

KIC 011389889

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})
011389889-01	OBS	No	230.029933	252.827750	89.0	33.149	8.7	10.0	1.59	6397	1.58	7.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011389889-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

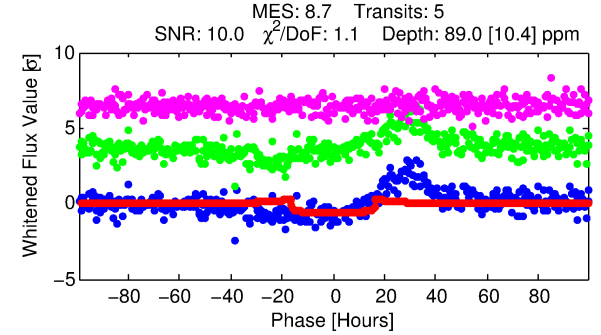
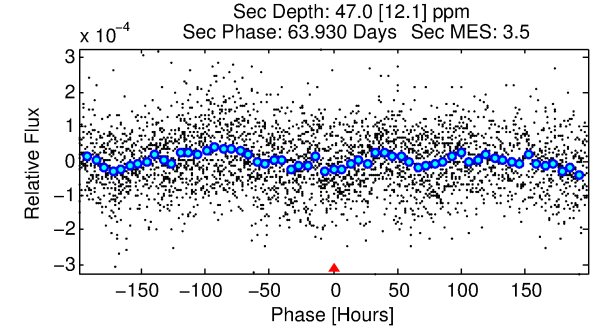
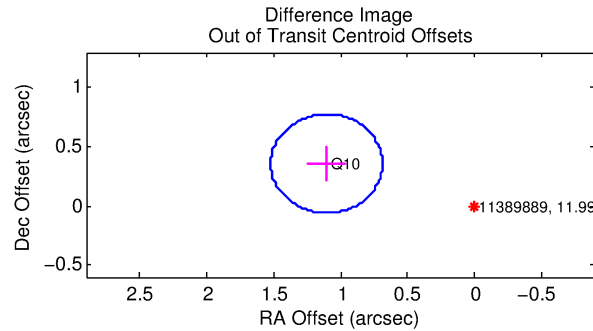
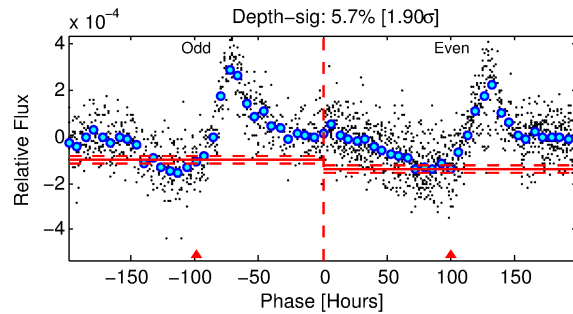
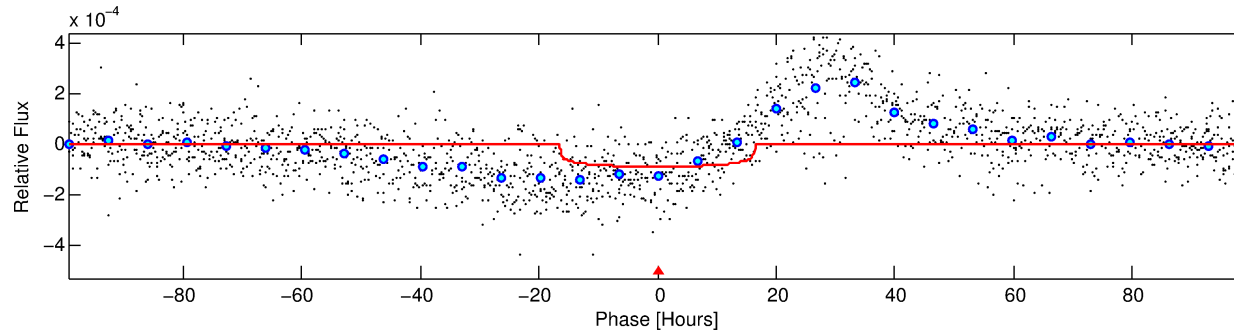
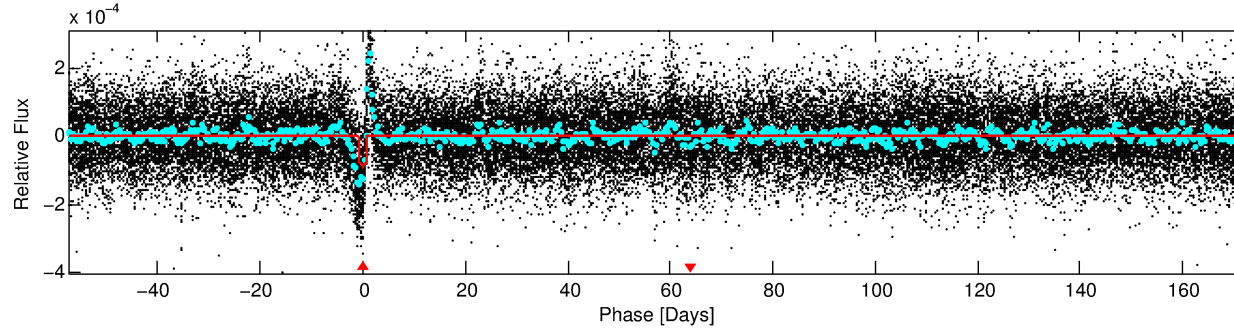
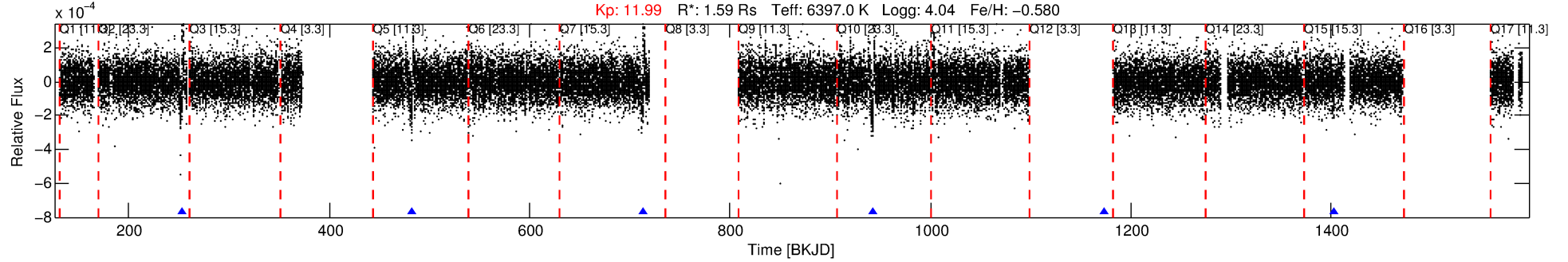
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011389889-01

No Significant Match Found

DV One-Page Summary

KIC: 11389889 Candidate: 1 of 1 Period: 230.030 d



DV Fit Results:

Period = 230.02993 [0.00783] d
Epoch = 252.8278 [0.0218] BKJD
Rp/R* = 0.0091 [0.0019]
a/R* = 42.20 [45.33]
b = 0.62 [1.07]
Seff = 7.00 [3.32]
Teq = 415 [49] K
Rp = 1.58 [0.56] Re
a = 0.7368 [0.2100] AU
Ag = 5629.83 [3776.21] [1.49 σ]
Teffp = 5554 [693] K [7.40 σ]

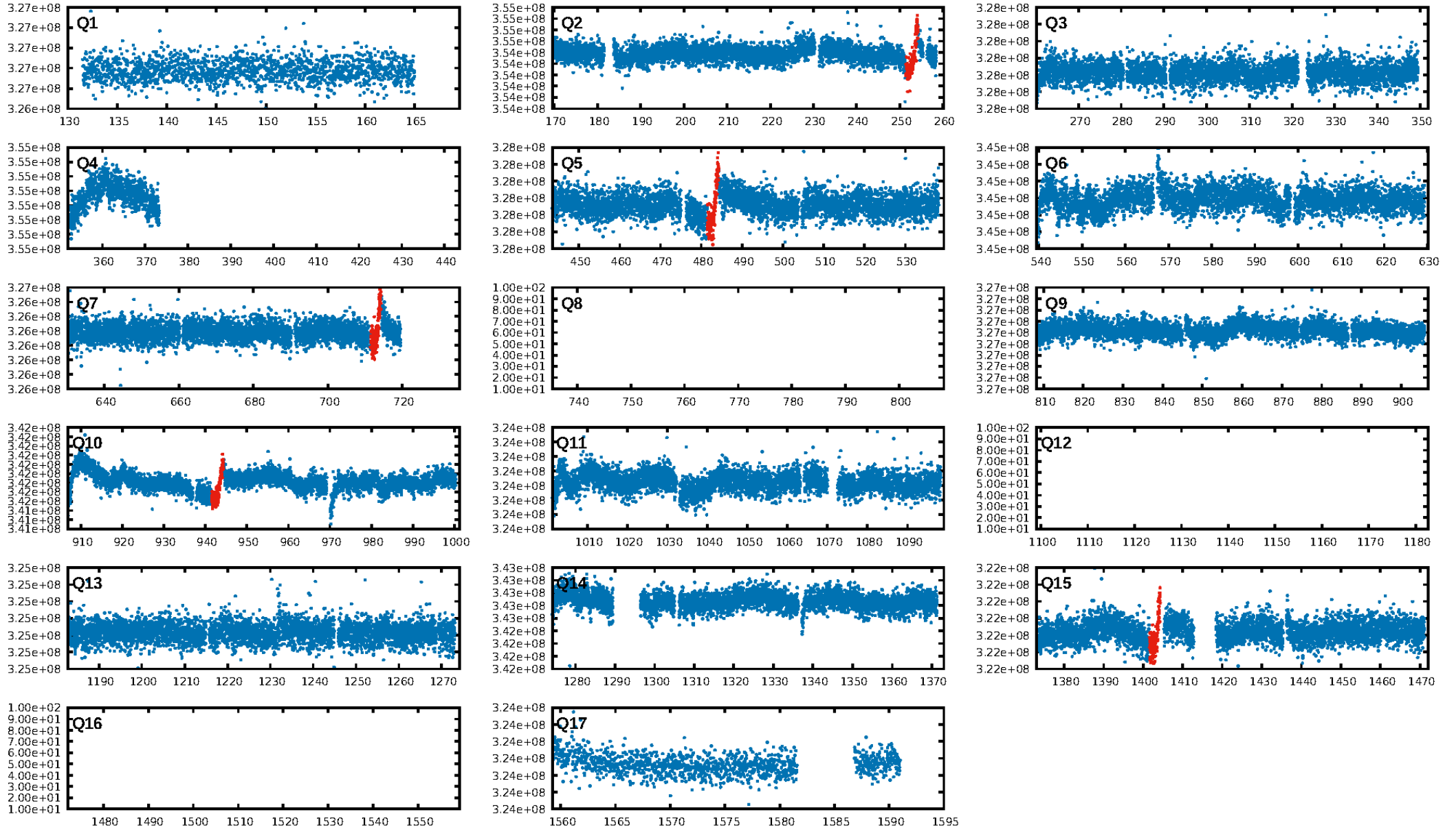
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 25.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.62e-15
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 12.61
Centroid-sig: 30.2%
Centroid-so: 1.553 arcsec [1.04 σ]
OotOffset-rm: 1.161 arcsec [8.34 σ]
KicOffset-rm: 1.181 arcsec [8.48 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

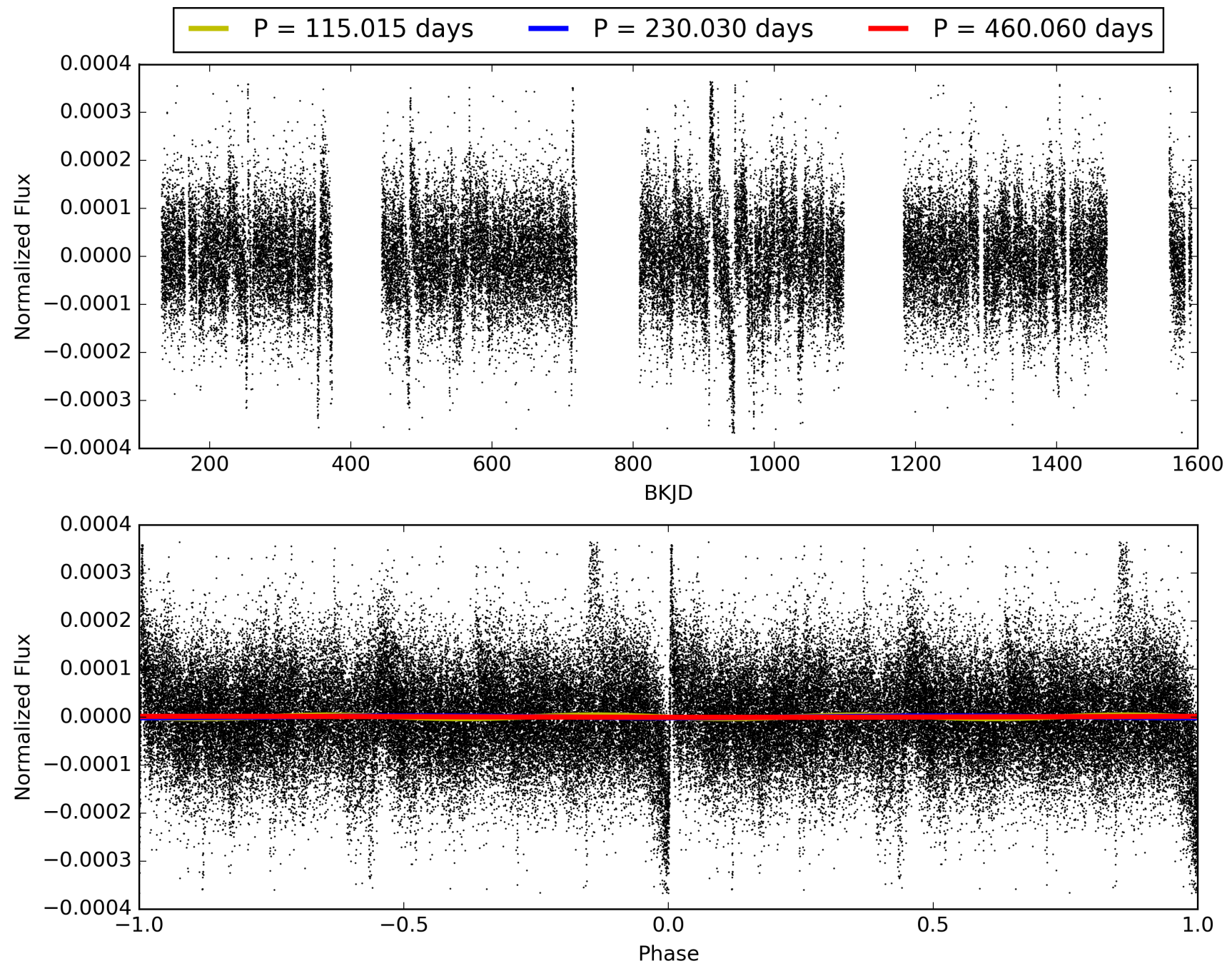
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:38:59 Z

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

TCE 011389889-01, PDC Light Curves

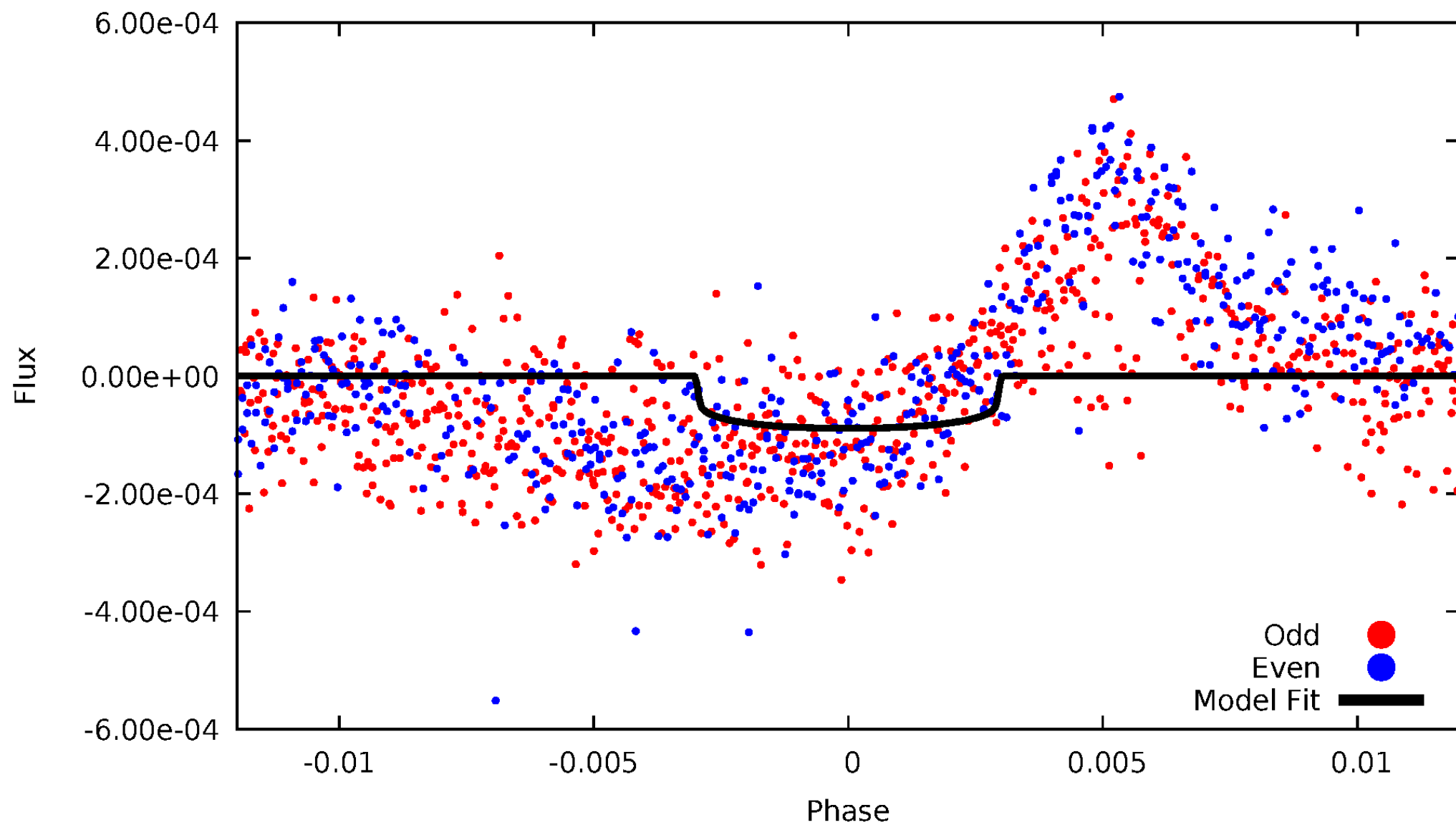


TCE 011389889-01



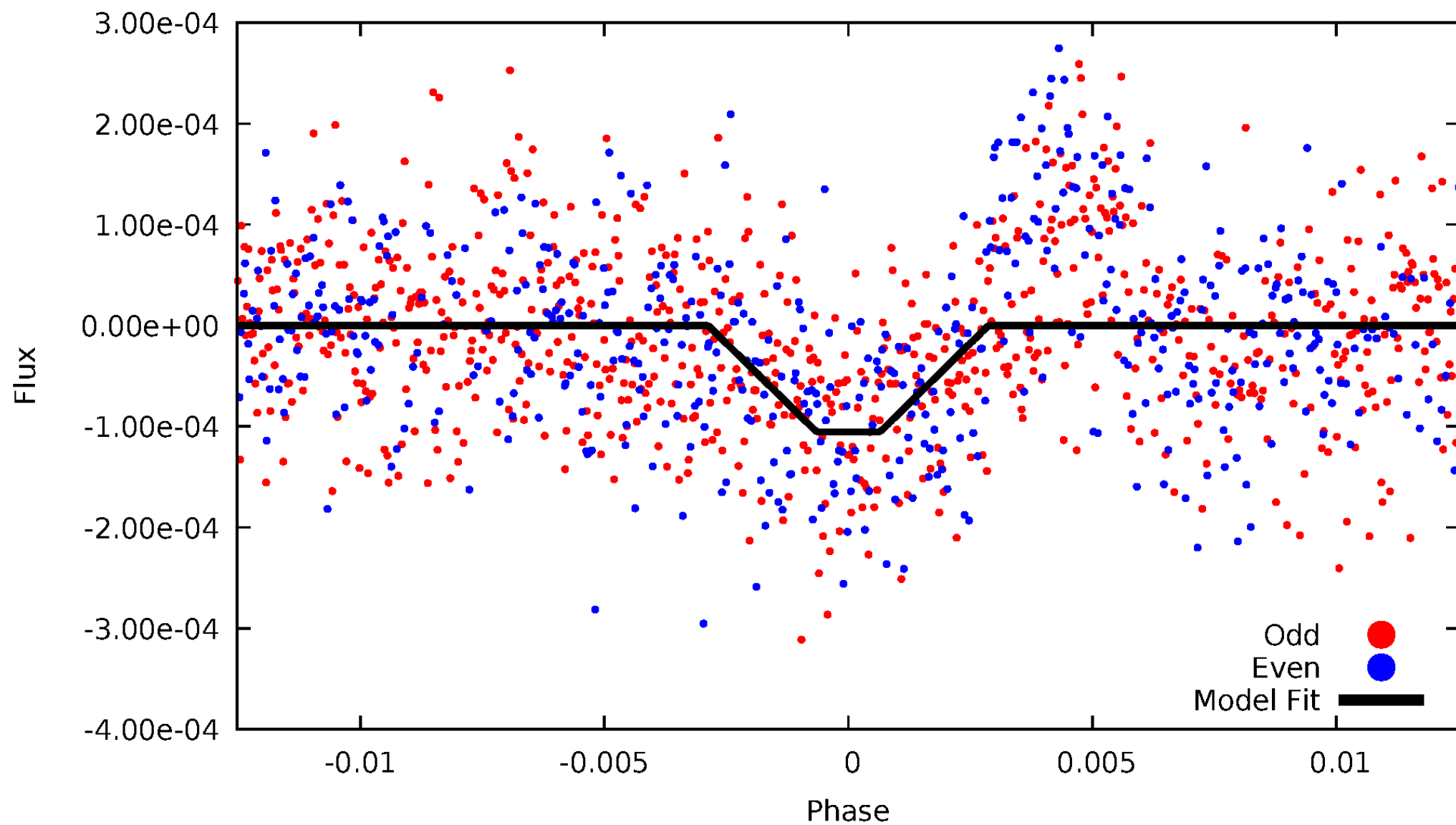
DV Odd/Even

TCE 011389889-01



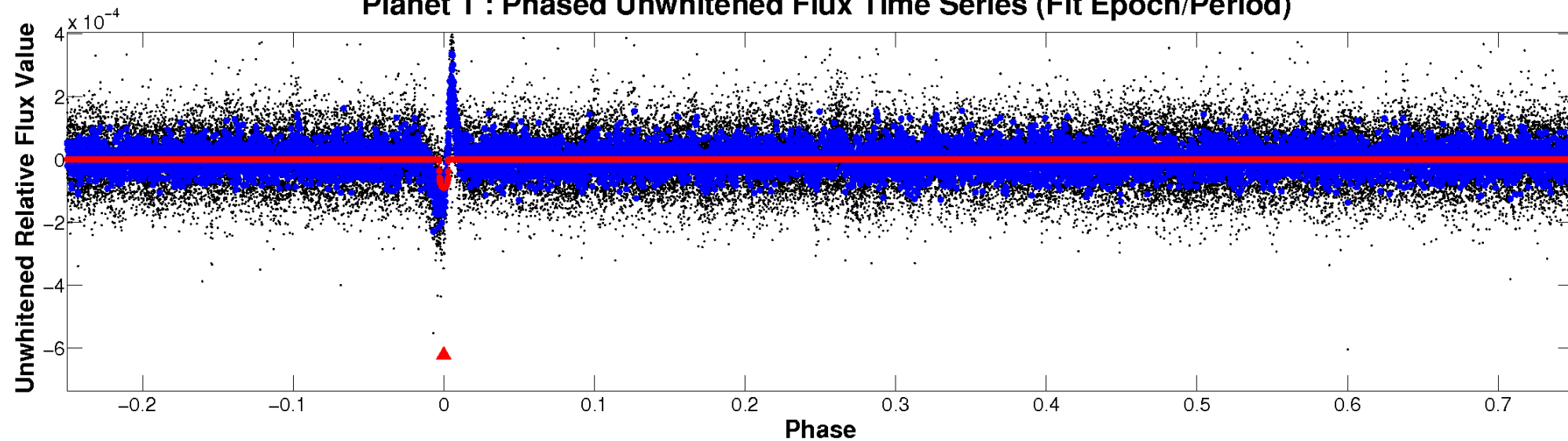
ALT Odd/Even

TCE 011389889-01

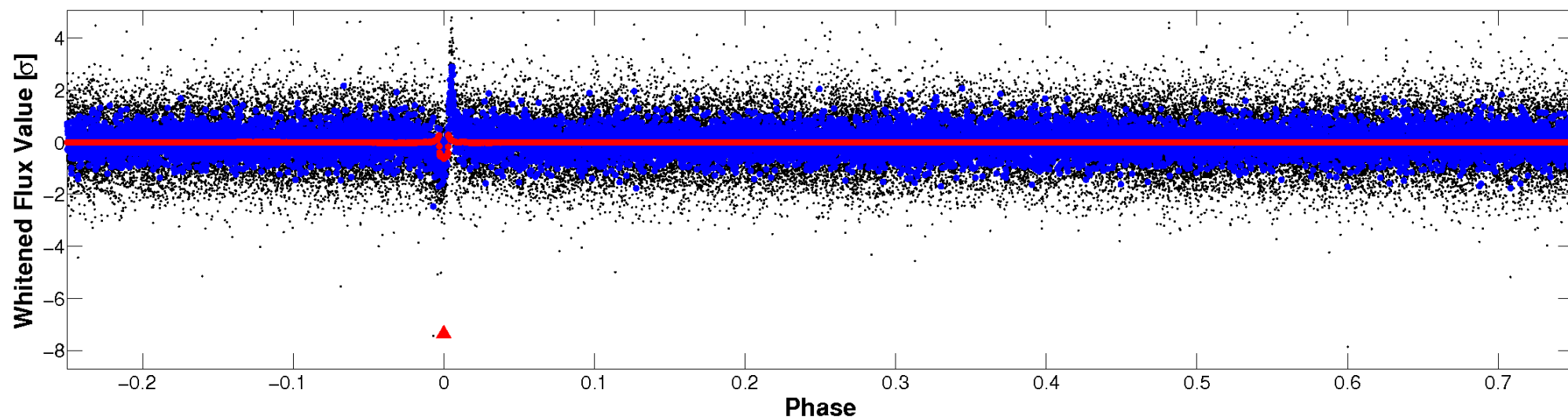


Non-Whitened Vs. Whitened Light Curve

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

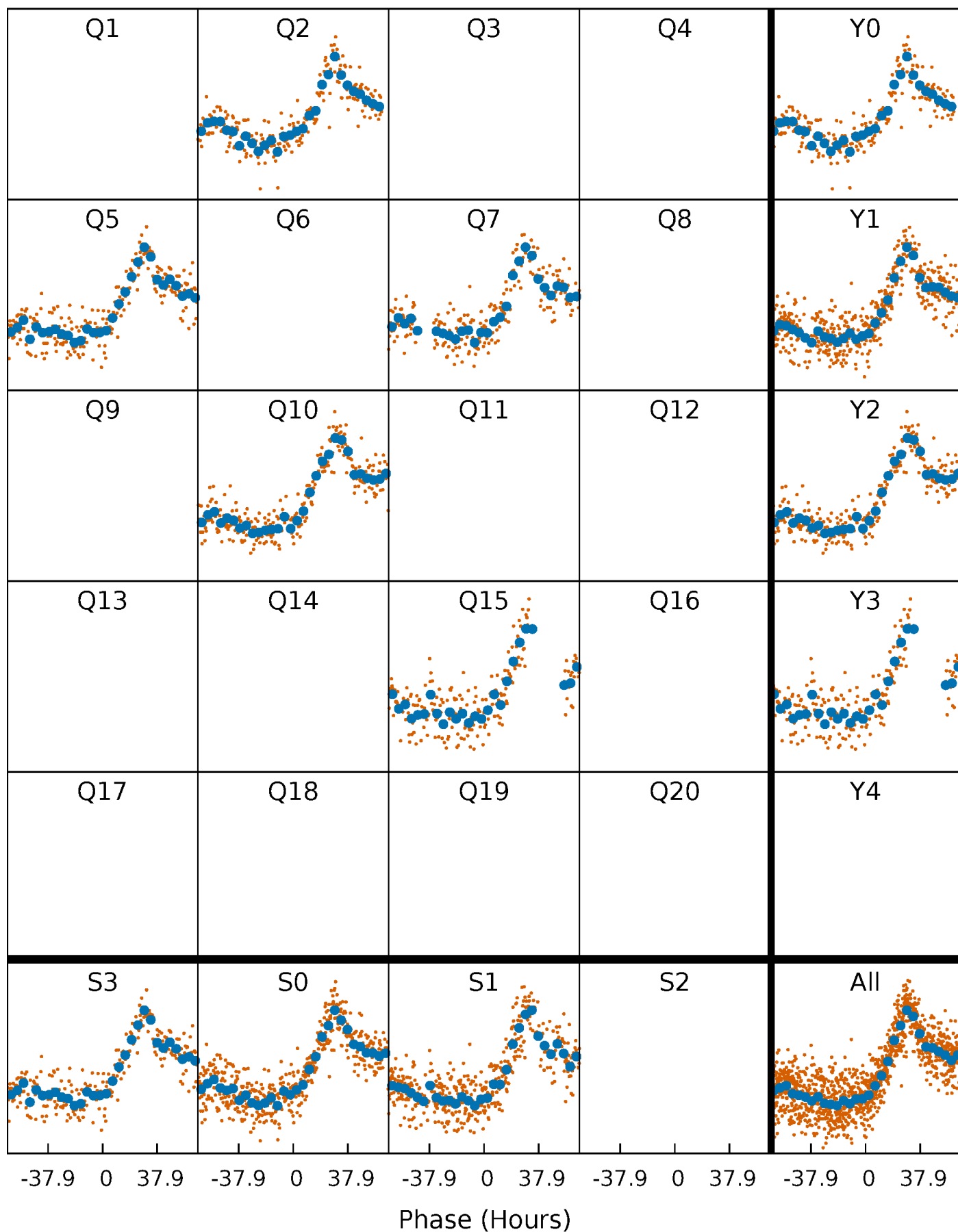


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



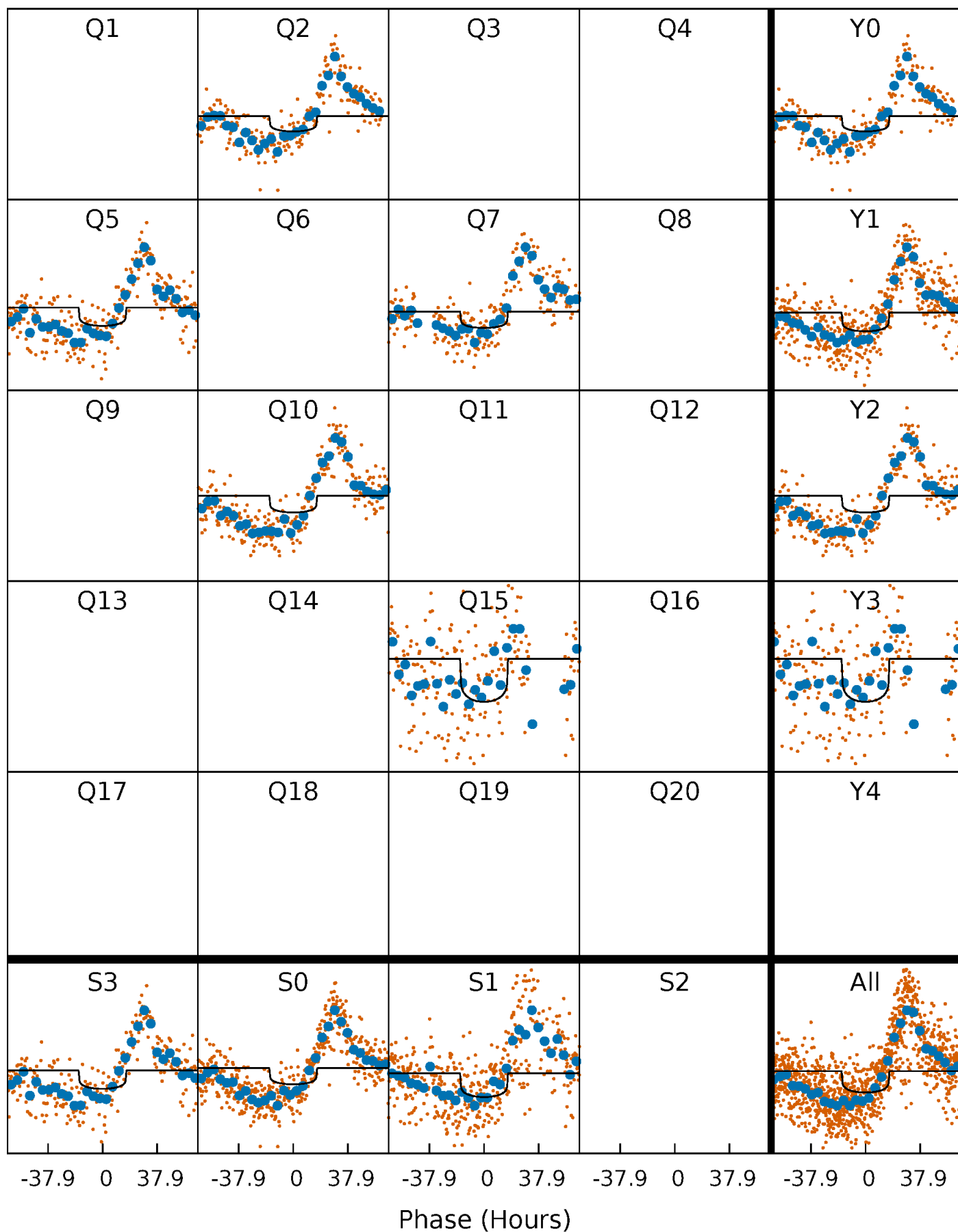
PDC Quarter-Phased Transit Curves

TCE 011389889-01 P=230.029933 Days $T_0=252.827750$ (BKJD)



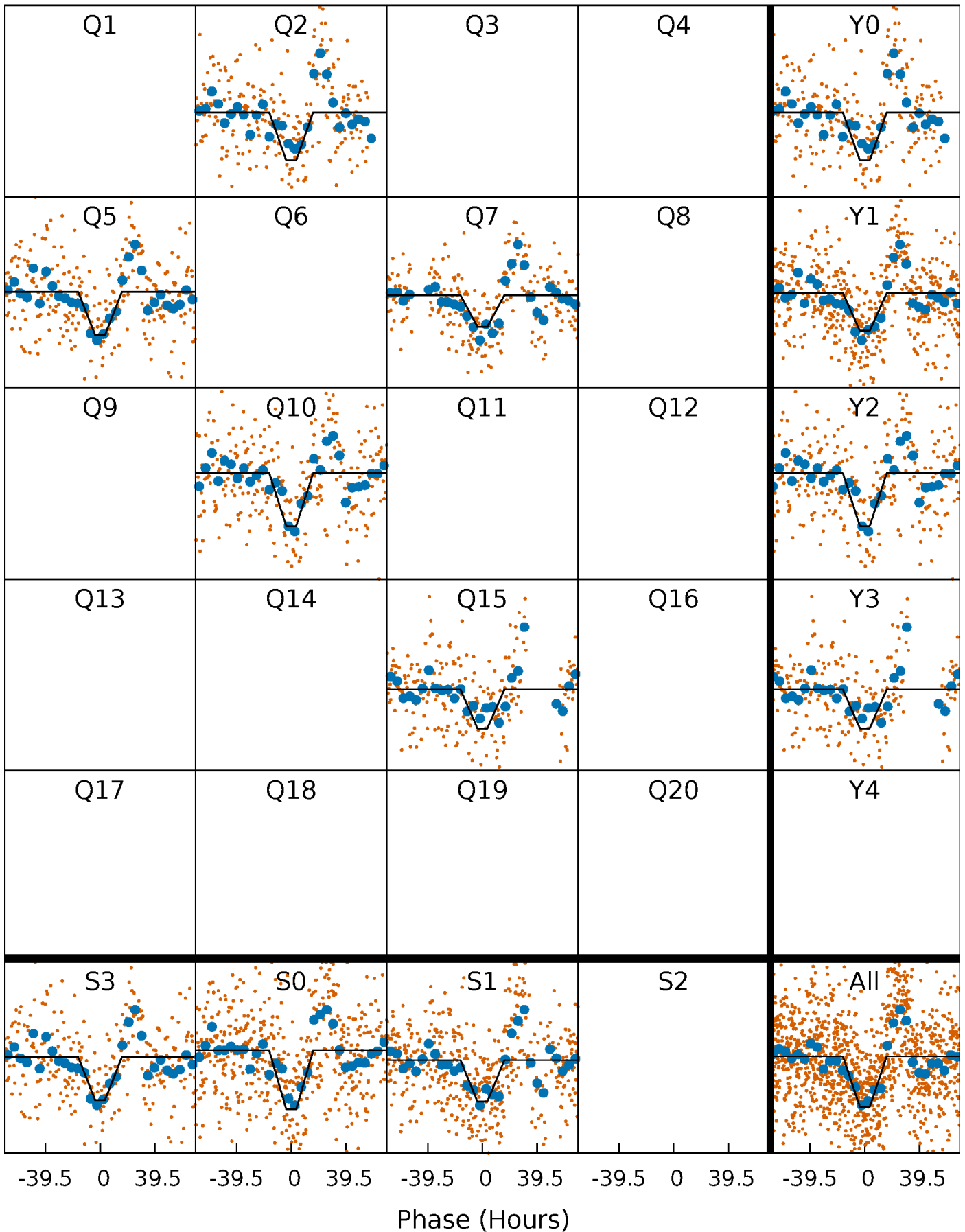
DV Quarter-Phased Transit Curves

TCE 011389889-01 P=230.029933 Days $T_0=252.827750$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

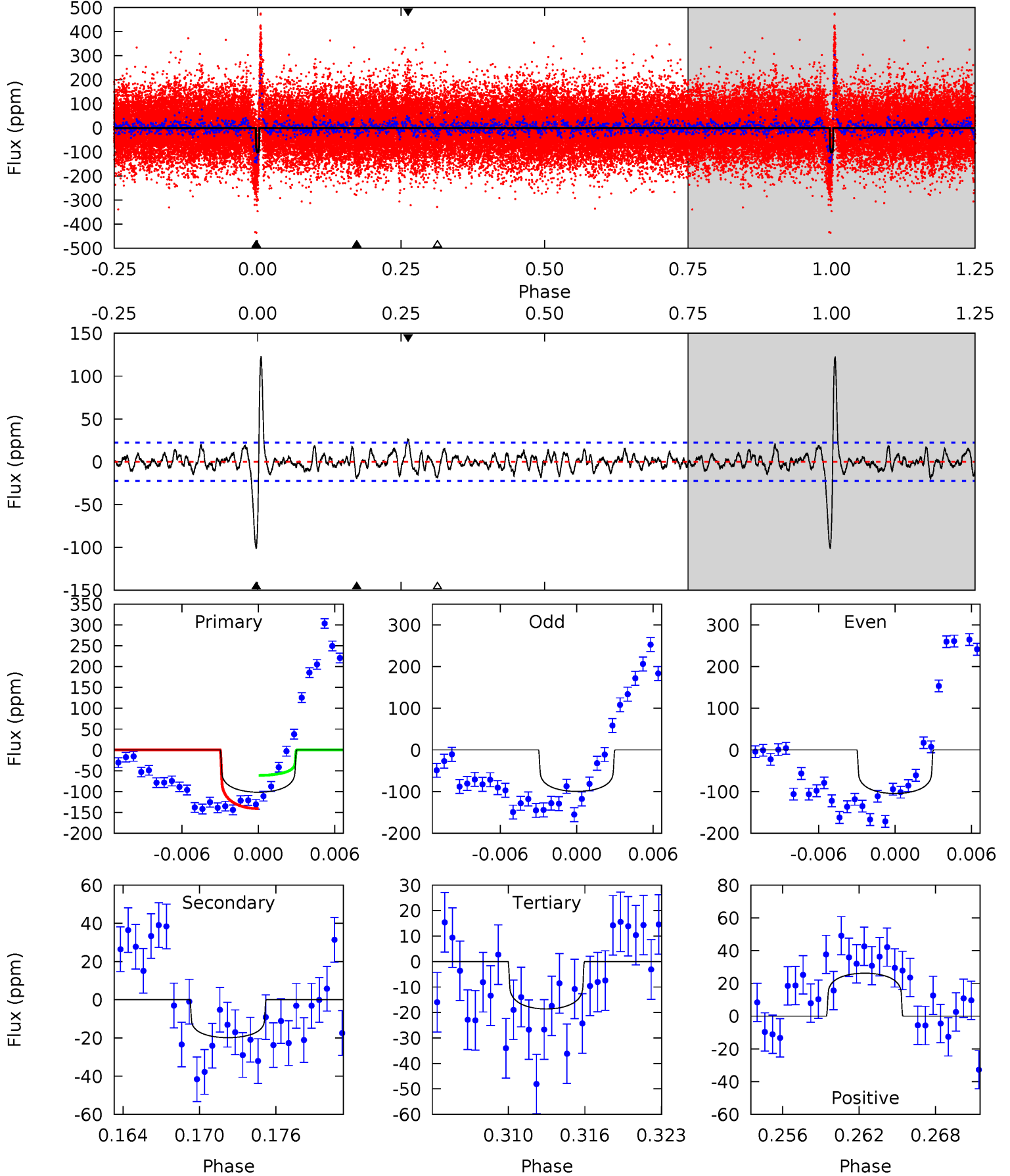
TCE 011389889-01 P=229.986529 Days $T_0=253.060815$ (BKJD)



DV Model-Shift Uniqueness Test

011389889-01, $P = 230.029933$ Days, $E = 22.797817$ Days

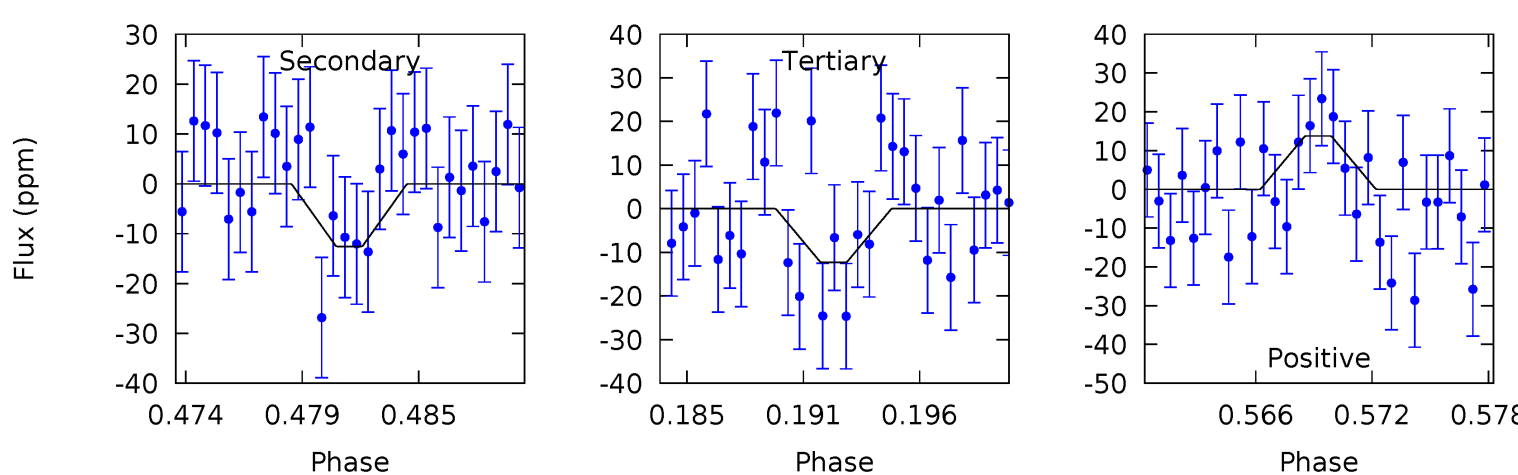
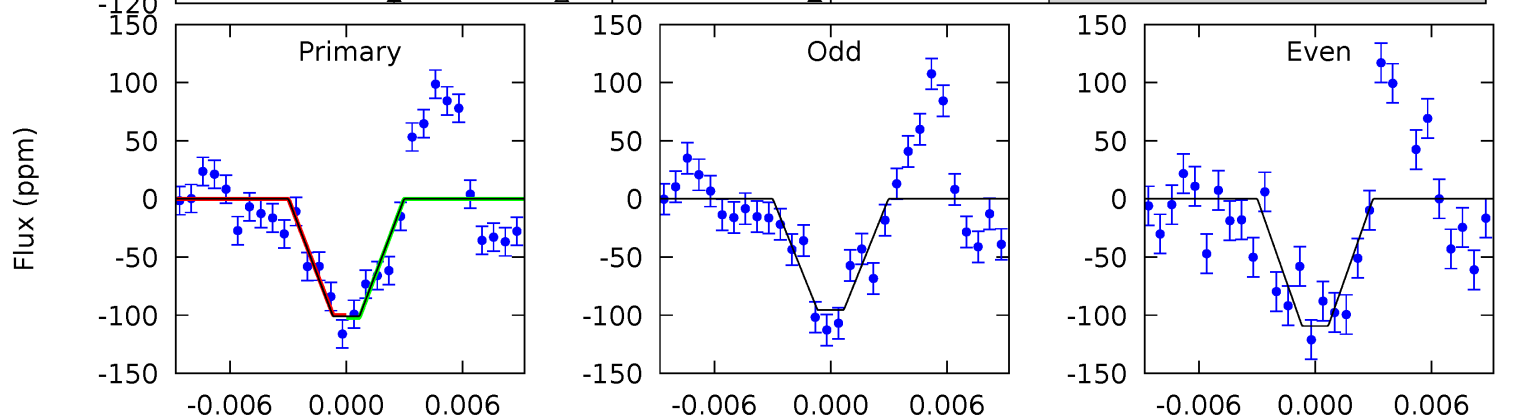
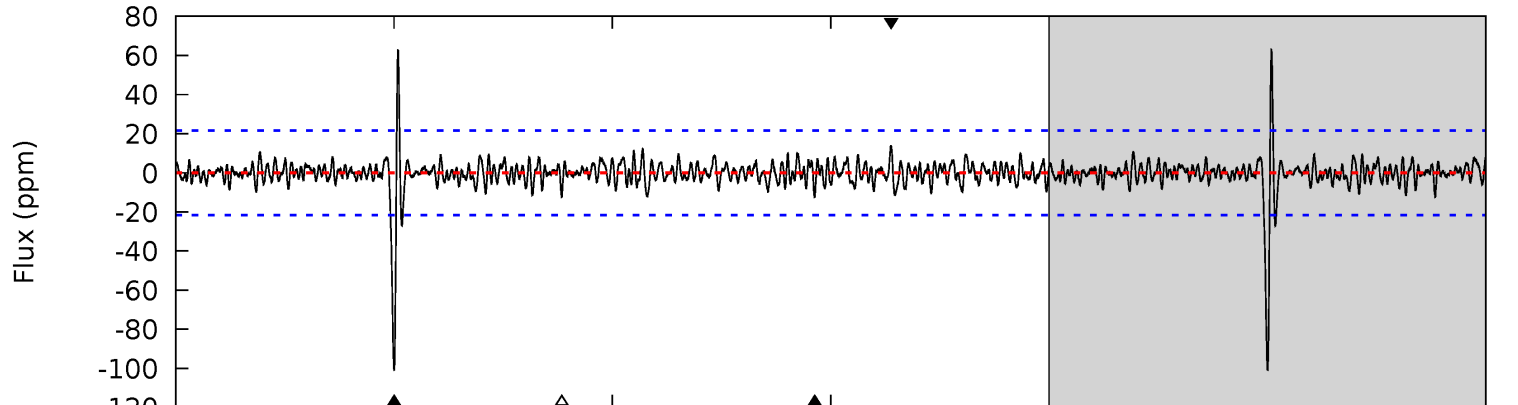
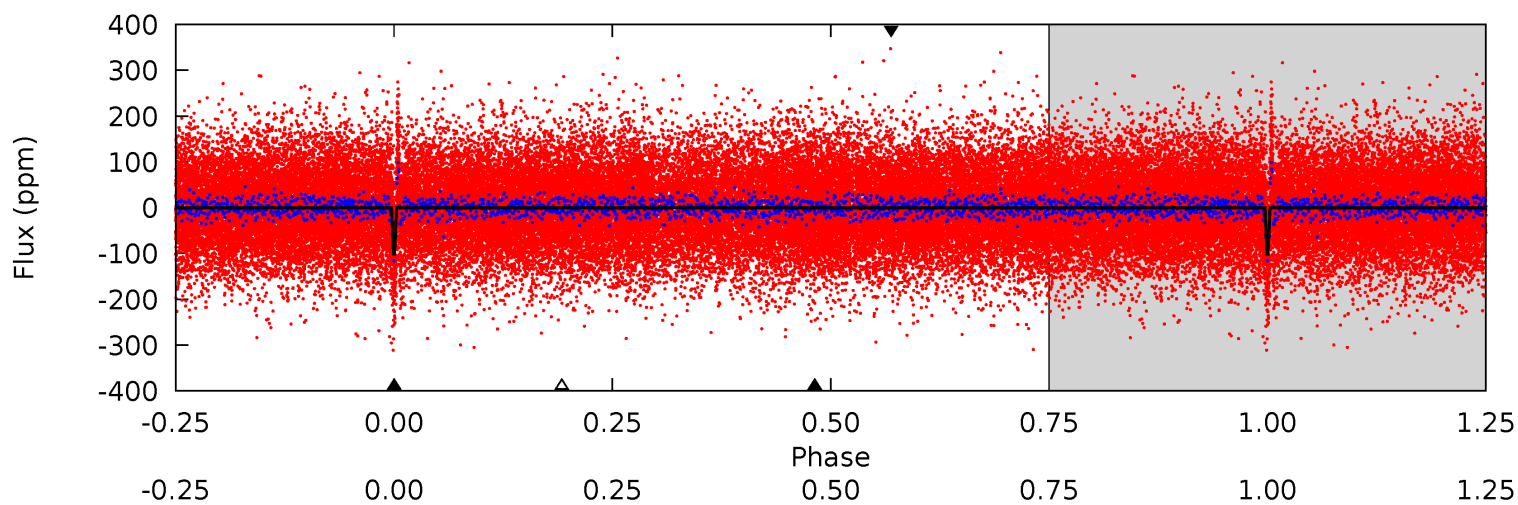
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.2	4.54	4.26	6.00	5.12	2.74	2.45	19.0	17.2	0.28	-1.46	0.57	0.97	0.55	9.23



Alt Model-Shift Uniqueness Test

011389889-01, $P = 229.986529$ Days, $E = 23.074286$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.0	2.98	2.92	3.27	5.13	2.76	1.03	21.1	20.7	0.07	-0.28	1.59	1.05	0.38	0.27



Stellar Parameters For KIC 011389889

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6397^{+155}_{-175}	$4.038^{+0.273}_{-0.117}$	$-0.580^{+0.350}_{-0.300}$	$1.591^{+0.307}_{-0.461}$	$1.008^{+0.162}_{-0.118}$	$0.352^{+0.578}_{-0.119}$
	+2%/-3%	+7%/-3%	+60%/-52%	+19%/-29%	+16%/-12%	+164%/-34%
Source	PHO1	FLK73	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 011389889-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-20 ± 4	$1.52^{+0.38}_{-0.38}$	570^{+35}_{-43}	4628^{+491}_{-391}	2586^{+1979}_{-1025}
Alt.	-13 ± 4	$1.73^{+0.42}_{-0.37}$	572^{+37}_{-41}	4056^{+428}_{-371}	1301^{+1011}_{-608}

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 $A_{obs} \gg 1.0$

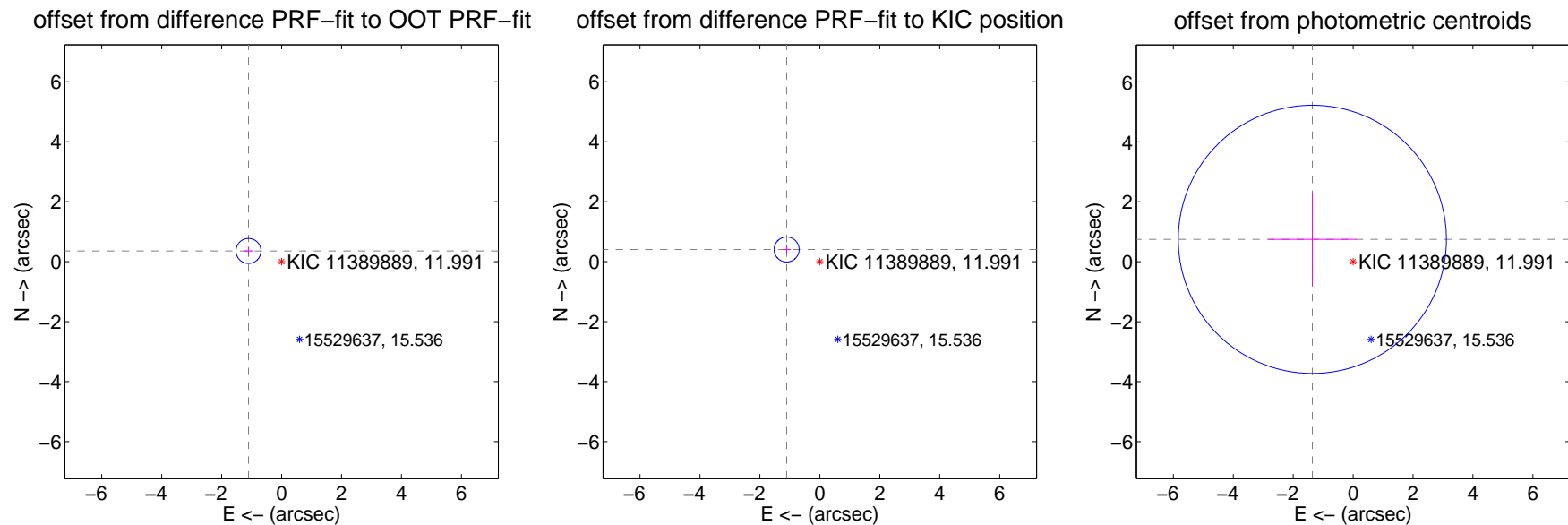
DV Centroid Data

Supplemental centroid analysis for 011389889-01. **Kepler magnitude: 11.99.** Transit SNR 10.00

There are 1 quarters with good PRF difference image offsets

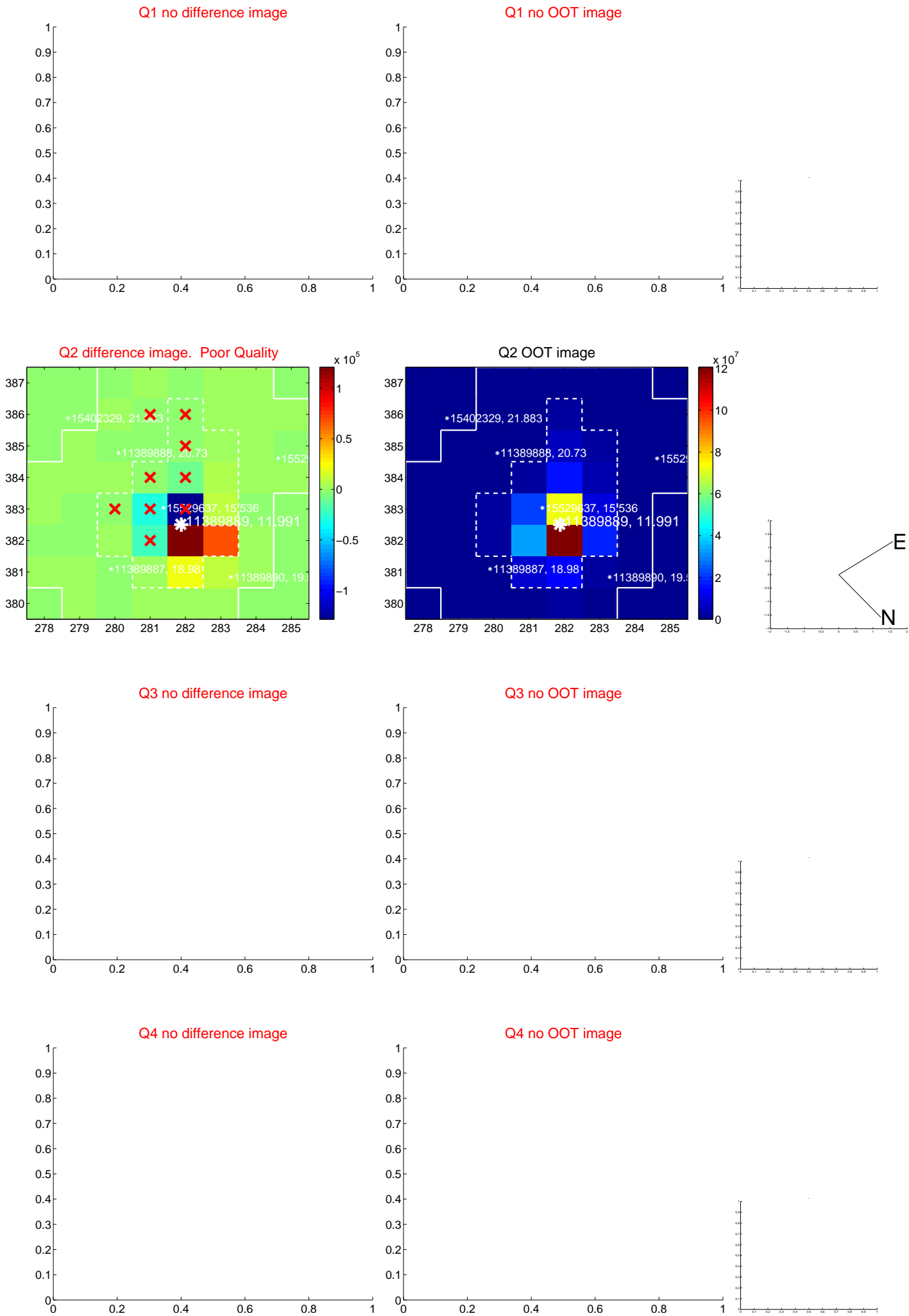
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.161 ± 0.139	8.34	1.104 ± 0.139	0.358 ± 0.139
PRF-fit source offset from KIC position	1.181 ± 0.139	8.48	1.108 ± 0.139	0.407 ± 0.139
photometric centroid source offset	1.55 ± 1.49	1.04	1.36 ± 1.47	0.75 ± 1.55

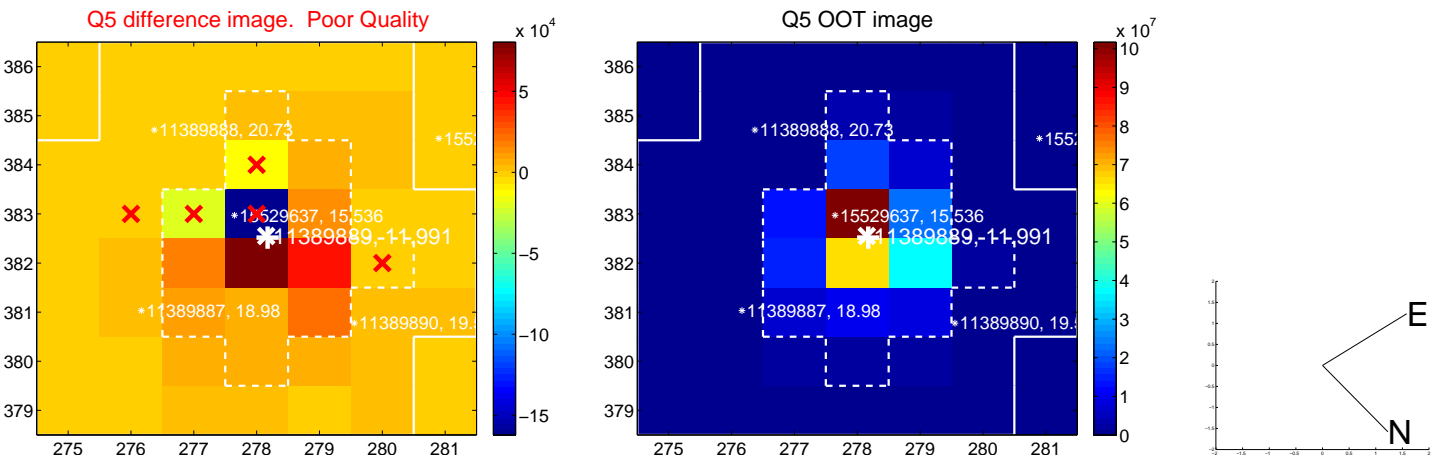


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

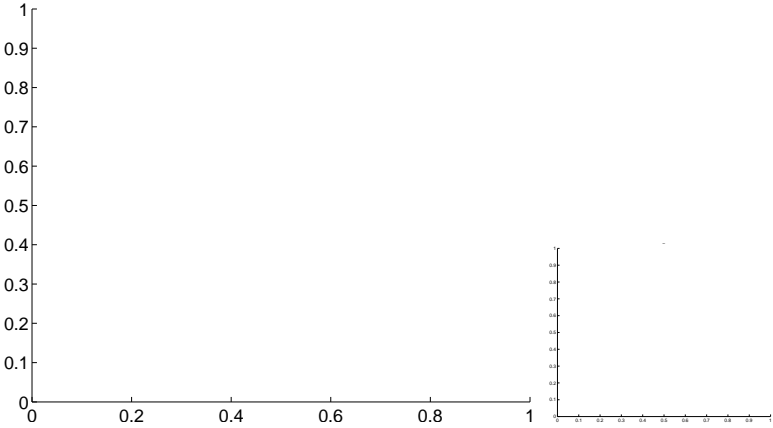


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

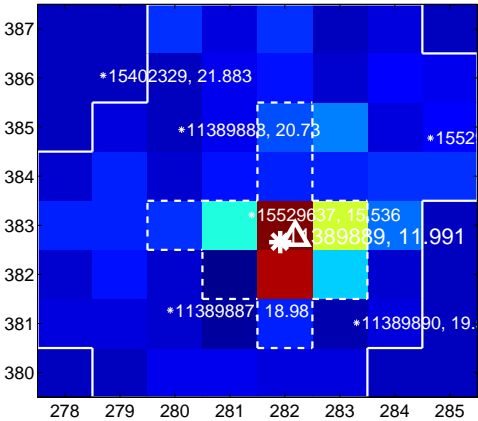
Q9 no difference image



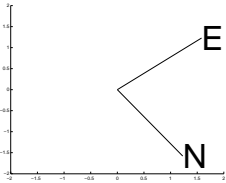
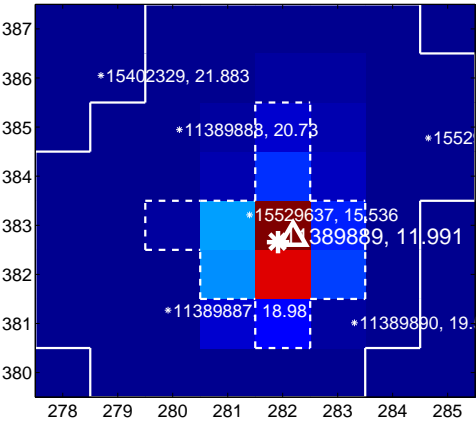
Q9 no OOT image



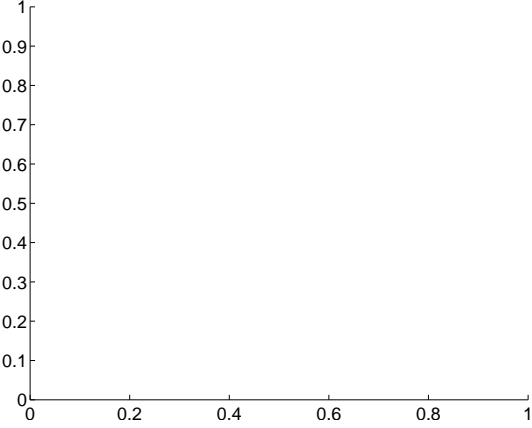
Q10 difference image



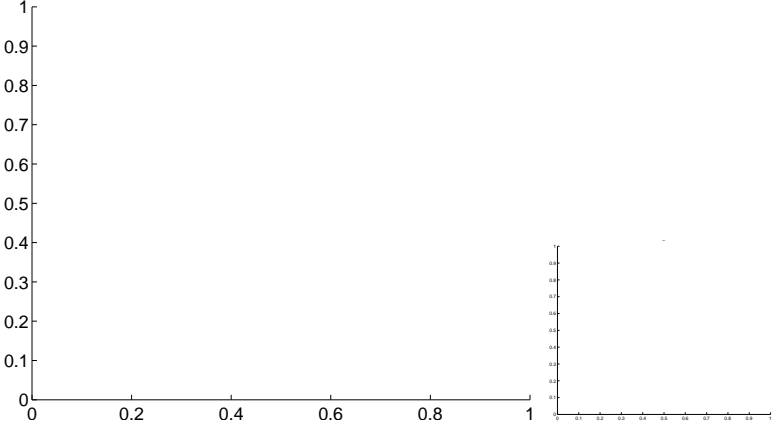
Q10 OOT image



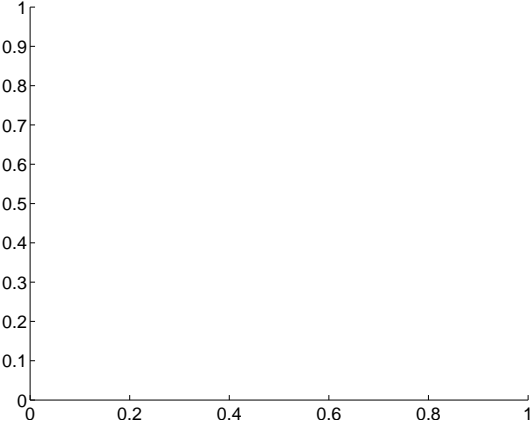
Q11 no difference image



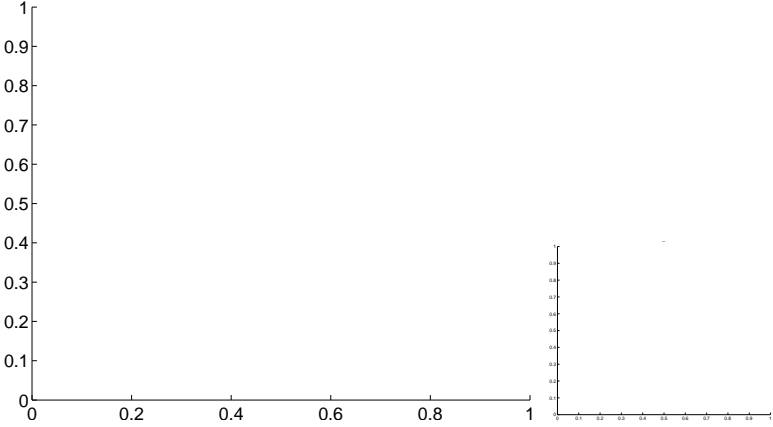
Q11 no OOT image



Q12 no difference image



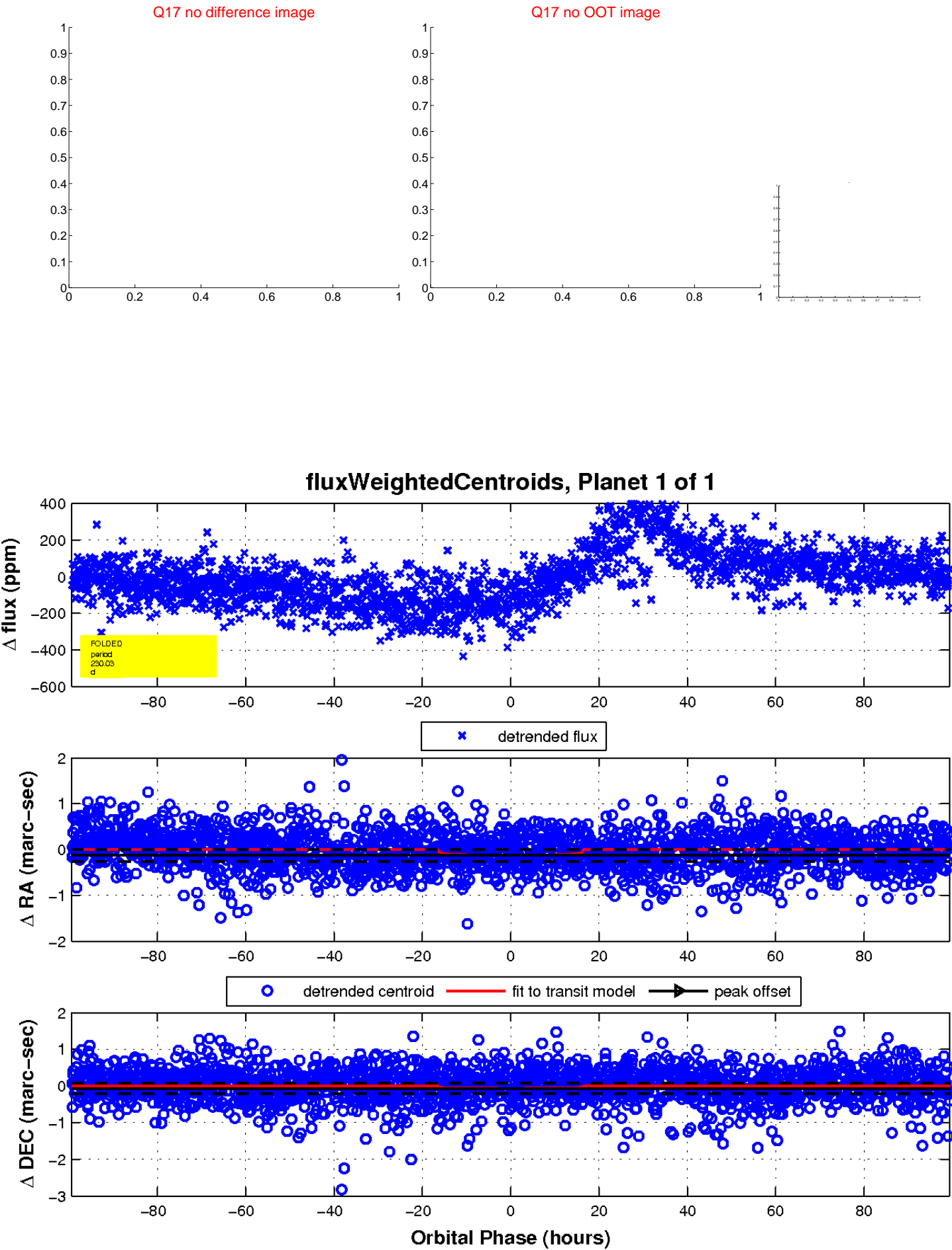
Q12 no OOT image



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.



UKIRT Image

