

KIC 008236479

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})
008236479-01	OBS	No	0.549446	131.777130	88.3	3.334	11.2	15.2	1.90	7211	2.09	36799.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008236479-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

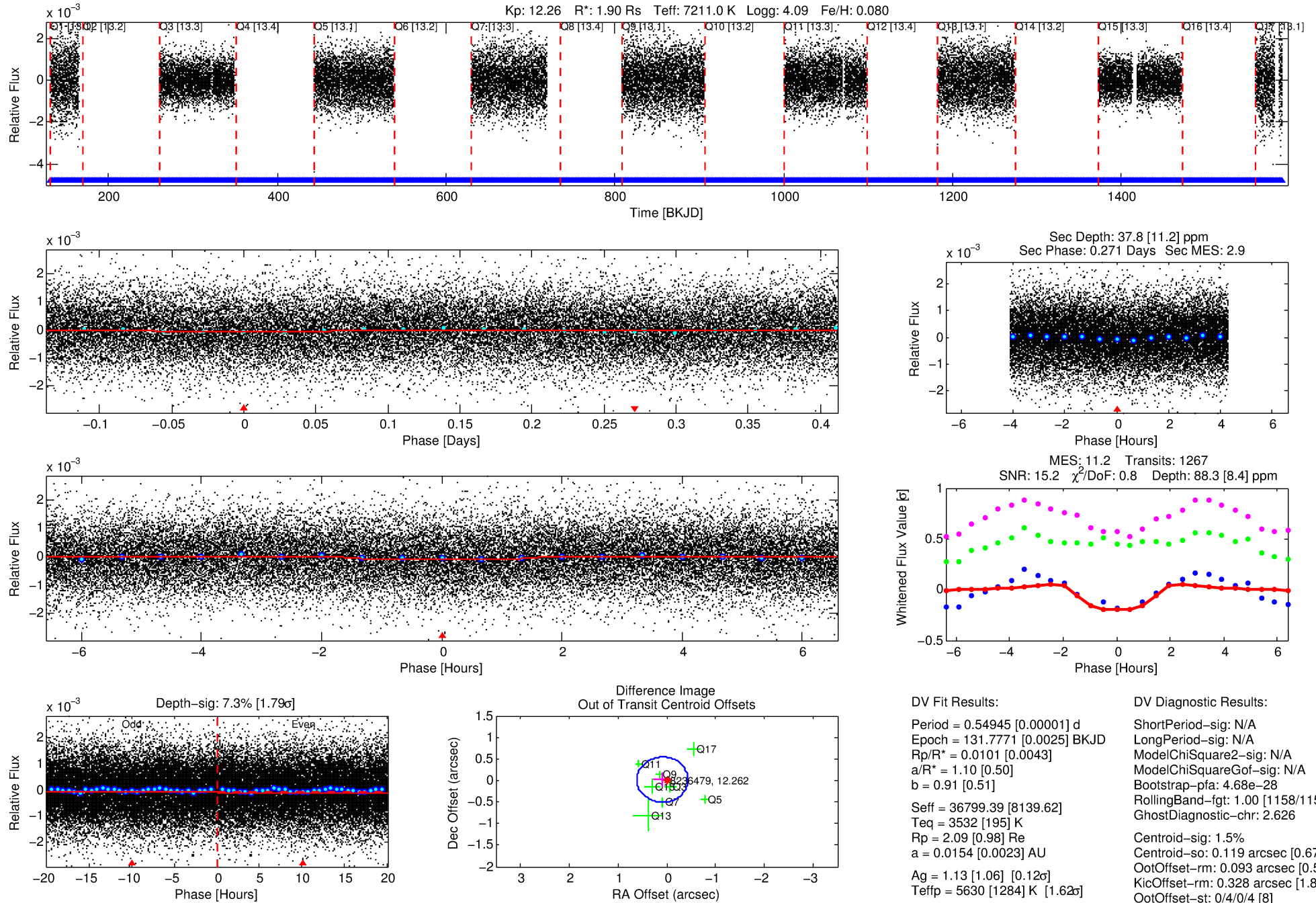
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008236479-01

No Significant Match Found

DV One-Page Summary

KIC: 8236479 Candidate: 1 of 1 Period: 0.549 d



DV Fit Results:

Period = 0.54945 [0.00001] d
Epoch = 131.7771 [0.0025] BKJD
Rp/R* = 0.0101 [0.0043]
a/R* = 1.10 [0.50]
b = 0.91 [0.51]
Seff = 36799.39 [8139.62]
Teq = 3532 [195] K
Rp = 2.09 [0.98] Re
a = 0.0154 [0.0023] AU
Ag = 1.13 [1.06] [0.12σ]
Teffp = 5630 [1284] K [1.62σ]

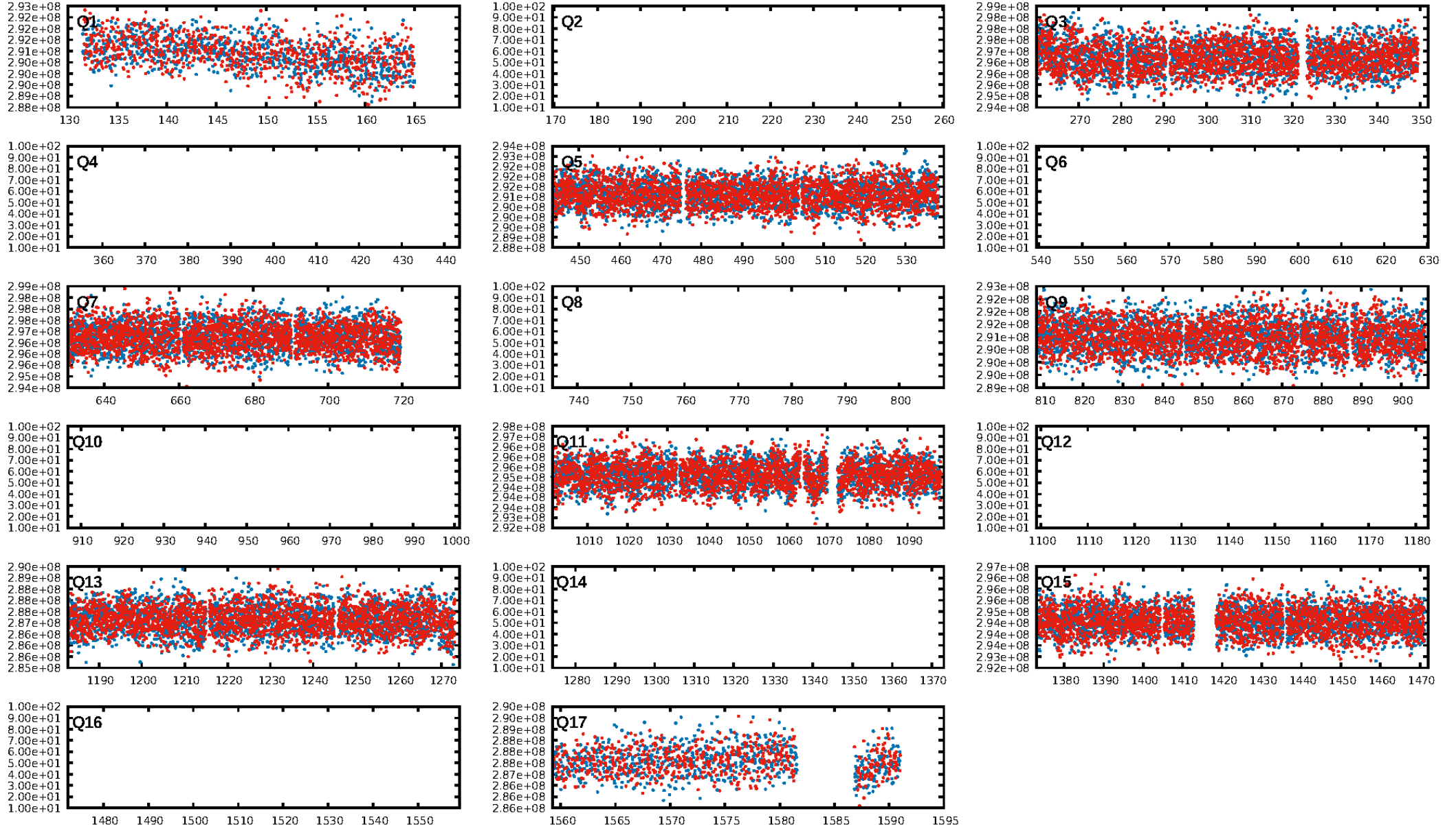
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.68e-28
RollingBand-fgt: 1.00 [1158/1158]
GhostDiagnostic-chr: 2.626
Centroid-sig: 1.5%
Centroid-so: 0.119 arcsec [0.67σ]
OotOffset-rm: 0.093 arcsec [0.53σ]
KicOffset-rm: 0.328 arcsec [1.84σ]
OotOffset-st: 0/4/0/4 [8]
KicOffset-st: 0/4/0/4 [8]
DiffImageQuality-fgm: 0.88 [7/8]
DiffImageOverlap-fno: 1.00 [9/9]

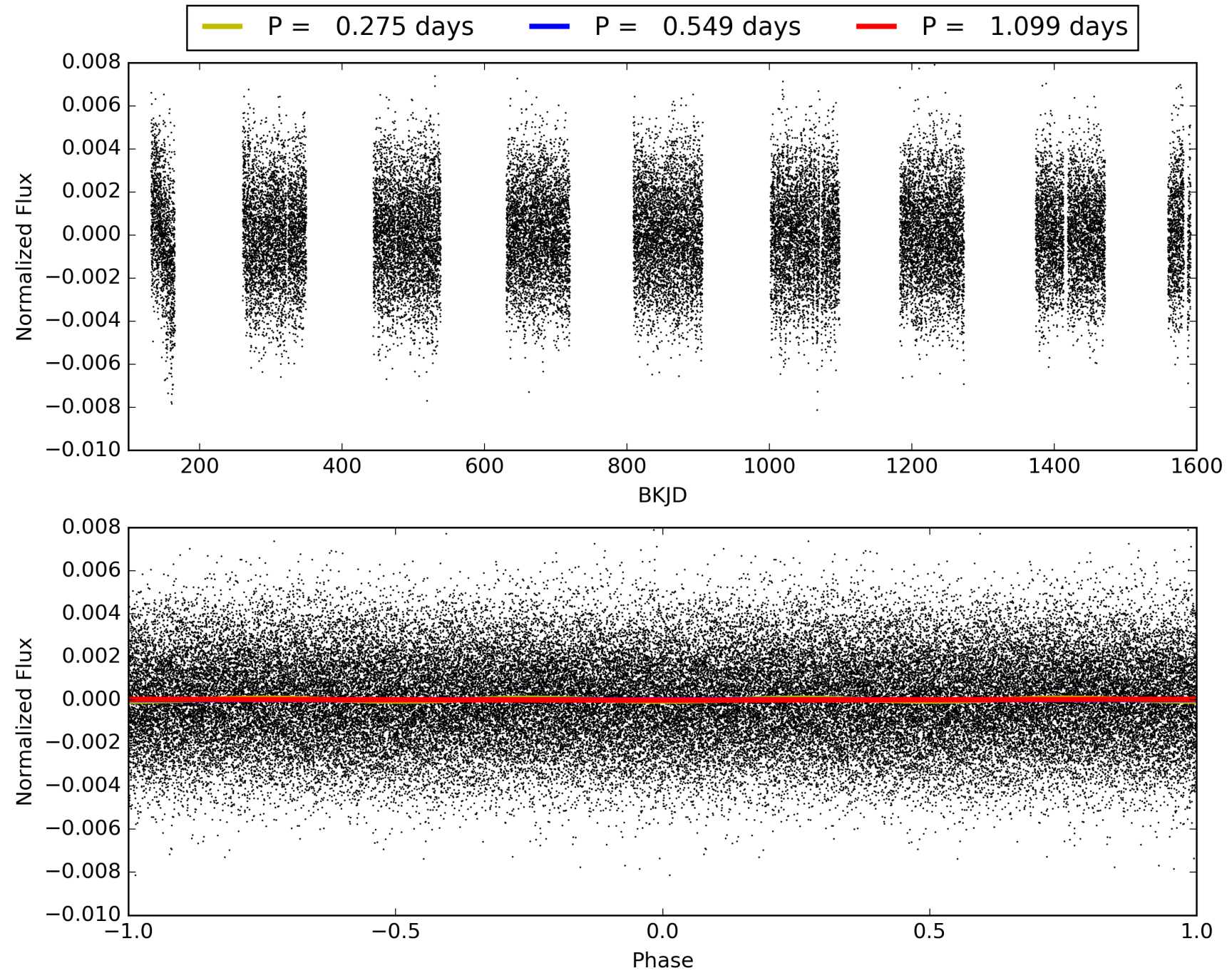
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:46:50 Z

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

TCE 008236479-01, PDC Light Curves

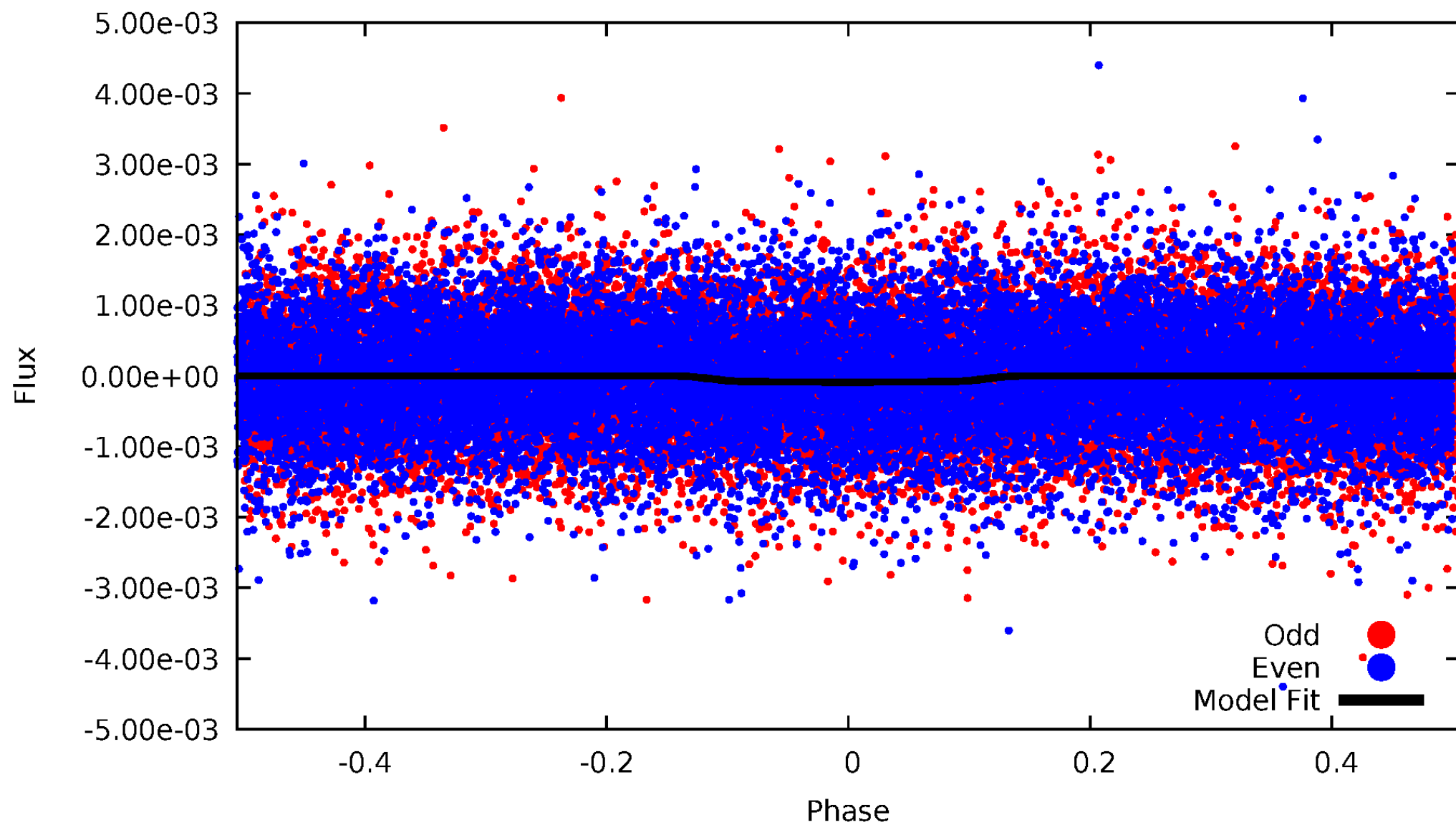


TCE 008236479-01



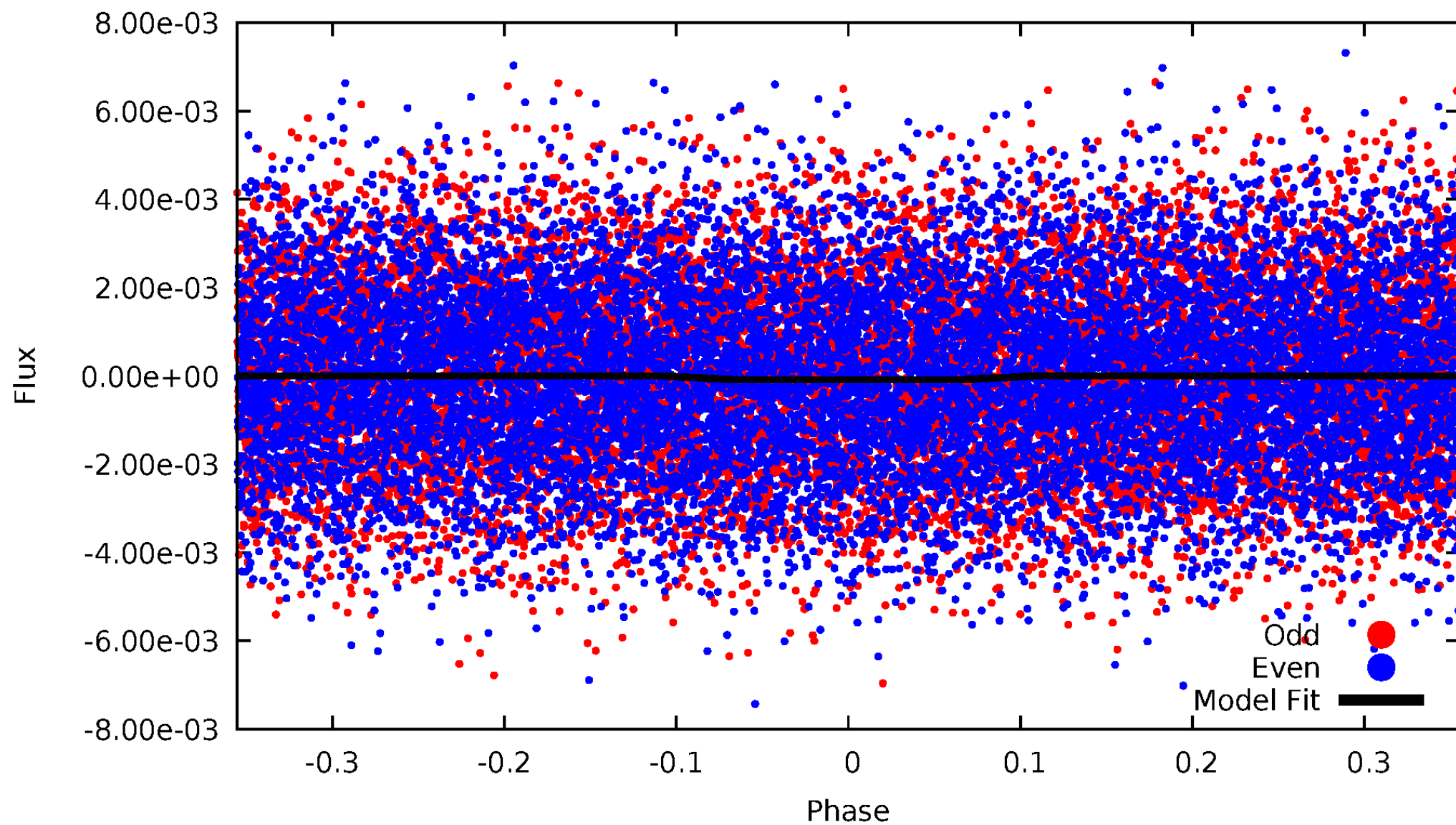
DV Odd/Even

TCE 008236479-01



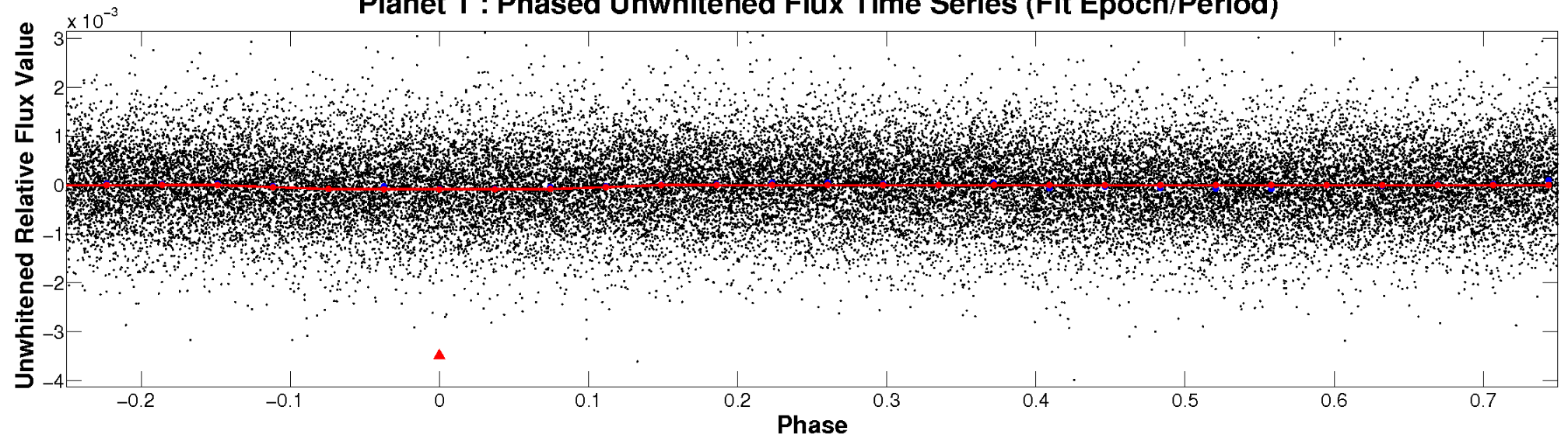
ALT Odd/Even

TCE 008236479-01

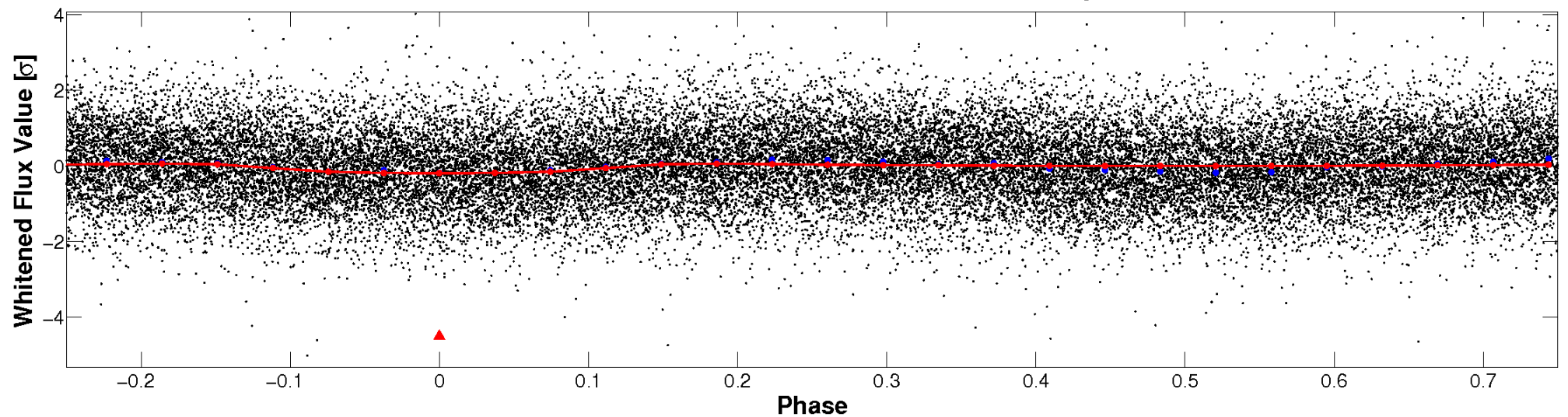


Non-Whitened Vs. Whitened Light Curve

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

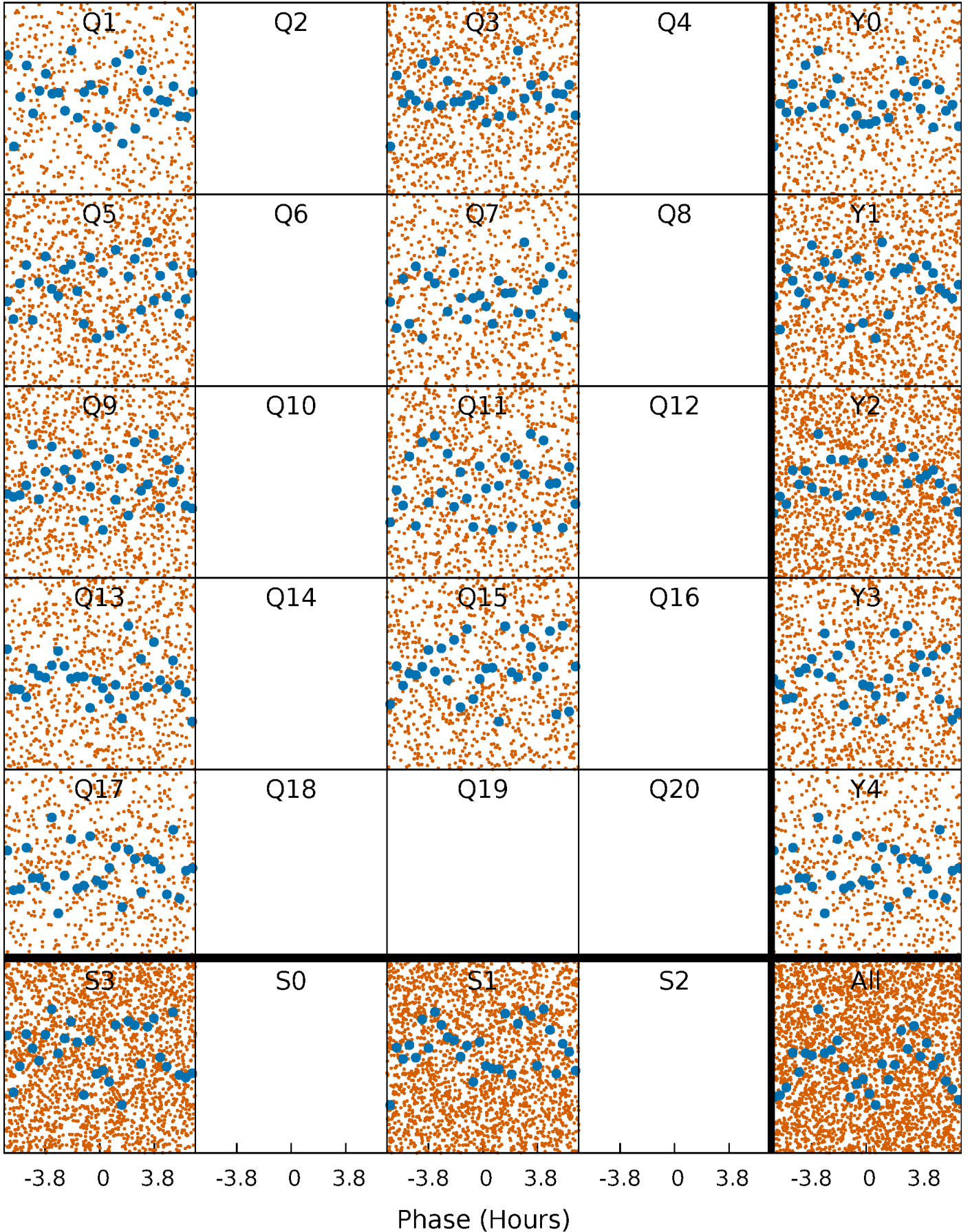


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



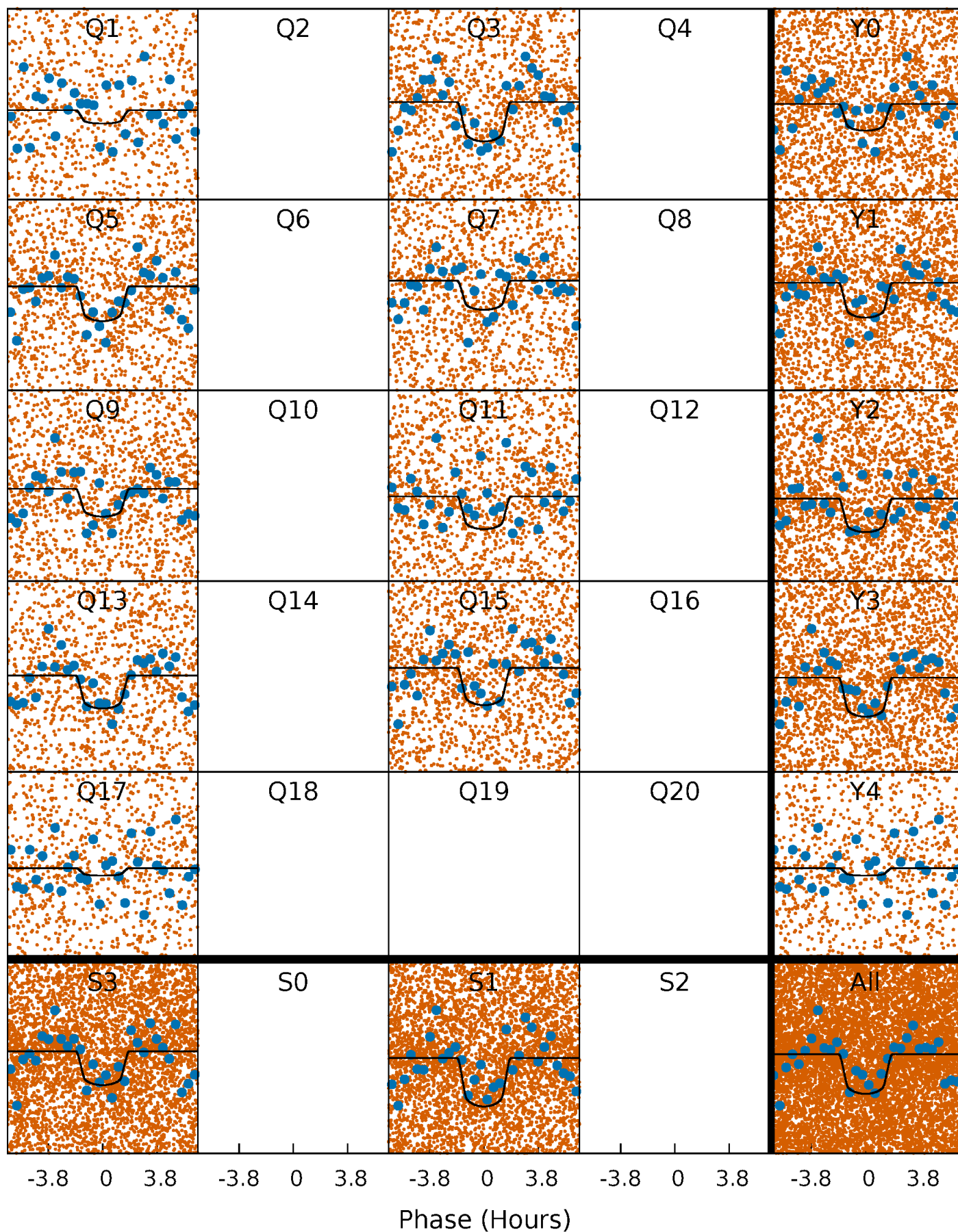
PDC Quarter-Phased Transit Curves

TCE 008236479-01 P= 0.549446 Days $T_0=131.777130$ (BKJD)



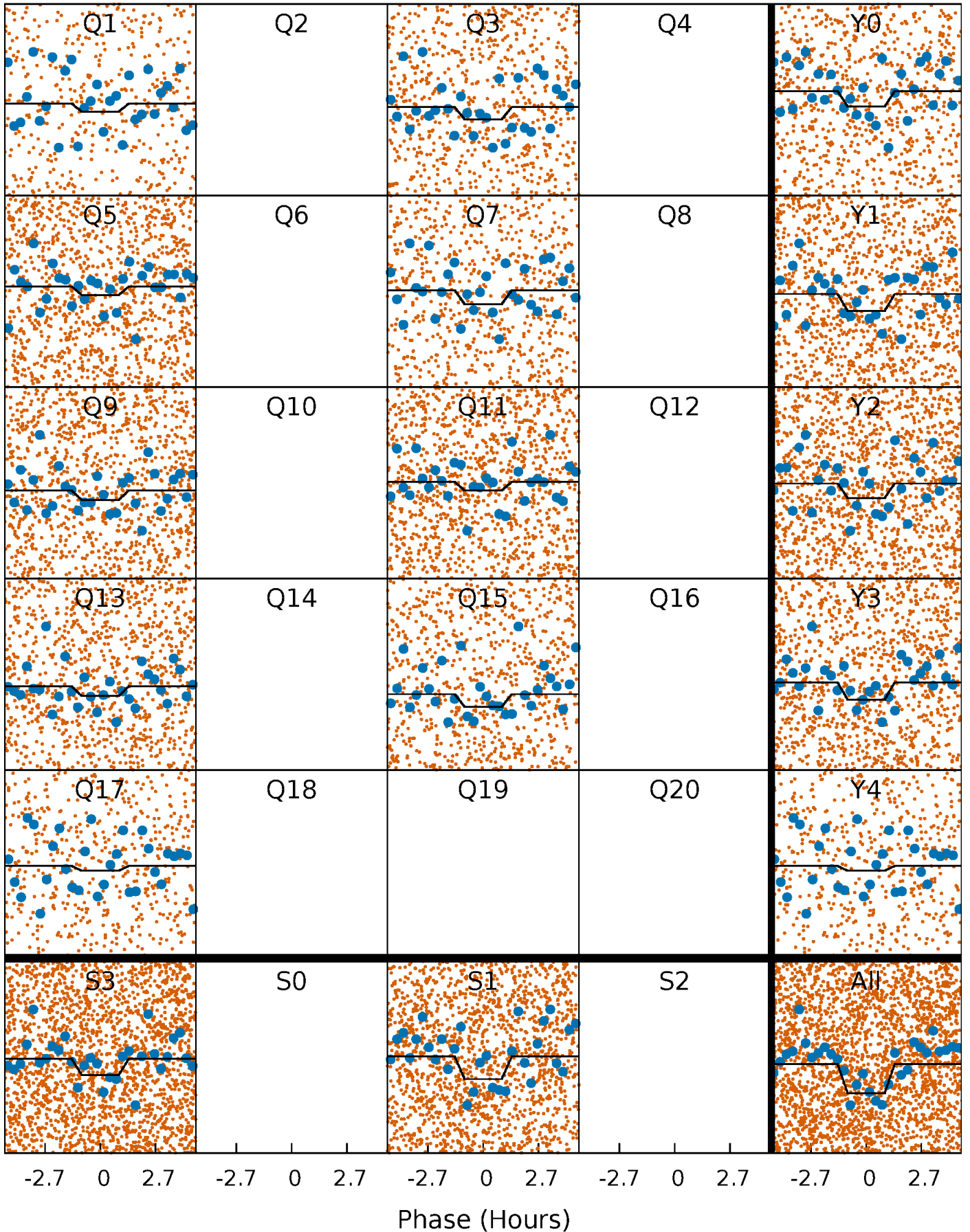
DV Quarter-Phased Transit Curves

TCE 008236479-01 P= 0.549446 Days $T_0=131.777130$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

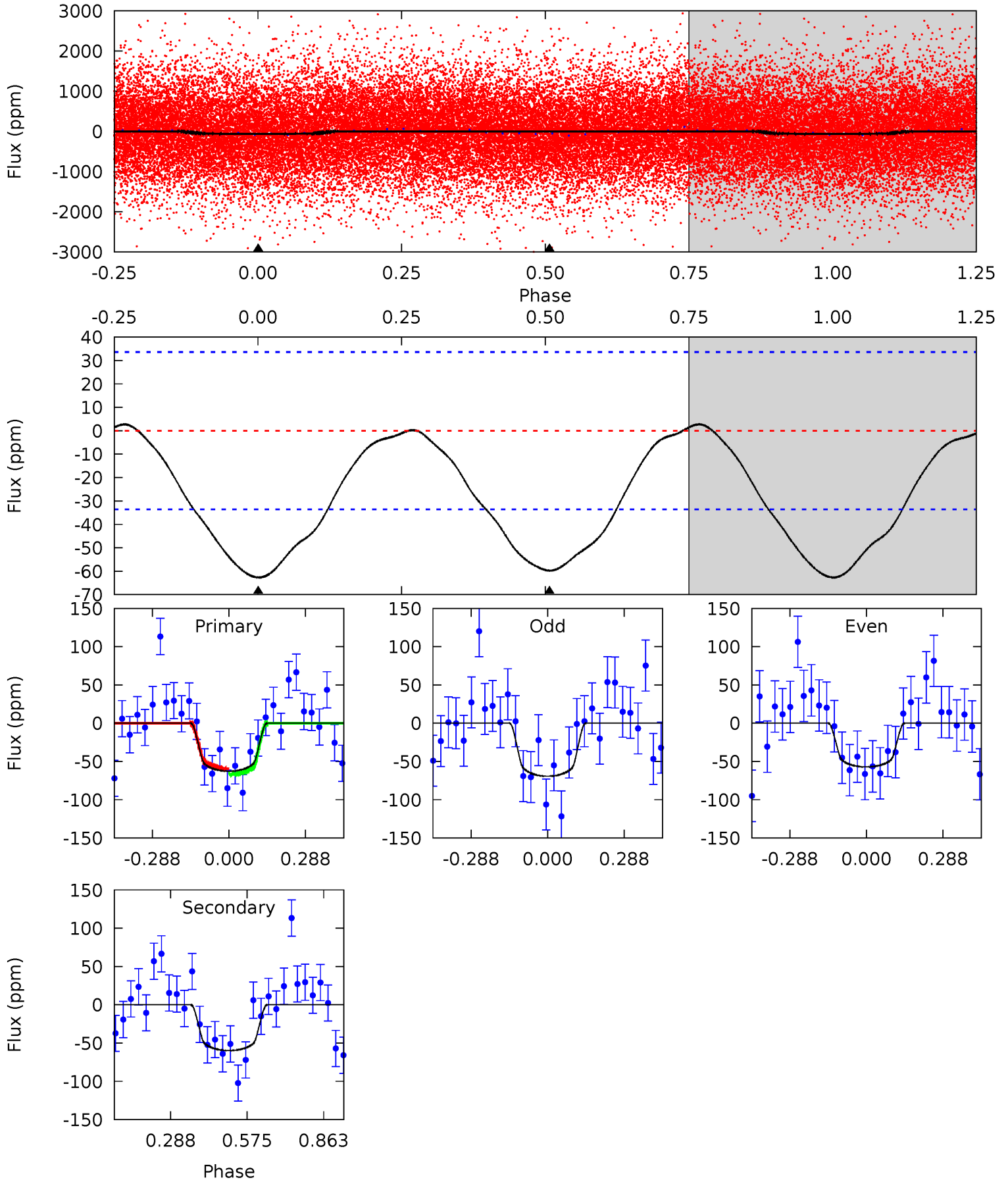
TCE 008236479-01 P= 0.549451 Days $T_0=131.764105$ (BKJD)



DV Model-Shift Uniqueness Test

008236479-01, P = 0.549446 Days, E = 131.227684 Days

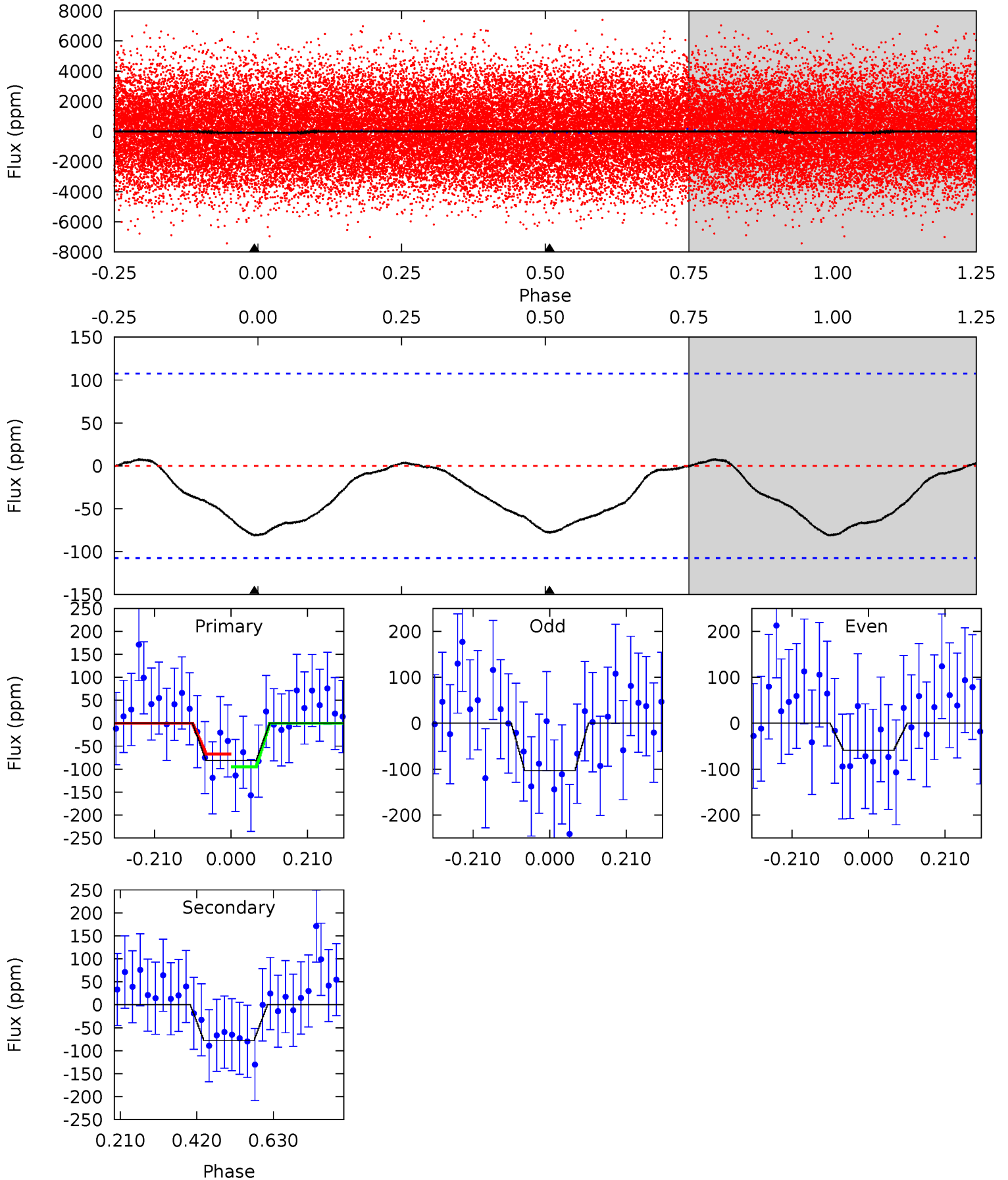
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.09	7.72	0	0	4.34	1.06	0.22	8.09	8.09	7.72	7.72	0.79	0.99	0.04	0.47



Alt Model-Shift Uniqueness Test

008236479-01, P = 0.549451 Days, E = 131.214654 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.33	3.19	0	0	4.41	1.25	0.13	3.33	3.33	3.19	3.19	0.90	0.95	0.09	0.57



Stellar Parameters For KIC 008236479

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7211^{+72}_{-86}	$4.089^{+0.095}_{-0.116}$	$0.080^{+0.150}_{-0.150}$	$1.898^{+0.348}_{-0.232}$	$1.612^{+0.126}_{-0.113}$	$0.332^{+0.139}_{-0.115}$
	+1%/-1%	+2%/-3%	+188%/-188%	+18%/-12%	+8%/-7%	+42%/-35%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008236479-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-60 ± 8	$2.17^{+0.97}_{-0.90}$	4938^{+205}_{-192}	5819^{+2267}_{-1133}	$1.617^{+3.096}_{-0.824}$
Alt.	-78 ± 24	$1.92^{+0.82}_{-0.90}$	4938^{+220}_{-173}	6795^{+3372}_{-1481}	$2.710^{+6.467}_{-1.536}$

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 $A_{obs} \gg 1.0$

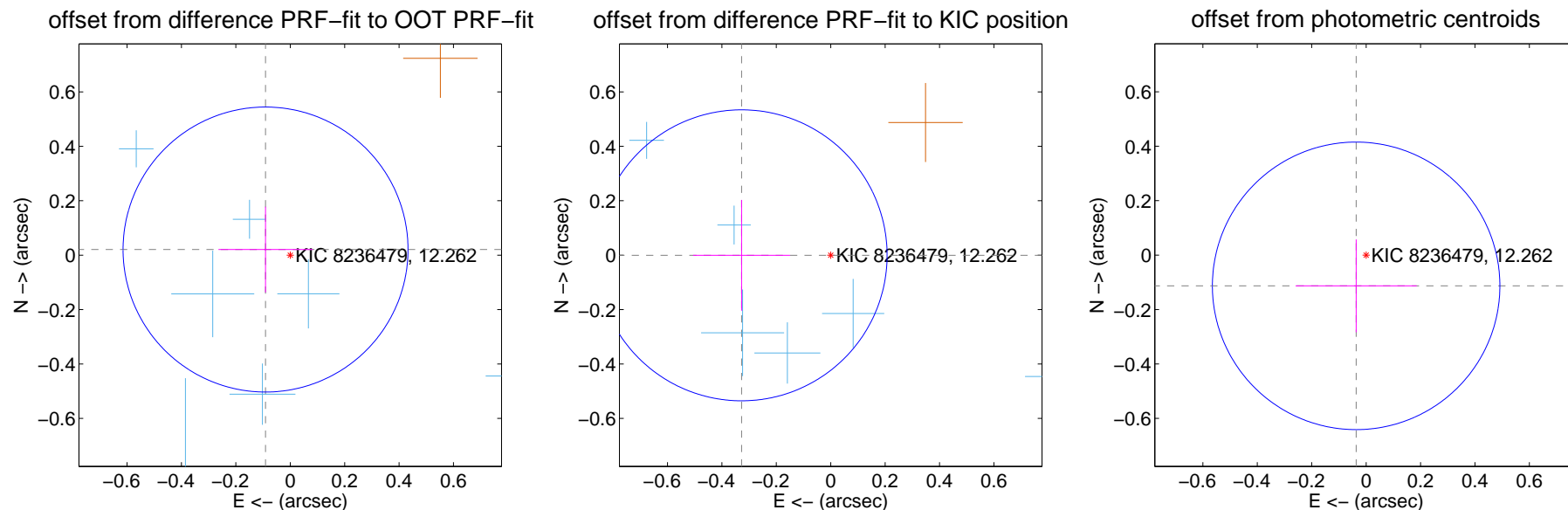
DV Centroid Data

Supplemental centroid analysis for 008236479-01. Kepler magnitude: 12.26. Transit SNR 15.18

There are 7 quarters with good PRF difference image offsets

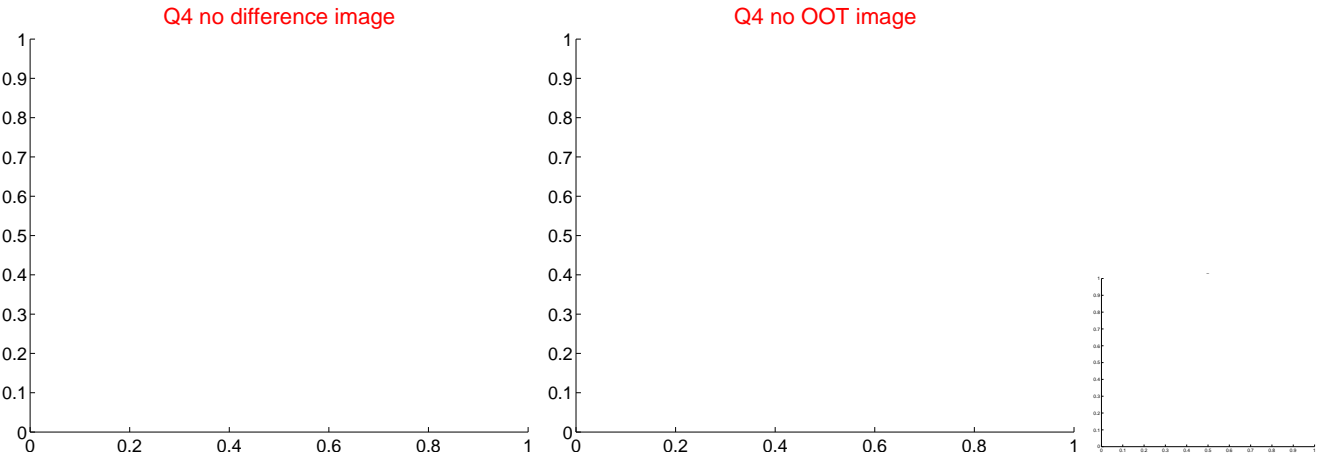
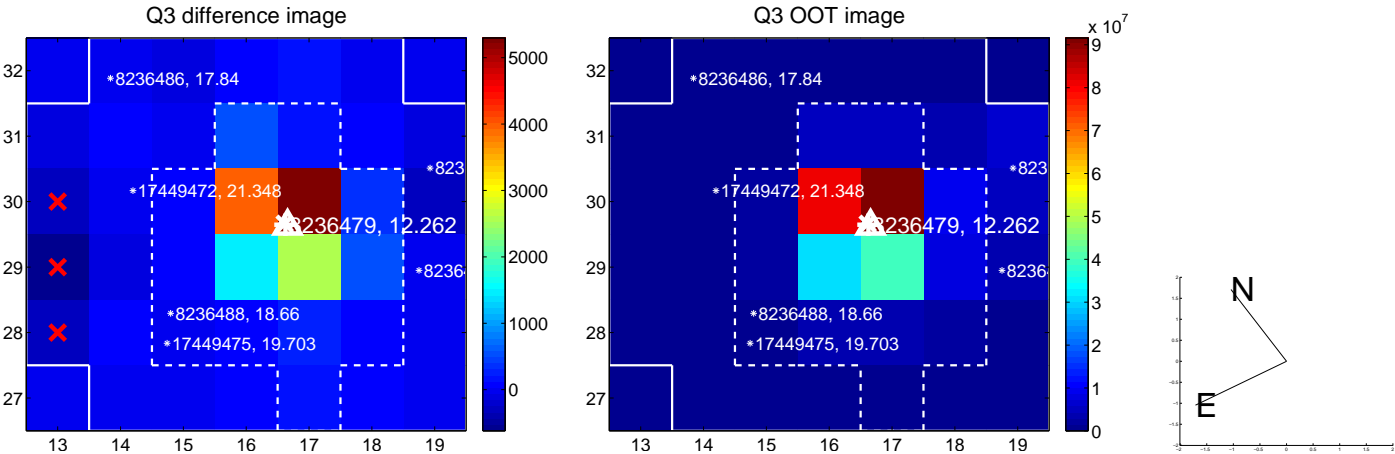
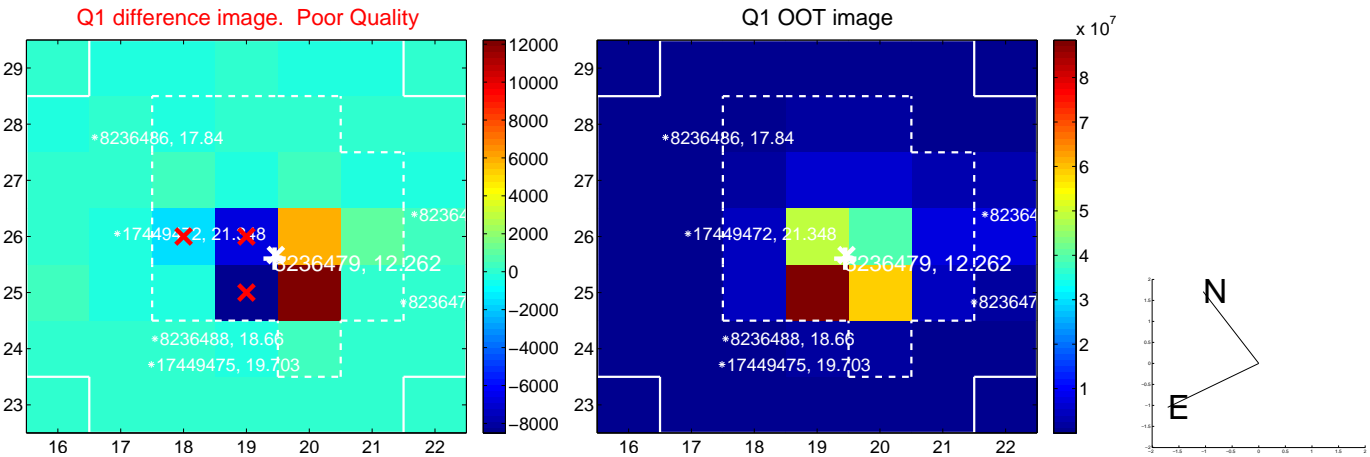
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.093 ± 0.175	0.53	0.091 ± 0.173	0.021 ± 0.157
PRF-fit source offset from KIC position	0.328 ± 0.178	1.84	0.328 ± 0.178	-0.001 ± 0.204
photometric centroid source offset	0.12 ± 0.18	0.67	0.04 ± 0.22	-0.11 ± 0.17

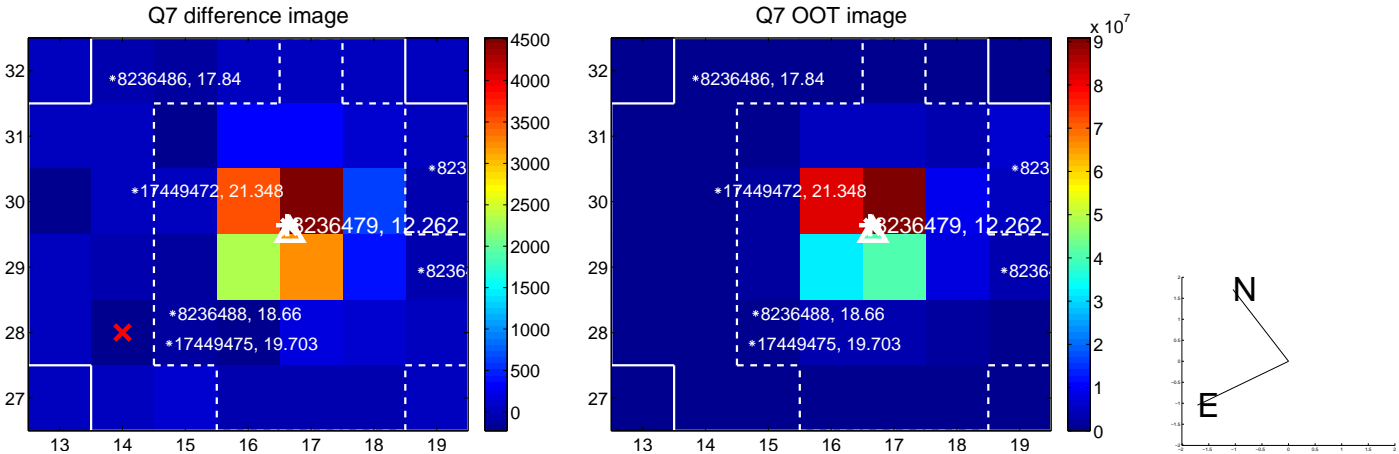
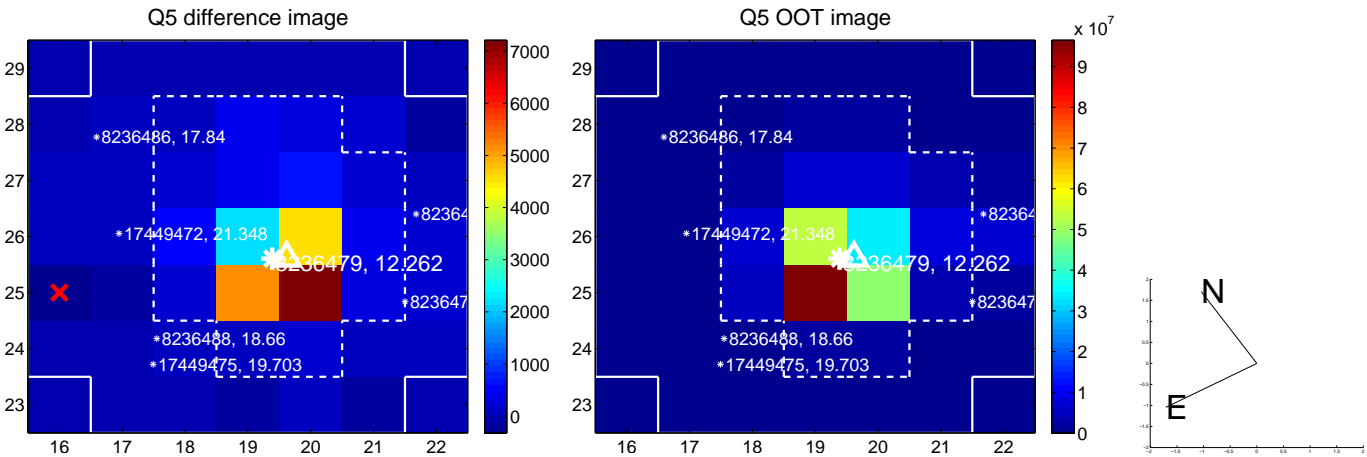


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

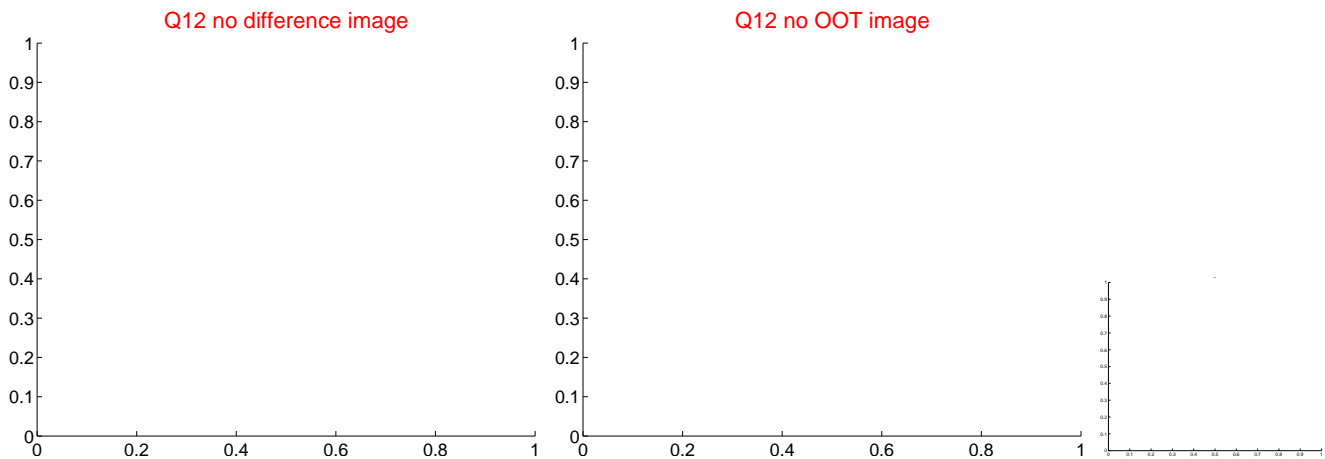
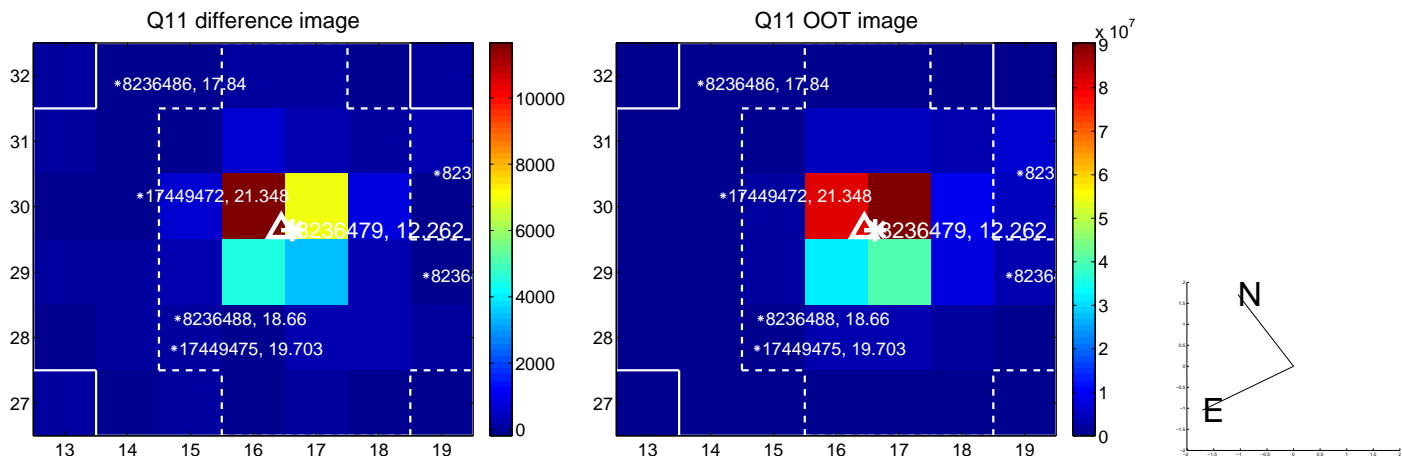
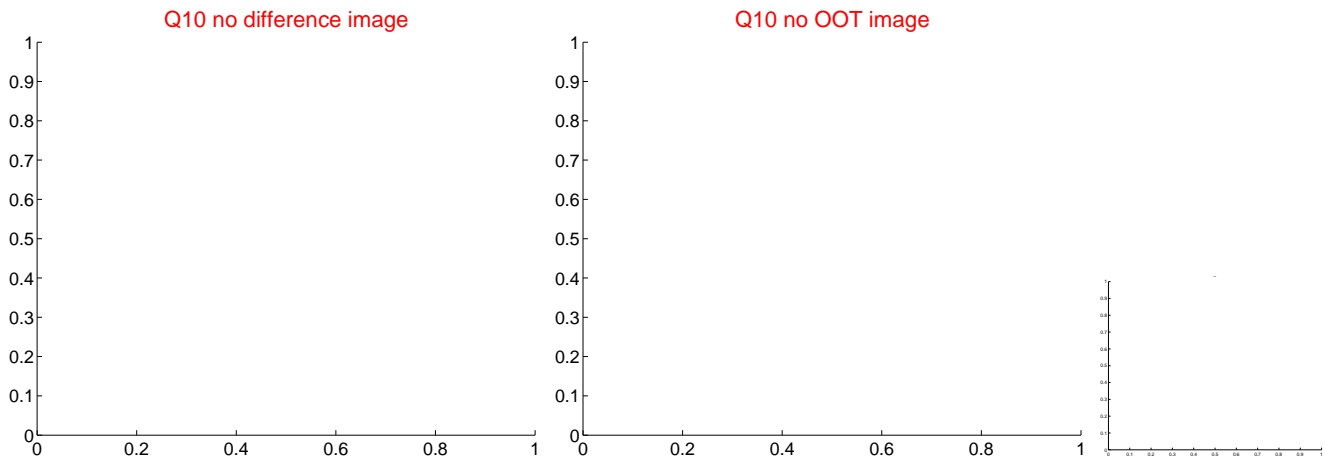
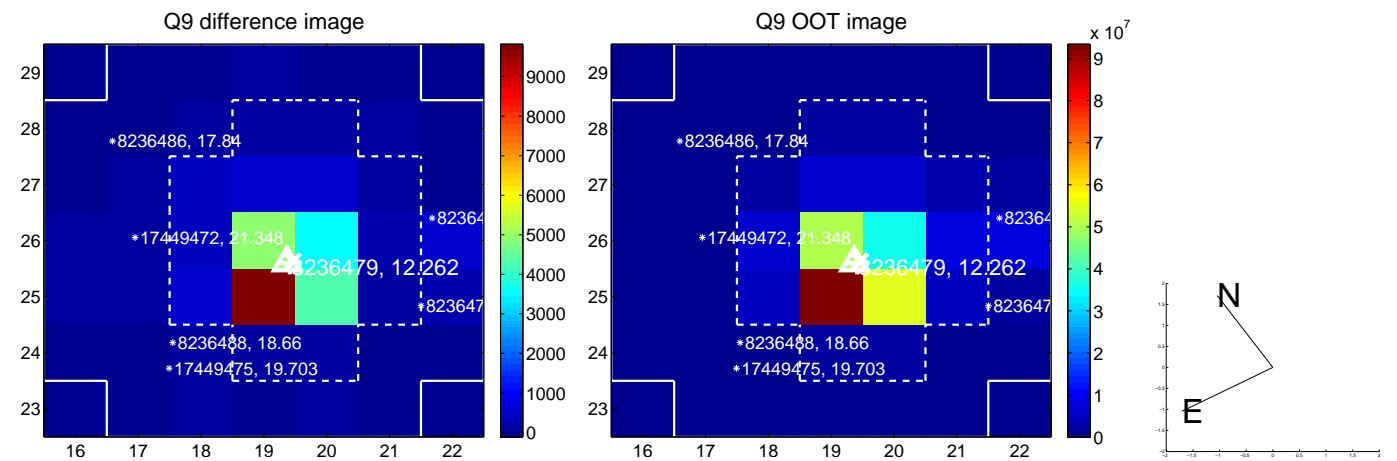
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



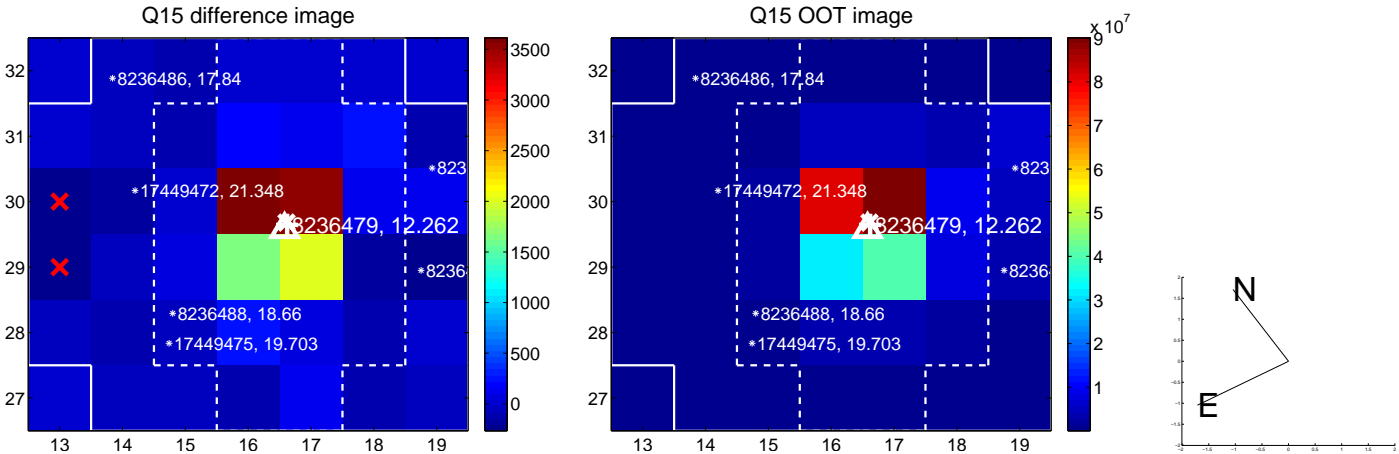
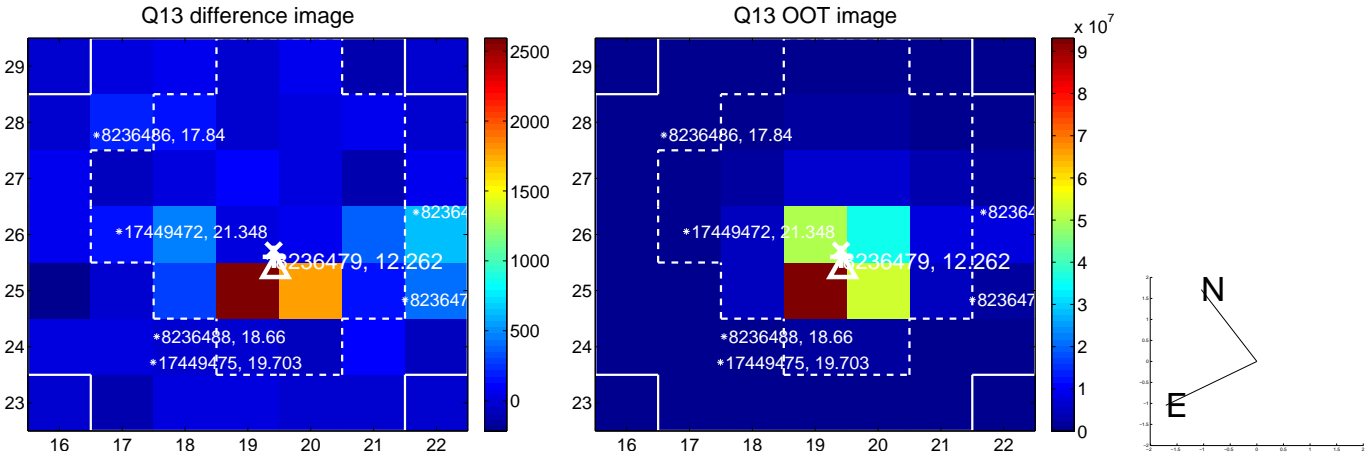
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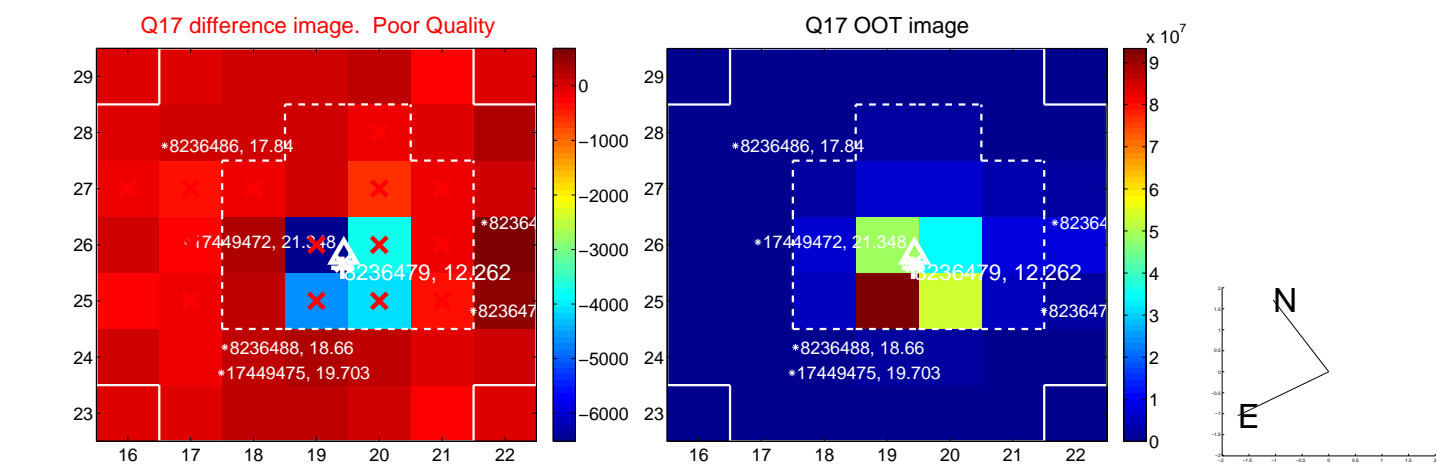
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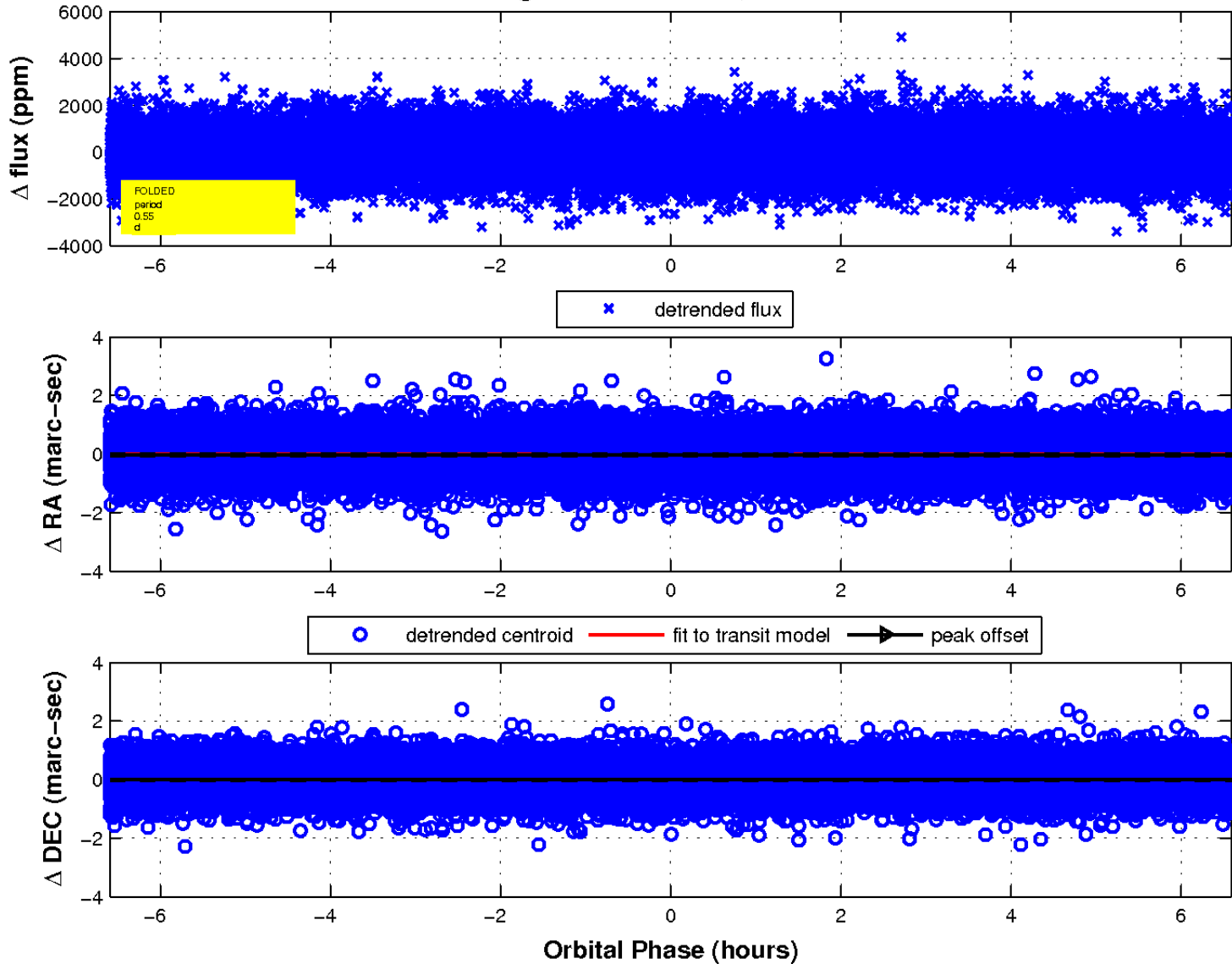
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

