

KIC 005456979

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})
005456979-01	OBS	6579.01	2.652744	131.572393	140.9	2.718	8.3	9.1	0.94	5778	1.42	636.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005456979-01	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.

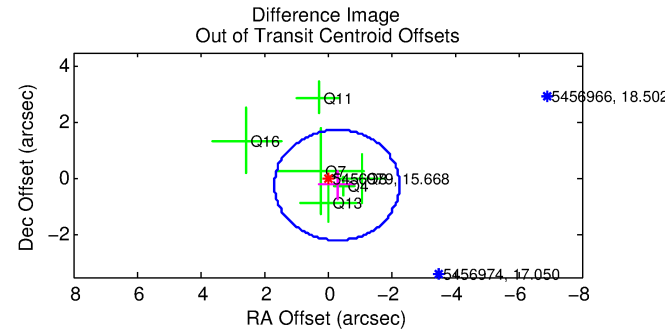
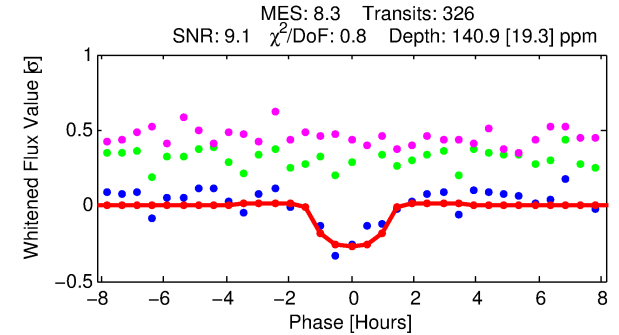
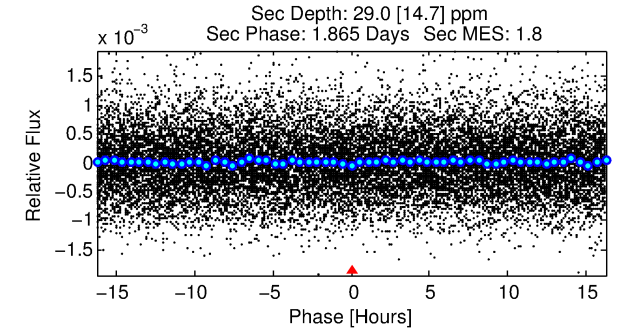
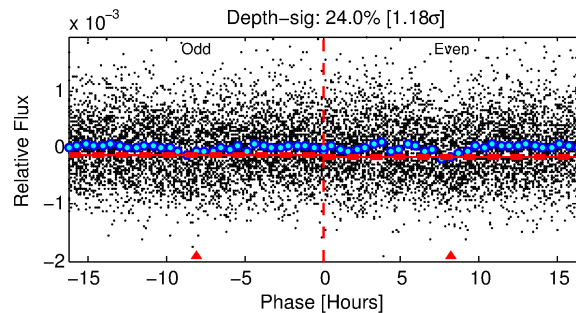
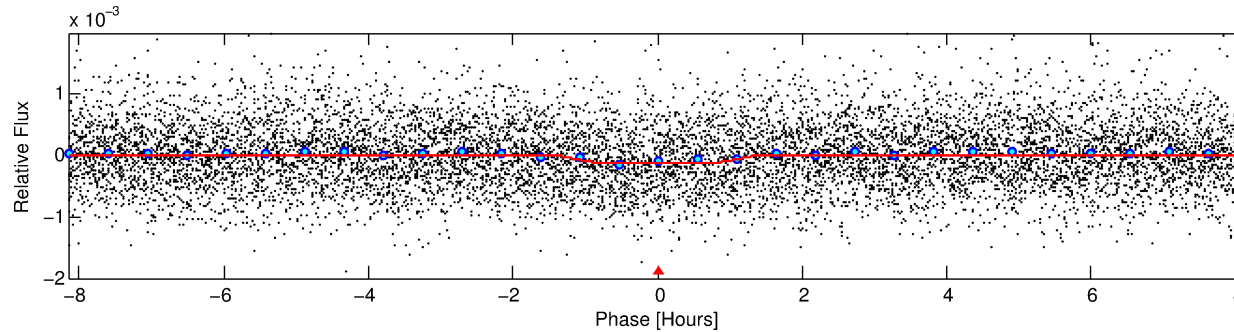
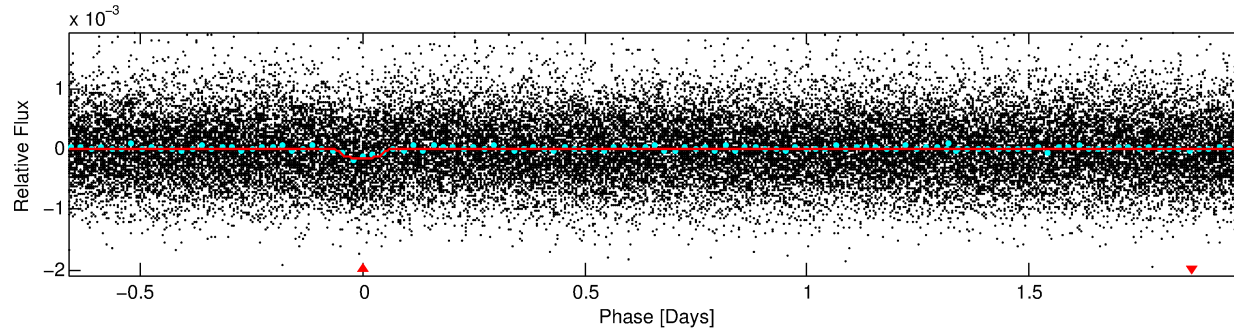
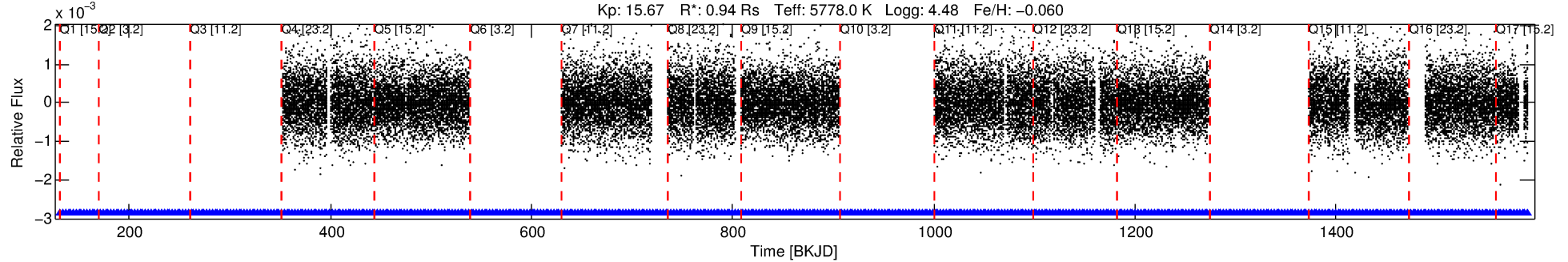
Ephemeris Match Information For 005456979-01

No Significant Match Found

DV One-Page Summary

KIC: 5456979 Candidate: 1 of 1 Period: 2.653 d
KOI: K06579.01 Corr: 0.833

Kp: 15.67 R*: 0.94 Rs Teff: 5778.0 K Logg: 4.48 Fe/H: -0.060



DV Fit Results:

Period = 2.65274 [0.00002] d
Epoch = 131.5724 [0.0048] BKJD
Rp/R* = 0.0139 [0.0038]
a/R* = 2.75 [3.22]
b = 0.95 [0.13]
Seff = 636.24 [244.95]
Teq = 1281 [123] K
Rp = 1.42 [0.56] Re
a = 0.0370 [0.0091] AU
Ag = 10.91 [8.96] [1.11σ]
Teffp = 3598 [678] K [3.36σ]

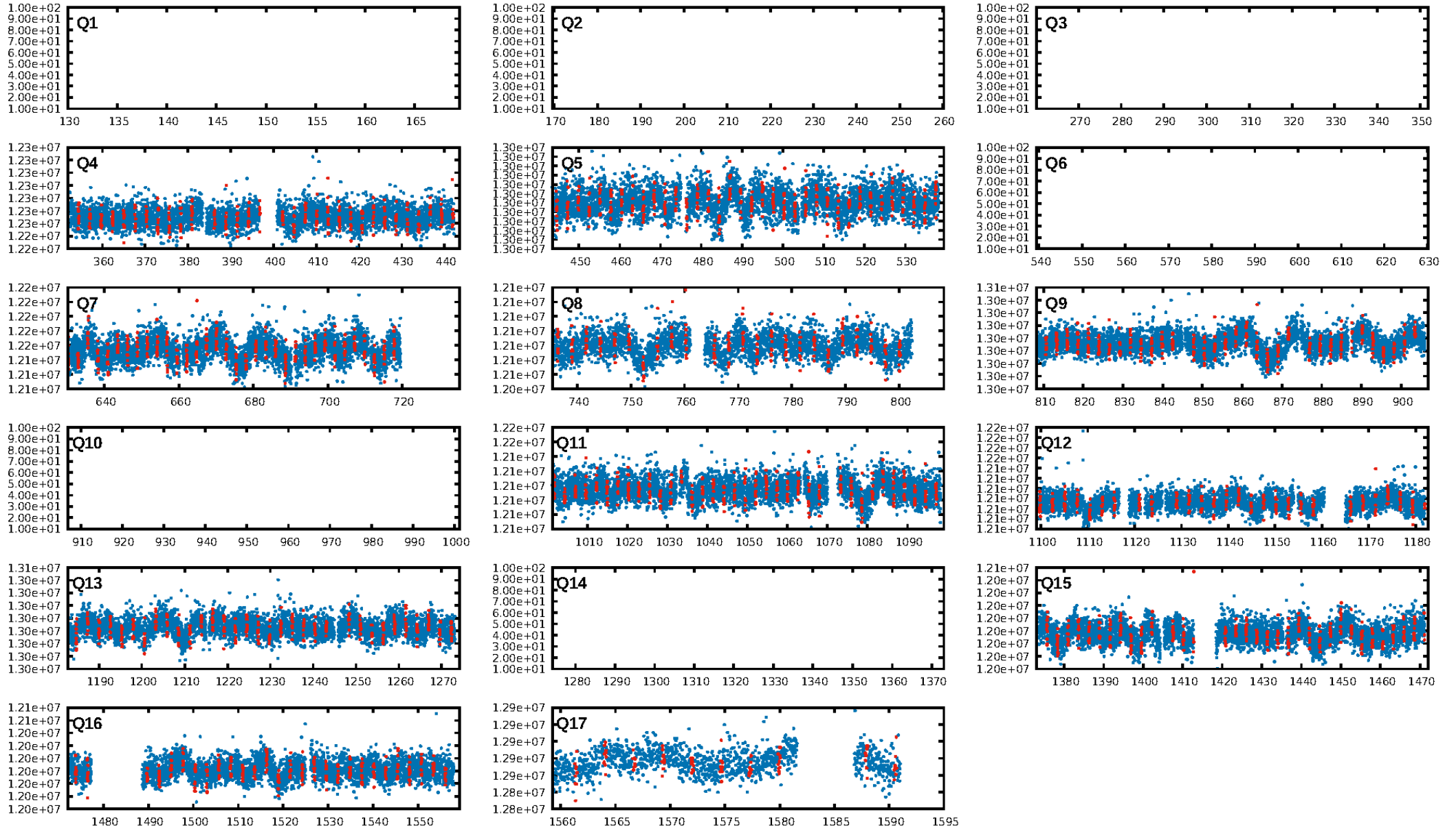
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.33e-16
RollingBand-fgt: 1.00 [316/316]
GhostDiagnostic-chr: 2.526
Centroid-sig: 88.9%
Centroid-so: 0.861 arcsec [0.60σ]
OotOffset-rm: 0.374 arcsec [0.57σ]
OotOffset-st: 0/2/3/1 [6]
KicOffset-rm: 0.511 arcsec [0.86σ]
KicOffset-st: 0/2/3/1 [6]
DiffImageQuality-fgm: 0.50 [3/6]
DiffImageOverlap-fno: 1.00 [11/11]

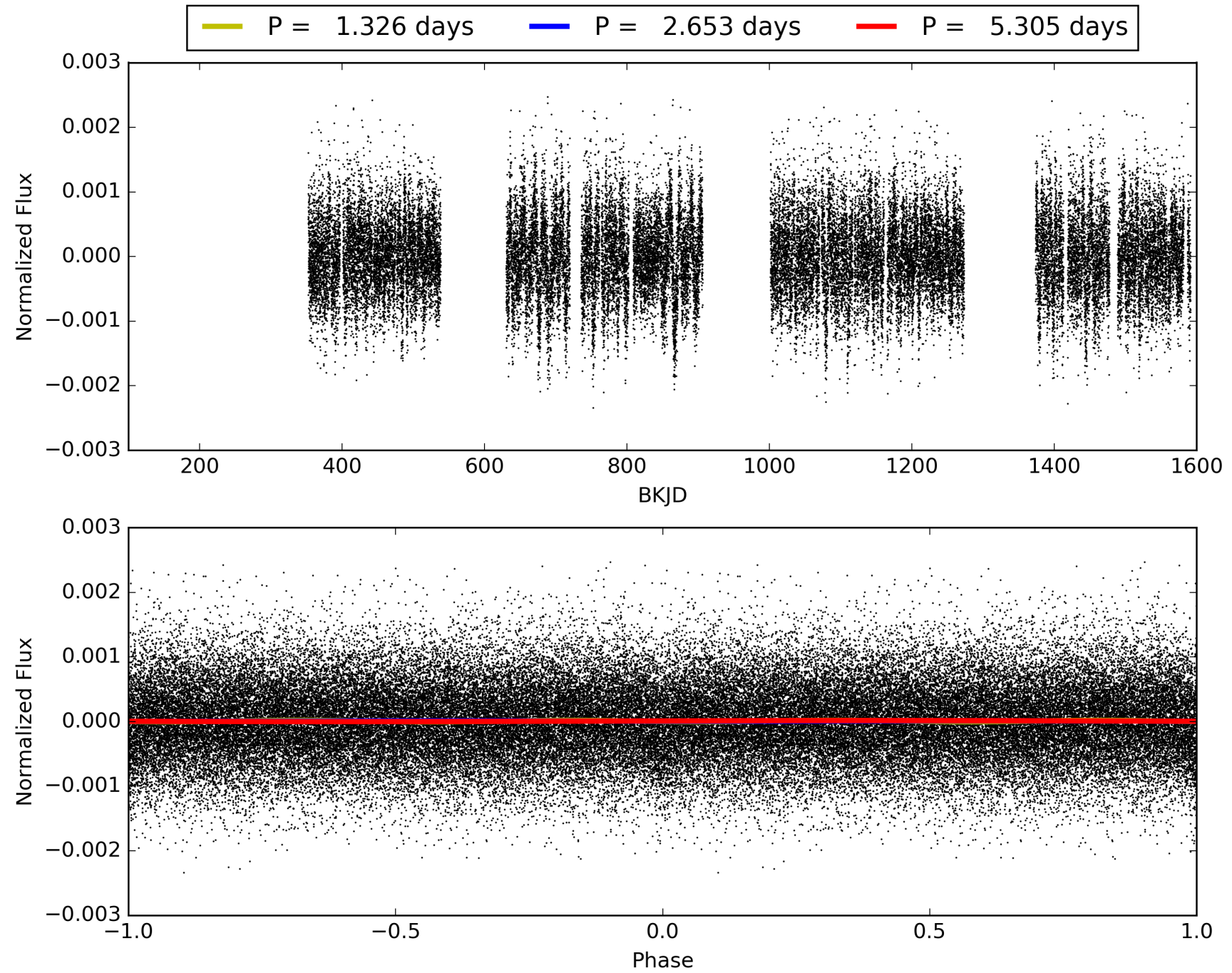
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:38:48 Z

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

TCE 005456979-01, PDC Light Curves

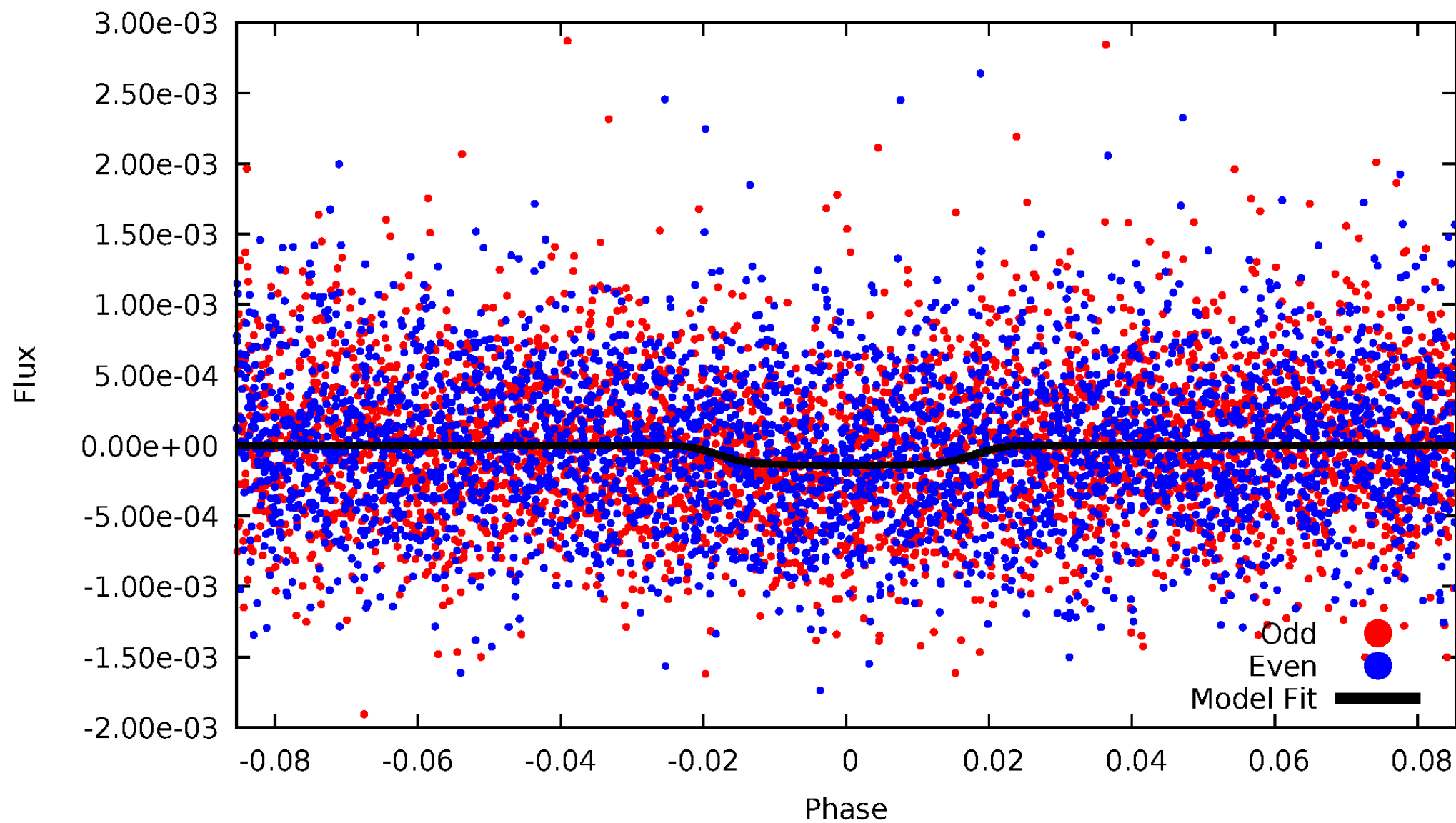


TCE 005456979-01



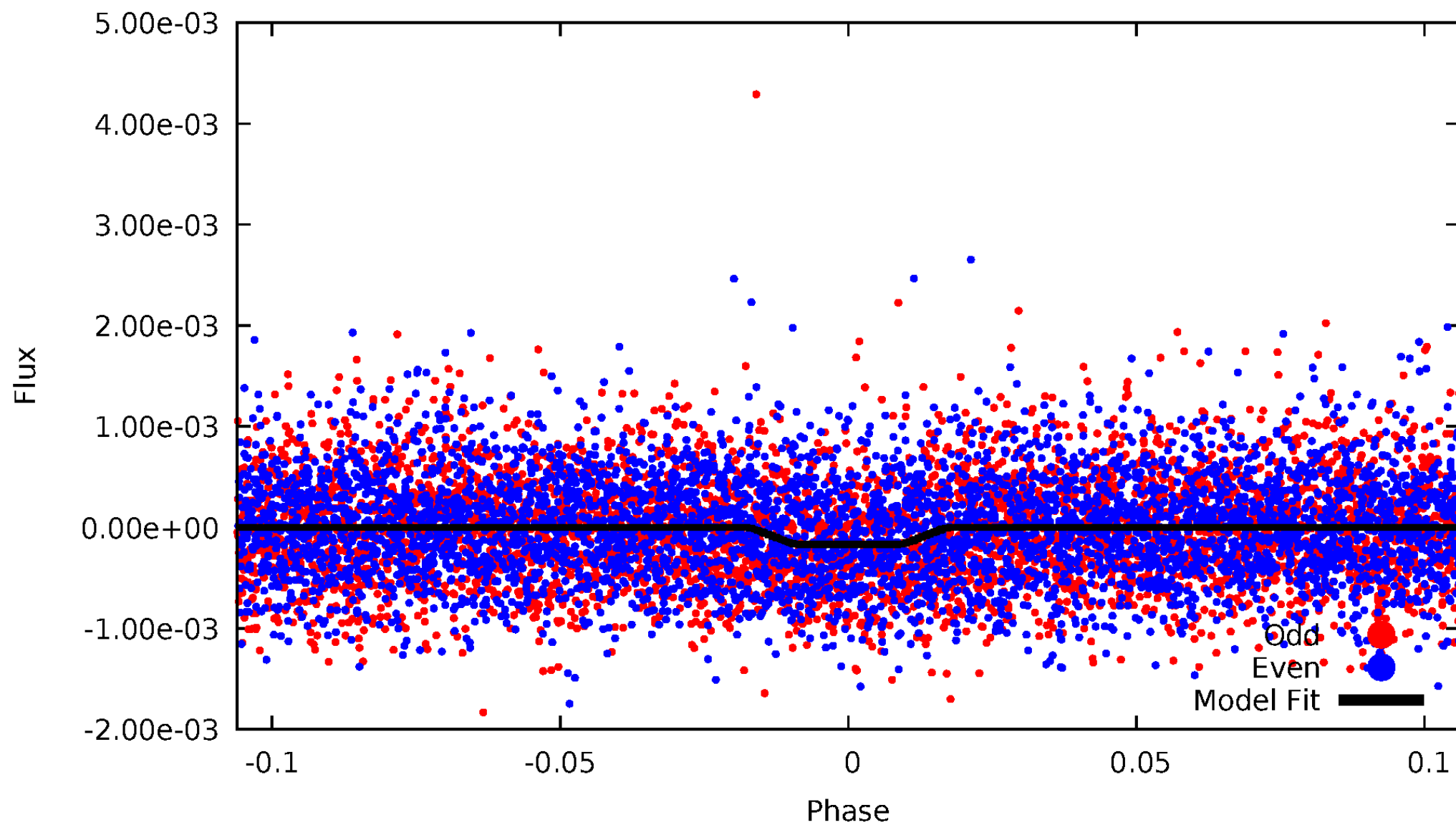
DV Odd/Even

TCE 005456979-01



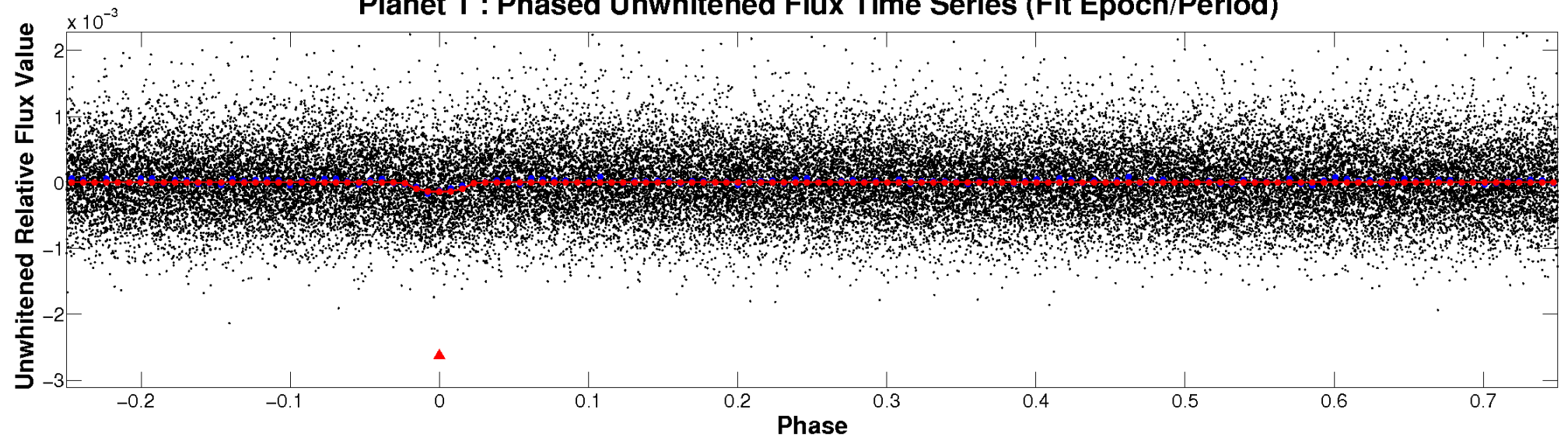
ALT Odd/Even

TCE 005456979-01

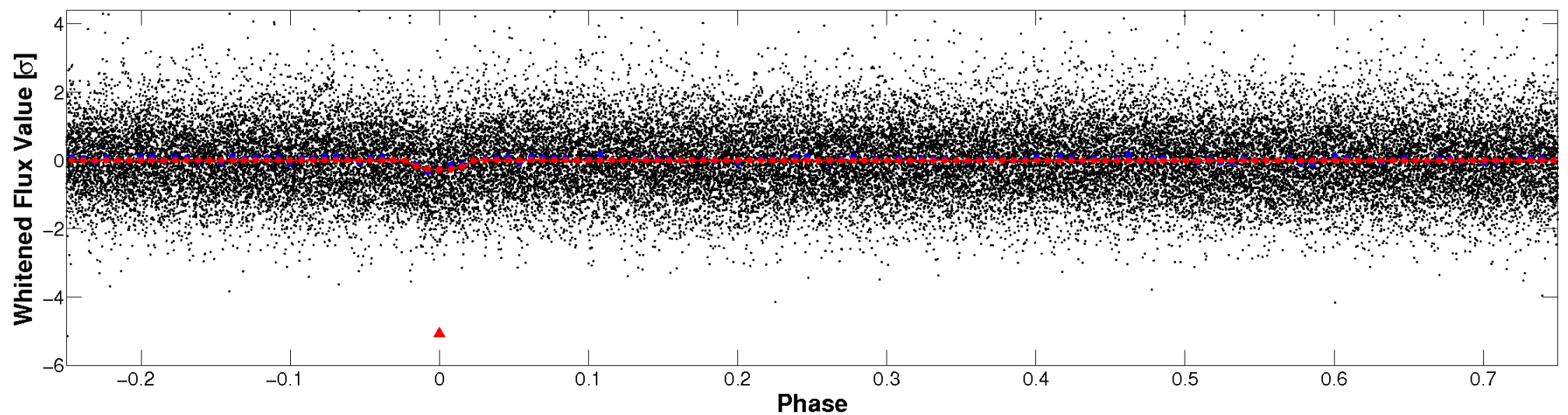


Non-Whitened Vs. Whitened Light Curve

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

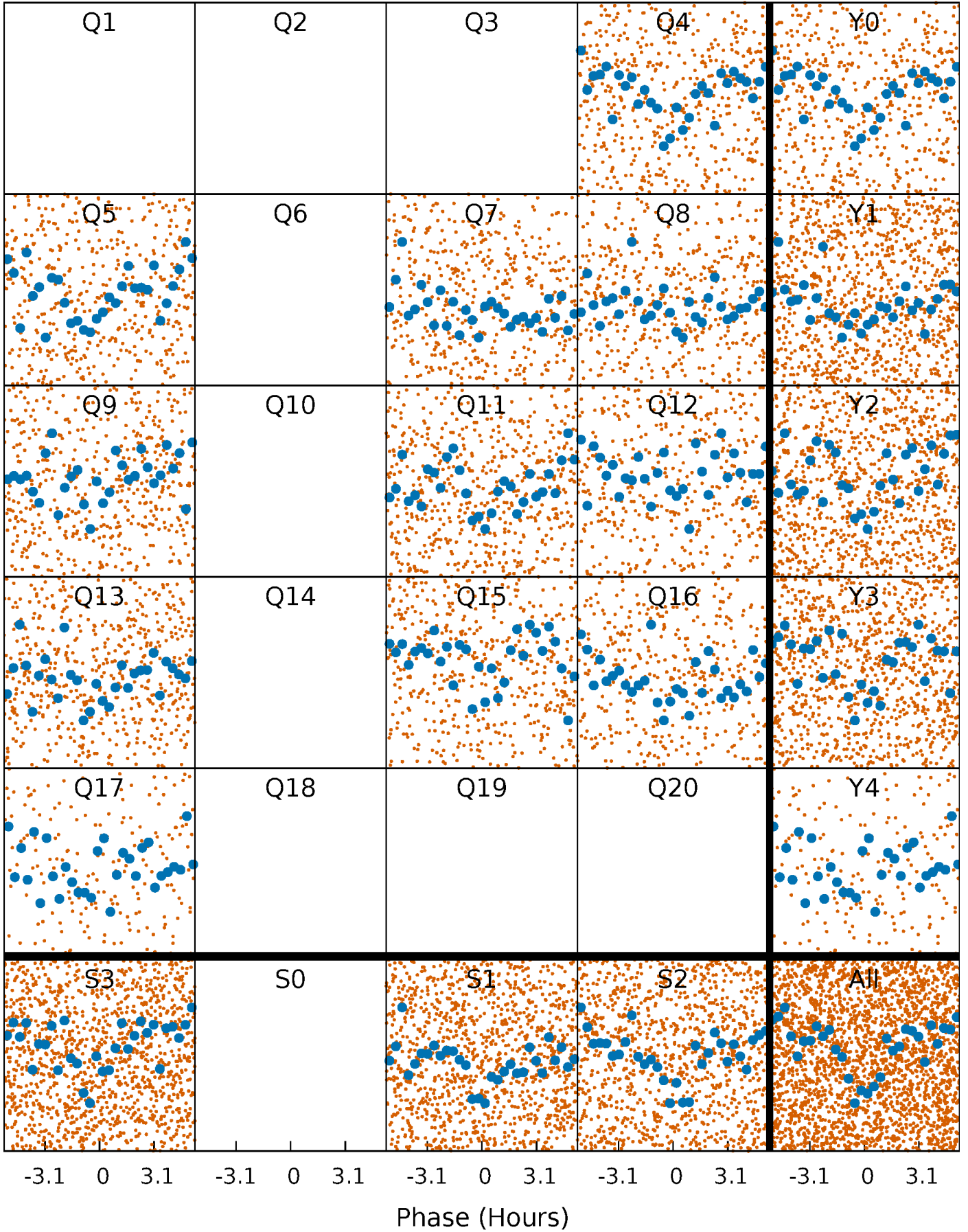


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



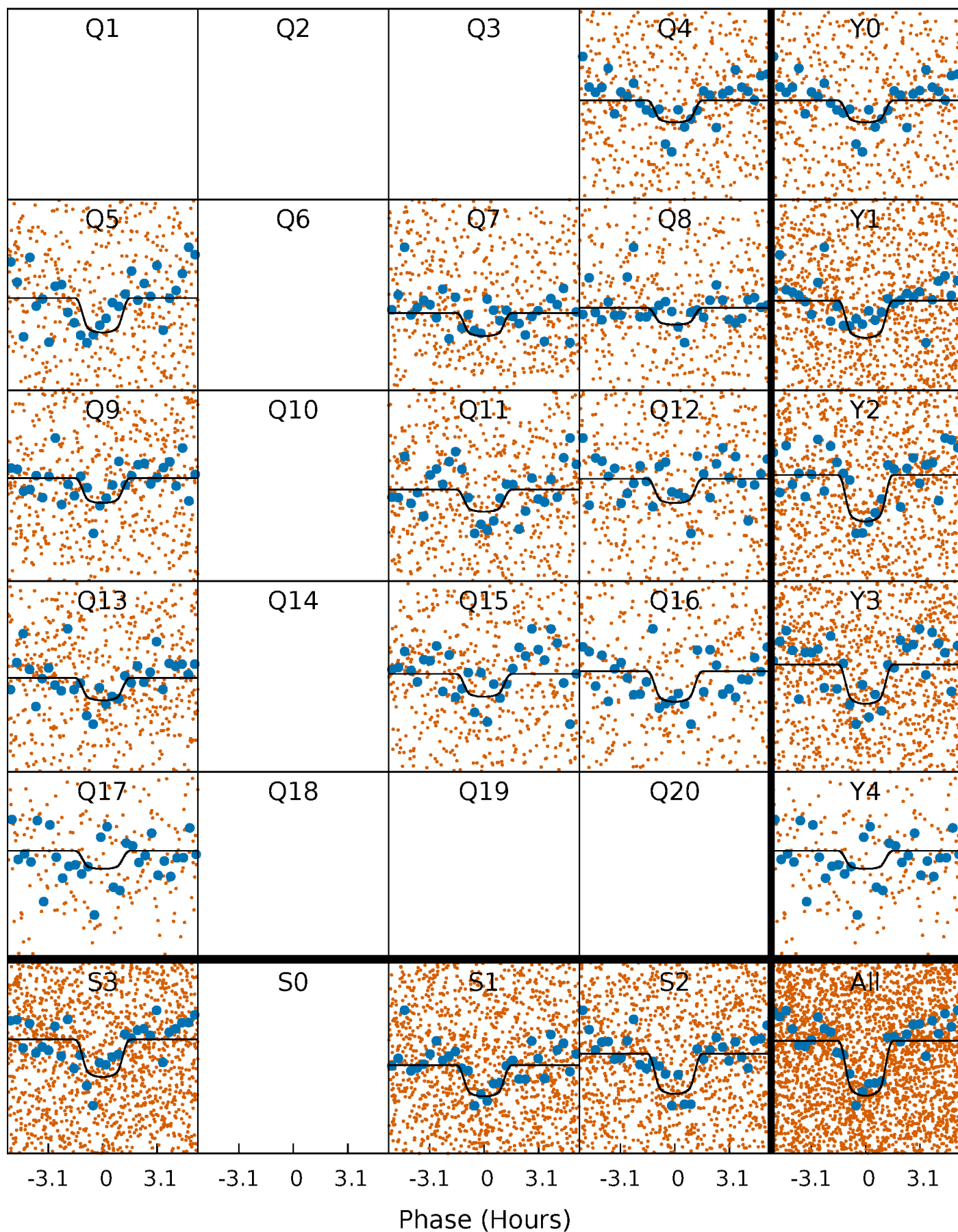
PDC Quarter-Phased Transit Curves

TCE 005456979-01 P= 2.652744 Days $T_0=131.572393$ (BKJD)



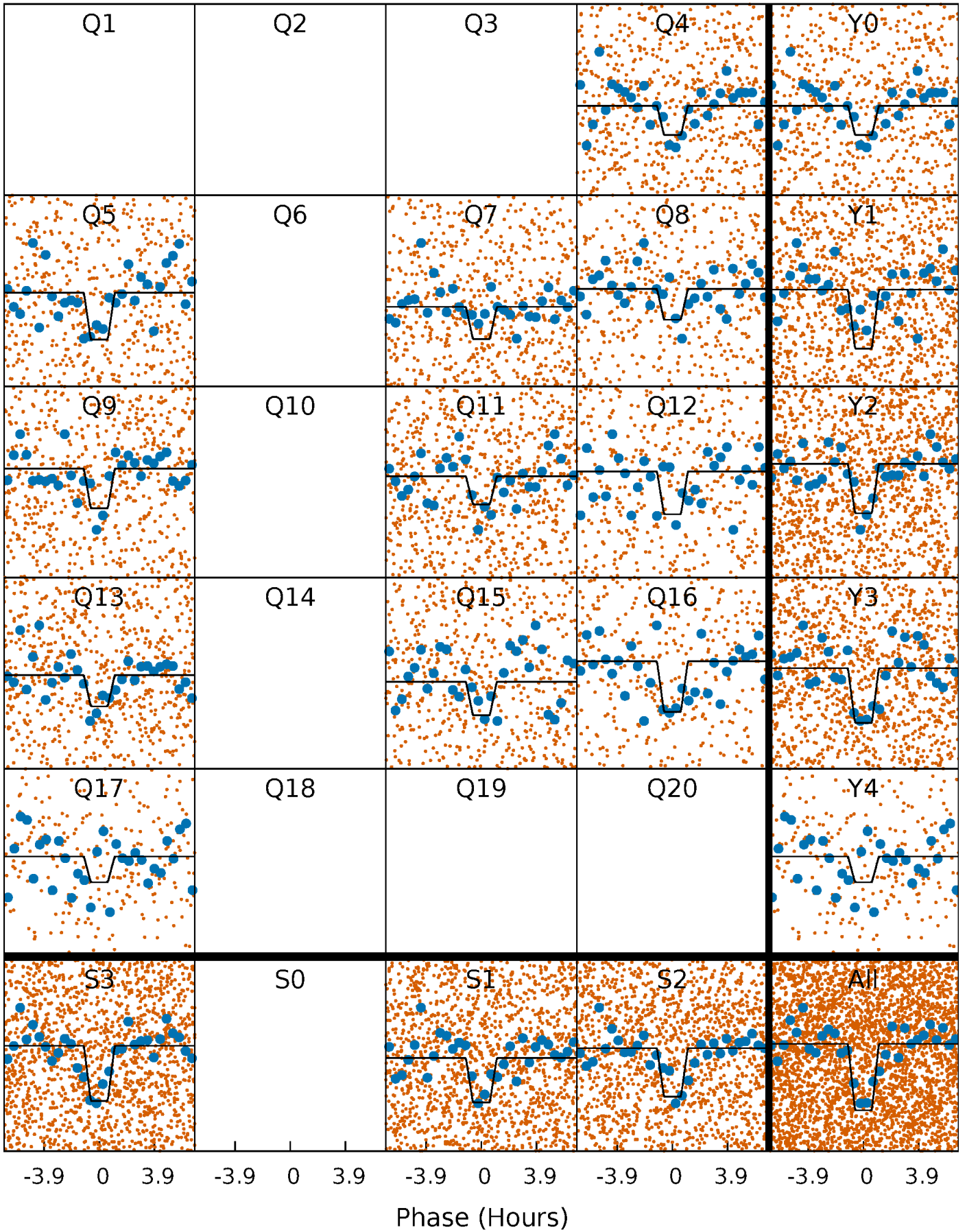
DV Quarter-Phased Transit Curves

TCE 005456979-01 P= 2.652744 Days $T_0=131.572393$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

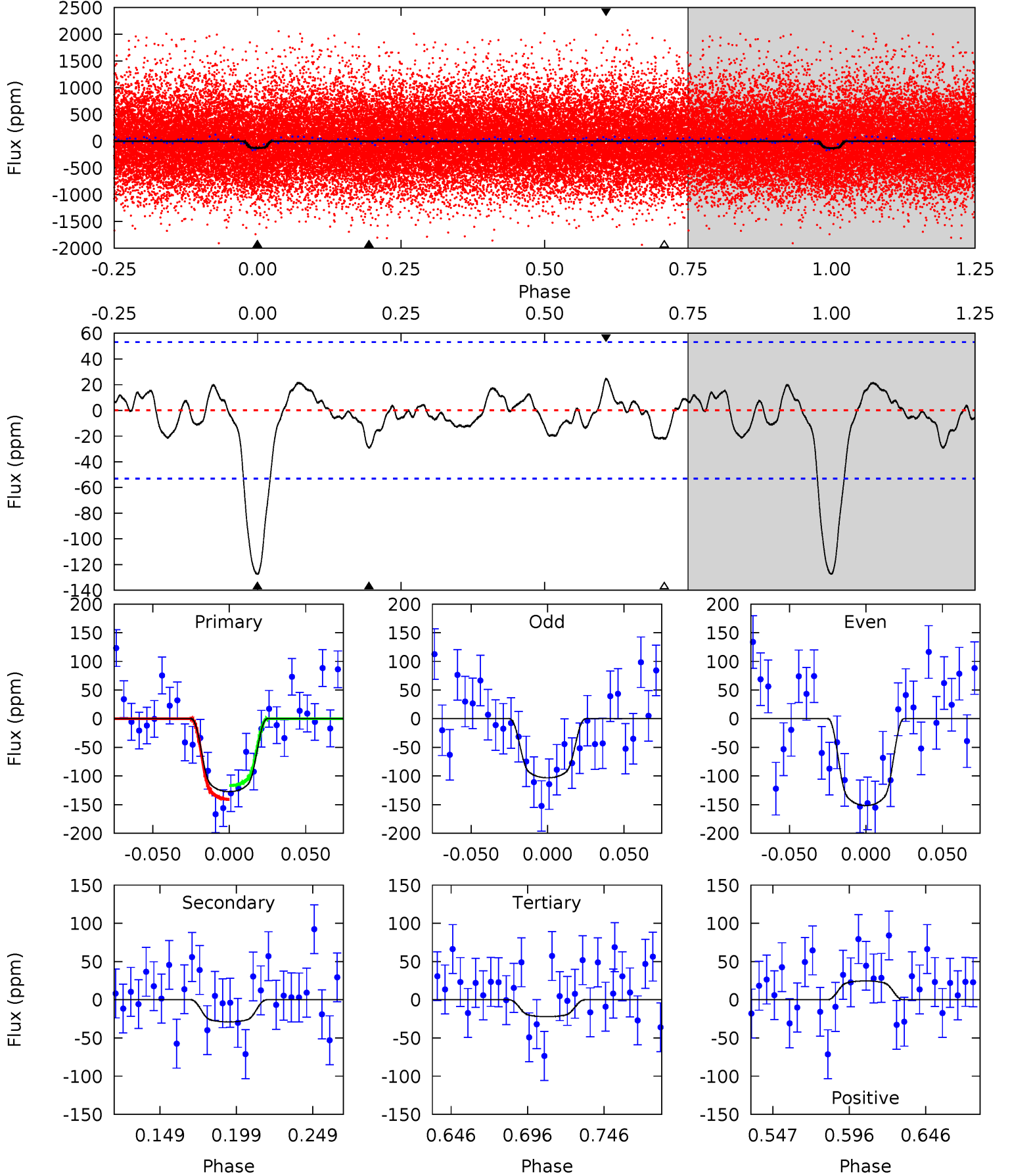
TCE 005456979-01 P= 2.652772 Days $T_0=131.554530$ (BKJD)



DV Model-Shift Uniqueness Test

005456979-01, P = 2.652744 Days, E = 131.572393 Days

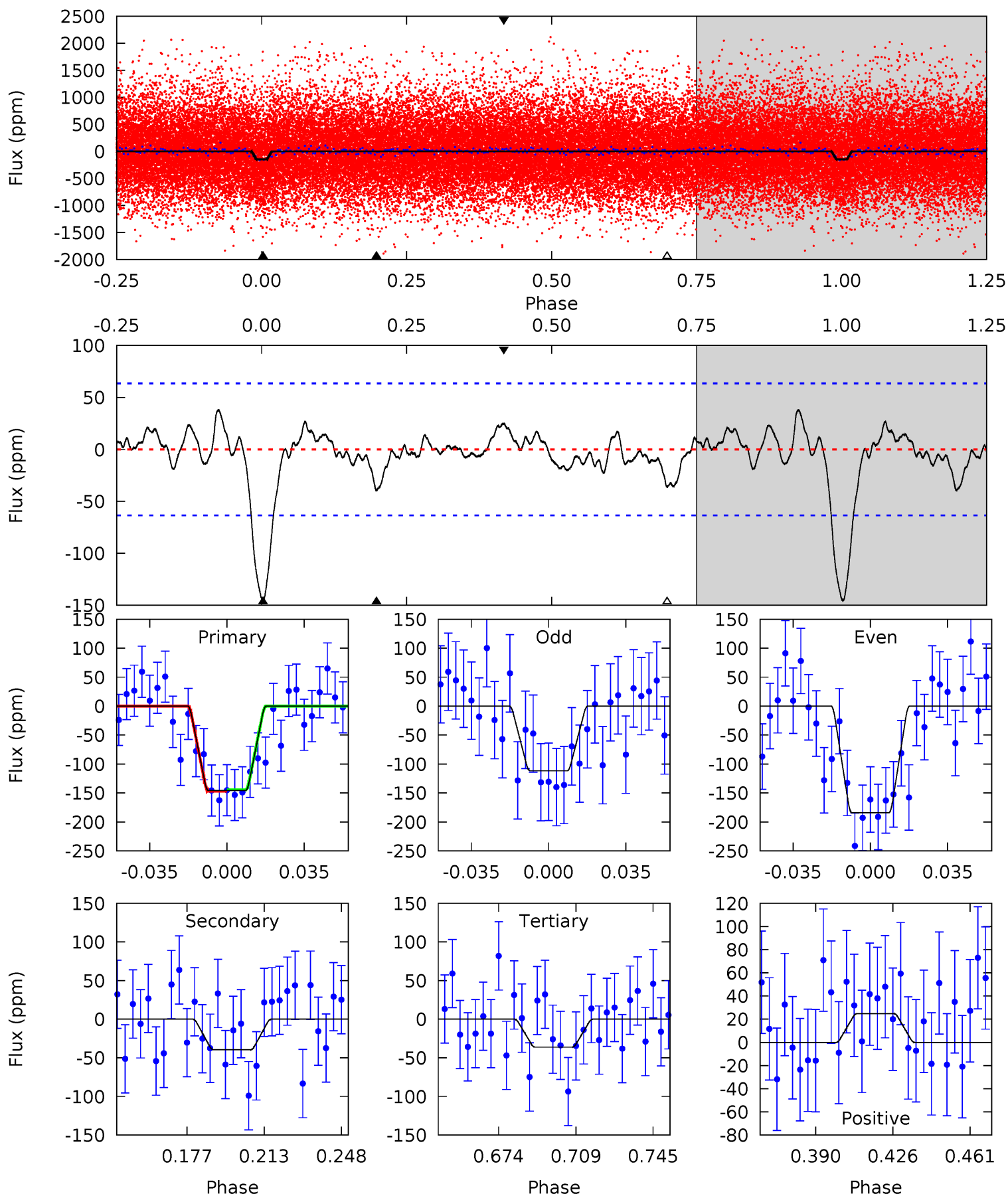
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	2.57	1.96	2.18	4.71	1.96	0.97	9.34	9.12	0.61	0.39	2.15	0.85	0.16	1.07



Alt Model-Shift Uniqueness Test

005456979-01, P = 2.652772 Days, E = 131.554530 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	2.98	2.72	1.86	4.78	2.10	0.97	8.24	9.10	0.26	1.12	2.73	0.87	0.21	0.09



Stellar Parameters For KIC 005456979

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5778^{+173}_{-208}	$4.480^{+0.065}_{-0.195}$	$-0.060^{+0.250}_{-0.300}$	$0.935^{+0.273}_{-0.109}$	$0.962^{+0.125}_{-0.114}$	$1.660^{+0.459}_{-0.867}$
	+3%/-4%	+1%/-4%	+417%/-500%	+29%/-12%	+13%/-12%	+28%/-52%
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 005456979-01 / KOI 6579.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-29 ± 11	$1.44^{+0.47}_{-0.40}$	1811^{+134}_{-92}	3891^{+573}_{-443}	$9.898^{+11.377}_{-5.133}$
Alt.	-40 ± 13	$1.38^{+0.48}_{-0.40}$	1820^{+134}_{-91}	4196^{+724}_{-457}	15^{+17}_{-7}

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

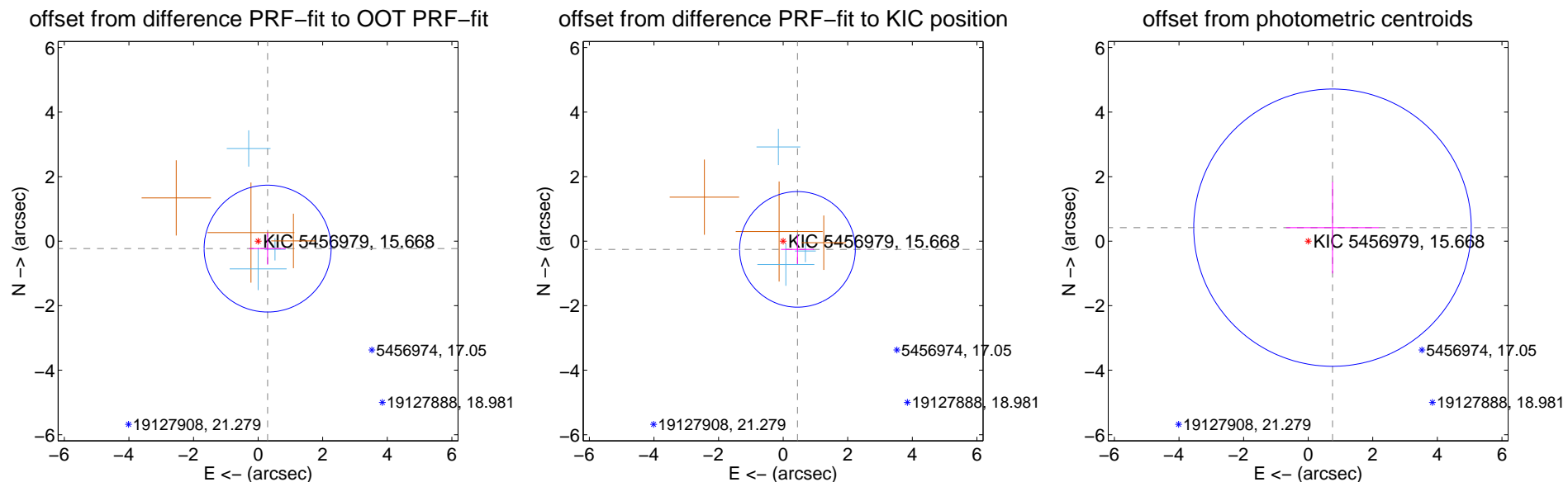
DV Centroid Data

Supplemental centroid analysis for 005456979-01. Kepler magnitude: 15.67. Transit SNR 9.13

There are 3 quarters with good PRF difference image offsets

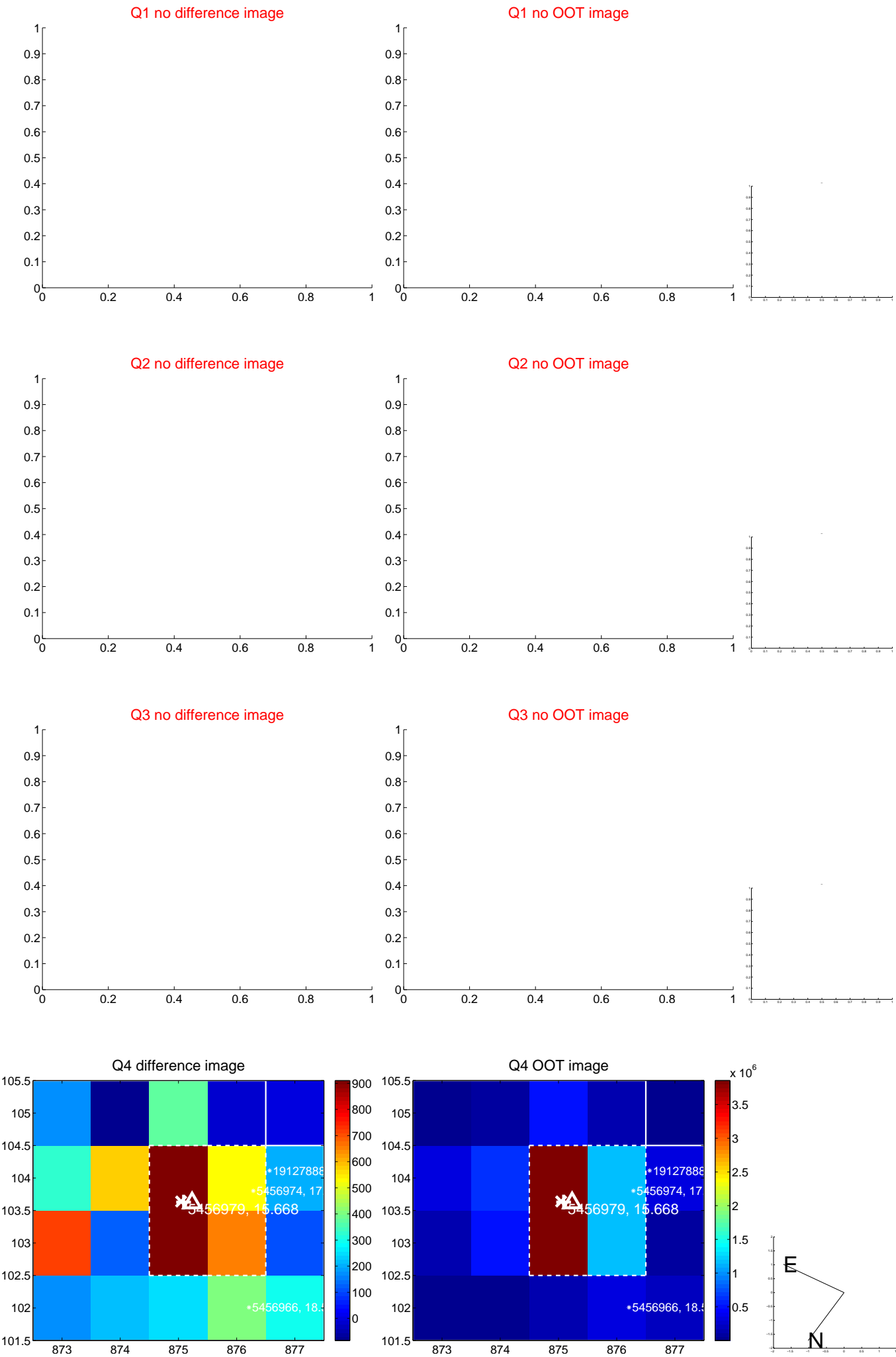
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.374 ± 0.655	0.57	-0.295 ± 0.565	-0.231 ± 0.497
PRF-fit source offset from KIC position	0.511 ± 0.597	0.86	-0.443 ± 0.509	-0.255 ± 0.453
photometric centroid source offset	0.86 ± 1.43	0.60	-0.75 ± 1.44	0.42 ± 1.42

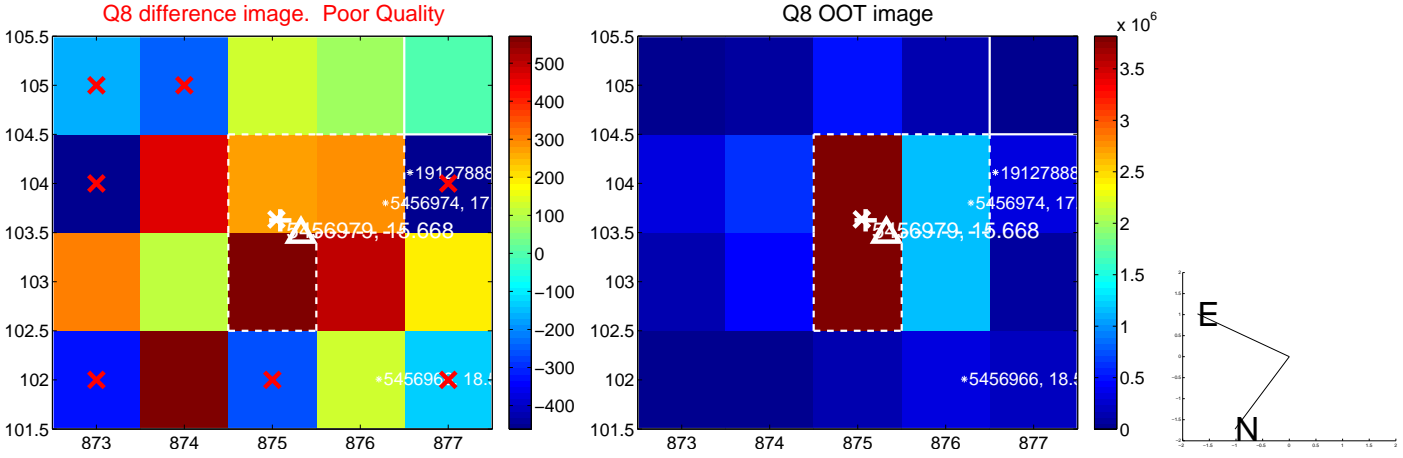
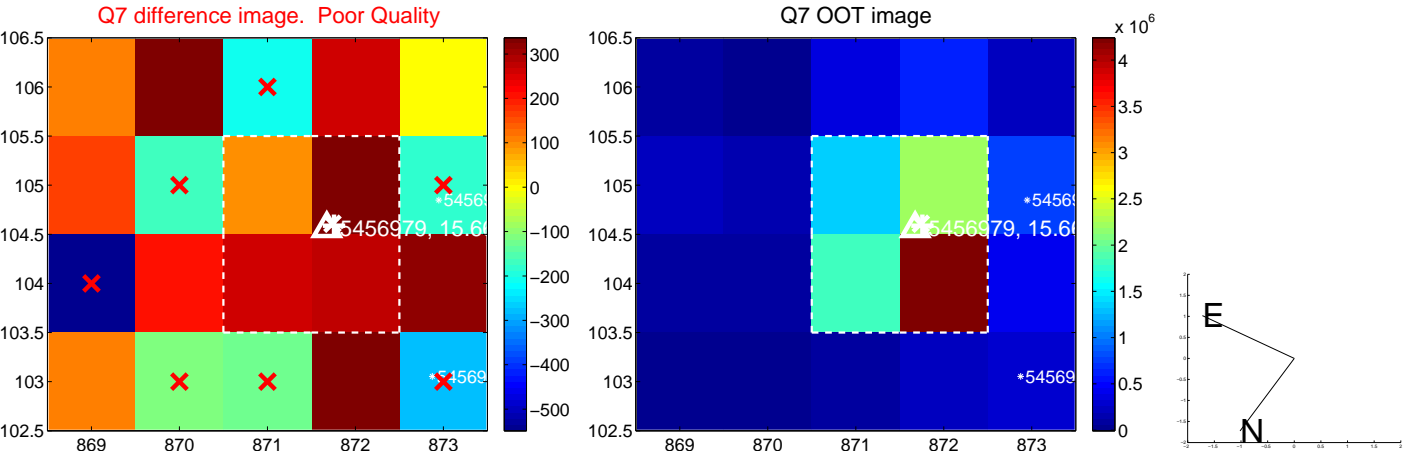
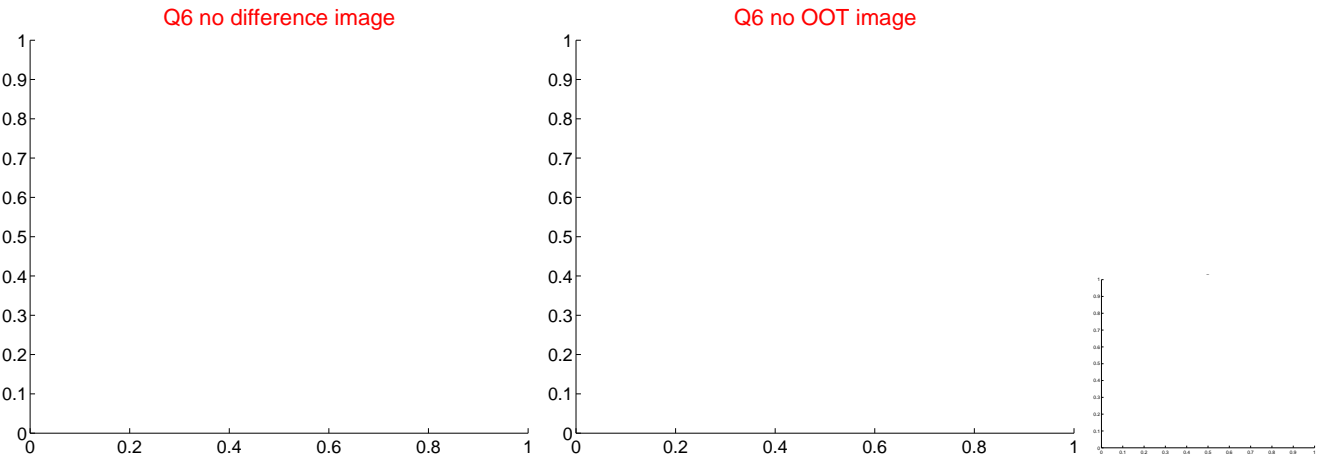
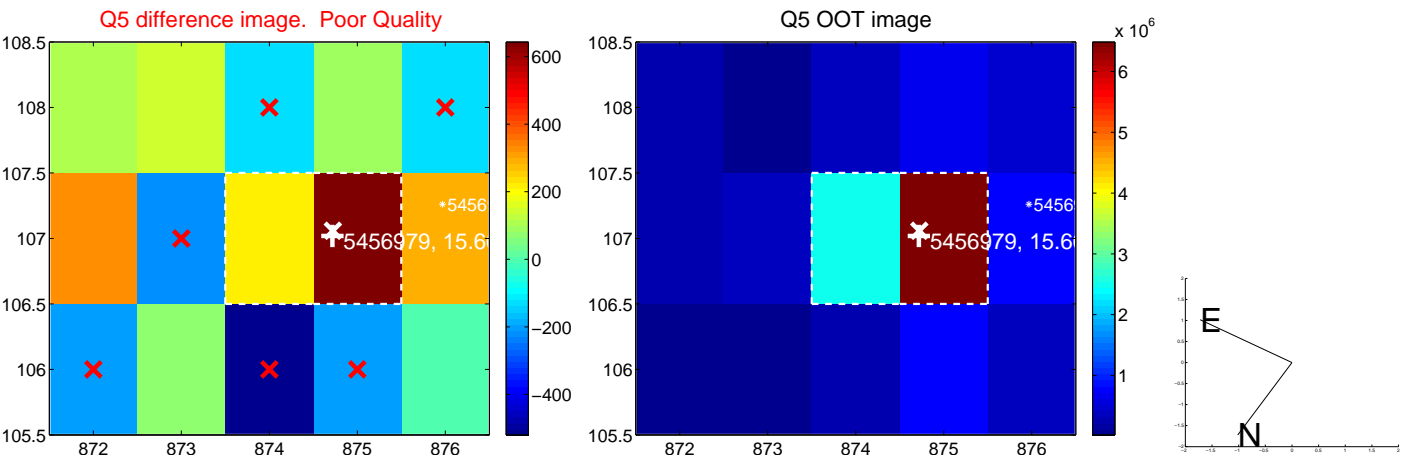


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

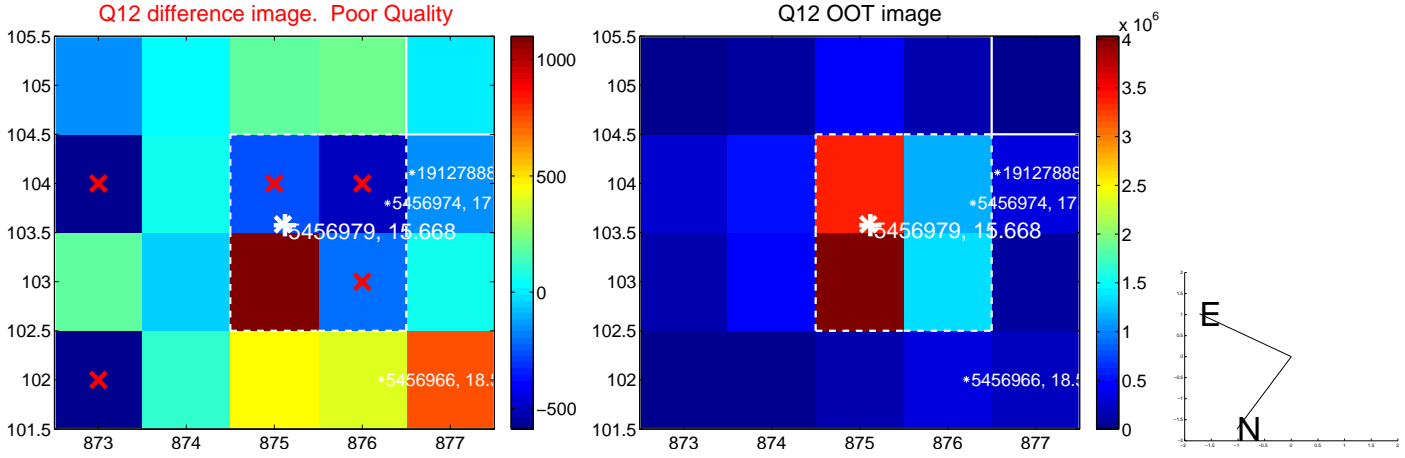
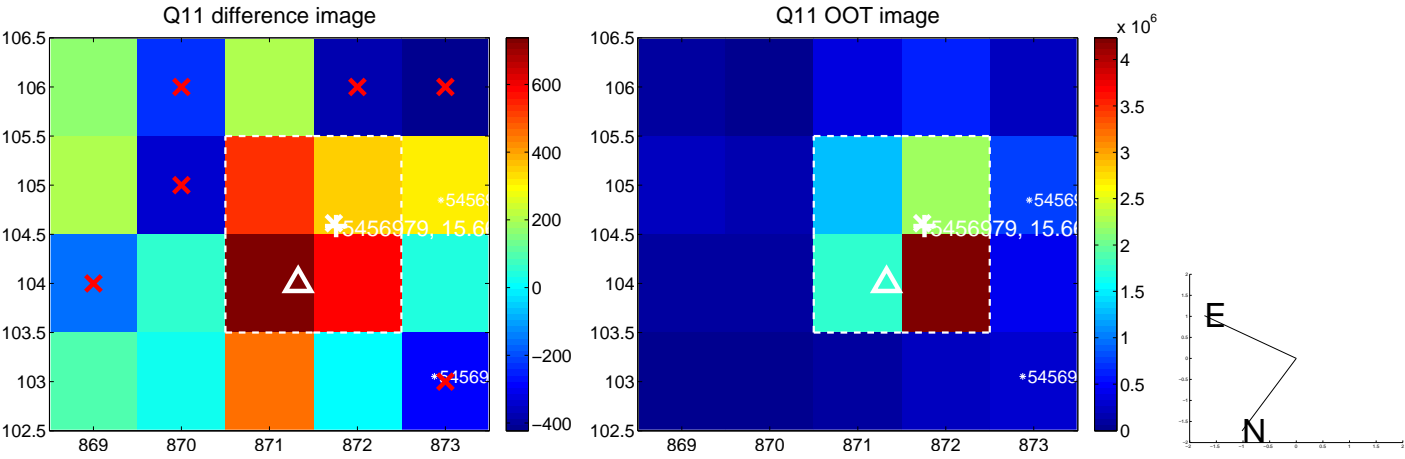
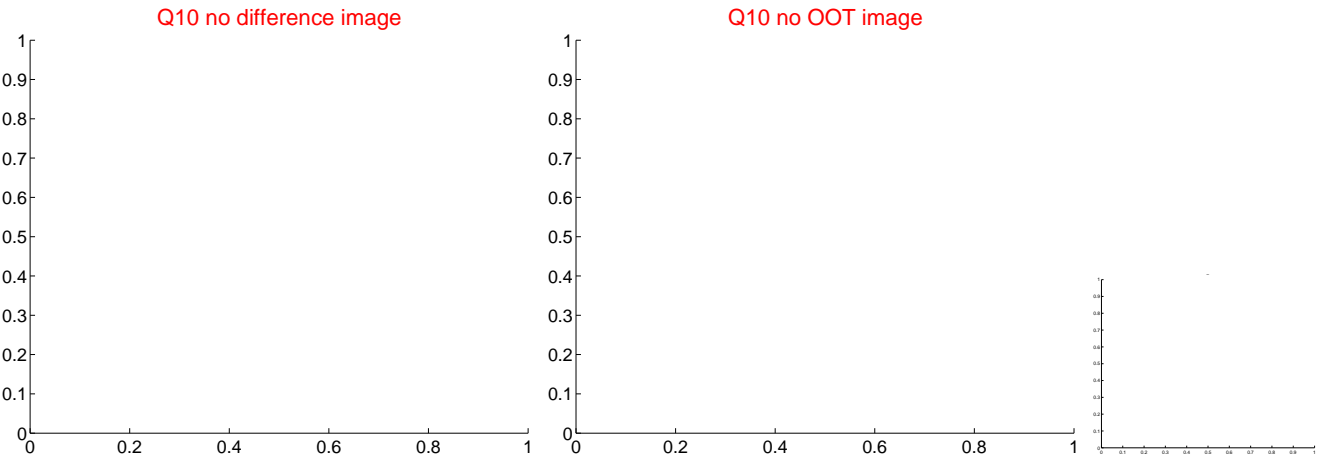
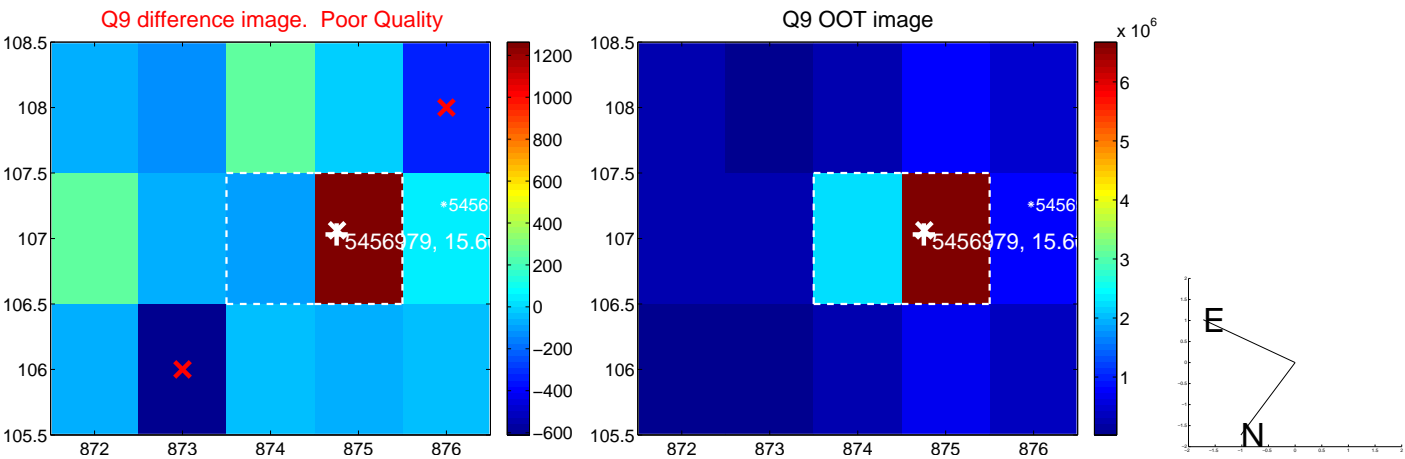
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



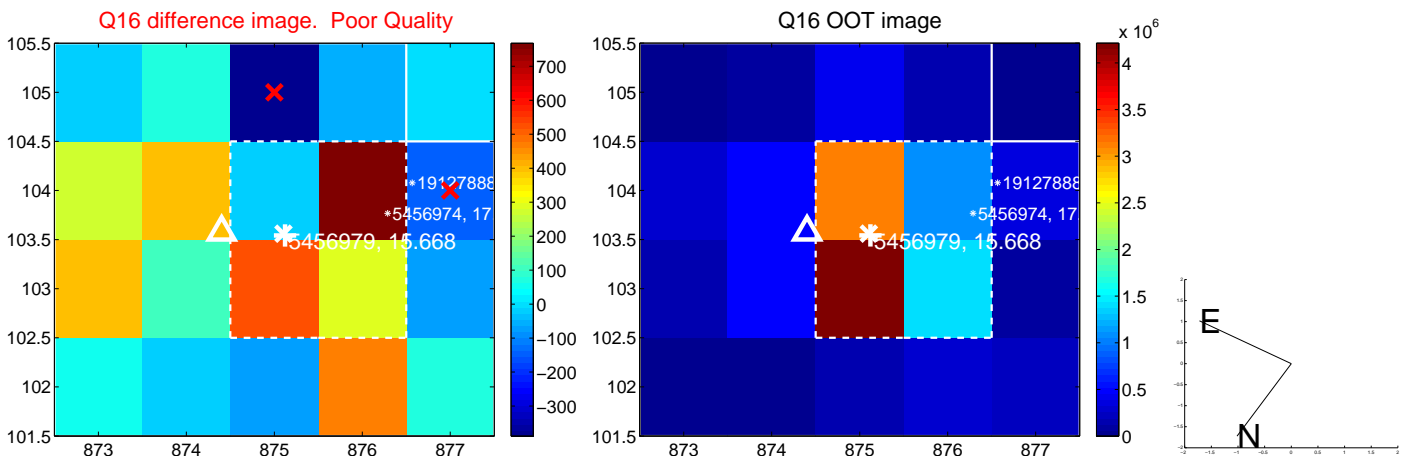
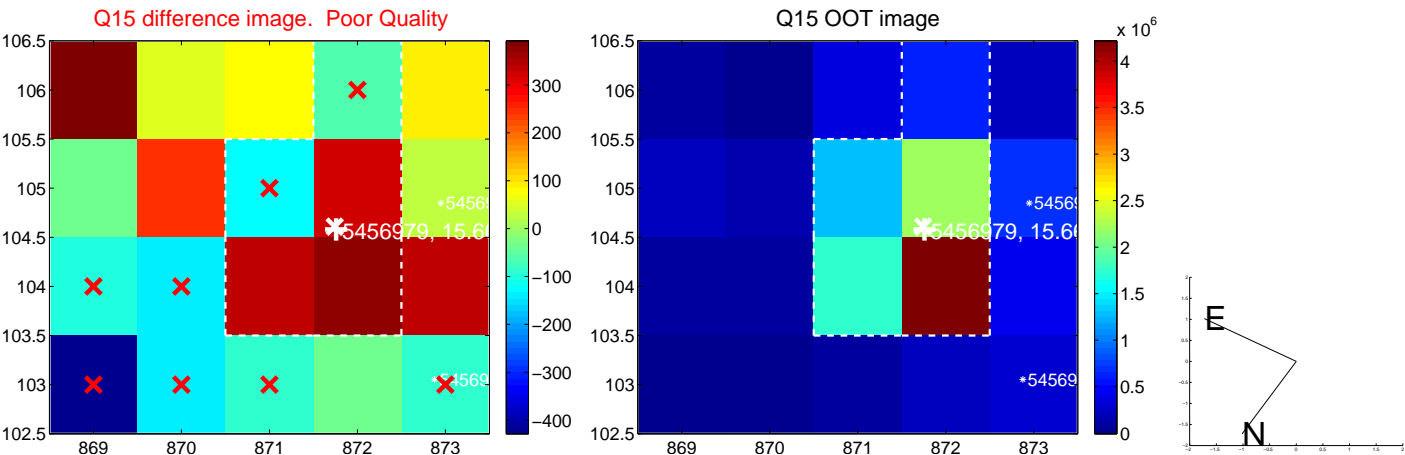
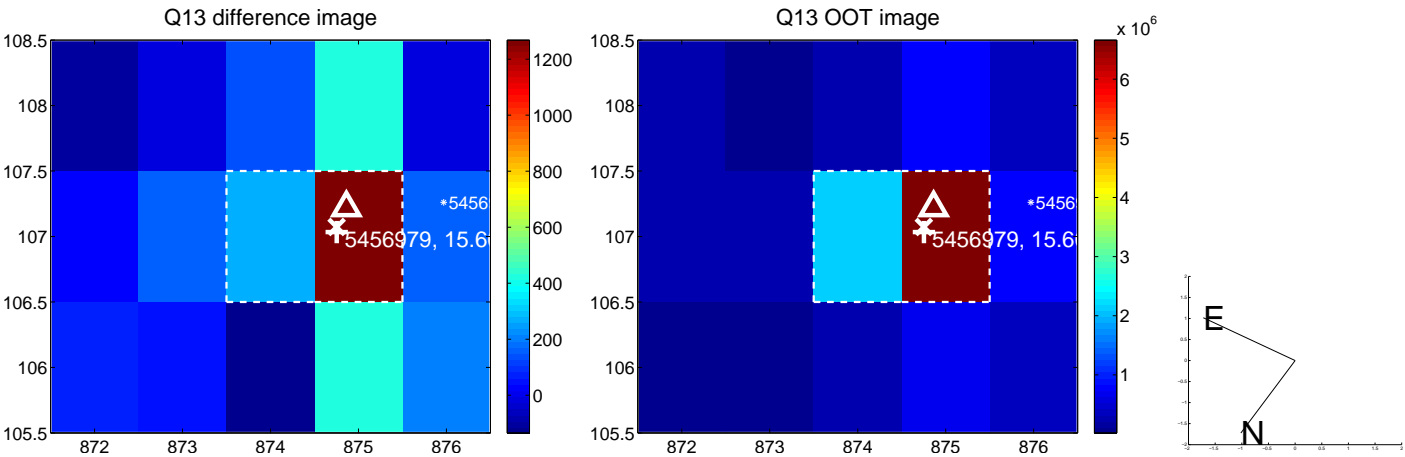
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



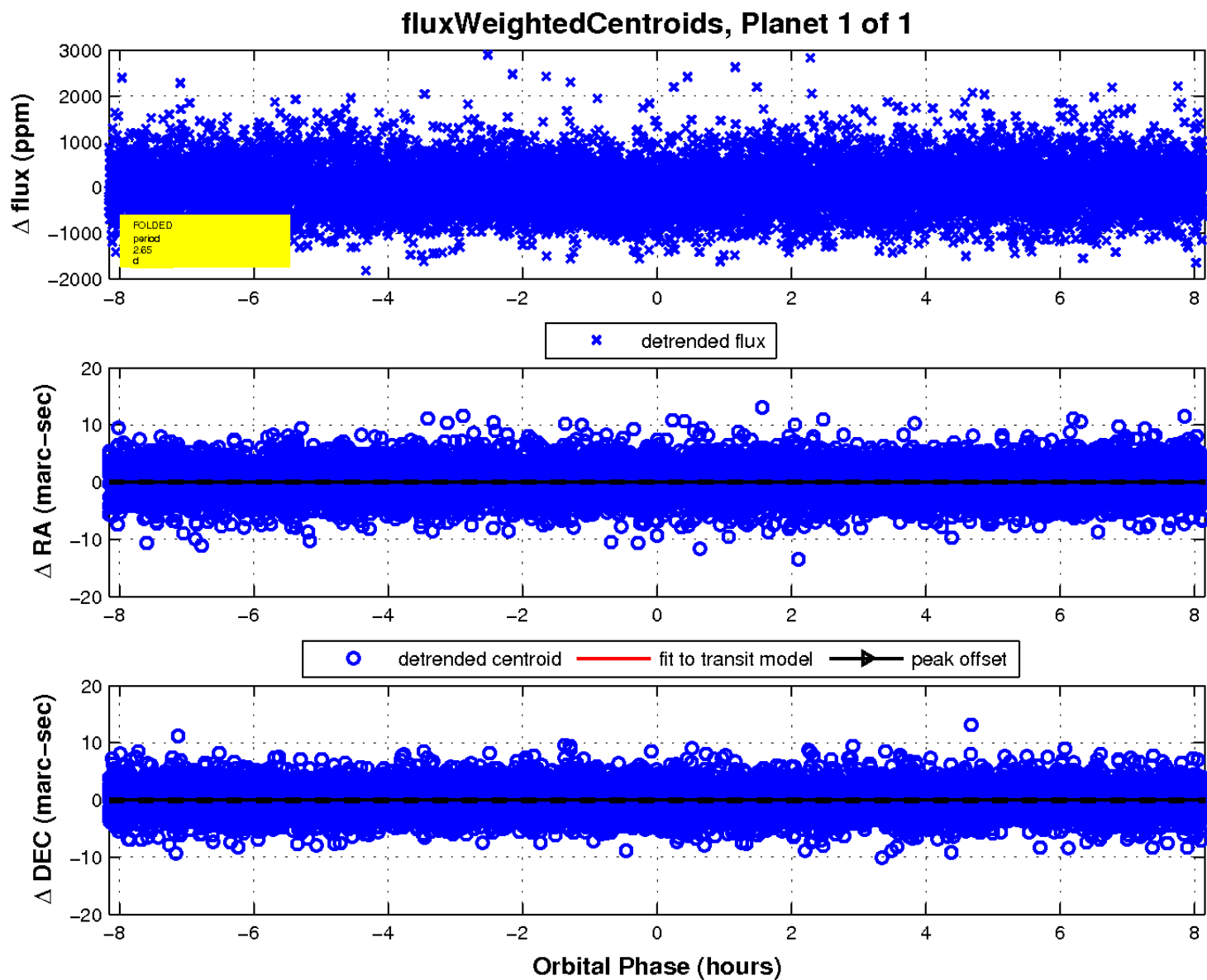
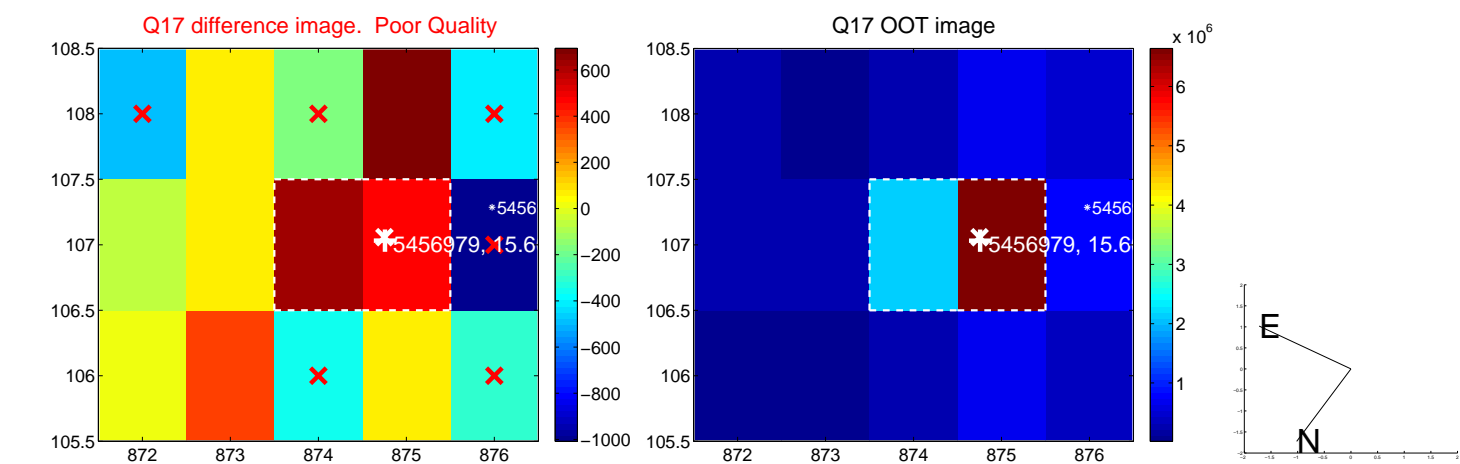
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

Declination

