

KIC 007539217

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})
007539217-01	OBS	No	539.127390	373.775078	1717.5	6.921	8.4	8.2	0.78	5111	3.19	0.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007539217-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

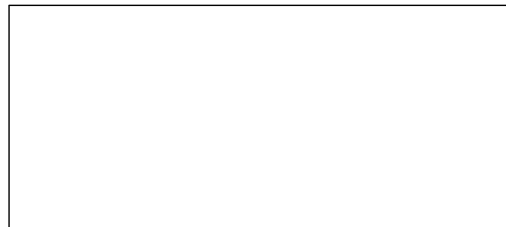
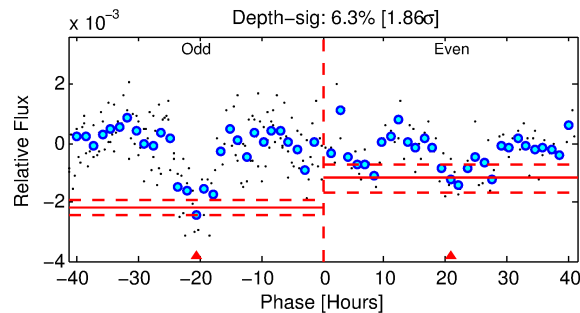
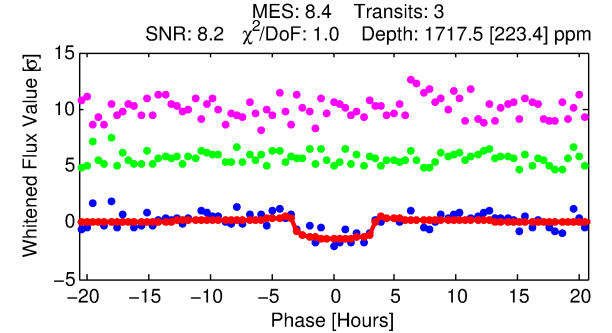
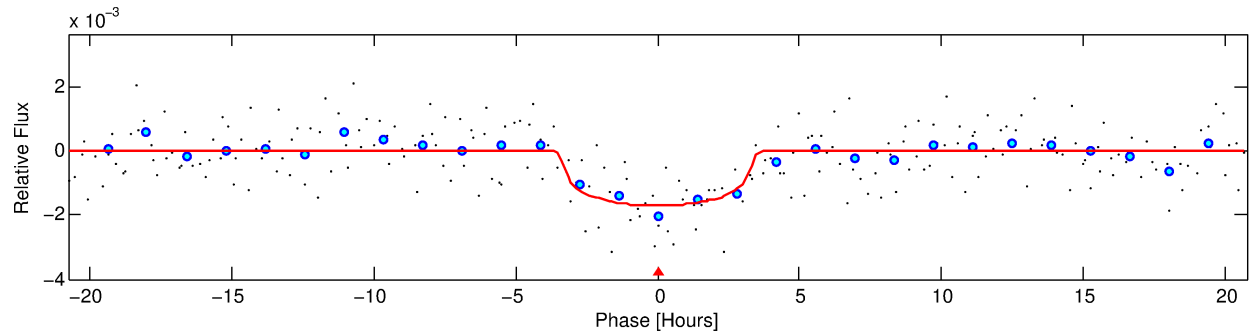
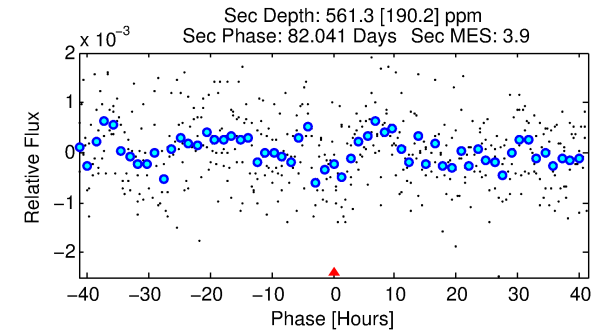
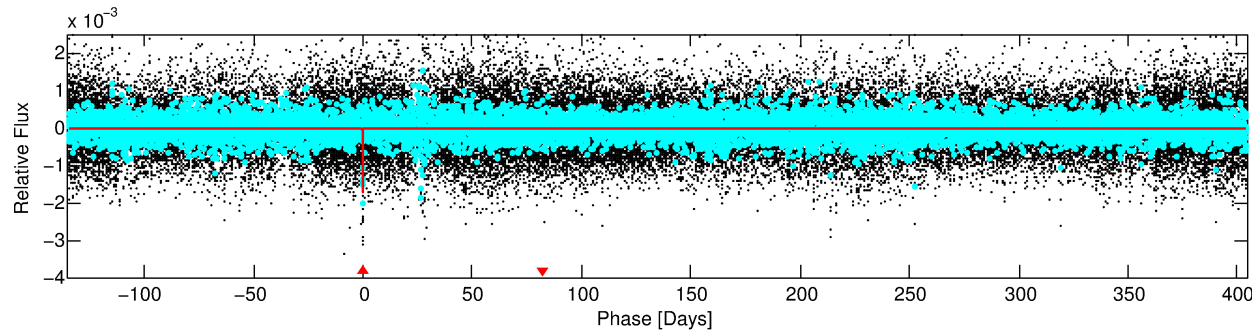
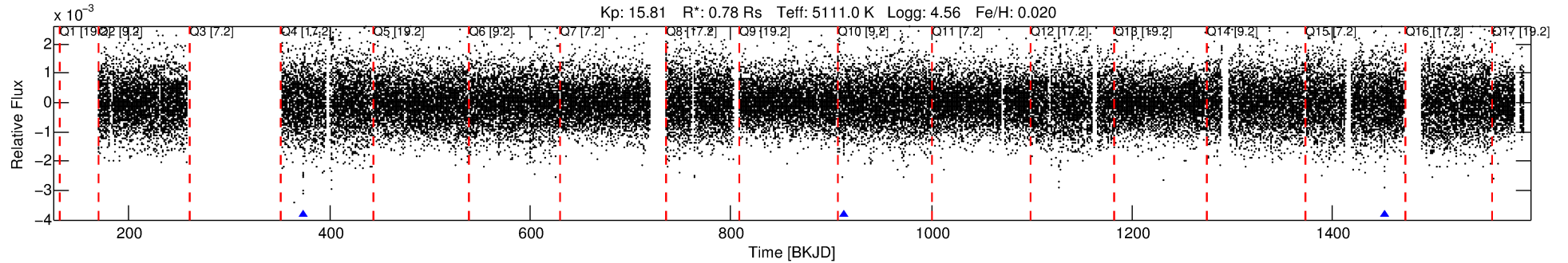
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007539217-01

No Significant Match Found

DV One-Page Summary

KIC: 7539217 Candidate: 1 of 1 Period: 539.127 d



DV Fit Results:

Period = 539.12739 [0.00852] d
Epoch = 373.7751 [0.0106] BKJD
Rp/R* = 0.0374 [0.0534]
a/R* = 588.87 [2921.04]
b = 0.31 [14.56]
Seff = 0.25 [0.05]
Teq = 181 [9] K
Rp = 3.19 [4.58] Re
a = 1.2125 [0.1196] AU
Ag = 44537.15 [128287.67] [0.35σ]
Teffp = 4070 [2930] K [1.33σ]

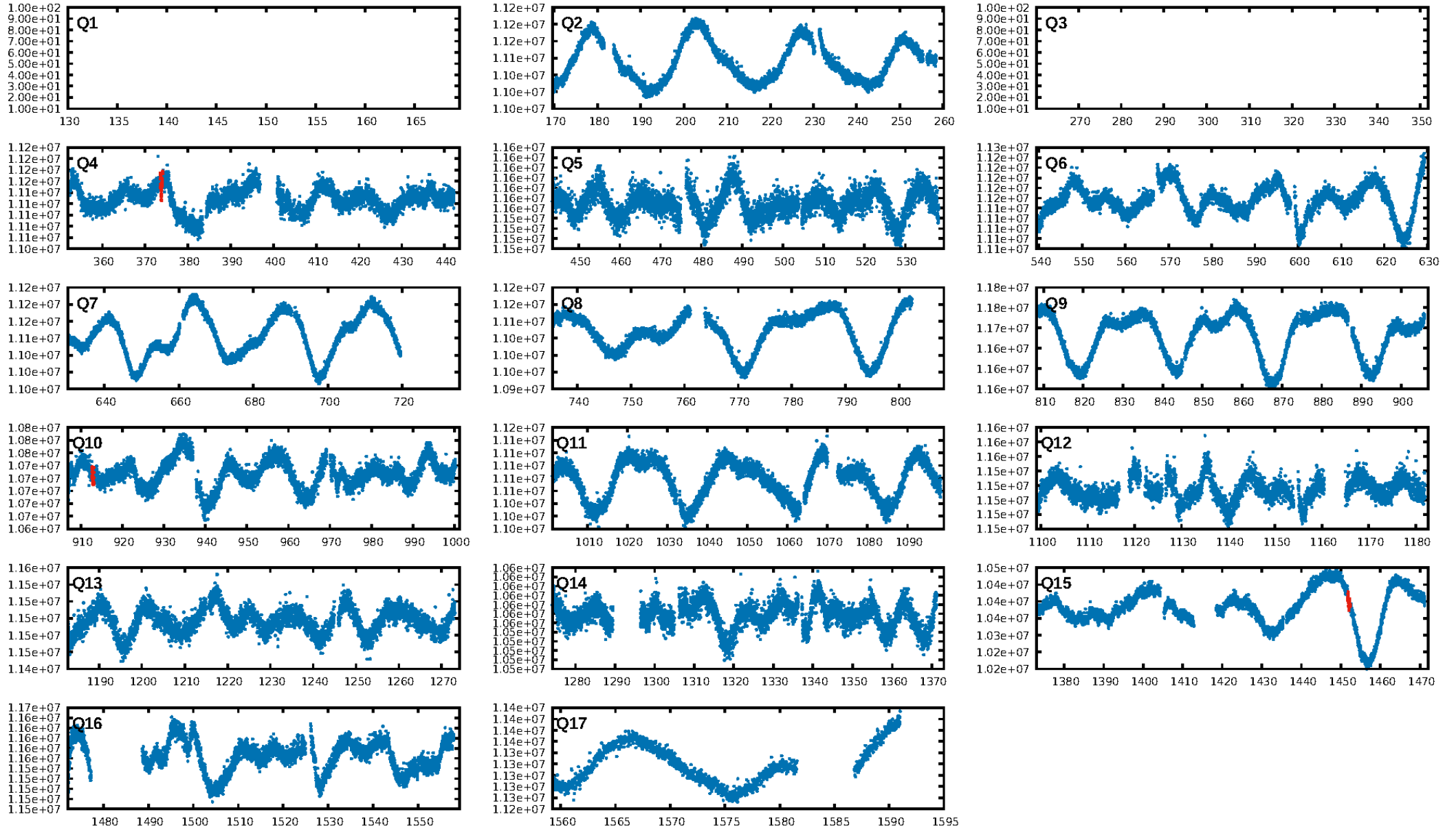
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.1%
ModelChiSquareGof-sig: 95.8%
Bootstrap-pfa: 2.47e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.5877
Centroid-sig: 17.5%
Centroid-so: 1.318 arcsec [1.35σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

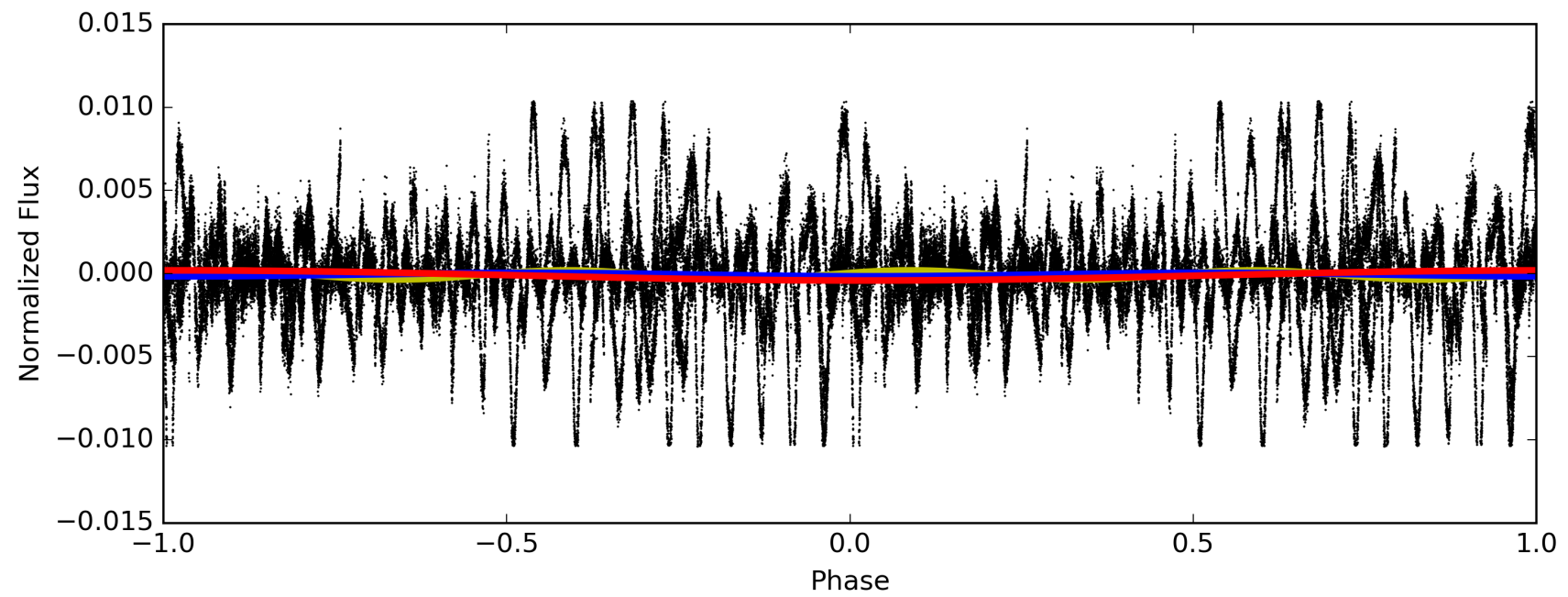
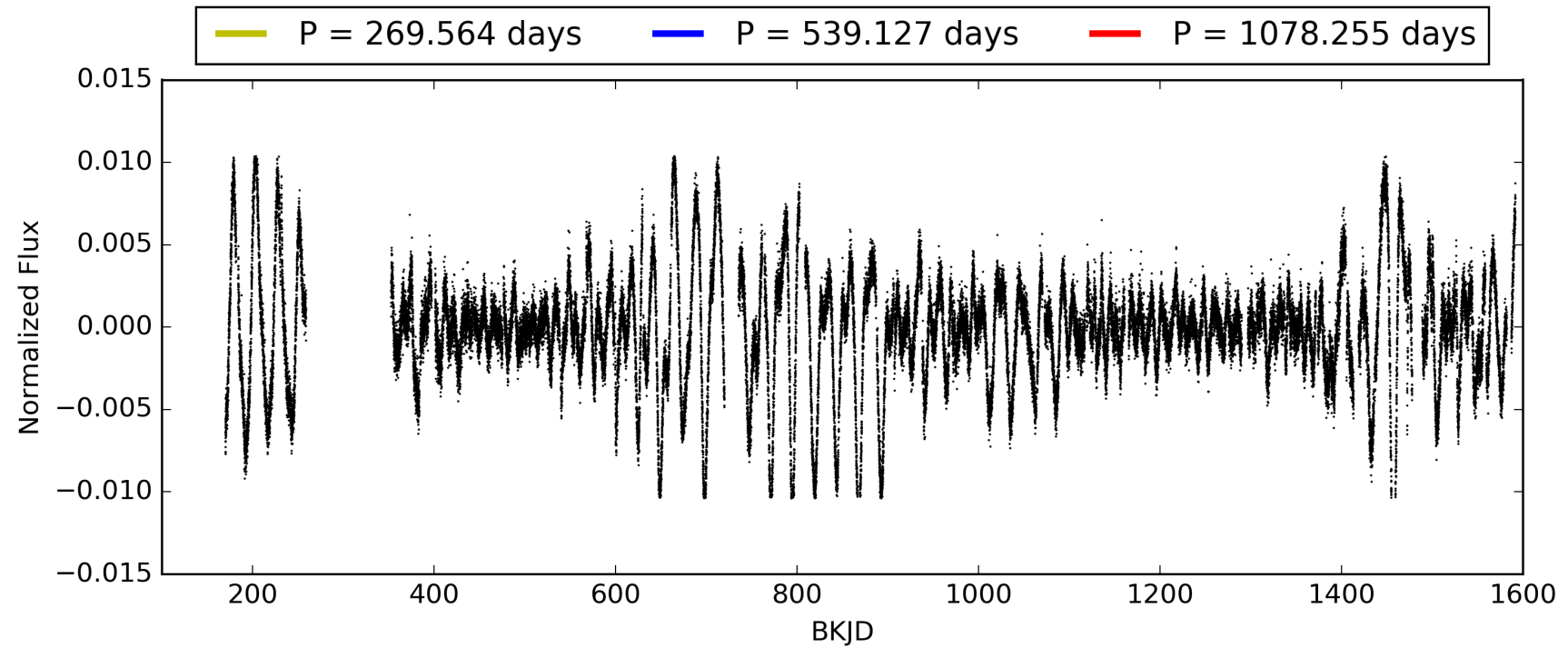
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:51:50 Z

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

TCE 007539217-01, PDC Light Curves

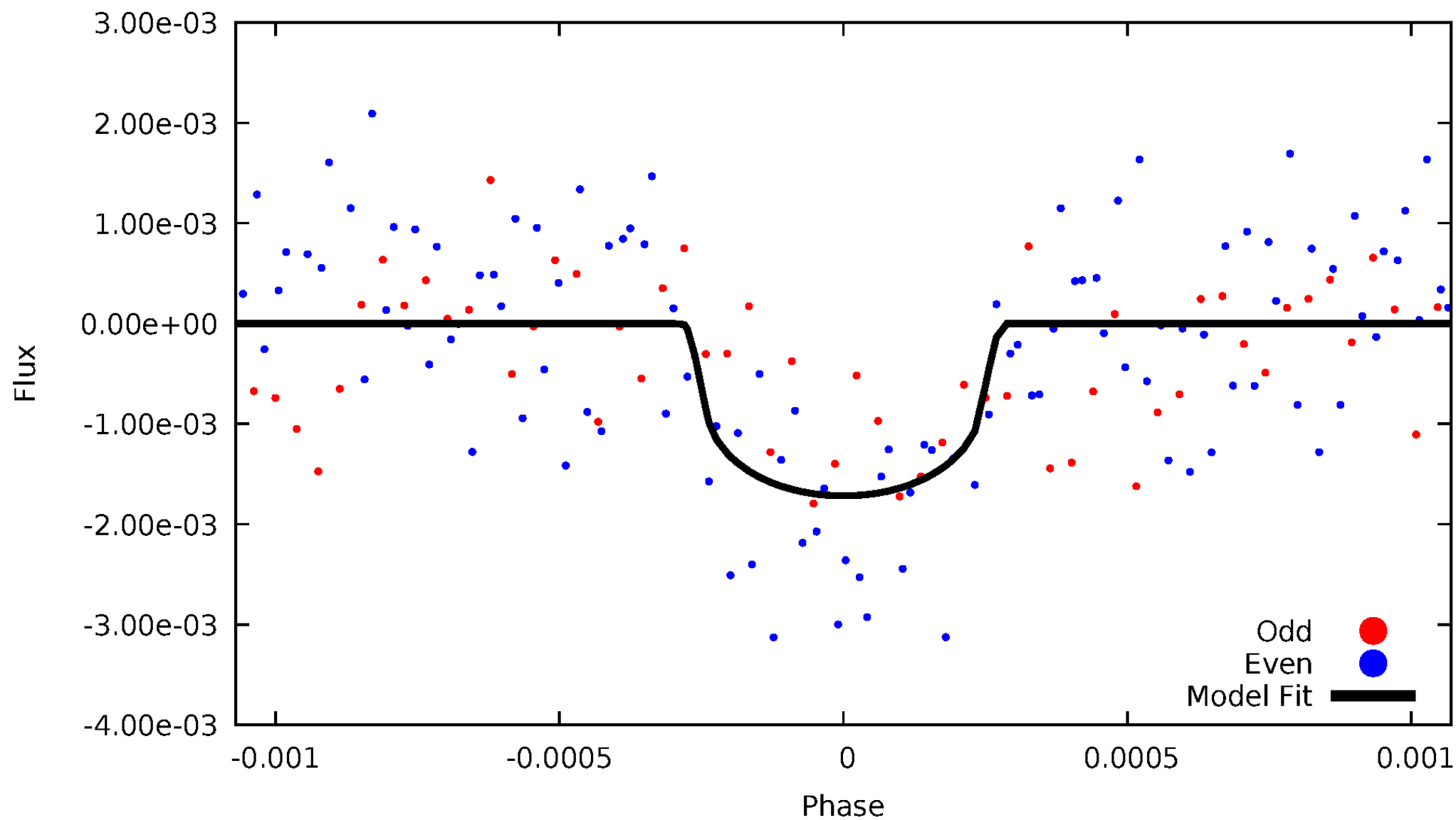


TCE 007539217-01



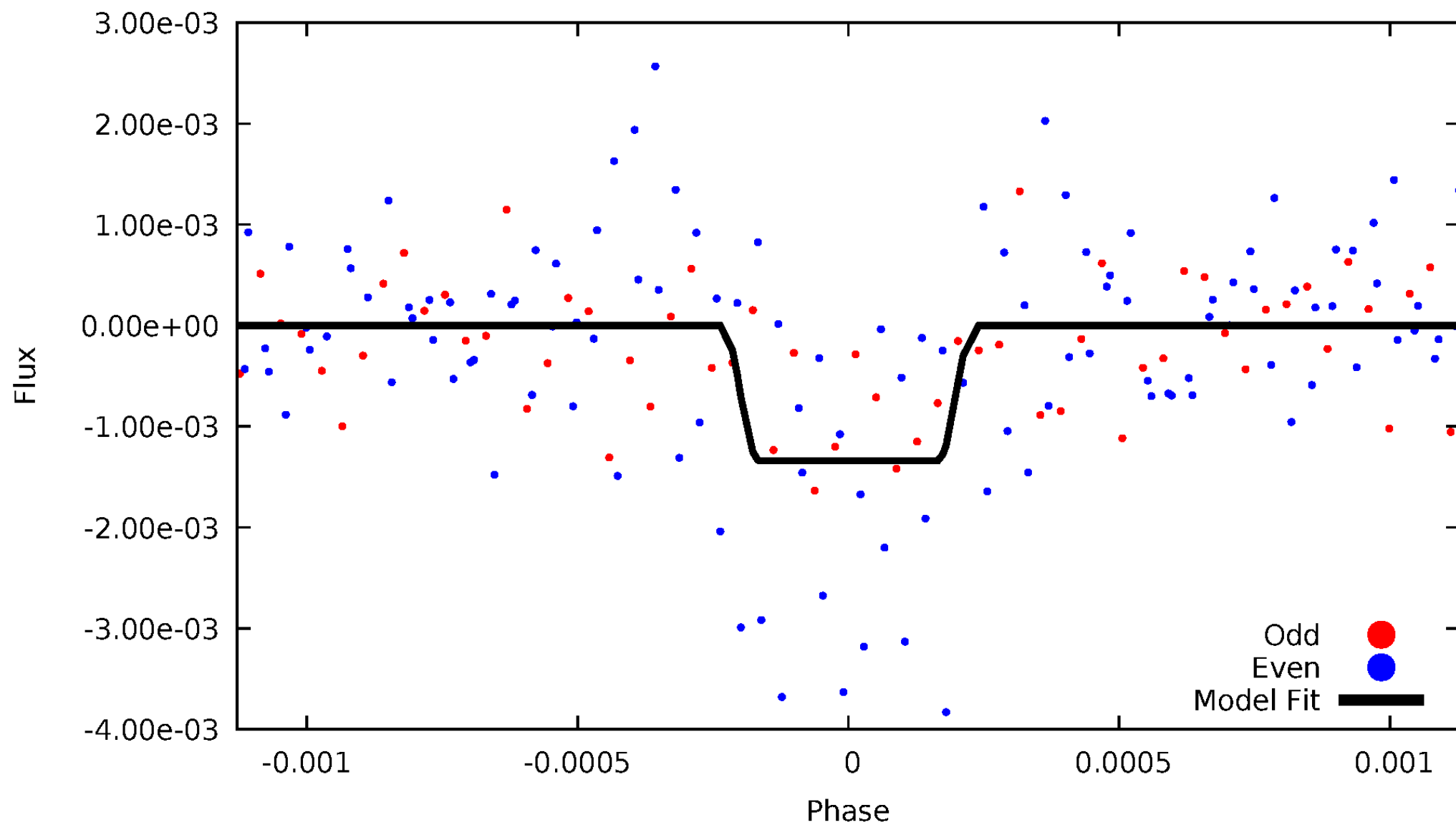
DV Odd/Even

TCE 007539217-01



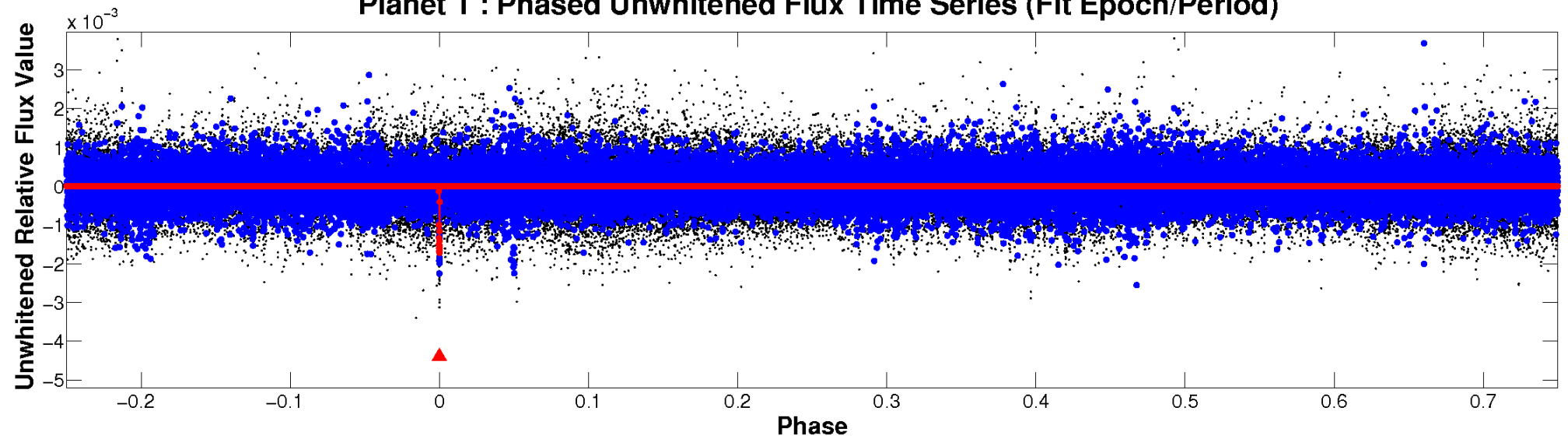
ALT Odd/Even

TCE 007539217-01

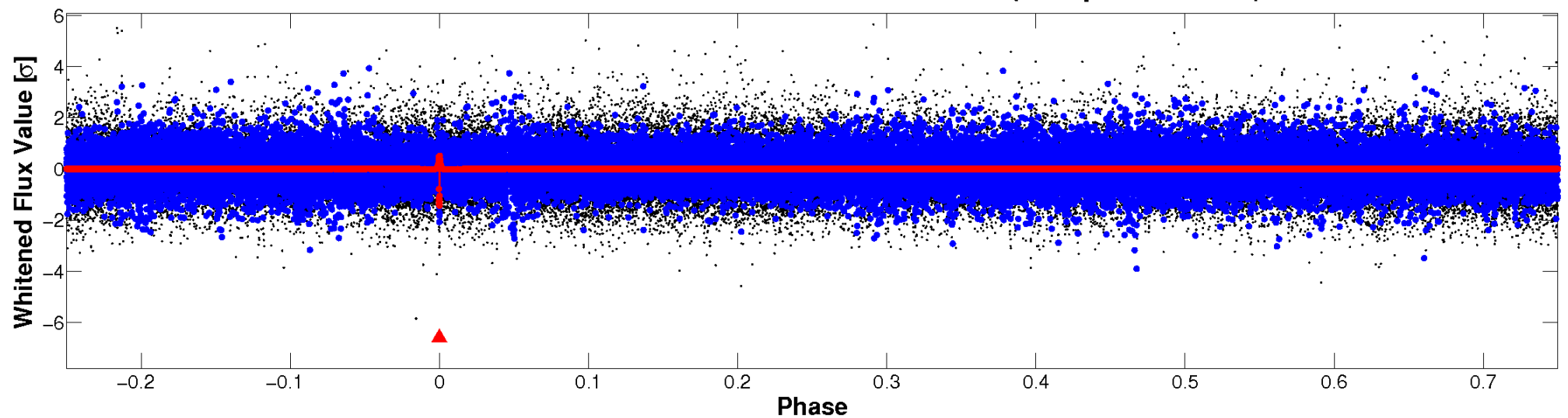


Non-Whitened Vs. Whitened Light Curve

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

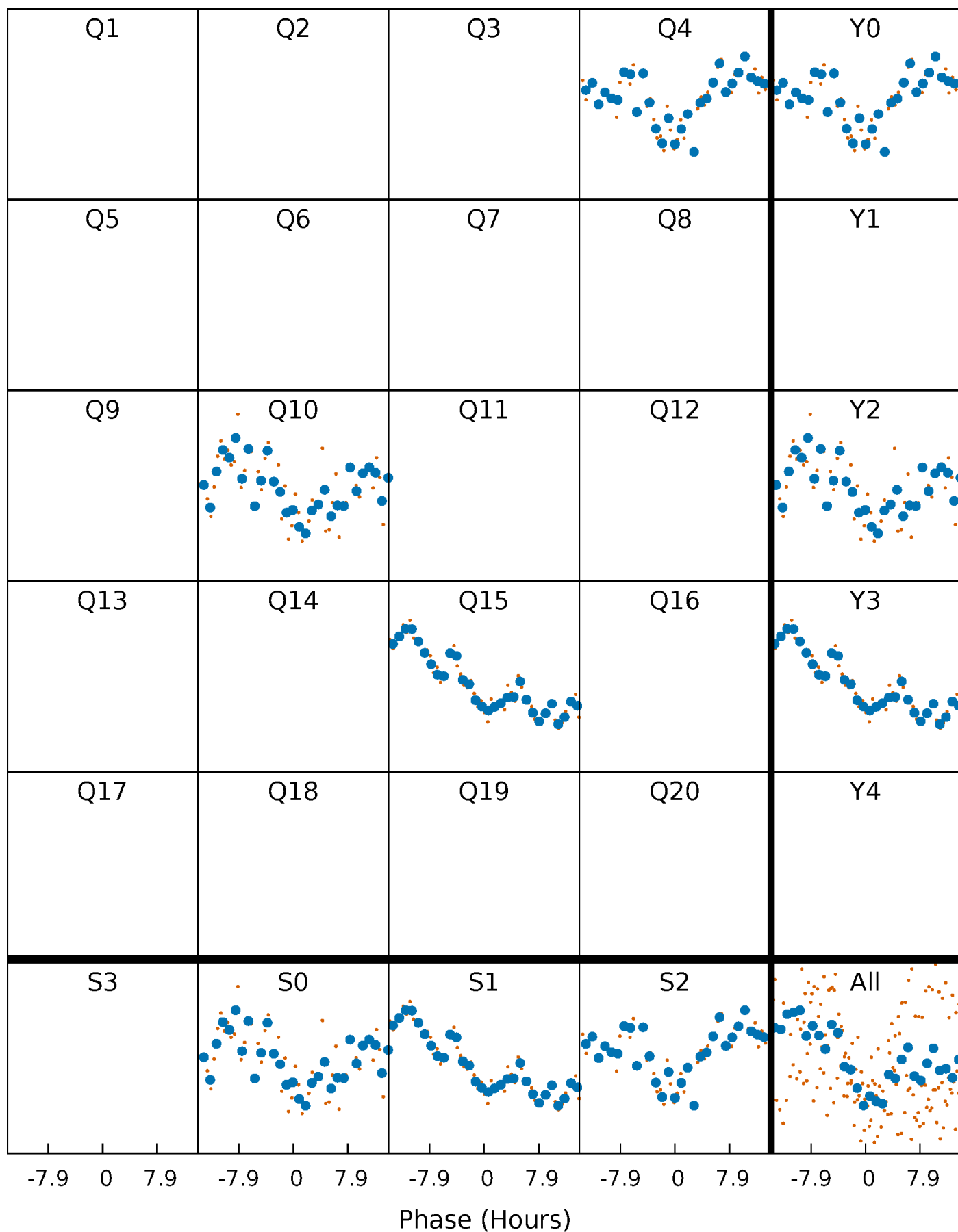


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007539217-01 P=539.127390 Days $T_0=373.775078$ (BKJD)



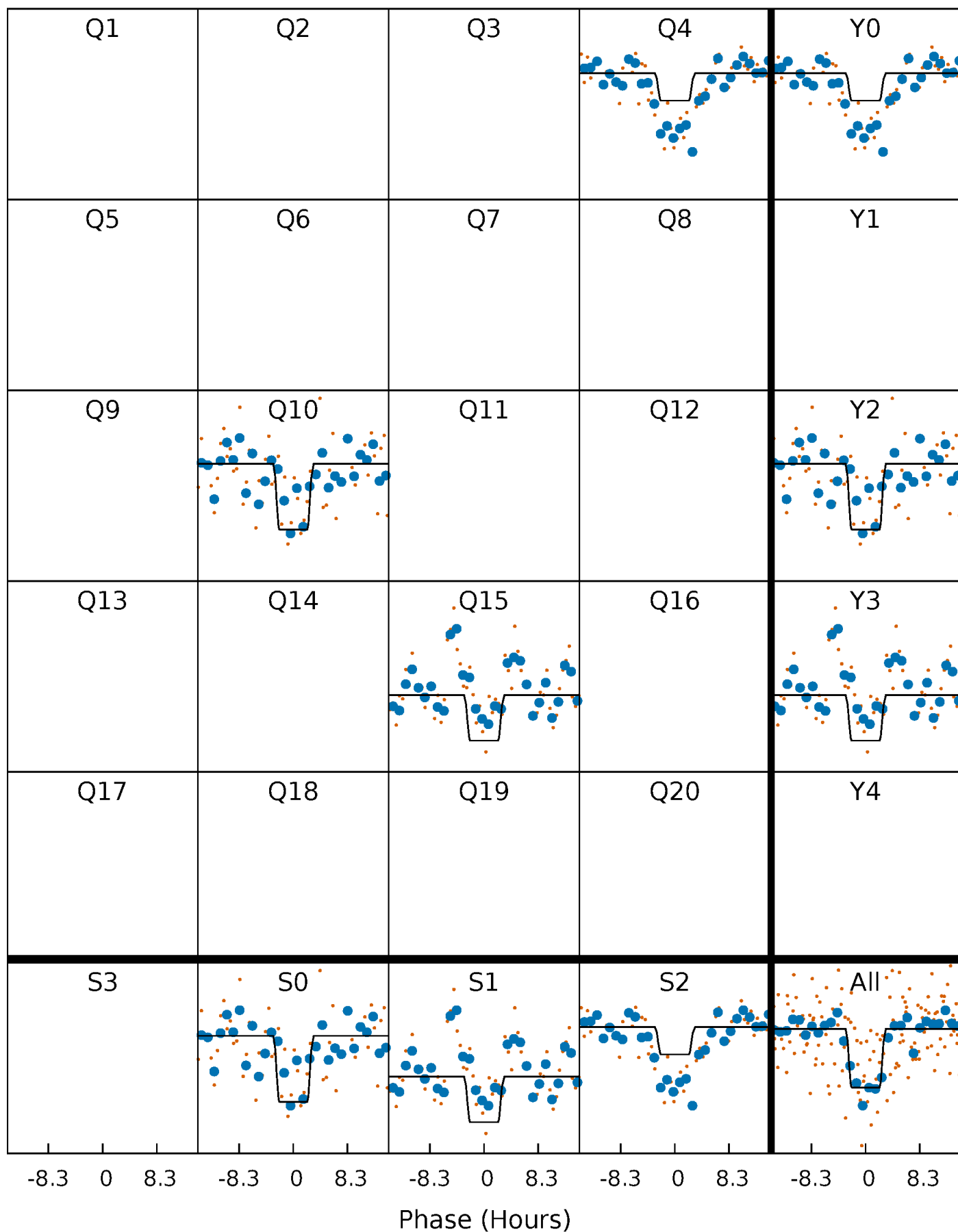
DV Quarter-Phased Transit Curves

TCE 007539217-01 P=539.127390 Days $T_0=373.775078$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

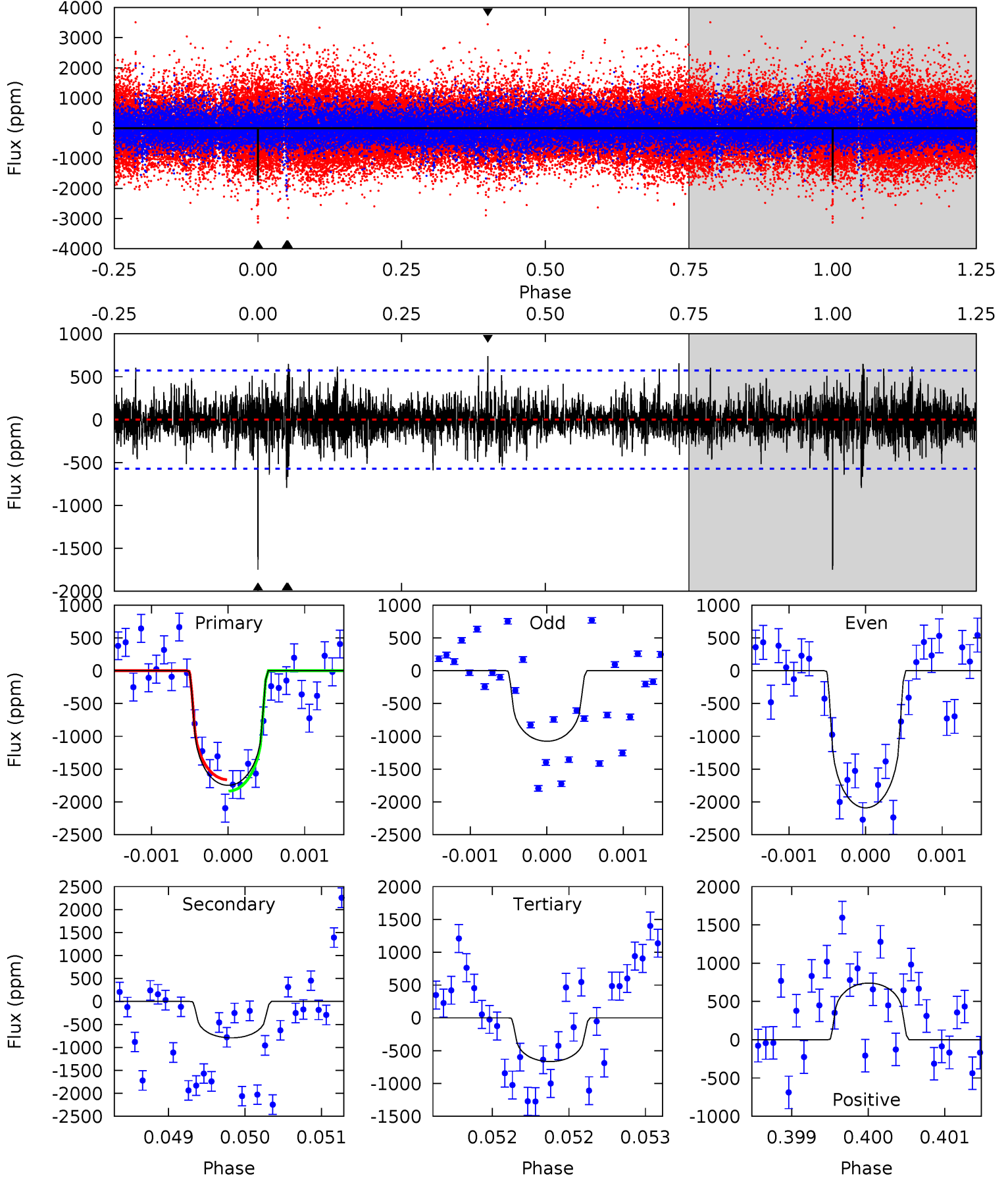
TCE 007539217-01 P=539.132669 Days $T_0=373.775052$ (BKJD)



DV Model-Shift Uniqueness Test

007539217-01, P = 539.127390 Days, E = 373.775078 Days

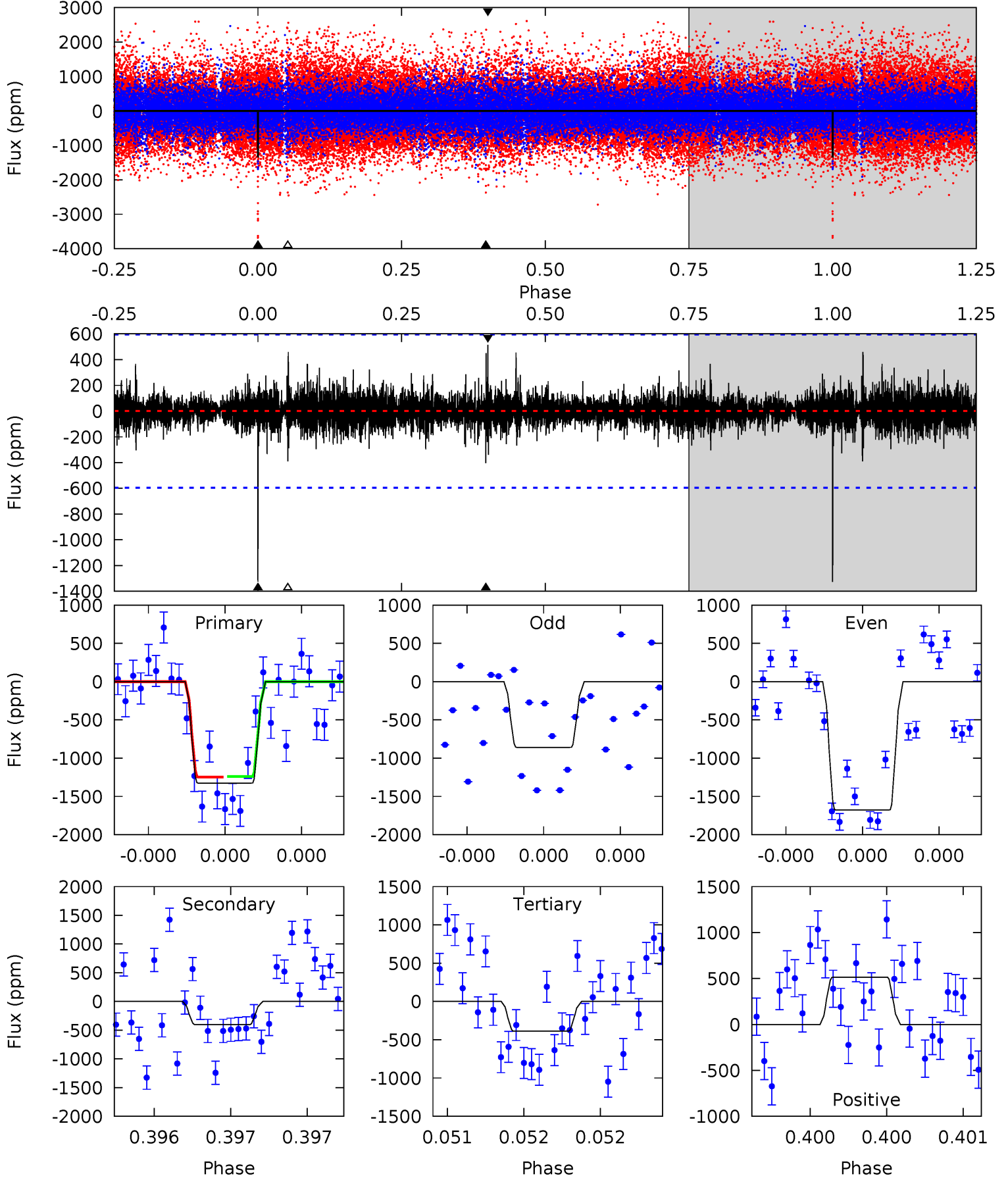
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.0	7.70	6.47	7.19	5.56	3.46	1.51	10.5	9.79	1.23	0.51	4.76	0.99	0.30	0.84



Alt Model-Shift Uniqueness Test

007539217-01, P = 539.132669 Days, E = 373.775052 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	3.78	3.65	4.82	5.59	3.51	0.73	8.80	7.63	0.13	-1.04	3.73	1.63	0.28	0.02



Stellar Parameters For KIC 007539217

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5111^{+168}_{-153}	$4.563^{+0.044}_{-0.072}$	$0.020^{+0.300}_{-0.300}$	$0.783^{+0.096}_{-0.066}$	$0.819^{+0.073}_{-0.073}$	$2.400^{+0.480}_{-0.573}$
	+3%/-3%	+1%/-2%	+1500%/-1500%	+12%/-8%	+9%/-9%	+20%/-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 007539217-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-793 ± 103	$4.88^{+3.89}_{-3.20}$	255^{+10}_{-9}	3931^{+2076}_{-695}	$27809^{+208998}_{-19678}$
Alt.	-403 ± 107	$4.46^{+4.08}_{-2.93}$	255^{+10}_{-11}	3580^{+1781}_{-661}	$16287^{+118048}_{-12226}$

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

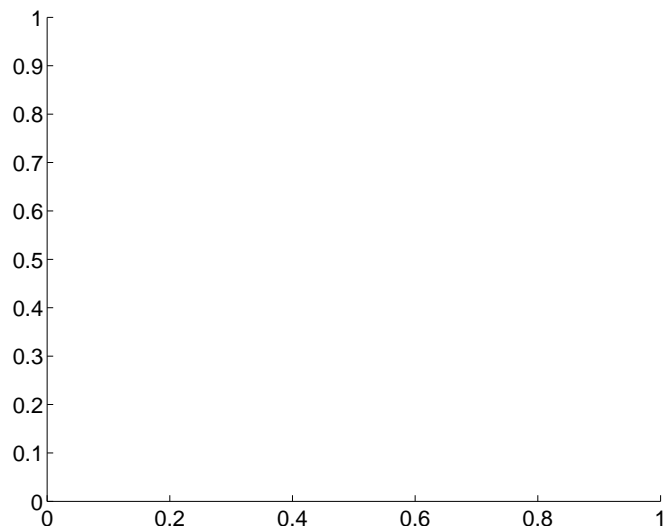
Supplemental centroid analysis for 007539217-01. Kepler magnitude: 15.81. Transit SNR 8.20

There are 0 quarters with good PRF difference image offsets

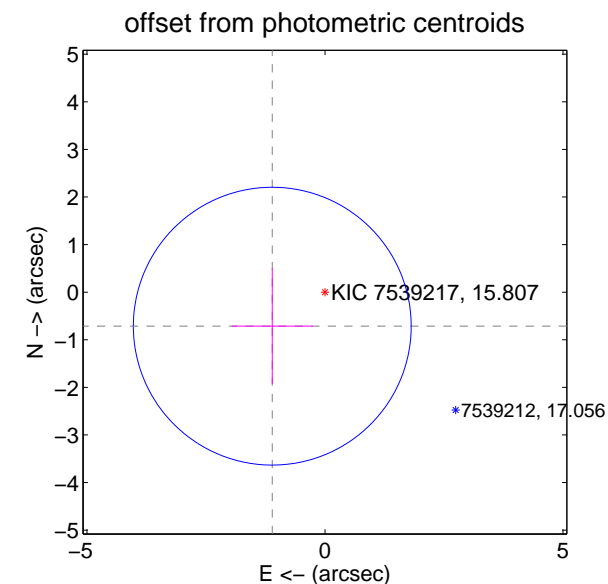
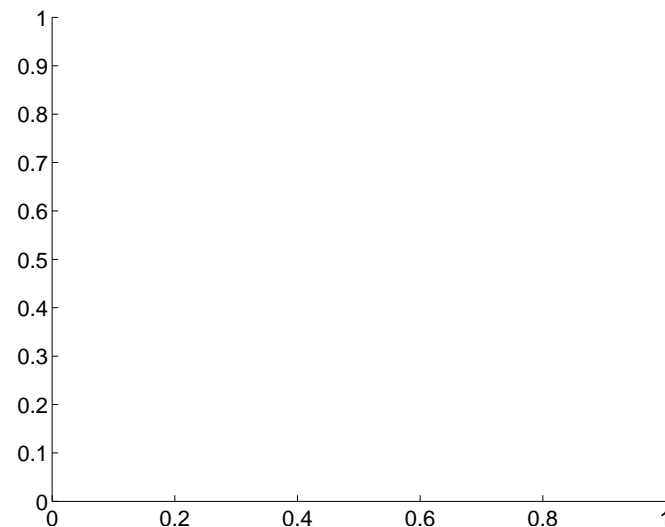
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.32 ± 0.97	1.35	1.11 ± 0.85	-0.71 ± 1.21

There is no PRF-fit offset from OOT-fit

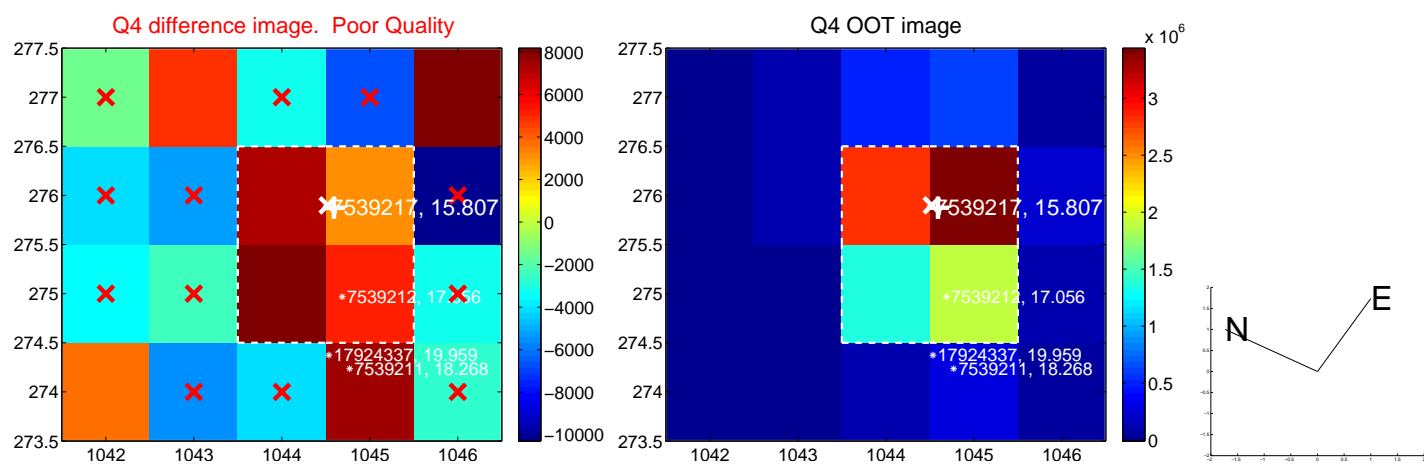


There is no PRF-fit offset from KIC



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.

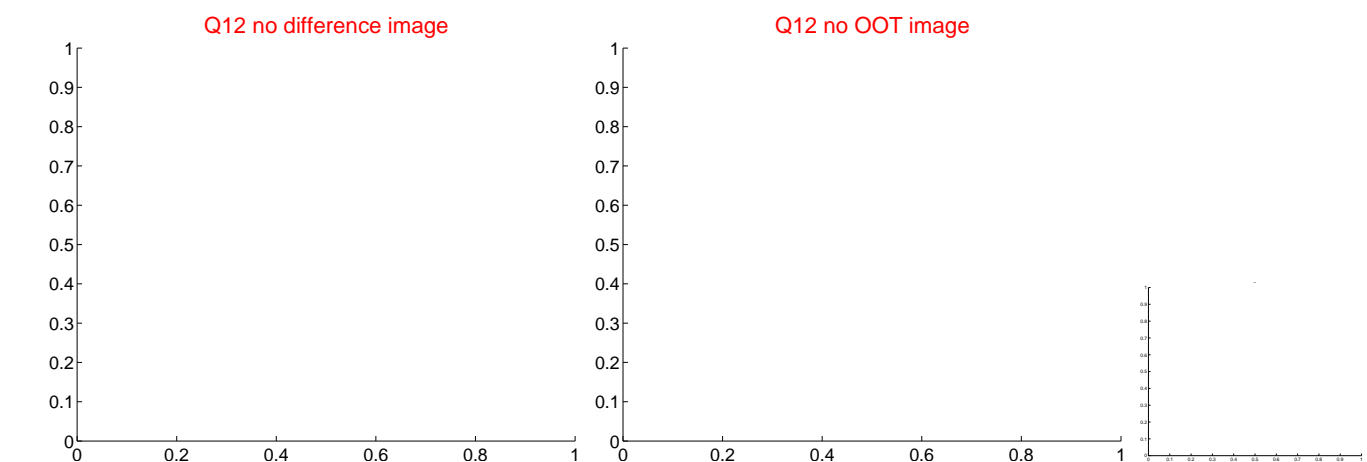
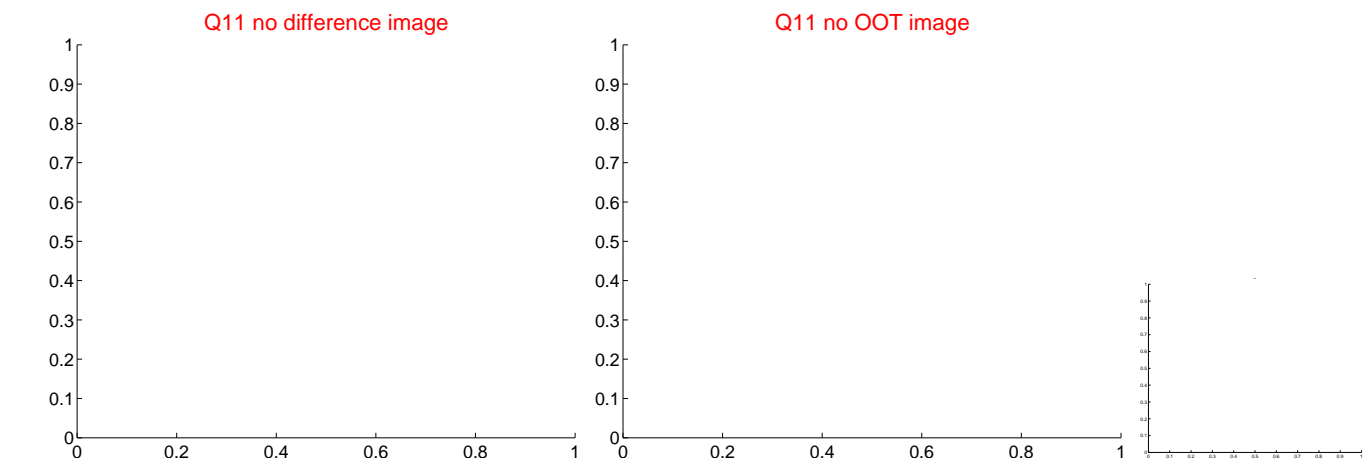
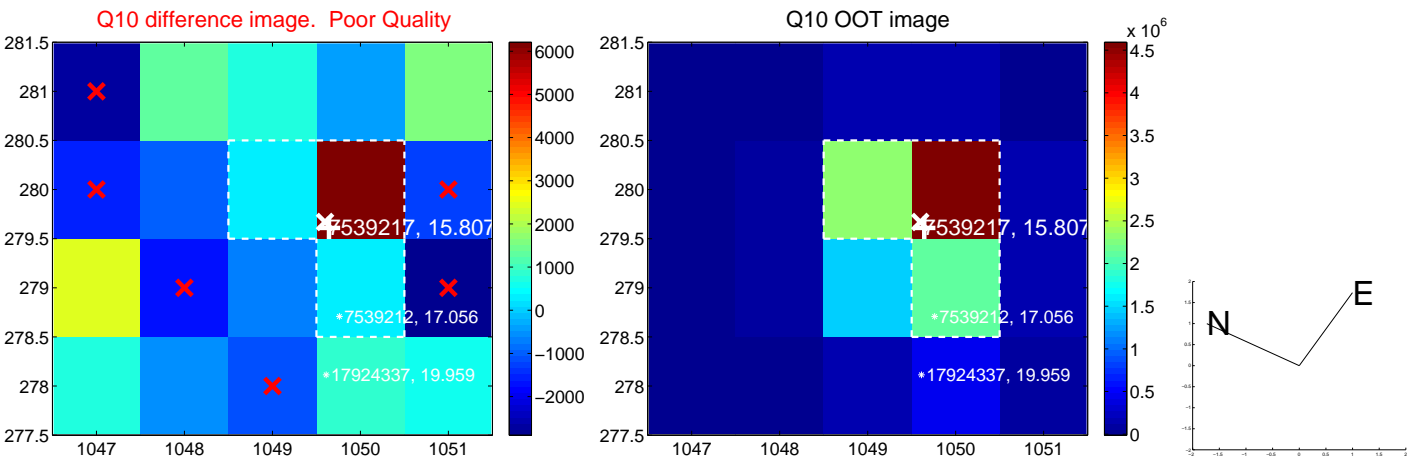
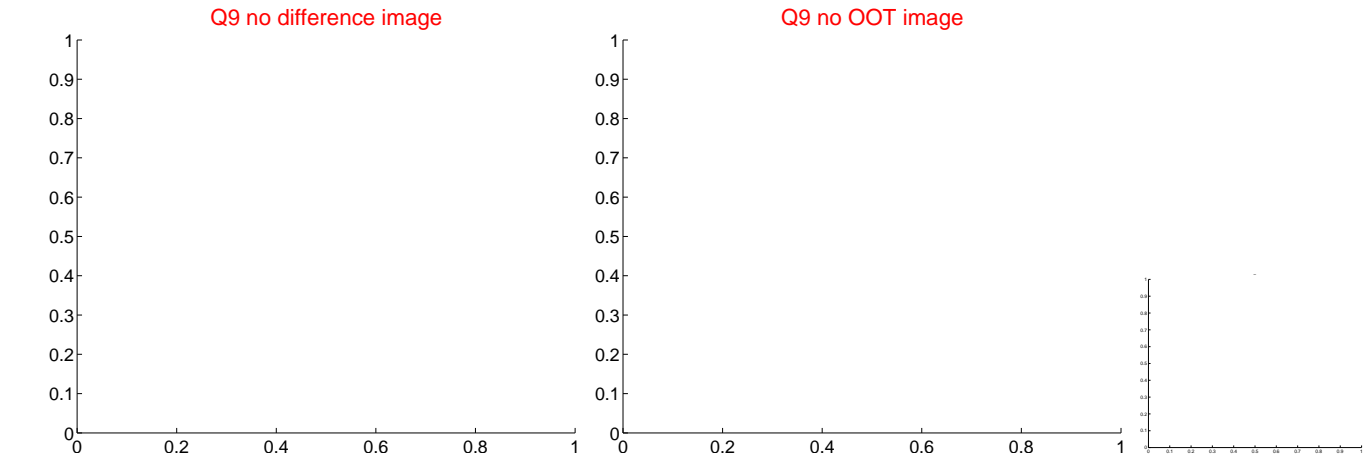
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



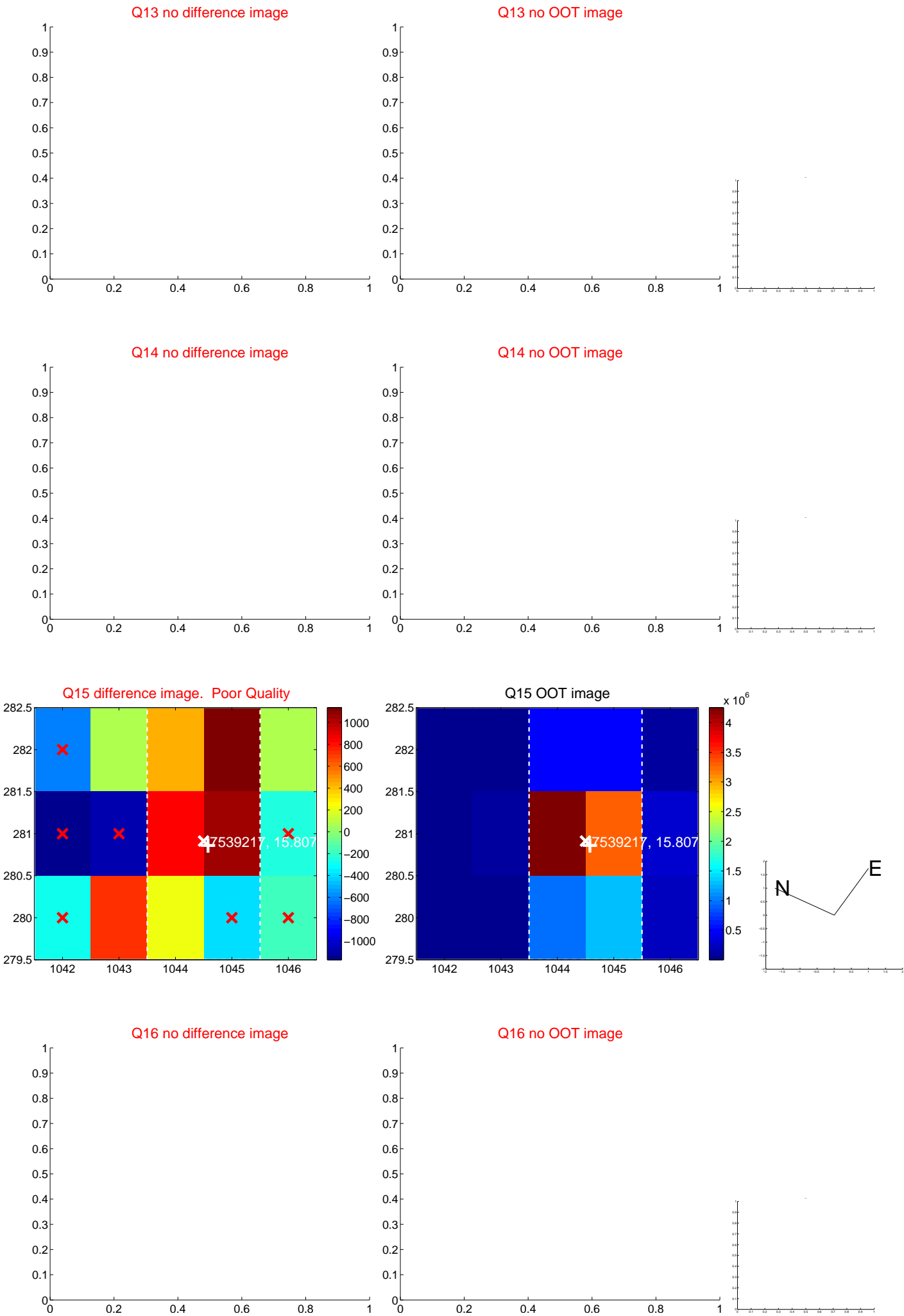
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



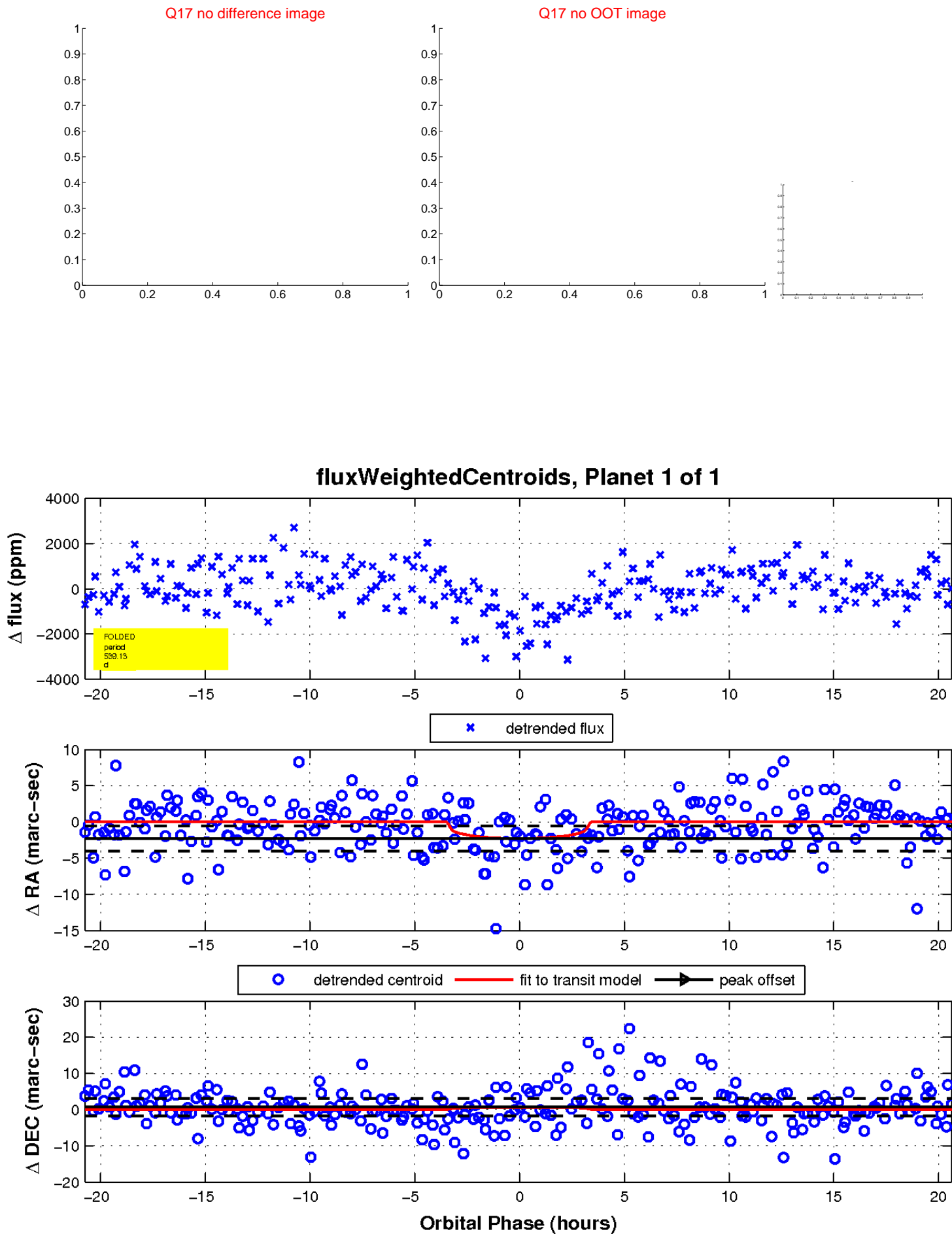
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

