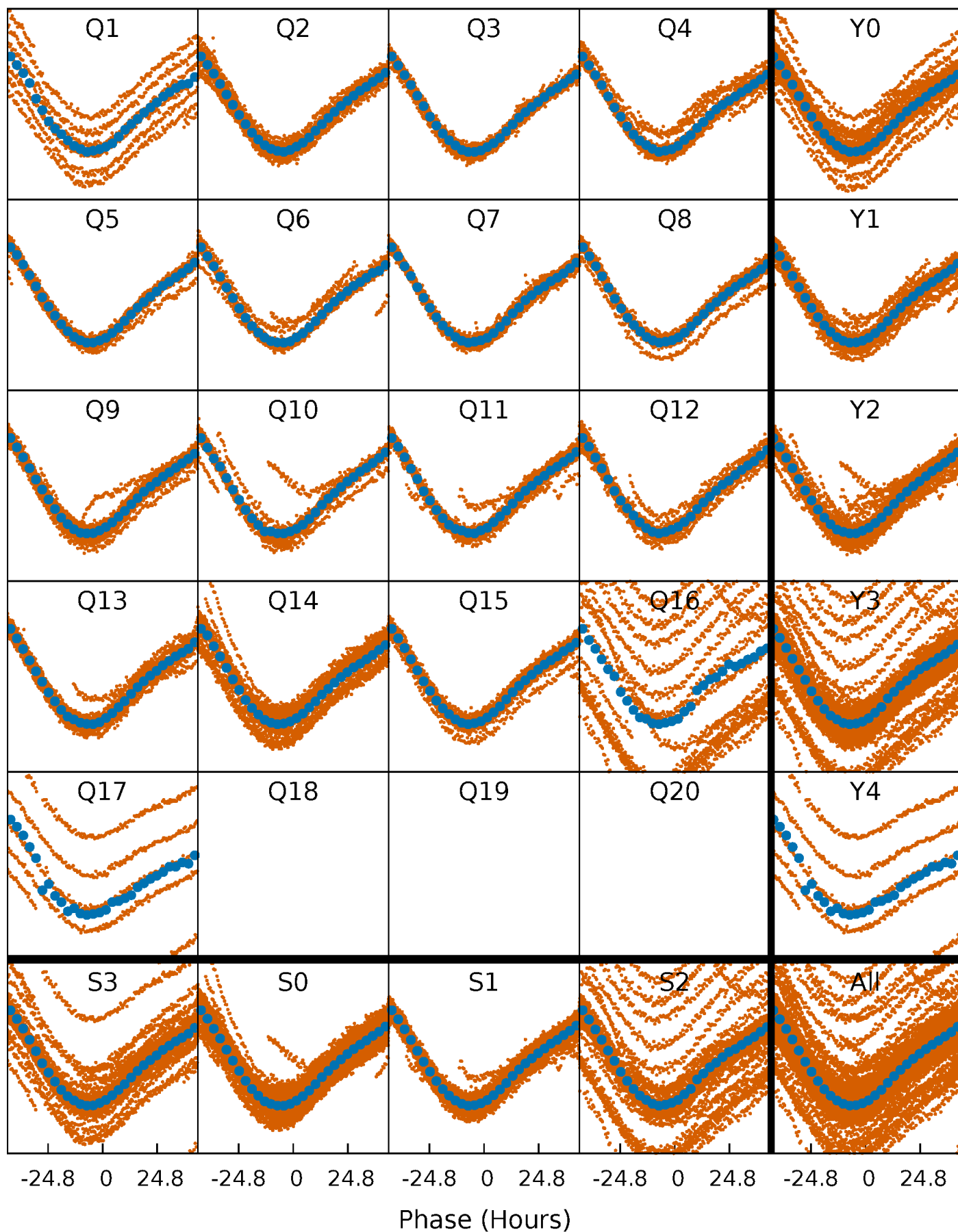


Non-Whitened Vs. Whitened Light Curve



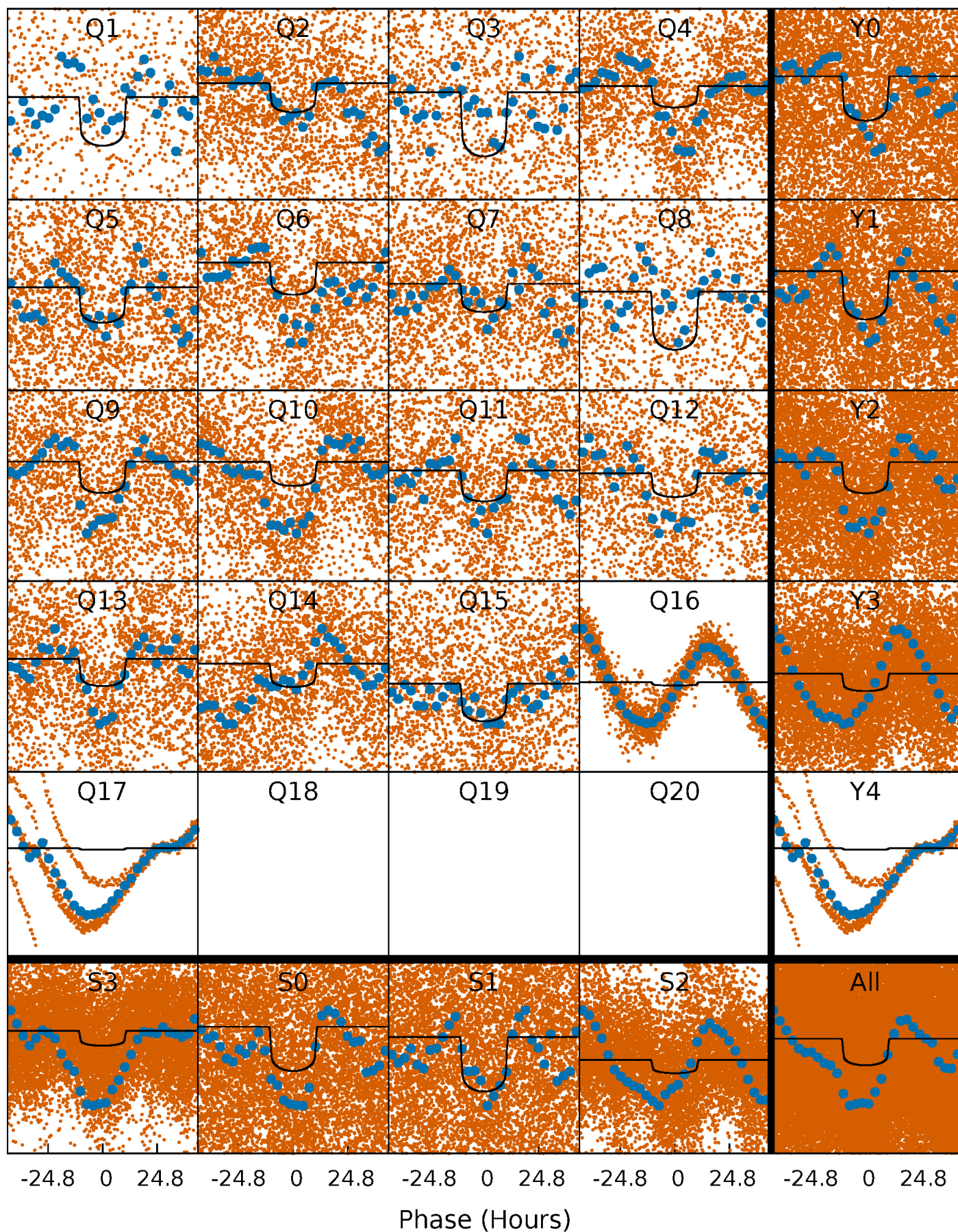
PDC Quarter-Phased Transit Curves

TCE 009052883-01 P= 5.188866 Days $T_0=135.154748$ (BKJD)



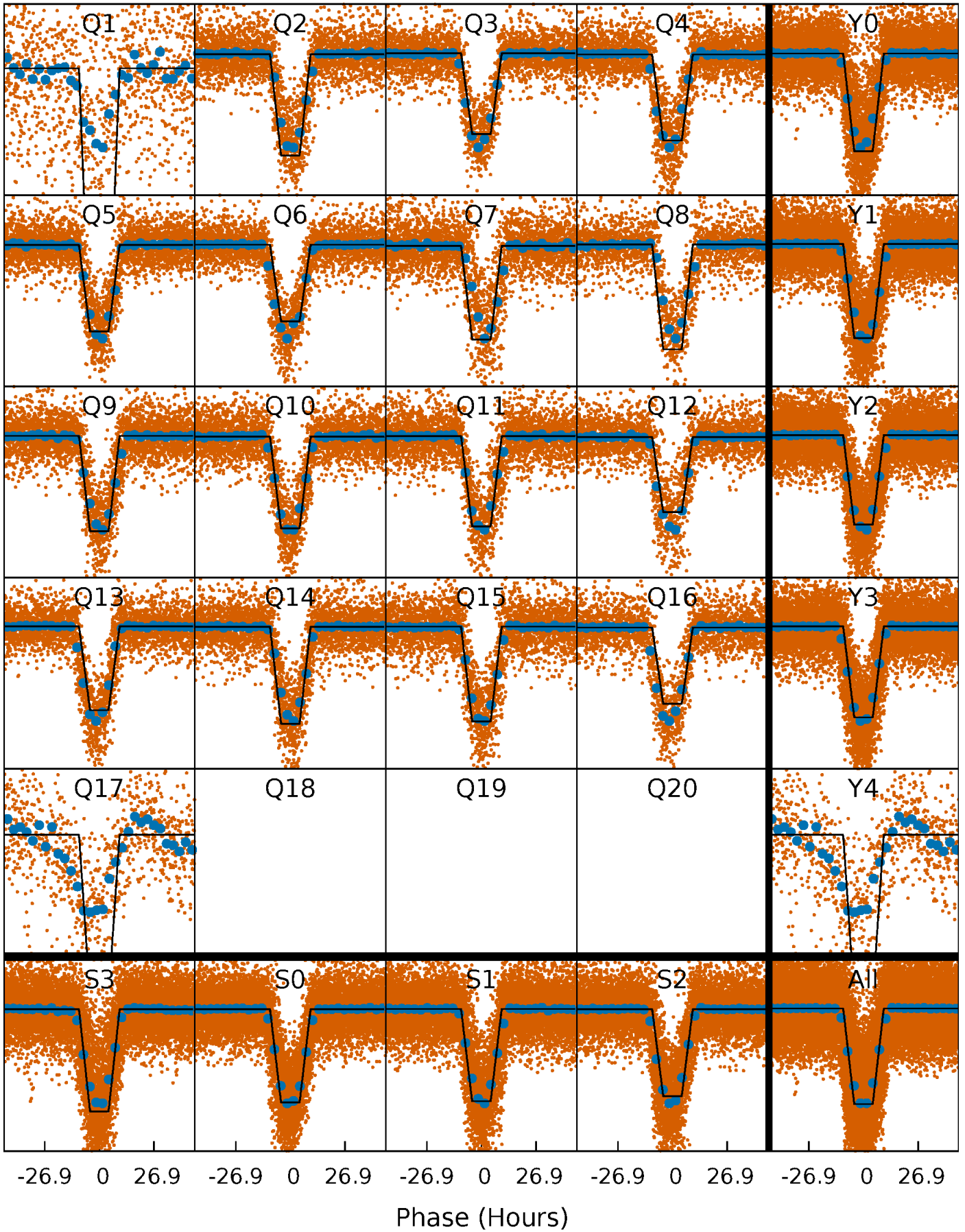
DV Quarter-Phased Transit Curves

TCE 009052883-01 P= 5.188866 Days $T_0=135.154748$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

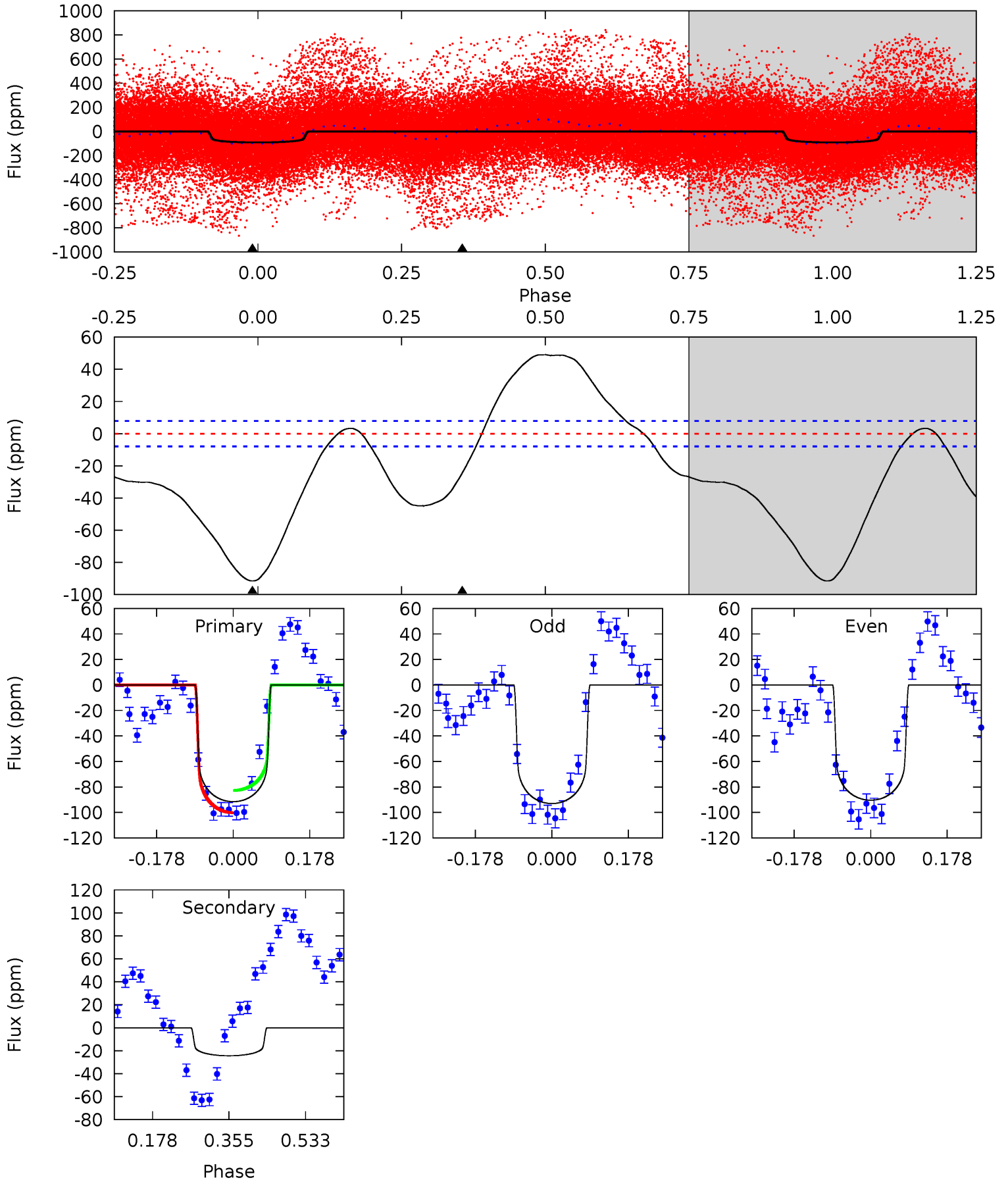
TCE 009052883-01 P= 5.188622 Days $T_0=135.184671$ (BKJD)



DV Model-Shift Uniqueness Test

009052883-01, P = 5.188866 Days, E = 129.965882 Days

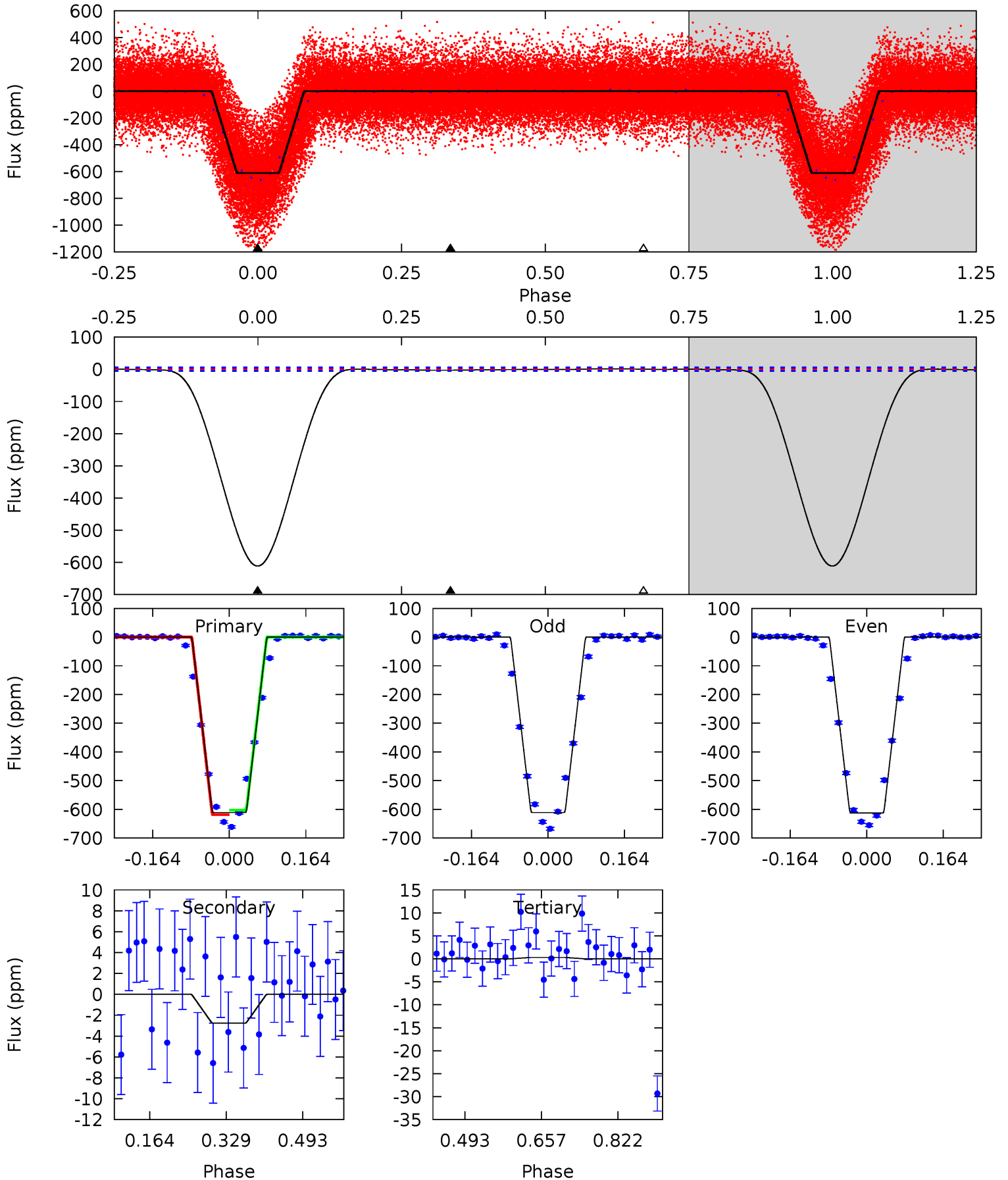
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.6	13.7	0	0	4.44	1.35	14.7	51.6	51.6	13.7	13.7	0.75	1.59	0.35	4.95



Alt Model-Shift Uniqueness Test

009052883-01, P = 5.188622 Days, E = 129.996049 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
507.7	2.29	-0.25	0	4.46	1.39	0.65	508.0	507.7	2.54	2.29	0.59	1.03	0.00	6.29



Stellar Parameters For KIC 009052883

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7505^{+209}_{-314}	$4.031^{+0.175}_{-0.158}$	$-0.040^{+0.200}_{-0.350}$	$2.074^{+0.533}_{-0.533}$	$1.682^{+0.200}_{-0.300}$	$0.266^{+0.291}_{-0.121}$
	+3%/-4%	+4%/-4%	+500%/-875%	+26%/-26%	+12%/-18%	+110%/-46%
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 009052883-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 2	$1.90^{+0.28}_{-0.27}$	2500^{+180}_{-172}	5630^{+202}_{-239}	18^{+6}_{-4}
Alt.	-3 ± 1	$5.80^{+0.80}_{-0.74}$	2526^{+163}_{-174}	-2392^{+4529}_{-280}	$0.212^{+0.125}_{-0.097}$

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

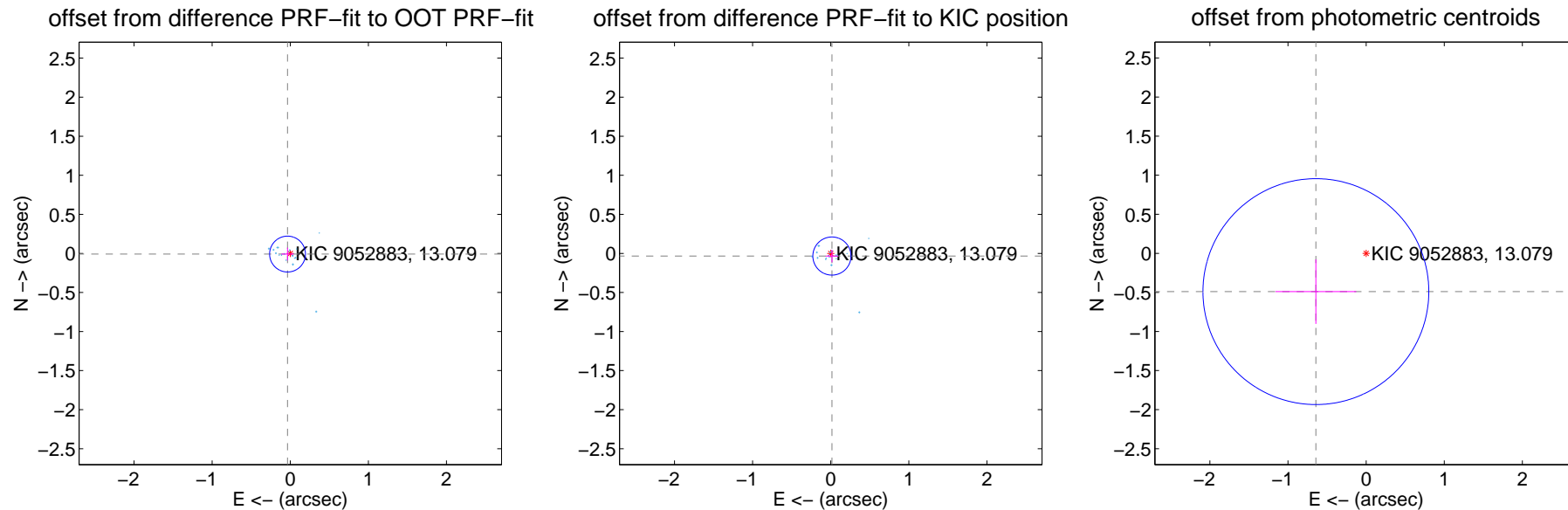
DV Centroid Data

Supplemental centroid analysis for 009052883-01. Kepler magnitude: 13.08. Transit SNR 16.59

There are 17 quarters with good PRF difference image offsets

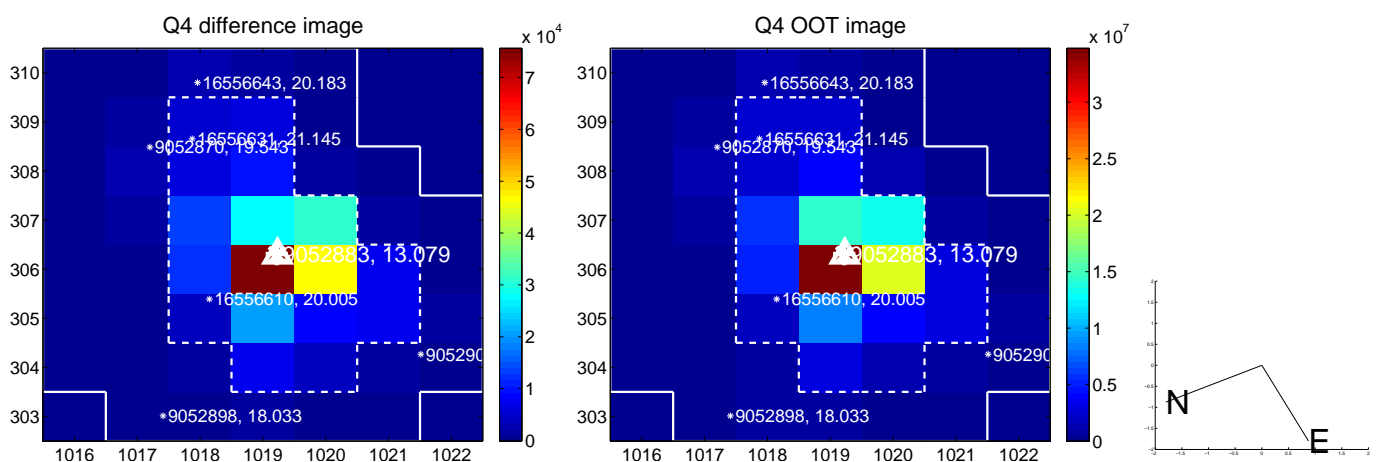
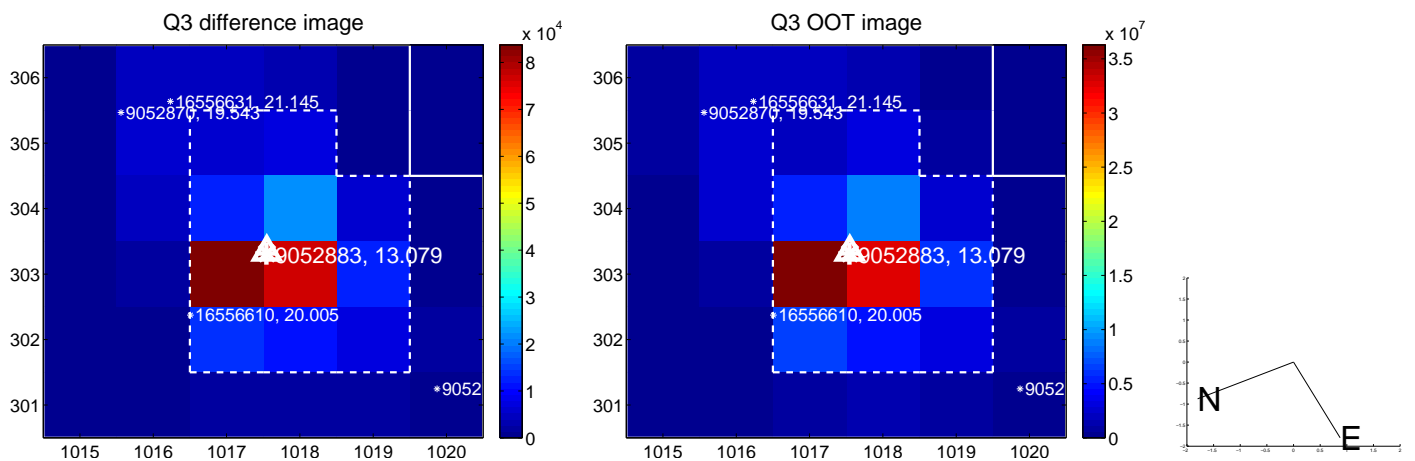
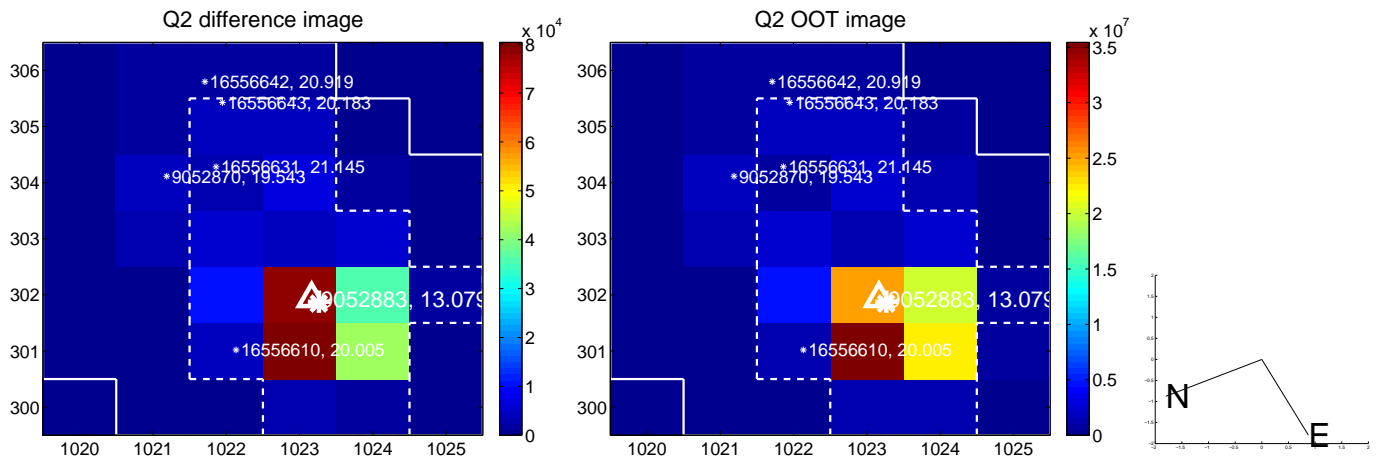
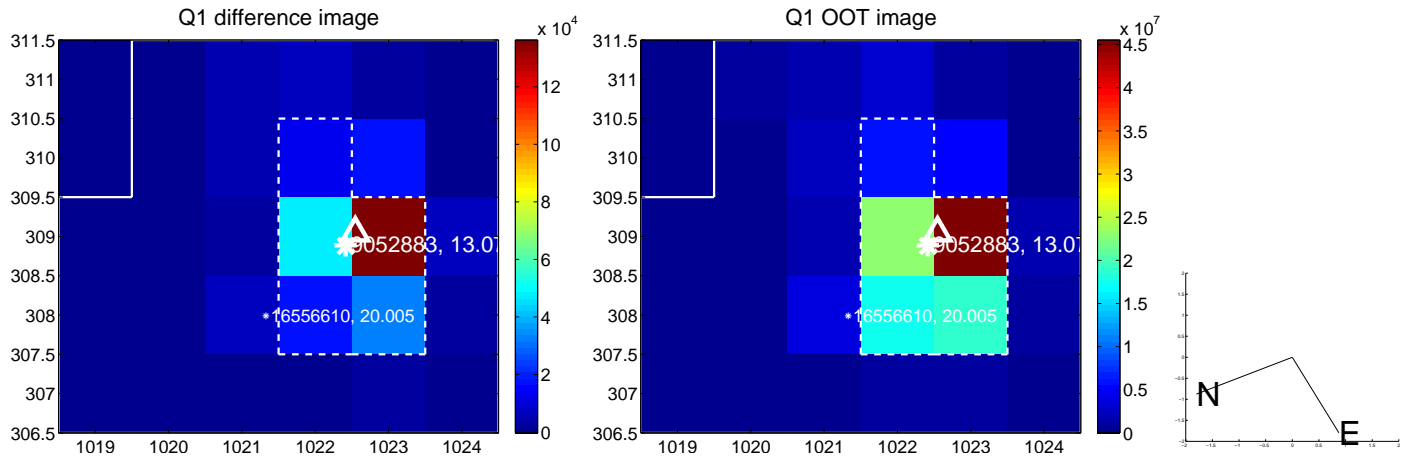
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.036 ± 0.077	0.47	0.035 ± 0.079	-0.008 ± 0.081
PRF-fit source offset from KIC position	0.037 ± 0.081	0.46	-0.015 ± 0.079	-0.034 ± 0.079
photometric centroid source offset	0.81 ± 0.48	1.68	0.64 ± 0.52	-0.49 ± 0.41

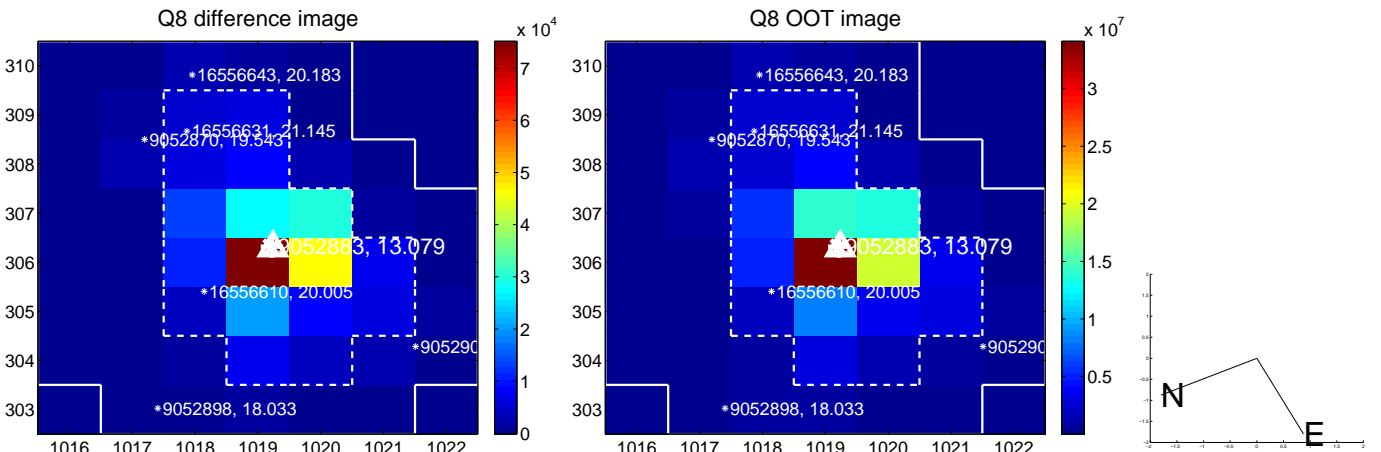
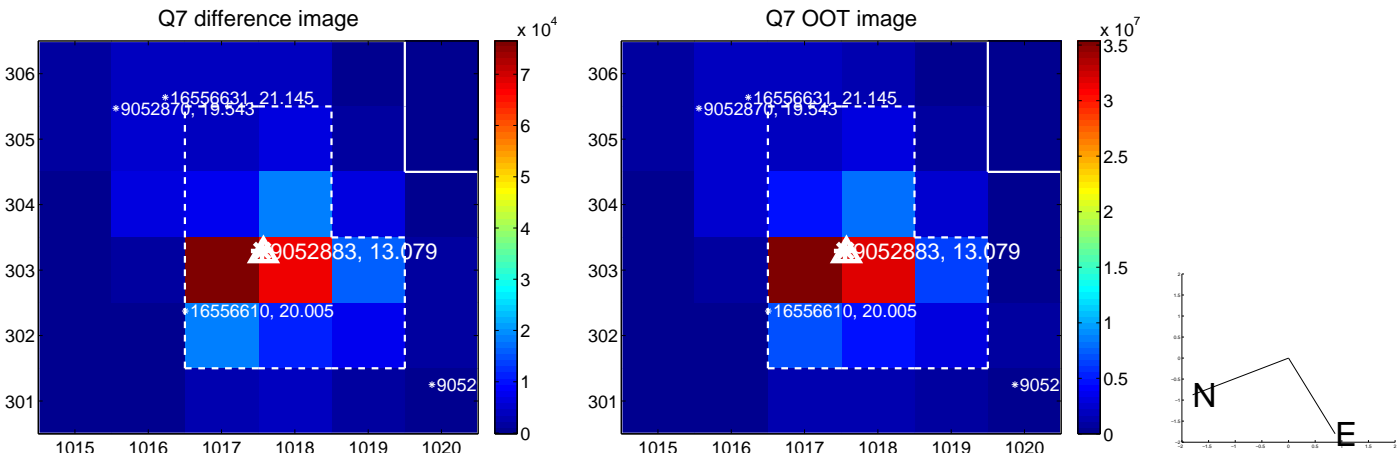
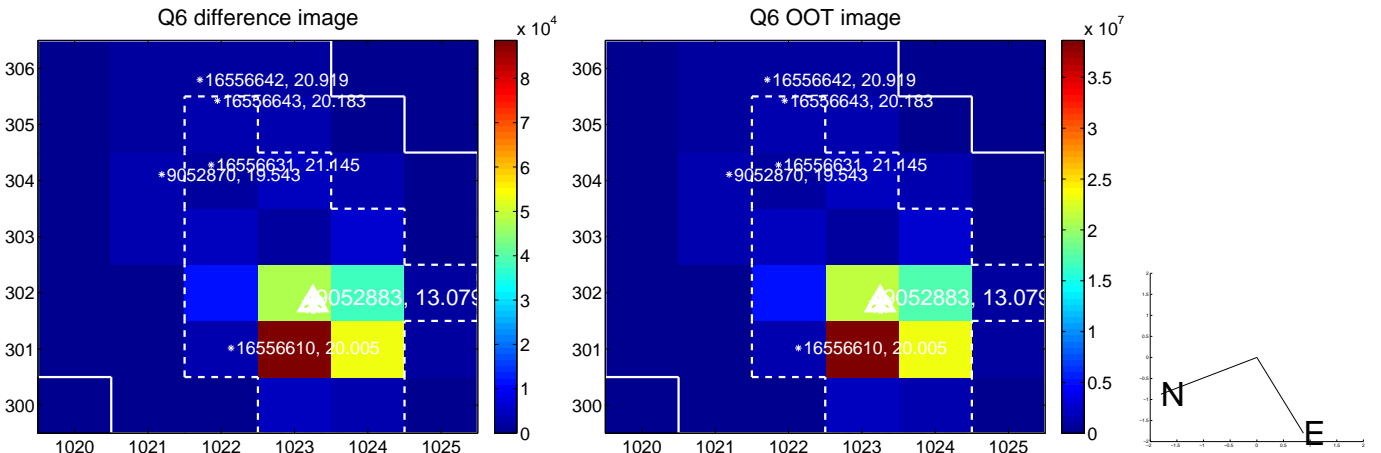
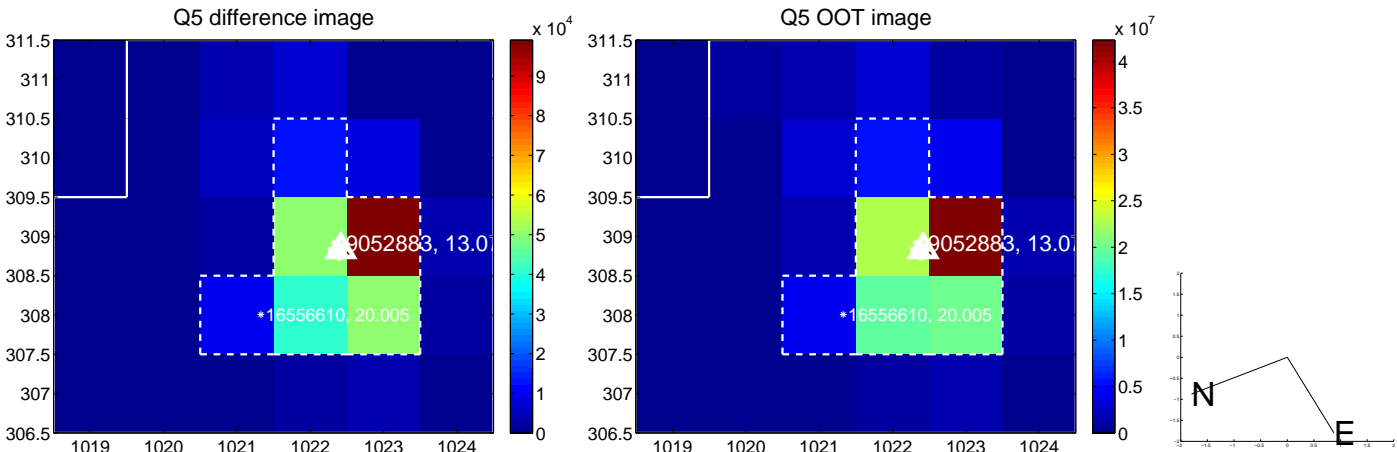


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

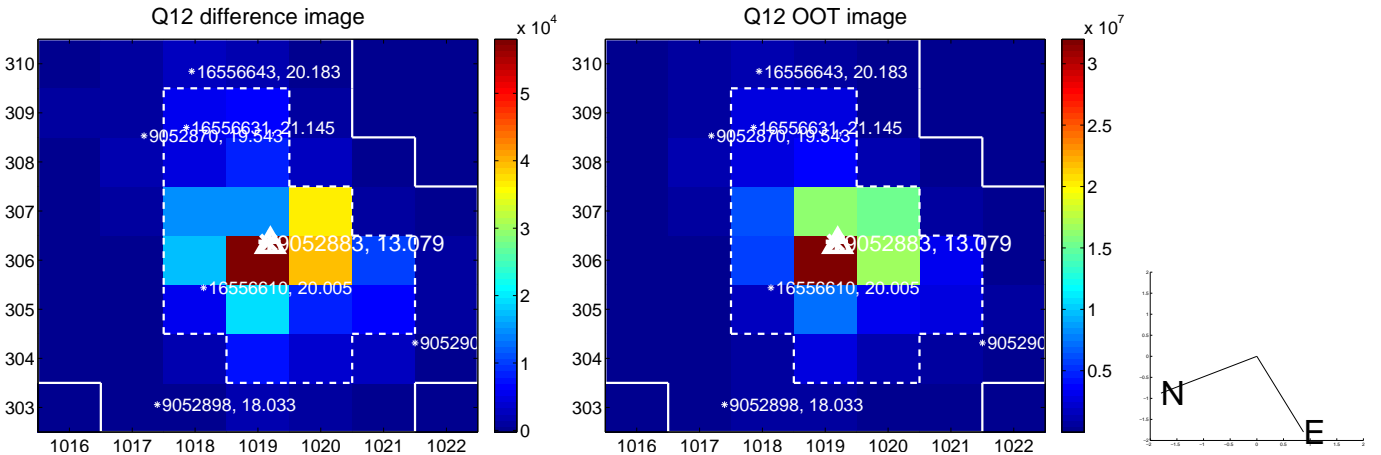
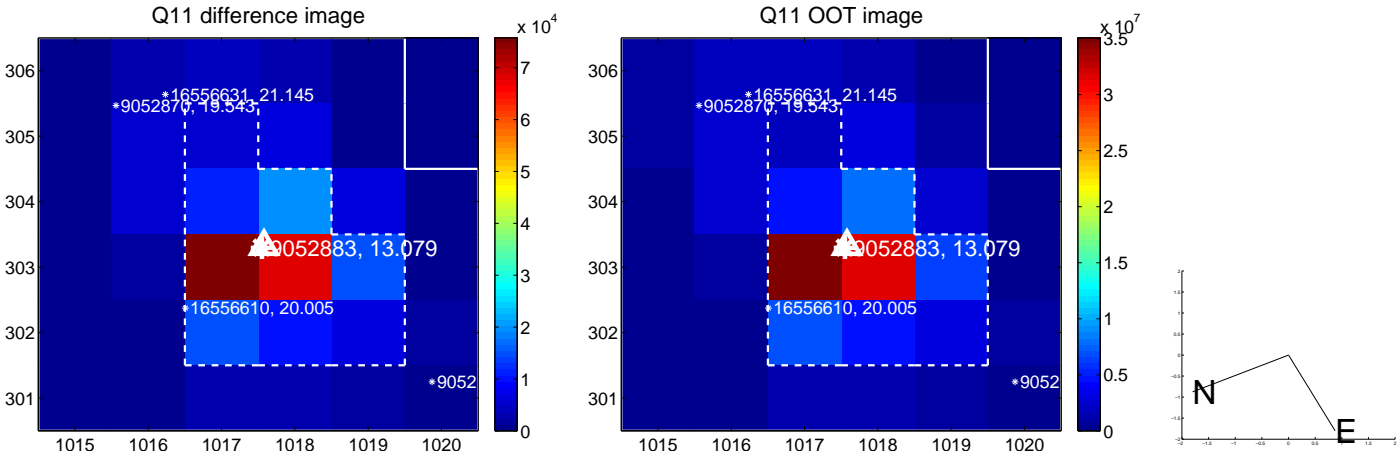
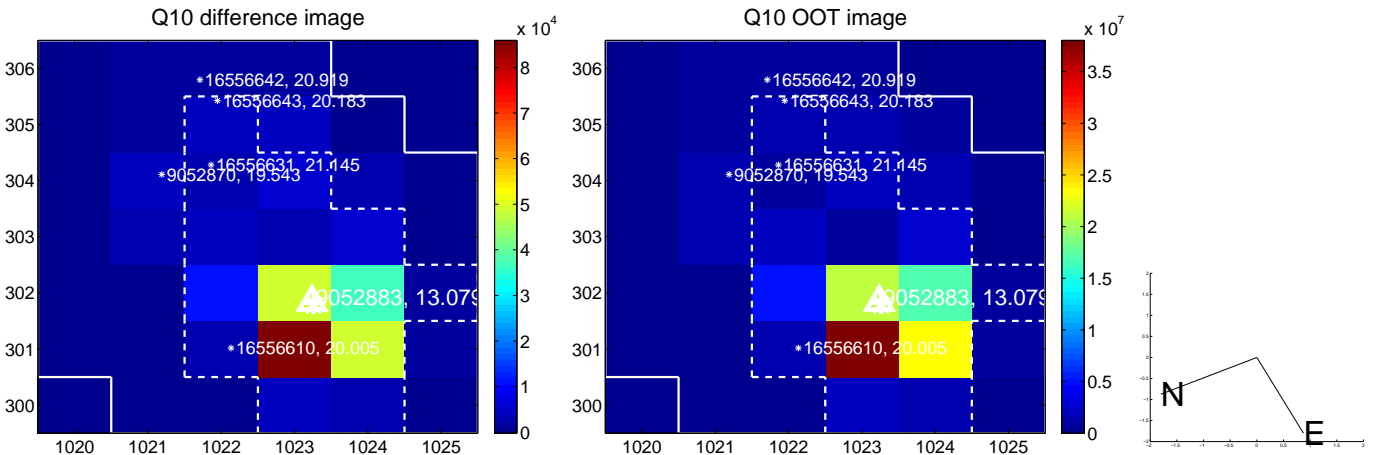
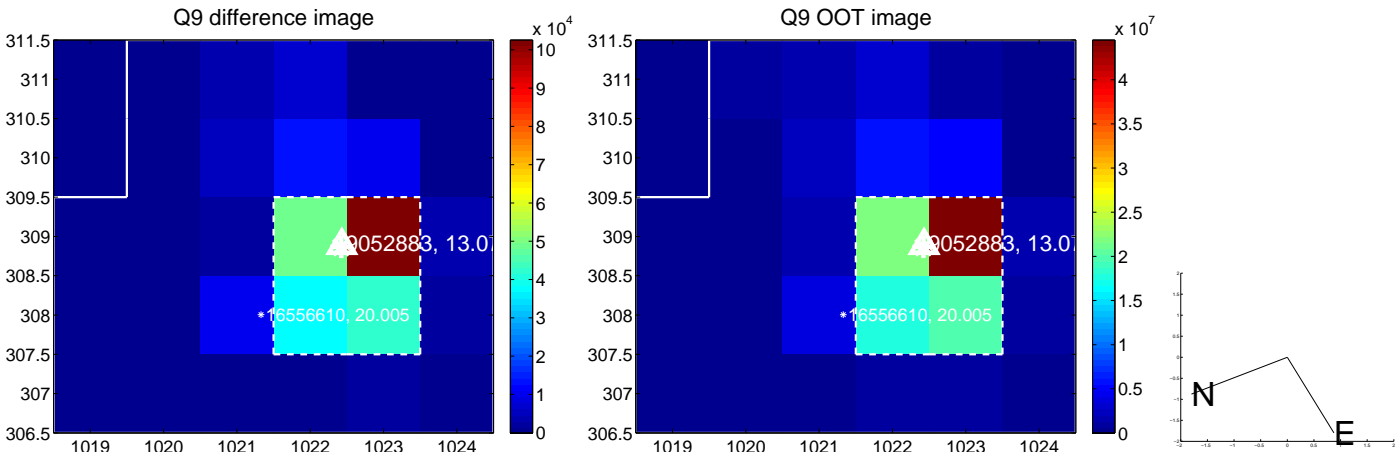
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



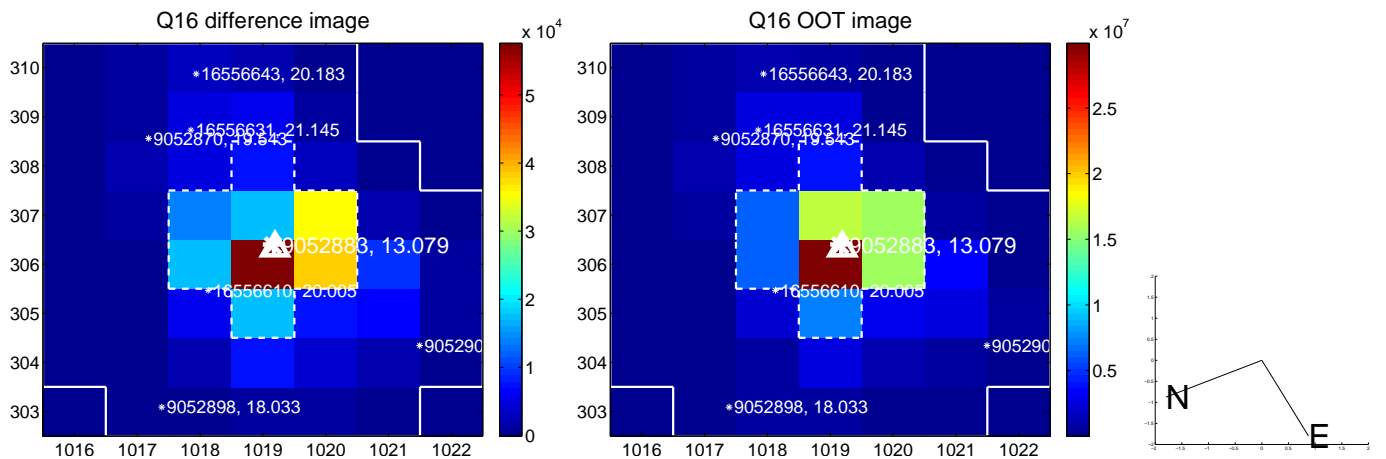
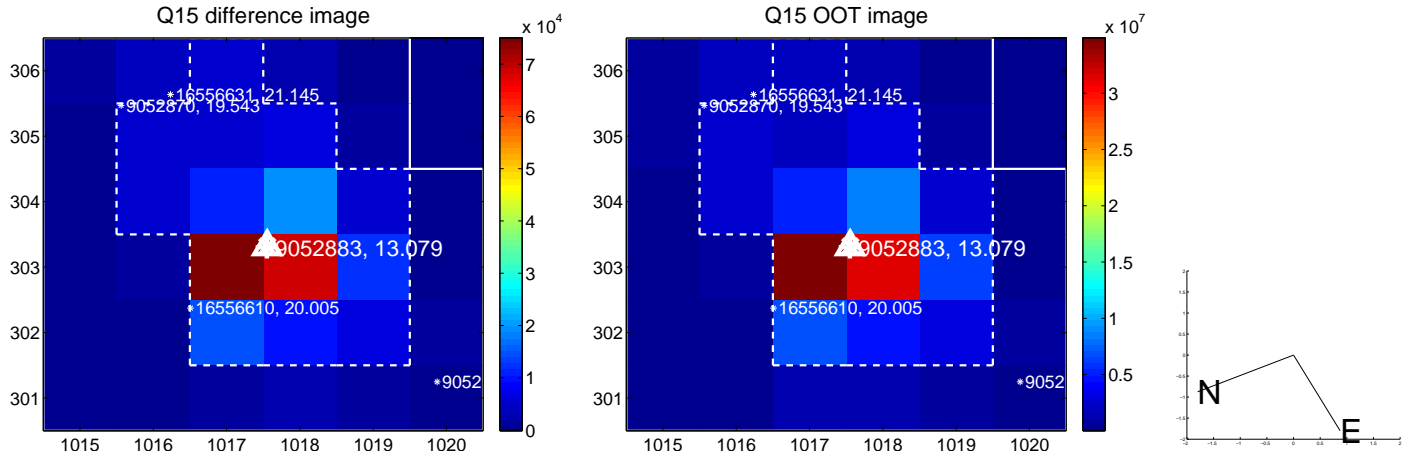
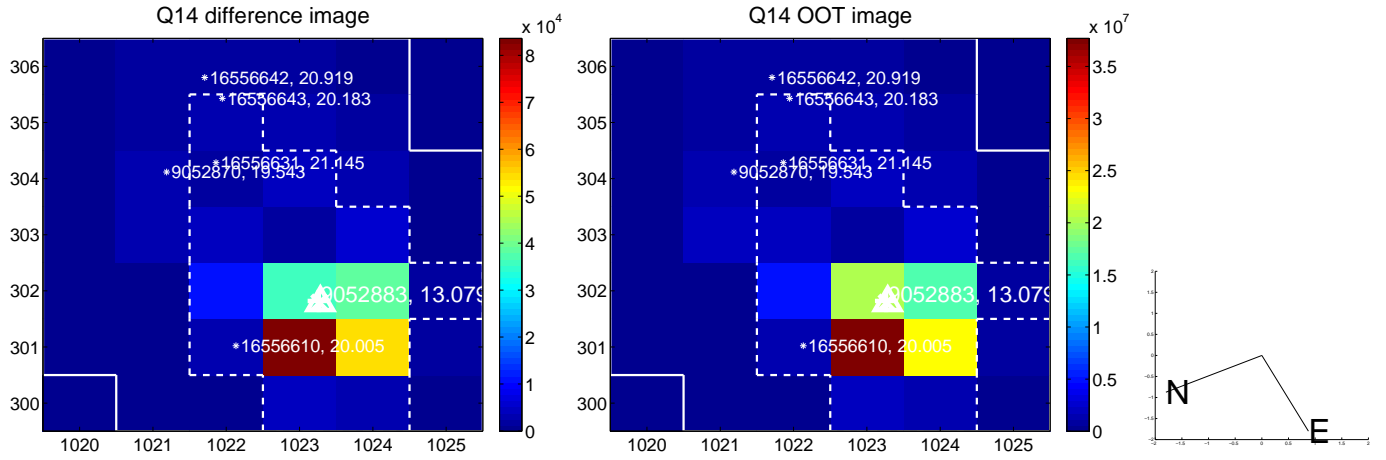
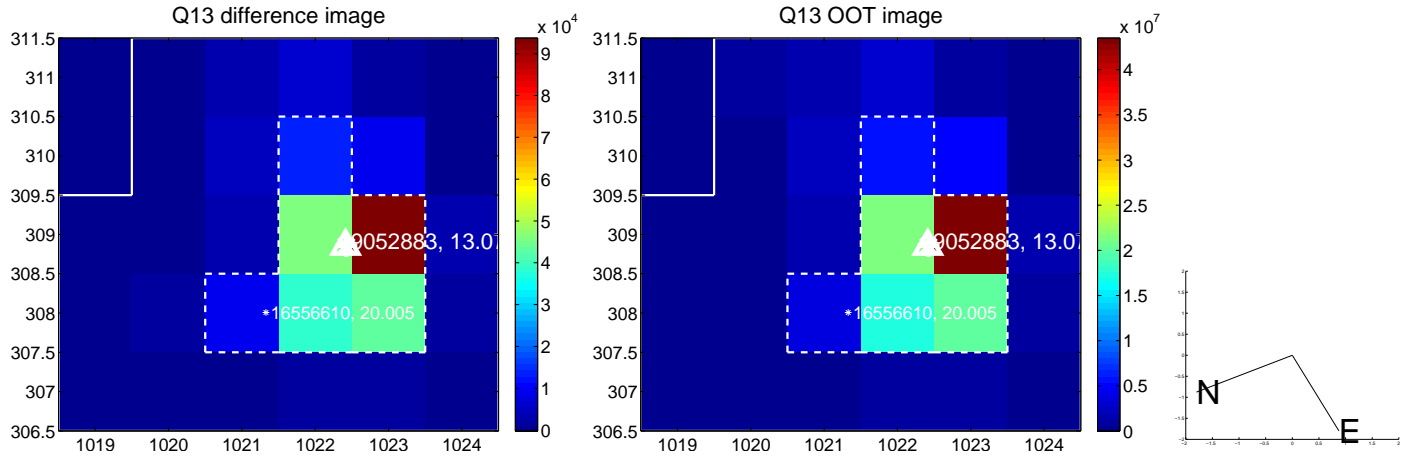
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



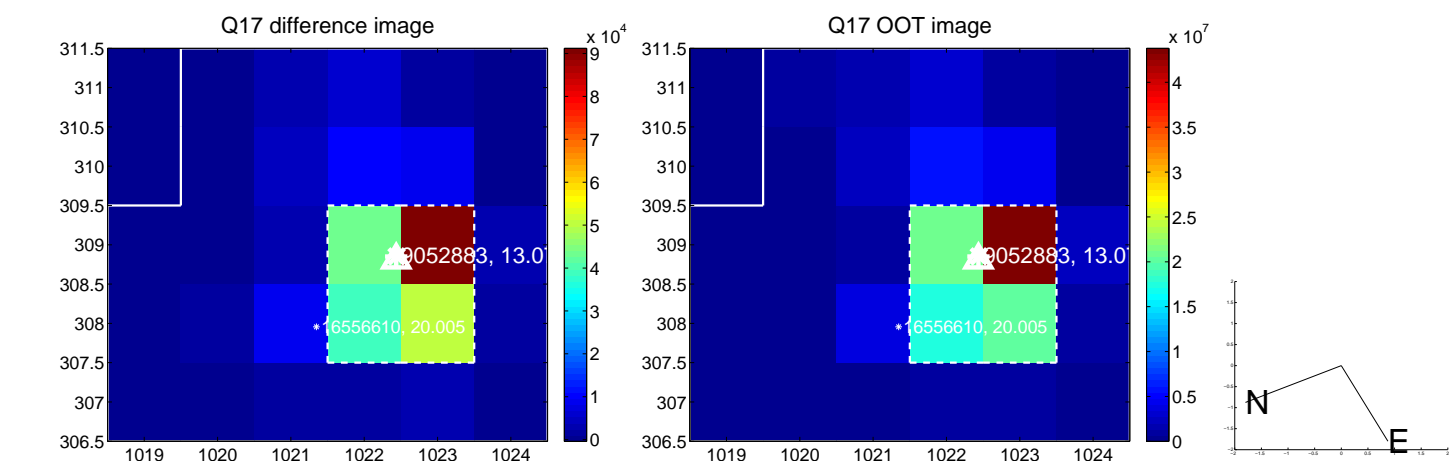
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



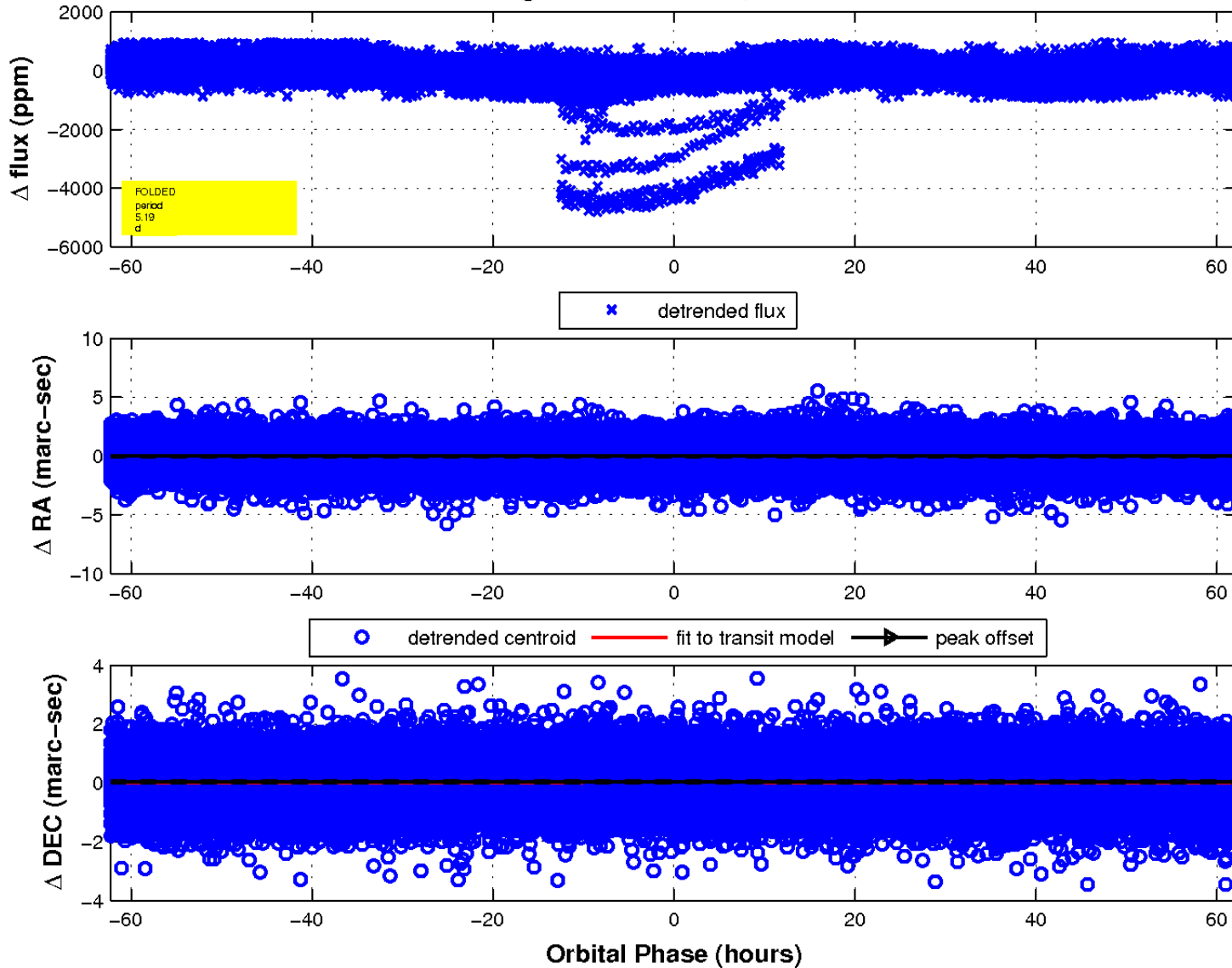
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

