

KIC 010982380

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})
010982380-01	OBS	No	515.977716	346.689959	117.0	13.426	10.6	10.3	0.97	6505	1.17	0.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010982380-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—INCONSISTENT_TRANS—CENT_SATURATED

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

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

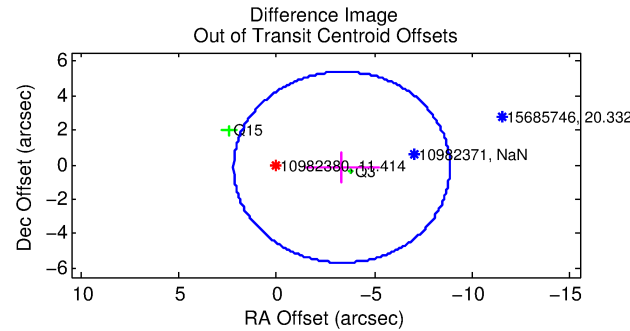
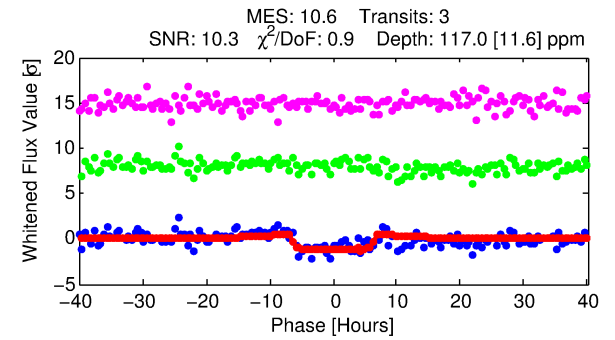
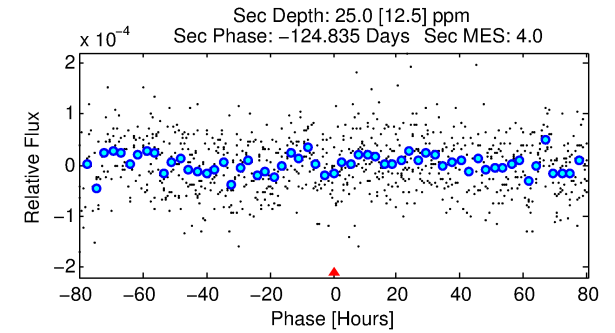
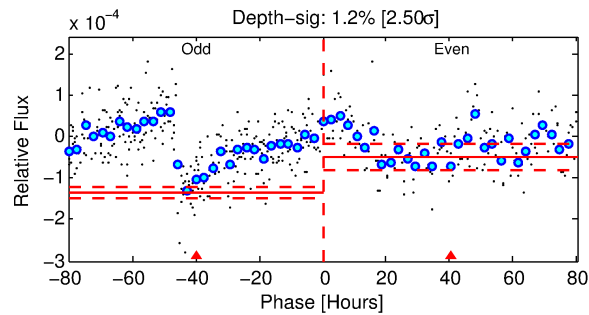
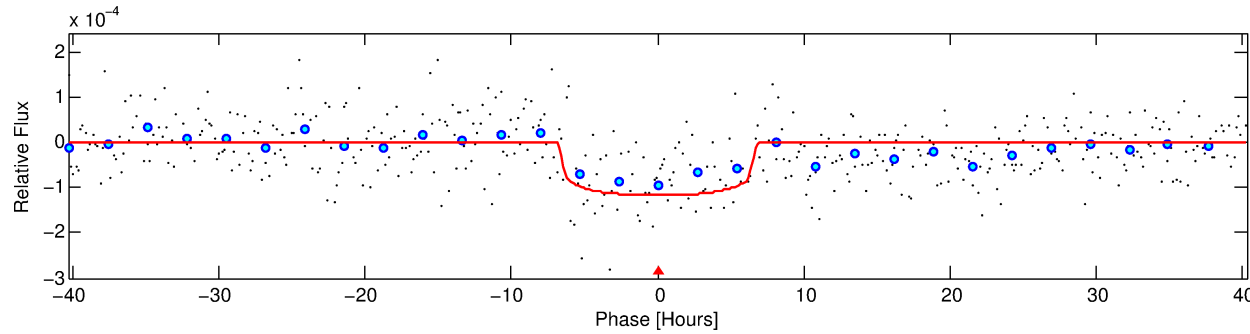
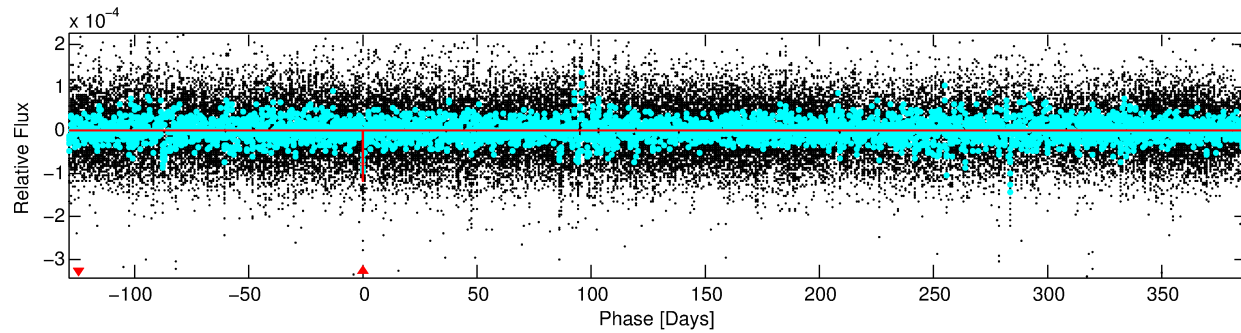
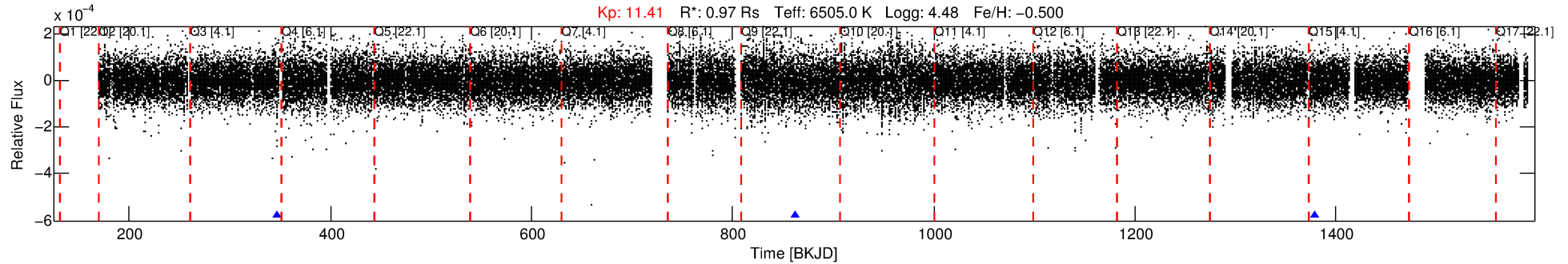
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010982380-01

No Significant Match Found

DV One-Page Summary

KIC: 10982380 Candidate: 1 of 1 Period: 515.978 d



DV Fit Results:

Period = 515.97772 [0.00833] d
Epoch = 346.6900 [0.0110] BKJD
Rp/R* = 0.0110 [0.0019]
a/R* = 178.01 [166.25]
b = 0.81 [0.40]
Seff = 0.93 [0.28]
Teq = 250 [19] K
Rp = 1.17 [0.32] Re
a = 1.2817 [0.2344] AU
Ag = 16534.16 [11037.84] [1.50σ]
Teff = 4388 [681] K [6.07σ]

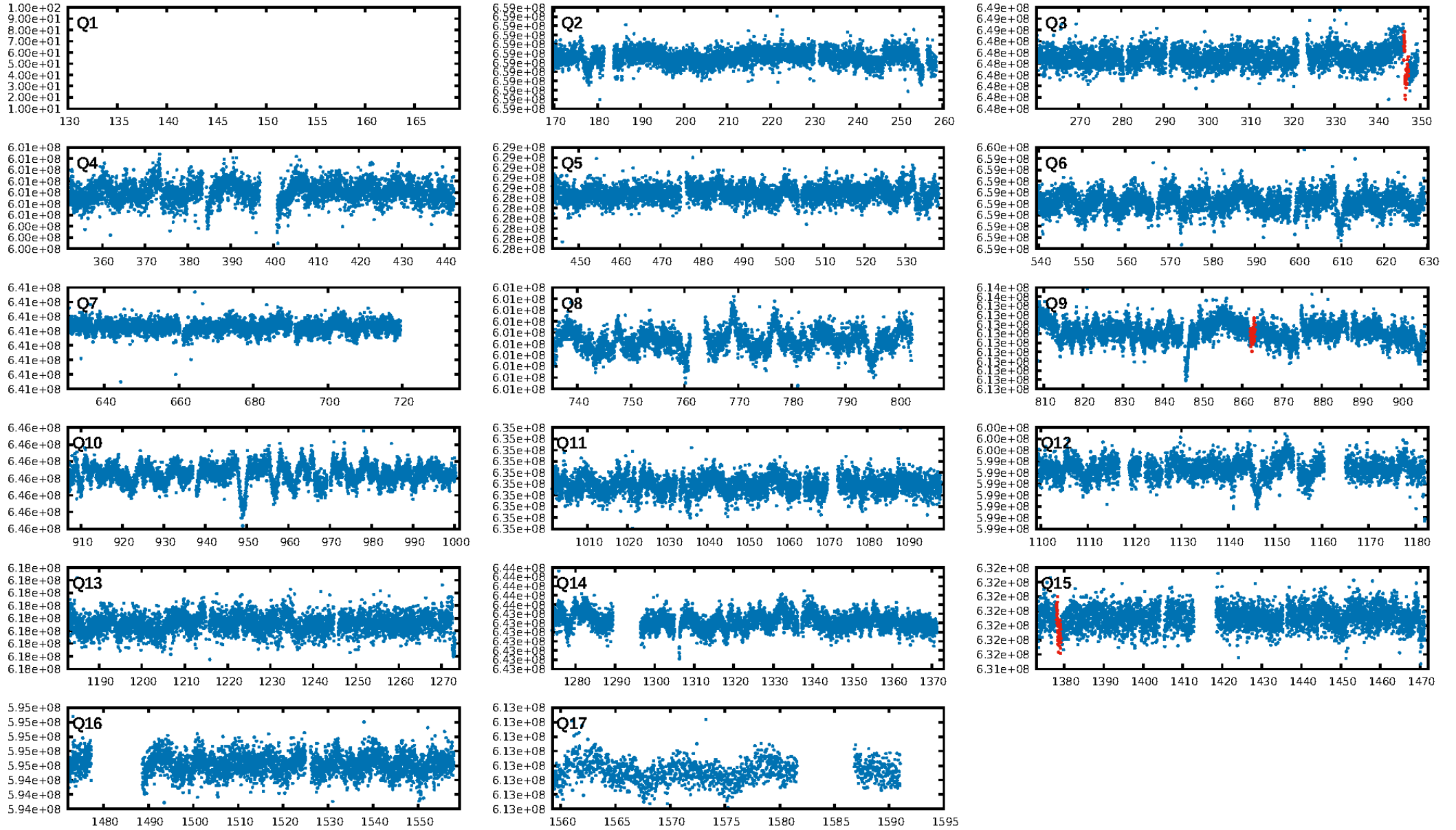
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.39e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.905
Centroid-sig: 3.7%
Centroid-so: 1.082 arcsec [1.08σ]
OotOffset-rm: 3.337 arcsec [1.81σ]
KicOffset-rm: 3.264 arcsec [1.22σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

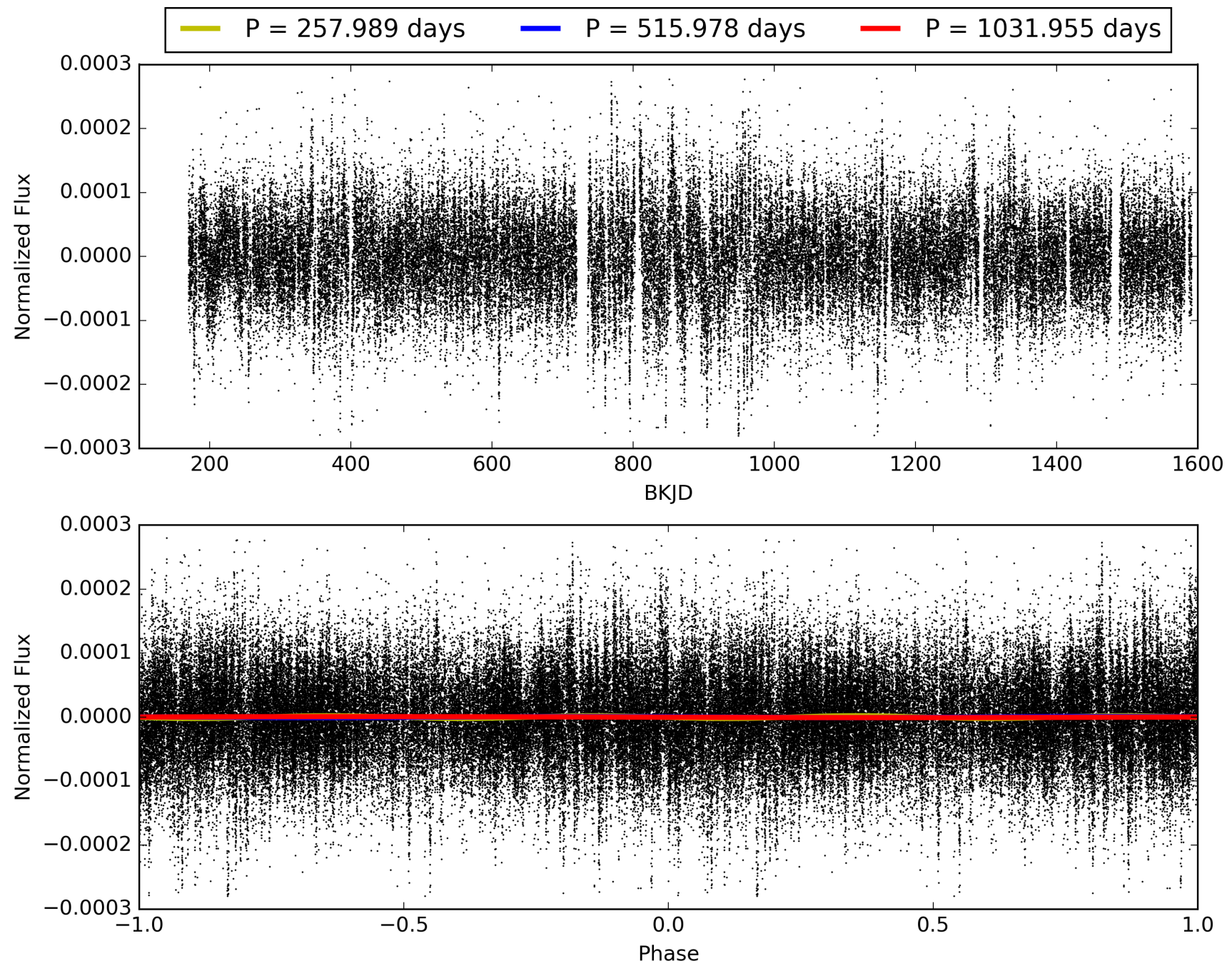
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:08:39 Z

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

TCE 010982380-01, PDC Light Curves

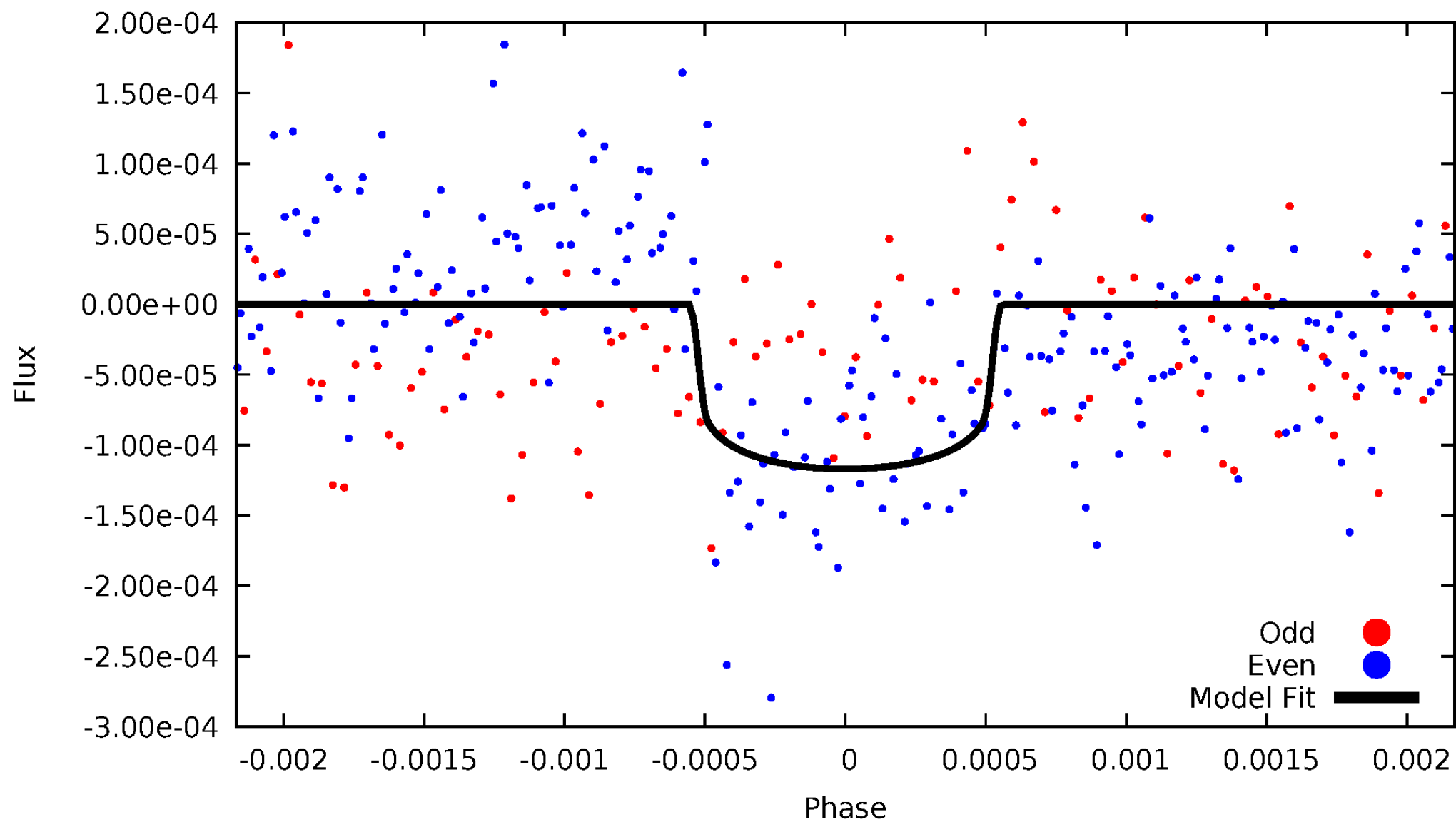


TCE 010982380-01



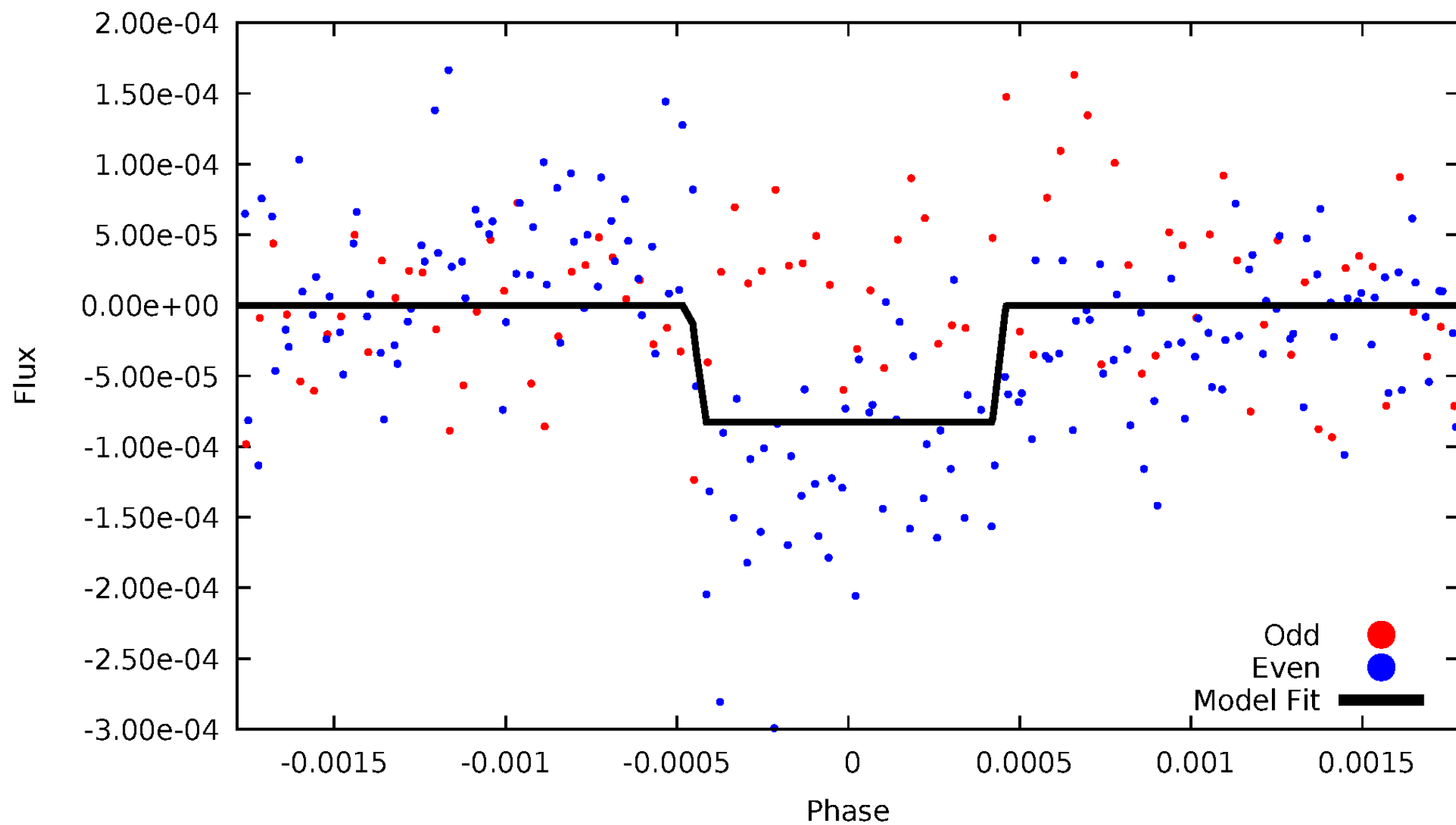
DV Odd/Even

TCE 010982380-01



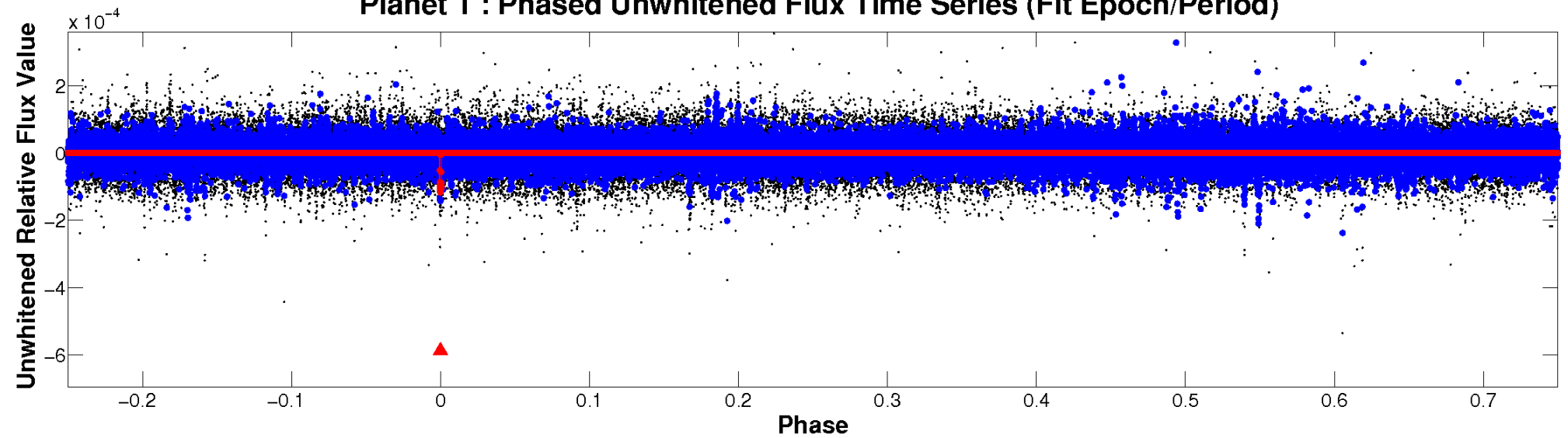
ALT Odd/Even

TCE 010982380-01

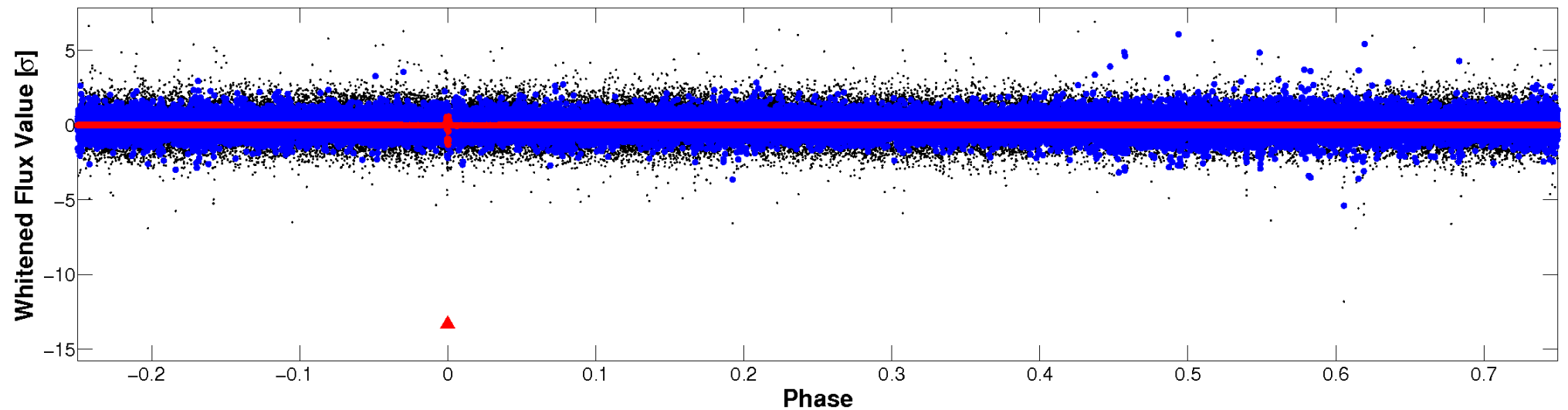


Non-Whitened Vs. Whitened Light Curve

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



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



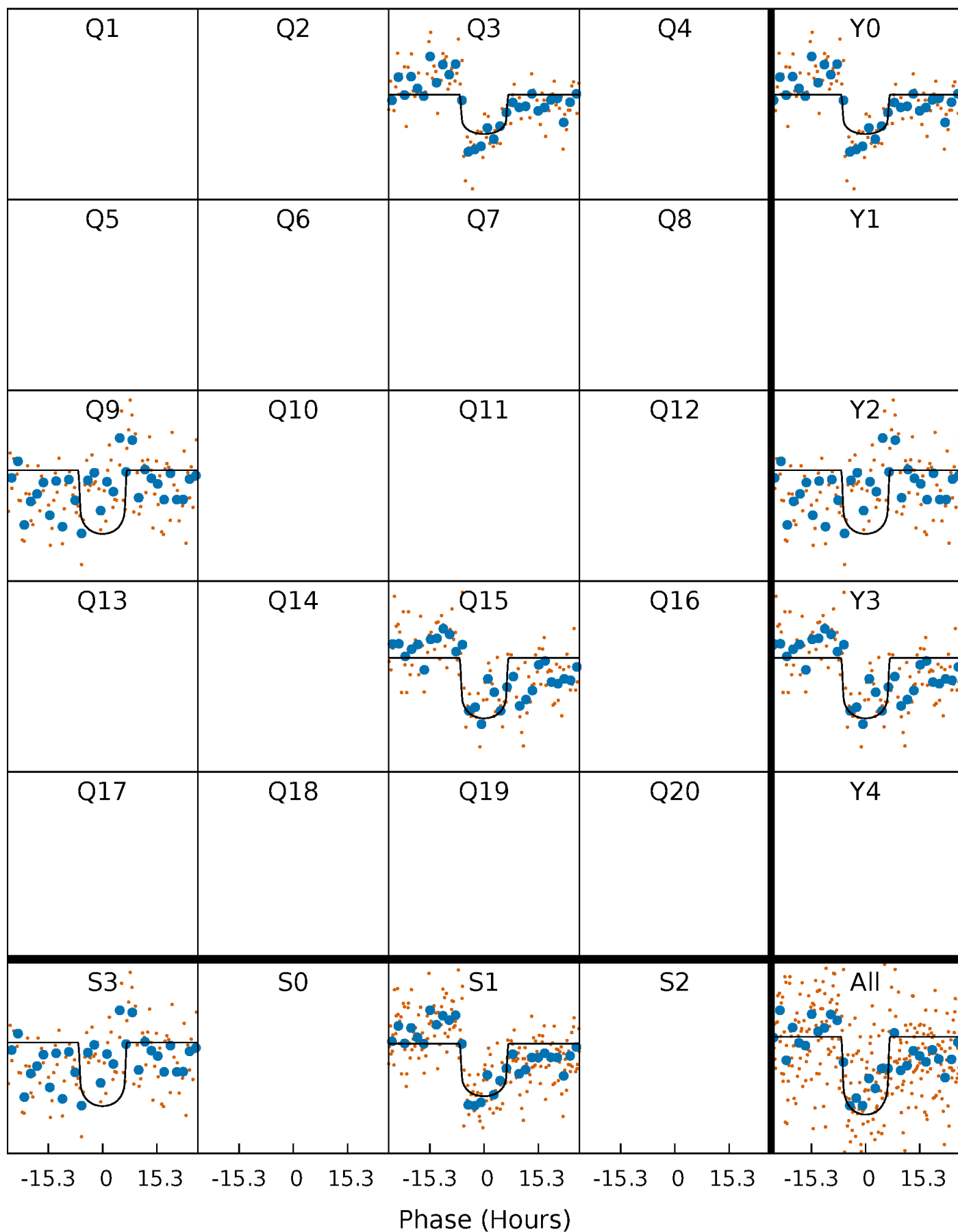
PDC Quarter-Phased Transit Curves

TCE 010982380-01 P=515.977716 Days $T_0=346.689959$ (BKJD)



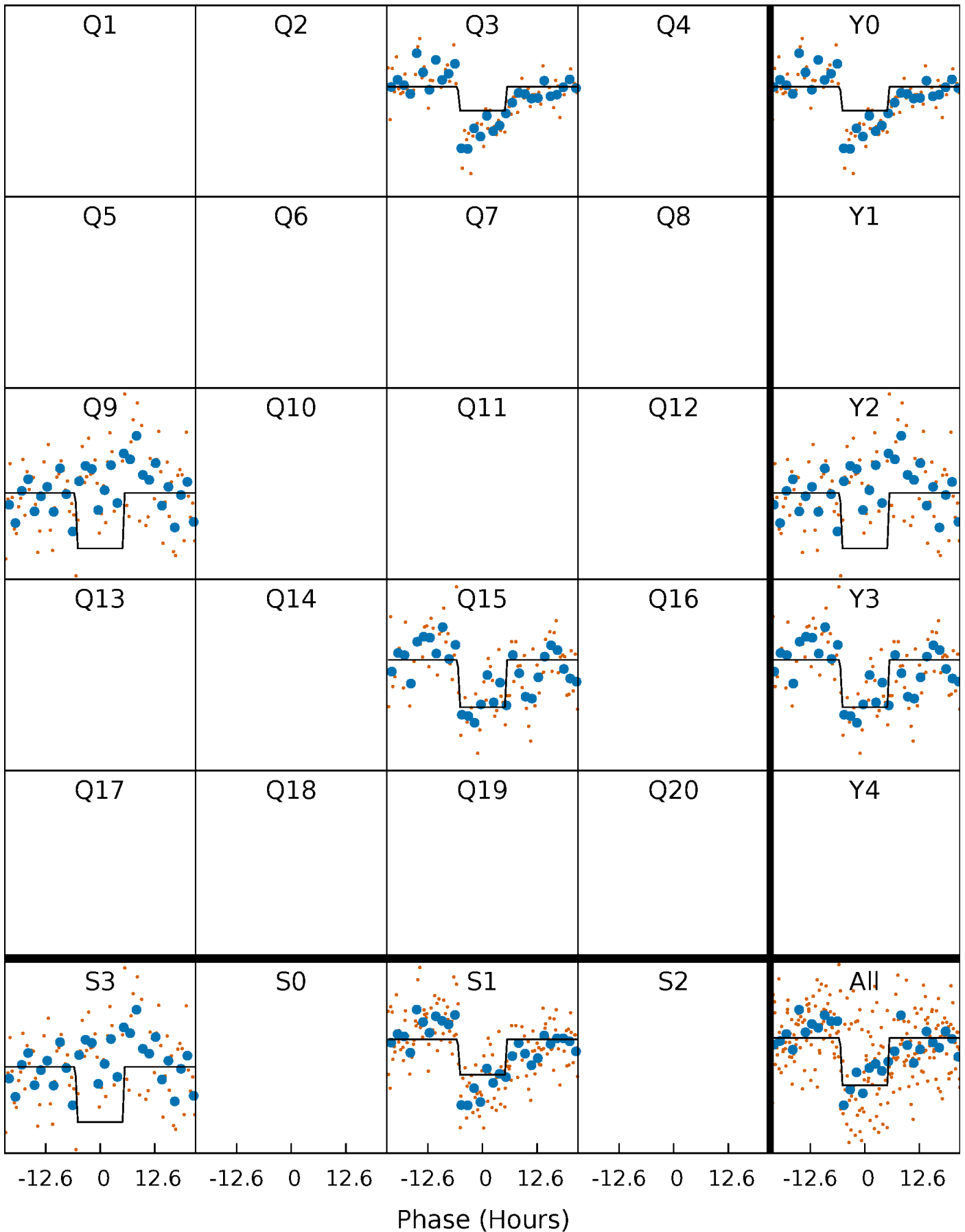
DV Quarter-Phased Transit Curves

TCE 010982380-01 P=515.977716 Days $T_0=346.689959$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

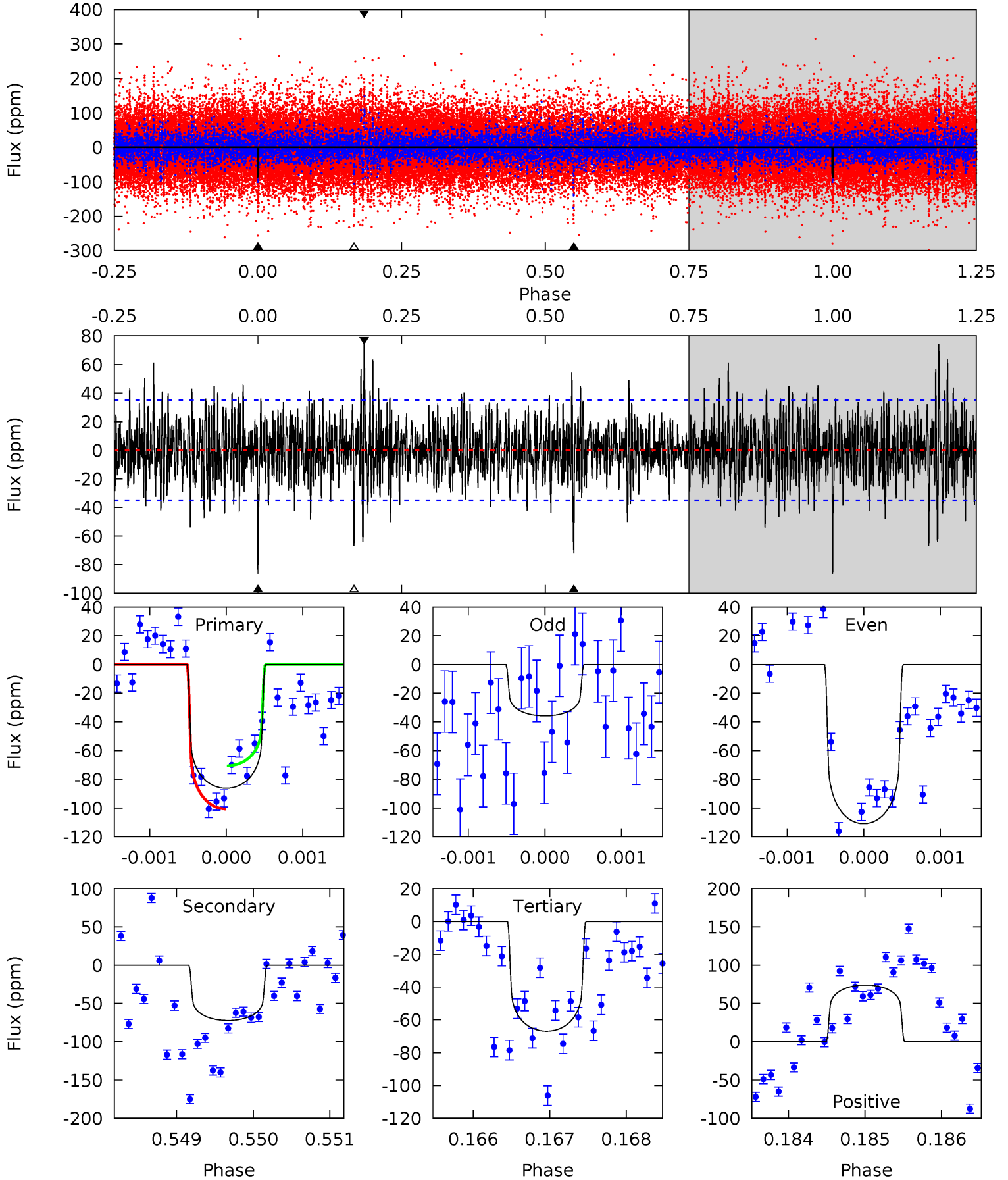
TCE 010982380-01 P=515.988257 Days $T_0=346.665310$ (BKJD)



DV Model-Shift Uniqueness Test

010982380-01, P = 515.977716 Days, E = 346.689959 Days

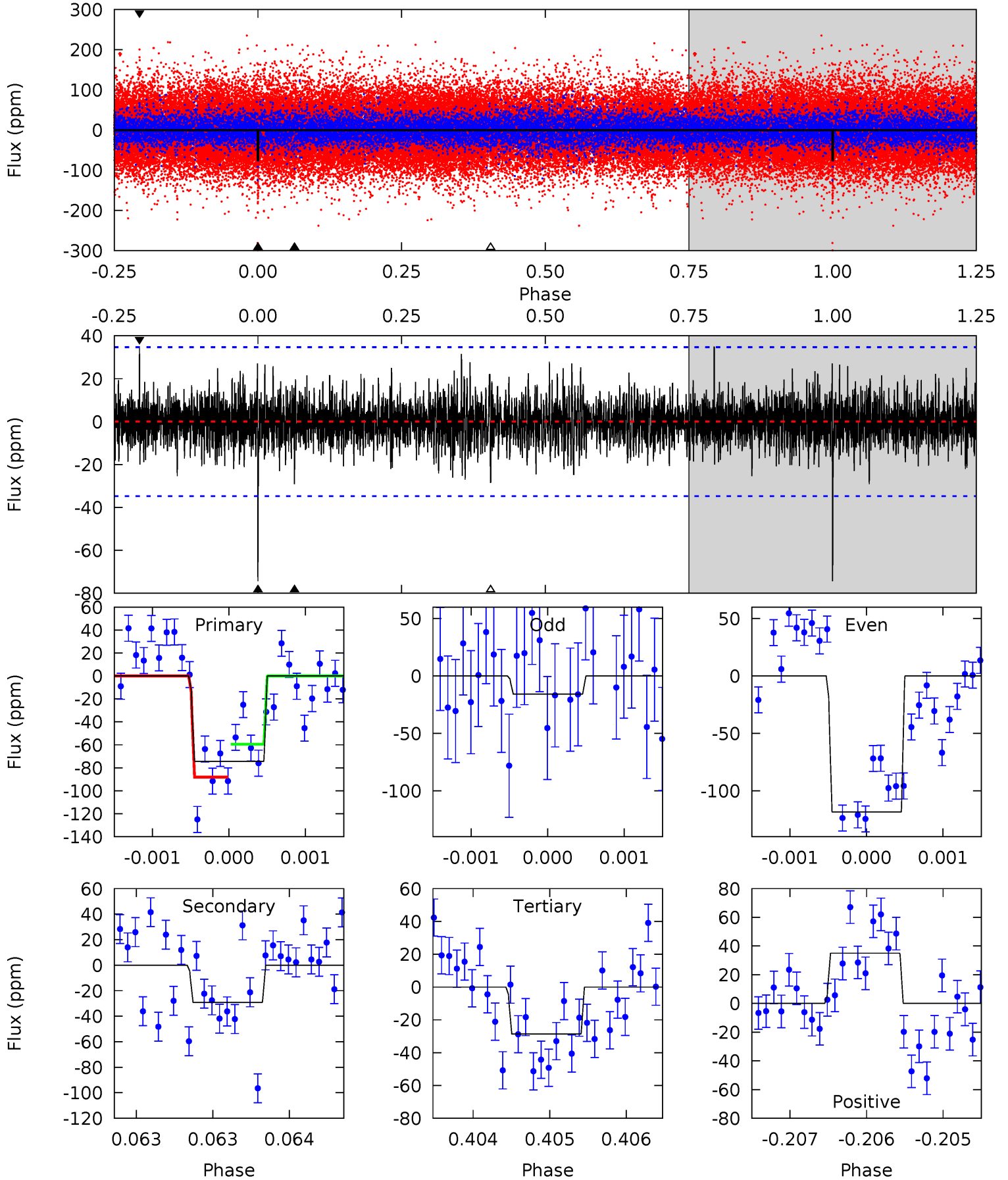
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	11.2	10.4	11.5	5.44	3.27	2.52	2.99	1.89	0.83	-0.27	5.28	1.02	0.46	2.32



Alt Model-Shift Uniqueness Test

010982380-01, $P = 515.988257$ Days, $E = 346.665310$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	4.58	4.49	5.51	5.47	3.31	1.22	7.21	6.18	0.09	-0.93	7.69	0.96	0.32	2.25



Stellar Parameters For KIC 010982380

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6505^{+129}_{-194}	$4.483^{+0.038}_{-0.152}$	$-0.500^{+0.300}_{-0.300}$	$0.975^{+0.206}_{-0.088}$	$1.054^{+0.101}_{-0.124}$	$1.604^{+0.314}_{-0.665}$
	+2%/-3%	+1%/-3%	+60%/-60%	+21%/-9%	+10%/-12%	+20%/-41%
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 010982380-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-72 ± 6	$1.20^{+0.24}_{-0.21}$	355^{+18}_{-14}	5717^{+549}_{-450}	44306^{+21335}_{-14288}
Alt.	-29 ± 6	$1.00^{+0.25}_{-0.23}$	356^{+17}_{-14}	5070^{+657}_{-487}	25215^{+20060}_{-10106}

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

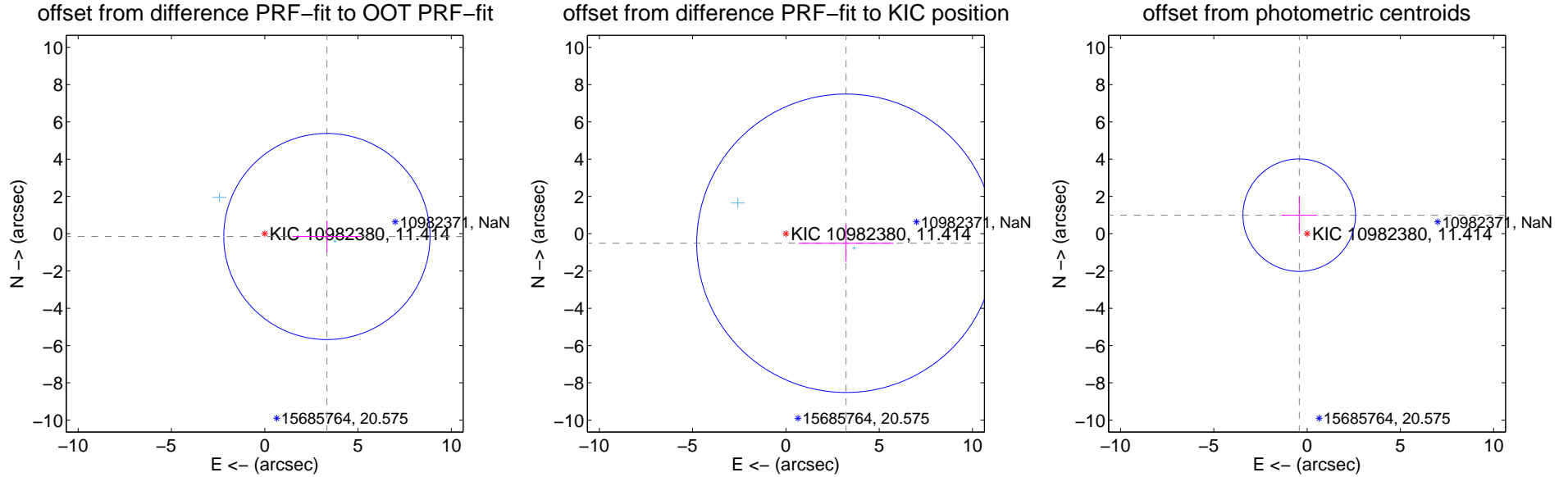
DV Centroid Data

Supplemental centroid analysis for 010982380-01. **Kepler magnitude: 11.41.** Transit SNR 10.34

There are 2 quarters with good PRF difference image offsets

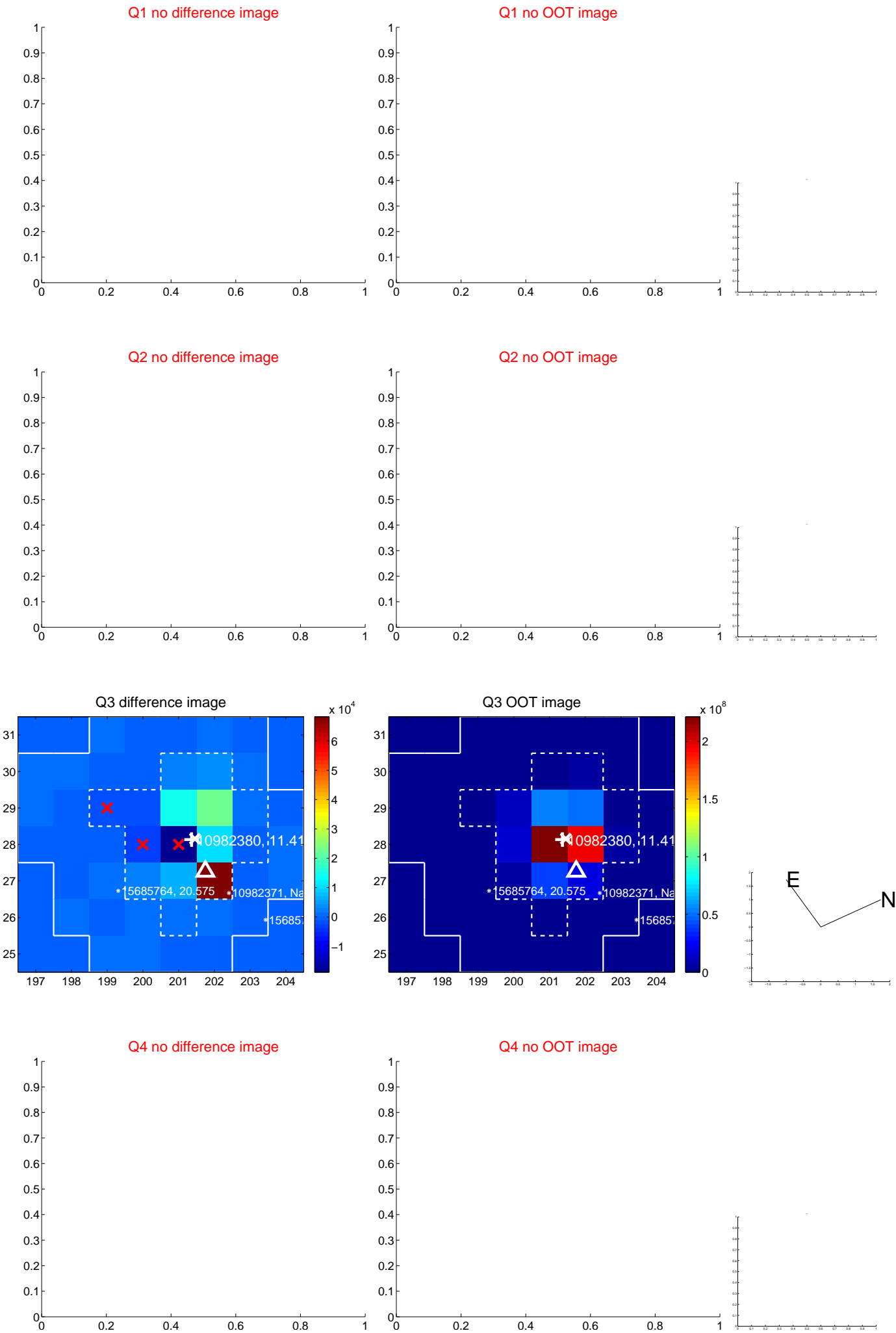
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.337 ± 1.843	1.81	-3.333 ± 1.844	-0.150 ± 0.851
PRF-fit source offset from KIC position	3.264 ± 2.668	1.22	-3.223 ± 2.545	-0.512 ± 0.990
photometric centroid source offset	1.08 ± 1.01	1.08	0.42 ± 0.96	1.00 ± 1.01



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.

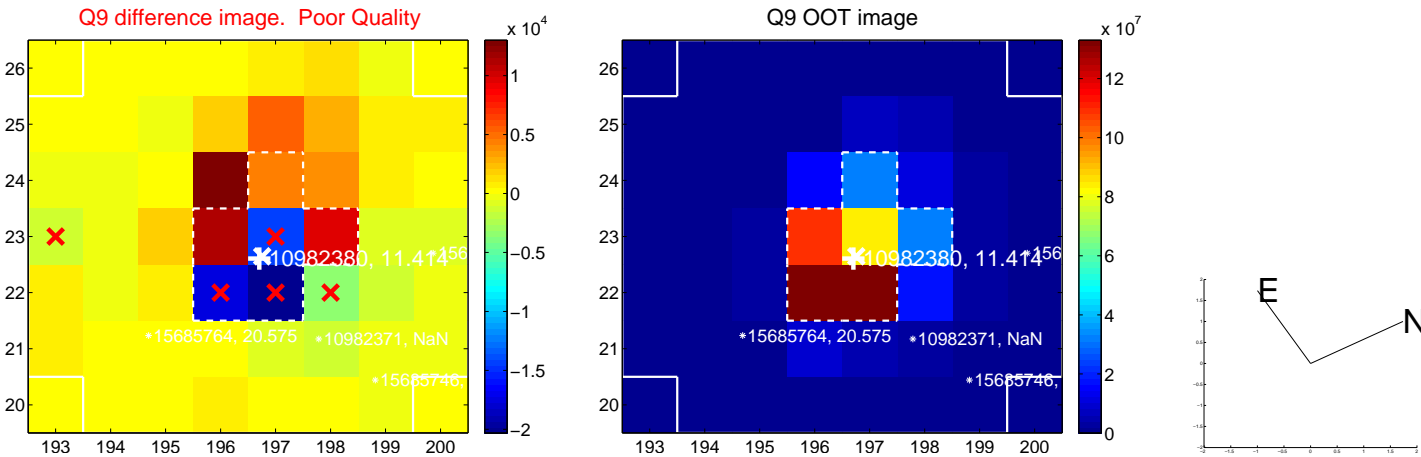
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



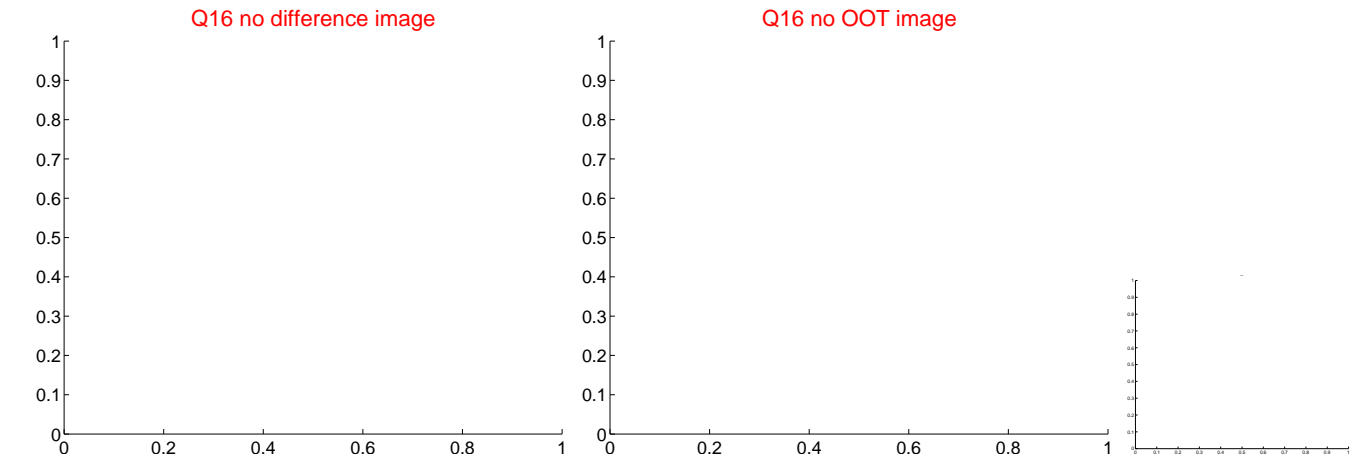
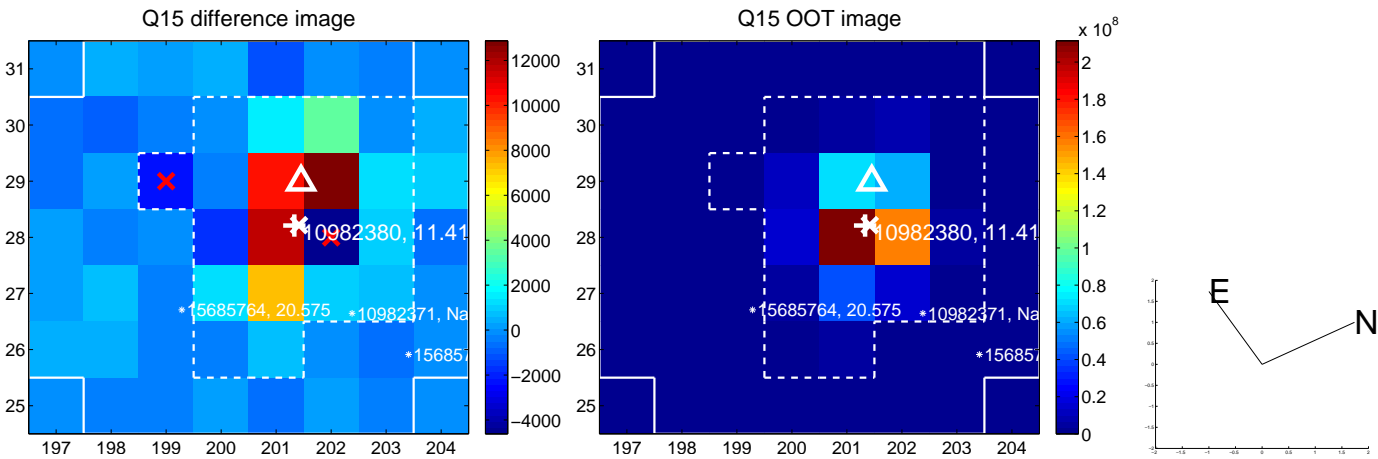
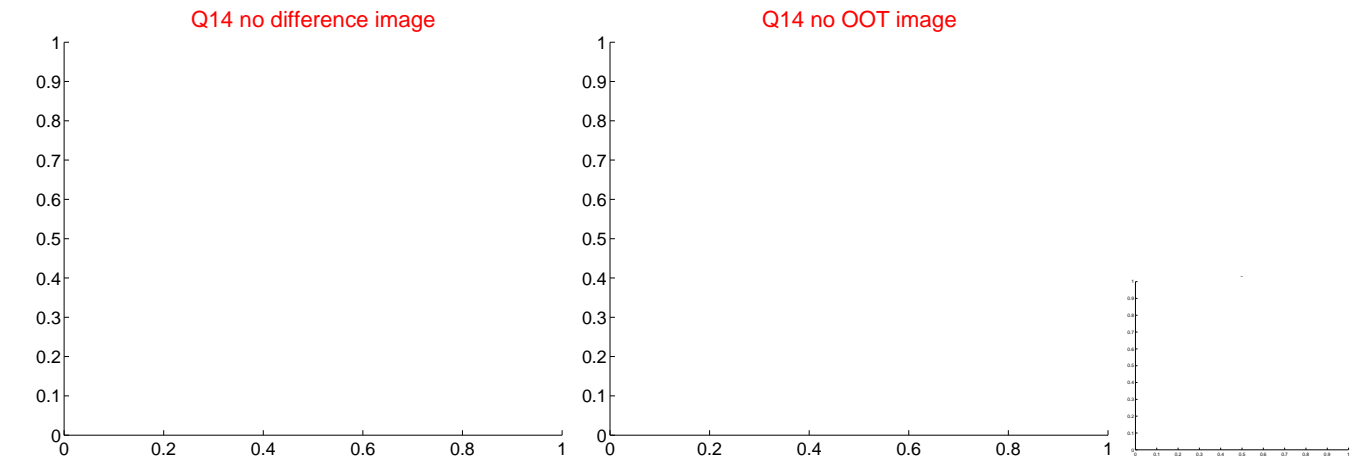
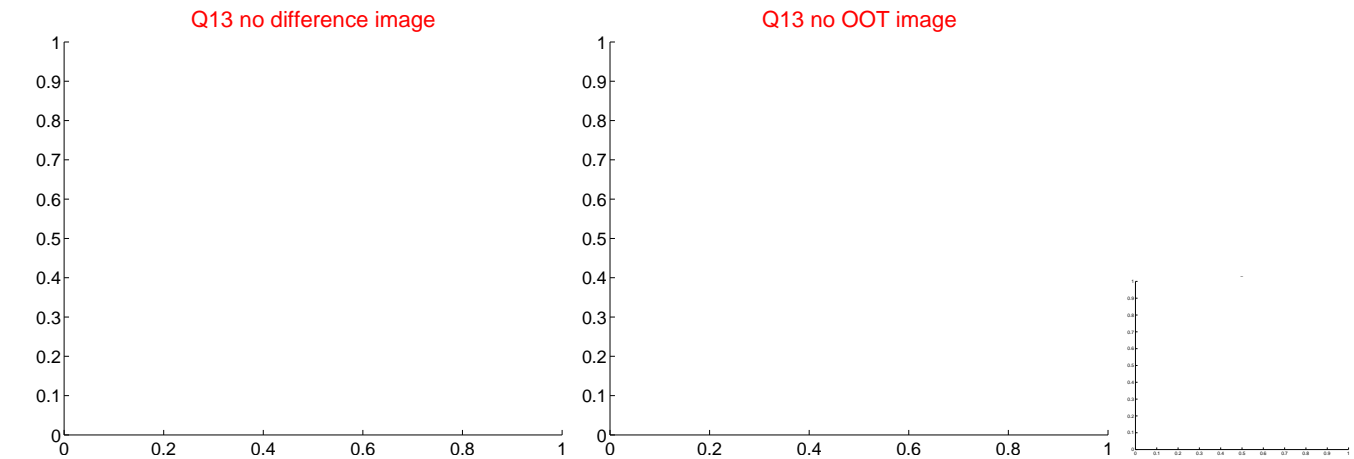
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



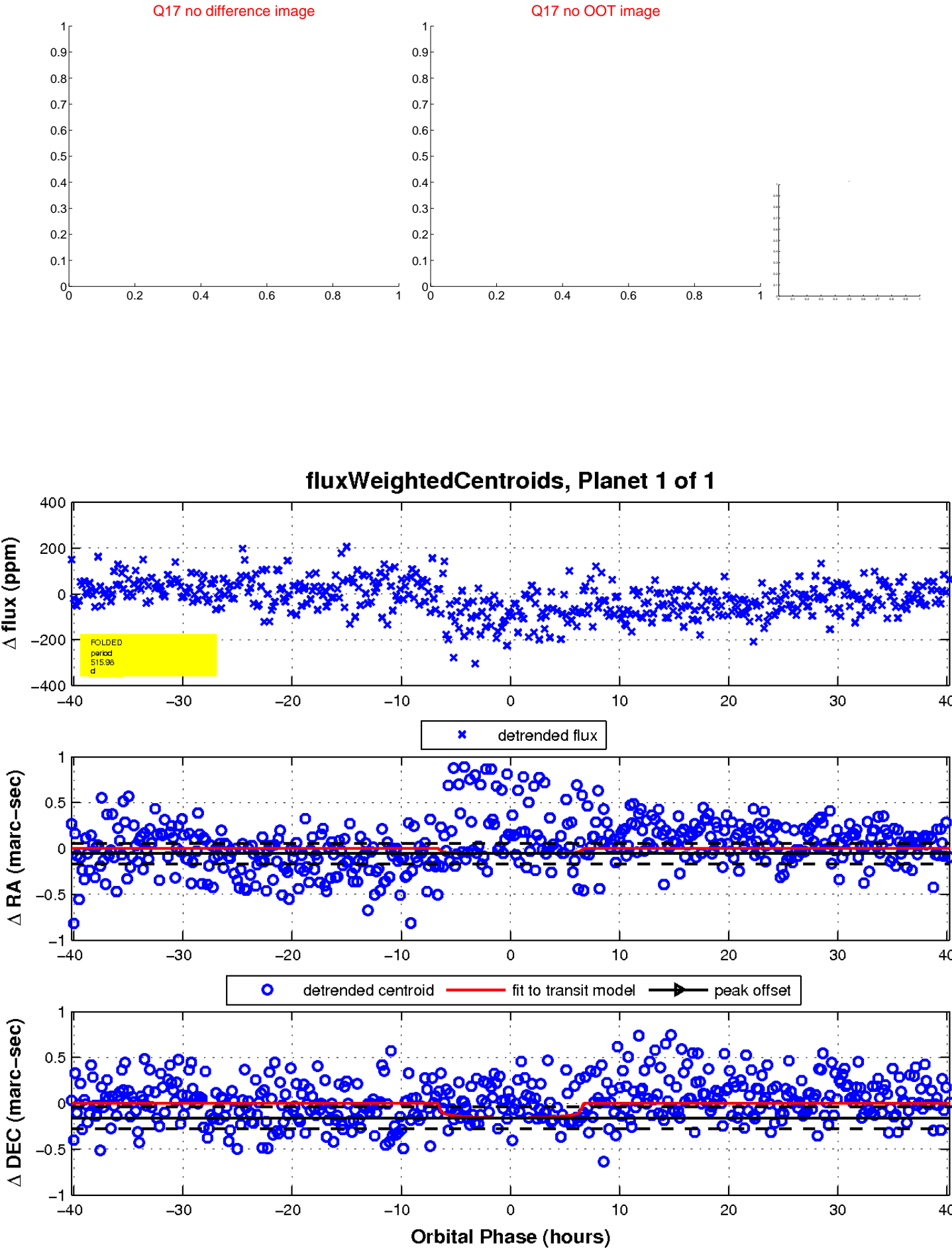
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UKIRT Image

