

KIC 011361283

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})
011361283-01	OBS	2551.01	16.479517	142.932236	544.0	4.369	12.1	13.3	0.72	4908	2.87	19.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011361283-01	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 011361283-01

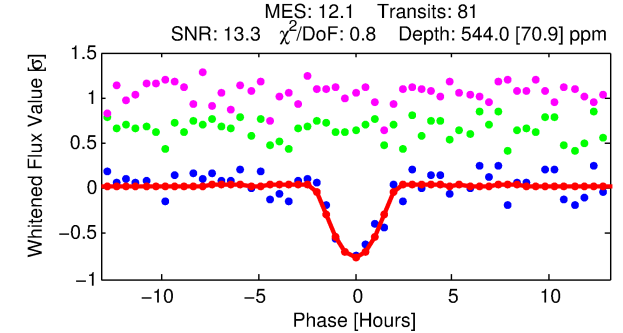
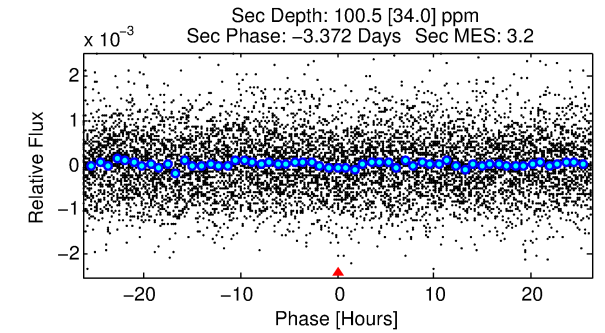
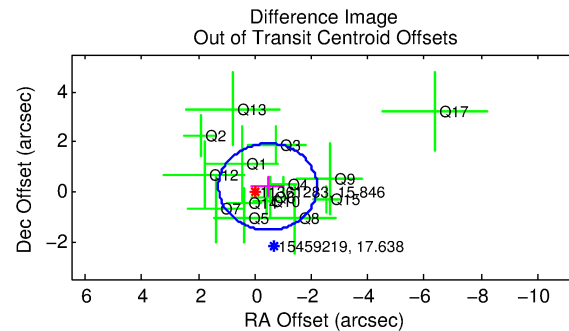
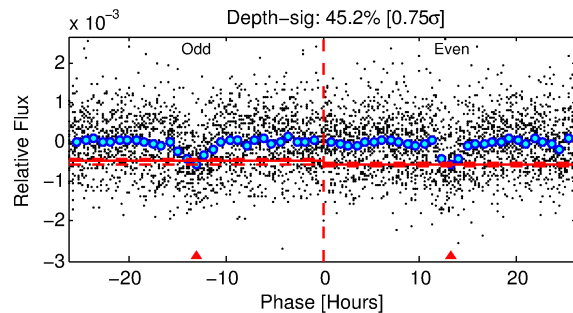
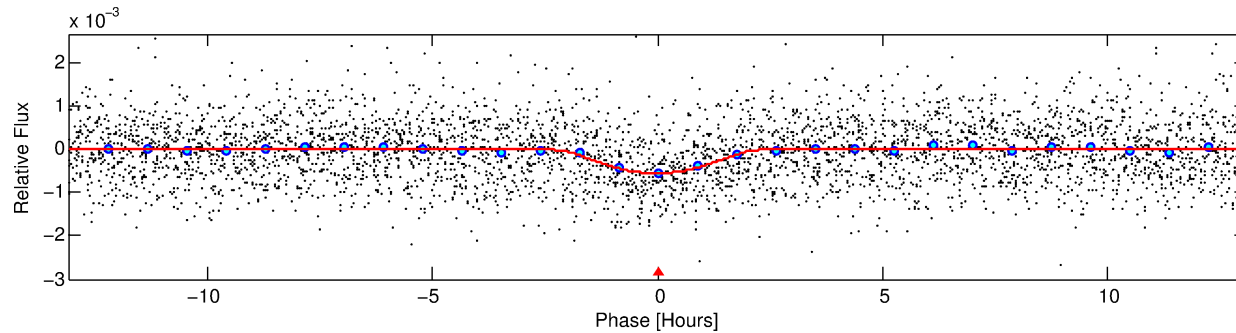
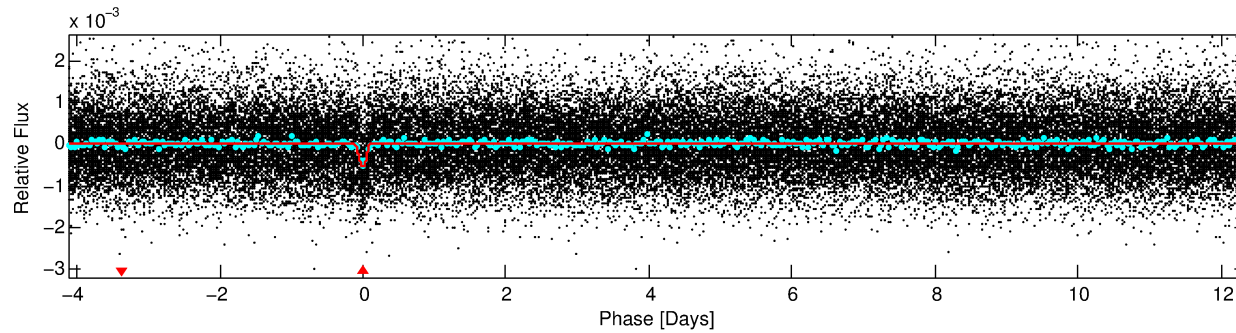
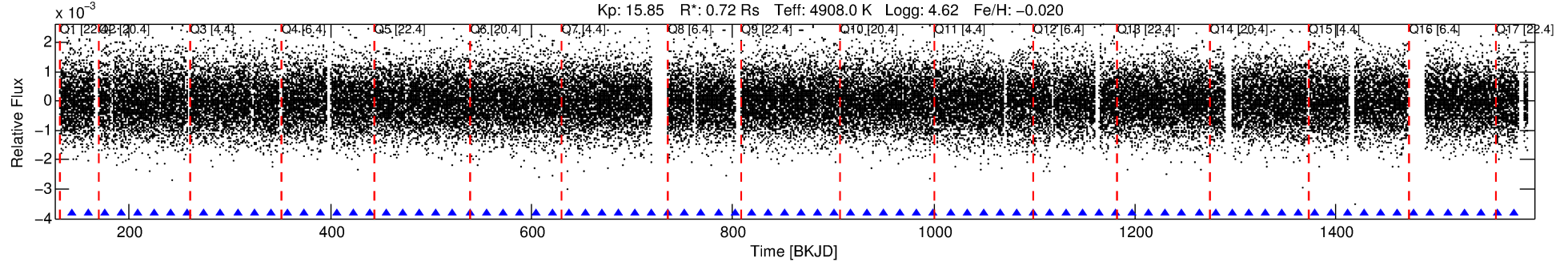
No Significant Match Found

DV One-Page Summary

KIC: 11361283 Candidate: 1 of 1 Period: 16.480 d

KOI: K02551.01 Corr: 0.854

Kp: 15.85 R*: 0.72 Rs Teff: 4908.0 K Logg: 4.62 Fe/H: -0.020



DV Fit Results:

Period = 16.47952 [0.00016] d
Epoch = 142.9322 [0.0080] BKJD
Rp/R* = 0.0367 [0.0533]
a/R* = 9.19 [4.60]
b = 0.99 [0.10]
Seff = 19.64 [3.51]
Teq = 537 [24] K
Rp = 2.87 [4.18] Re
a = 0.1165 [0.0101] AU
Ag = 91.06 [266.37] [0.34σ]
Teffp = 2564 [1875] K [1.08σ]

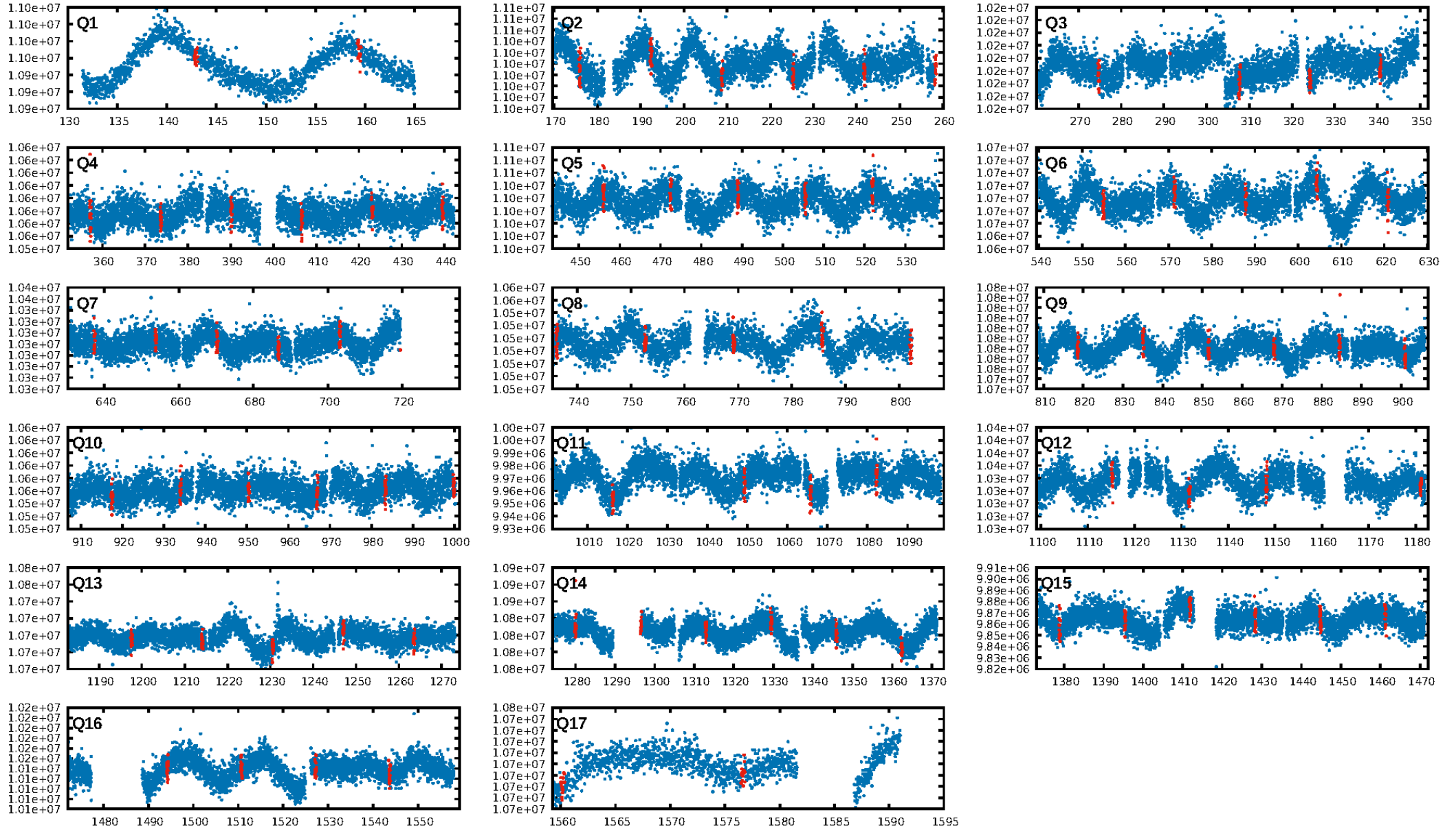
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.08e-33
RollingBand-fgt: 1.00 [77/77]
GhostDiagnostic-chr: 16.41
Centroid-sig: 17.4%
Centroid-so: 0.839 arcsec [0.91σ]
OotOffset-rm: 0.495 arcsec [0.85σ]
KicOffset-rm: 0.473 arcsec [0.84σ]
OotOffset-st: 4/3/3/5 [15]
KicOffset-st: 4/3/3/5 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 1.00 [17/17]

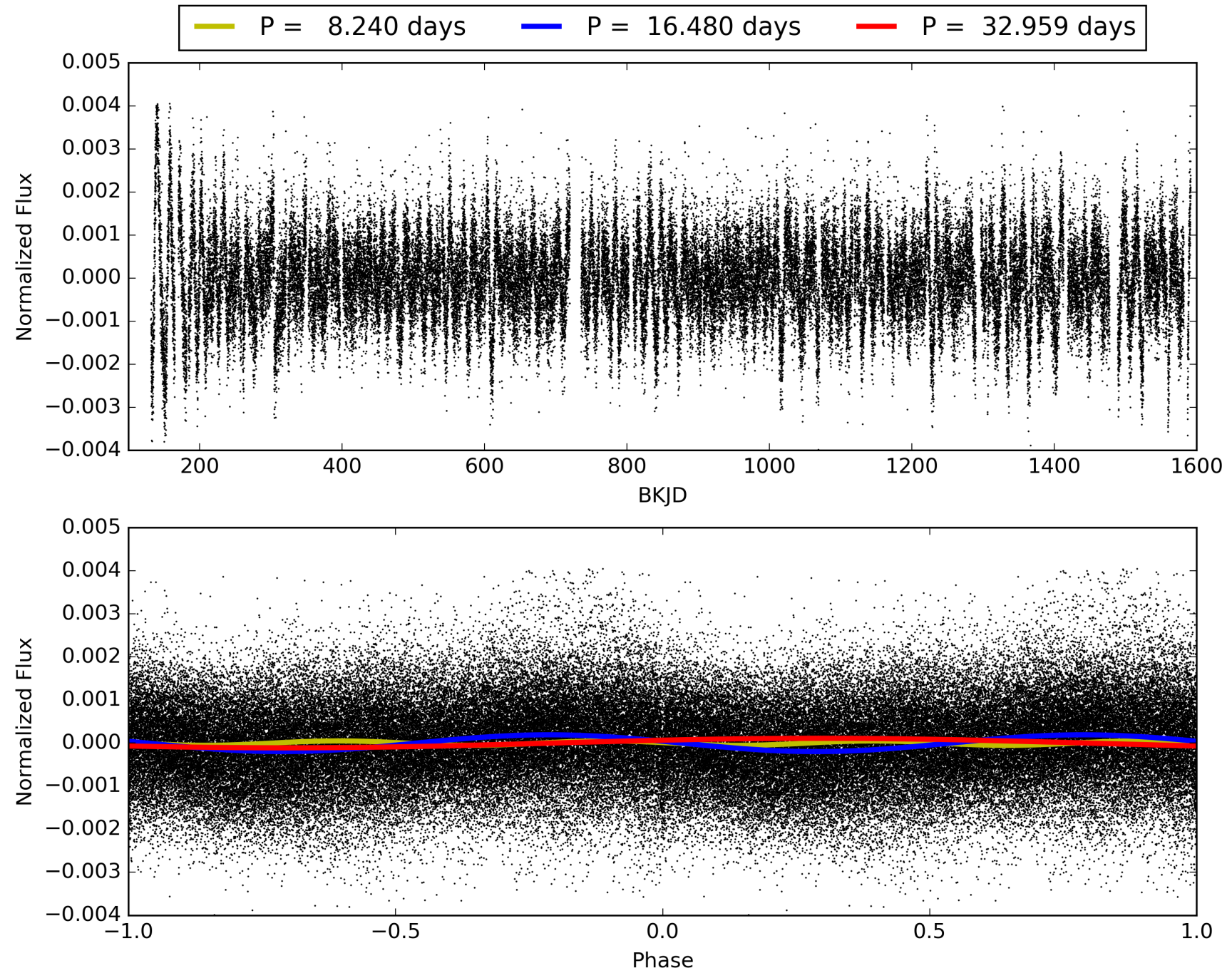
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:45:52 Z

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

TCE 011361283-01, PDC Light Curves

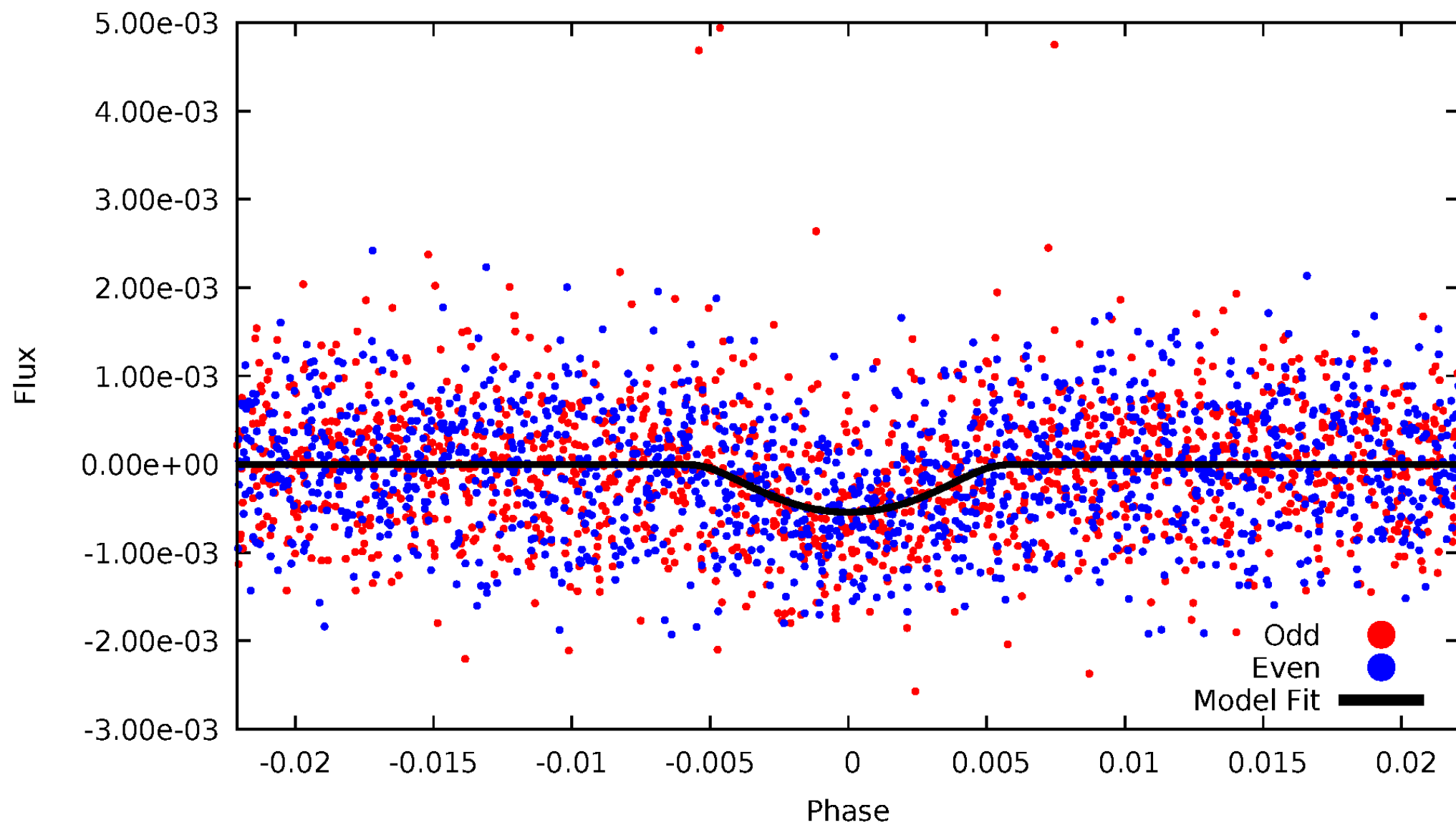


TCE 011361283-01



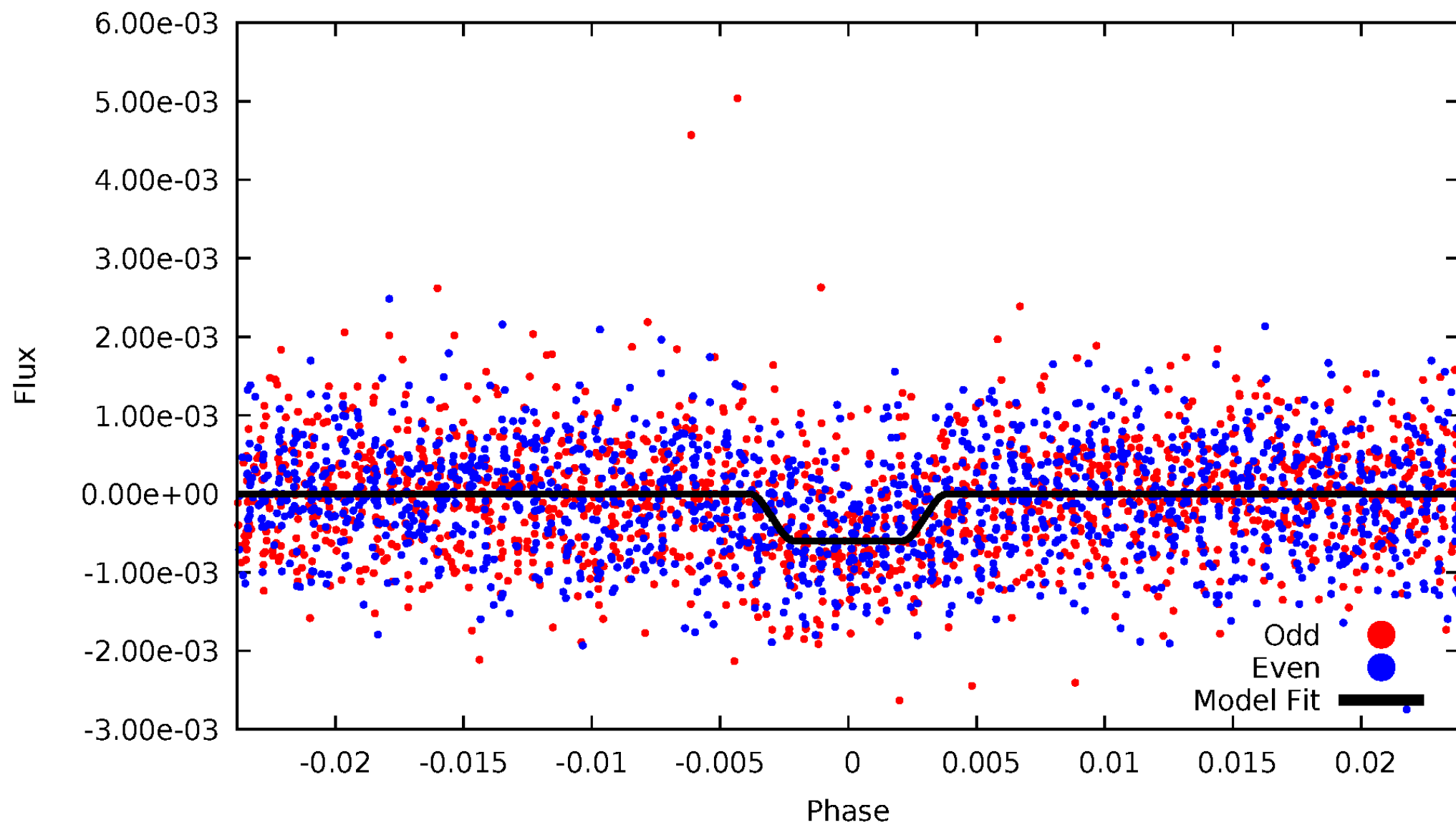
DV Odd/Even

TCE 011361283-01



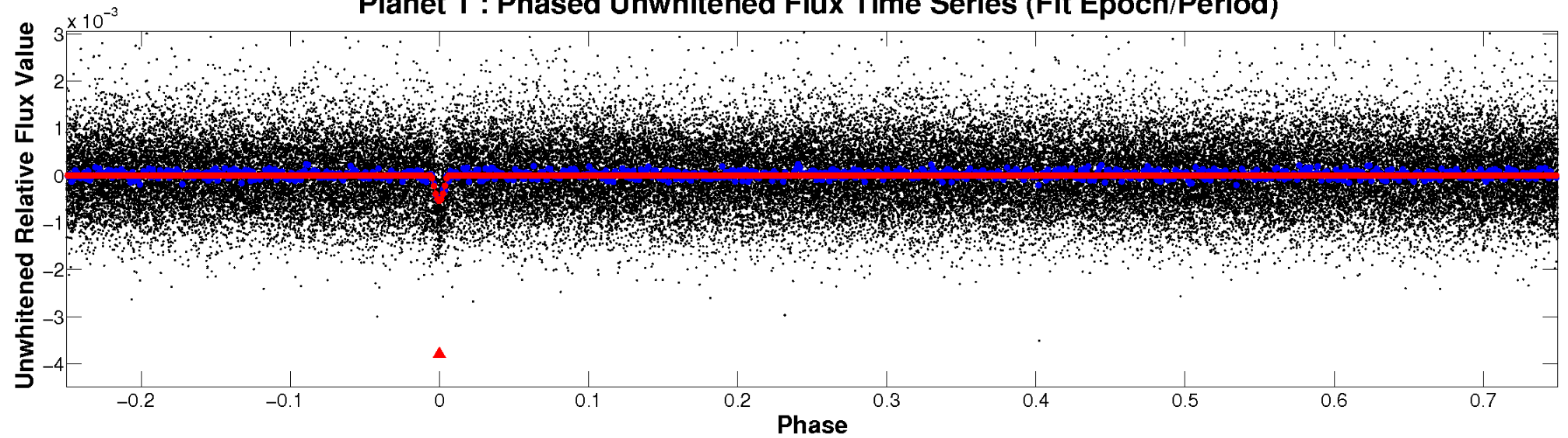
ALT Odd/Even

TCE 011361283-01

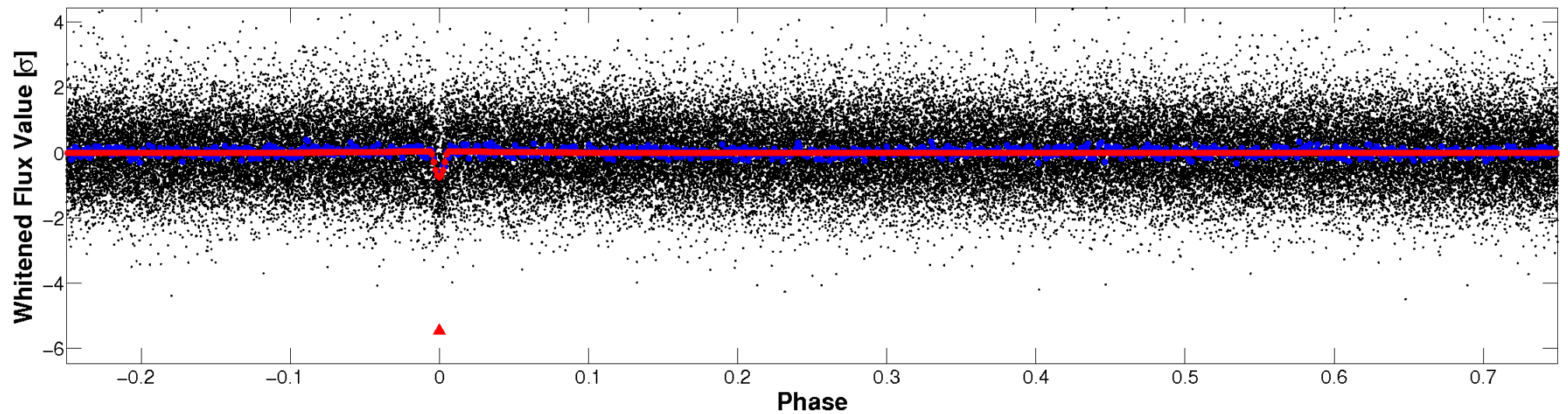


Non-Whitened Vs. Whitened Light Curve

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

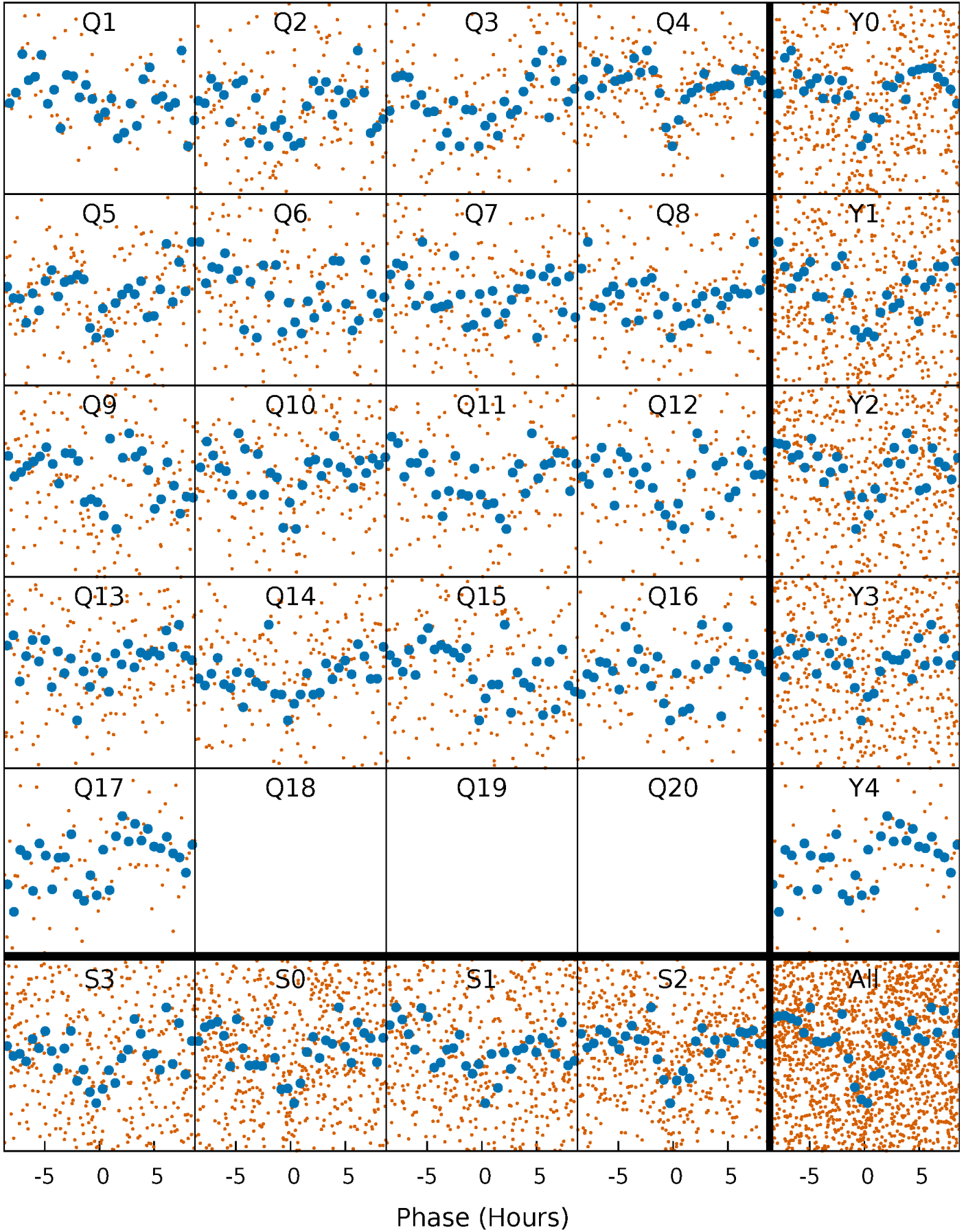


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



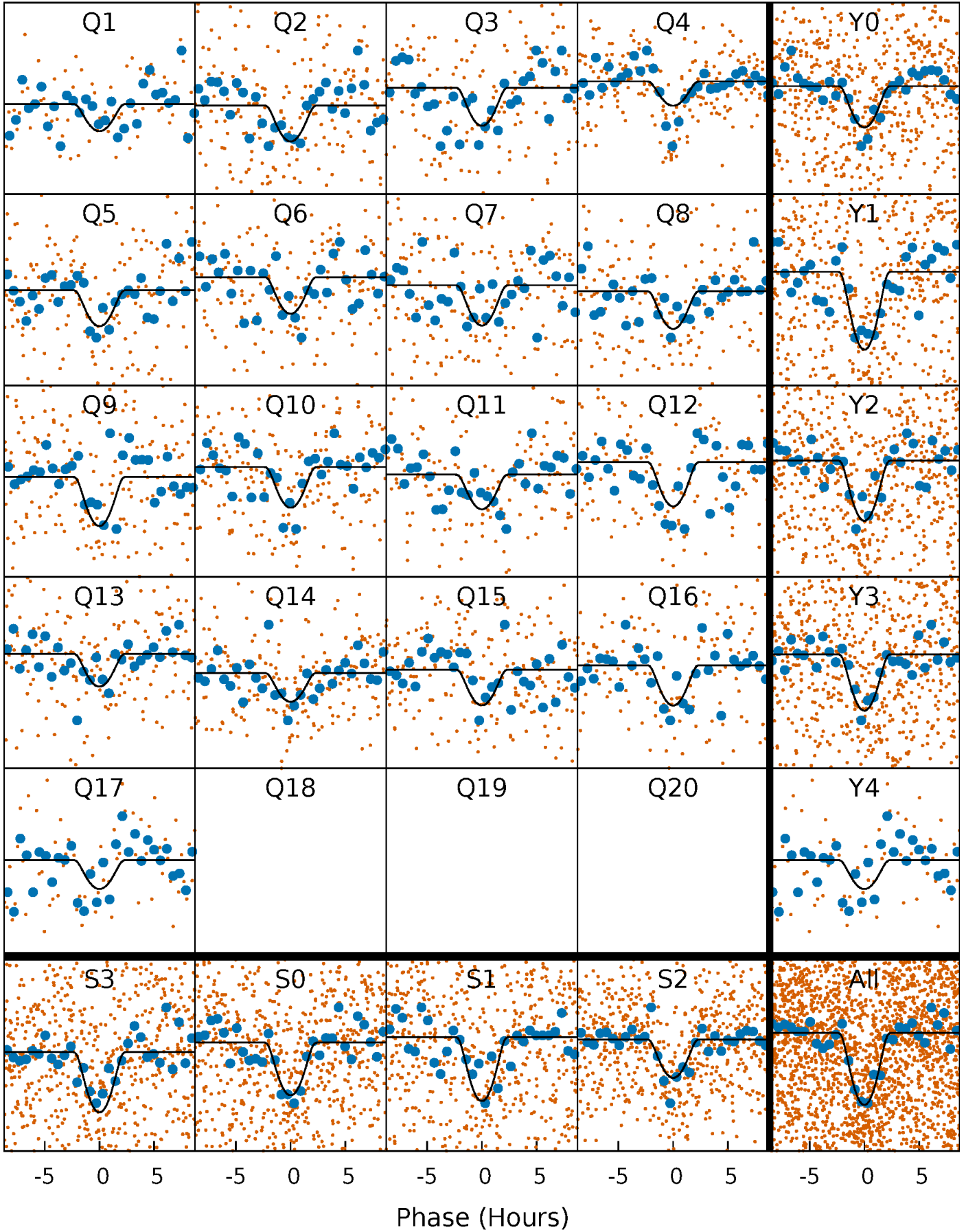
PDC Quarter-Phased Transit Curves

TCE 011361283-01 P= 16.479517 Days $T_0=142.932236$ (BKJD)



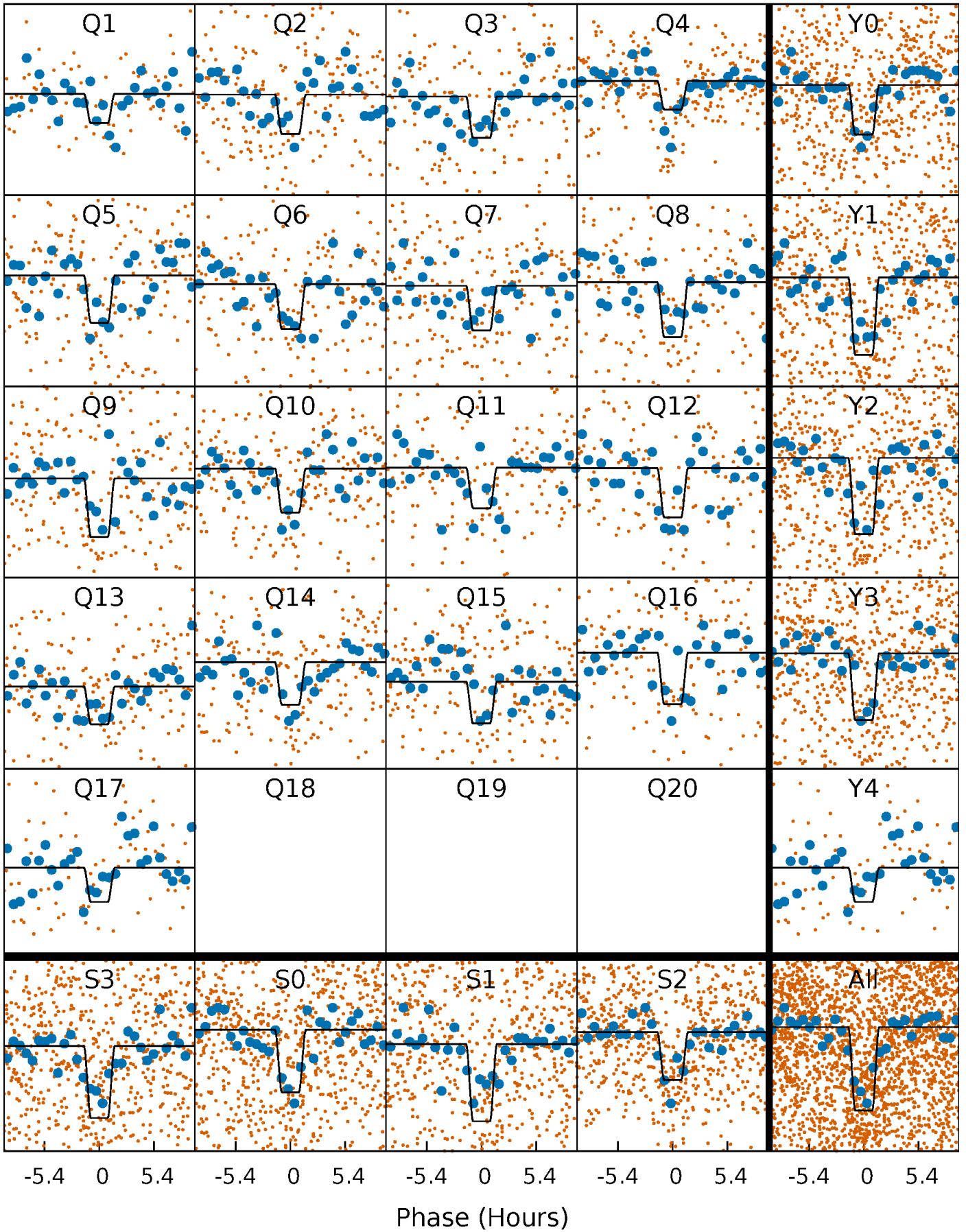
DV Quarter-Phased Transit Curves

TCE 011361283-01 P= 16.479517 Days $T_0=142.932236$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

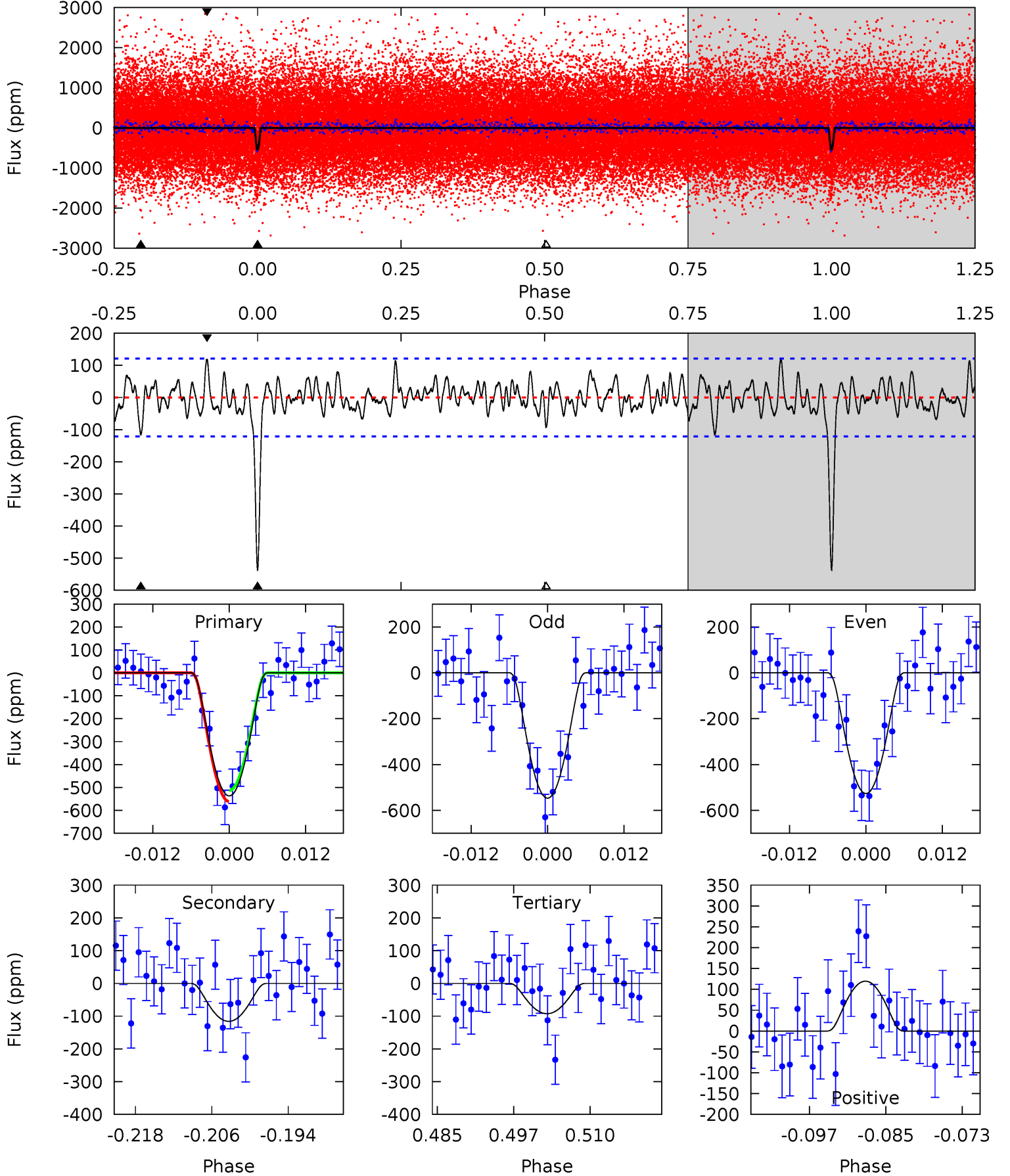
TCE 011361283-01 P= 16.479211 Days $T_0=142.948073$ (BKJD)



DV Model-Shift Uniqueness Test

011361283-01, $P = 16.479517$ Days, $E = 126.452719$ Days

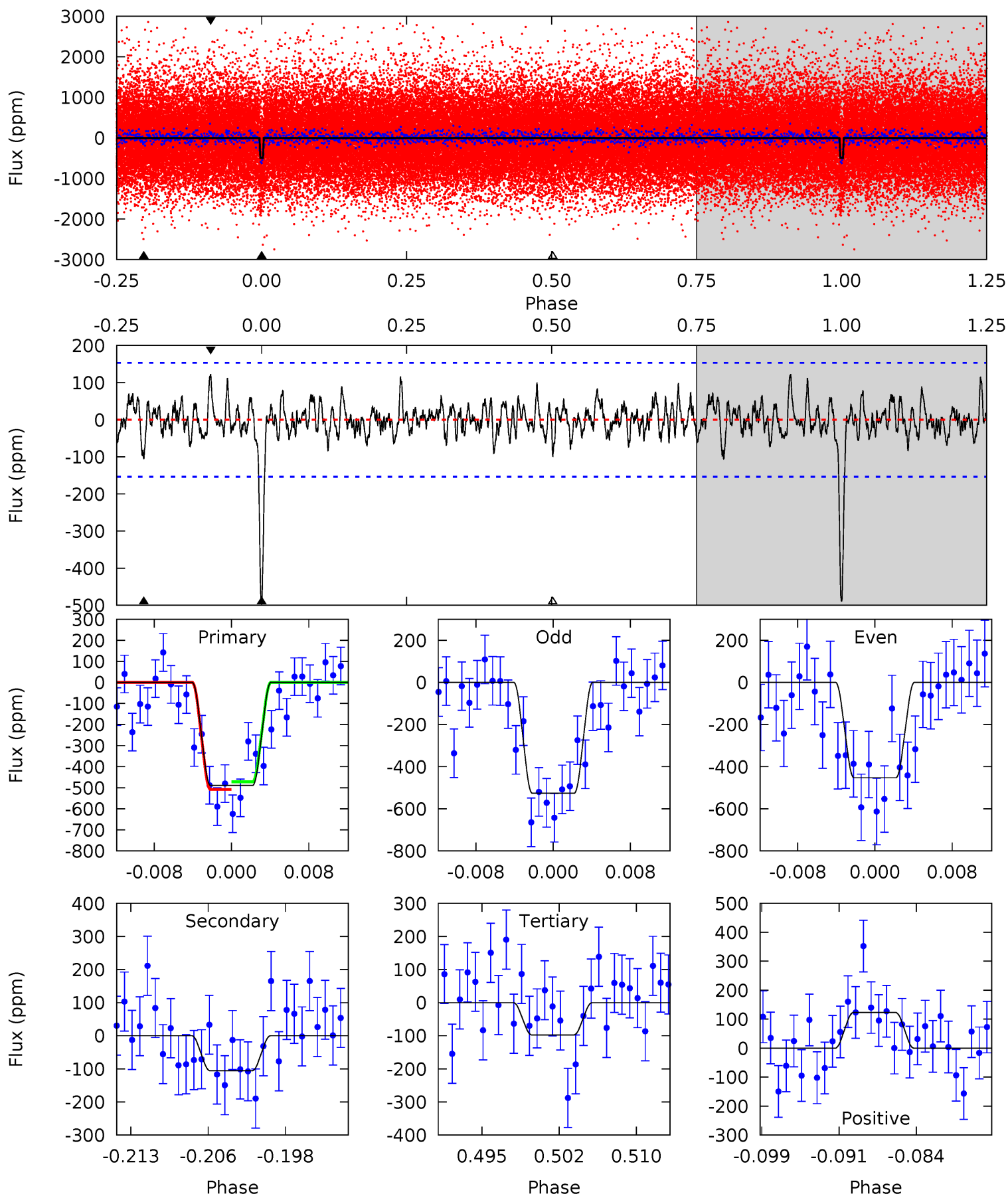
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	4.78	3.81	4.93	4.99	2.51	1.45	18.3	17.2	0.97	-0.15	0.42	1.08	0.18	0.99



Alt Model-Shift Uniqueness Test

011361283-01, $P = 16.479211$ Days, $E = 126.468862$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	3.49	3.23	4.07	5.08	2.67	1.12	13.0	12.1	0.27	-0.58	1.21	1.01	0.20	0.61



Stellar Parameters For KIC 011361283

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4908^{+162}_{-148}	$4.618^{+0.027}_{-0.063}$	$-0.020^{+0.300}_{-0.300}$	$0.716^{+0.077}_{-0.049}$	$0.797^{+0.055}_{-0.083}$	$3.062^{+0.408}_{-0.727}$
	+3%/-3%	+1%/-1%	+1500%/-1500%	+11%/-7%	+7%/-10%	+13%/-24%
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 011361283-01 / KOI 2551.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-116 ± 24	$4.21^{+3.76}_{-2.76}$	757^{+30}_{-28}	2864^{+1074}_{-447}	48^{+366}_{-35}
Alt.	-106 ± 30	$3.75^{+3.39}_{-2.47}$	758^{+27}_{-26}	2941^{+1207}_{-475}	56^{+434}_{-41}

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 $A_{obs} \gg 1.0$

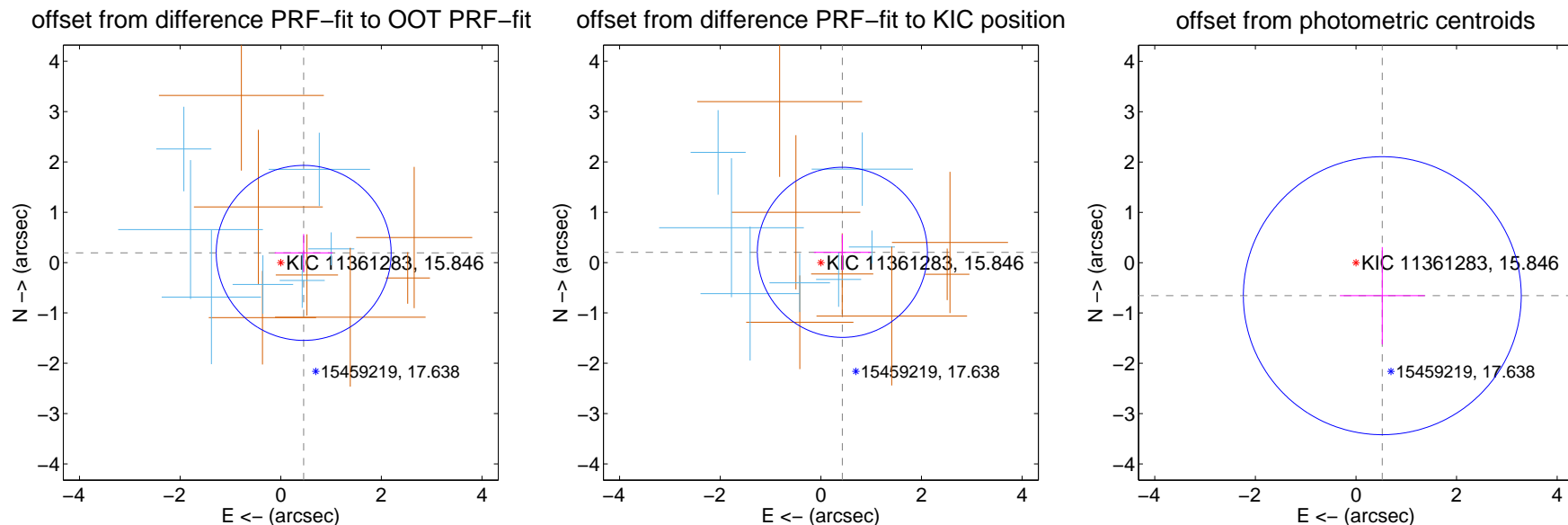
DV Centroid Data

Supplemental centroid analysis for 011361283-01. Kepler magnitude: 15.85. Transit SNR 13.27

There are 7 quarters with good PRF difference image offsets

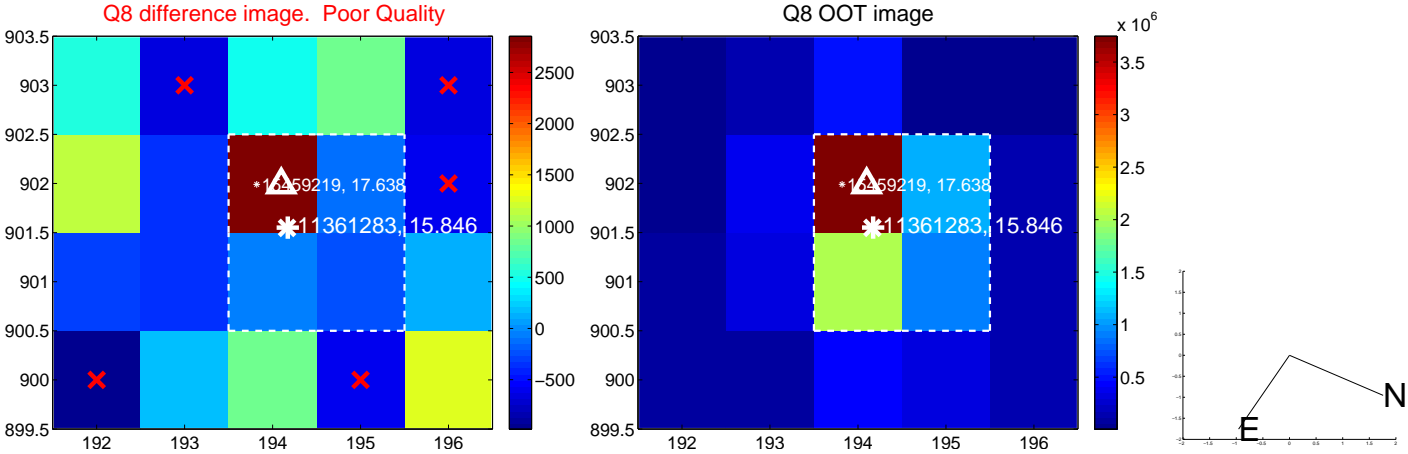
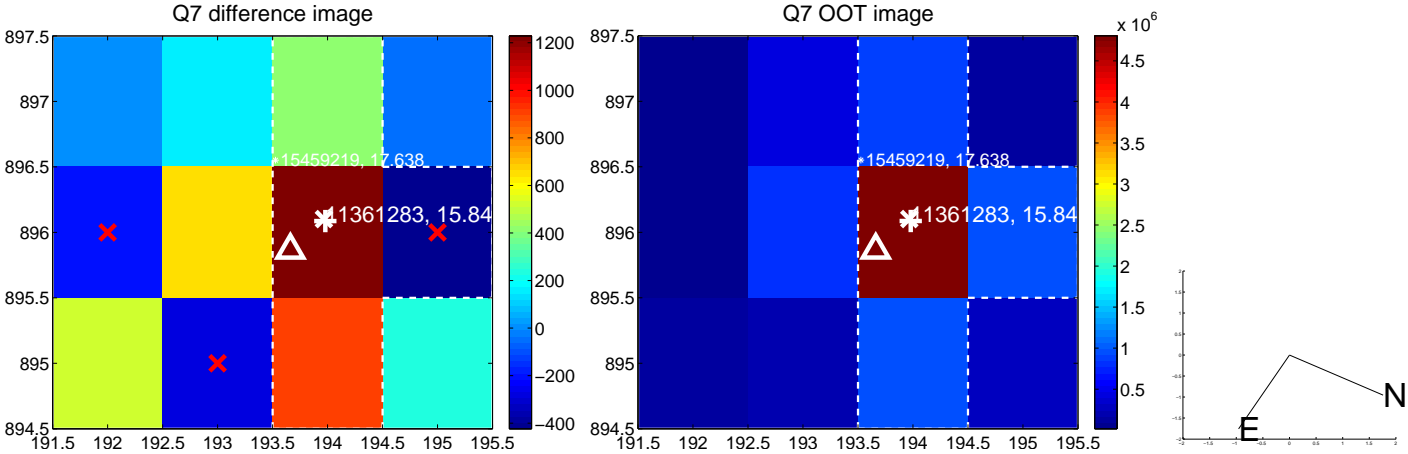
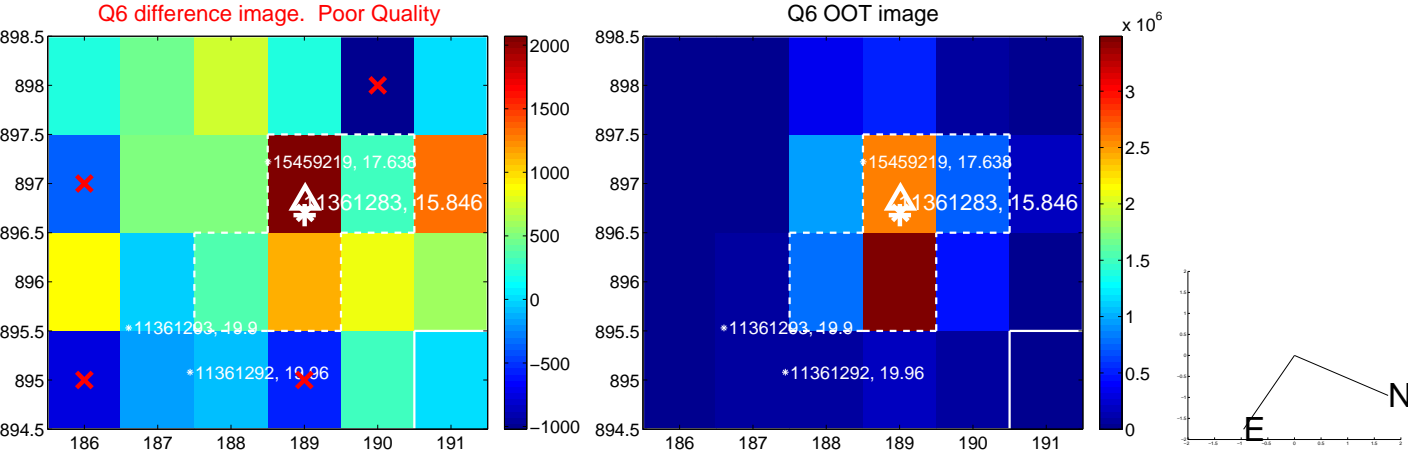
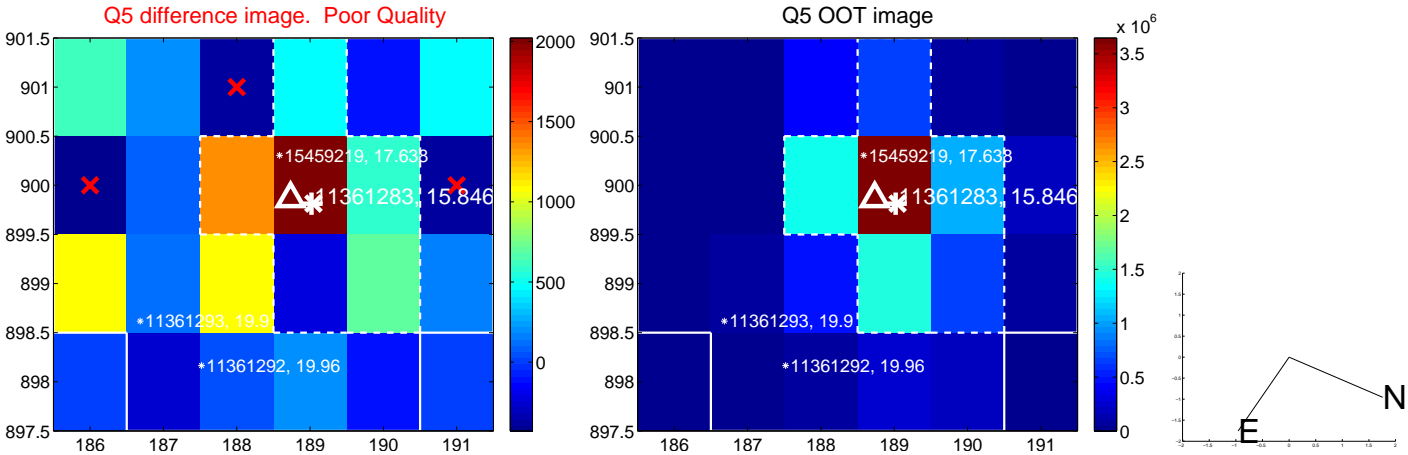
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.495 ± 0.579	0.85	-0.456 ± 0.575	0.193 ± 0.374
PRF-fit source offset from KIC position	0.473 ± 0.563	0.84	-0.427 ± 0.565	0.204 ± 0.357
photometric centroid source offset	0.84 ± 0.92	0.91	-0.52 ± 0.84	-0.66 ± 0.97

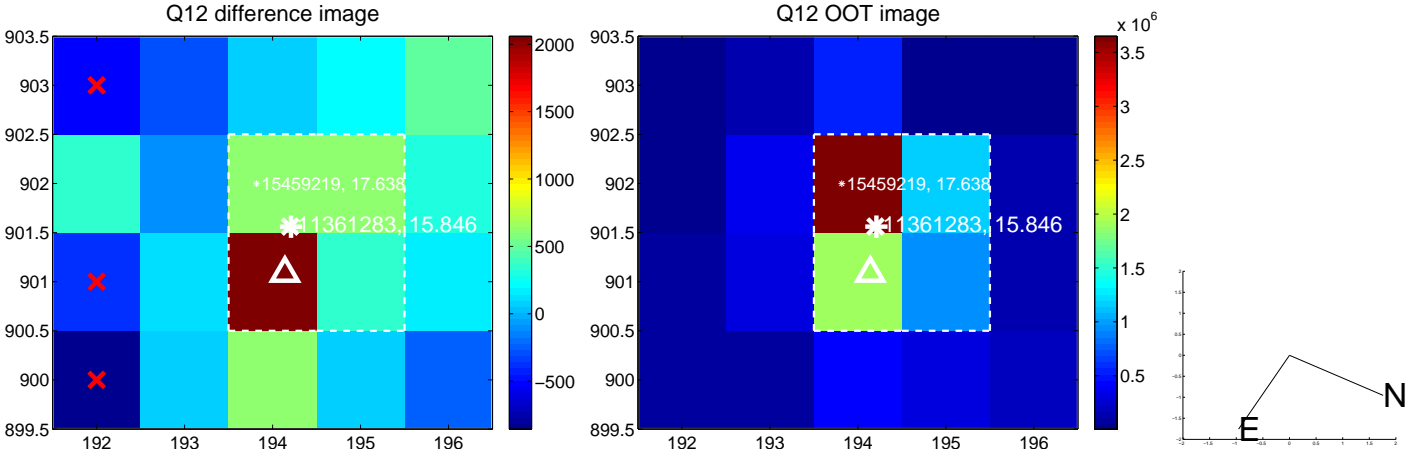
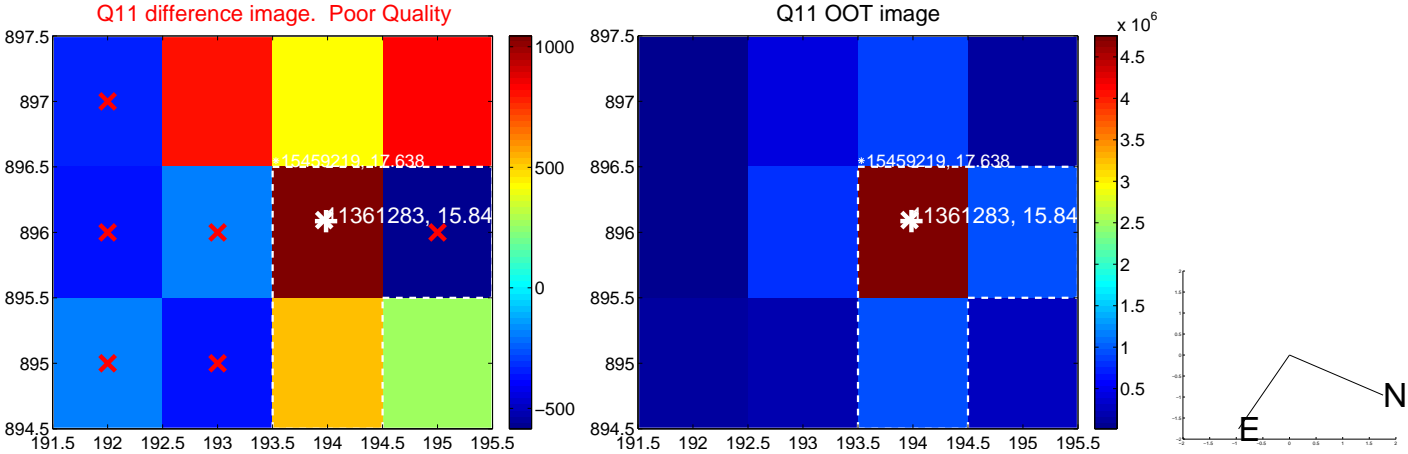
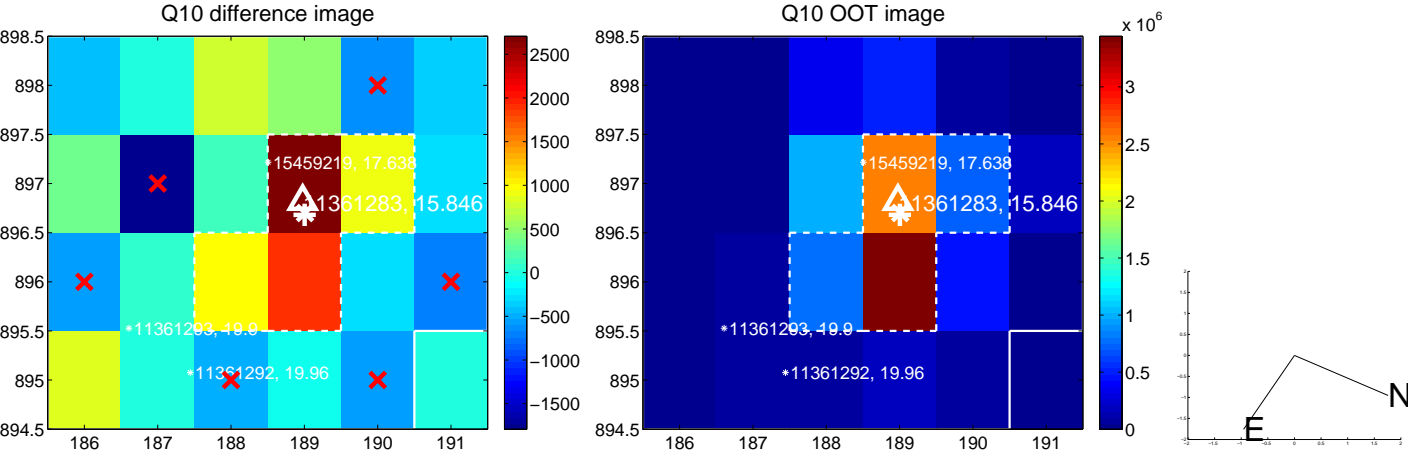
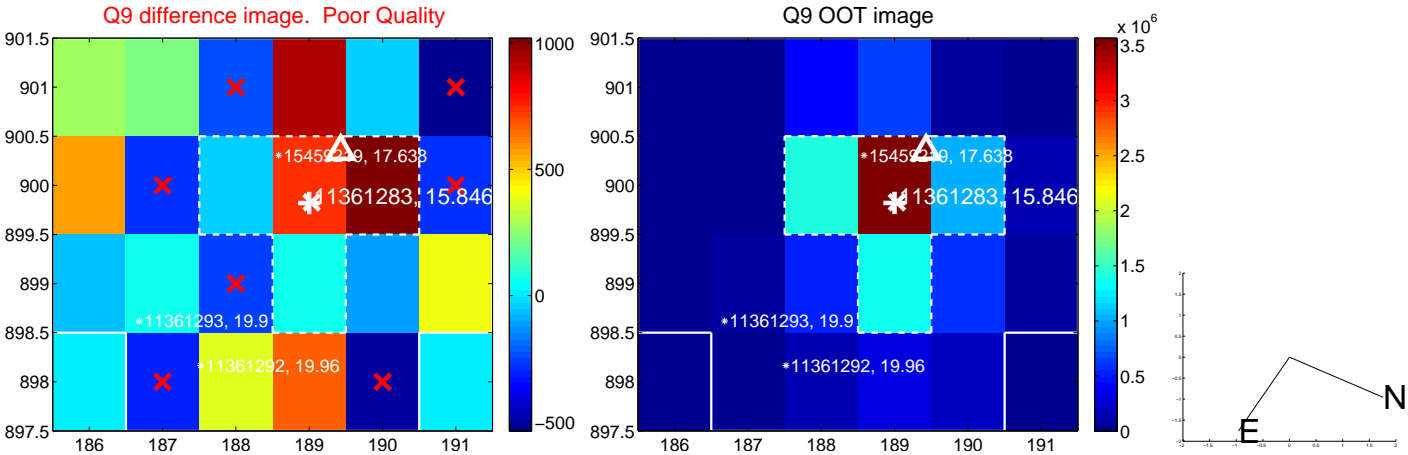


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

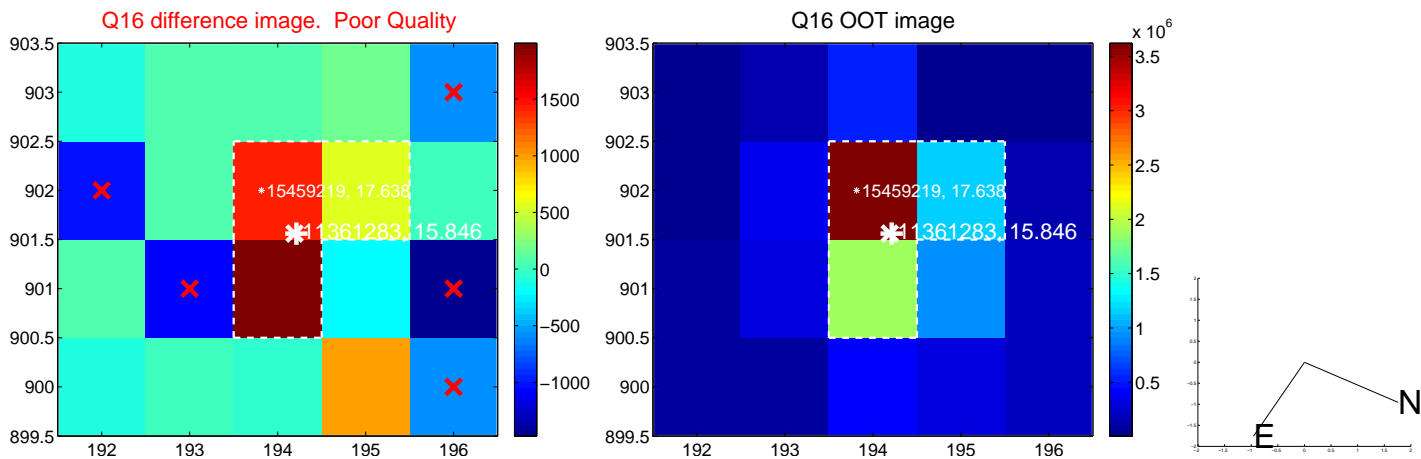
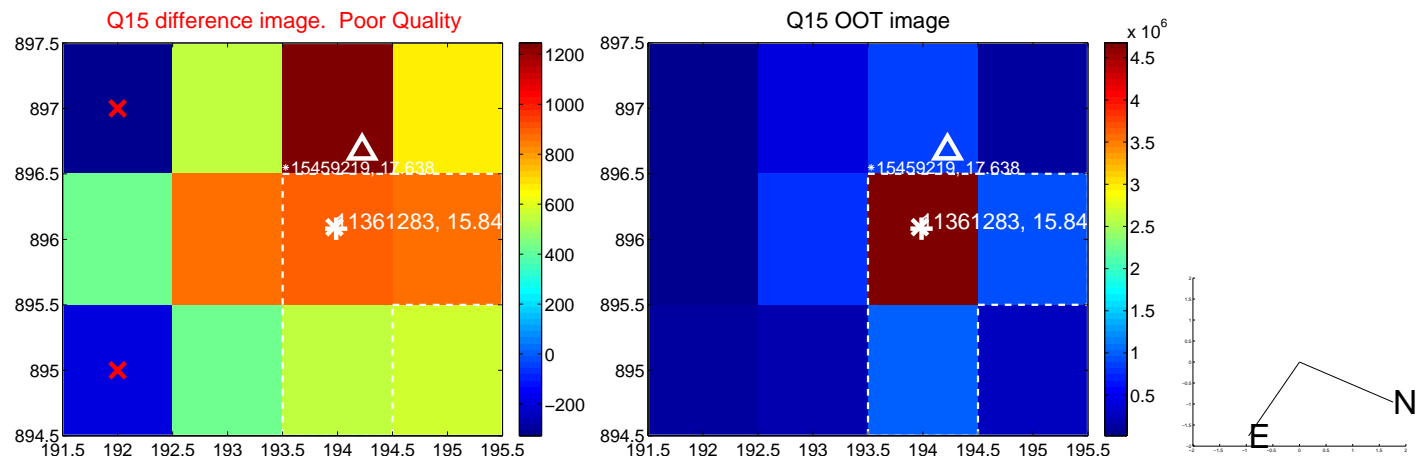
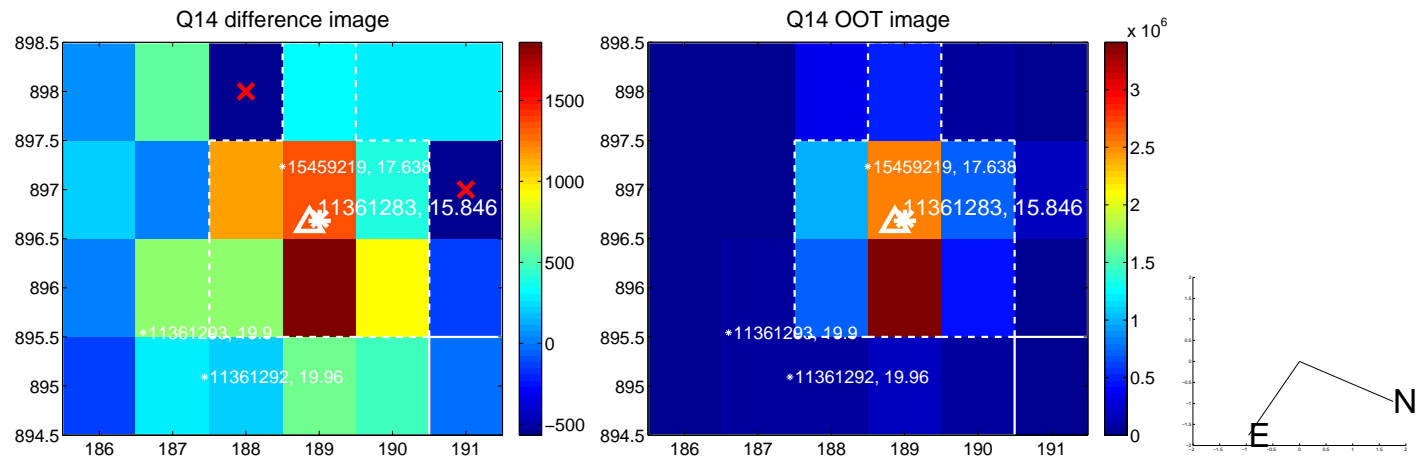
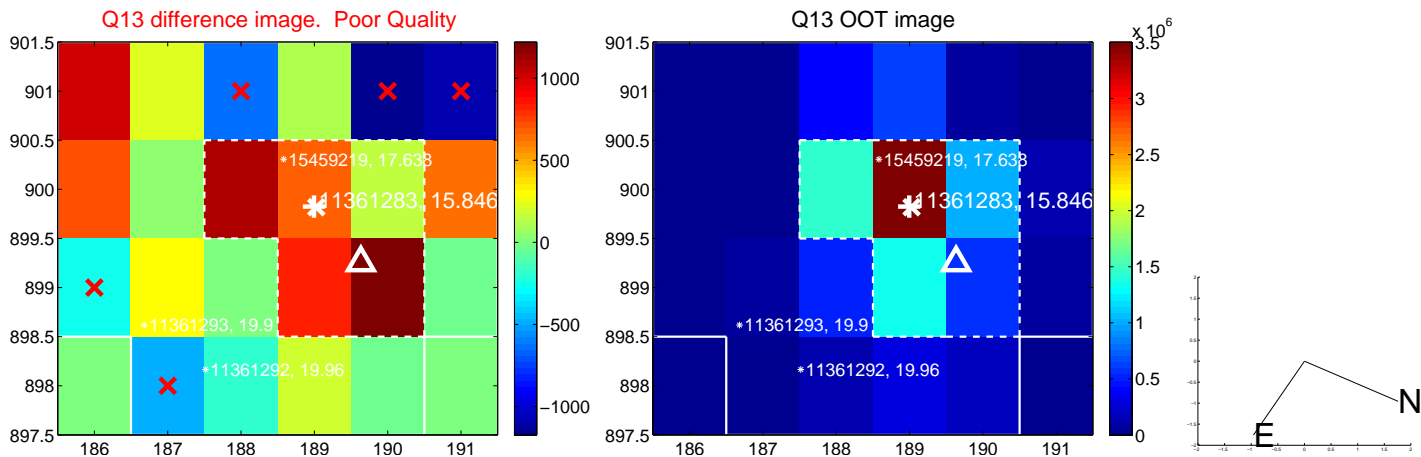
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



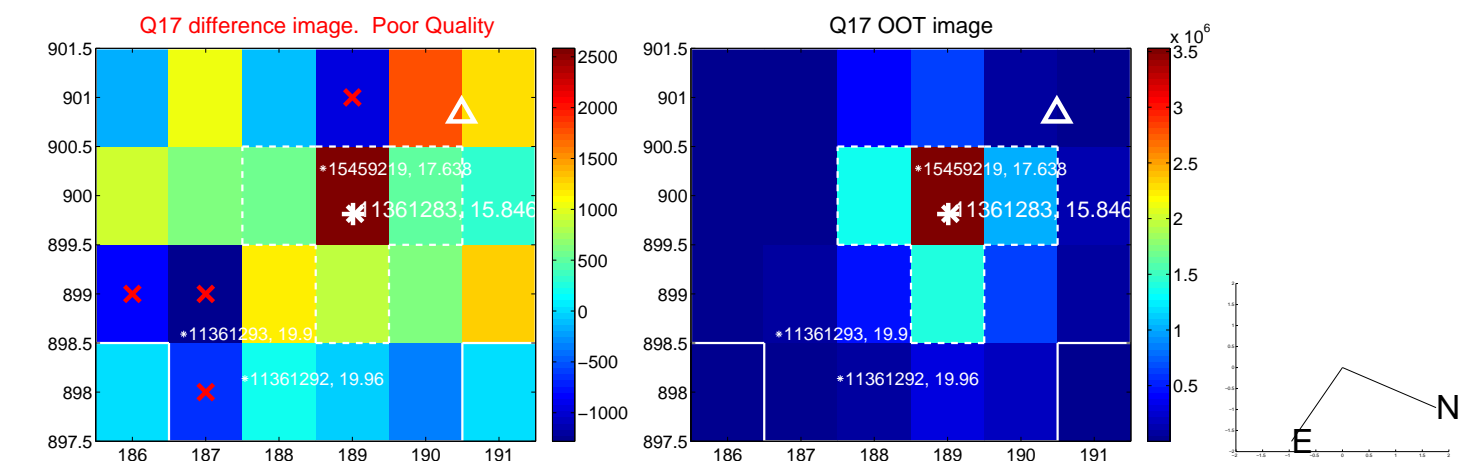
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



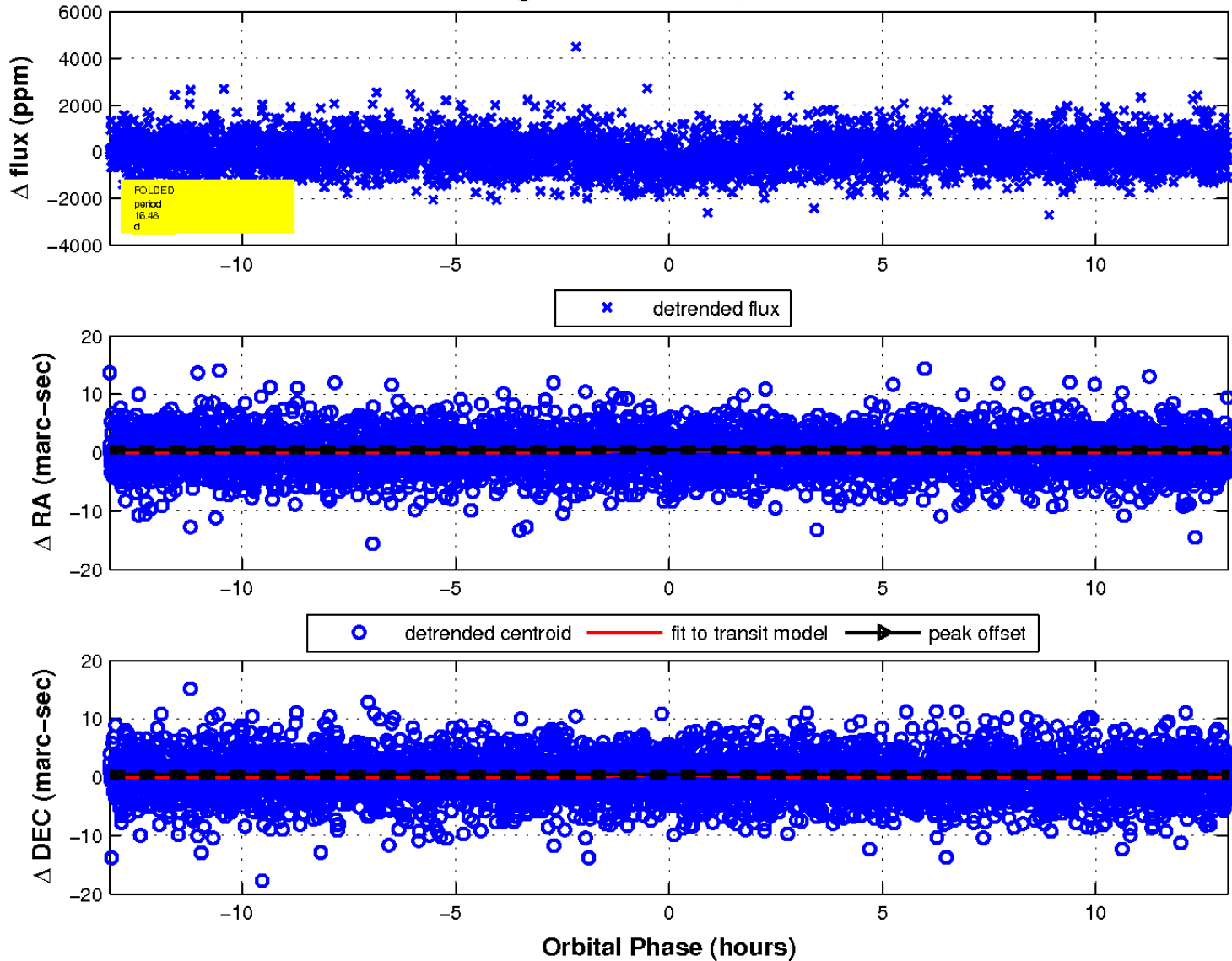
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

