

KIC 010679583

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})
010679583-01	OBS	2549.01	3.547919	133.779879	179.3	2.926	11.0	11.7	0.72	5399	1.15	224.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010679583-01	OBS	FP	0.01	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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.

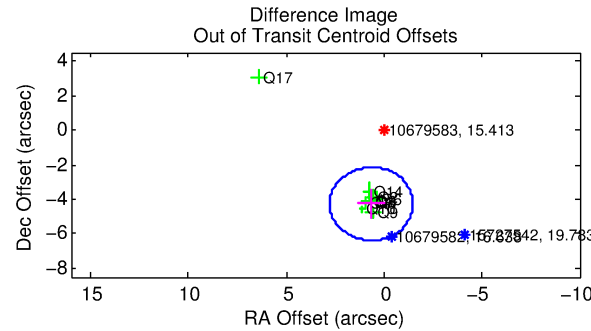
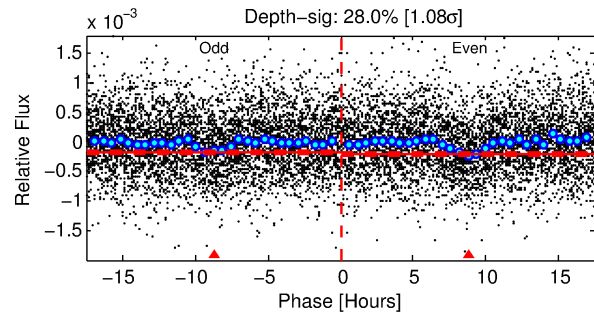
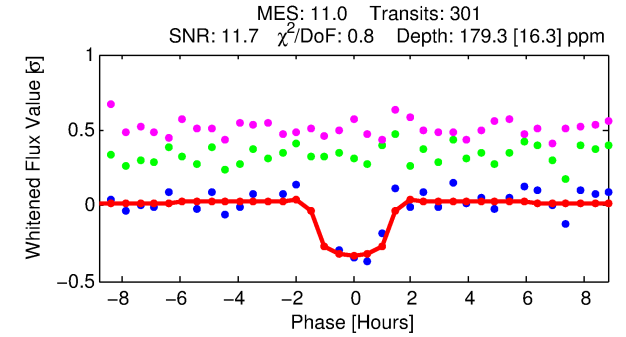
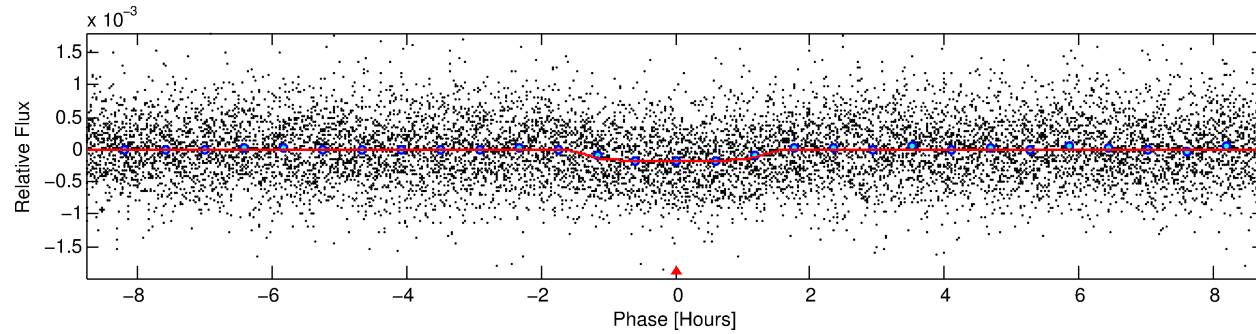
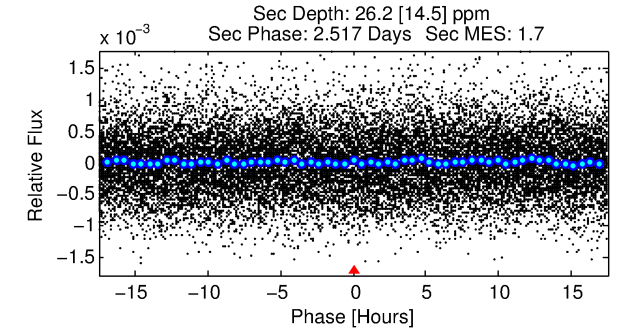
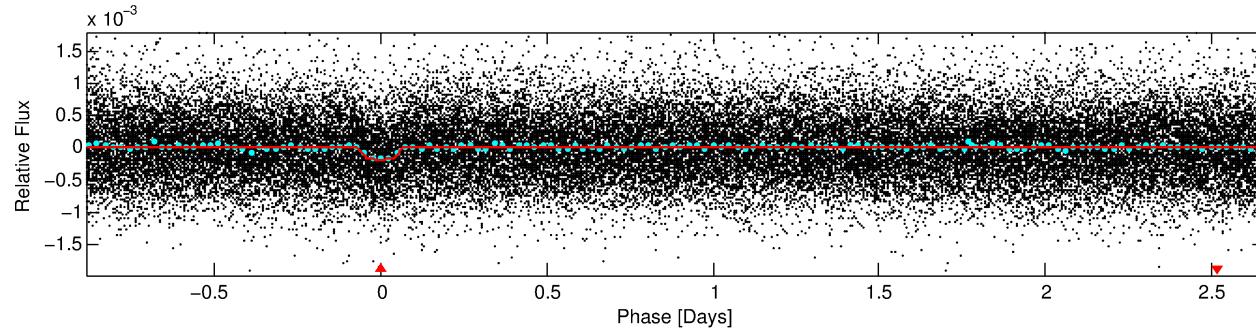
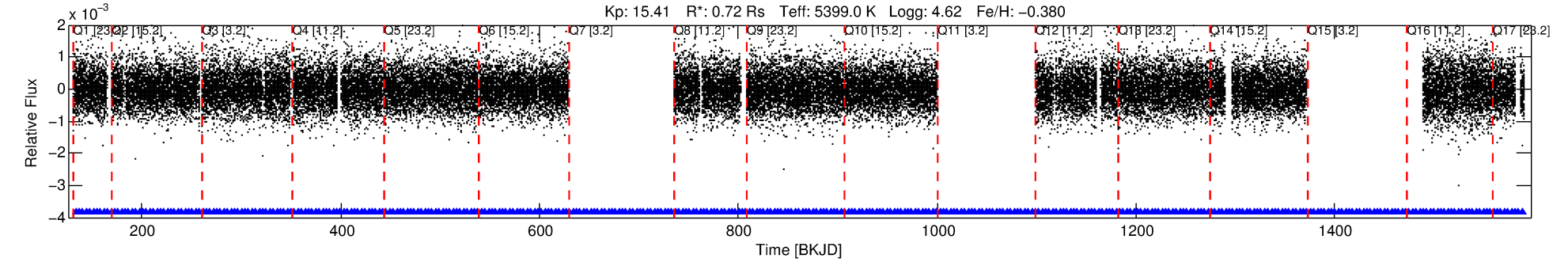
Ephemeris Match Information For 010679583-01

No Significant Match Found

DV One-Page Summary

KIC: 10679583 Candidate: 1 of 1 Period: 3.548 d

KOI: K02549.01 Corr: 0.998



DV Fit Results:

Period = 3.54792 [0.00002] d
Epoch = 133.7799 [0.0037] BKJD
Rp/R* = 0.0145 [0.0081]
a/R* = 4.63 [11.06]
b = 0.89 [0.61]
Seff = 224.43 [49.81]
Teff = 987 [55] K
Rp = 1.15 [0.67] Re
a = 0.0422 [0.0057] AU
Ag = 19.53 [24.68] [0.75σ]
Teffp = 3208 [1007] K [2.20σ]

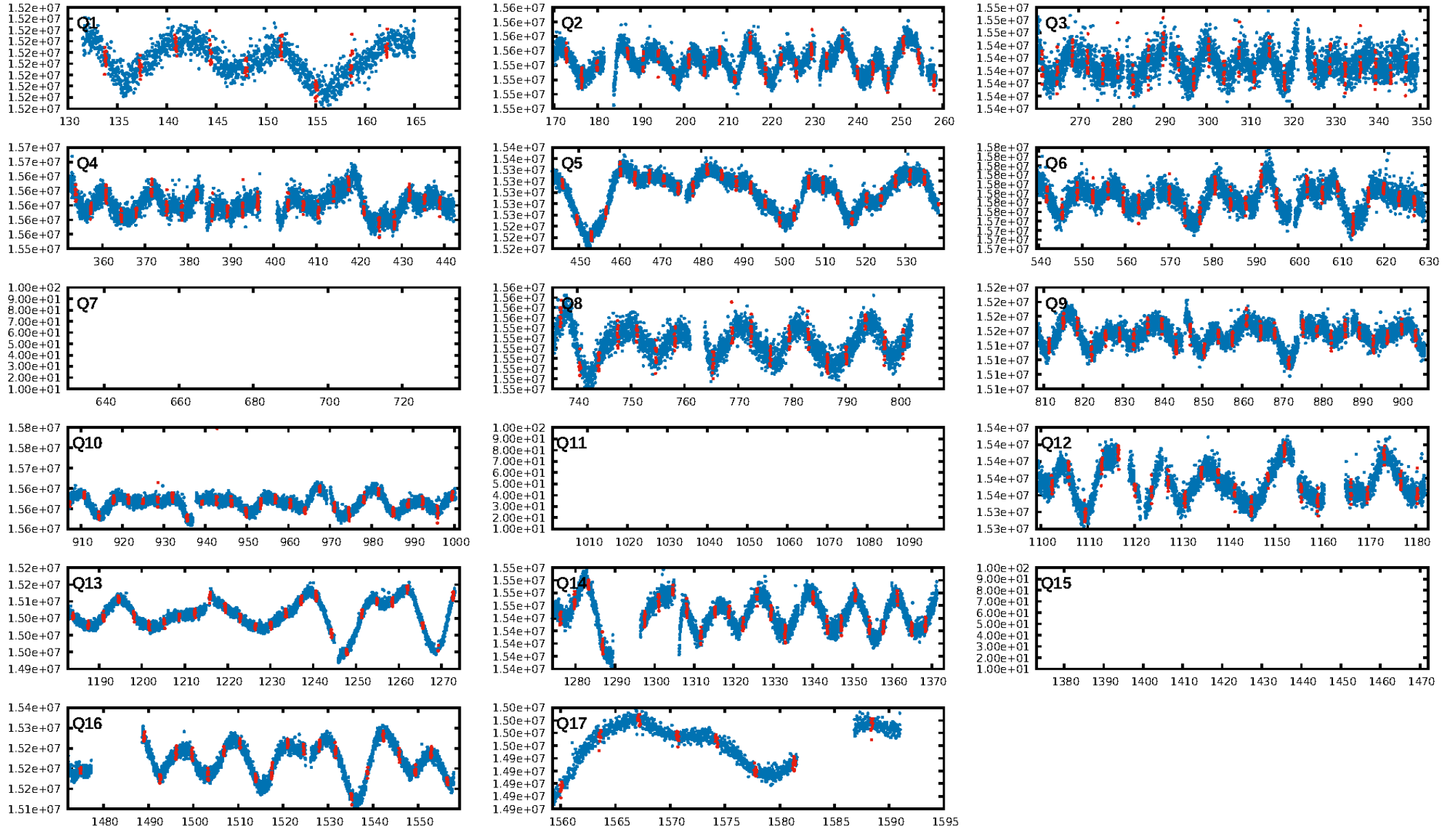
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.20e-26
RollingBand-fgt: 1.00 [284/284]
GhostDiagnostic-chr: 0.2271
Centroid-sig: 0.0%
Centroid-so: 7.570 arcsec [6.97σ]
OotOffset-rm: 4.325 arcsec [6.11σ]
KicOffset-rm: 4.442 arcsec [5.80σ]
OotOffset-st: 4/0/1/4 [9]
KicOffset-st: 4/0/1/4 [9]
DiffImageQuality-fgm: 0.89 [8/9]
DiffImageOverlap-fno: 1.00 [14/14]

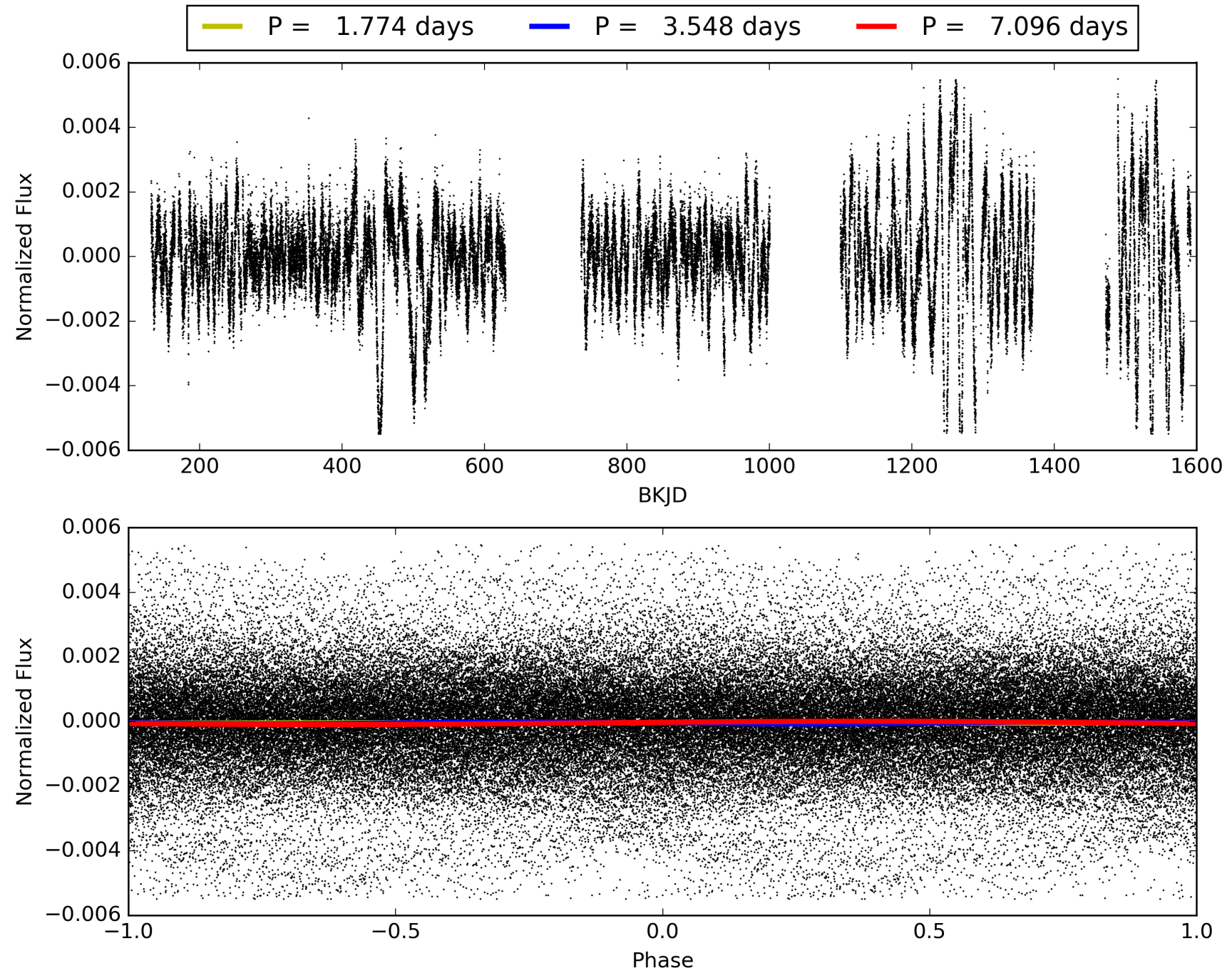
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:25:23 Z

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

TCE 010679583-01, PDC Light Curves

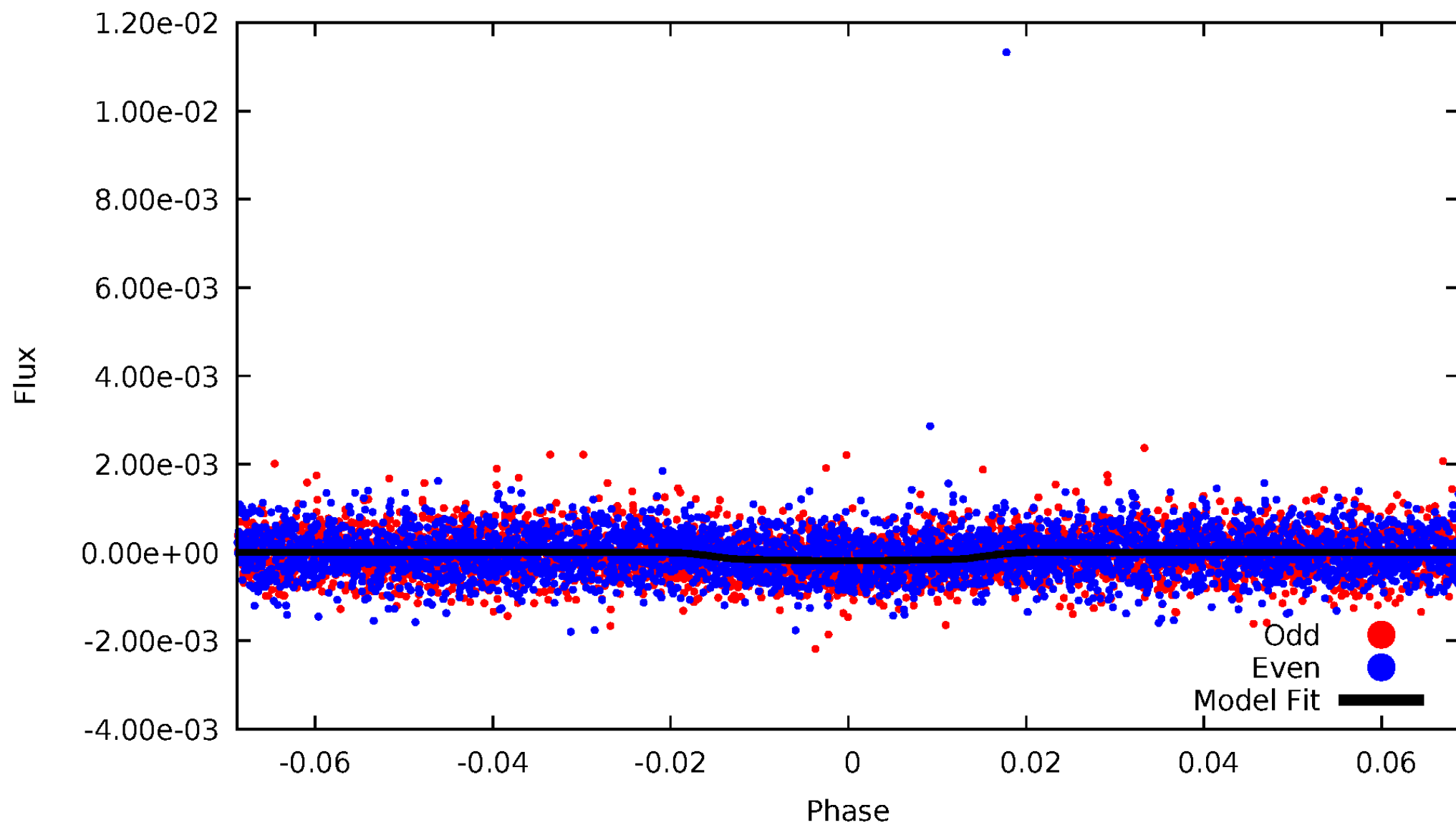


TCE 010679583-01



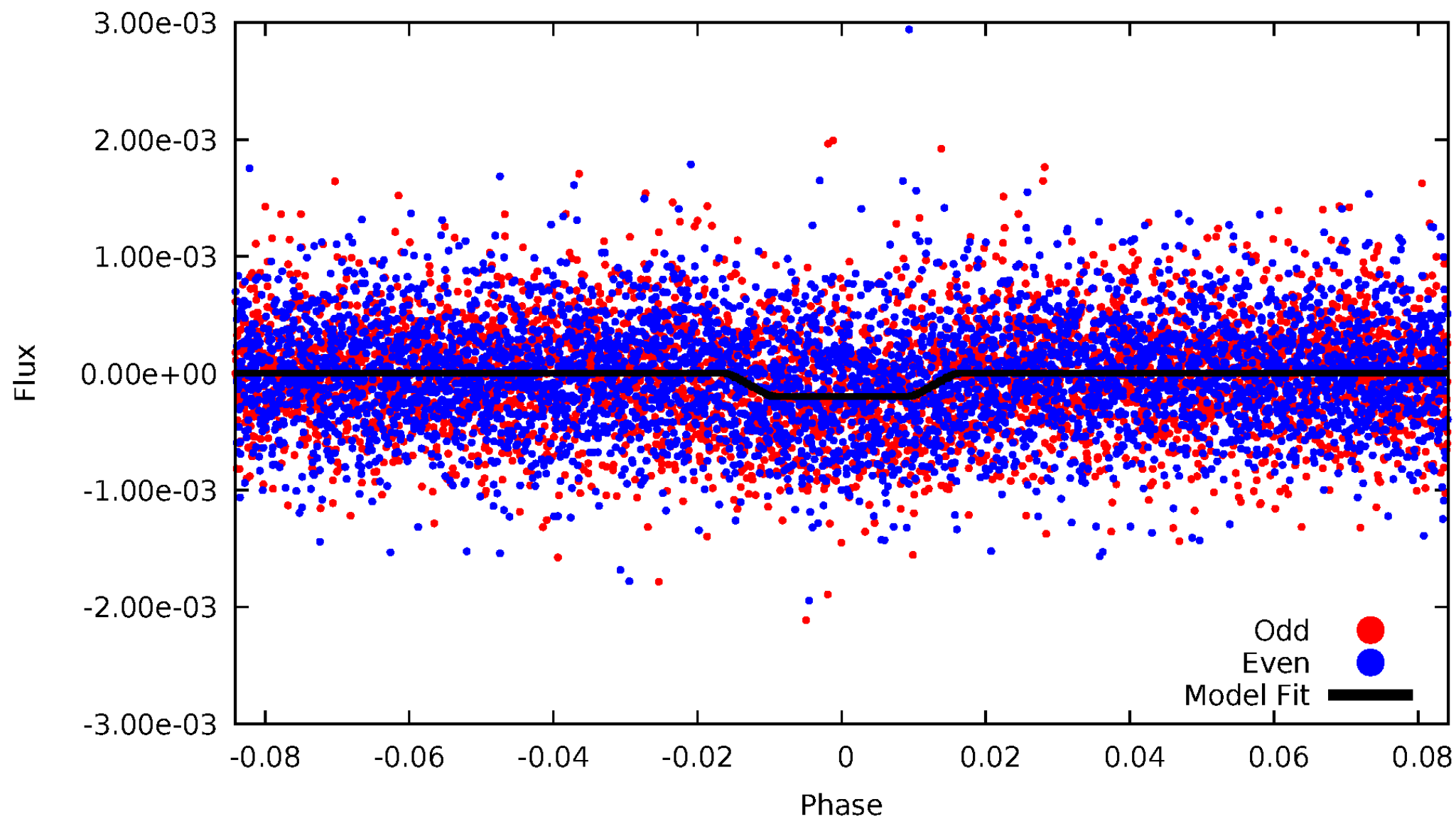
DV Odd/Even

TCE 010679583-01



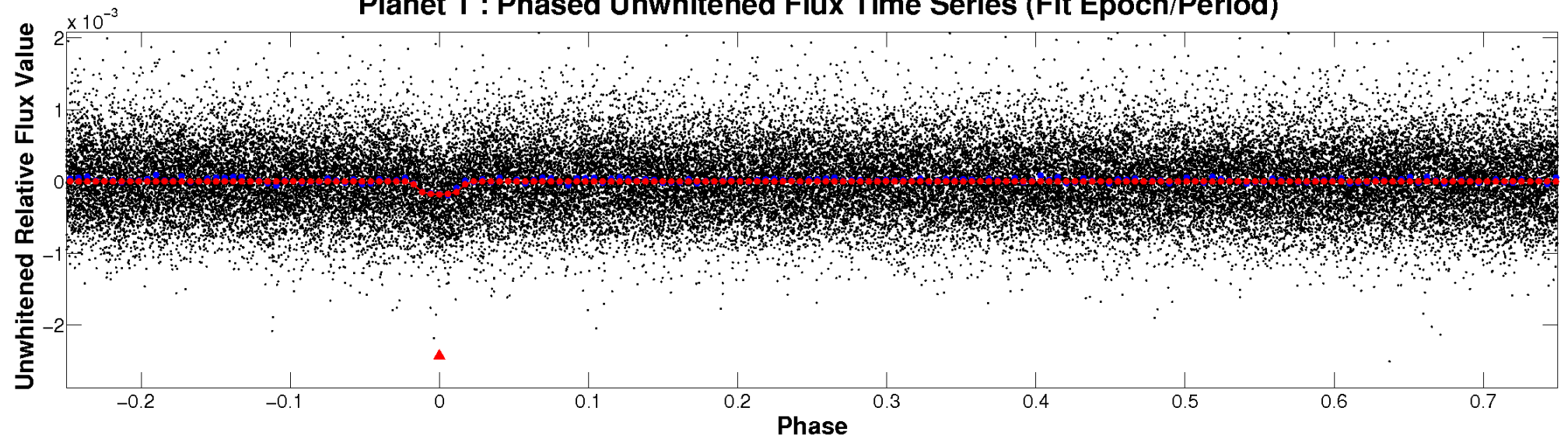
ALT Odd/Even

TCE 010679583-01

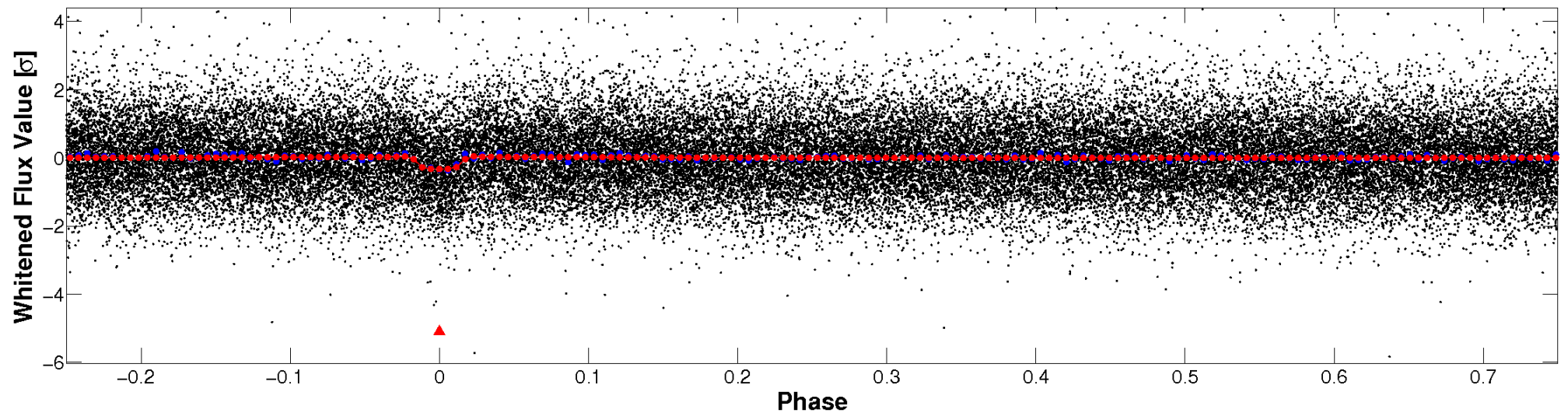


Non-Whitened Vs. Whitened Light Curve

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

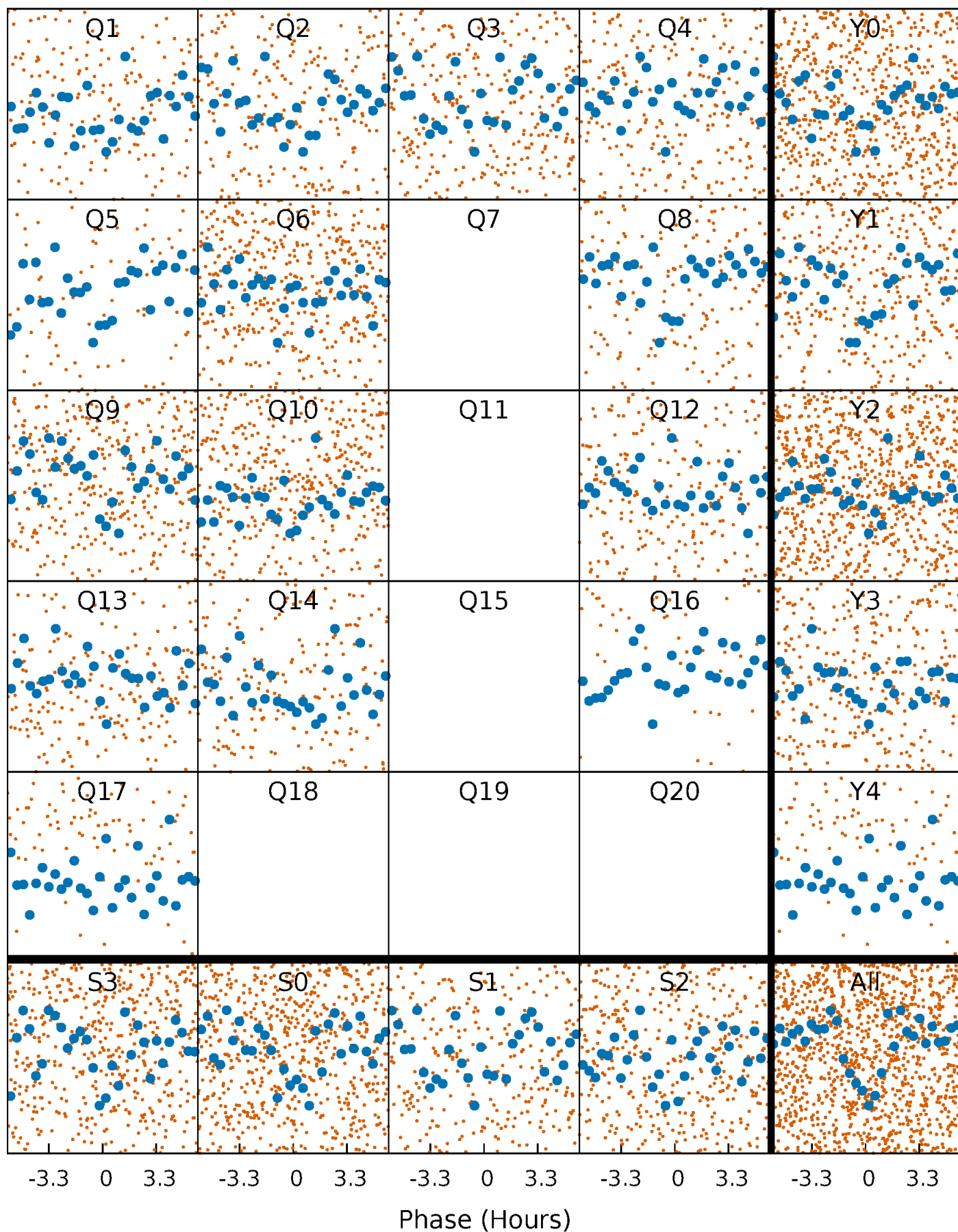


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



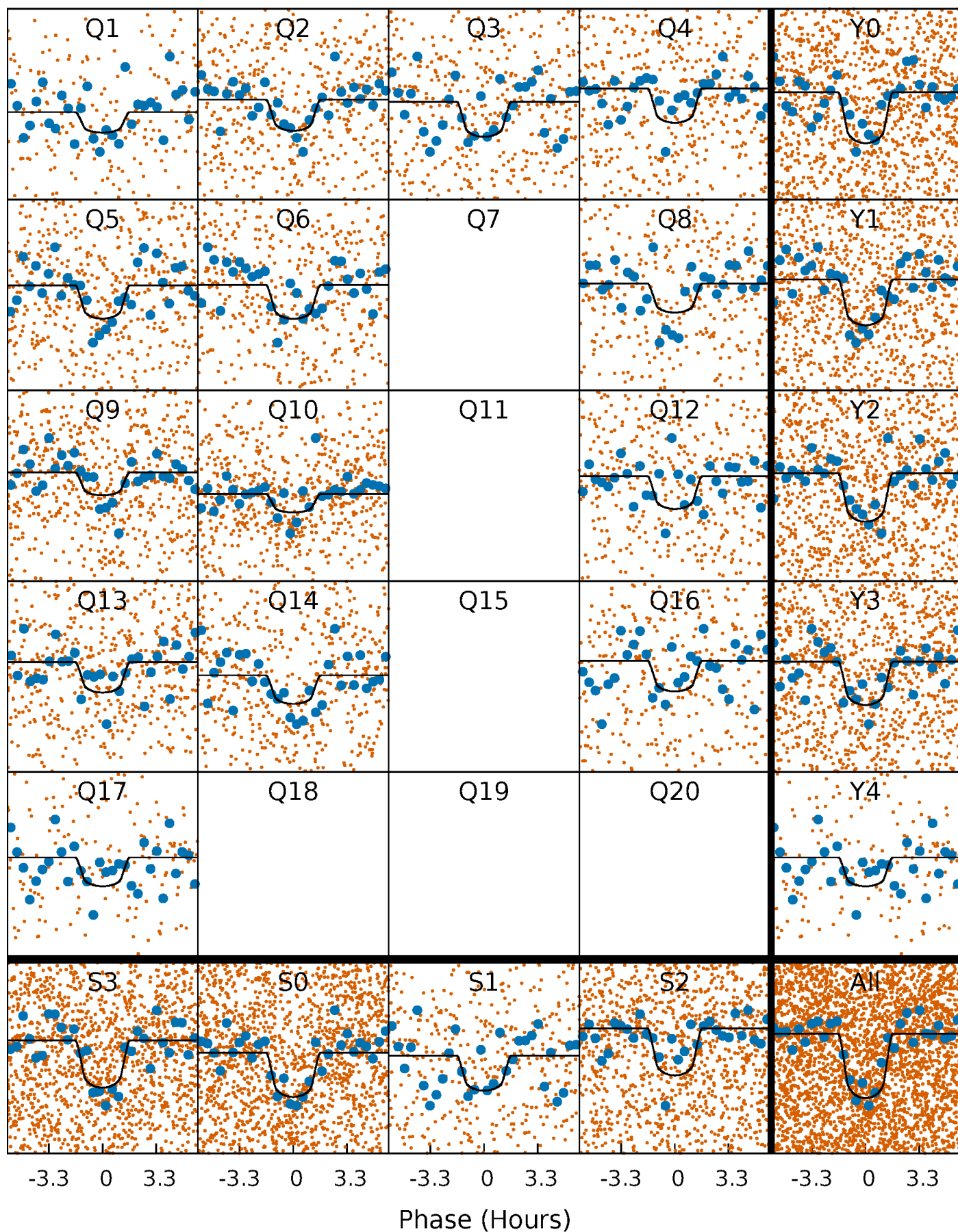
PDC Quarter-Phased Transit Curves

TCE 010679583-01 P= 3.547919 Days $T_0=133.779879$ (BKJD)



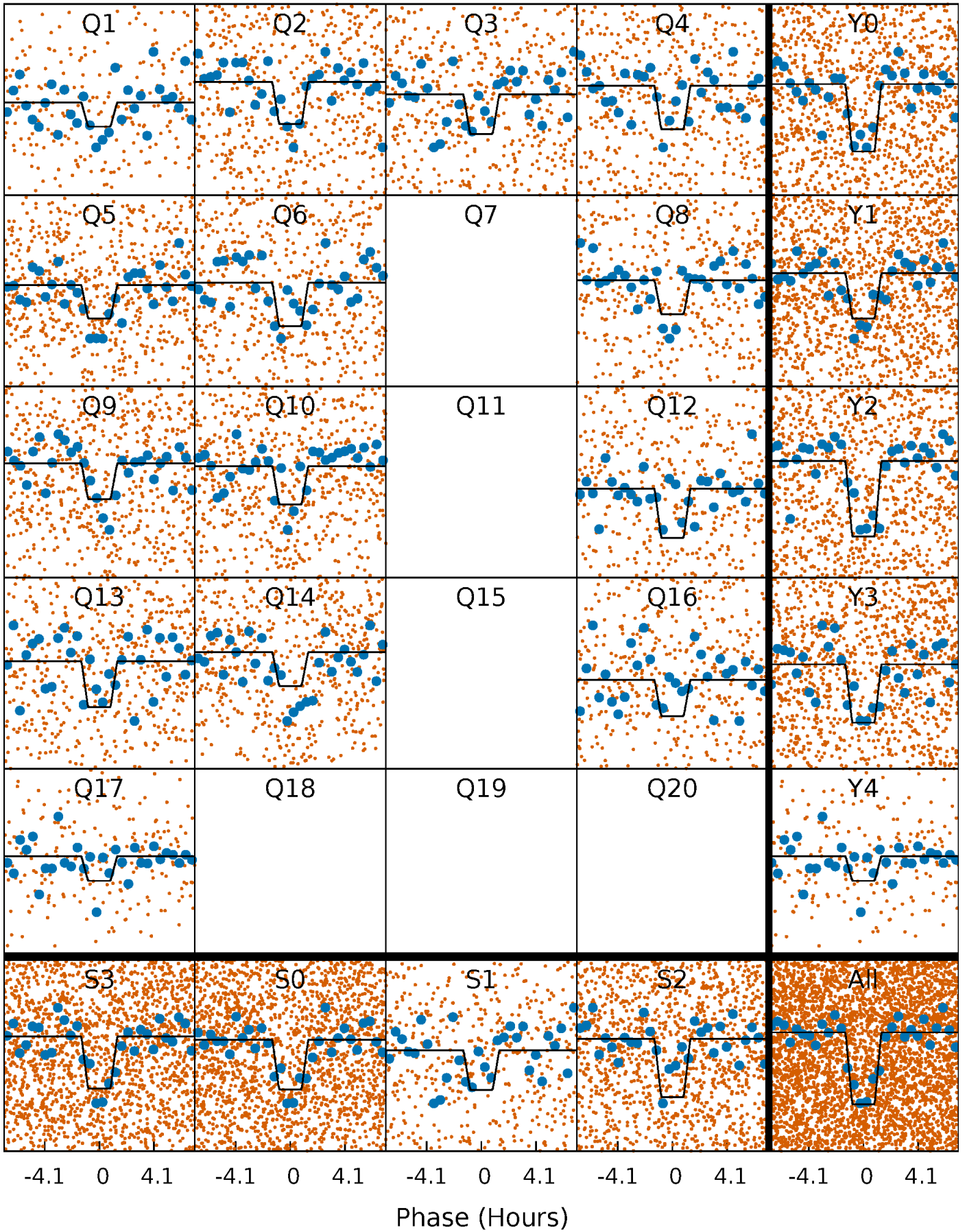
DV Quarter-Phased Transit Curves

TCE 010679583-01 P= 3.547919 Days $T_0=133.779879$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

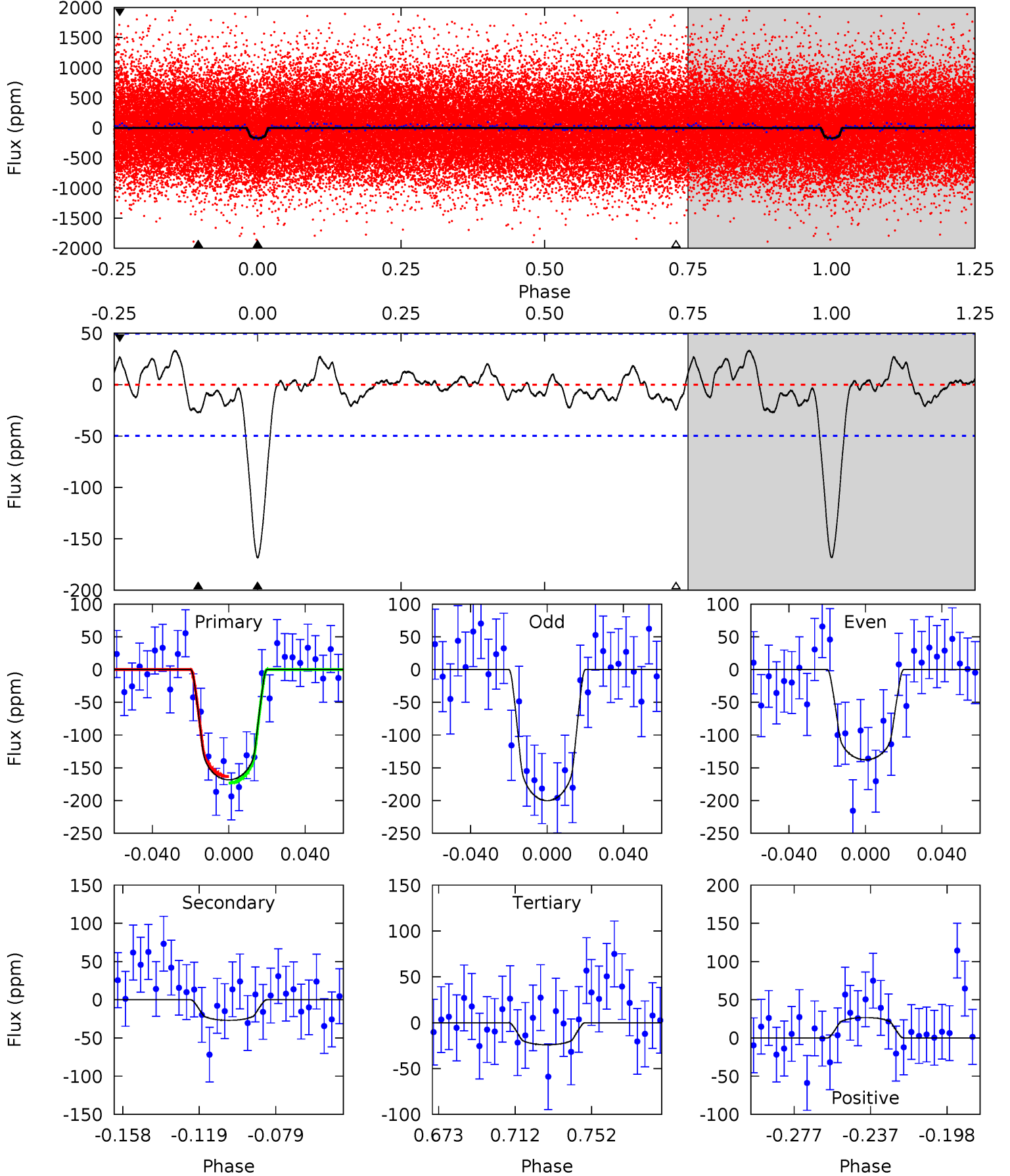
TCE 010679583-01 P= 3.547895 Days $T_0=133.784730$ (BKJD)



DV Model-Shift Uniqueness Test

010679583-01, P = 3.547919 Days, E = 130.231960 Days

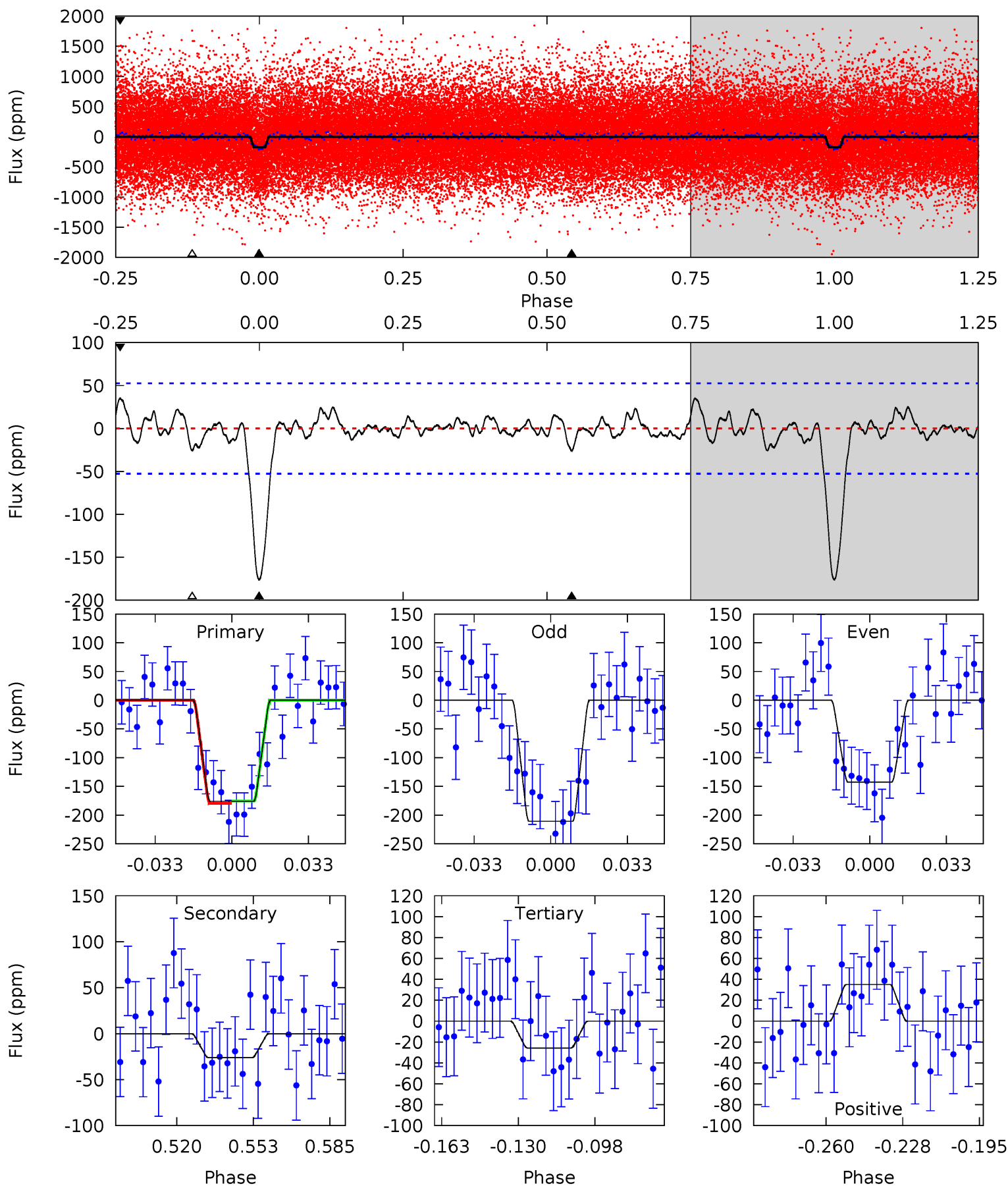
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	2.58	2.31	2.56	4.76	2.06	1.11	13.8	13.6	0.27	0.02	3.00	0.98	0.16	0.47



Alt Model-Shift Uniqueness Test

010679583-01, P = 3.547895 Days, E = 130.236835 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	2.38	2.34	3.19	4.80	2.14	0.92	13.7	12.8	0.04	-0.82	3.11	0.90	0.17	0.18



Stellar Parameters For KIC 010679583

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5399^{+160}_{-144}	$4.619^{+0.035}_{-0.098}$	$-0.380^{+0.350}_{-0.300}$	$0.725^{+0.122}_{-0.052}$	$0.805^{+0.076}_{-0.084}$	$2.972^{+0.446}_{-0.966}$
	+3%/-3%	+1%/-2%	+92%/-79%	+17%/-7%	+9%/-10%	+15%/-33%
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 010679583-01 / KOI 2549.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27 ± 10	$1.25^{+0.66}_{-0.63}$	1395^{+61}_{-50}	3561^{+1084}_{-530}	17^{+52}_{-11}
Alt.	-26 ± 11	$1.17^{+0.71}_{-0.61}$	1399^{+61}_{-48}	3606^{+1142}_{-567}	18^{+64}_{-12}

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

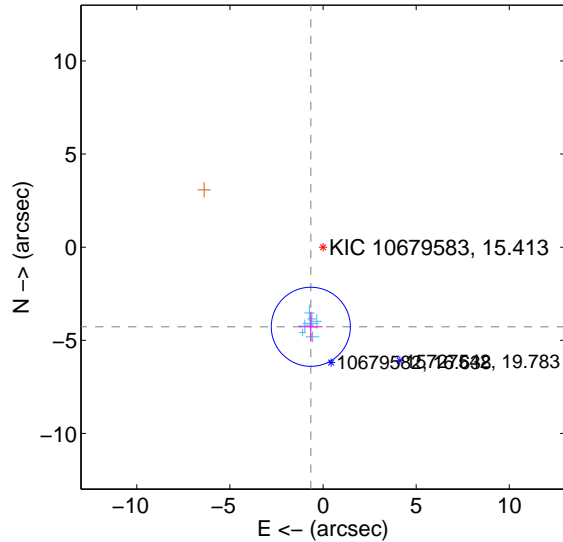
Supplemental centroid analysis for 010679583-01. Kepler magnitude: 15.41. Transit SNR 11.69

There are 8 quarters with good PRF difference image offsets

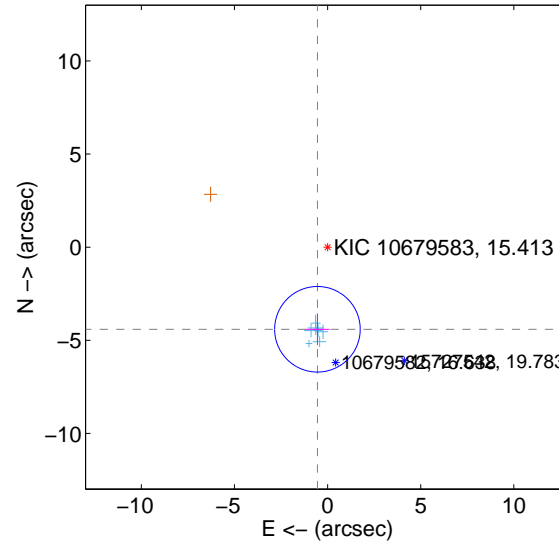
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.325 ± 0.708	6.11	0.656 ± 0.632	-4.275 ± 0.809
PRF-fit source offset from KIC position	4.442 ± 0.766	5.80	0.545 ± 0.651	-4.408 ± 0.850
photometric centroid source offset	7.57 ± 1.09	6.97	2.30 ± 0.81	-7.21 ± 1.11

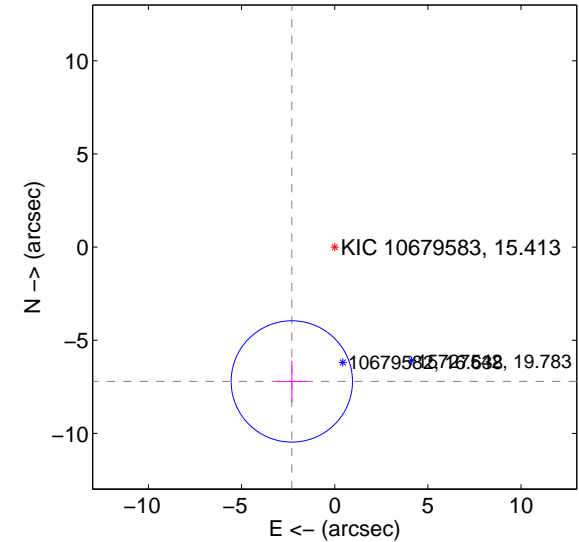
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

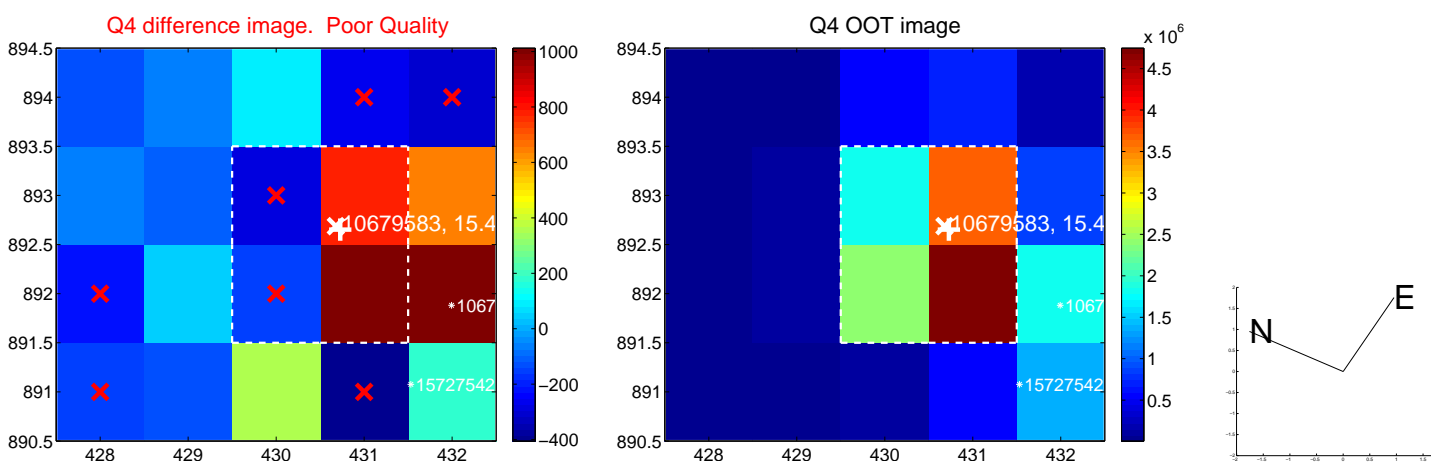
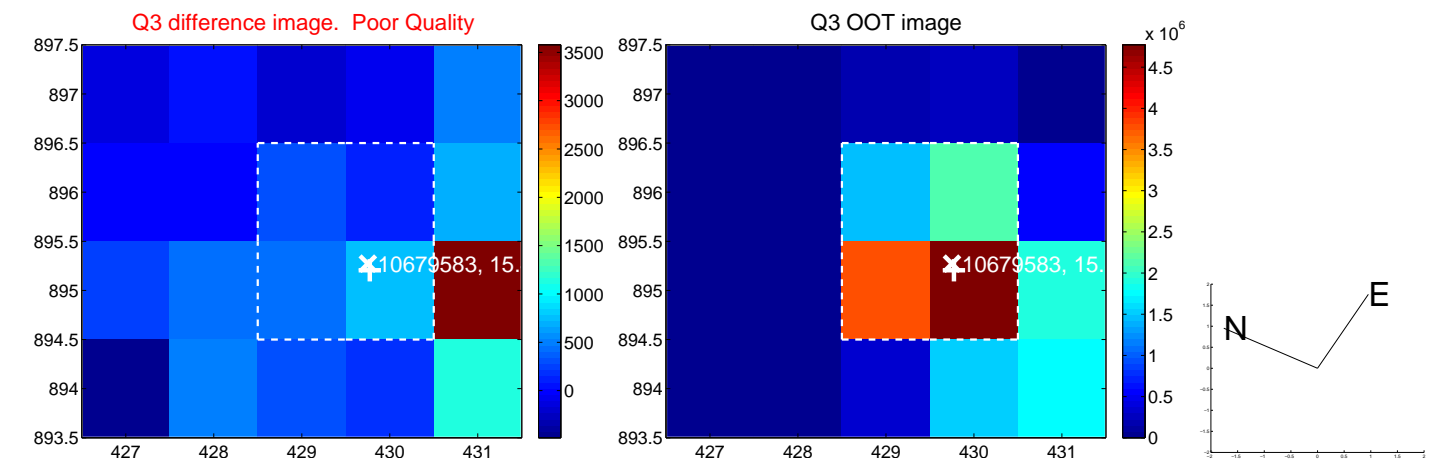
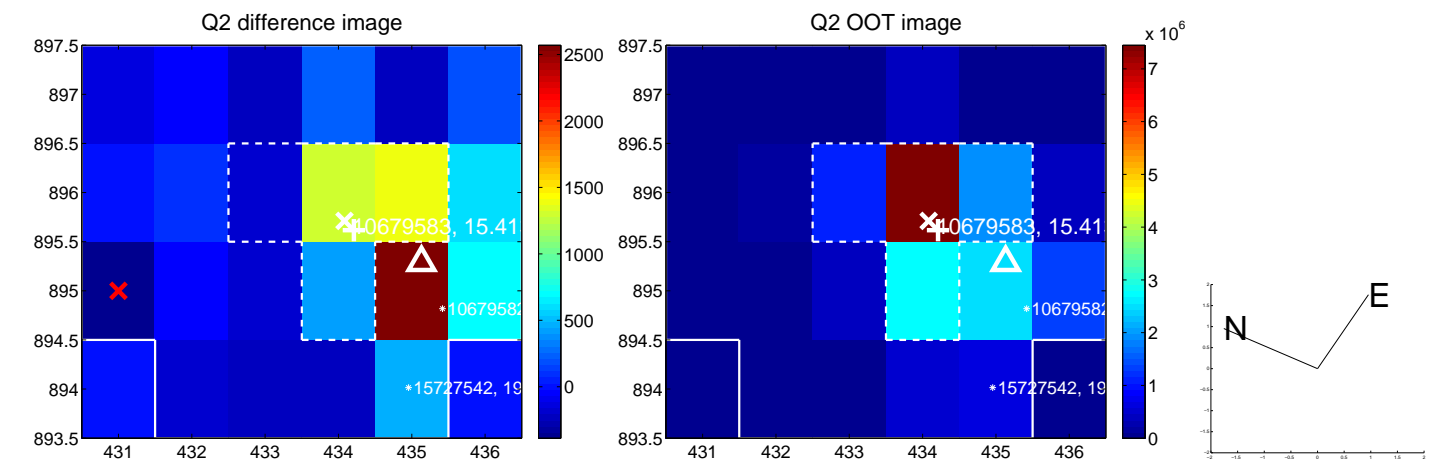
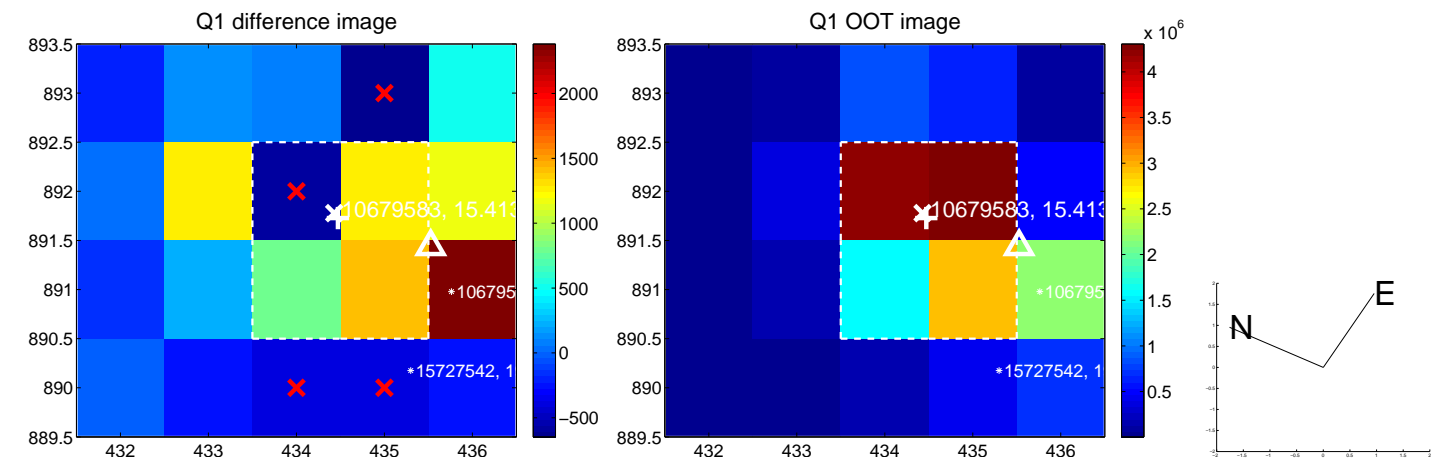


offset from photometric centroids

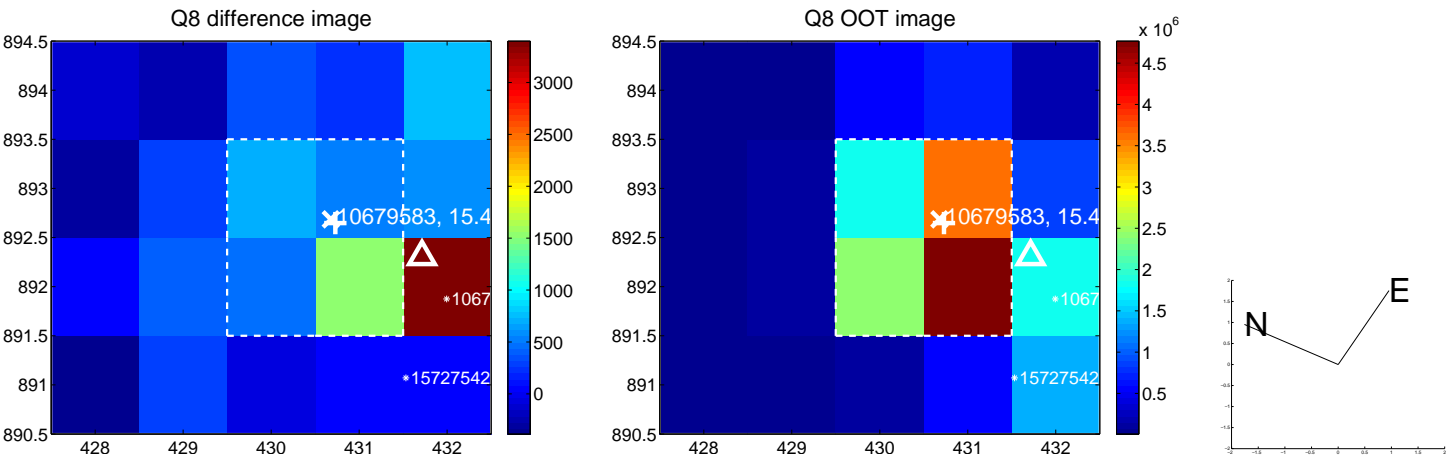
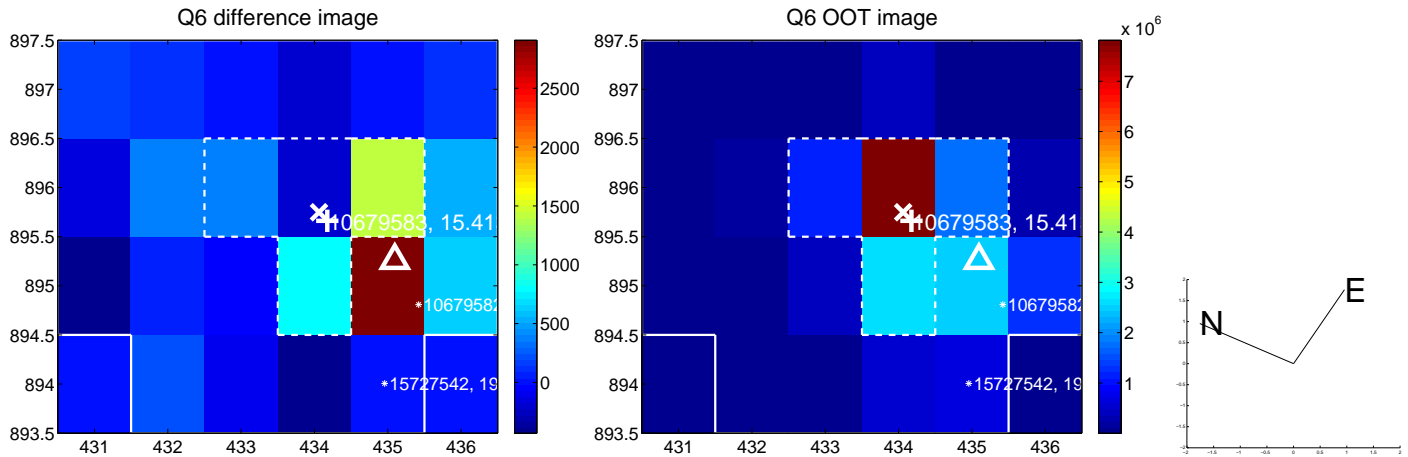
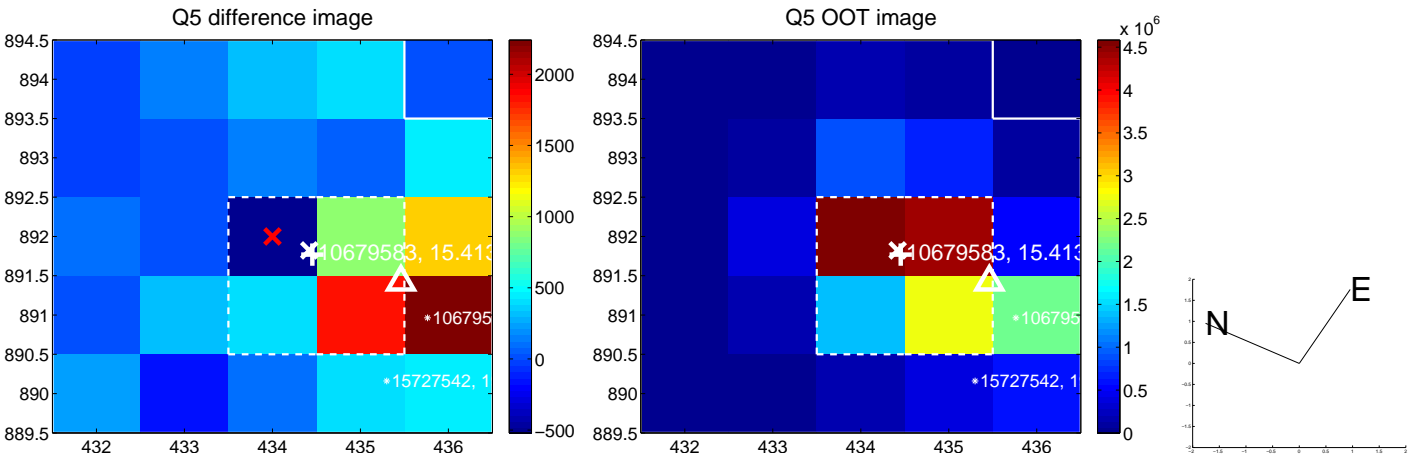


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

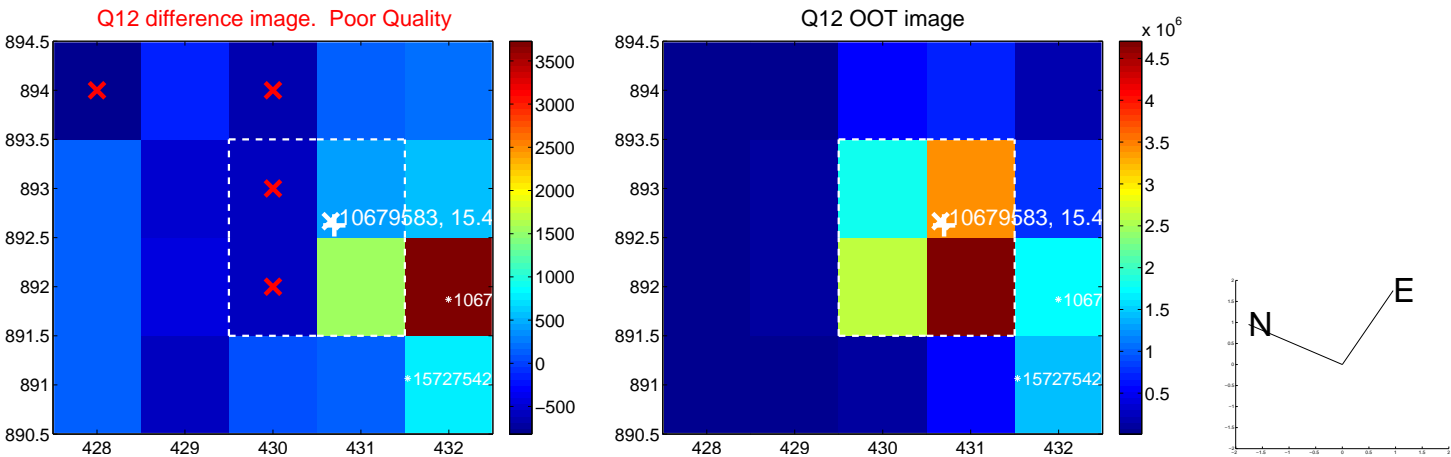
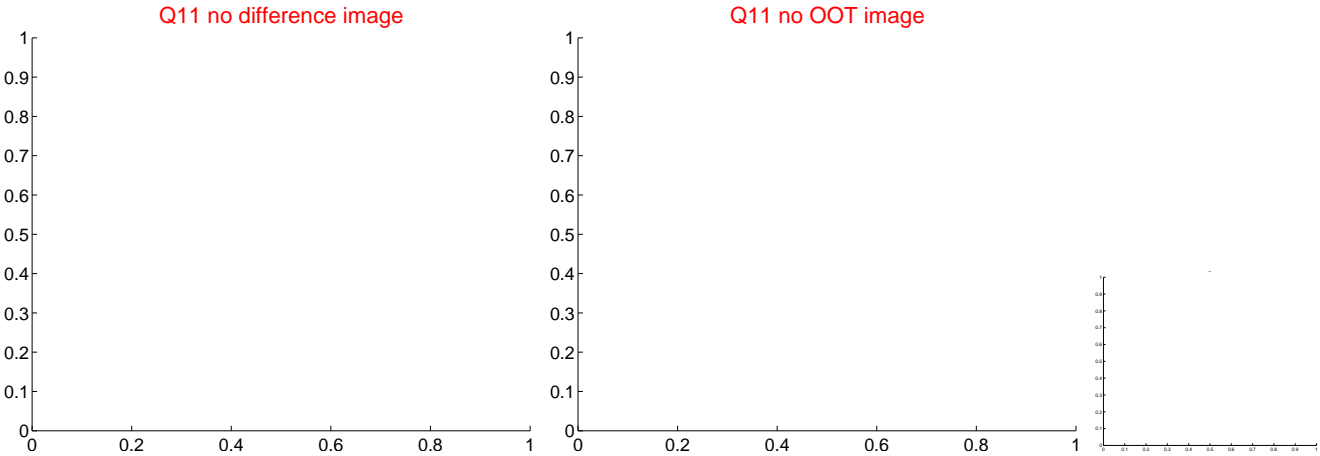
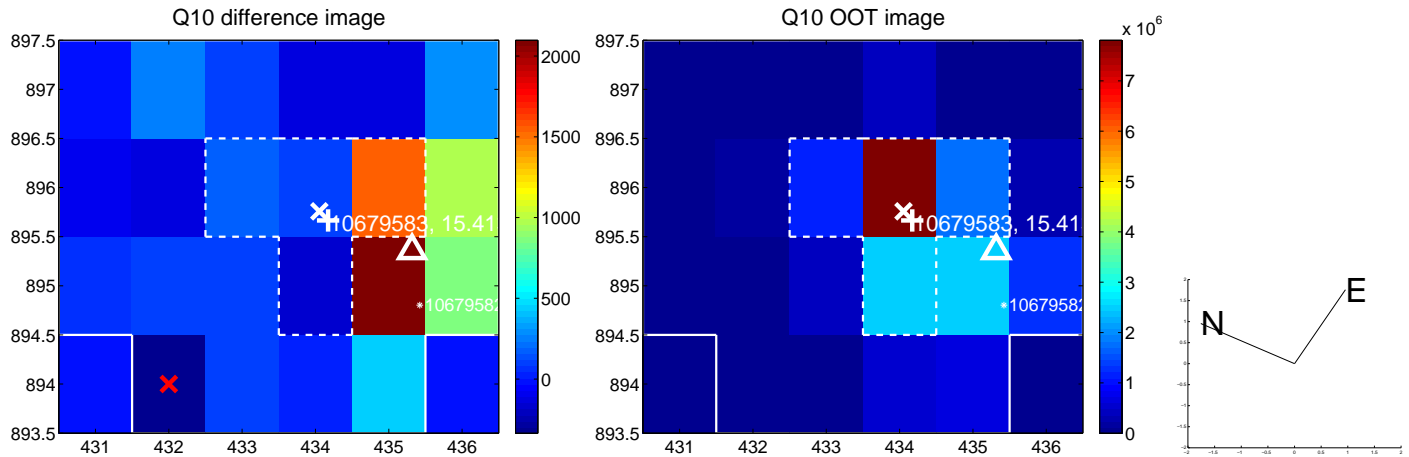
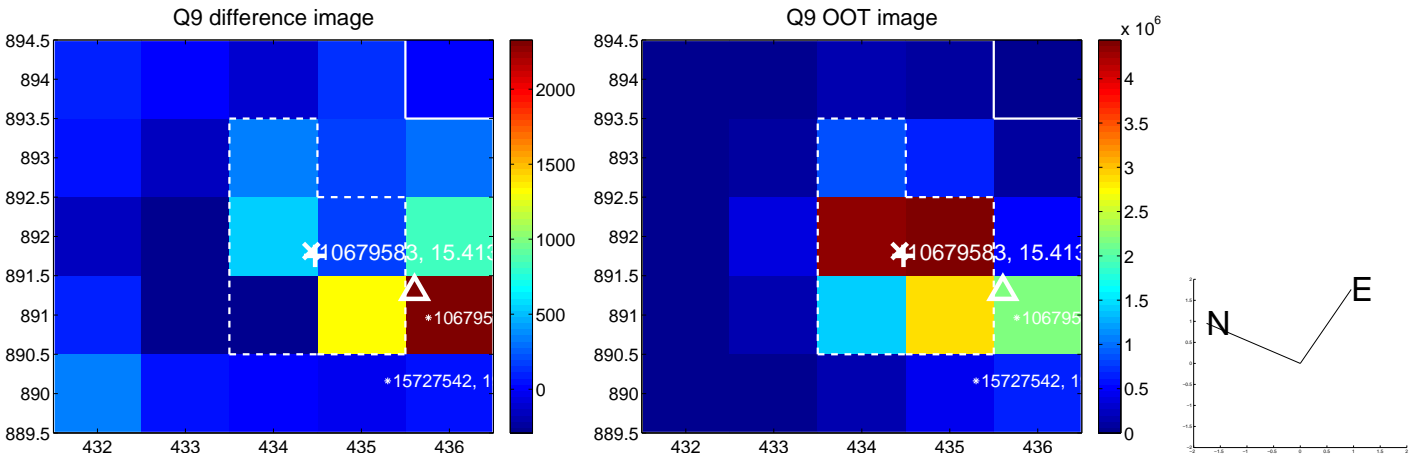
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



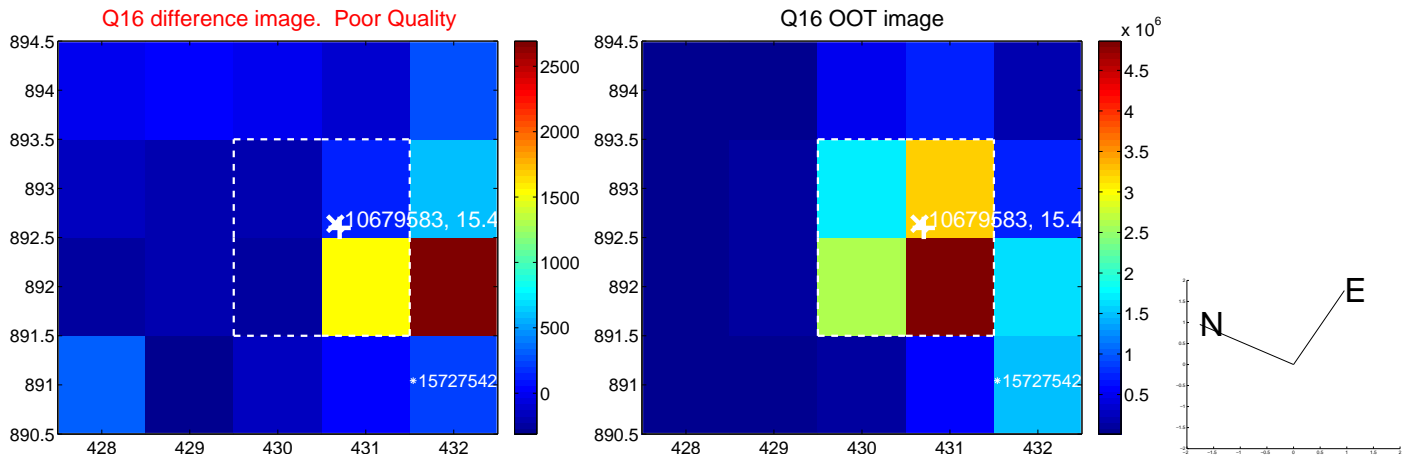
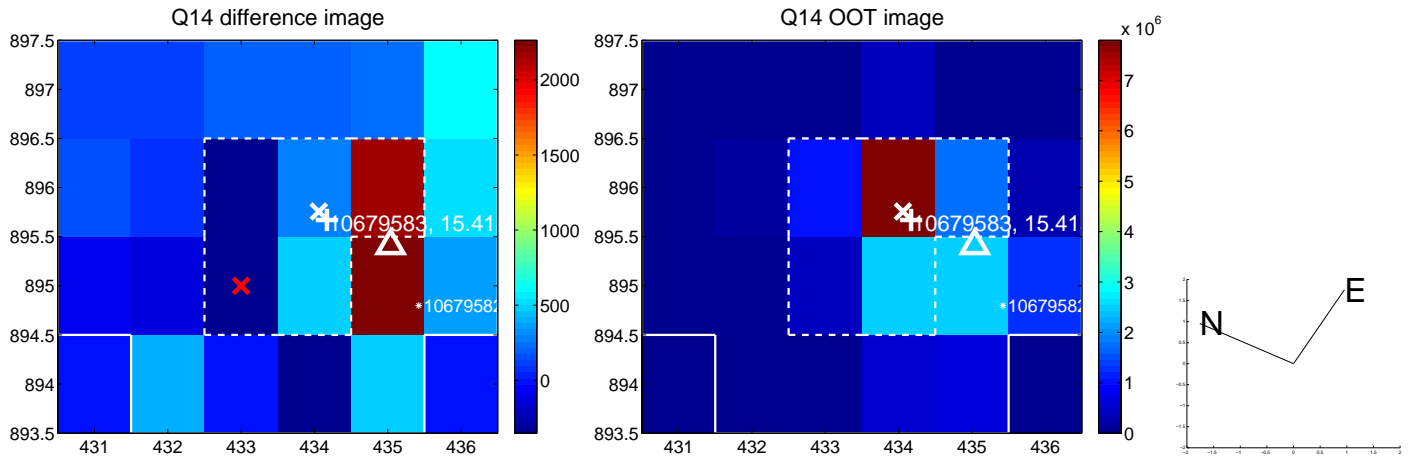
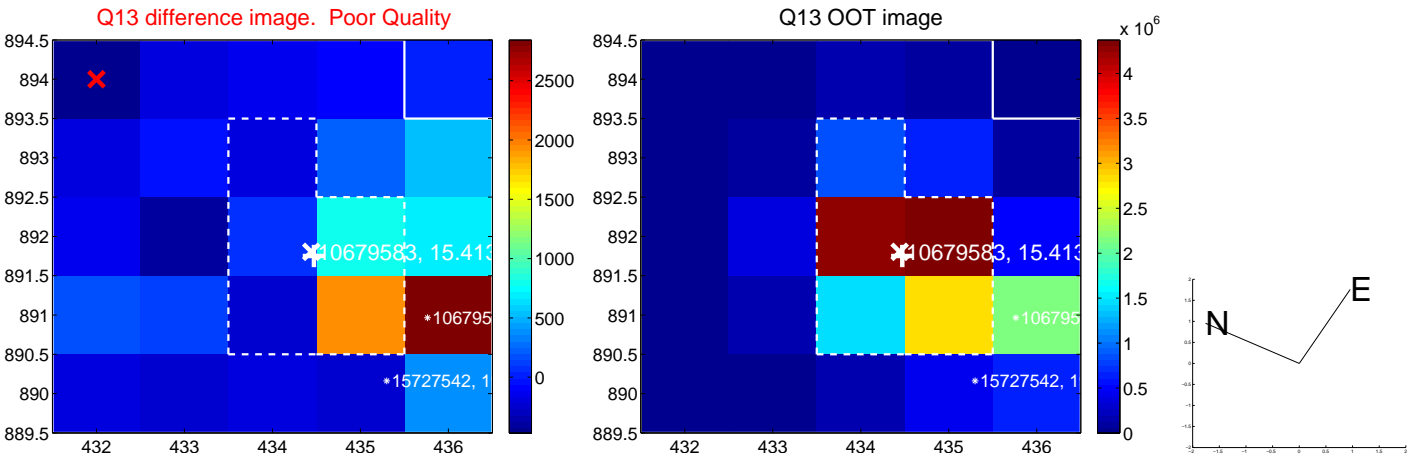
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



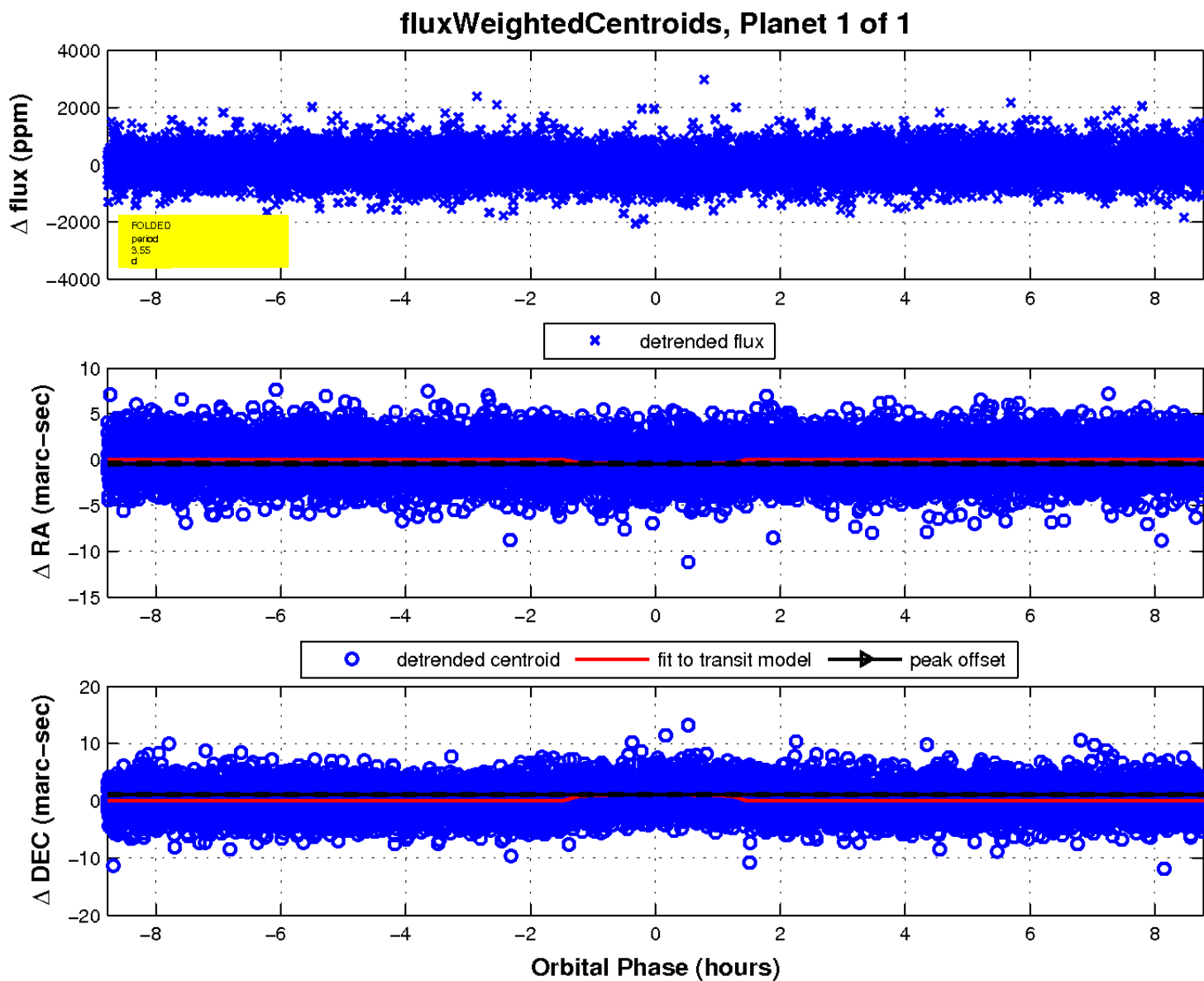
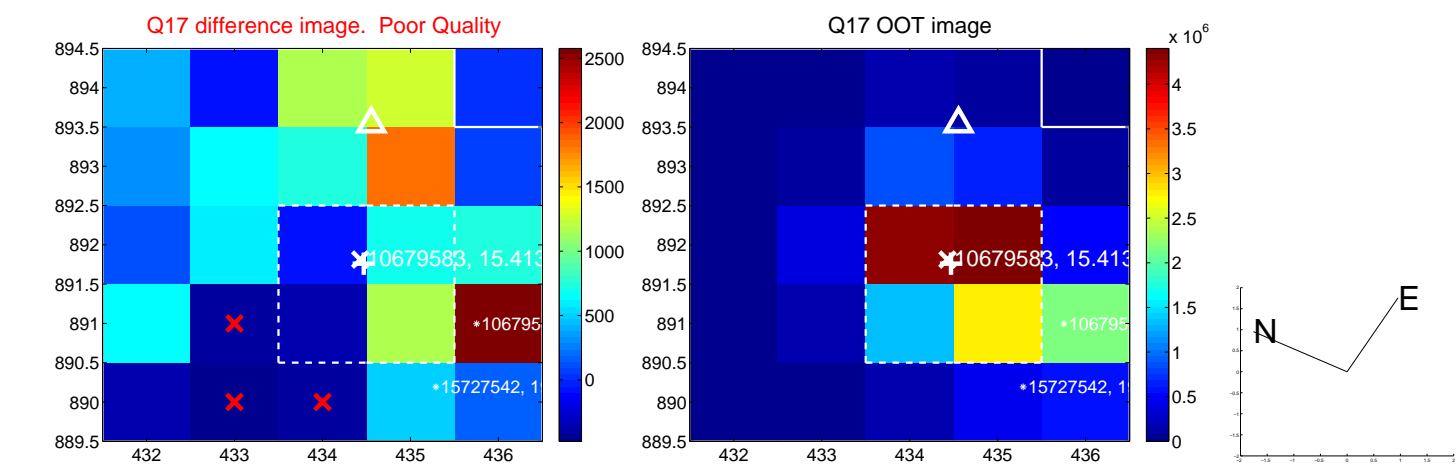
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

