

KIC 010653179

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})
010653179-01	OBS	3280.01	47.160477	150.258780	694.2	4.293	10.6	11.3	0.96	5936	2.78	15.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010653179-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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.

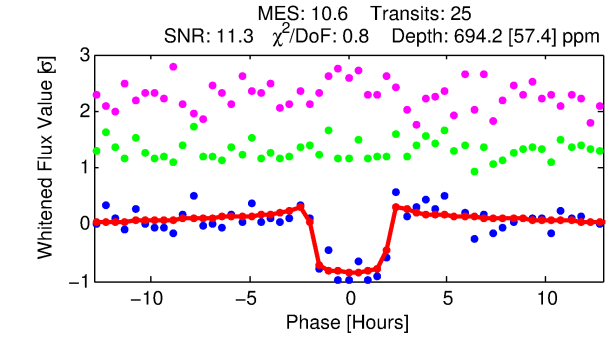
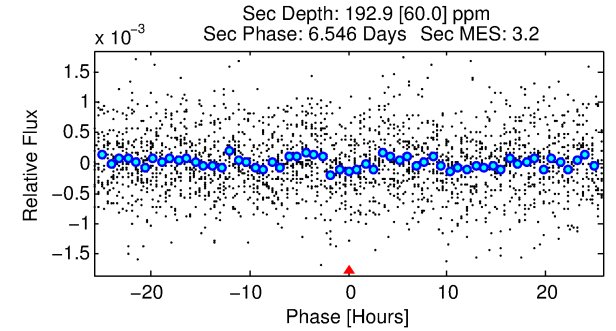
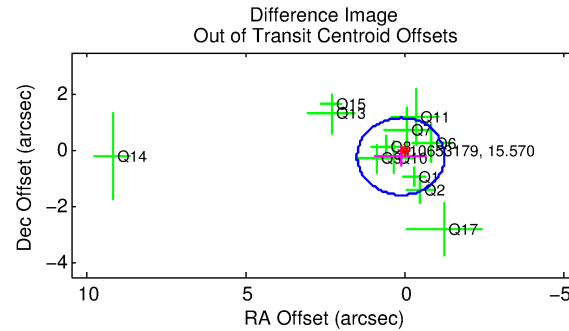
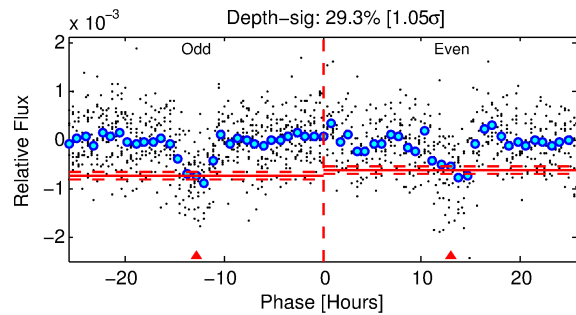
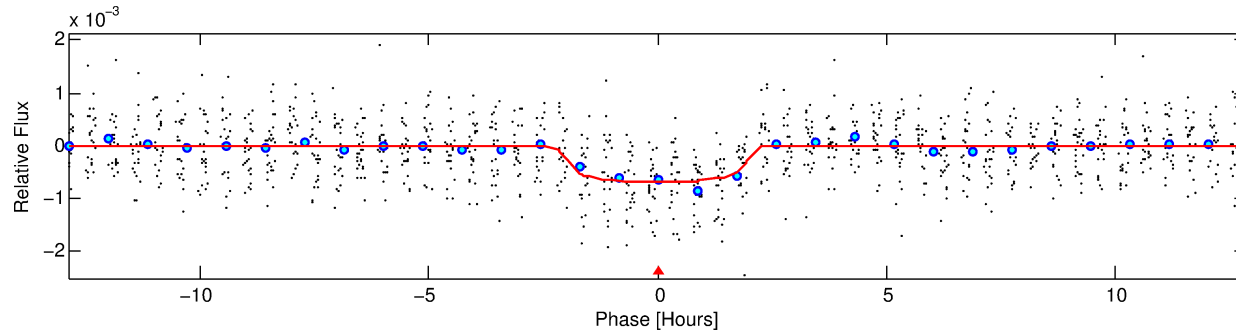
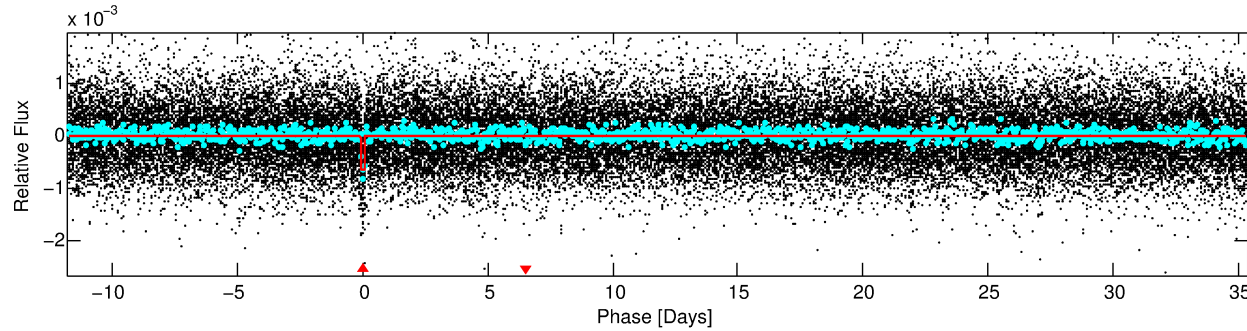
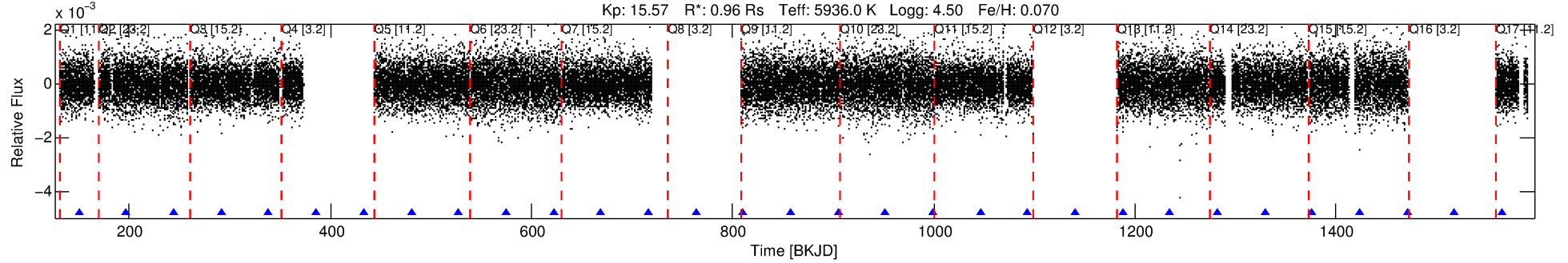
Ephemeris Match Information For 010653179-01

No Significant Match Found

DV One-Page Summary

KIC: 10653179 Candidate: 1 of 1 Period: 47.160 d

KOI: K03280.01 Corr: 0.957



DV Fit Results:

Period = 47.16048 [0.00034] d
Epoch = 150.2588 [0.0065] BKJD
Rp/R* = 0.0264 [0.0115]
a/R* = 57.20 [113.93]
b = 0.77 [1.08]
Seff = 15.10 [5.37]
Teq = 503 [45] K
Rp = 2.78 [1.41] Re
a = 0.2619 [0.0584] AU
Ag = 941.14 [927.34] [1.01 σ]
Teffp = 4305 [1009] K [3.77 σ]

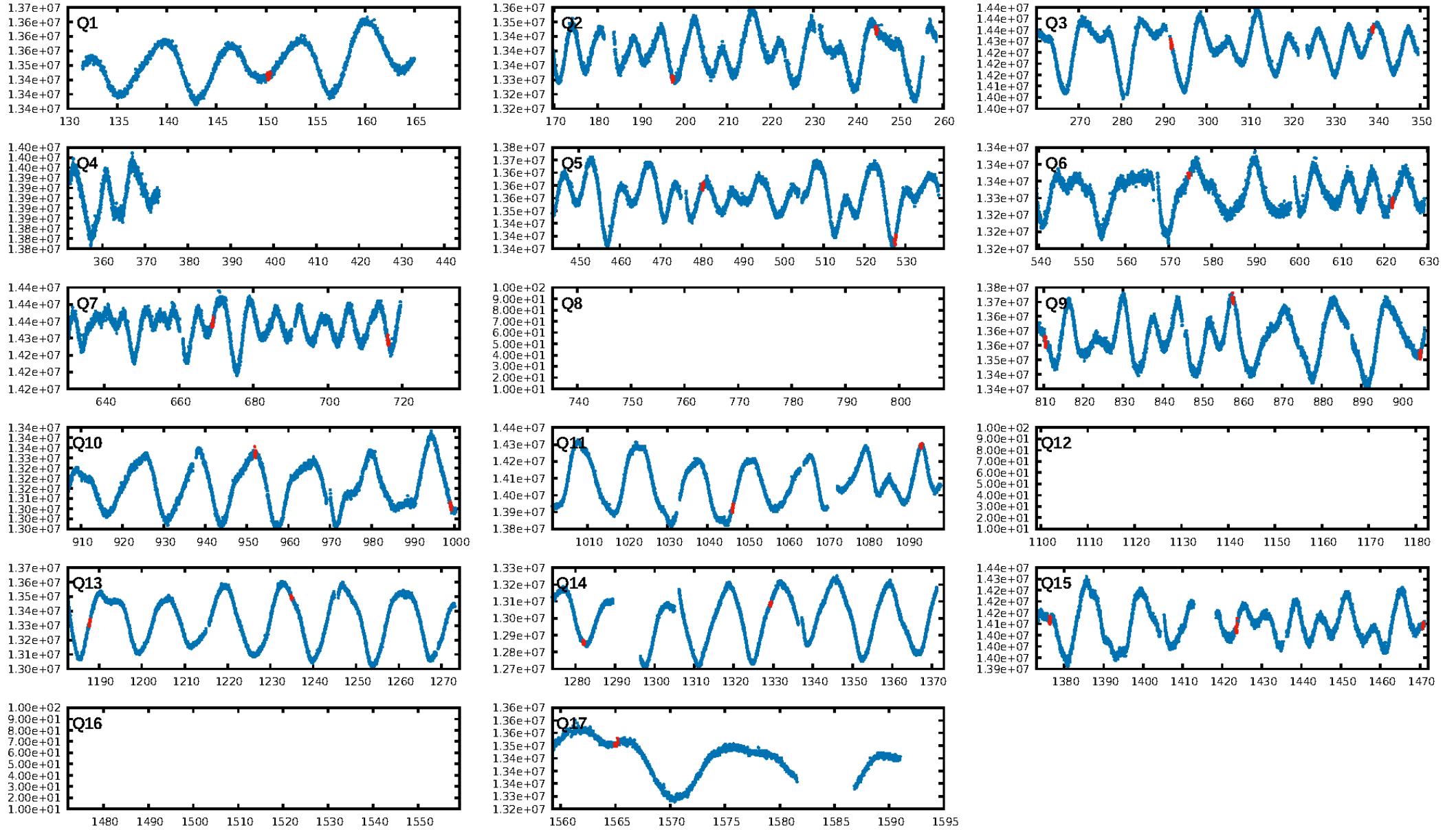
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.91e-24
RollingBand-fgt: 1.00 [23/23]
GhostDiagnostic-chr: 12.21
Centroid-sig: 62.7%
Centroid-so: 0.288 arcsec [0.31 σ]
OotOffset-rm: 0.245 arcsec [0.53 σ]
OotOffset-st: 4/4/0/4 [12]
KicOffset-rm: 0.314 arcsec [0.76 σ]
KicOffset-st: 4/4/0/4 [12]
DiffImageQuality-fgm: 0.83 [10/12]
DiffImageOverlap-fno: 1.00 [13/13]

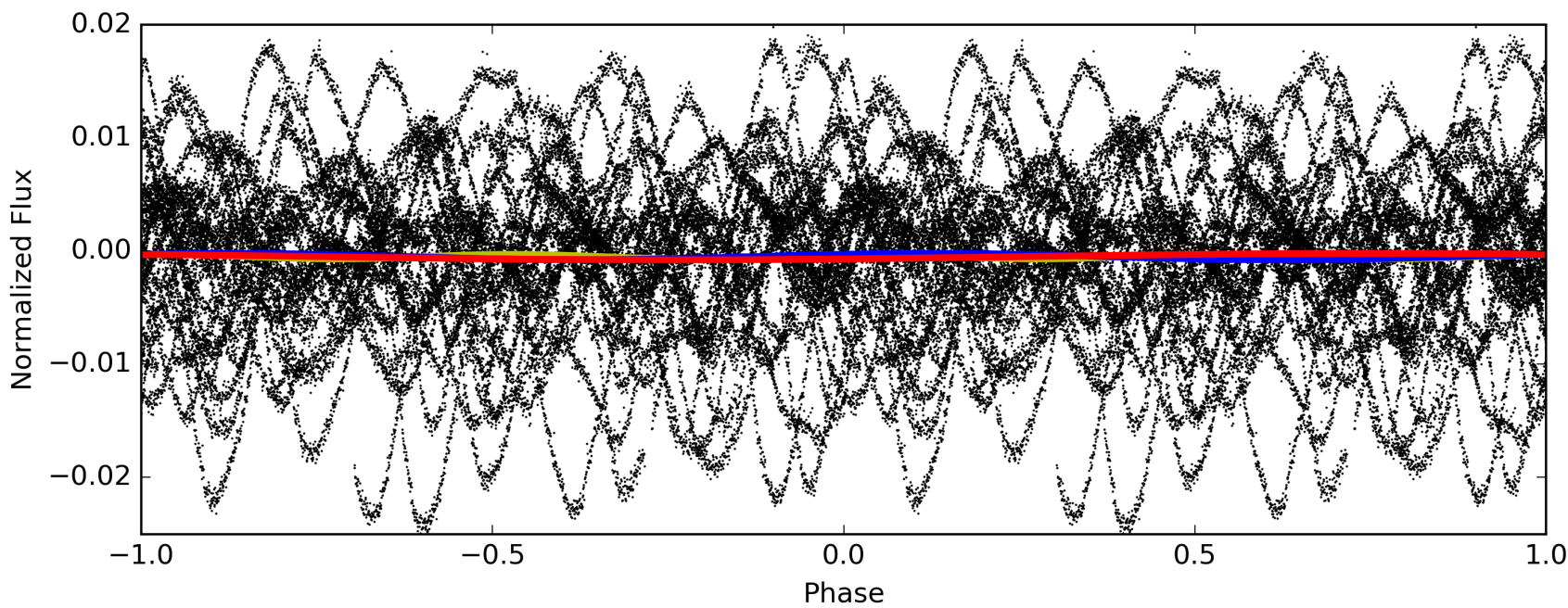
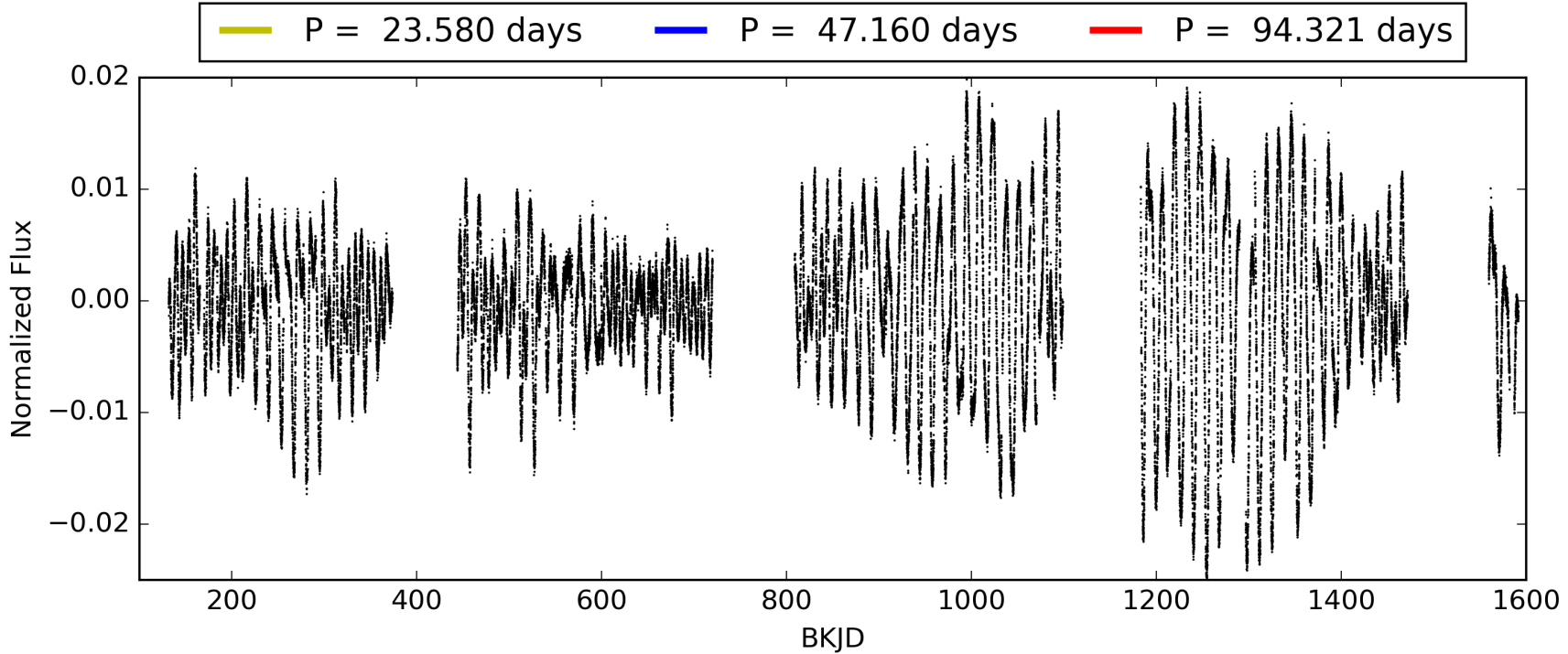
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:12:13 Z

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

TCE 010653179-01, PDC Light Curves

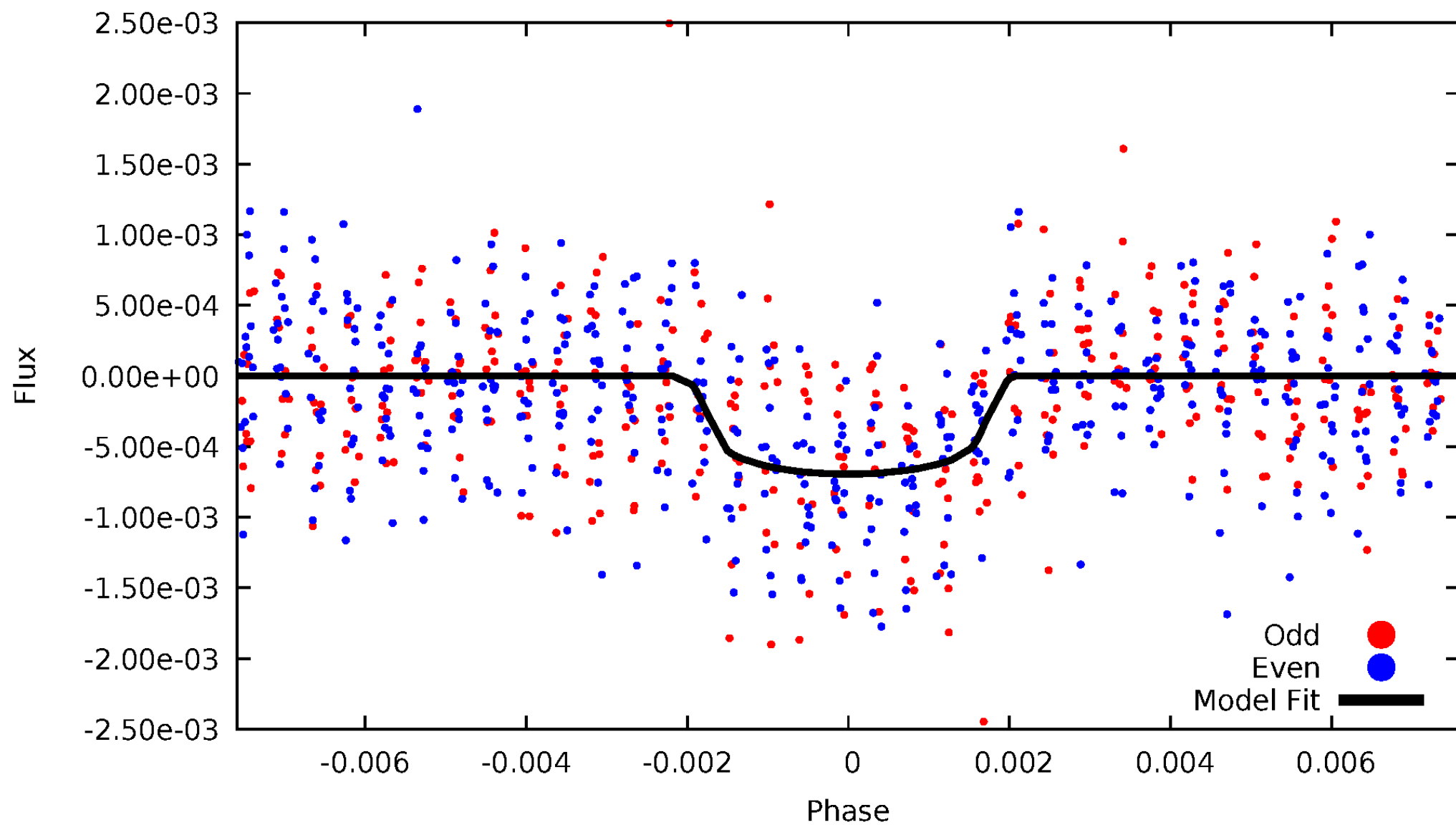


TCE 010653179-01



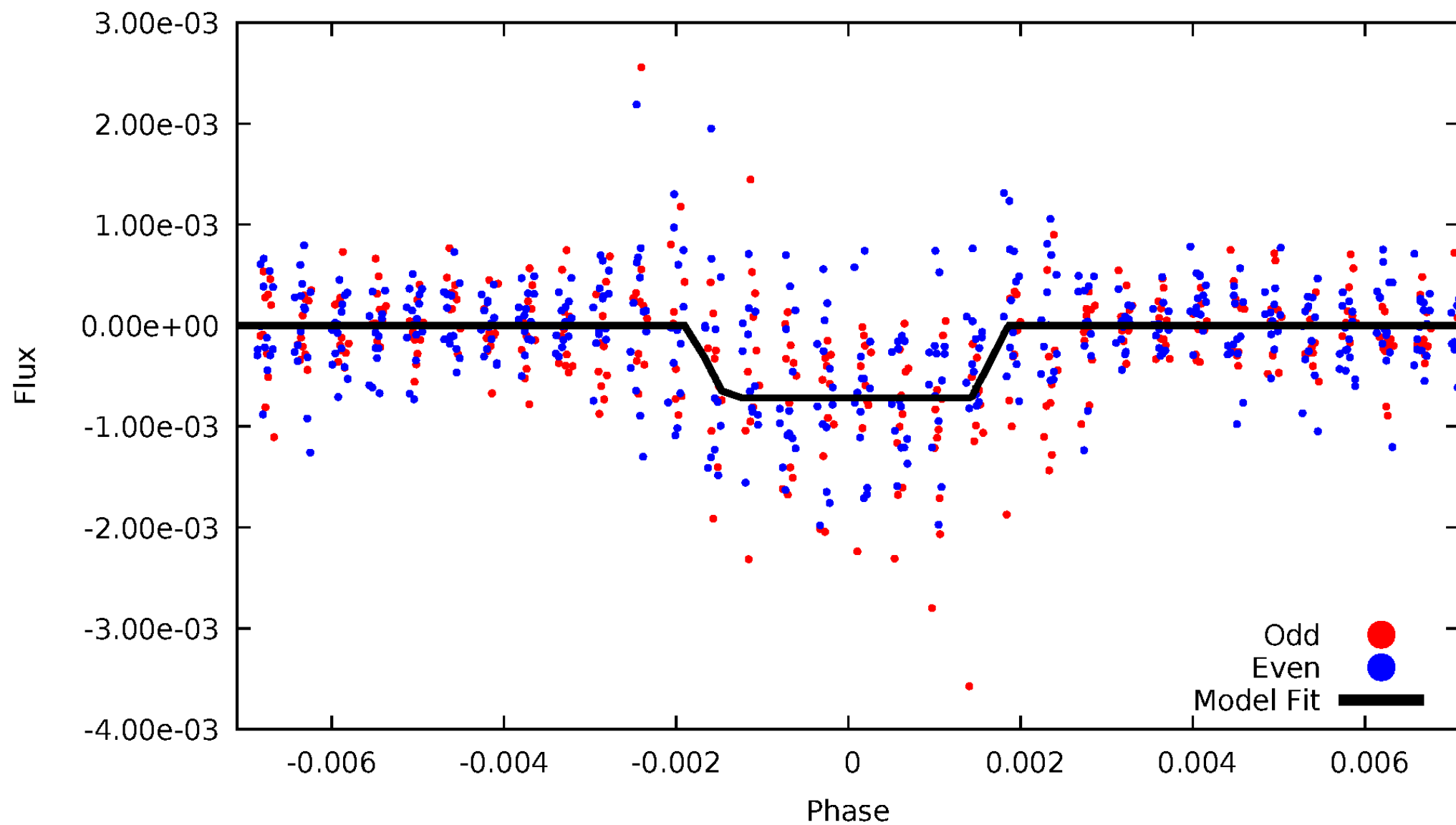
DV Odd/Even

TCE 010653179-01

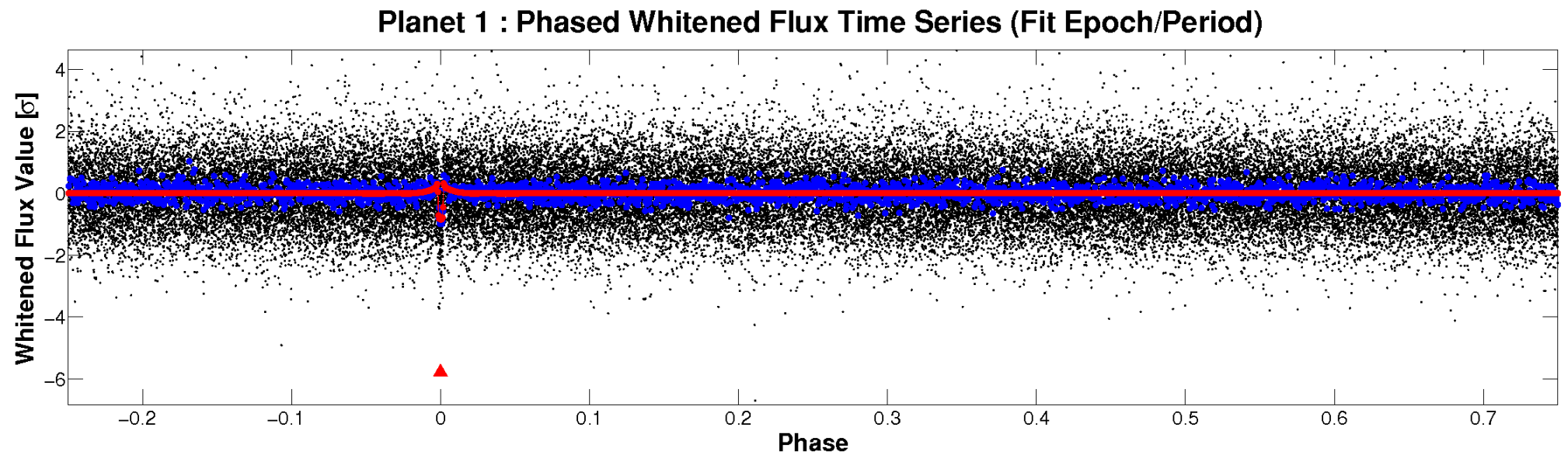
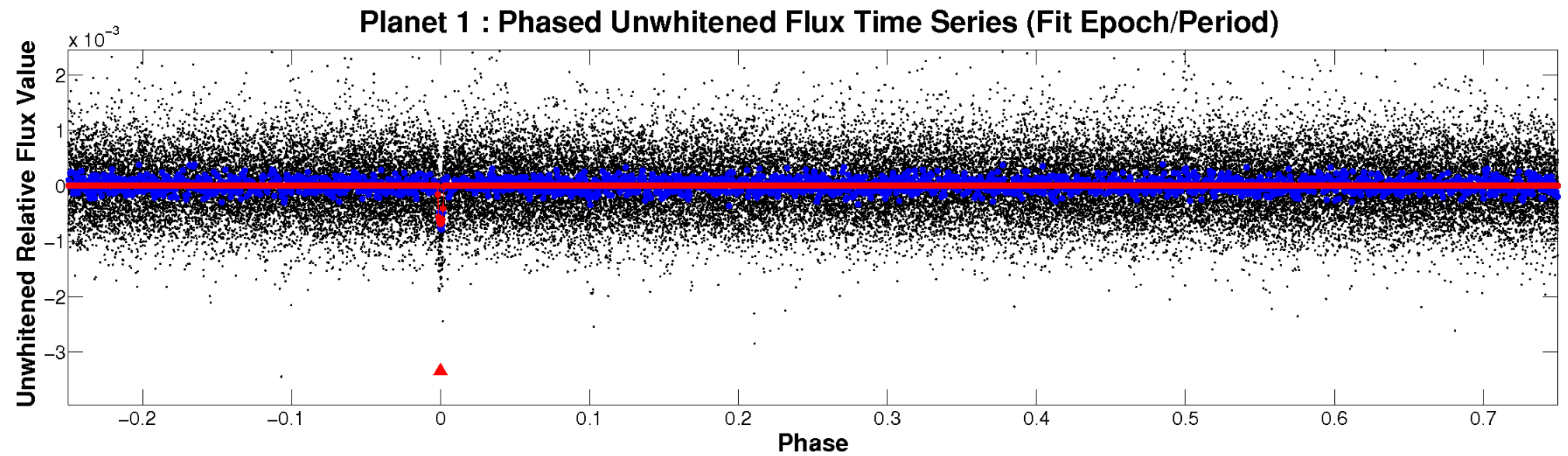


ALT Odd/Even

TCE 010653179-01

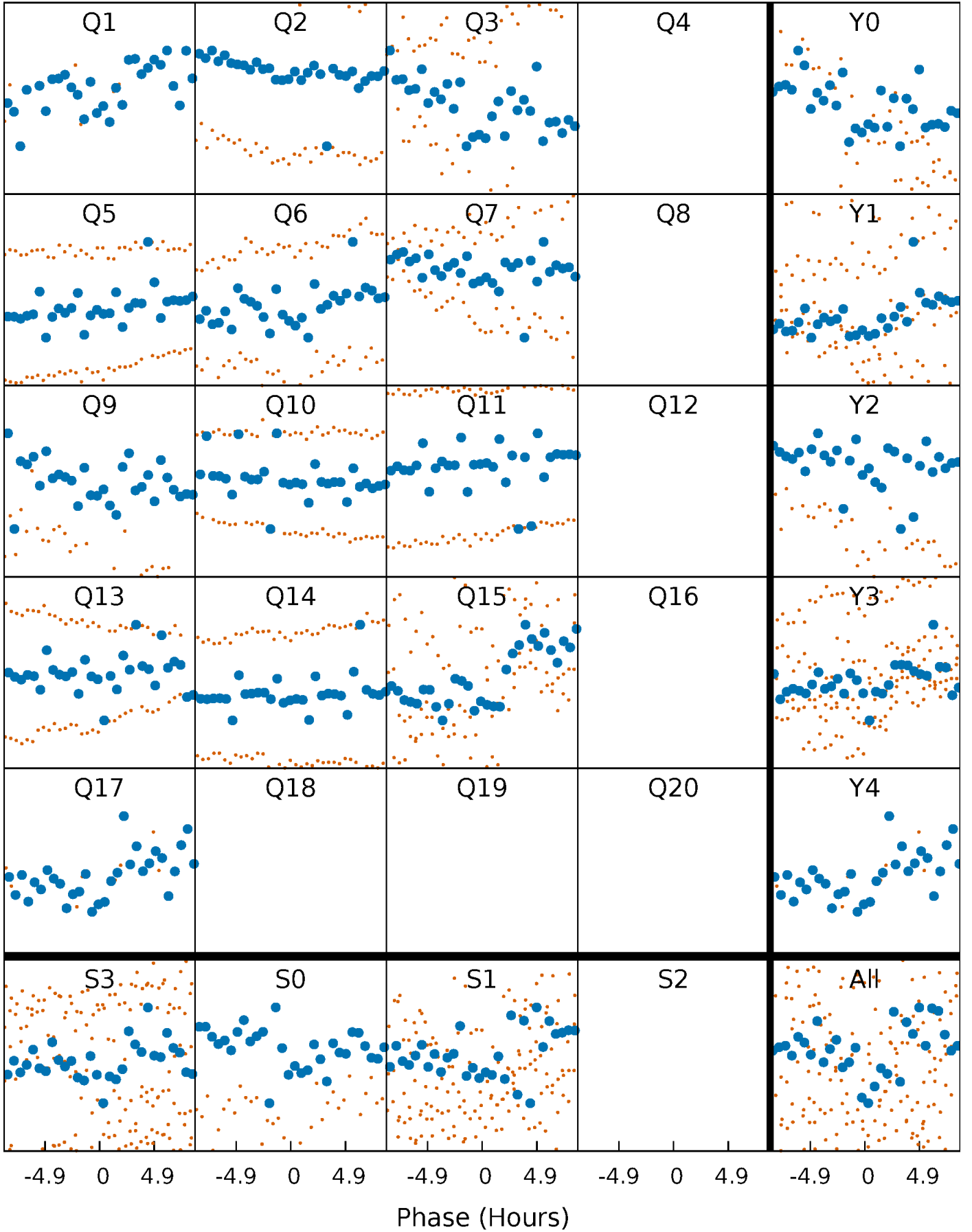


Non-Whitened Vs. Whitened Light Curve



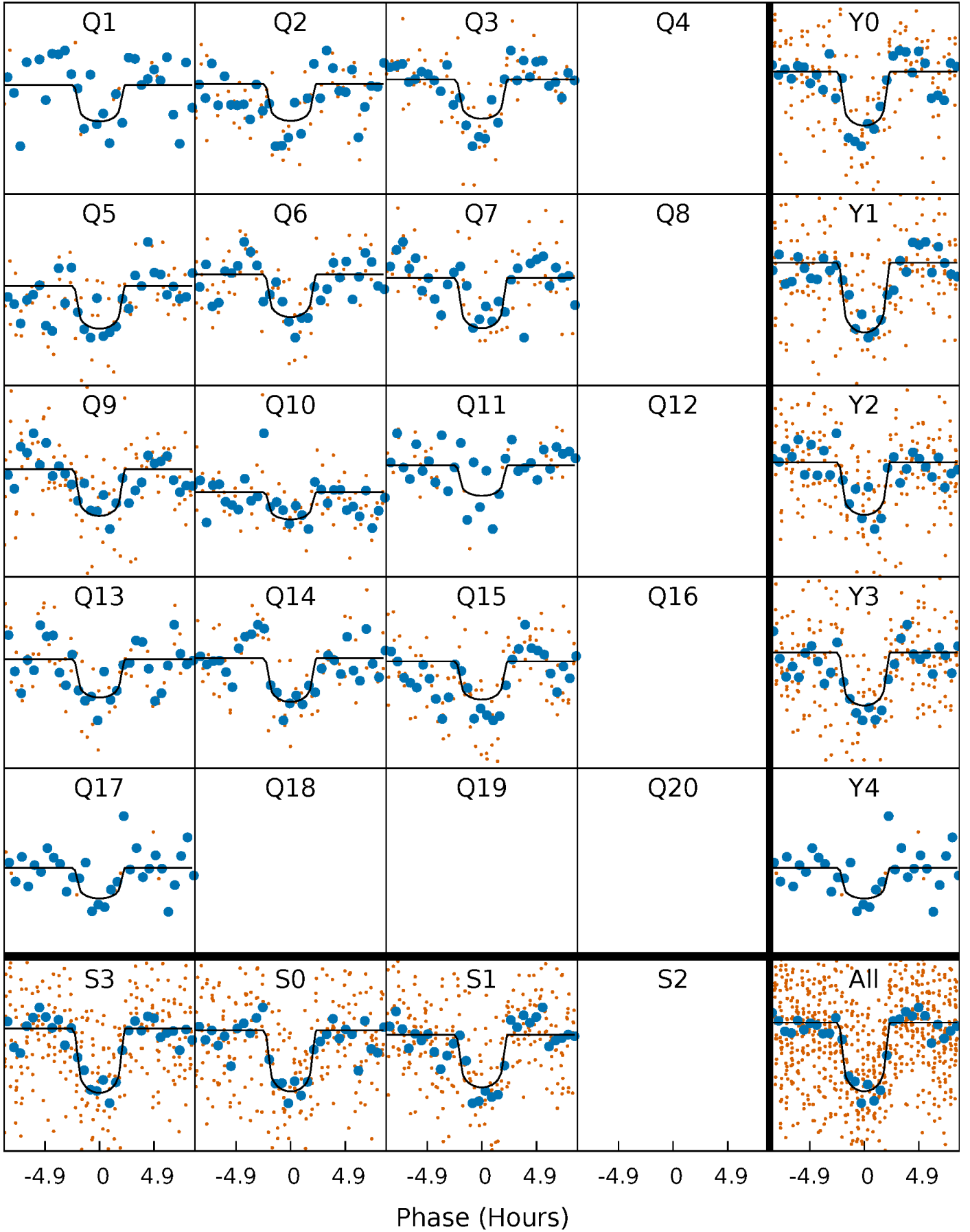
PDC Quarter-Phased Transit Curves

TCE 010653179-01 P= 47.160477 Days $T_0=150.258780$ (BKJD)



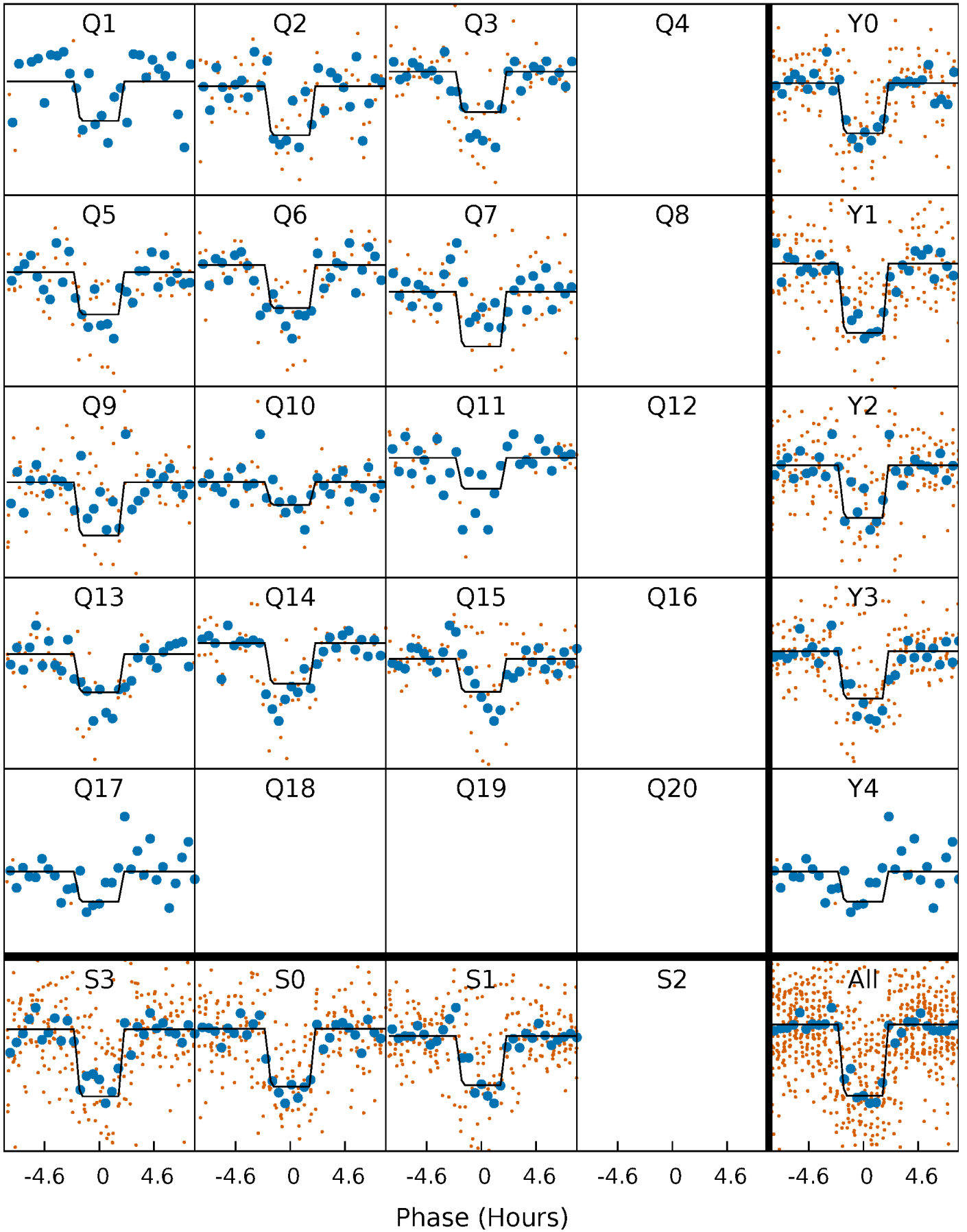
DV Quarter-Phased Transit Curves

TCE 010653179-01 $P = 47.160477$ Days $T_0 = 150.258780$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

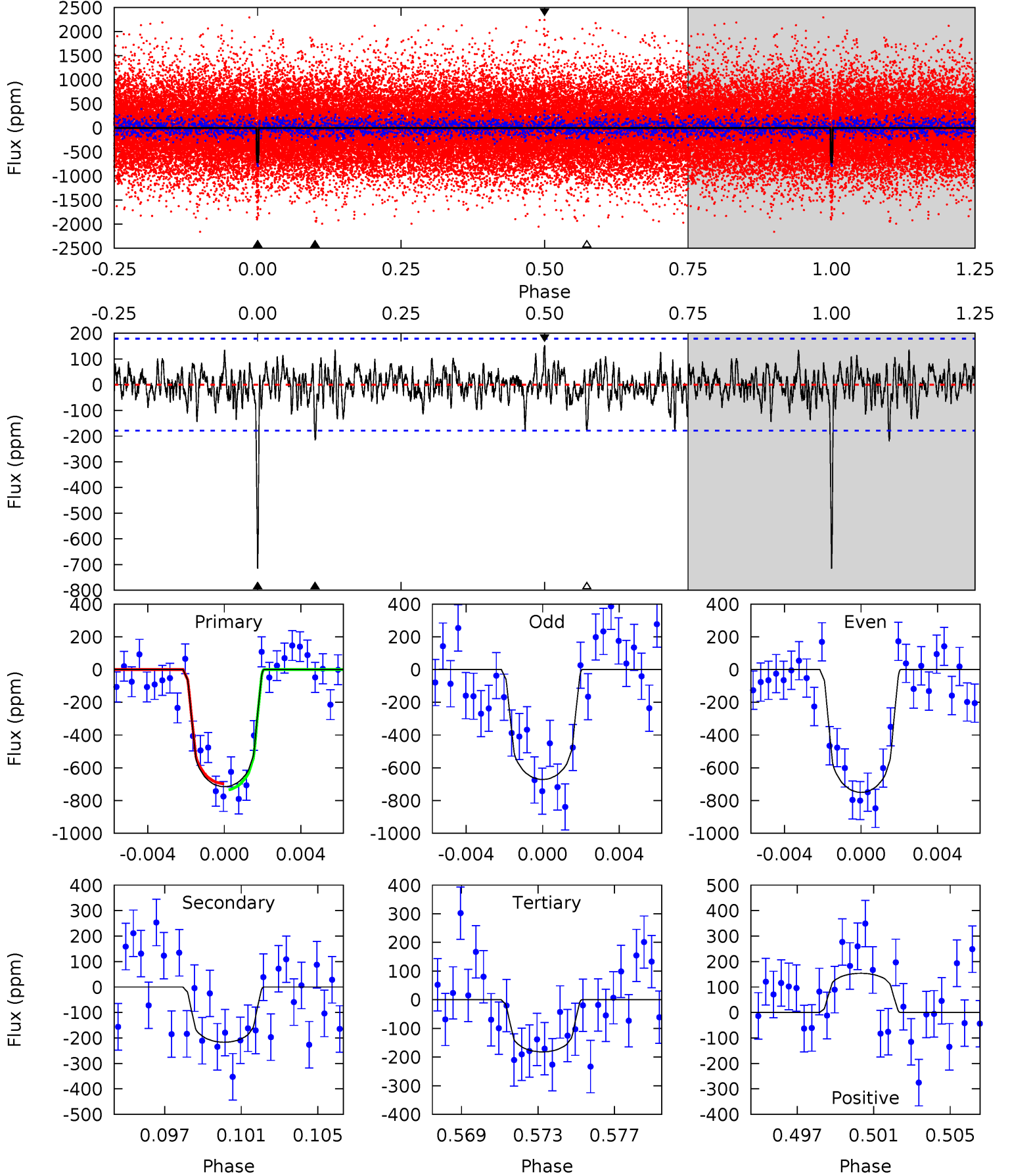
TCE 010653179-01 P= 47.160946 Days $T_0=150.259192$ (BKJD)



DV Model-Shift Uniqueness Test

010653179-01, $P = 47.160477$ Days, $E = 103.098303$ Days

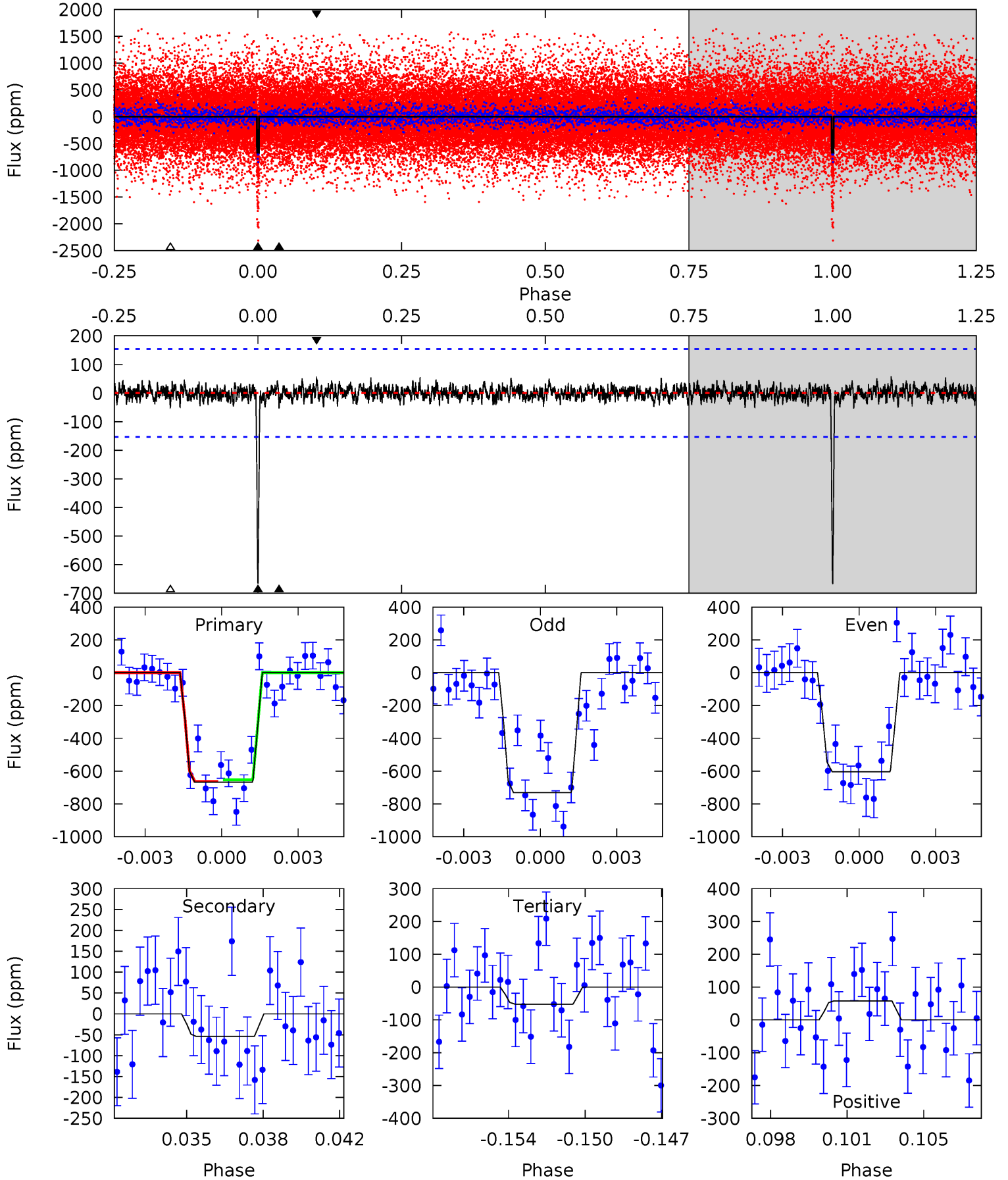
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	6.30	5.29	4.47	5.20	2.88	1.39	15.5	16.3	1.01	1.83	1.14	1.01	0.18	0.55



Alt Model-Shift Uniqueness Test

010653179-01, P = 47.160946 Days, E = 103.098246 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.7	1.84	1.77	1.97	5.22	2.92	0.55	20.9	20.7	0.07	-0.13	2.14	1.14	0.08	0.17



Stellar Parameters For KIC 010653179

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5936^{+158}_{-193}	$4.501^{+0.046}_{-0.184}$	$0.070^{+0.200}_{-0.350}$	$0.965^{+0.250}_{-0.107}$	$1.075^{+0.102}_{-0.165}$	$1.685^{+0.404}_{-0.803}$
	+3%/-3%	+1%/-4%	+286%/-500%	+26%/-11%	+9%/-15%	+24%/-48%
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 010653179-01 / KOI 3280.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-217 ± 34	$2.84^{+1.35}_{-1.16}$	718^{+47}_{-34}	4607^{+1196}_{-593}	984^{+1850}_{-546}
Alt.	-54 ± 29	$2.96^{+1.32}_{-1.26}$	716^{+45}_{-31}	3527^{+782}_{-522}	210^{+447}_{-136}

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 $A_{obs} \gg 1.0$

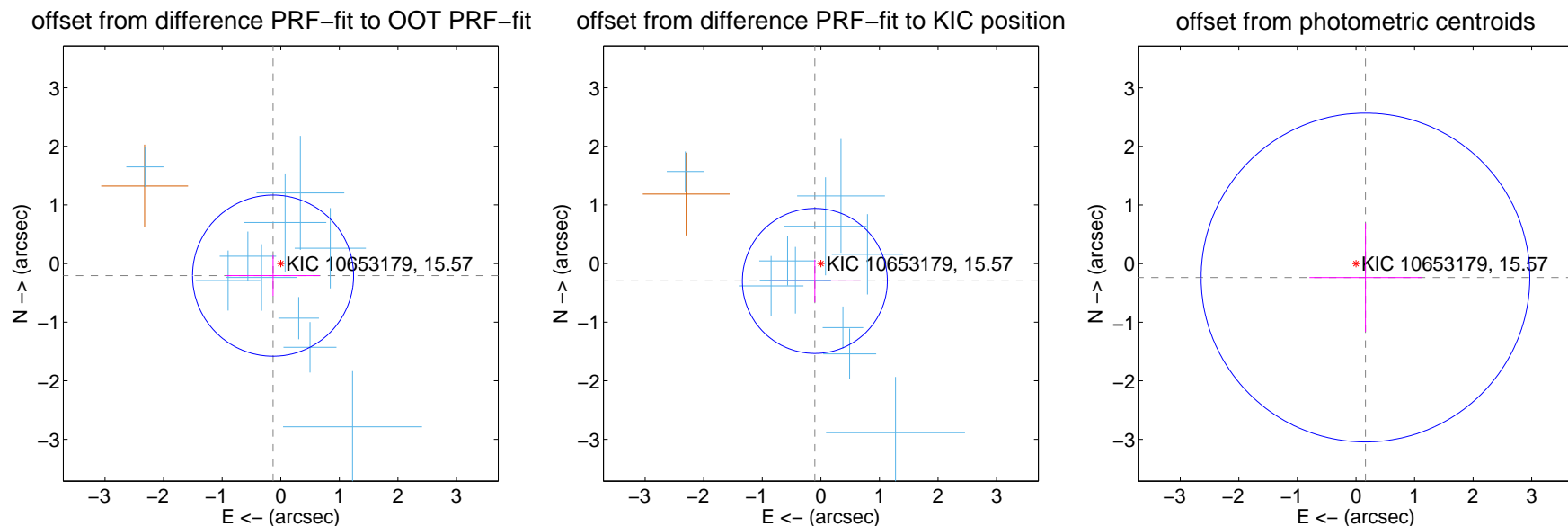
DV Centroid Data

Supplemental centroid analysis for 010653179-01. Kepler magnitude: 15.57. Transit SNR 11.32

There are 10 quarters with good PRF difference image offsets

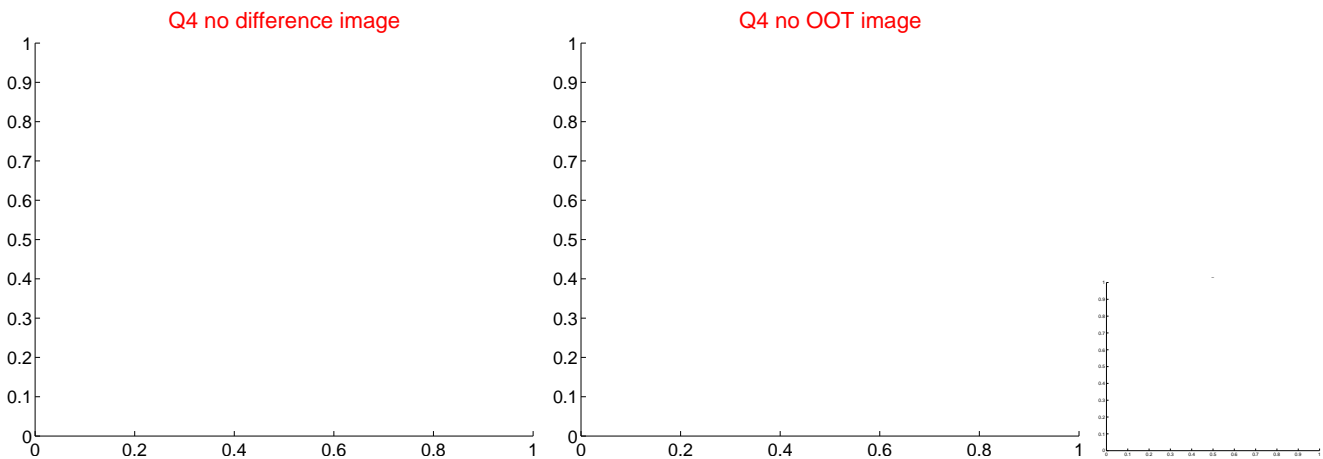
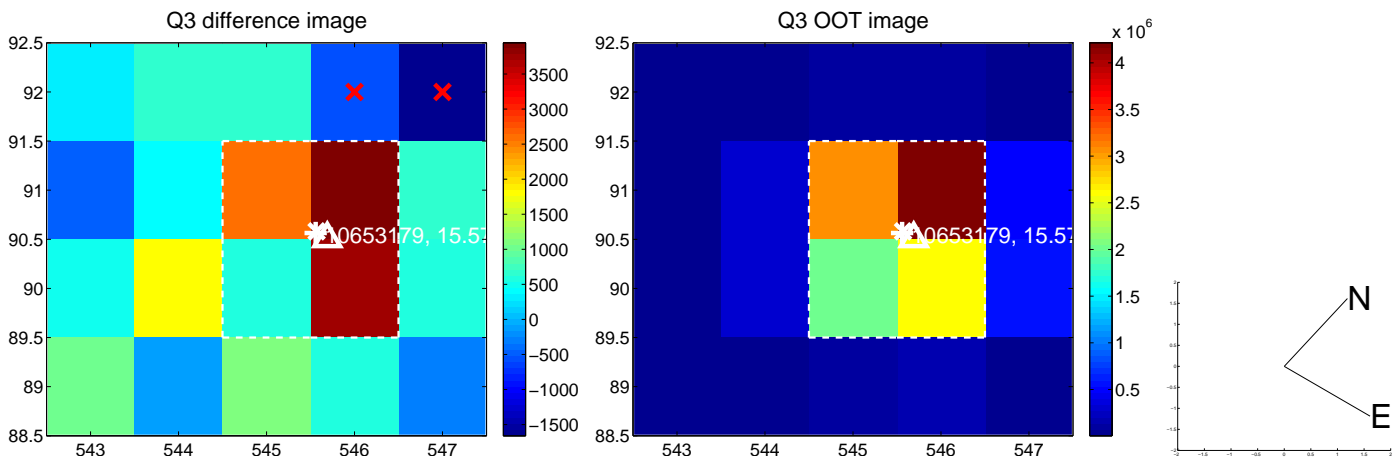
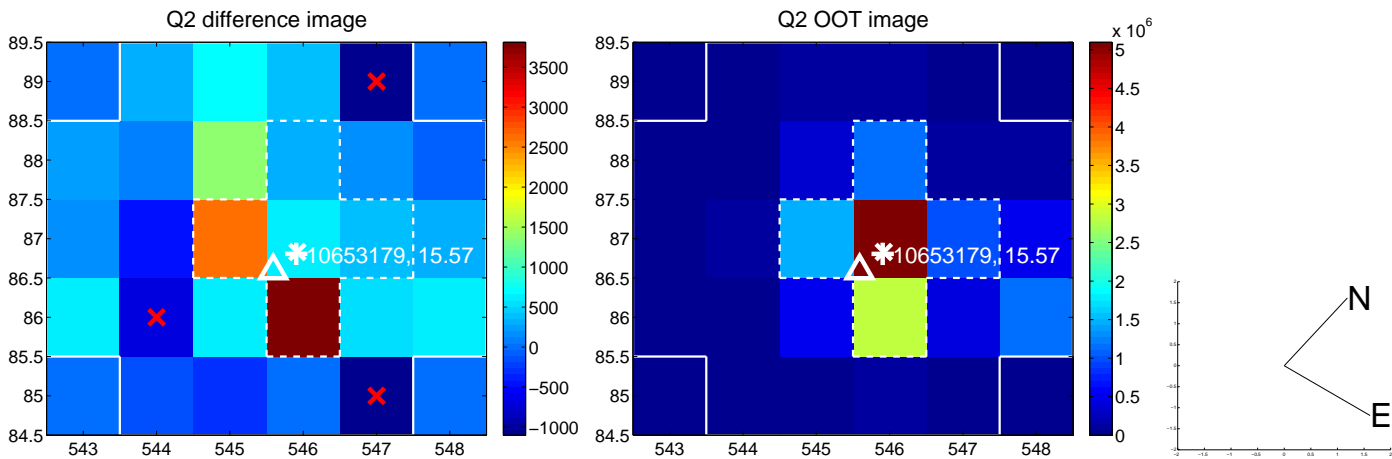
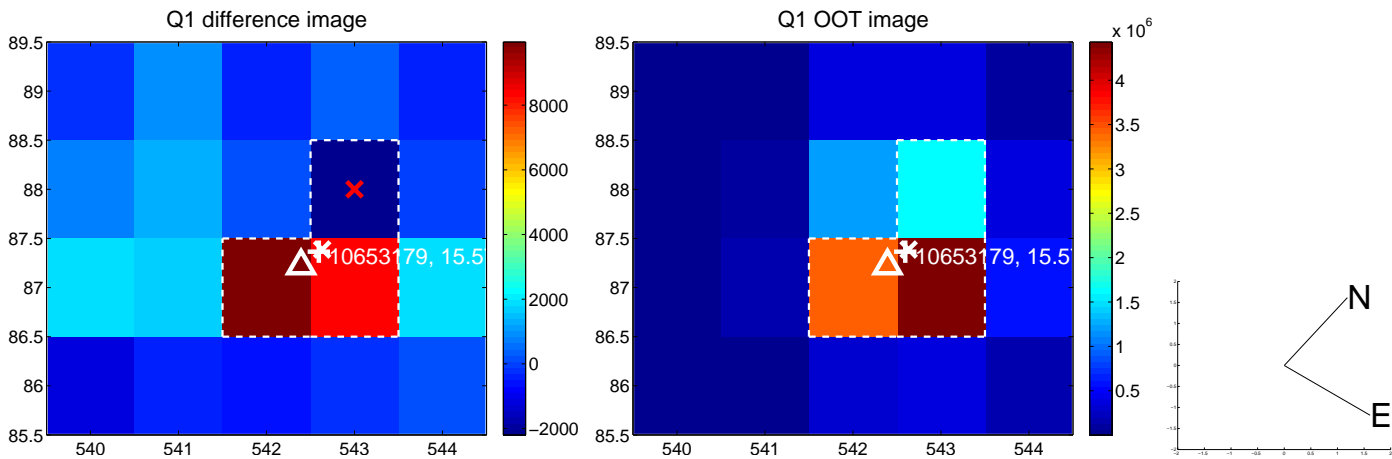
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.245 ± 0.458	0.53	0.131 ± 0.797	-0.207 ± 0.346
PRF-fit source offset from KIC position	0.314 ± 0.412	0.76	0.103 ± 0.780	-0.297 ± 0.365
photometric centroid source offset	0.29 ± 0.94	0.31	-0.16 ± 0.96	-0.24 ± 0.92

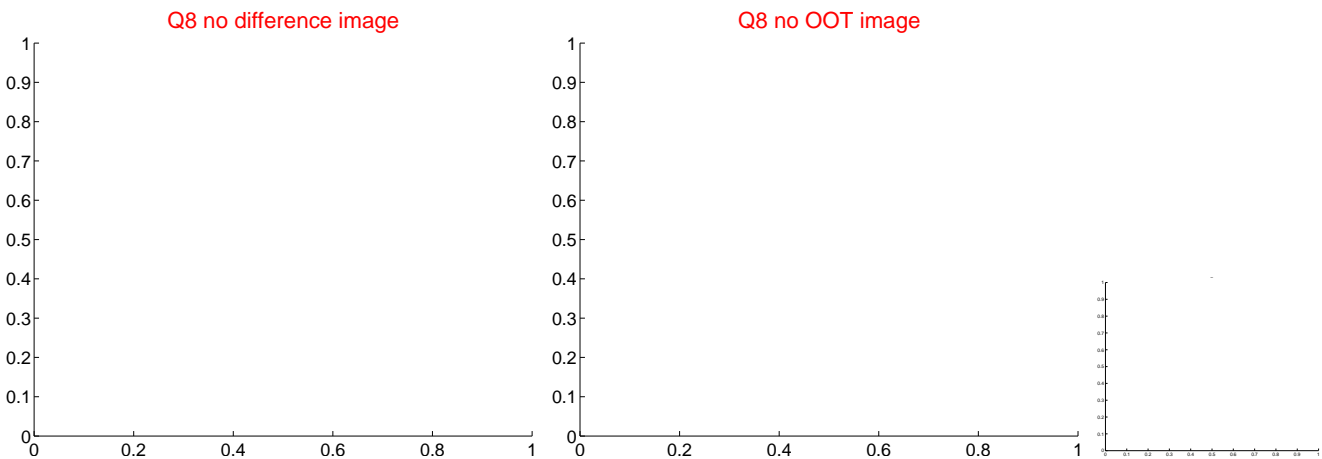
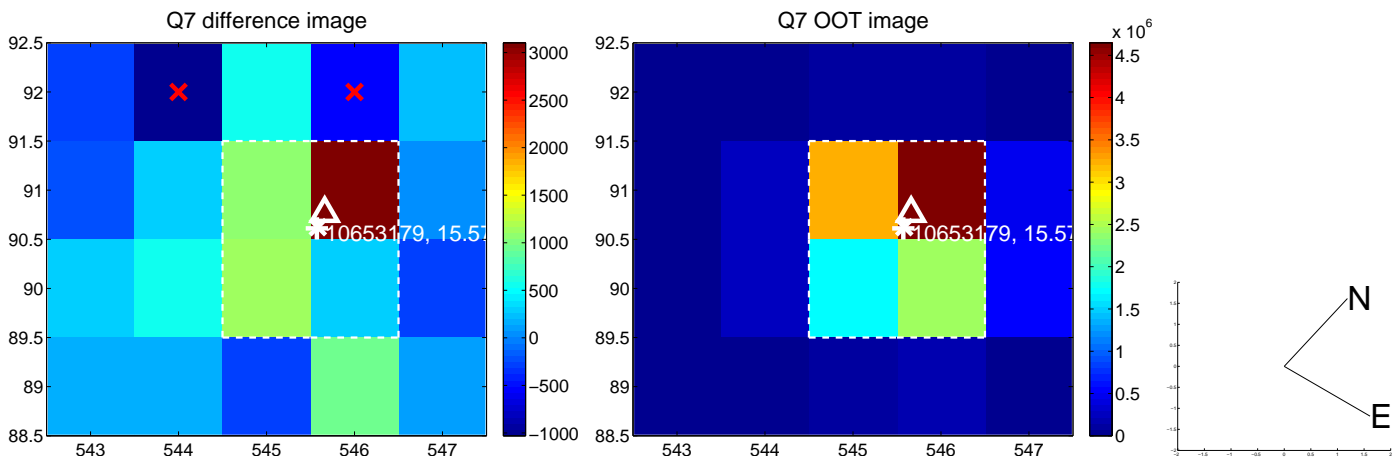
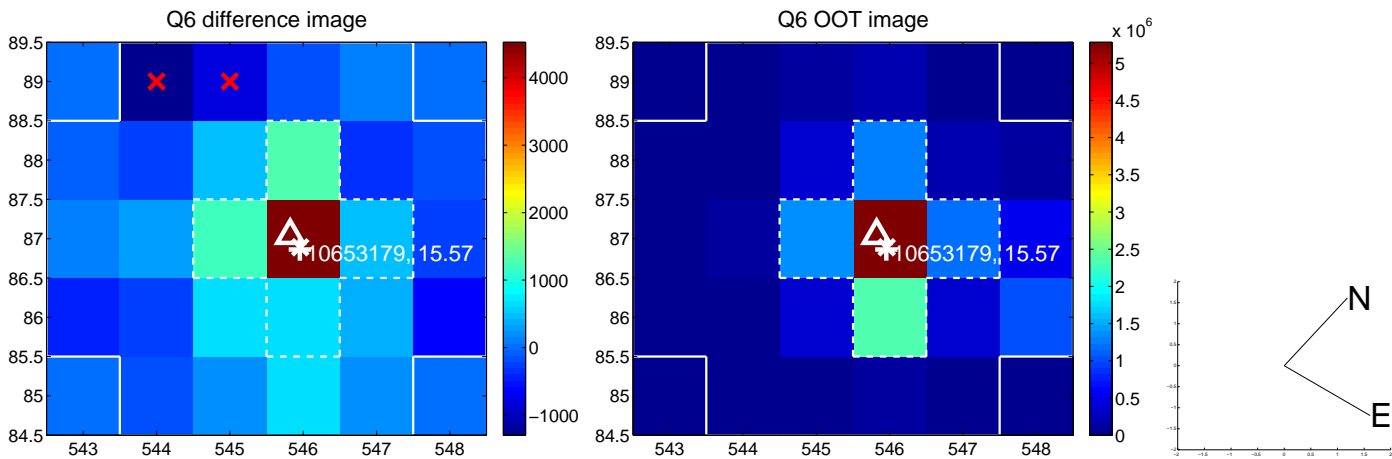
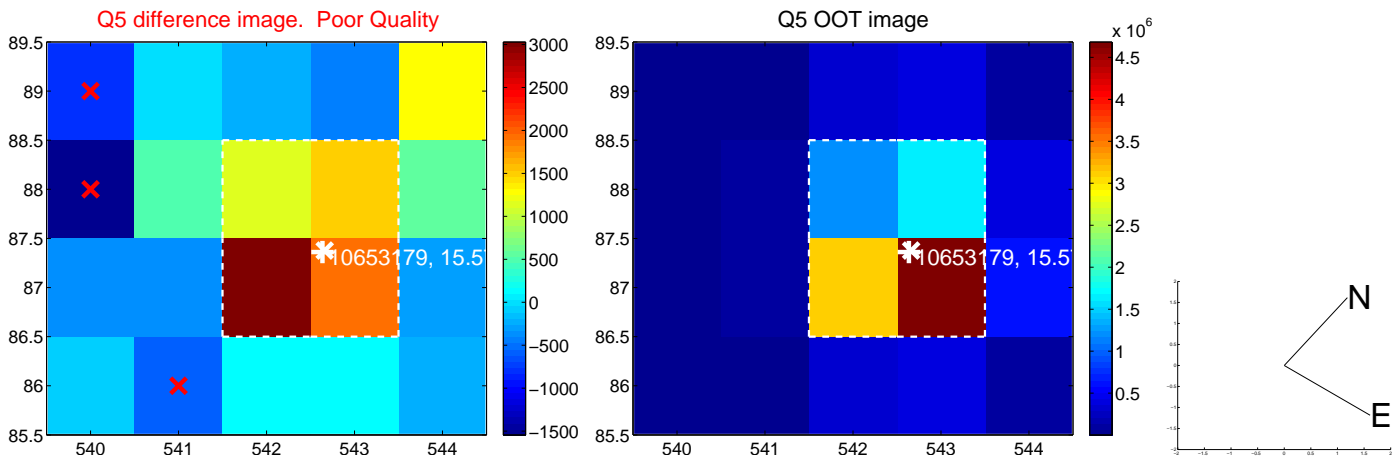


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

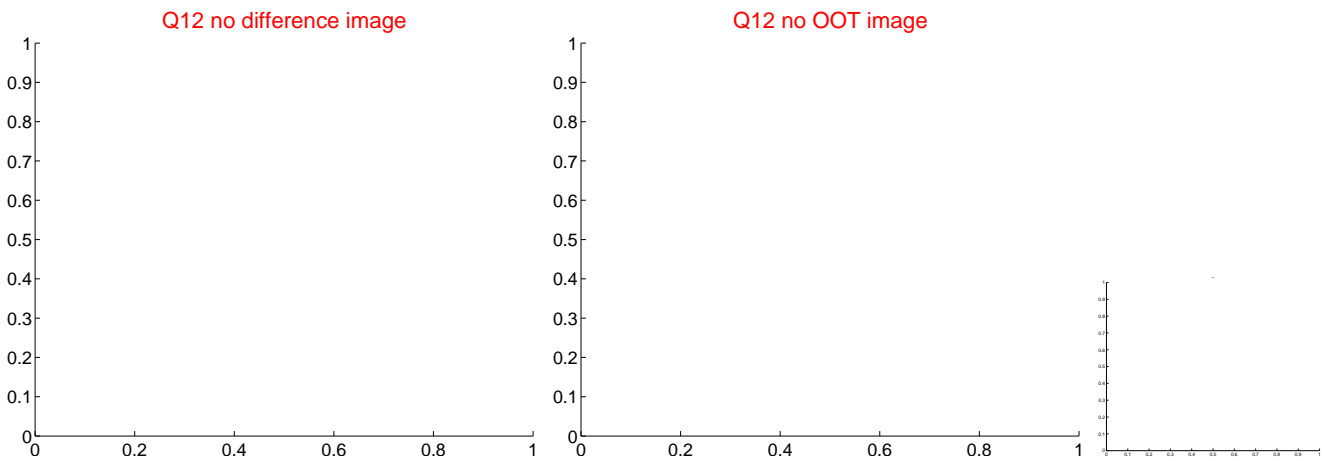
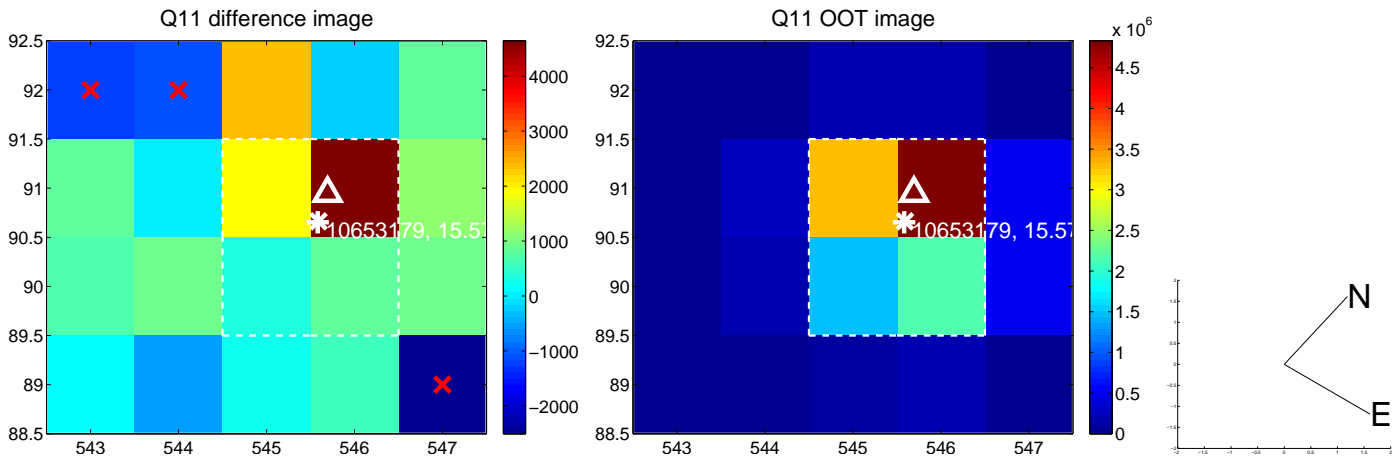
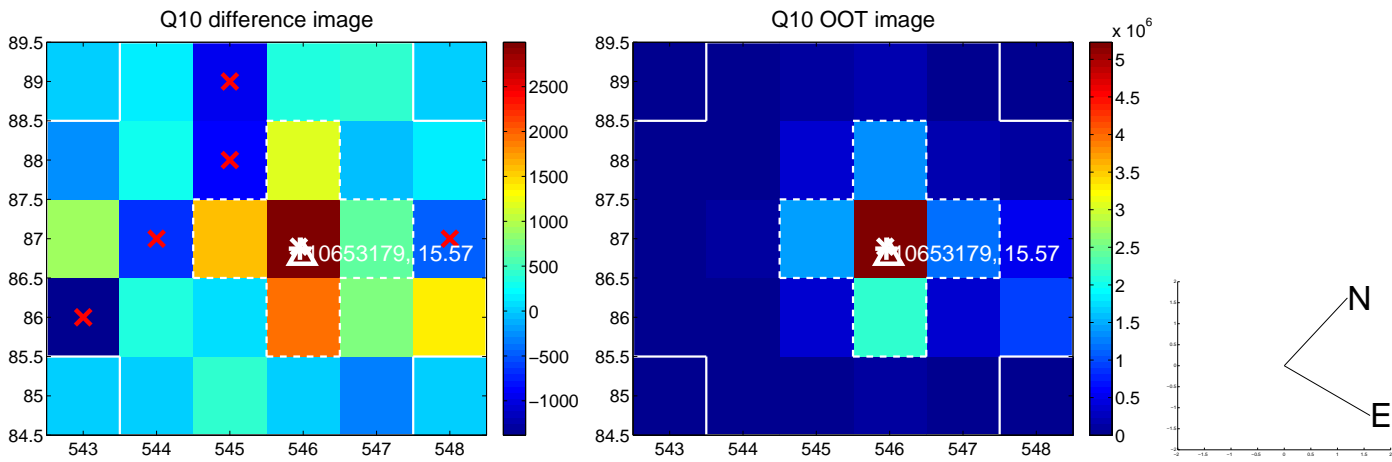
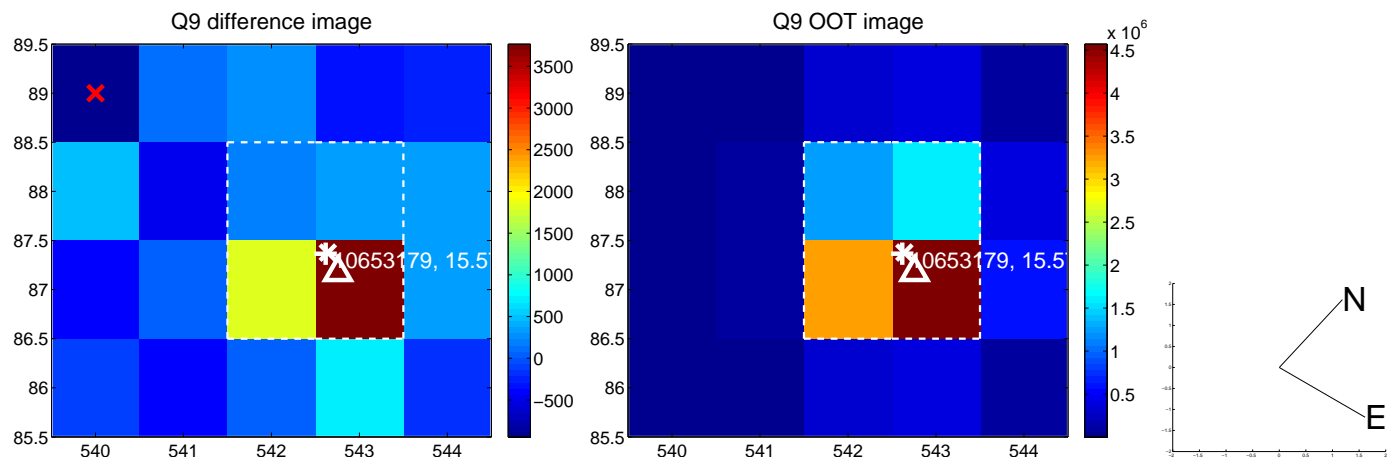
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



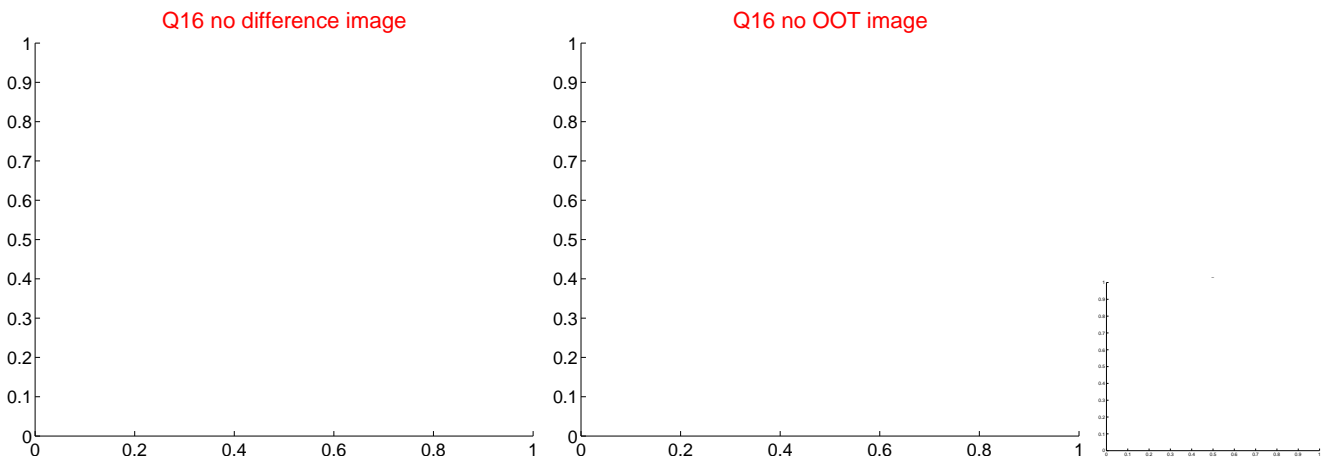
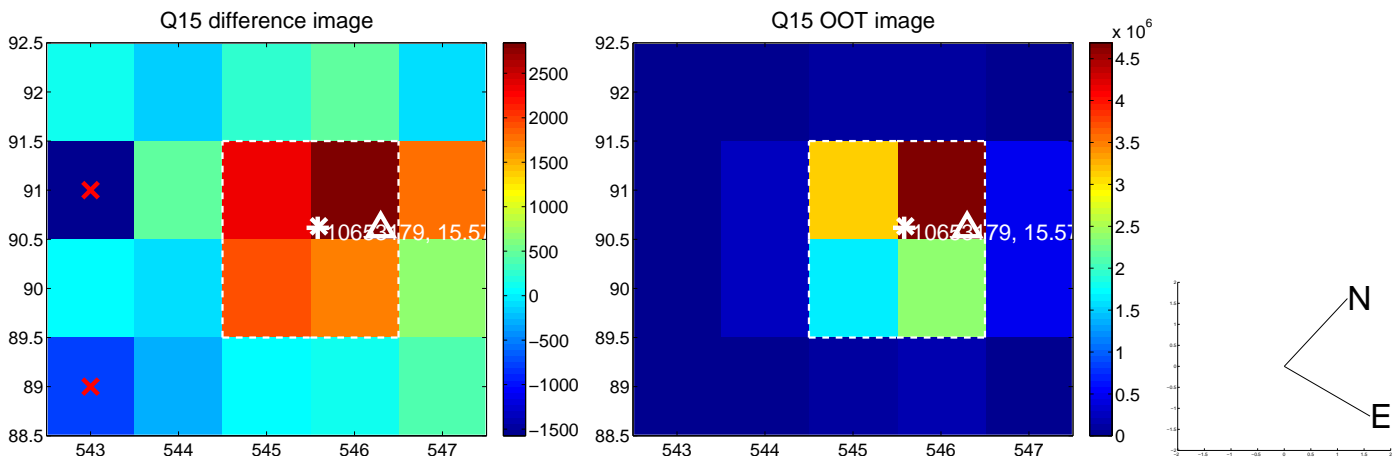
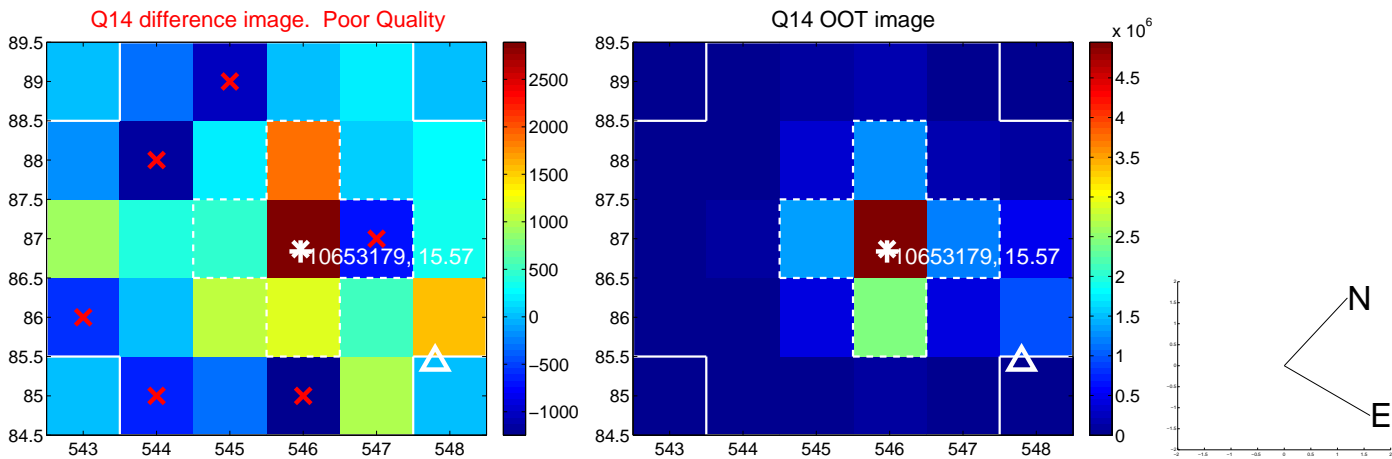
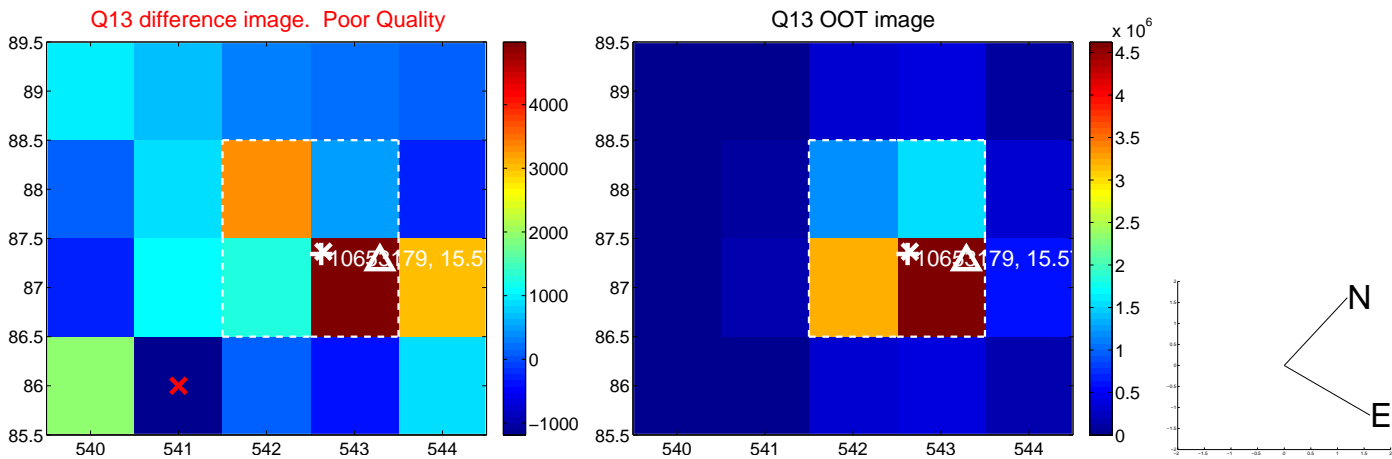
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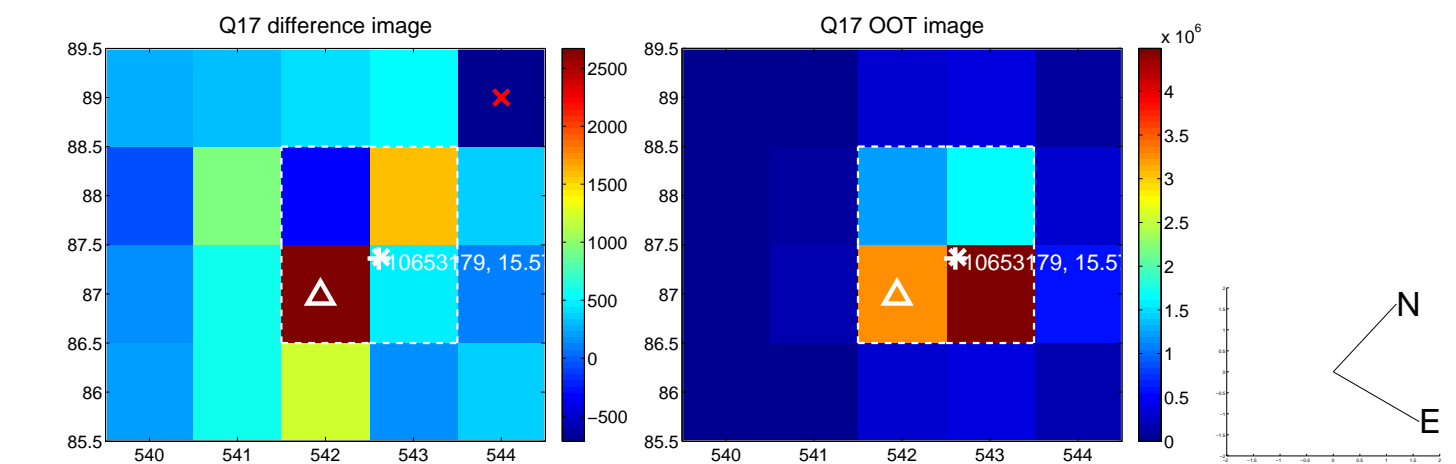
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



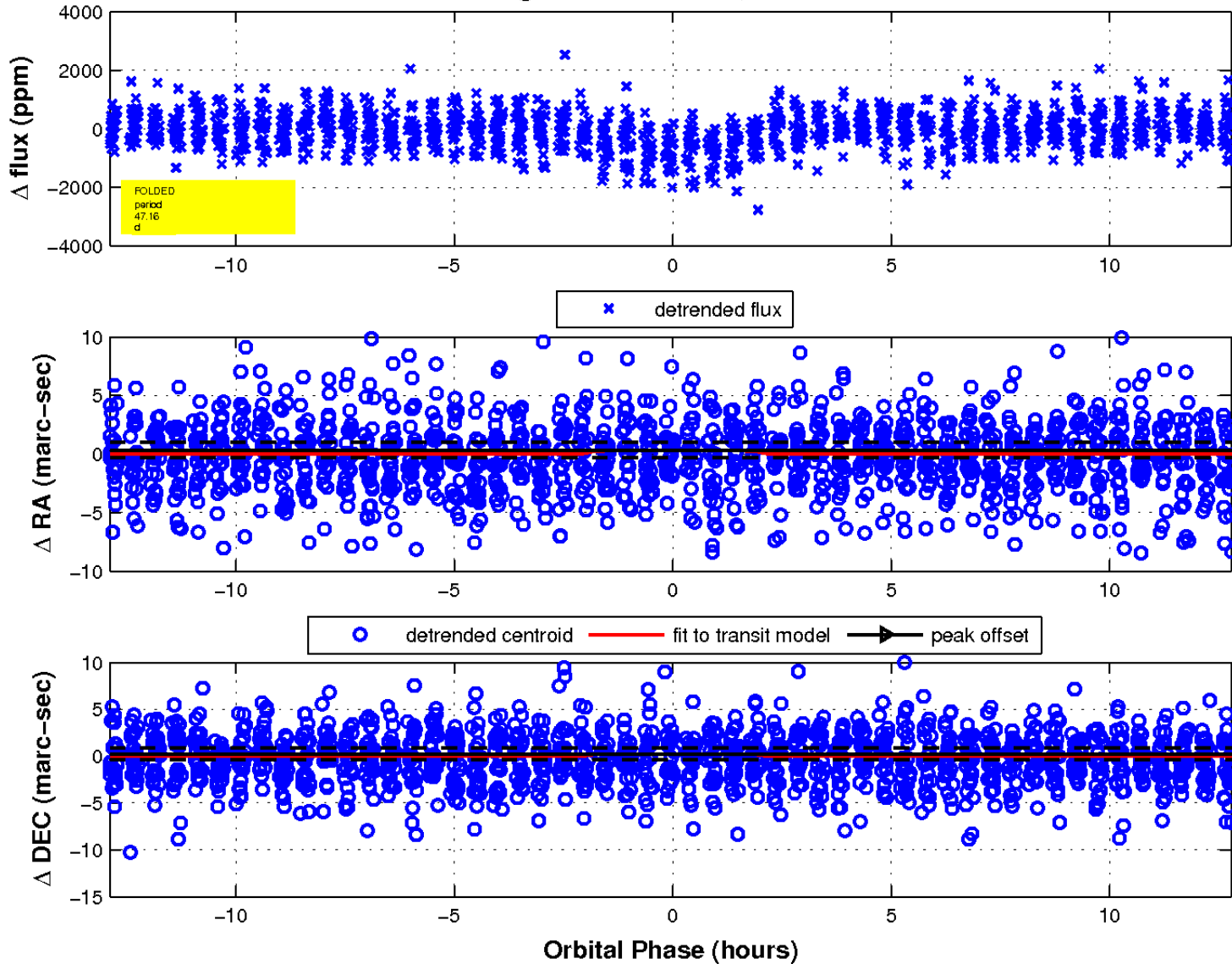
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

