

KIC 004269252

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})
004269252-01	OBS	6398.01	4.701211	134.892473	54.3	3.649	7.2	5.6	13.87	4597	12.57	16955.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004269252-01	OBS	FP	0.00	0	0	1	0	CENT_SATURATED—HALO_GHOST

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 004269252-01

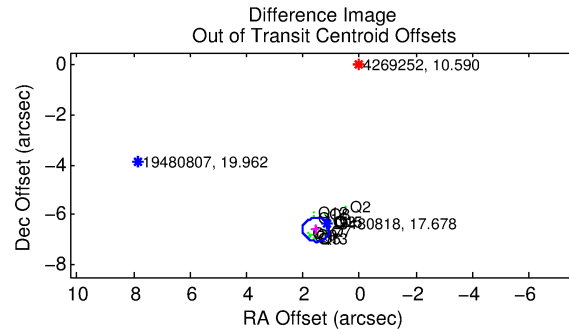
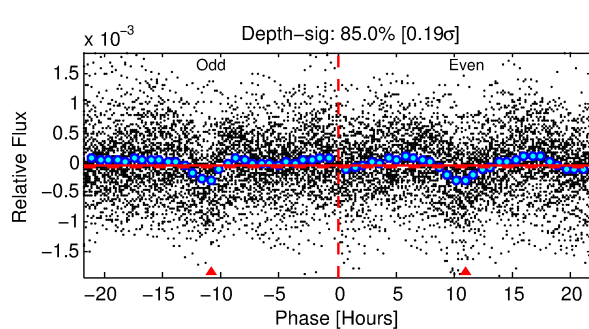
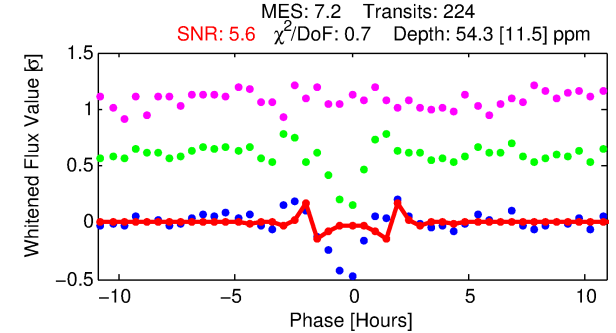
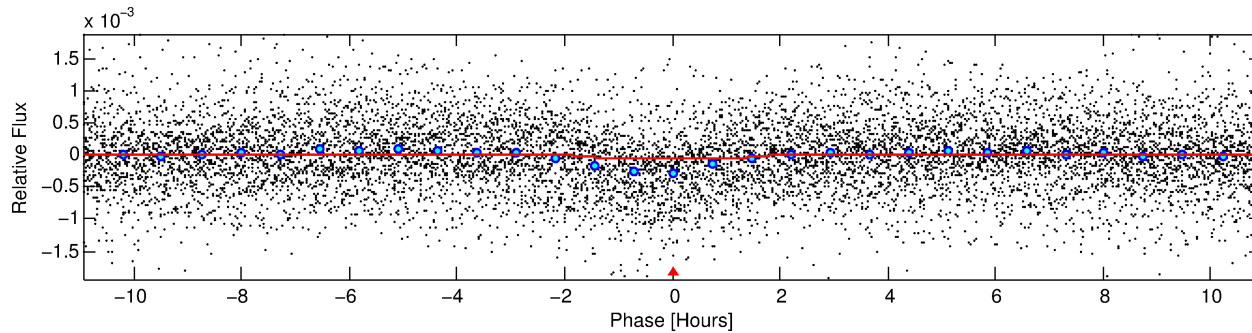
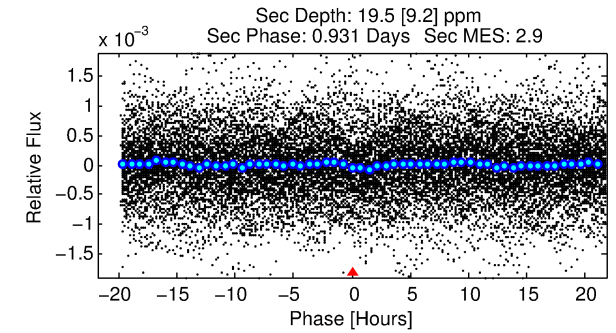
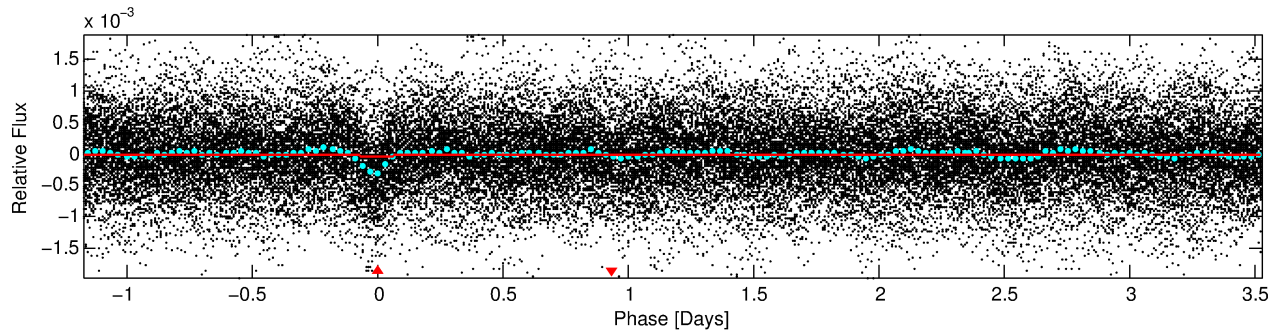
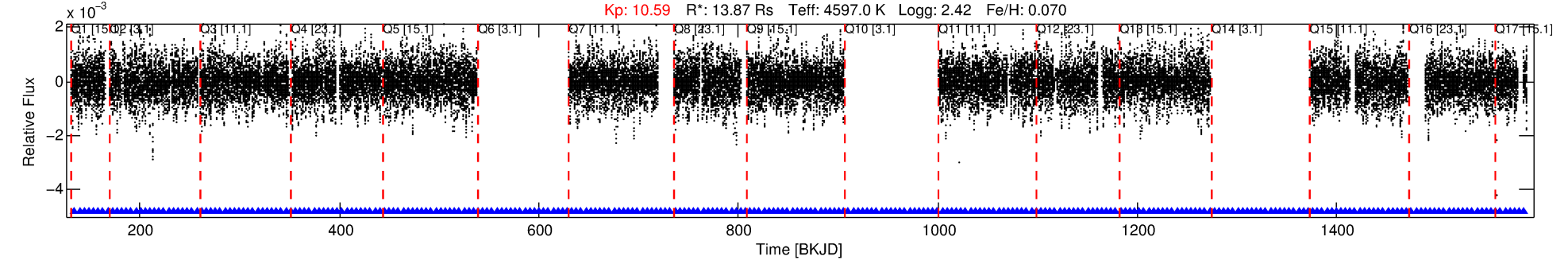
No Significant Match Found

DV One-Page Summary

KIC: 4269252 Candidate: 1 of 1 Period: 4.701 d

KOI: K06398 Corr: No Ephemeris Match

Kp: 10.59 R*: 13.87 Rs Teff: 4597.0 K Logg: 2.42 Fe/H: 0.070



DV Fit Results:

Period = 4.70121 [0.00002] d
Epoch = 134.8925 [0.0019] BKJD
Rp/R* = 0.0083 [0.0020]
a/R* = 4.61 [3.77]
b = 0.90 [0.19]
Seff = 16955.63 [3031.51]
Teq = 2910 [130] K
Rp = 12.57 [4.14] Re
a = 0.0674 [0.0101] AU
Ag = 0.31 [0.22] [-3.21σ]
Teffp = 3352 [575] K [0.75σ]

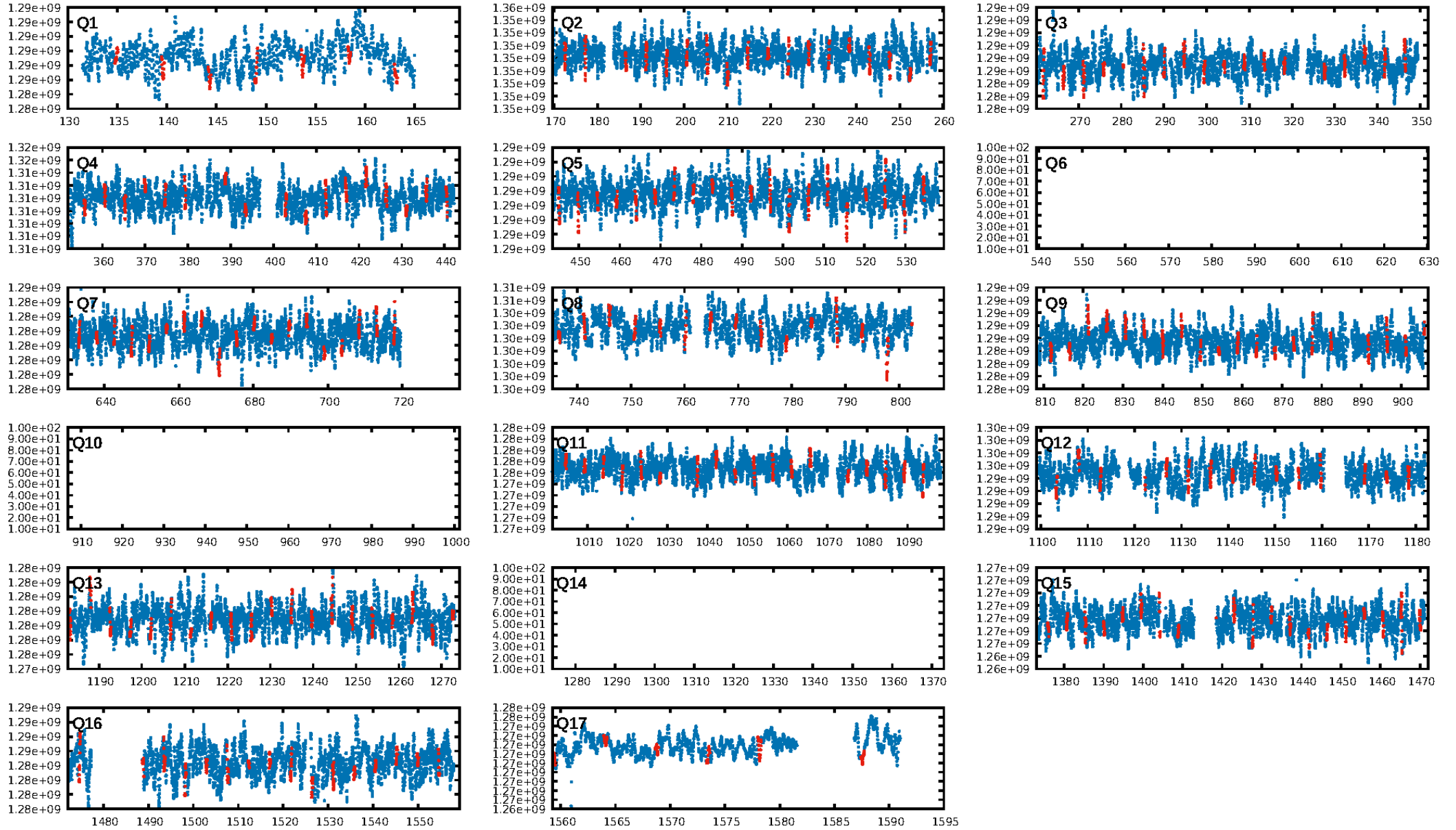
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.36e-33
RollingBand-fgt: 1.00 [211/211]
GhostDiagnostic-chr: 0.1181
Centroid-sig: 0.0%
Centroid-so: 23.430 arcsec [20.63σ]
OotOffset-rm: 6.781 arcsec [42.30σ]
KicOffset-rm: 6.423 arcsec [51.36σ]
OotOffset-st: 1/3/3/5 [12]
KicOffset-st: 1/3/3/5 [12]
DiffImageQuality-fgm: 0.83 [10/12]
DiffImageOverlap-fno: 1.00 [14/14]

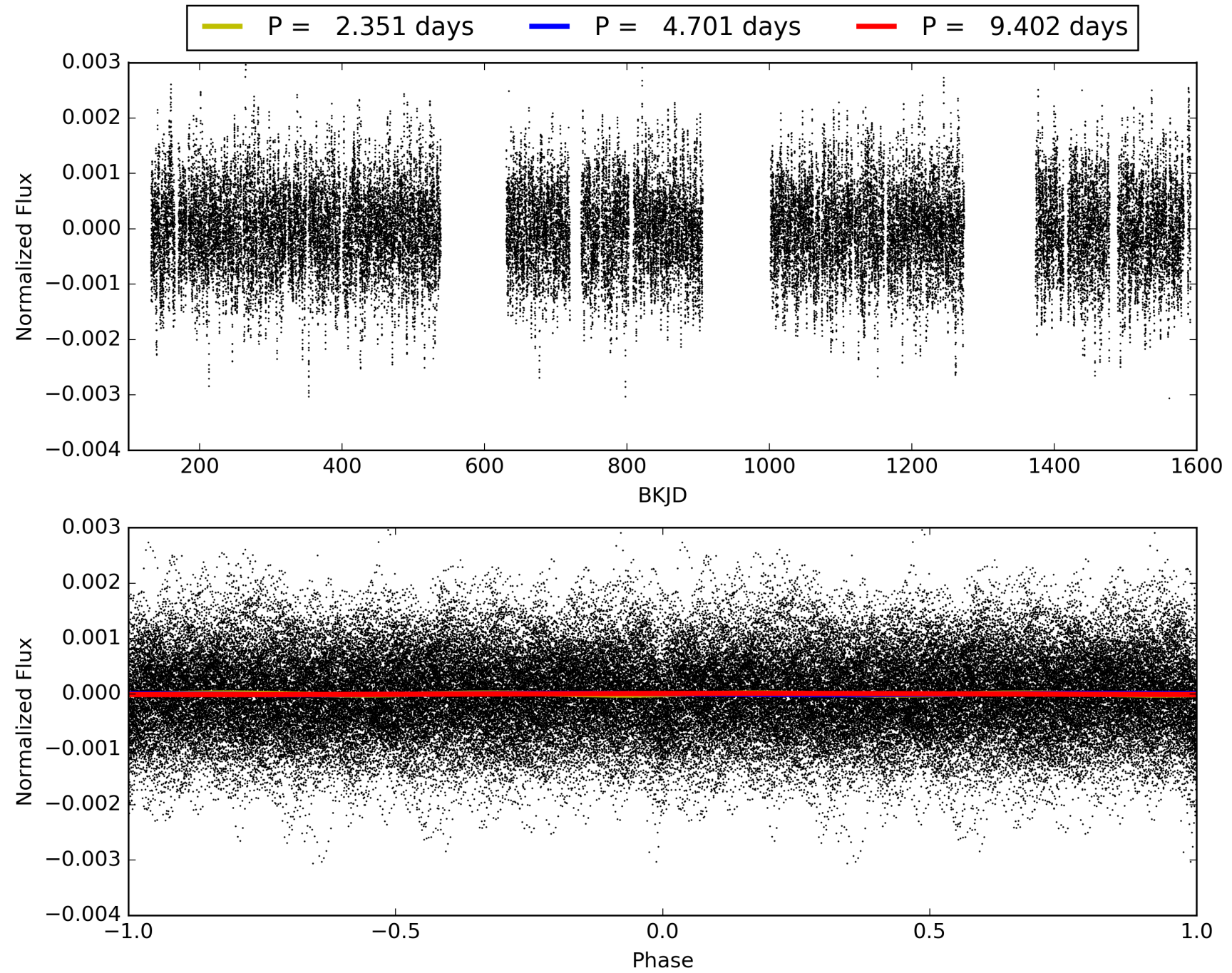
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 10:51:36 Z

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

TCE 004269252-01, PDC Light Curves

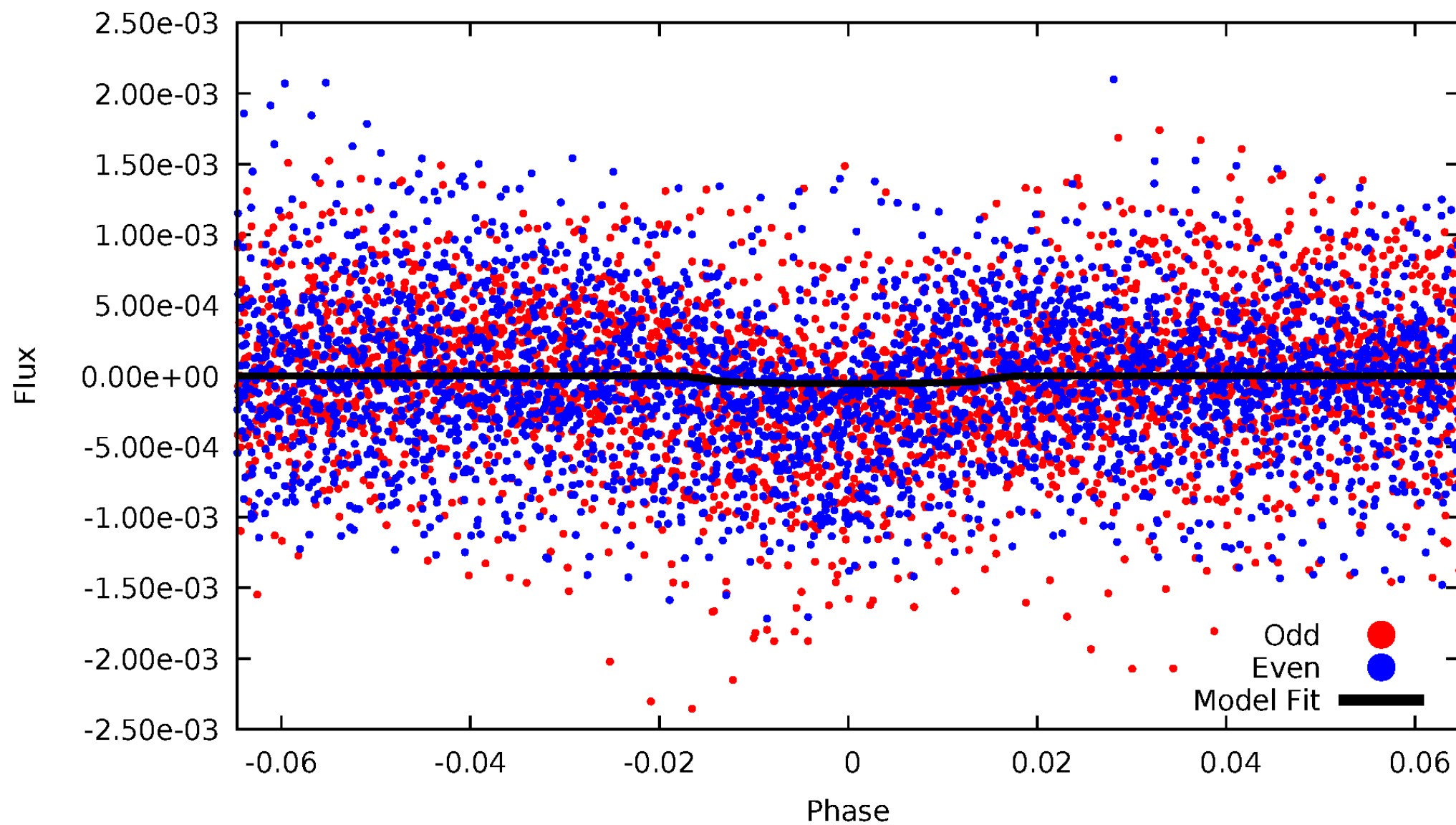


TCE 004269252-01



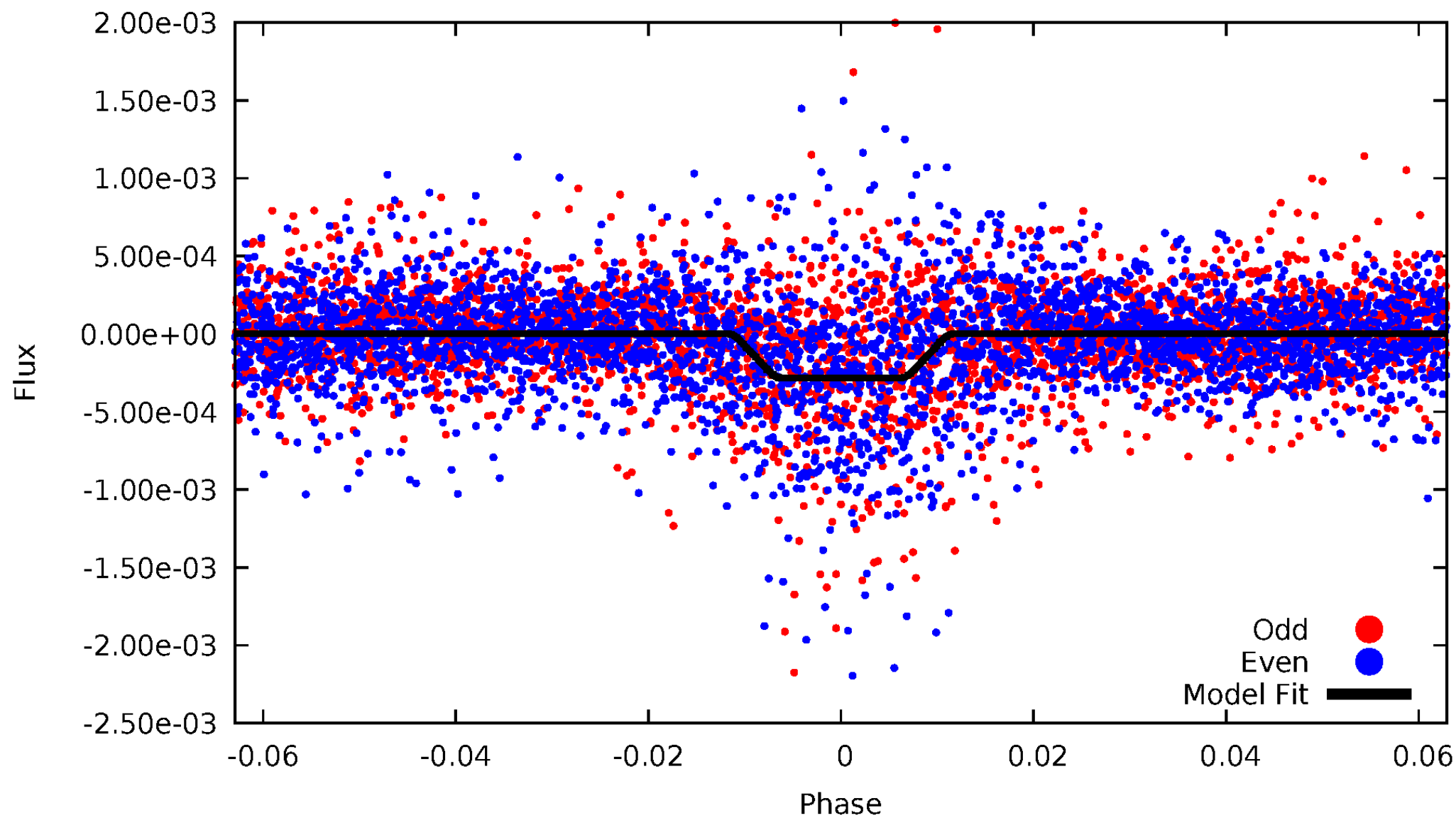
DV Odd/Even

TCE 004269252-01

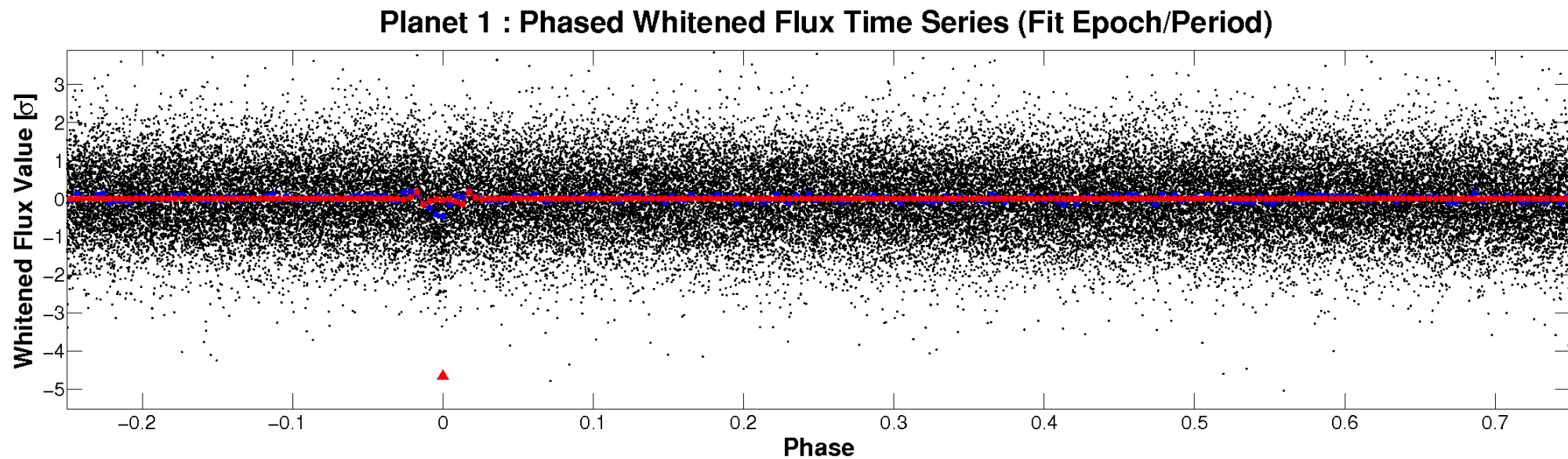
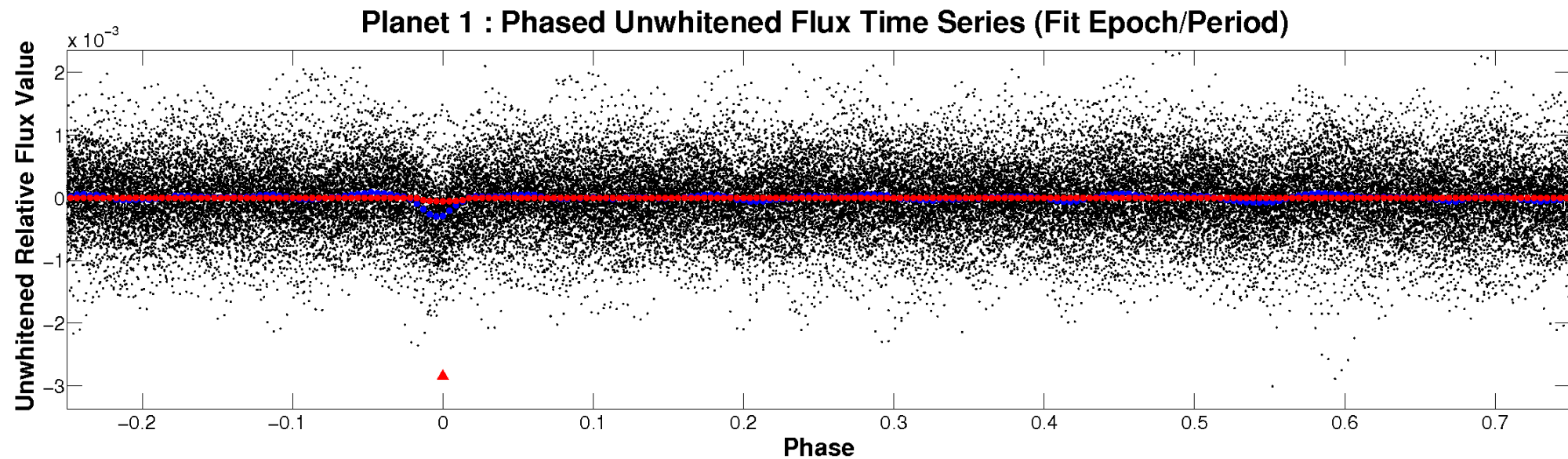


ALT Odd/Even

TCE 004269252-01

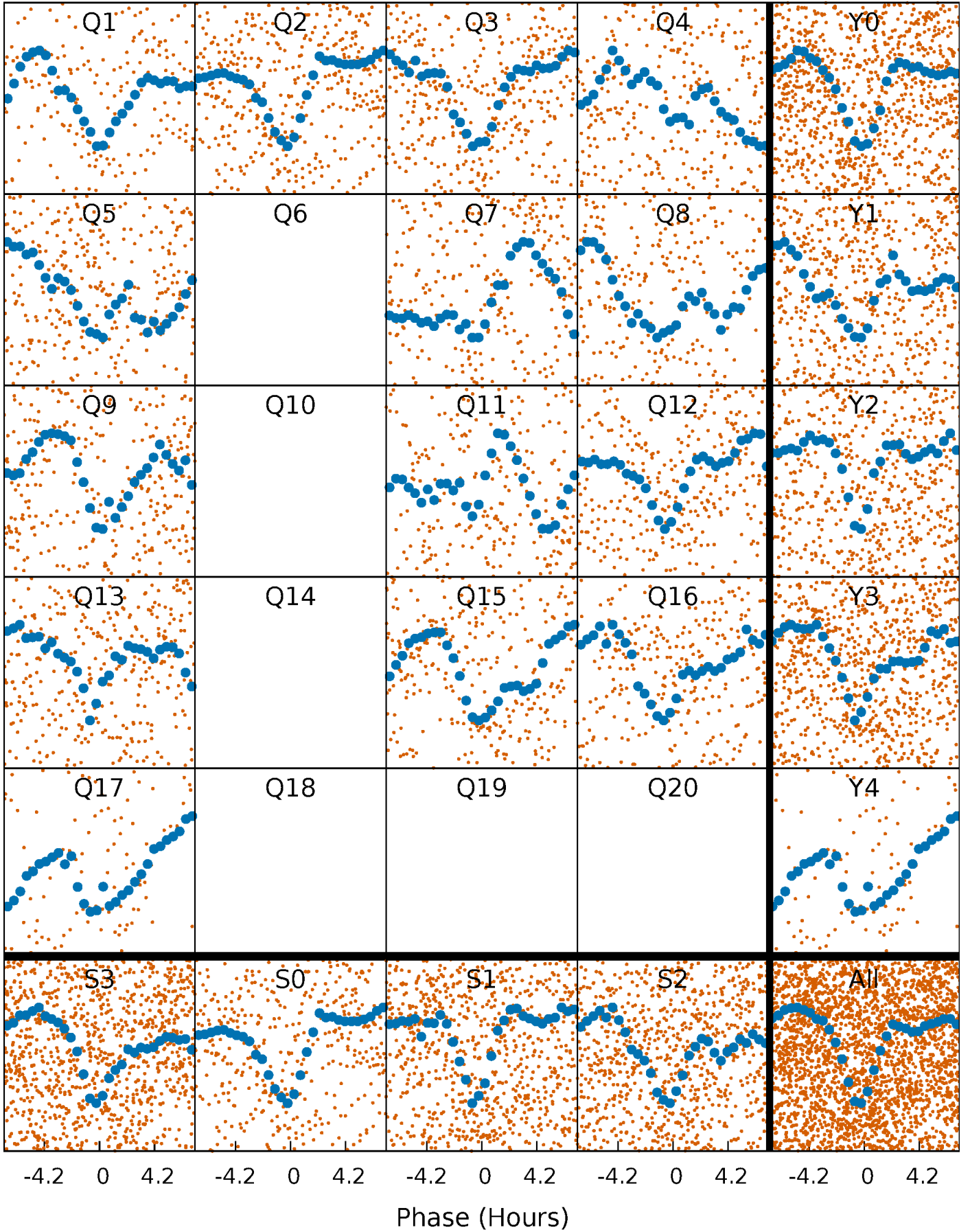


Non-Whitened Vs. Whitened Light Curve



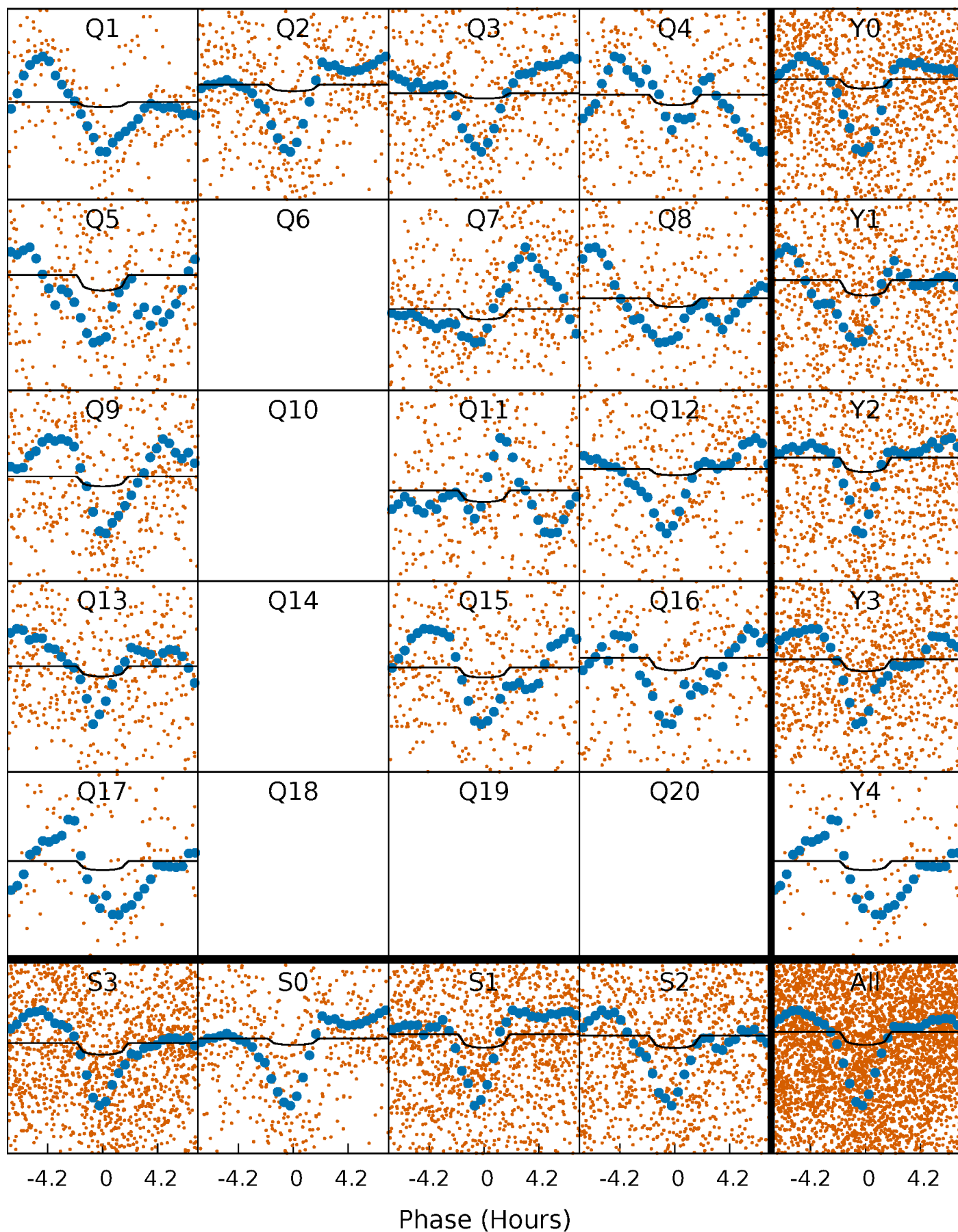
PDC Quarter-Phased Transit Curves

TCE 004269252-01 P= 4.701211 Days $T_0=134.892473$ (BKJD)



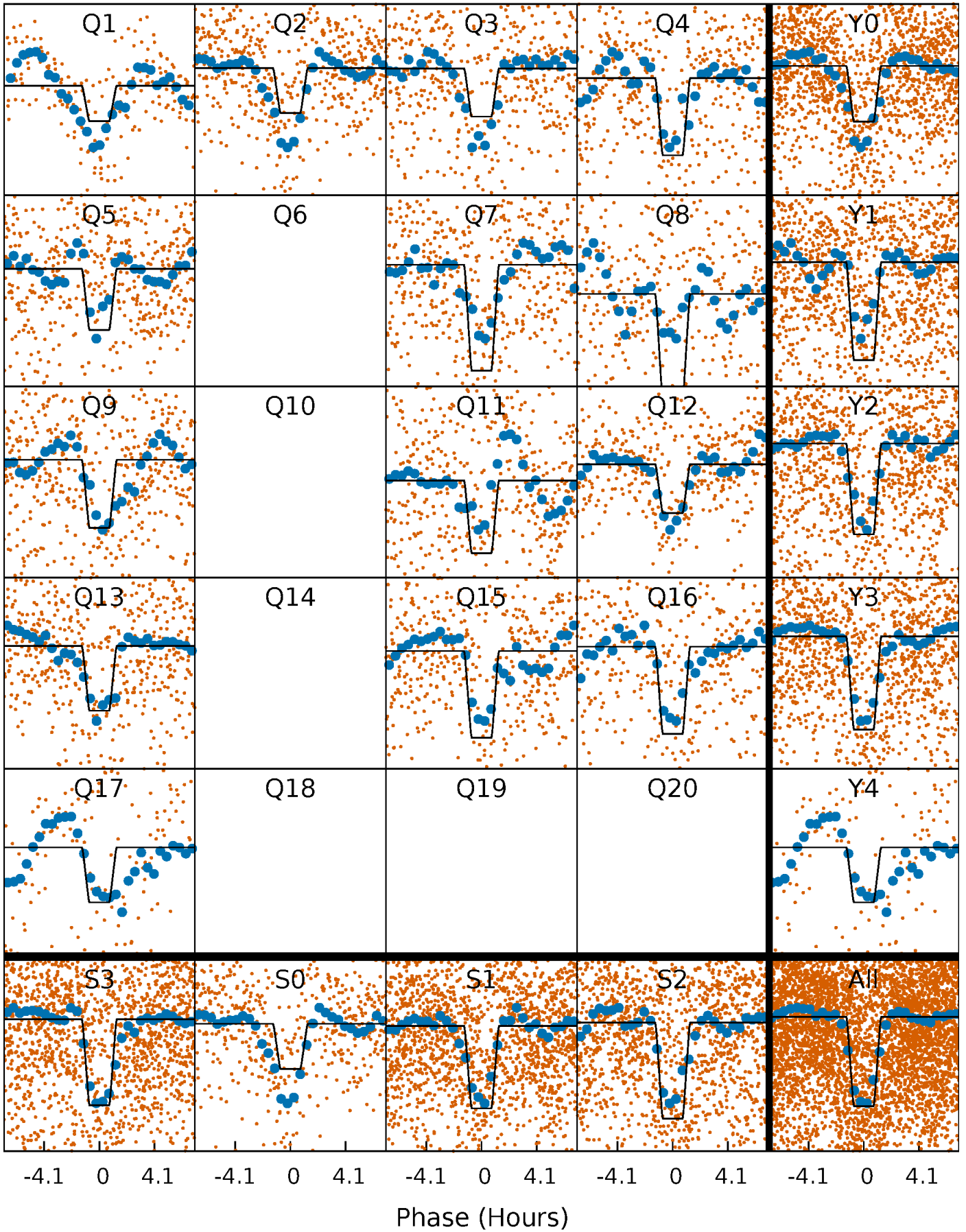
DV Quarter-Phased Transit Curves

TCE 004269252-01 P= 4.701211 Days $T_0=134.892473$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

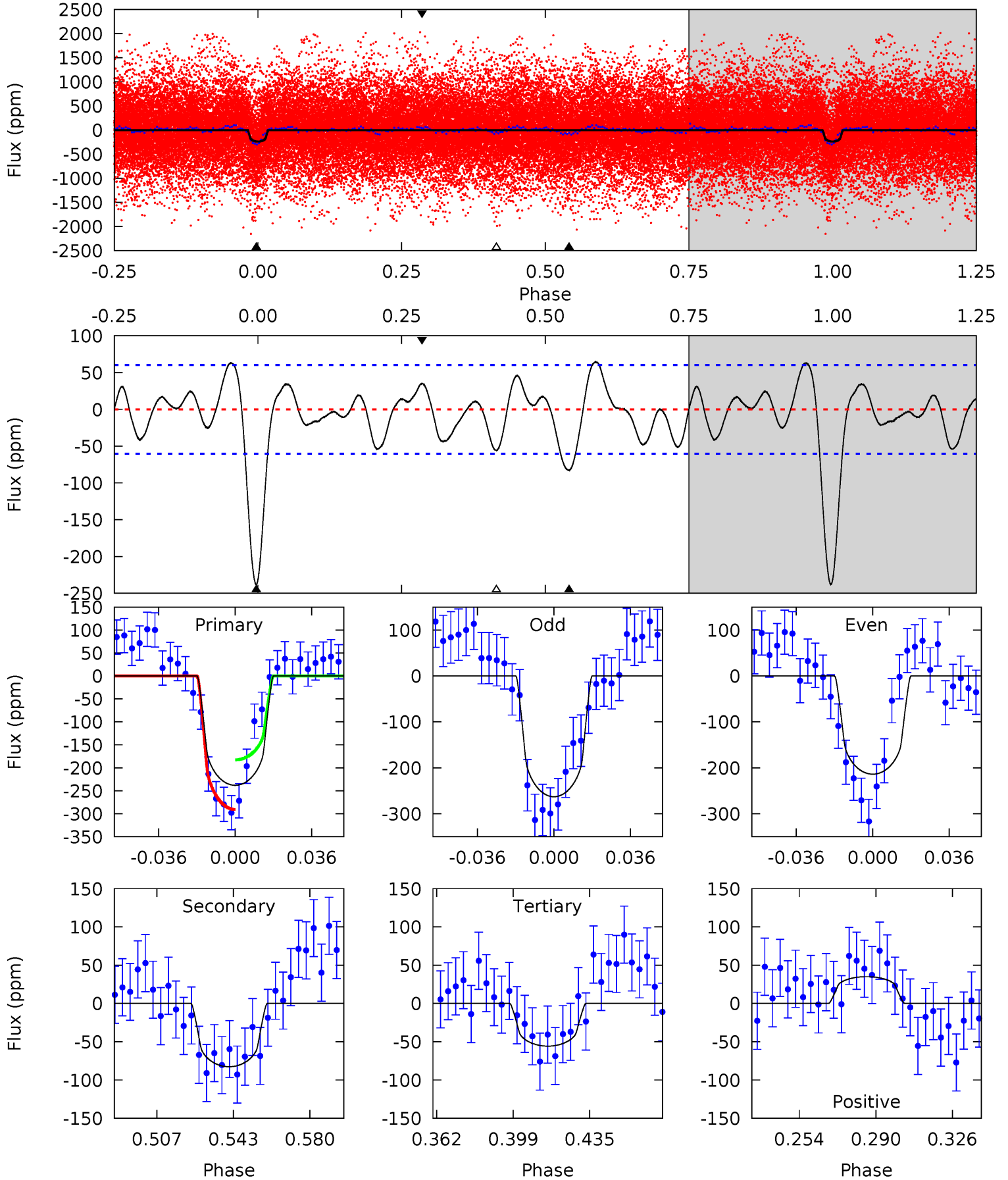
TCE 004269252-01 P= 4.701098 Days $T_0=134.896197$ (BKJD)



DV Model-Shift Uniqueness Test

004269252-01, P = 4.701211 Days, E = 130.191262 Days

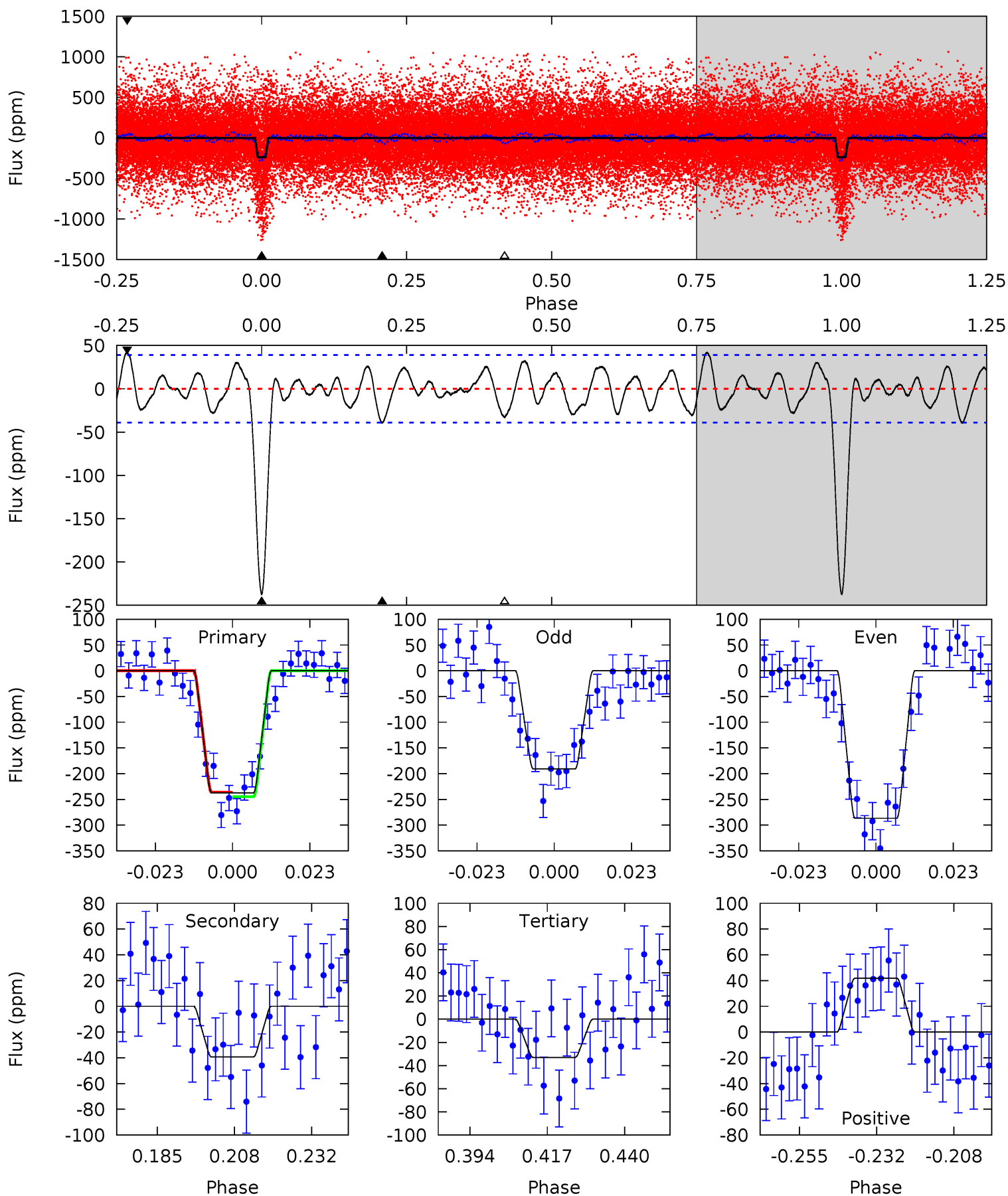
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.9	6.55	4.41	2.77	4.77	2.09	2.16	14.4	16.1	2.13	3.77	1.95	1.19	0.21	4.28



Alt Model-Shift Uniqueness Test

004269252-01, P = 4.701098 Days, E = 130.195099 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.6	4.90	4.11	5.21	4.86	2.27	1.98	25.5	24.4	0.79	-0.31	5.99	1.12	0.15	0.55



Stellar Parameters For KIC 004269252

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4597^{+92}_{-101}	$2.420^{+0.033}_{-0.030}$	$0.070^{+0.200}_{-0.250}$	$13.874^{+3.064}_{-2.758}$	$1.845^{+1.026}_{-0.684}$	$0.001^{+0.000}_{-0.000}$
	+2%/-2%	+1%/-1%	+286%/-357%	+22%/-20%	+56%/-37%	+28%/-12%
Source	PHO1	AST9	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 004269252-01 / KOI 6398.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-83 ± 13	$12.66^{+4.06}_{-3.52}$	4082^{+137}_{-142}	4520^{+720}_{-577}	$1.281^{+1.063}_{-0.508}$
Alt.	-39 ± 8	$25.85^{+5.24}_{-4.80}$	4076^{+134}_{-141}	-3262^{+270}_{-175}	$0.150^{+0.062}_{-0.043}$

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

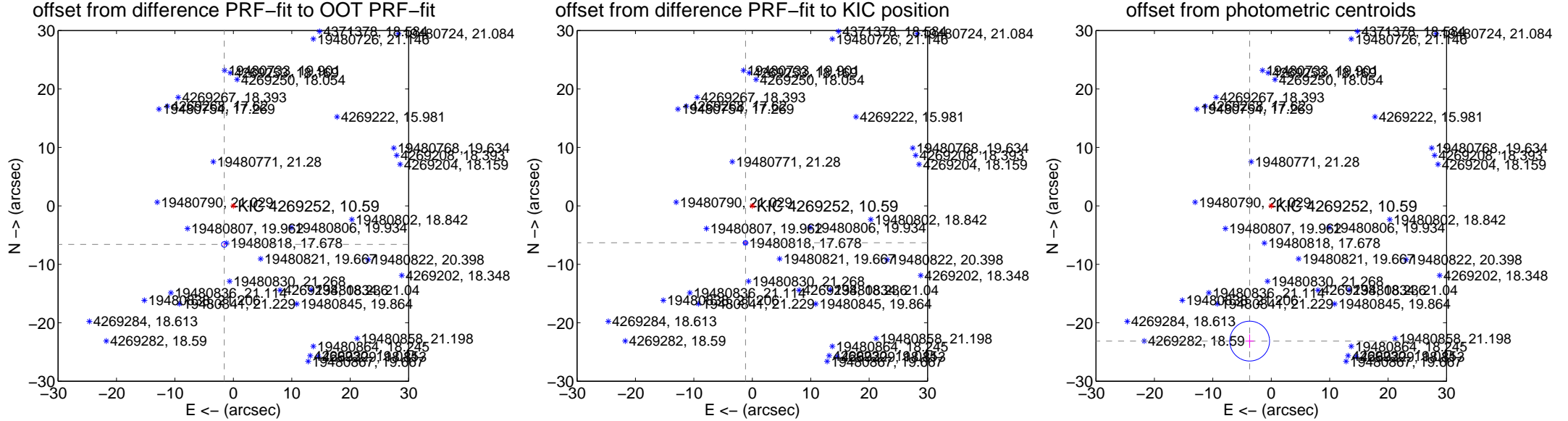
DV Centroid Data

Supplemental centroid analysis for 004269252-01. **Kepler magnitude: 10.59.** Transit SNR 5.58

There are 10 quarters with good PRF difference image offsets

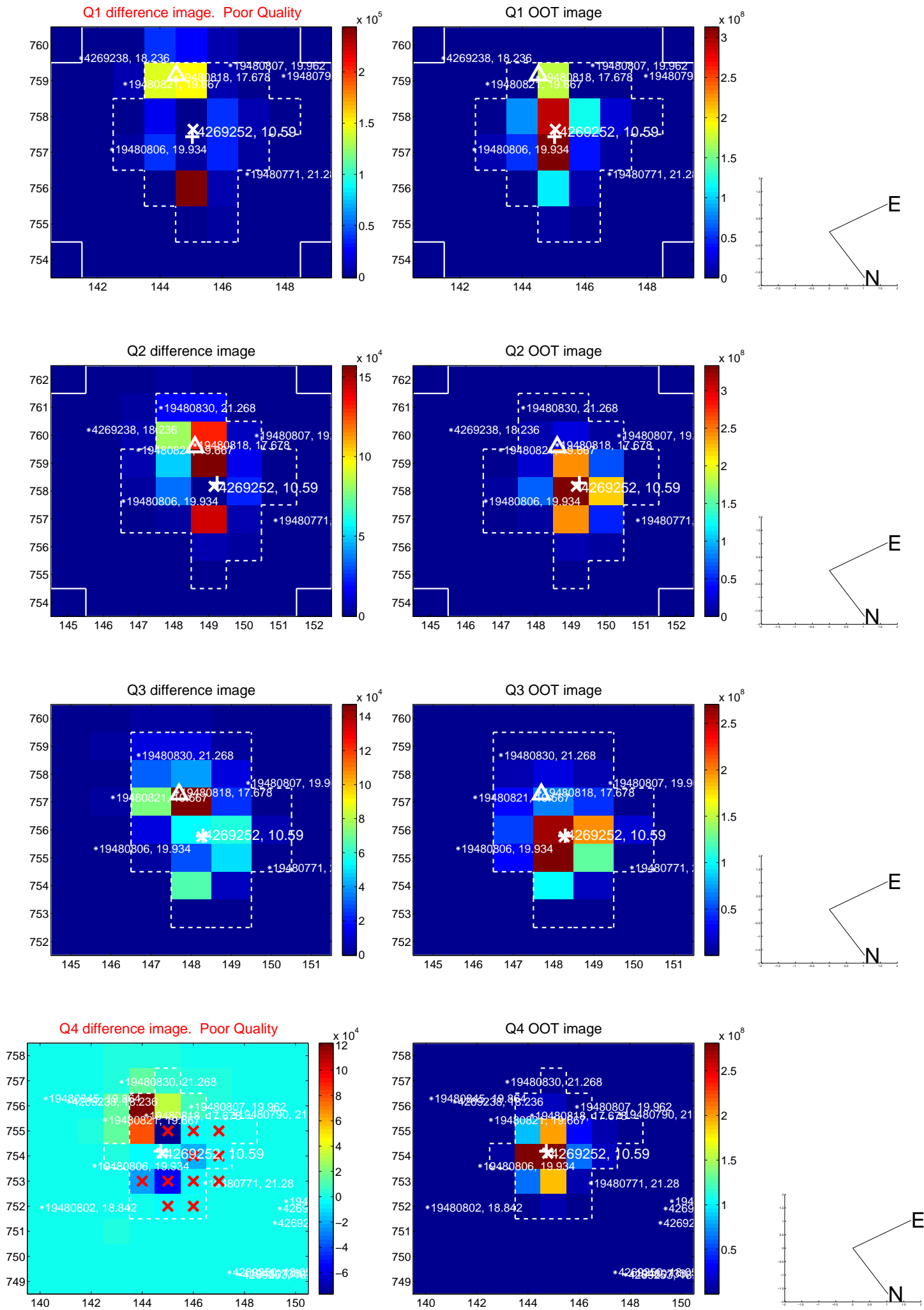
The direct PRF centroid is offset from the target star catalog position by about 0.73 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.781 ± 0.160	42.30	1.552 ± 0.101	-6.601 ± 0.163
PRF-fit source offset from KIC position	6.423 ± 0.125	51.36	1.161 ± 0.071	-6.317 ± 0.124
photometric centroid source offset	23.43 ± 1.14	20.63	3.70 ± 0.74	-23.14 ± 1.14

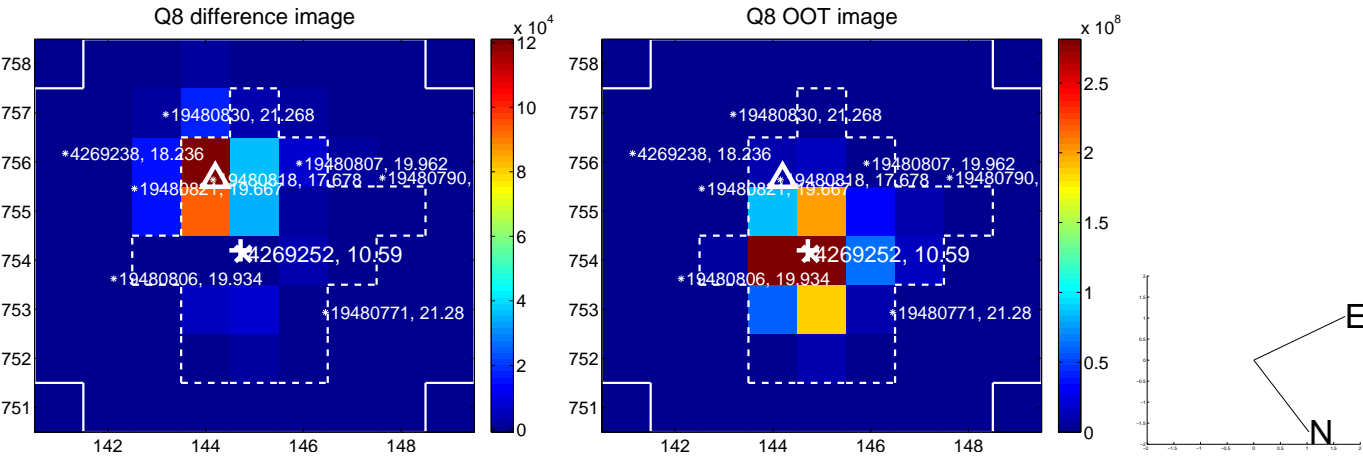
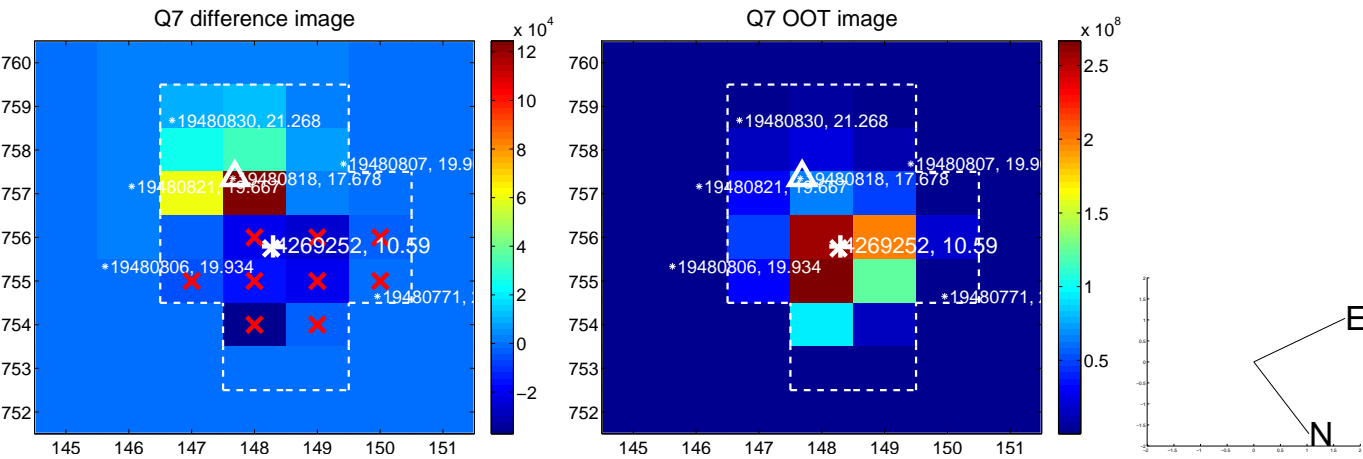
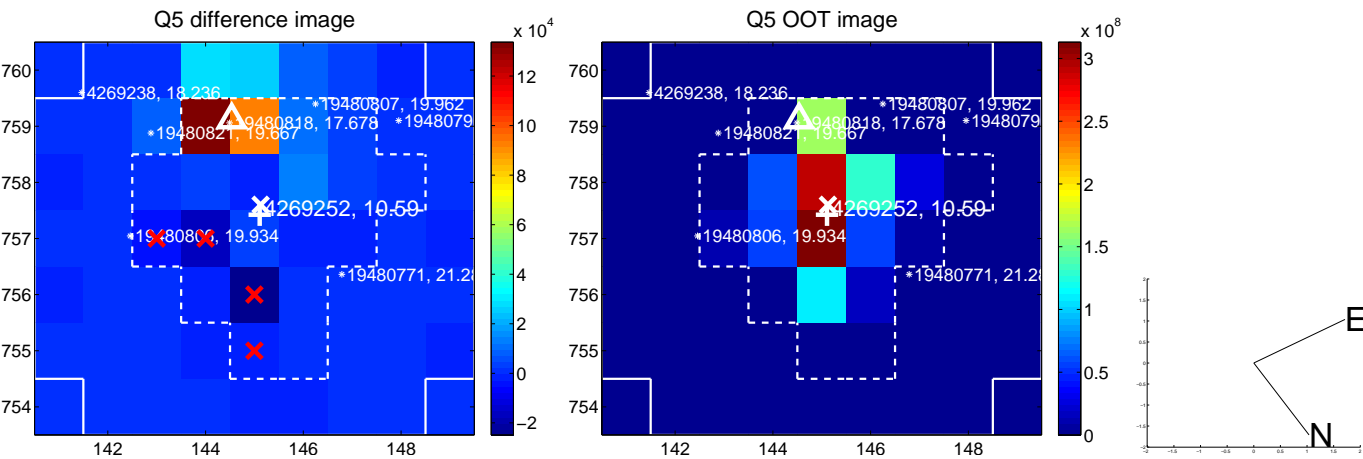


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

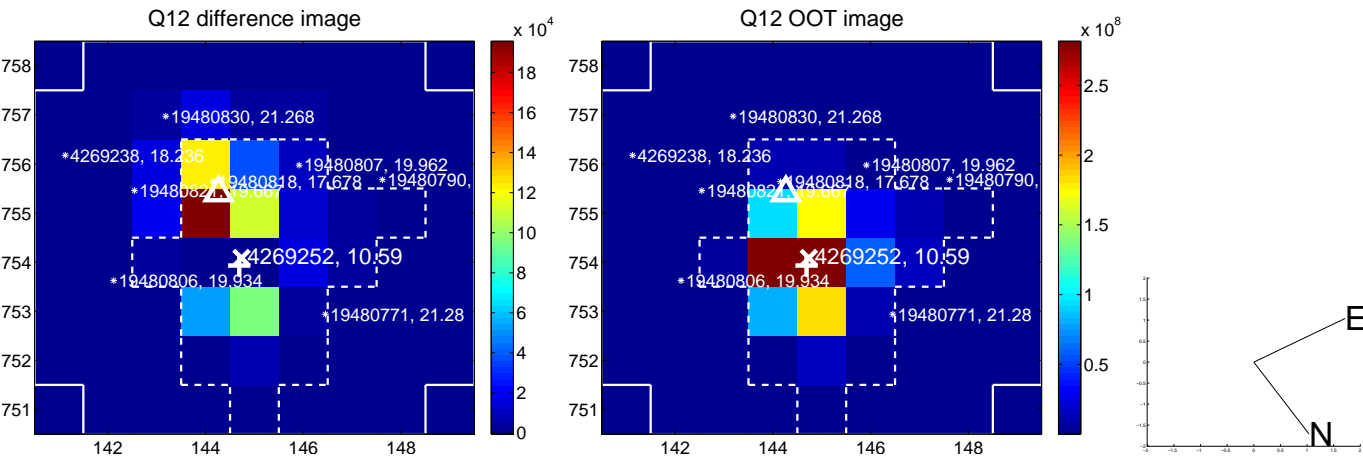
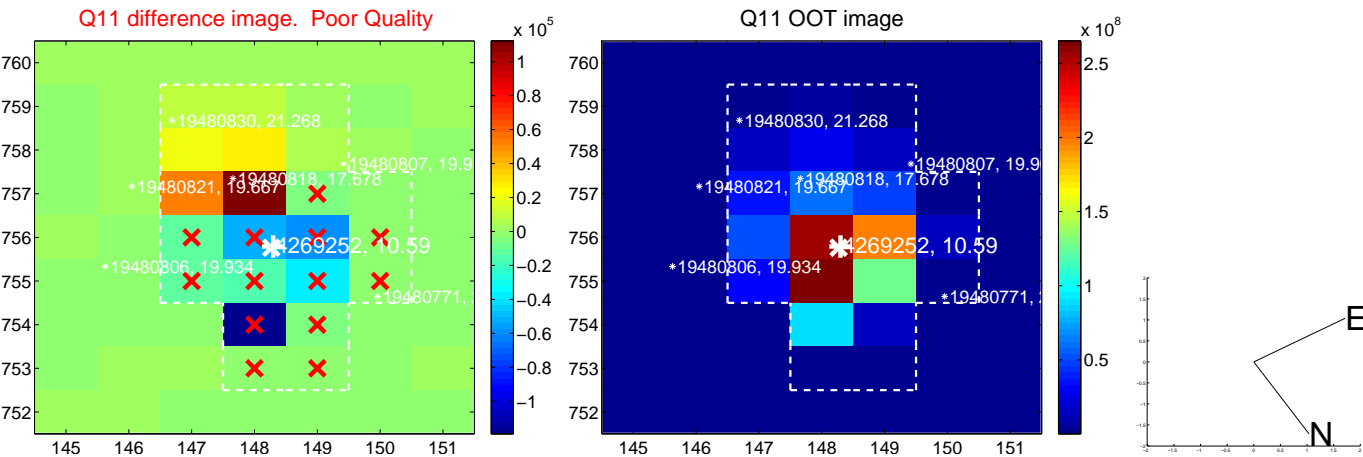
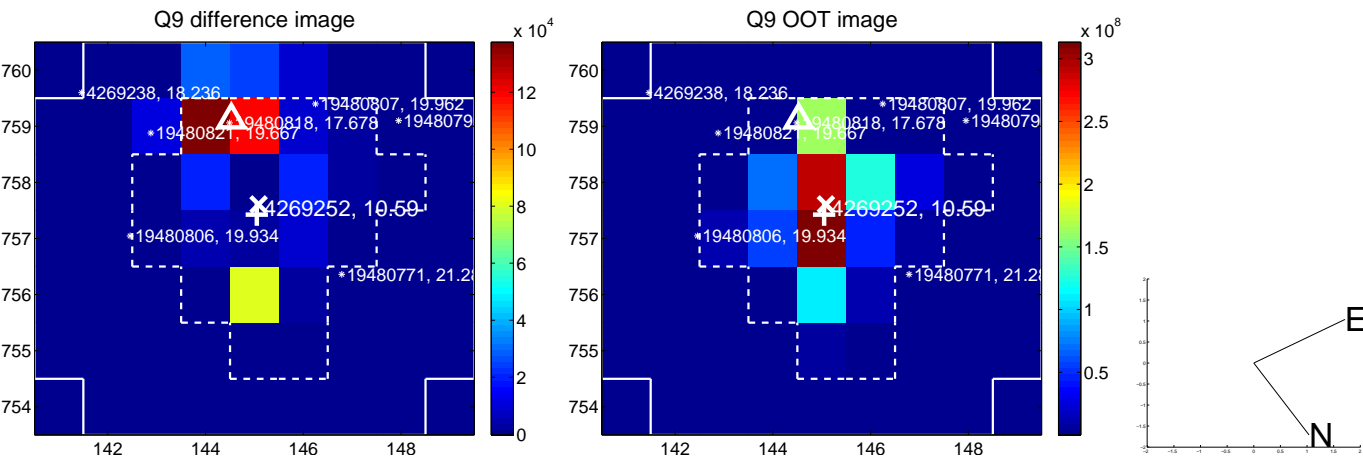
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



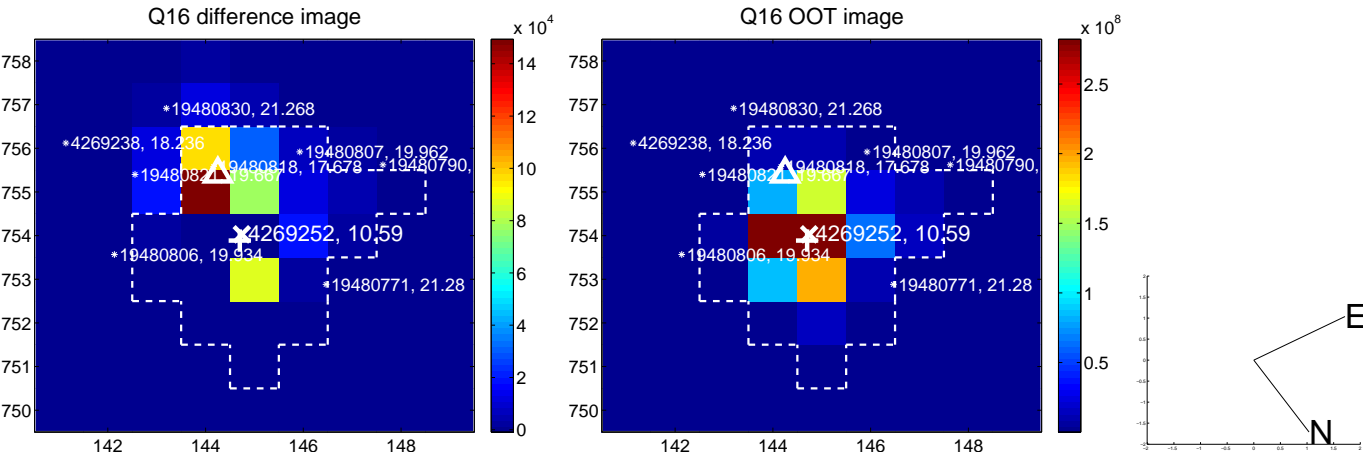
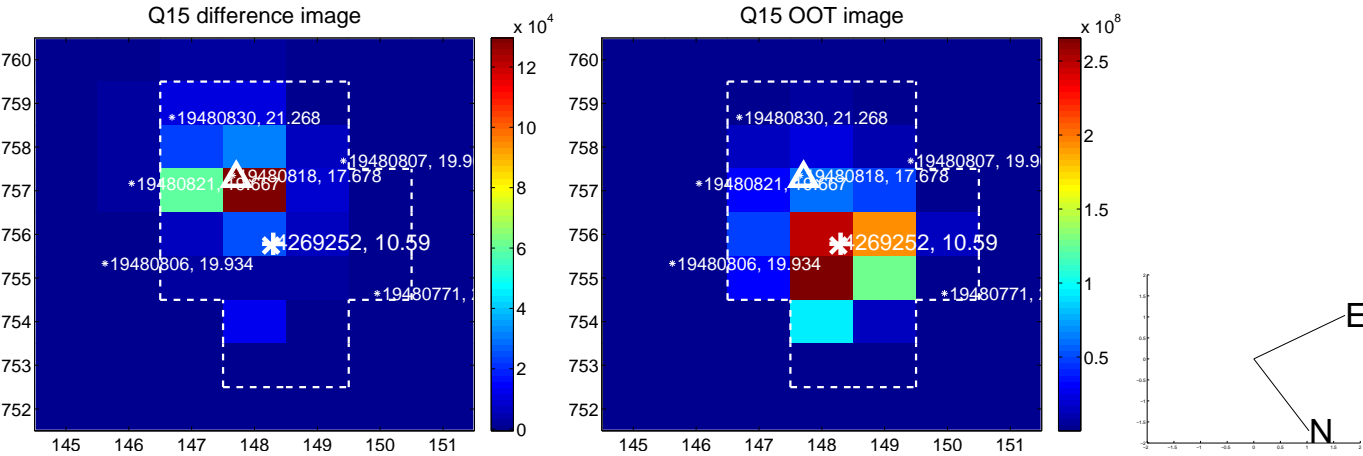
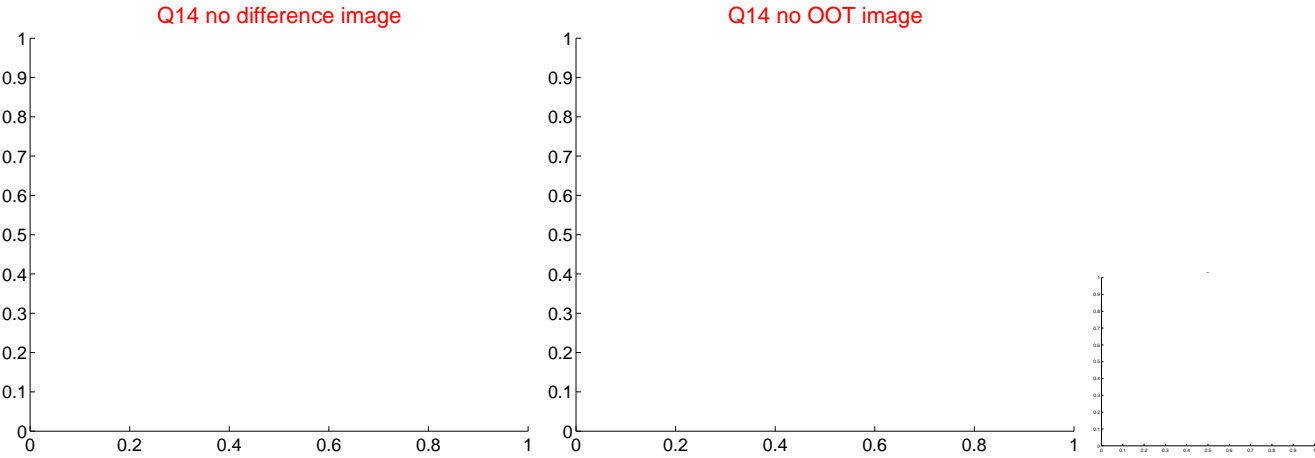
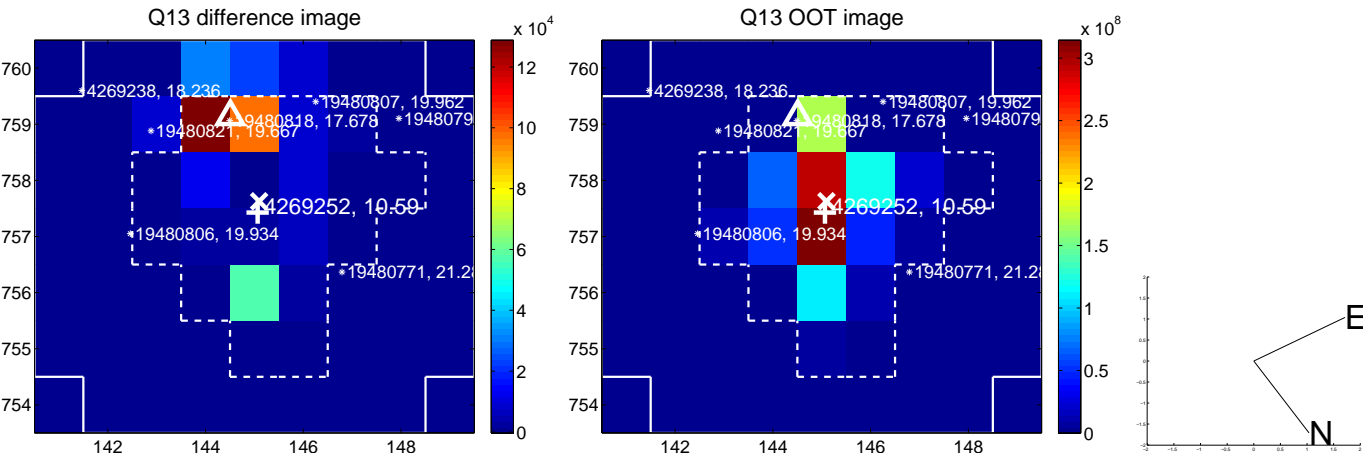
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



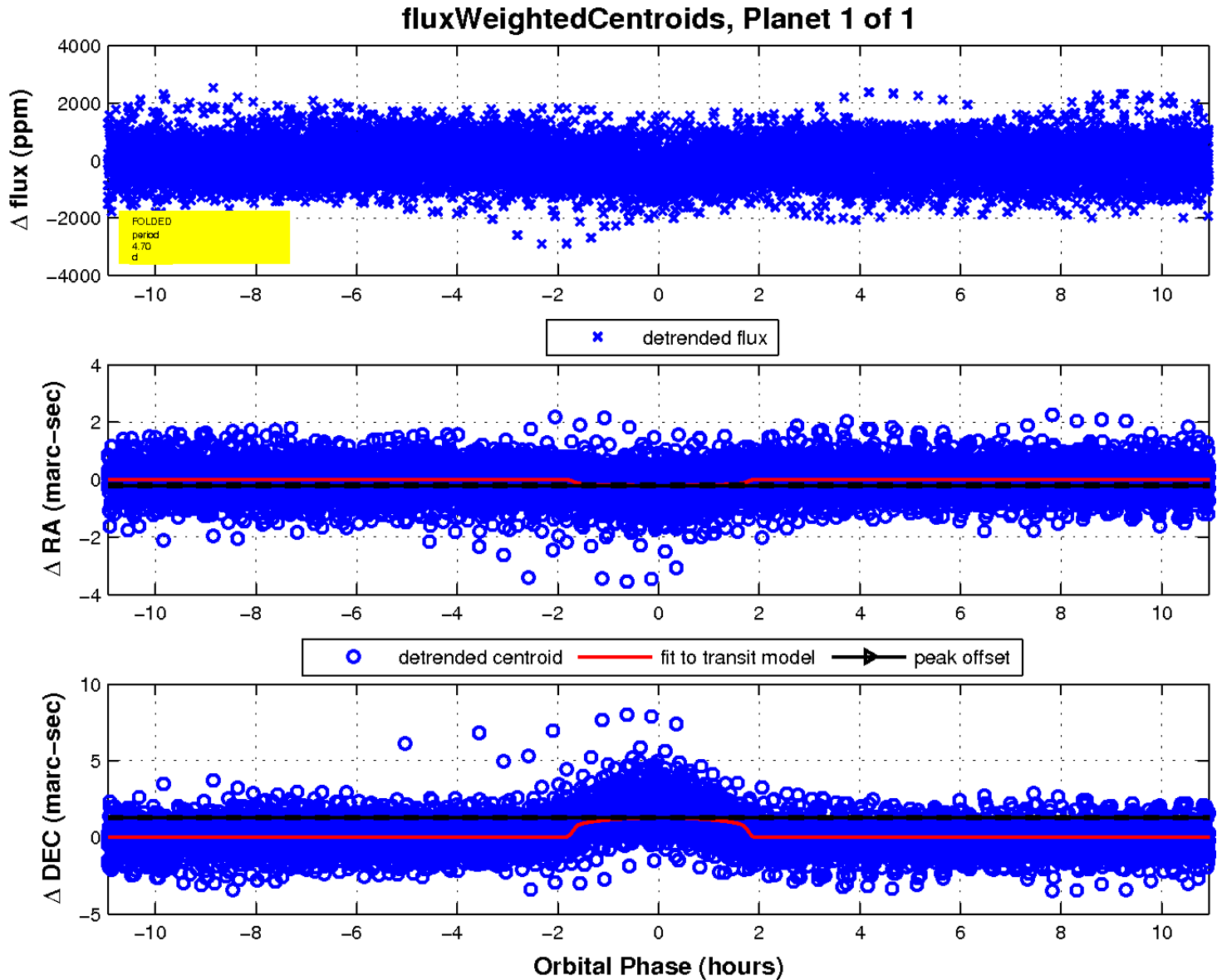
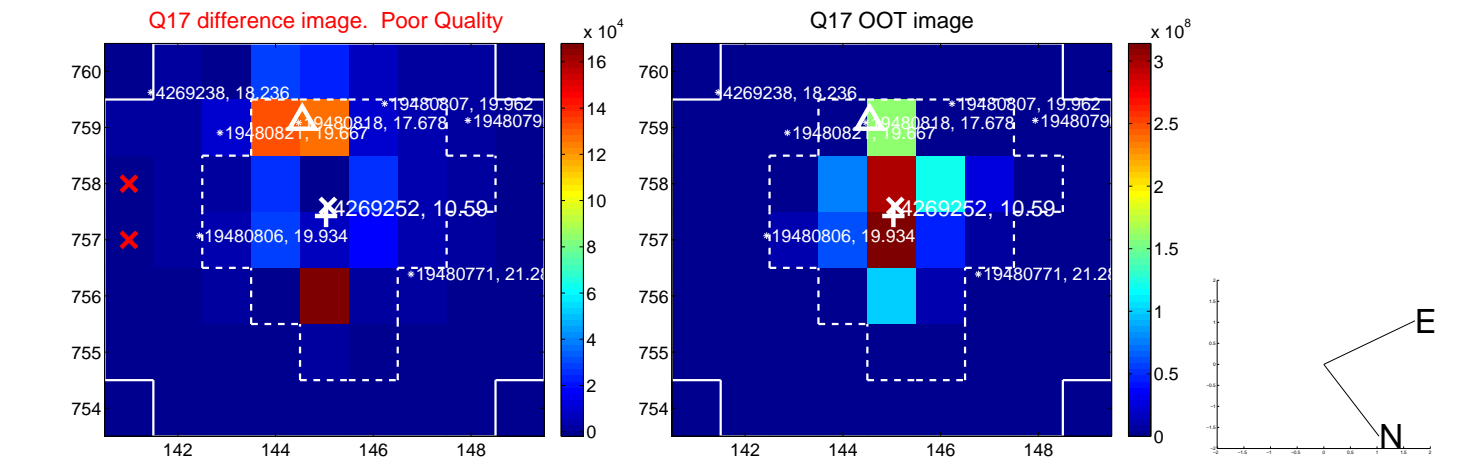
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UKIRT Image

Declination

