

KIC 010924562

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})
010924562-01	OBS	3063.01	18.605501	149.026561	228.3	7.391	10.6	10.7	1.24	6572	2.06	114.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010924562-01	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.

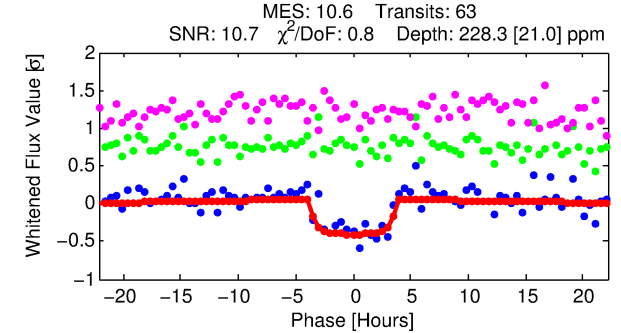
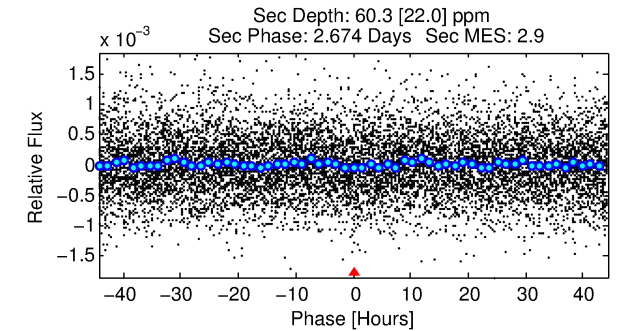
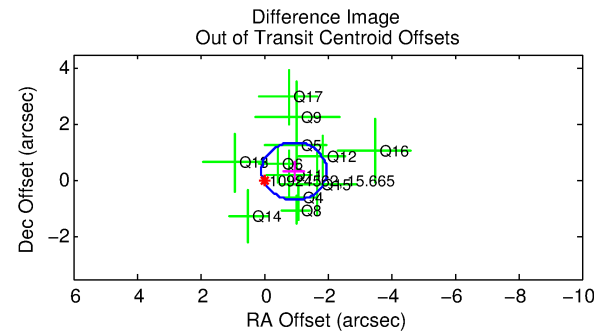
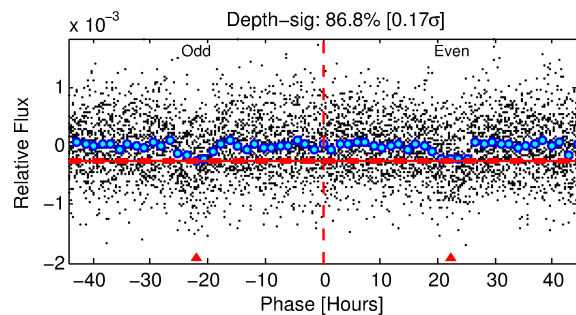
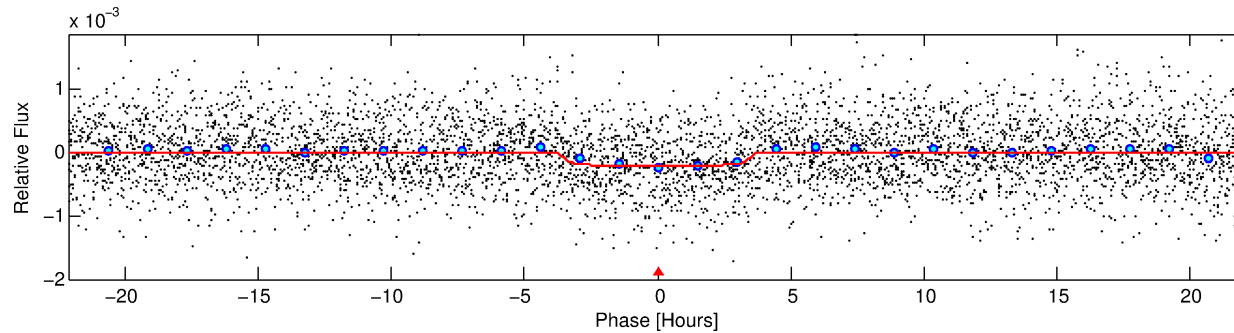
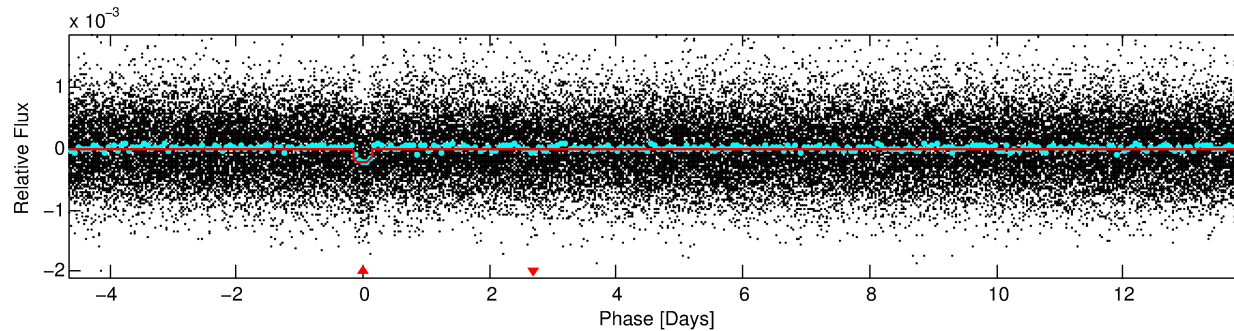
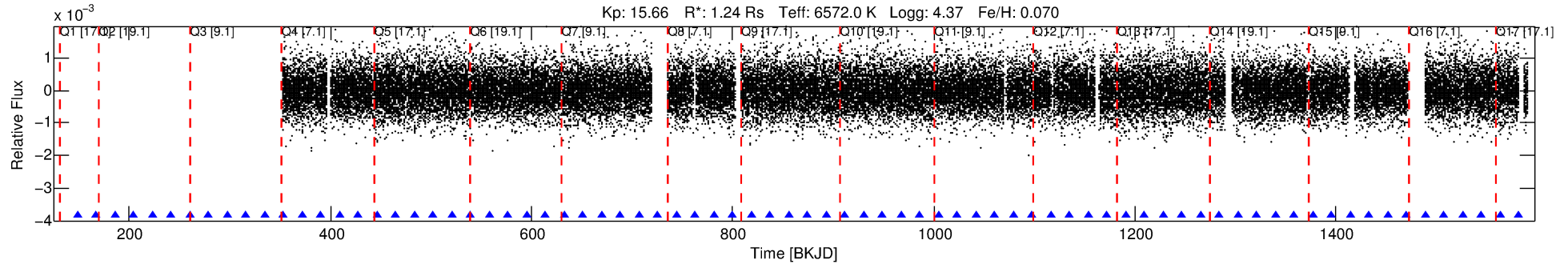
Ephemeris Match Information For 010924562-01

No Significant Match Found

DV One-Page Summary

KIC: 10924562 Candidate: 1 of 1 Period: 18.606 d

KOI: K03063.01 Corr: 0.973



DV Fit Results:

Period = 18.60550 [0.00031] d
Epoch = 149.0266 [0.0143] BKJD
Rp/R* = 0.0152 [0.0062]
a/R* = 12.33 [27.01]
b = 0.79 [1.07]
Seff = 114.11 [43.22]
Teq = 833 [79] K
Rp = 2.06 [1.02] Re
a = 0.1498 [0.0356] AU
Ag = 176.08 [167.85] [1.04 σ]
Teffp = 4694 [1059] K [3.64 σ]

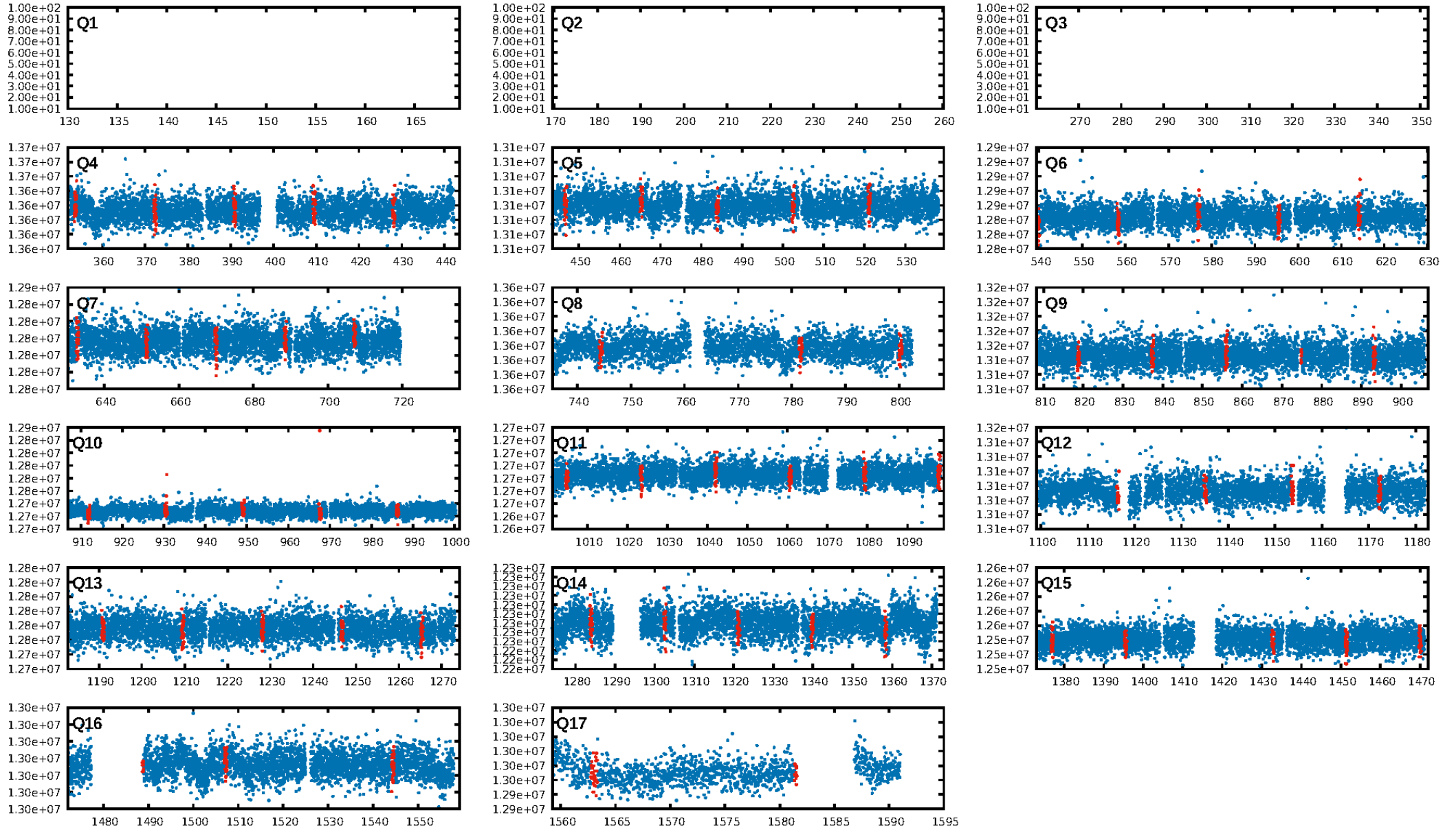
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.56e-26
RollingBand-fgt: 1.00 [61/61]
GhostDiagnostic-chr: 1.395
Centroid-sig: 0.1%
Centroid-so: 2.003 arcsec [1.86 σ]
OotOffset-rm: 1.007 arcsec [2.94 σ]
KicOffset-rm: 0.830 arcsec [2.38 σ]
OotOffset-st: 2/2/4/4 [12]
KicOffset-st: 2/2/4/4 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 1.00 [14/14]

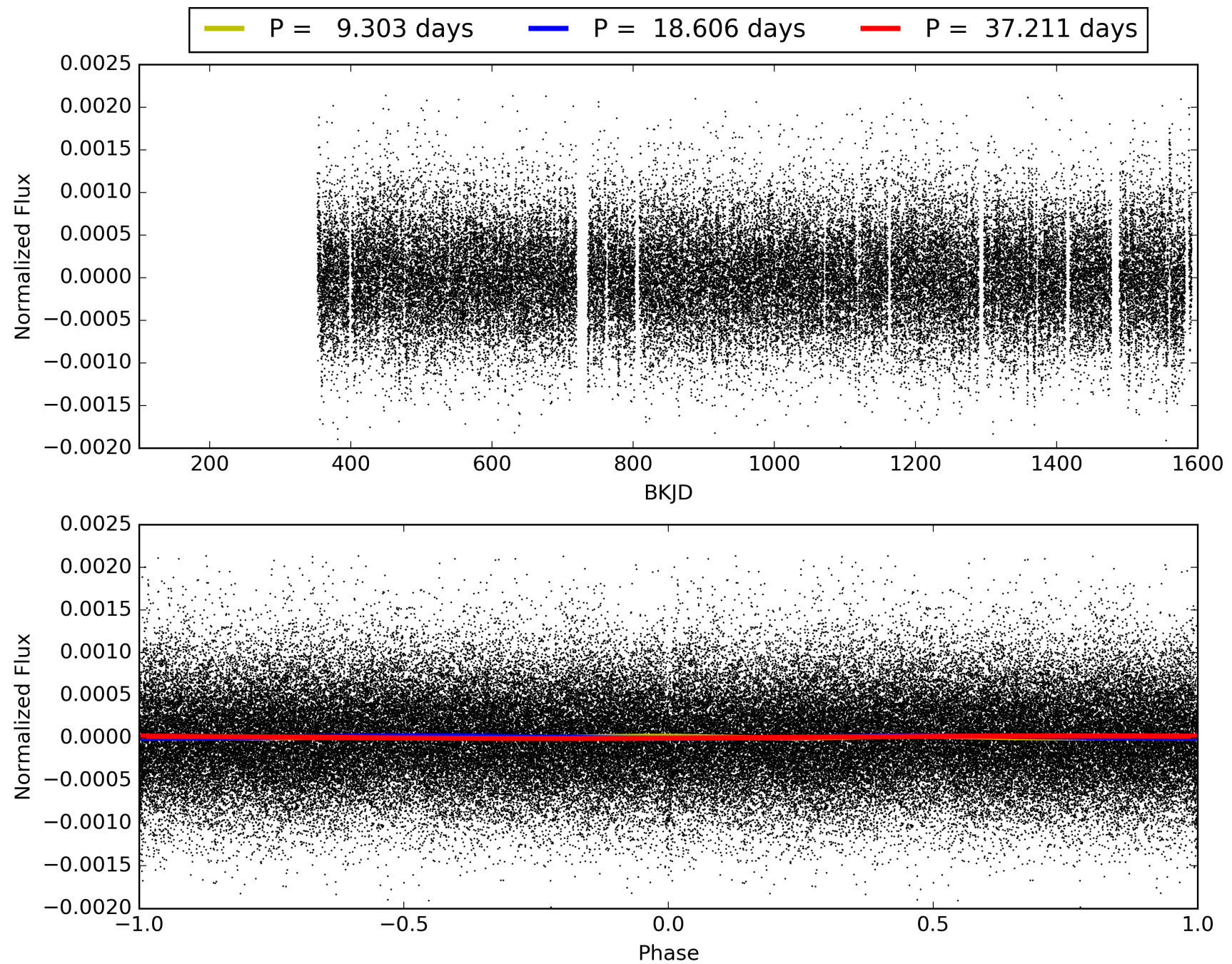
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:50:18 Z

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

TCE 010924562-01, PDC Light Curves

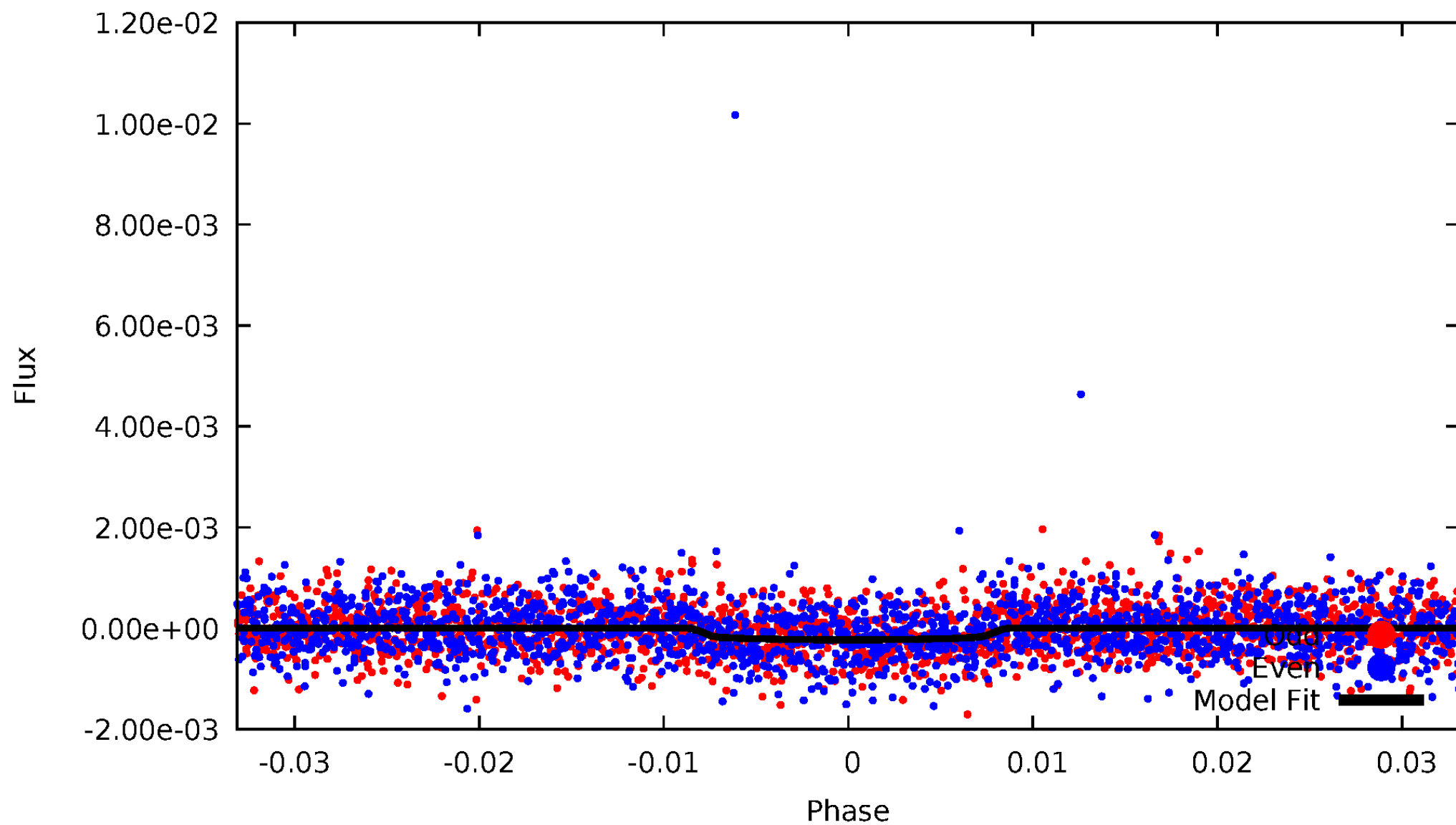


TCE 010924562-01



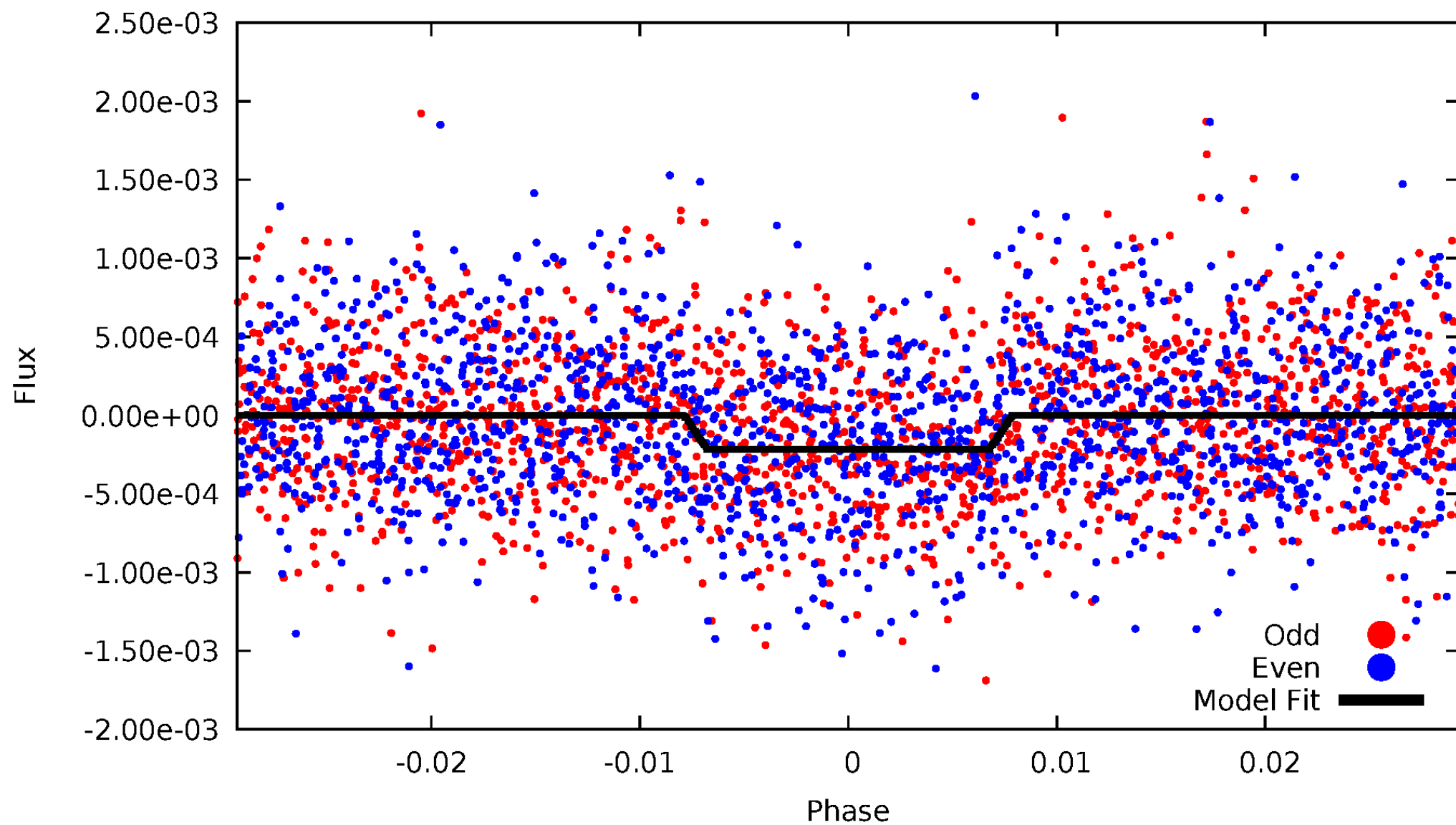
DV Odd/Even

TCE 010924562-01

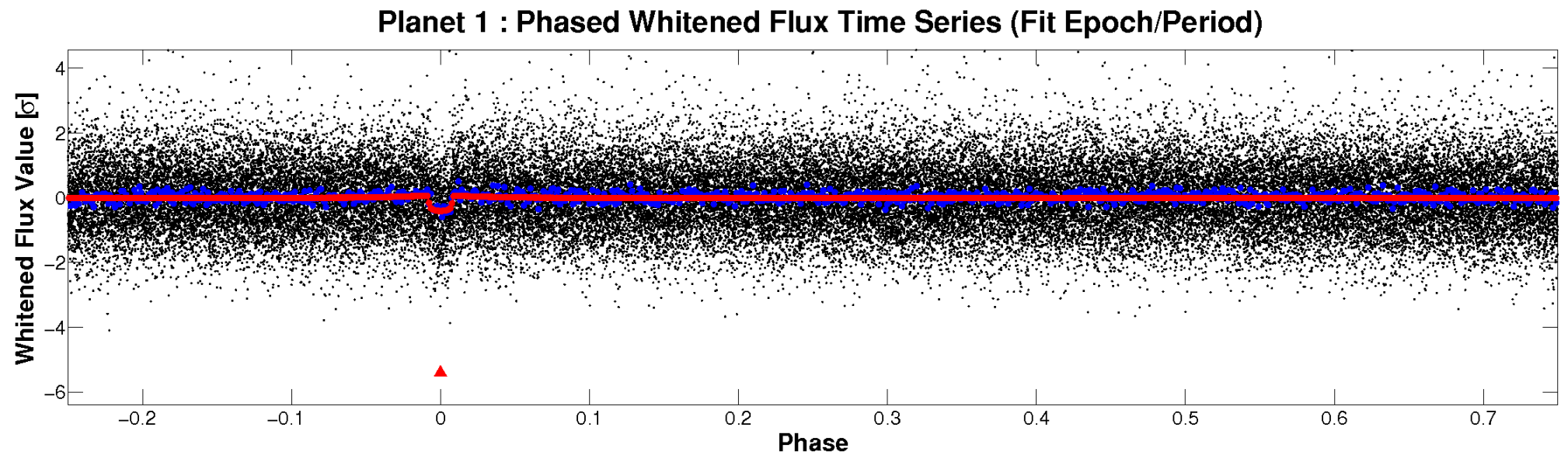
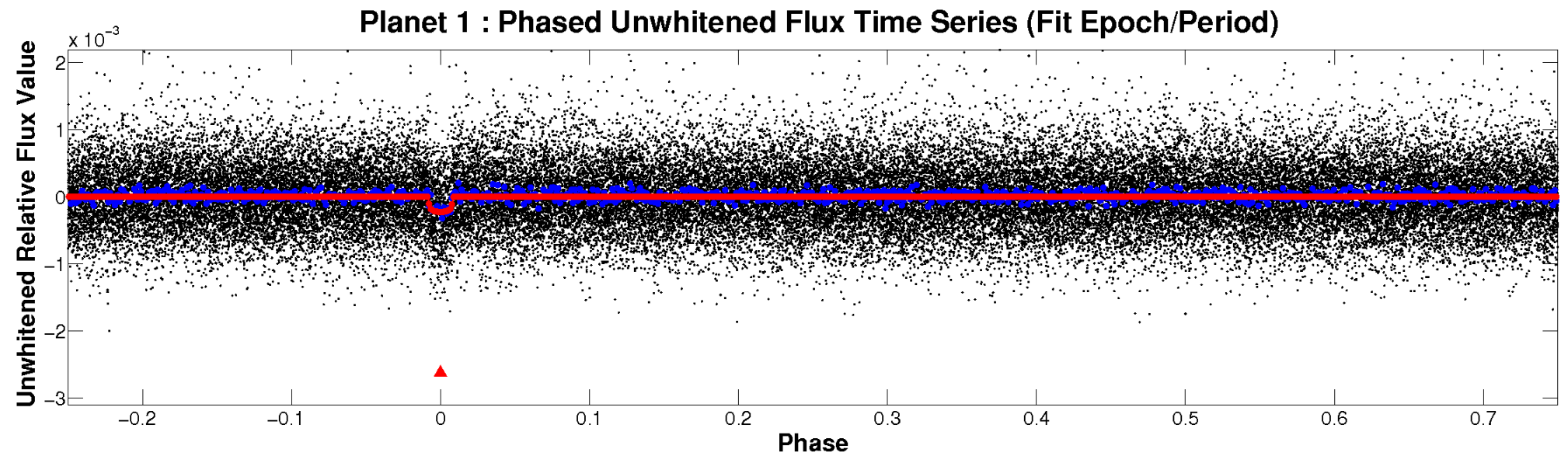


ALT Odd/Even

TCE 010924562-01

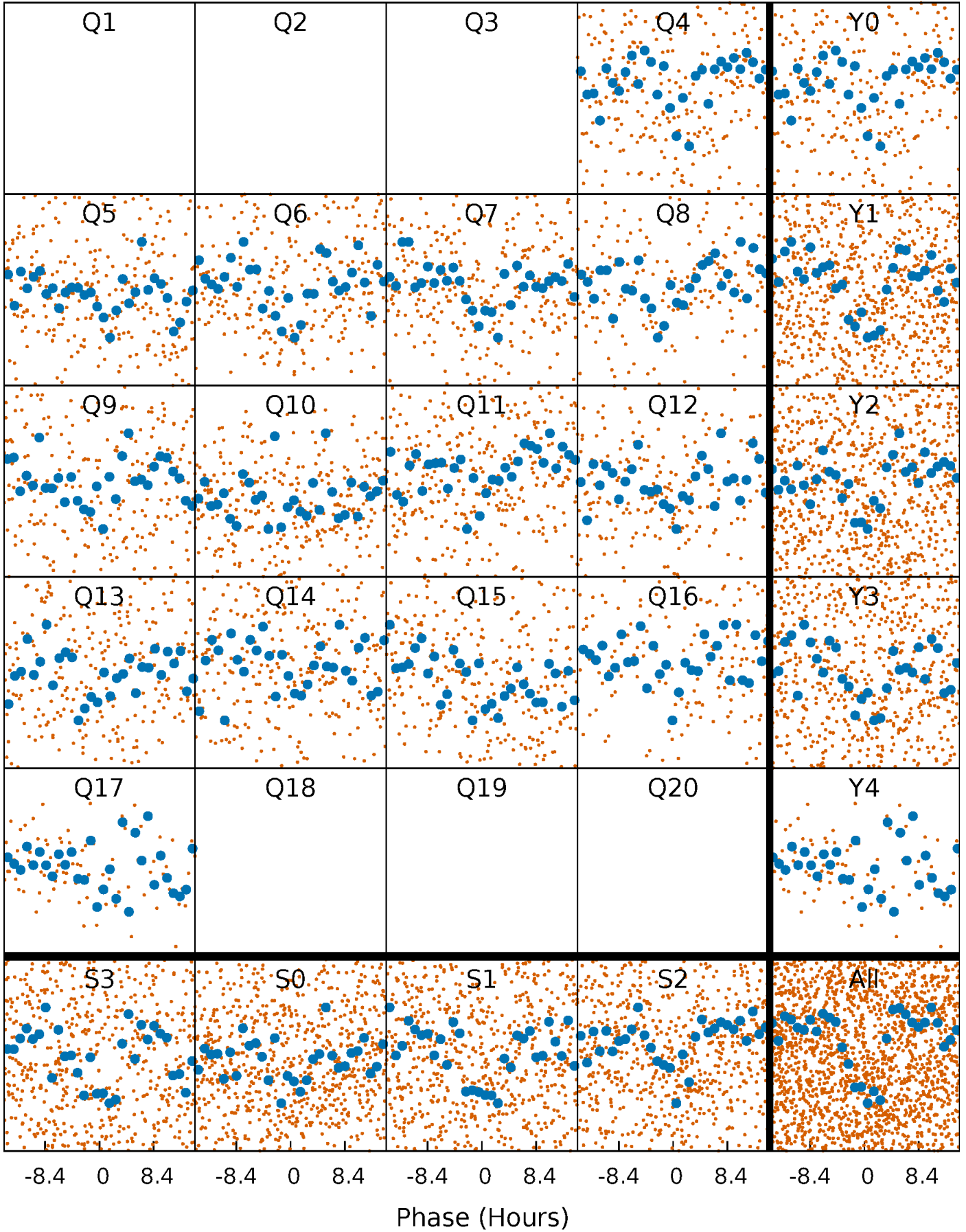


Non-Whitened Vs. Whitened Light Curve



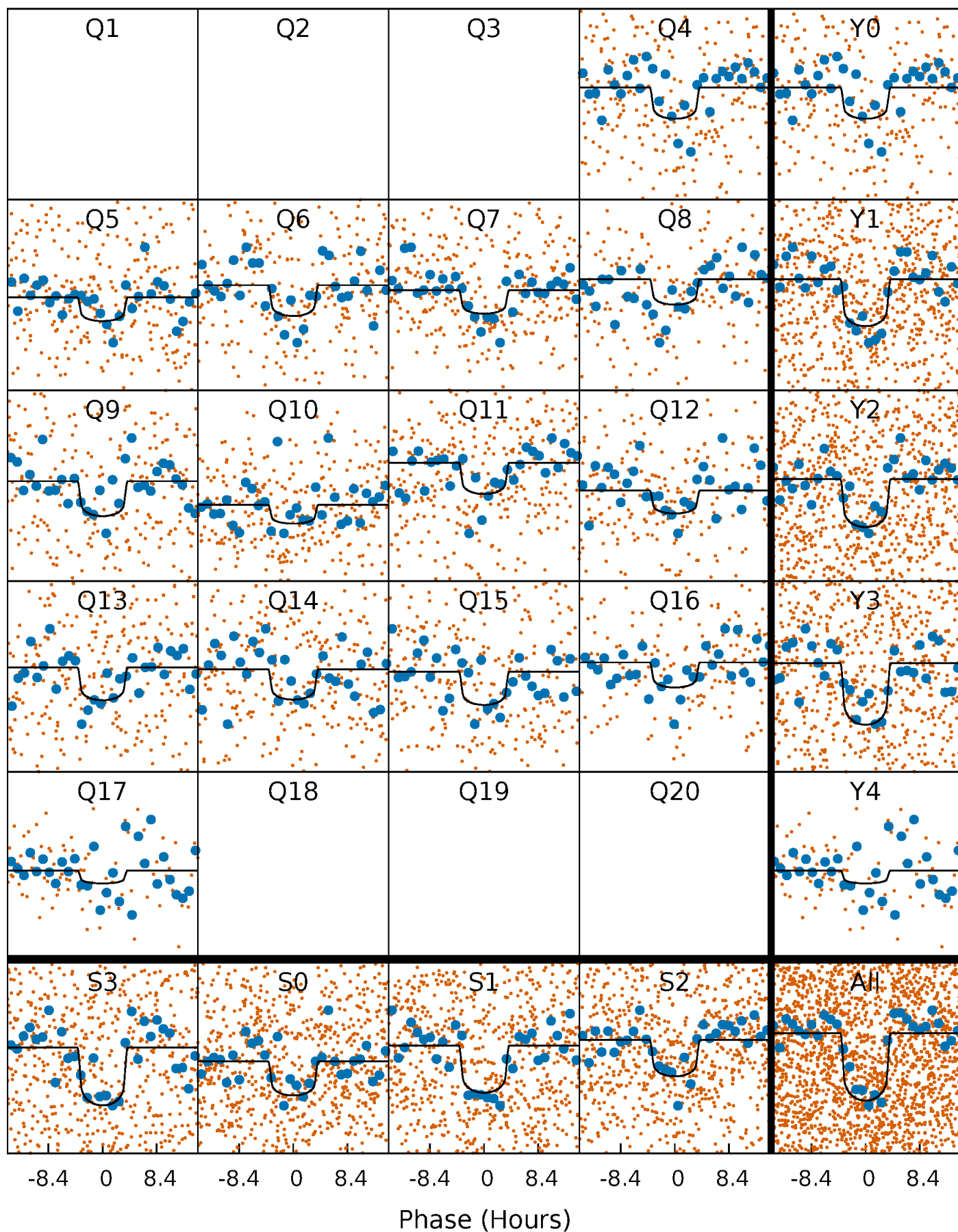
PDC Quarter-Phased Transit Curves

TCE 010924562-01 P= 18.605501 Days $T_0=149.026561$ (BKJD)



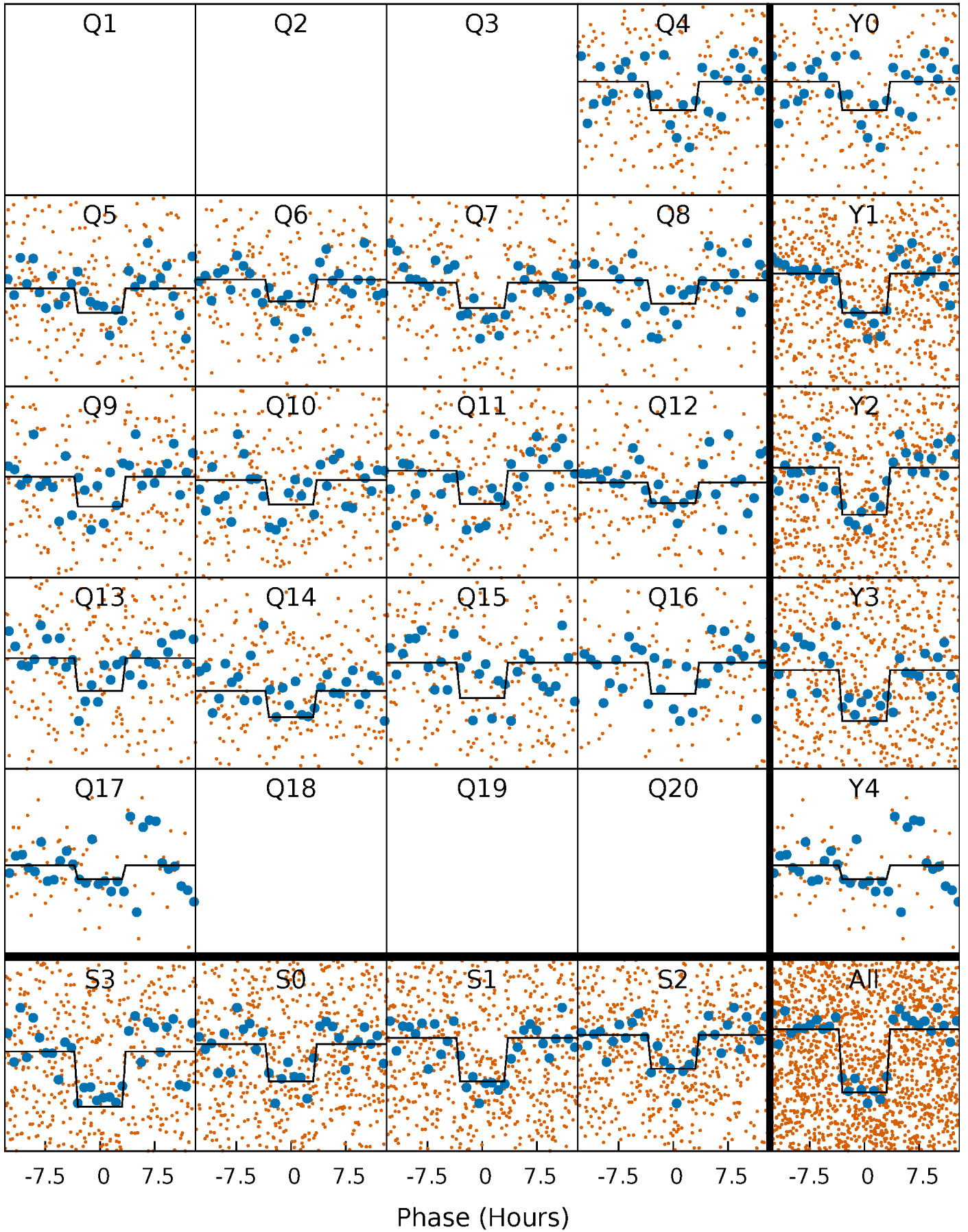
DV Quarter-Phased Transit Curves

TCE 010924562-01 P= 18.605501 Days $T_0=149.026561$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

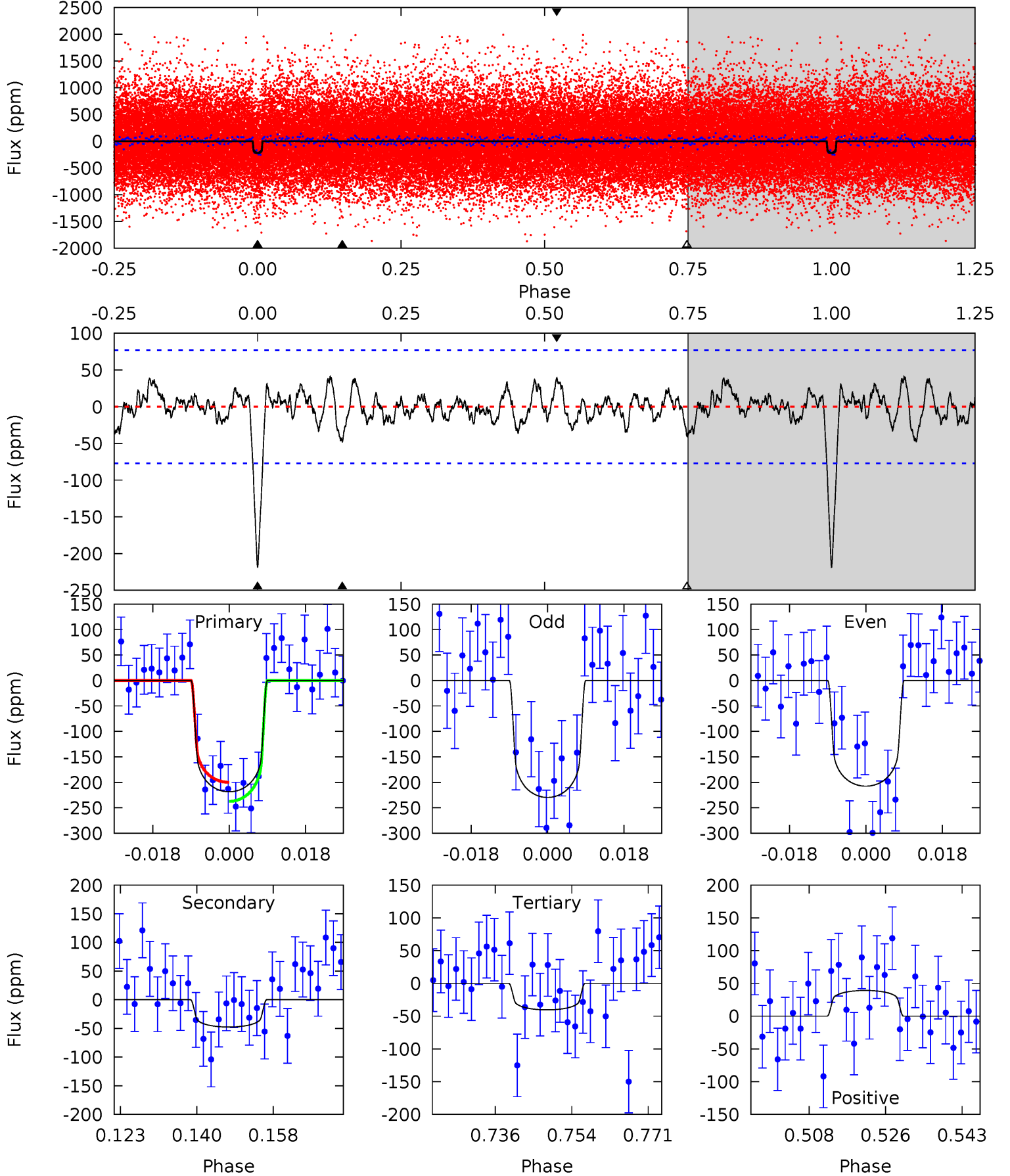
TCE 010924562-01 P= 18.605142 Days $T_0=149.040263$ (BKJD)



DV Model-Shift Uniqueness Test

010924562-01, P = 18.605501 Days, E = 149.026561 Days

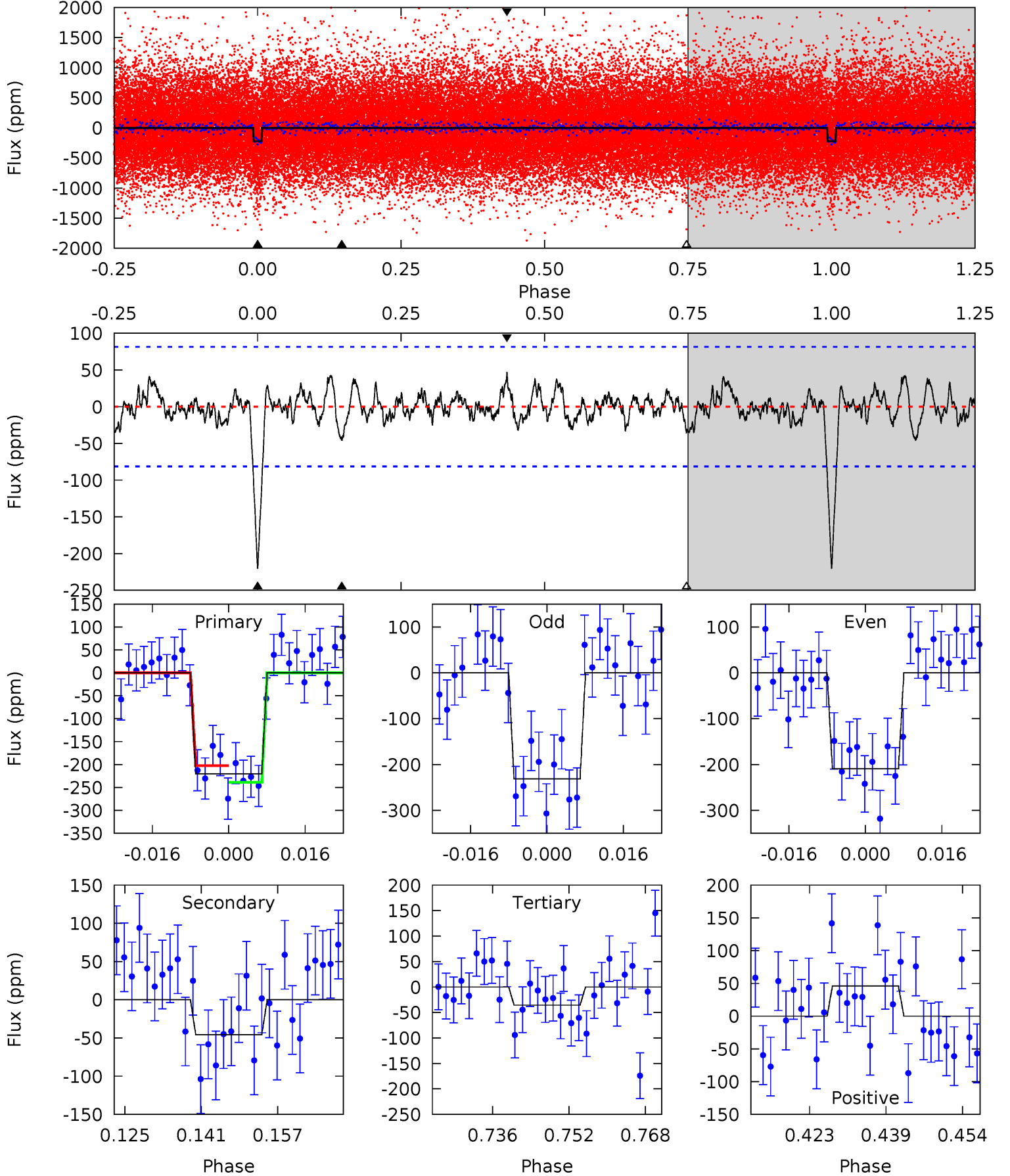
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	3.04	2.58	2.50	4.92	2.38	1.00	11.4	11.4	0.46	0.54	0.71	0.95	0.16	1.19



Alt Model-Shift Uniqueness Test

010924562-01, $P = 18.605142$ Days, $E = 149.040263$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	2.77	2.15	2.79	4.94	2.42	0.91	11.2	10.6	0.62	-0.02	0.67	0.95	0.17	1.11



Stellar Parameters For KIC 010924562

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6572^{+187}_{-258}	$4.365^{+0.062}_{-0.188}$	$0.070^{+0.200}_{-0.400}$	$1.238^{+0.350}_{-0.175}$	$1.298^{+0.160}_{-0.220}$	$0.964^{+0.320}_{-0.473}$
	+3%/-4%	+1%/-4%	+286%/-571%	+28%/-14%	+12%/-17%	+33%/-49%
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 010924562-01 / KOI 3063.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-48 ± 16	$2.20^{+0.91}_{-0.87}$	1187^{+84}_{-60}	4522^{+1039}_{-598}	118^{+204}_{-67}
Alt.	-46 ± 16	$2.03^{+0.97}_{-0.80}$	1186^{+78}_{-59}	4580^{+1235}_{-687}	126^{+264}_{-75}

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 $A_{obs} \gg 1.0$

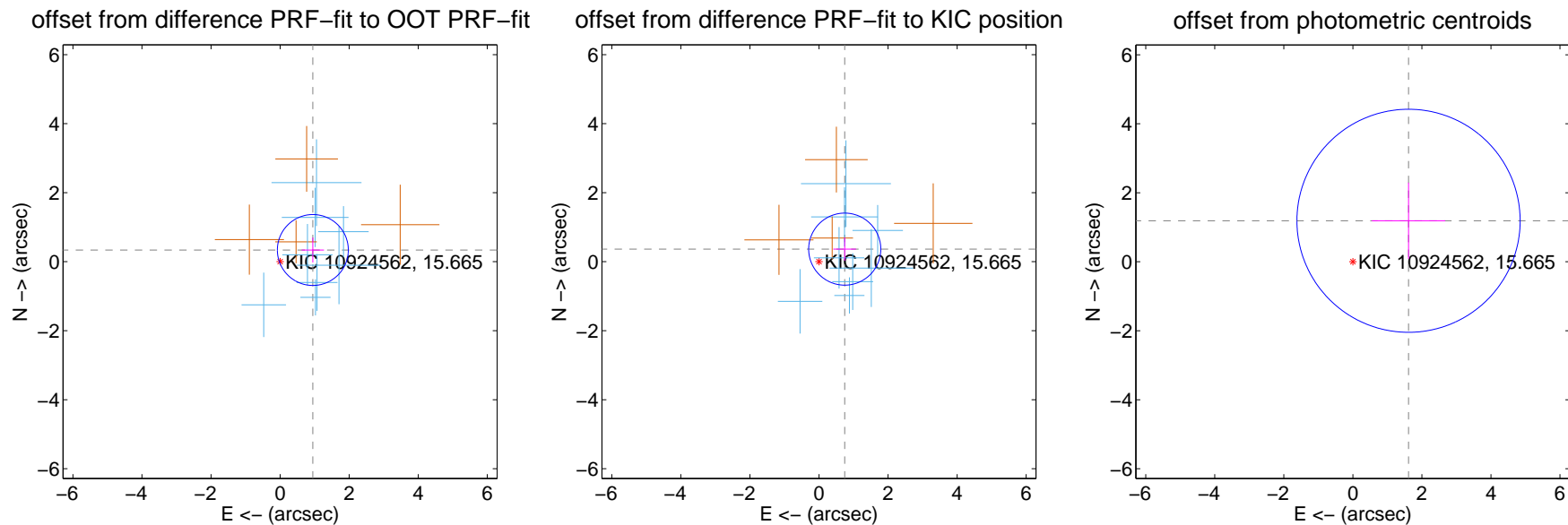
DV Centroid Data

Supplemental centroid analysis for 010924562-01. Kepler magnitude: 15.66. Transit SNR 10.67

There are 8 quarters with good PRF difference image offsets

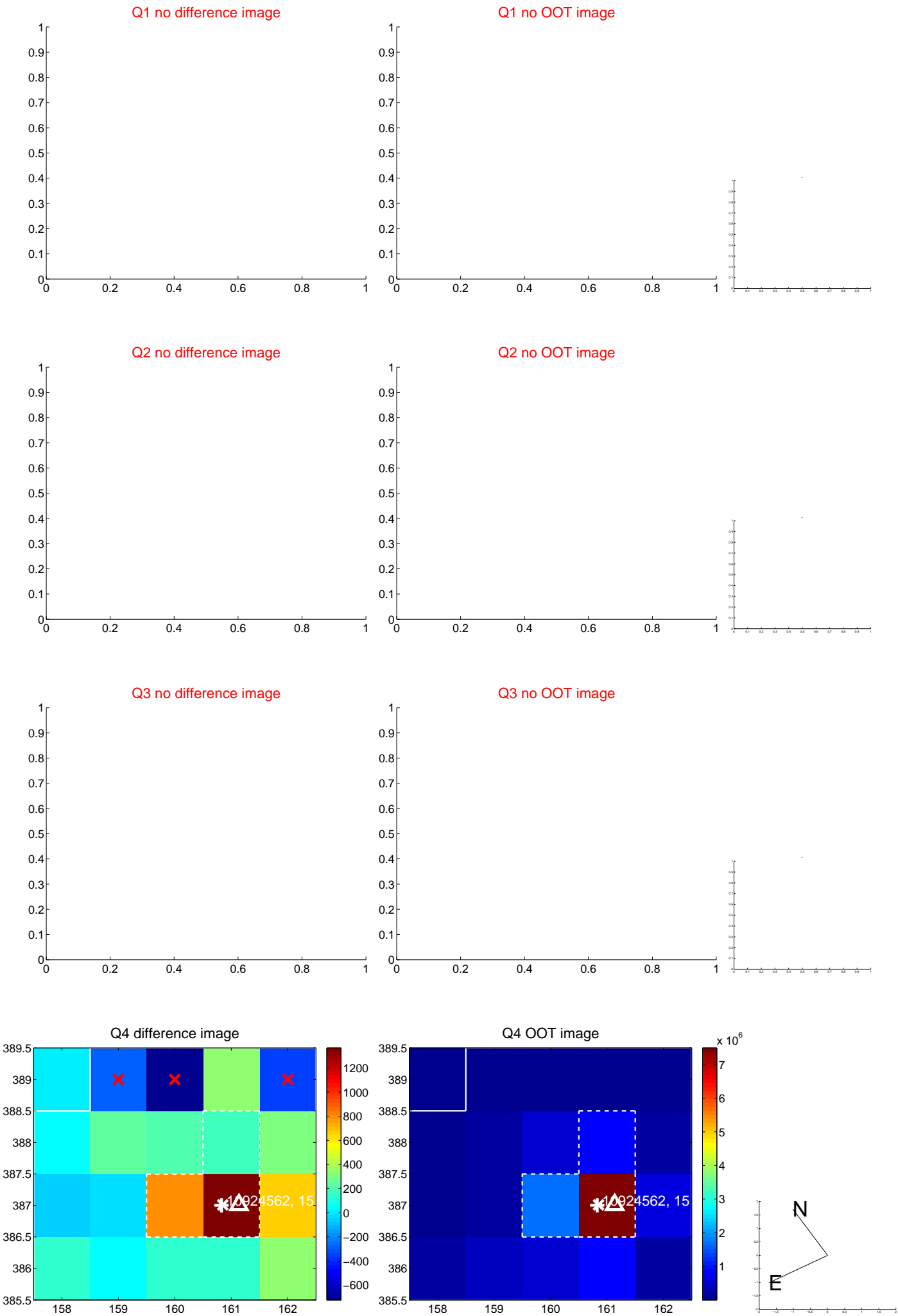
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.007 ± 0.342	2.94	-0.948 ± 0.324	0.339 ± 0.361
PRF-fit source offset from KIC position	0.830 ± 0.348	2.38	-0.746 ± 0.331	0.364 ± 0.337
photometric centroid source offset	2.00 ± 1.08	1.86	-1.61 ± 1.06	1.19 ± 1.11

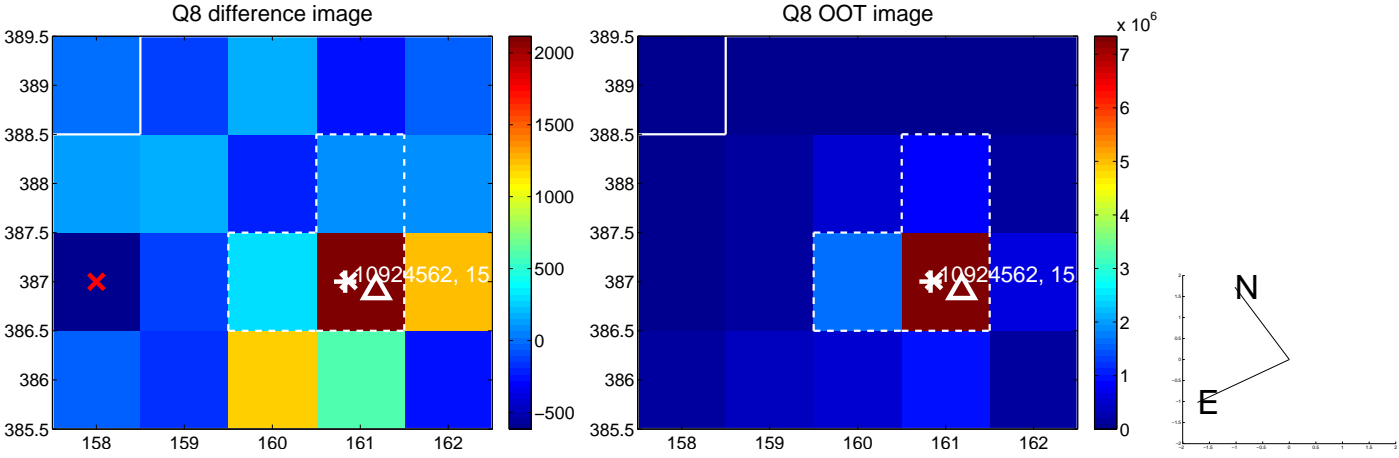
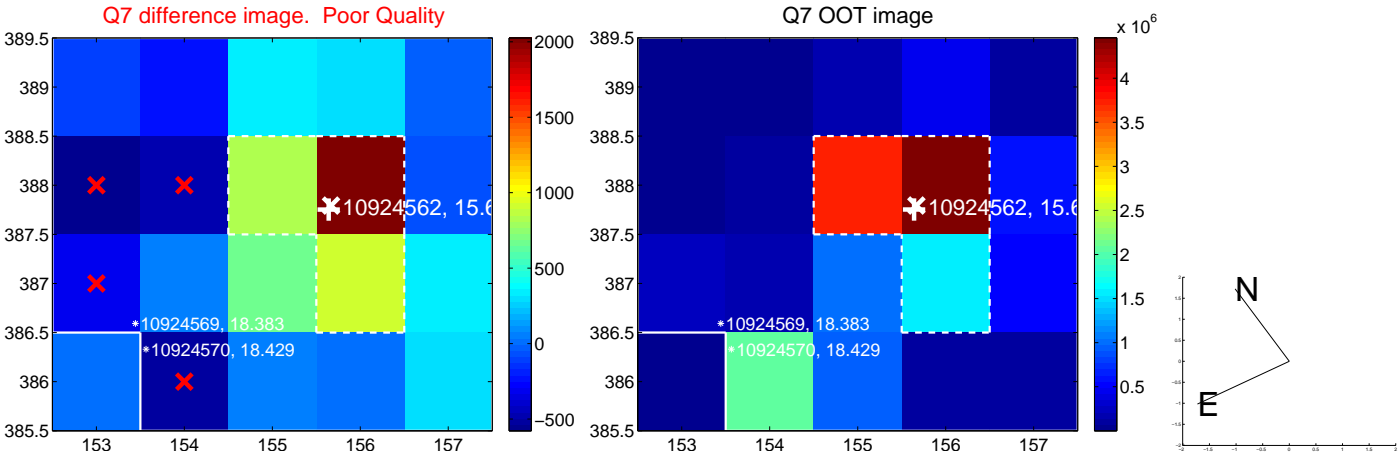
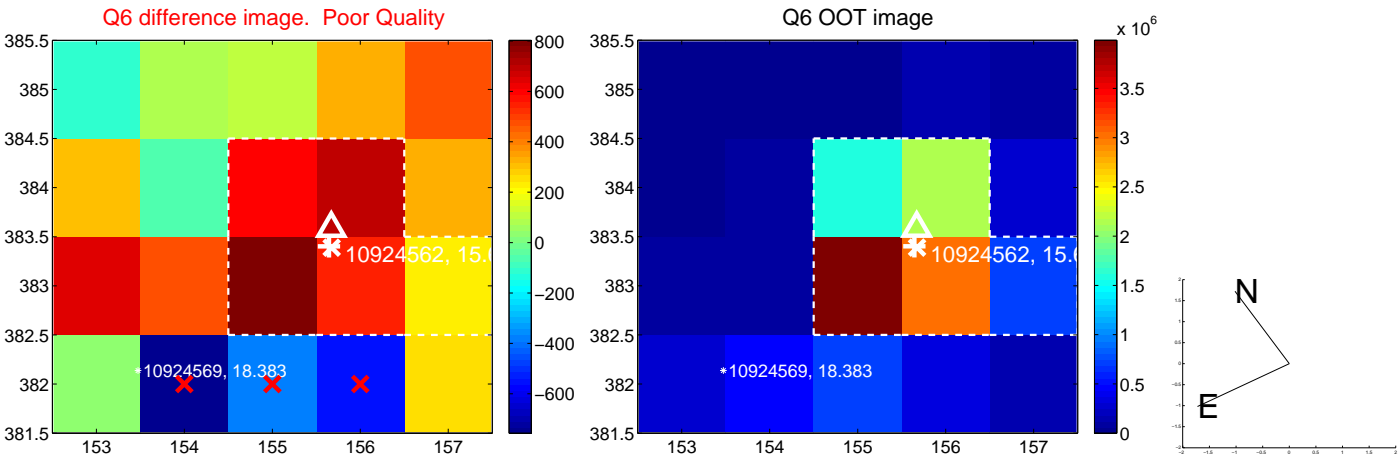
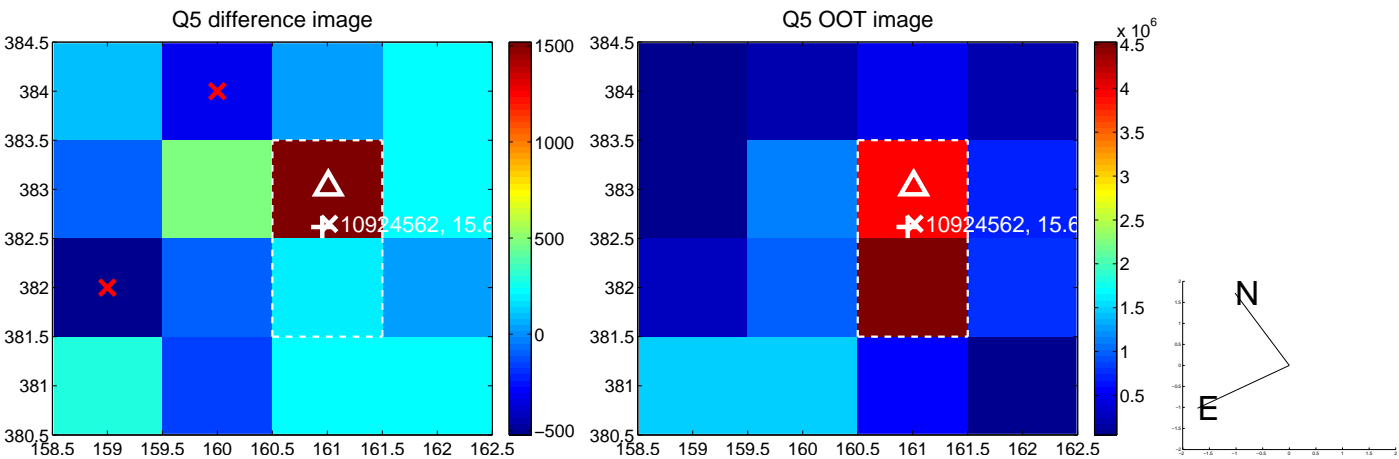


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

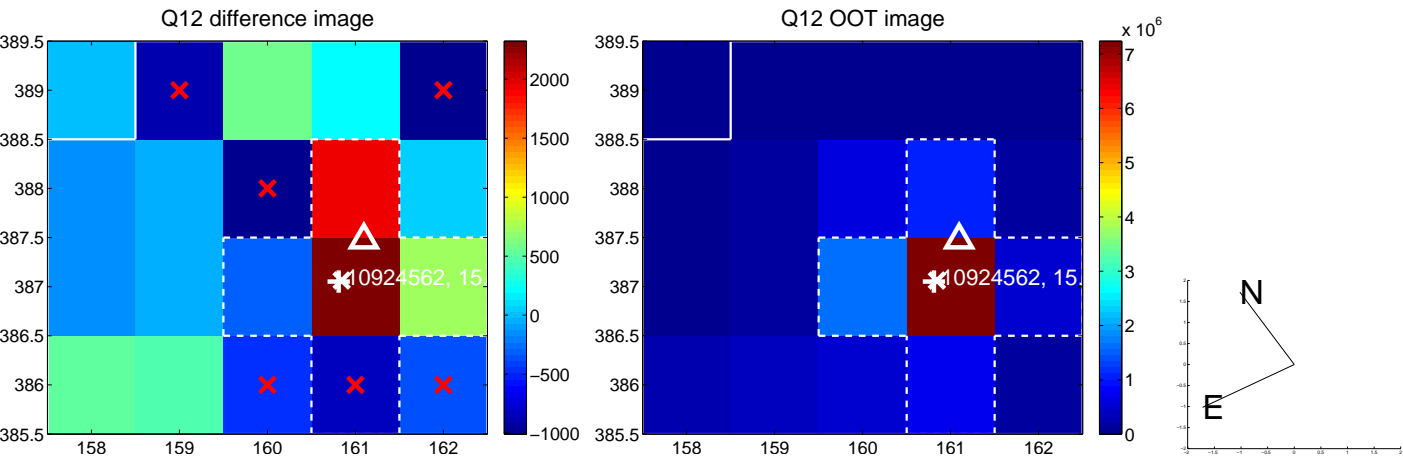
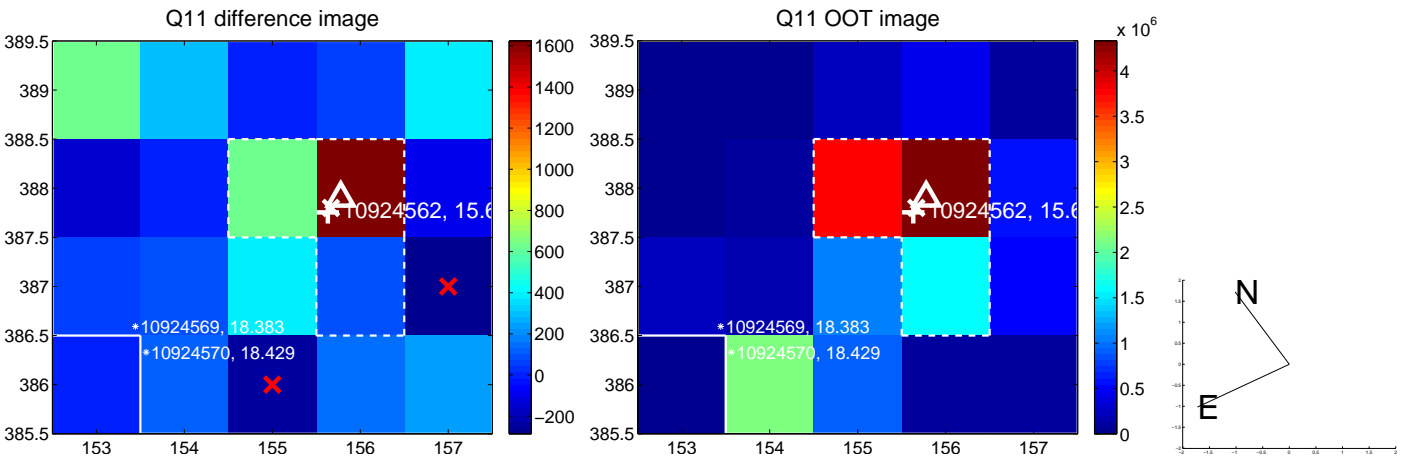
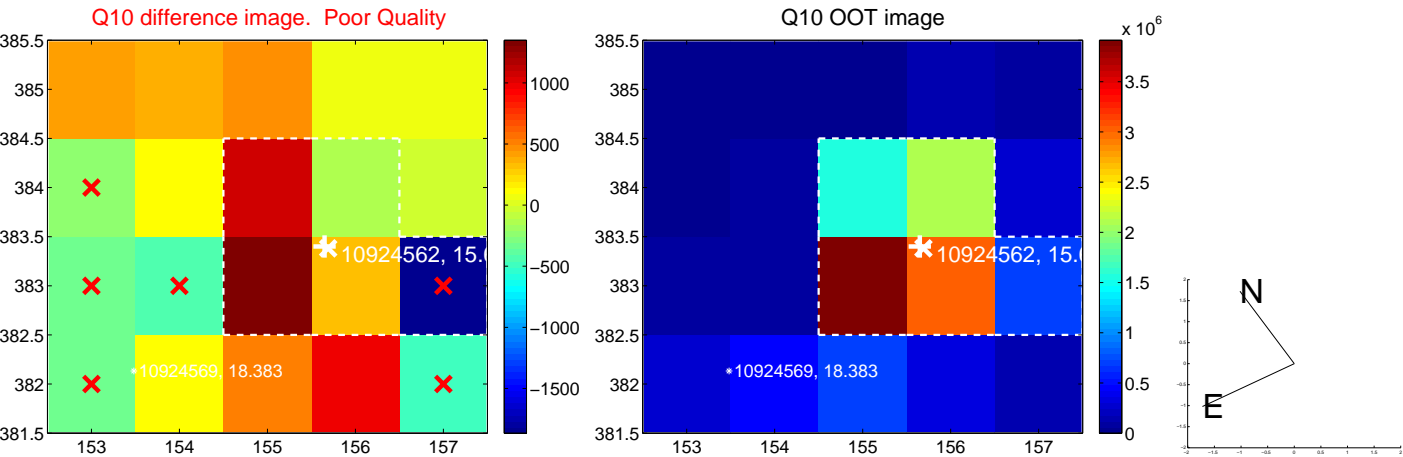
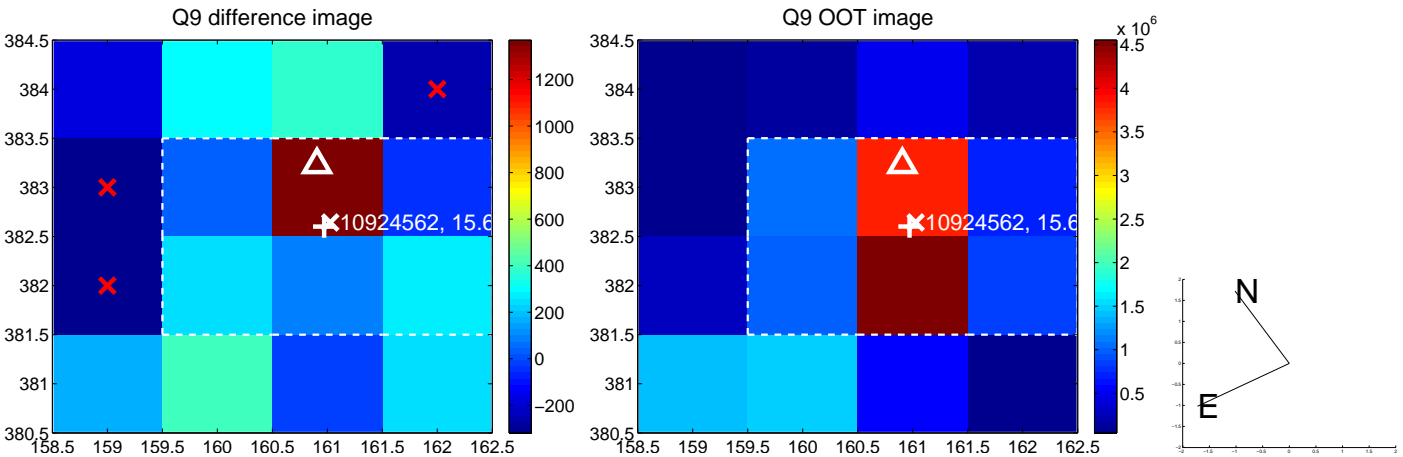
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



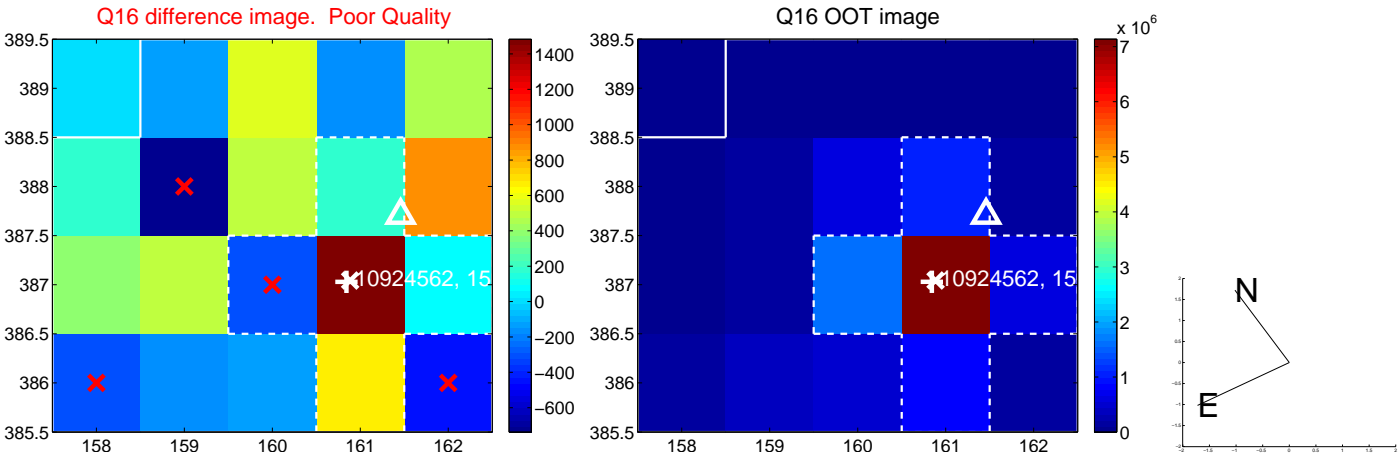
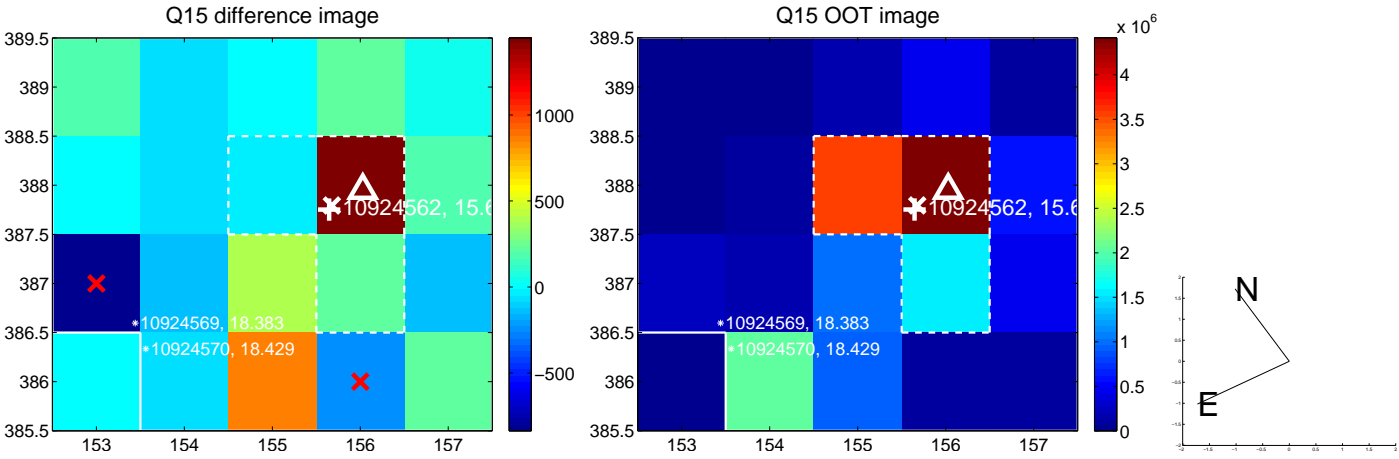
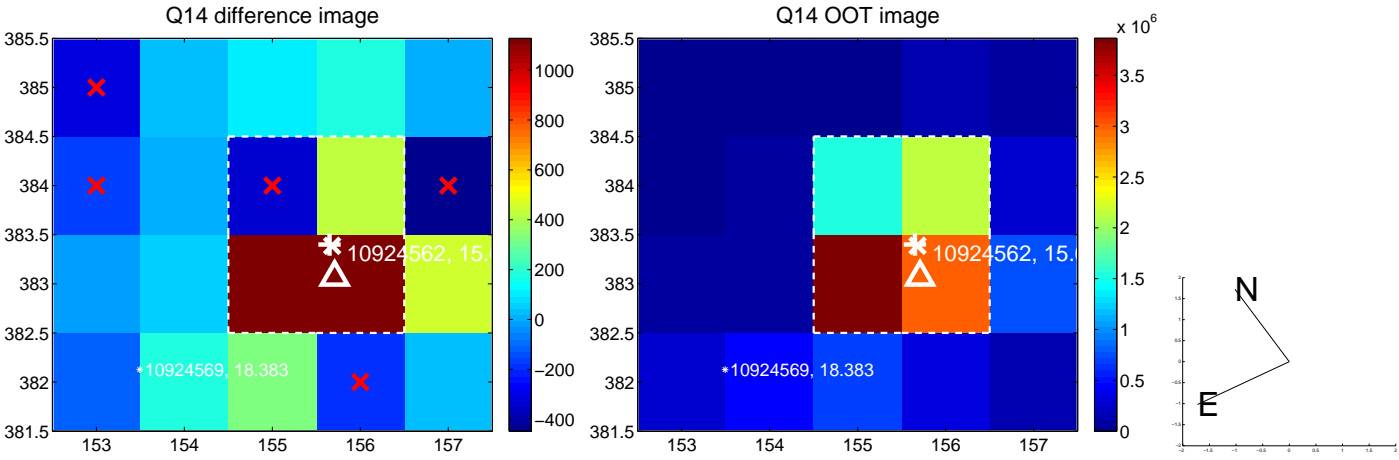
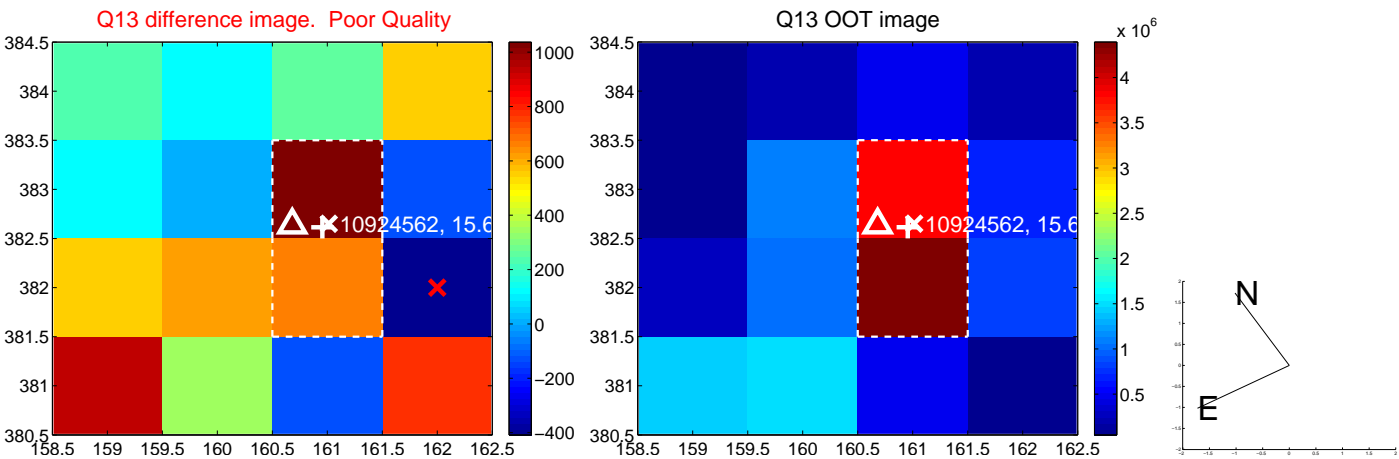
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



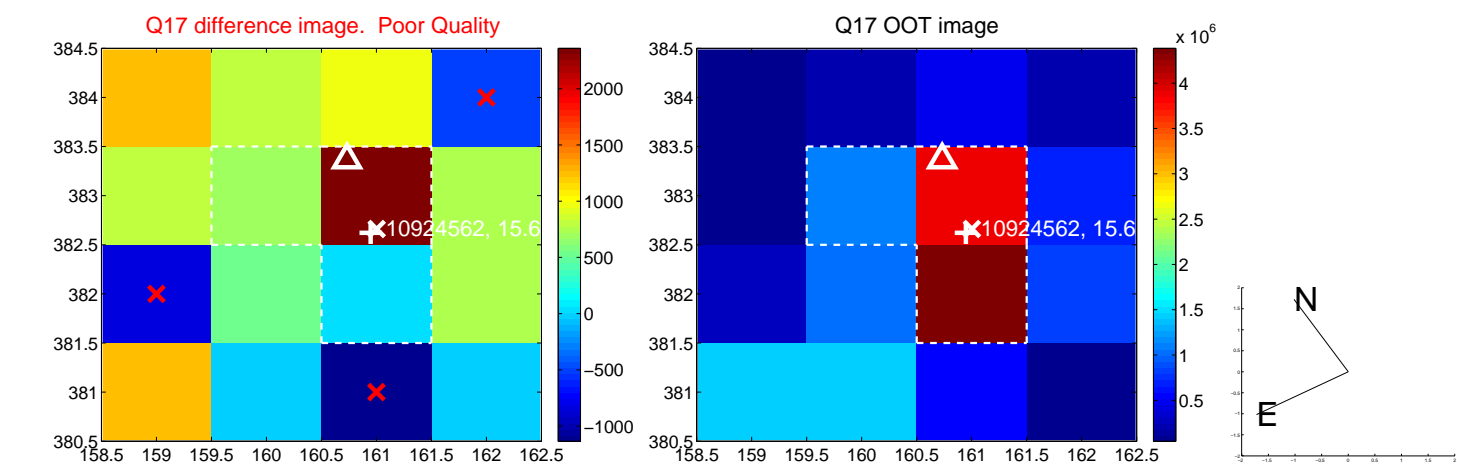
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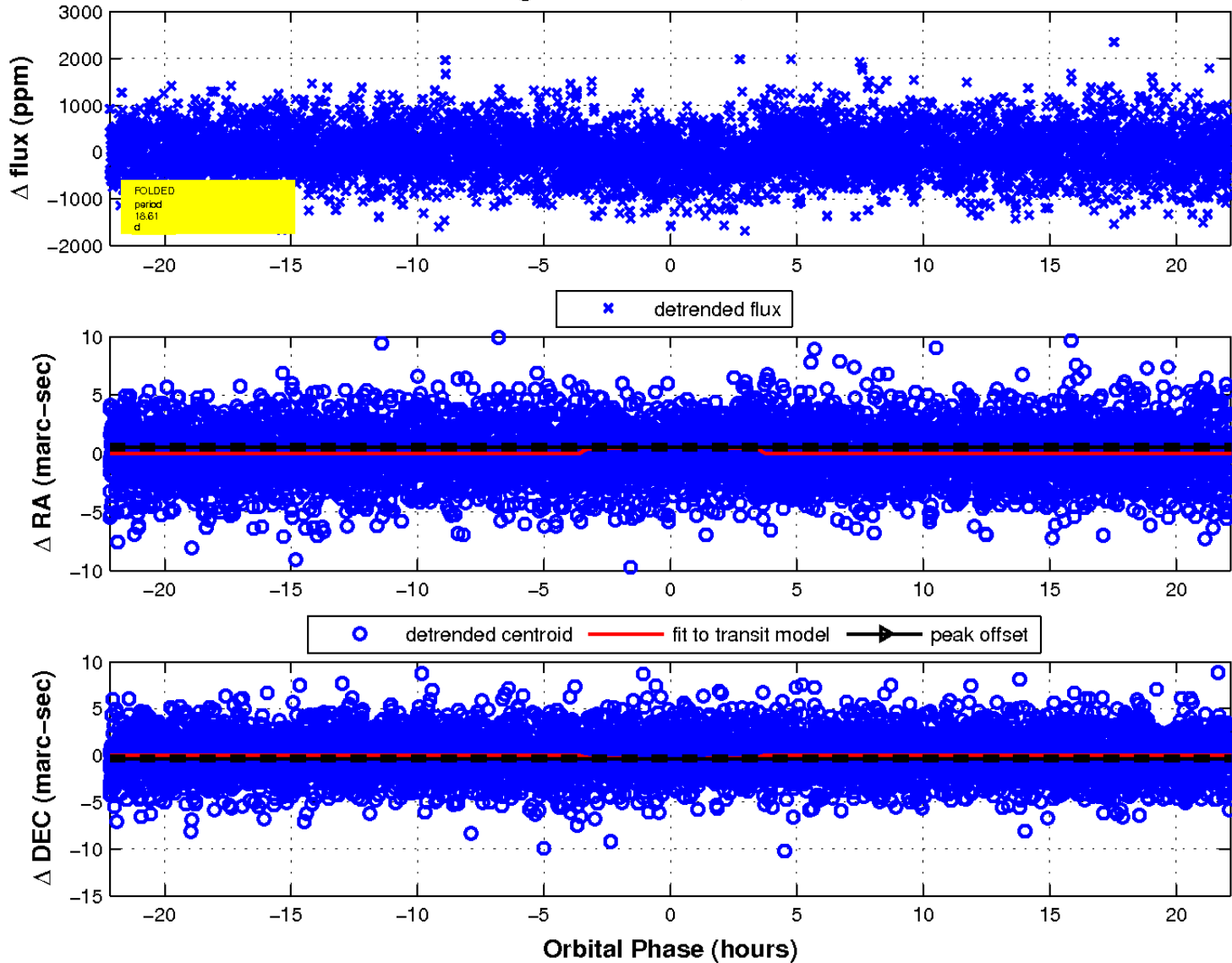
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

