

KIC 006665570

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})
006665570-01	OBS	No	100.323163	218.195318	581.2	3.555	7.3	7.5	0.96	5949	2.51	5.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006665570-01	OBS	FP	0.01	1	0	0	0	INDIV_TRANS_SKYE_ZUMA—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

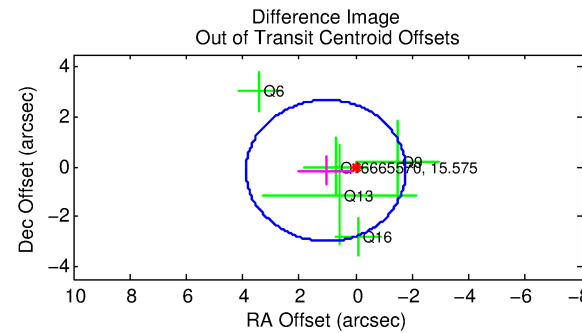
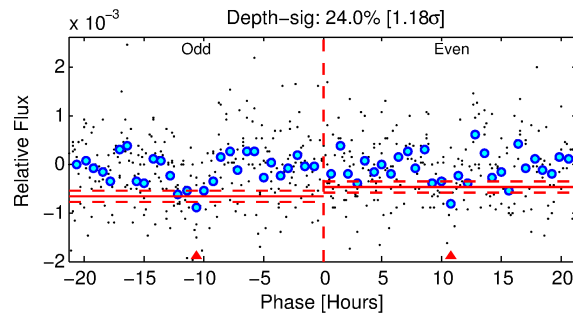
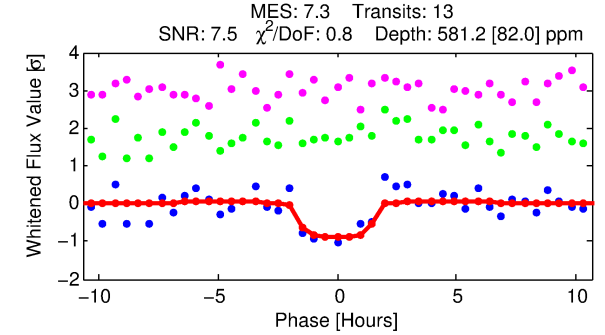
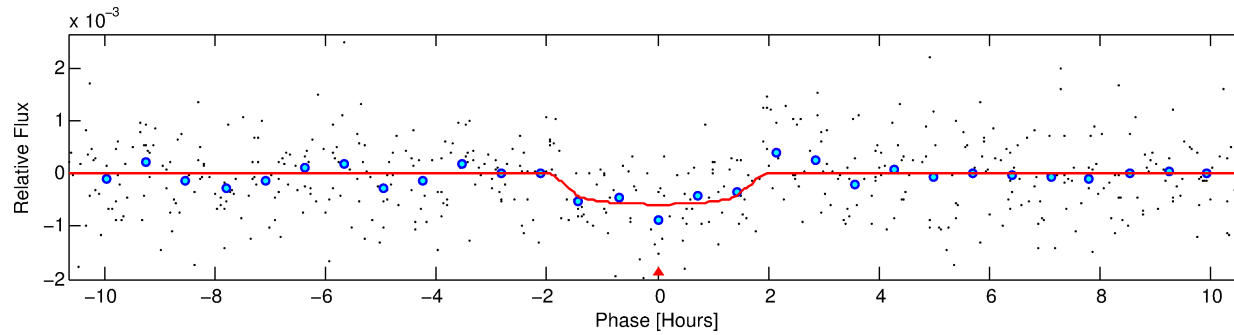
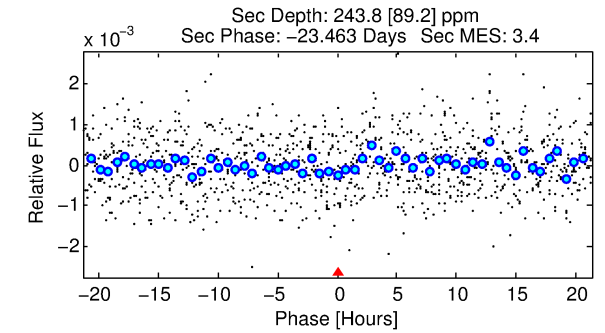
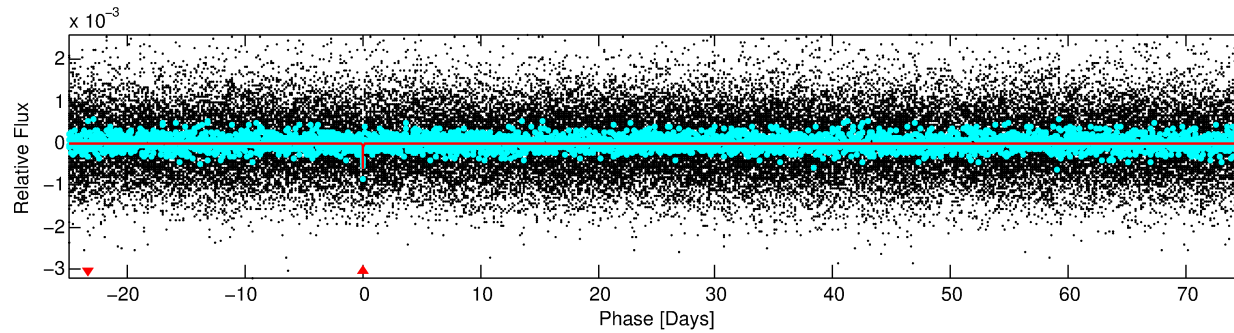
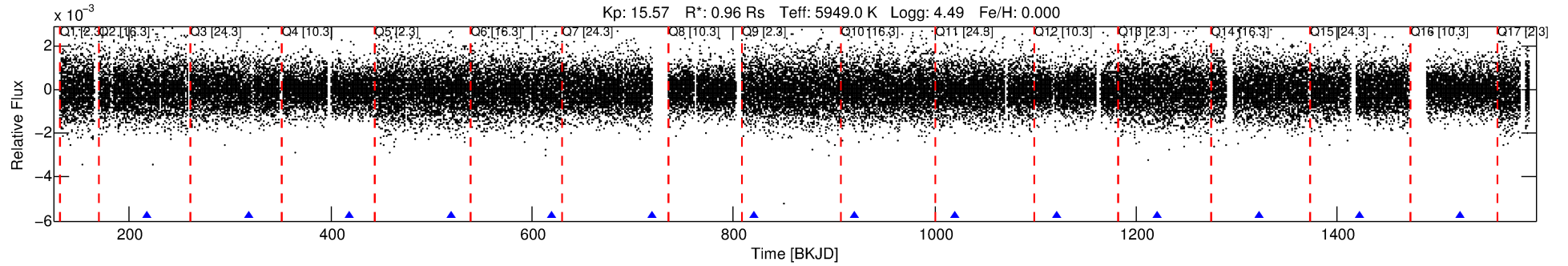
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006665570-01

No Significant Match Found

DV One-Page Summary

KIC: 6665570 Candidate: 1 of 1 Period: 100.323 d



DV Fit Results:

Period = 100.32316 [0.00139] d
Epoch = 218.1953 [0.0113] BKJD
Rp/R* = 0.0239 [0.0325]
a/R* = 152.95 [969.23]
b = 0.74 [3.94]
Seff = 5.63 [1.98]
Teq = 393 [35] K
Rp = 2.51 [3.47] Re
a = 0.4296 [0.0963] AU
Ag = 3933.11 [10862.71] [0.36σ]
Teffp = 4809 [3299] K [1.34σ]

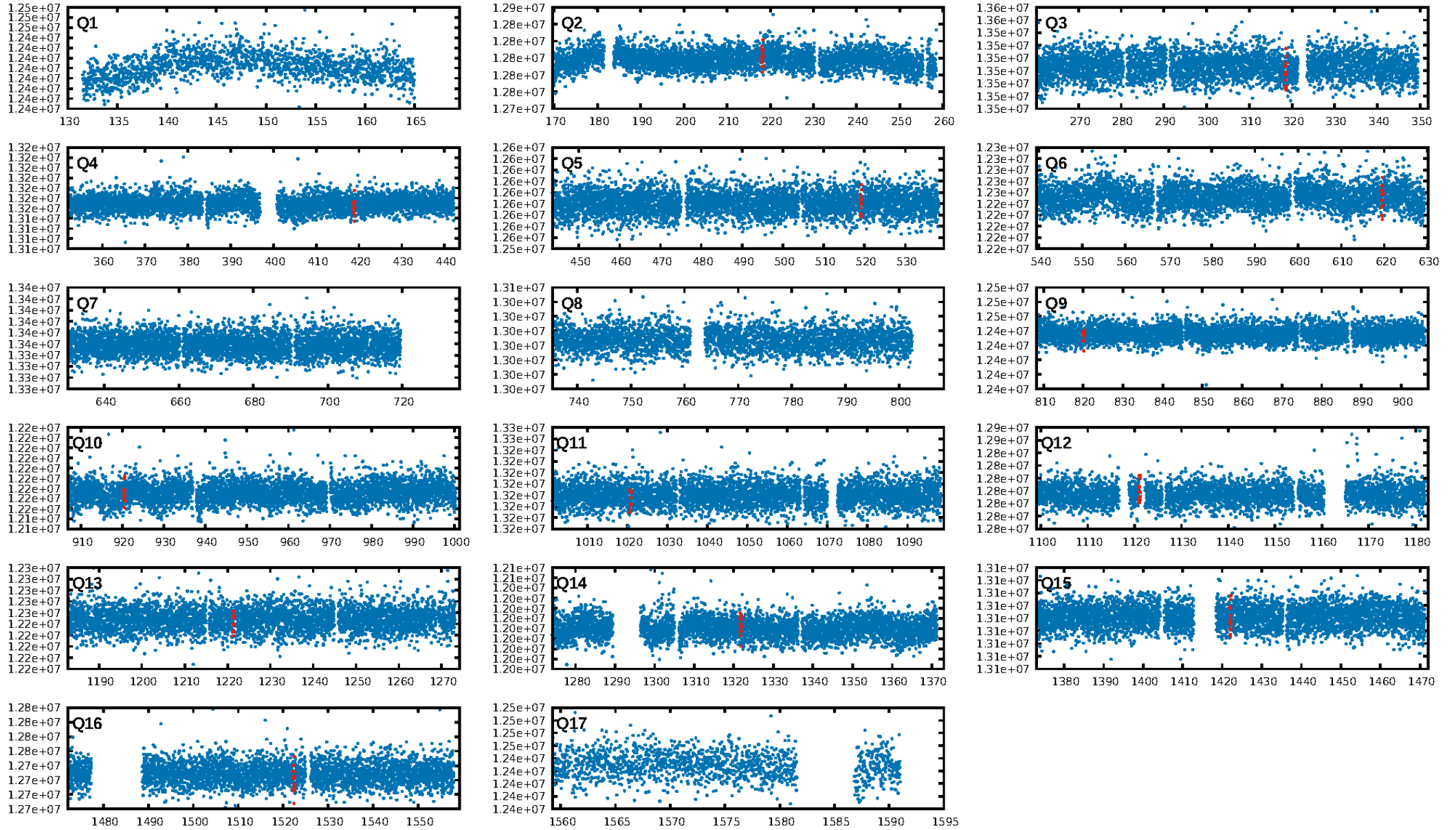
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 88.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.93e-13
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: 1.084
Centroid-sig: 78.6%
Centroid-so: 1.114 arcsec [0.53σ]
OotOffset-rm: 1.068 arcsec [1.13σ]
KicOffset-rm: 1.081 arcsec [1.08σ]
OotOffset-st: 1/0/2/2 [5]
KicOffset-st: 1/0/2/2 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 1.00 [12/12]

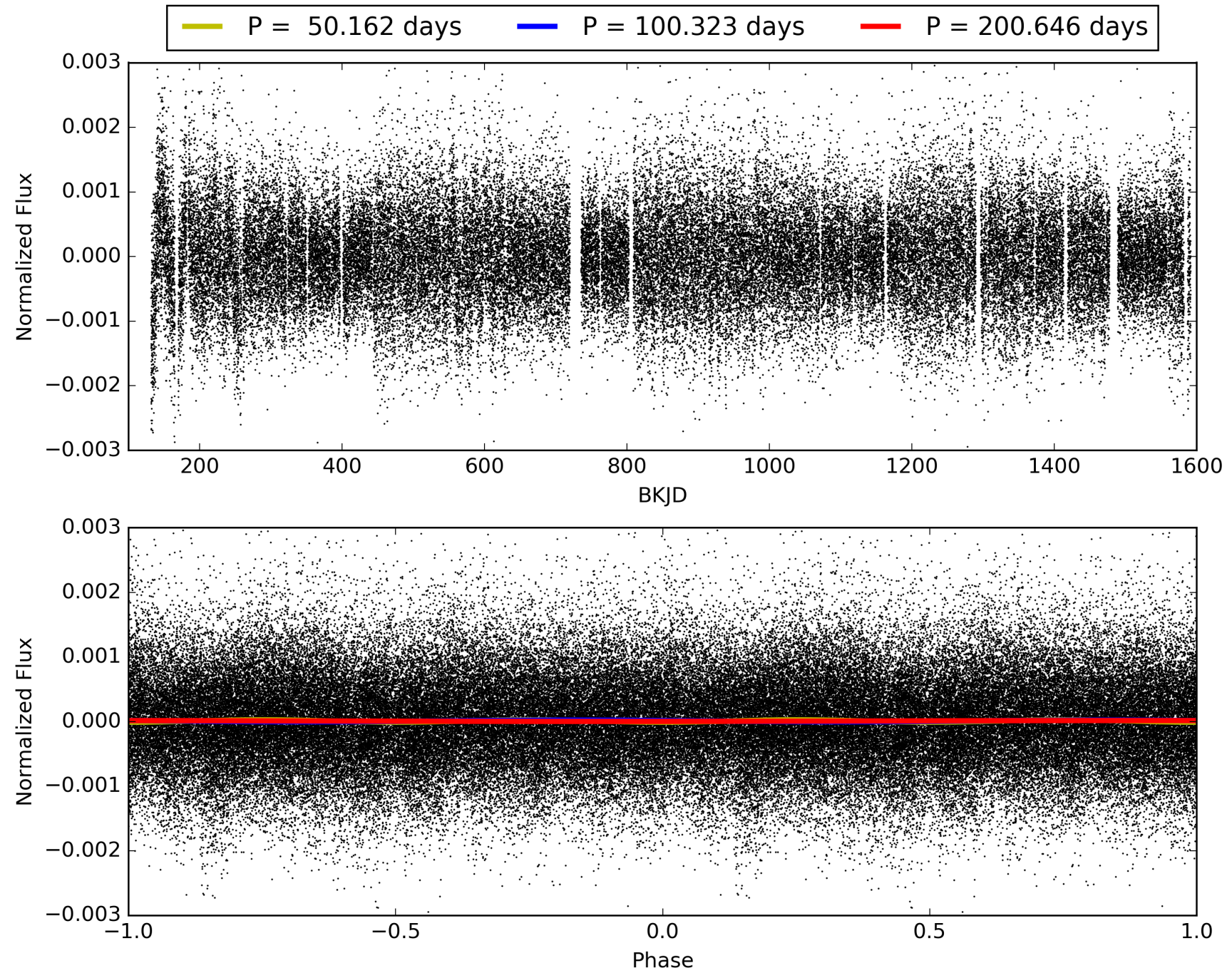
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 20:59:23 Z

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

TCE 006665570-01, PDC Light Curves

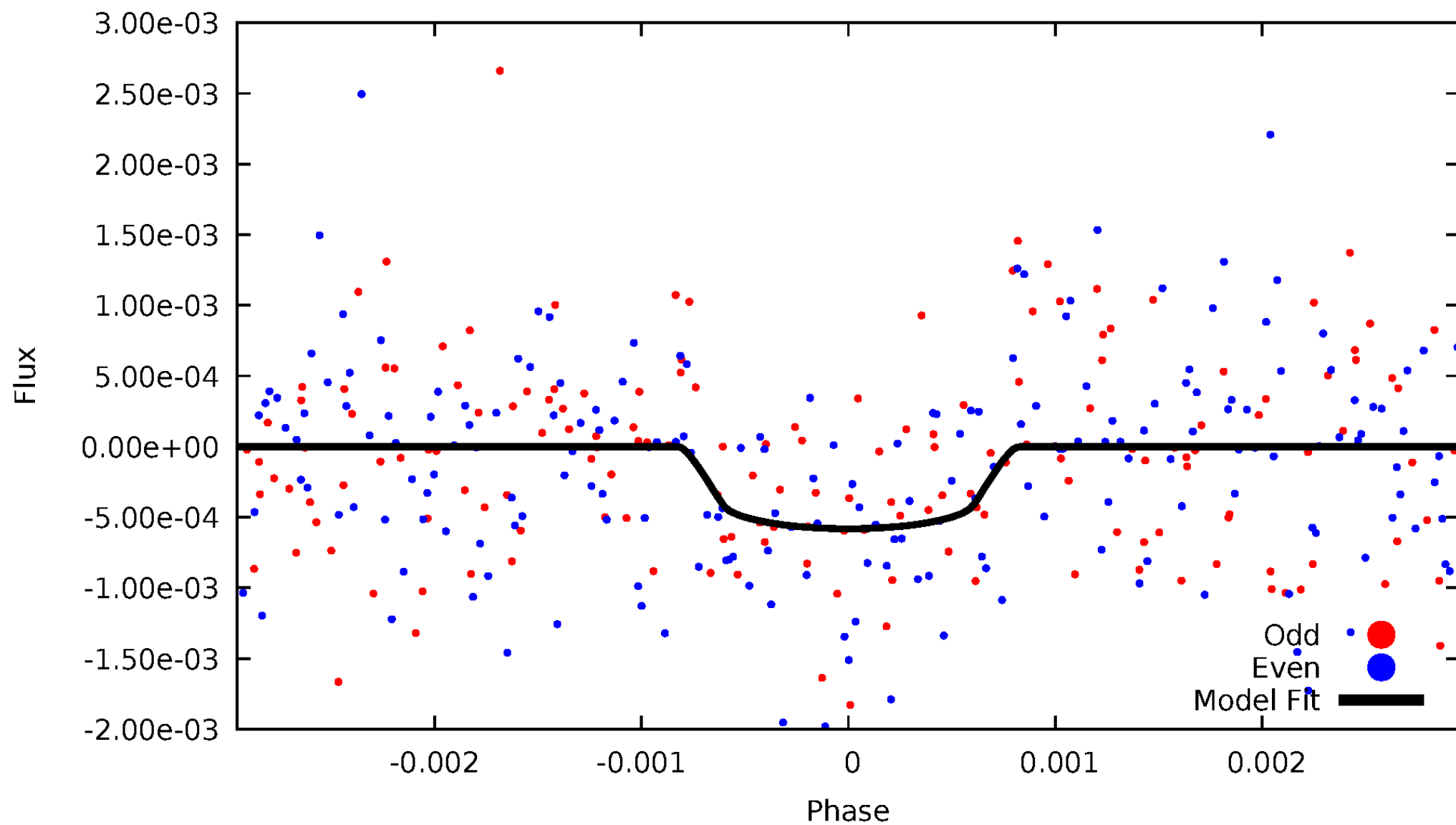


TCE 006665570-01



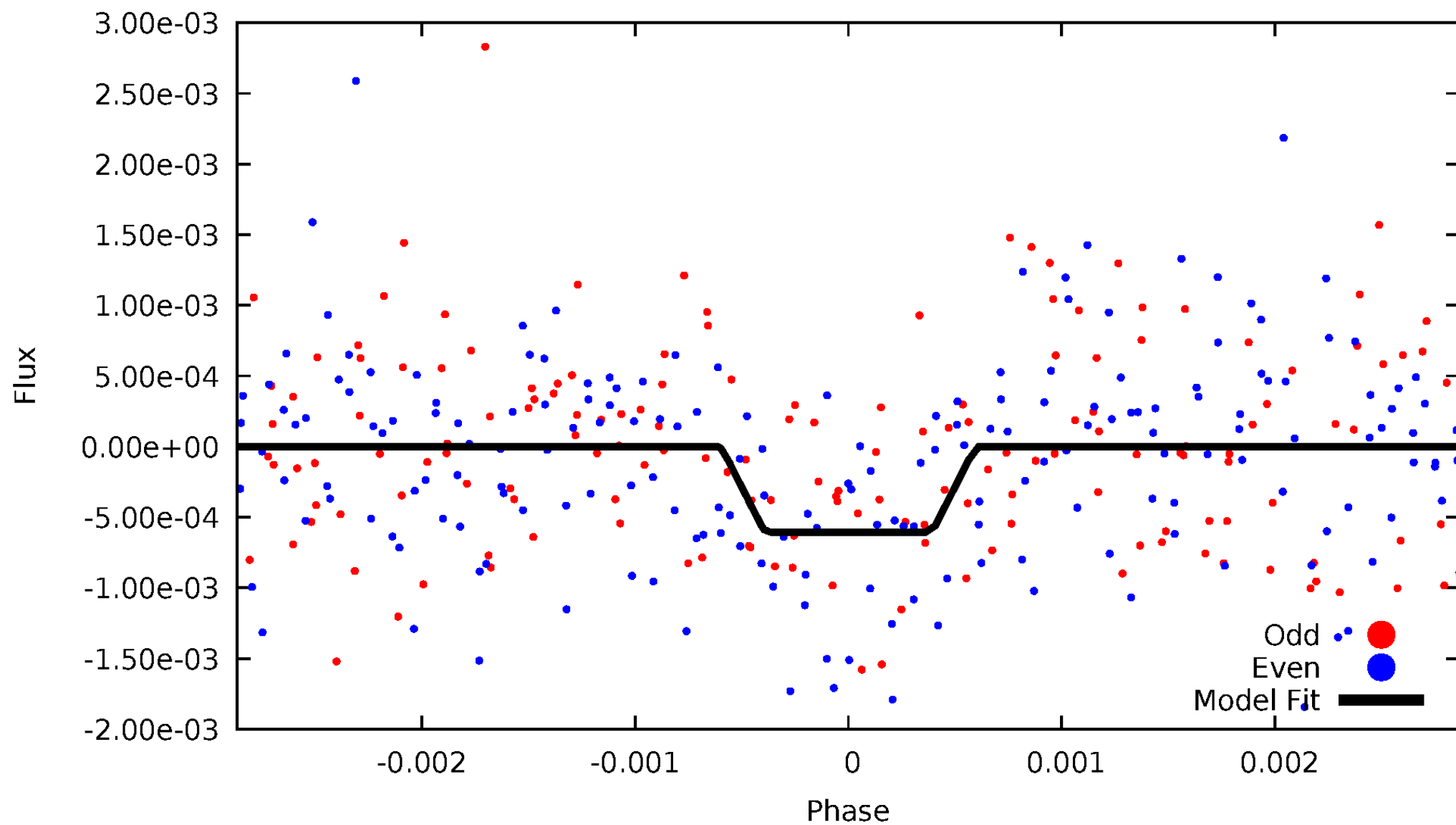
DV Odd/Even

TCE 006665570-01



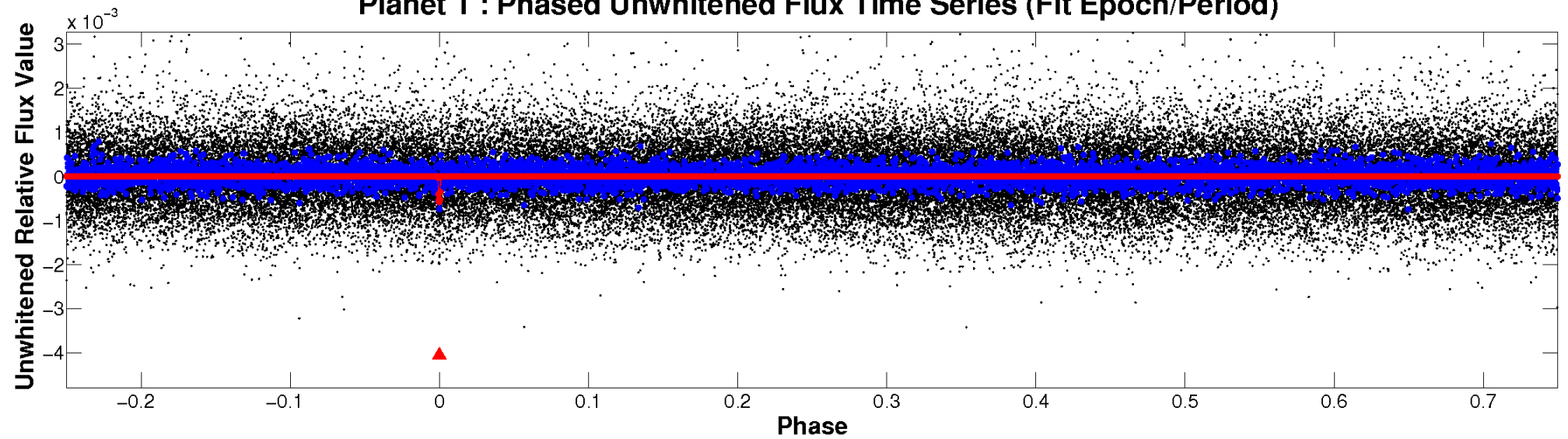
ALT Odd/Even

TCE 006665570-01

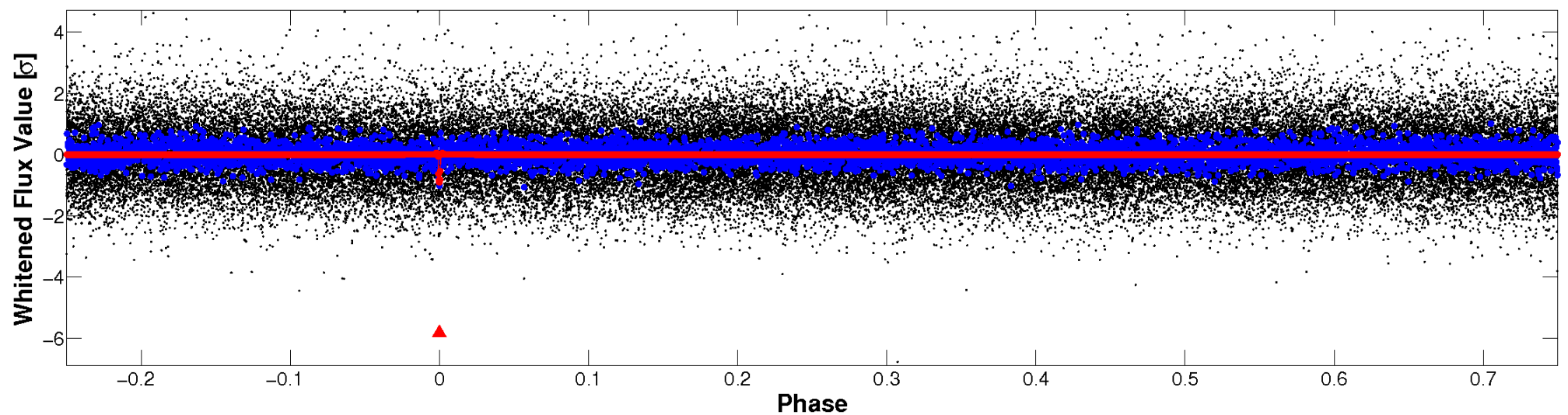


Non-Whitened Vs. Whitened Light Curve

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

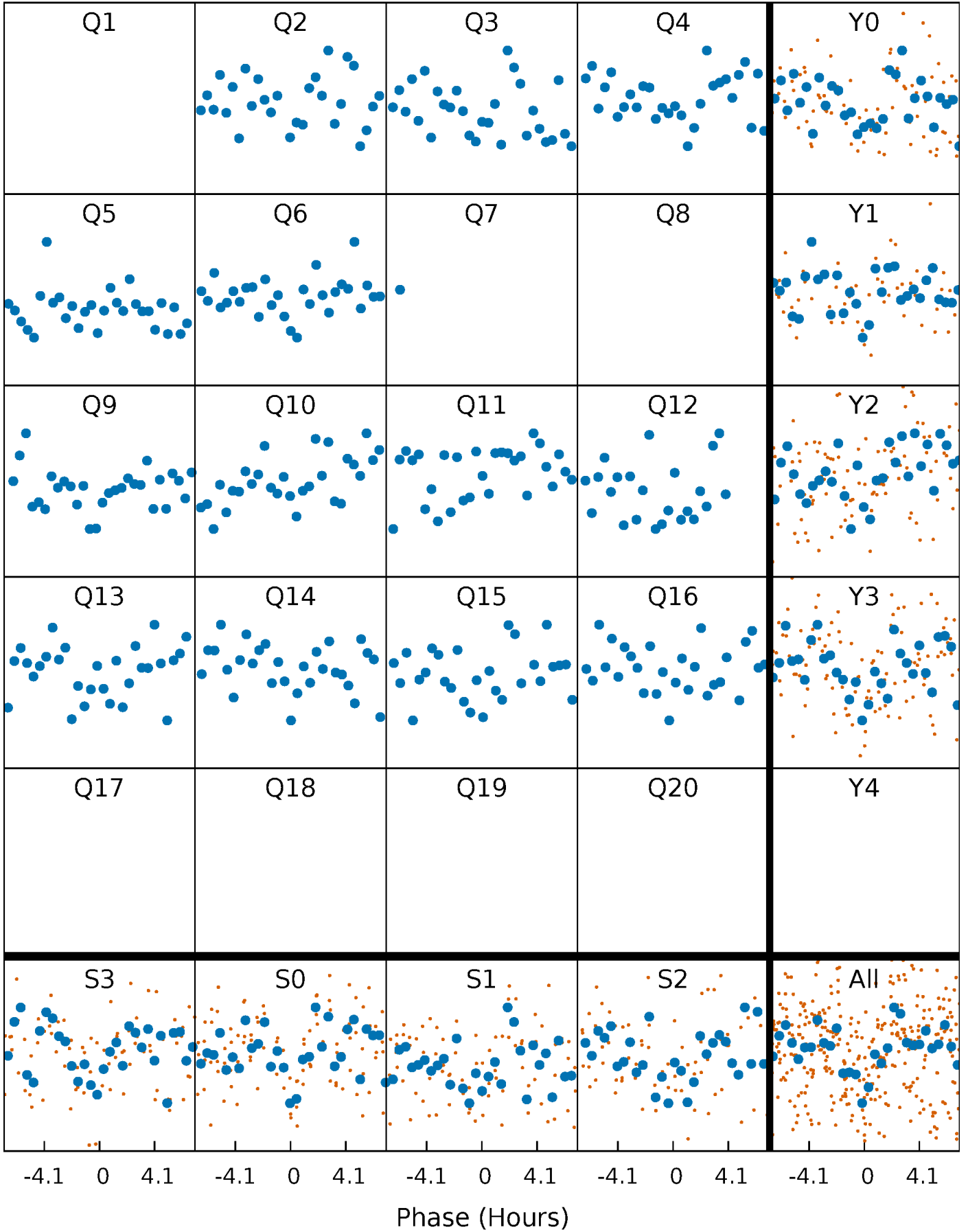


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



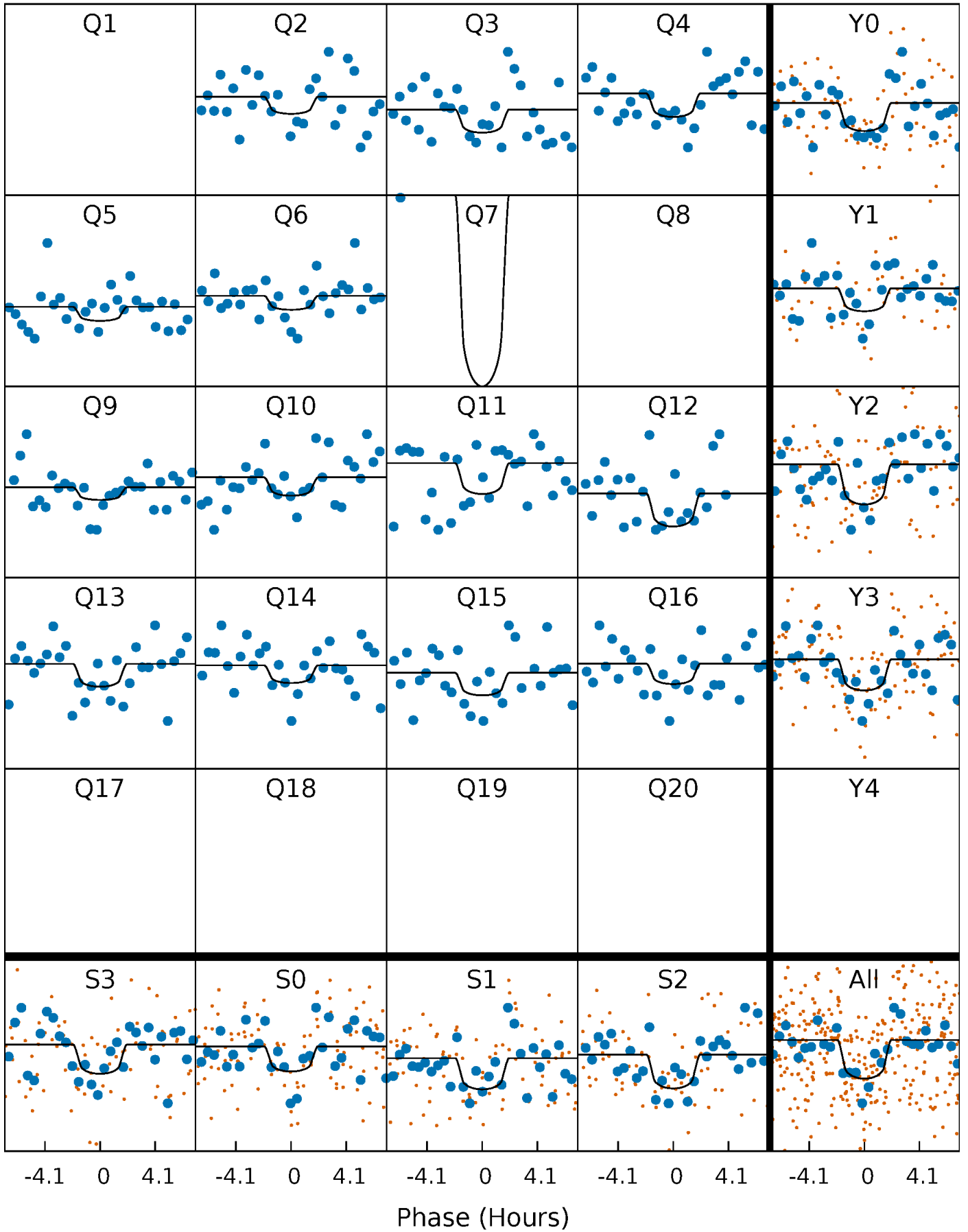
PDC Quarter-Phased Transit Curves

TCE 006665570-01 P=100.323163 Days $T_0=218.195318$ (BKJD)



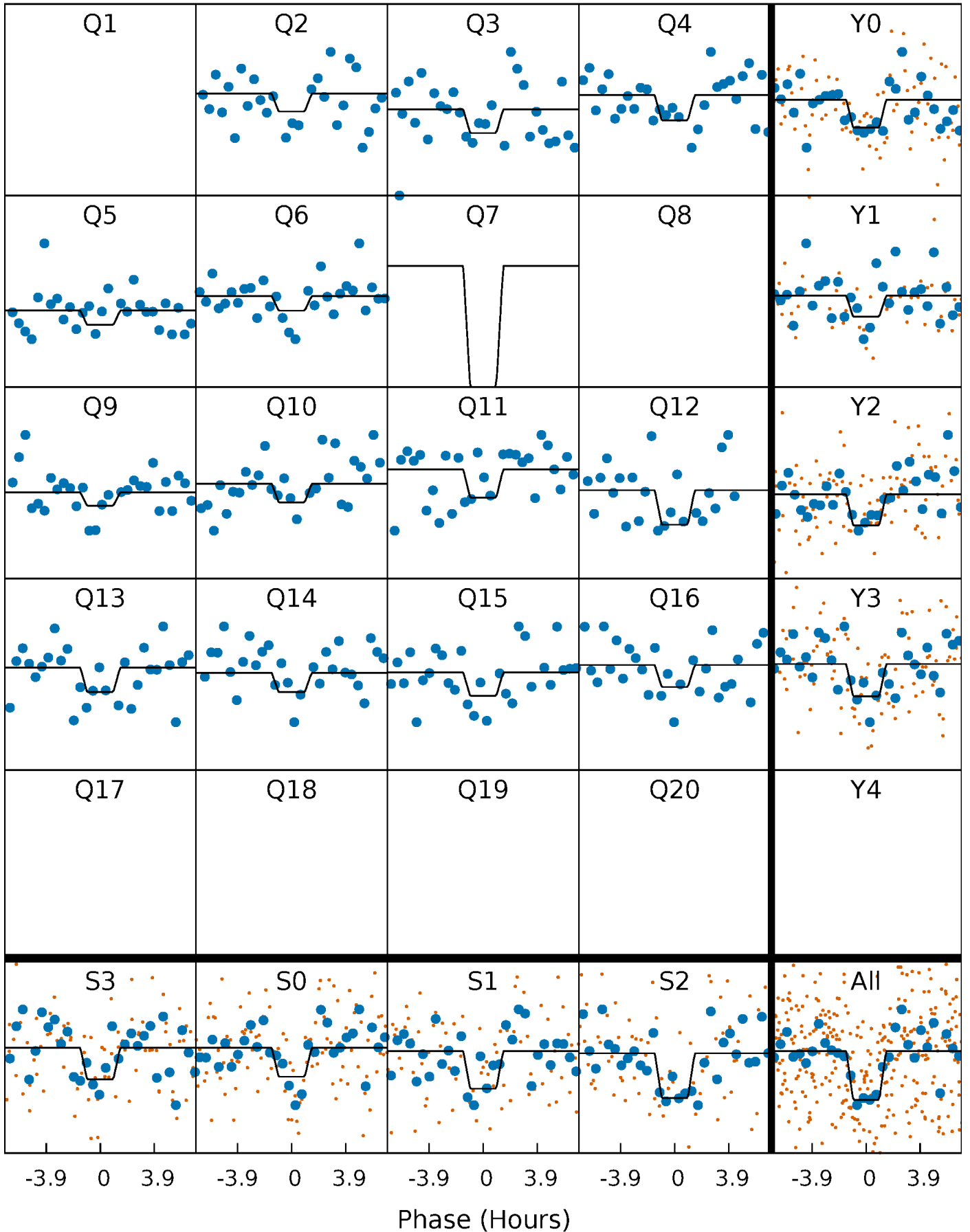
DV Quarter-Phased Transit Curves

TCE 006665570-01 P=100.323163 Days $T_0=218.195318$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

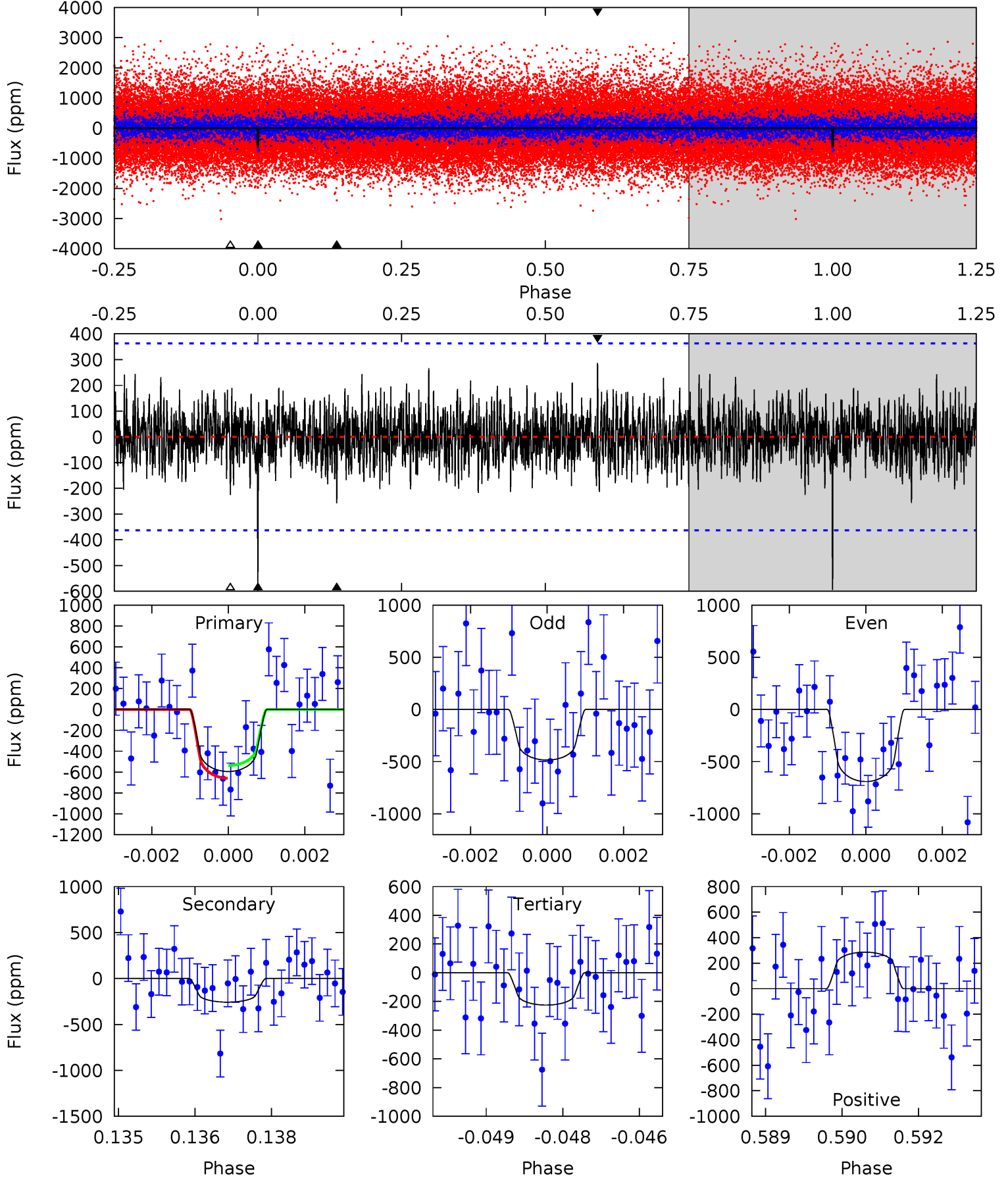
TCE 006665570-01 P=100.321058 Days $T_0=218.203614$ (BKJD)



DV Model-Shift Uniqueness Test

006665570-01, P = 100.323163 Days, E = 117.872155 Days

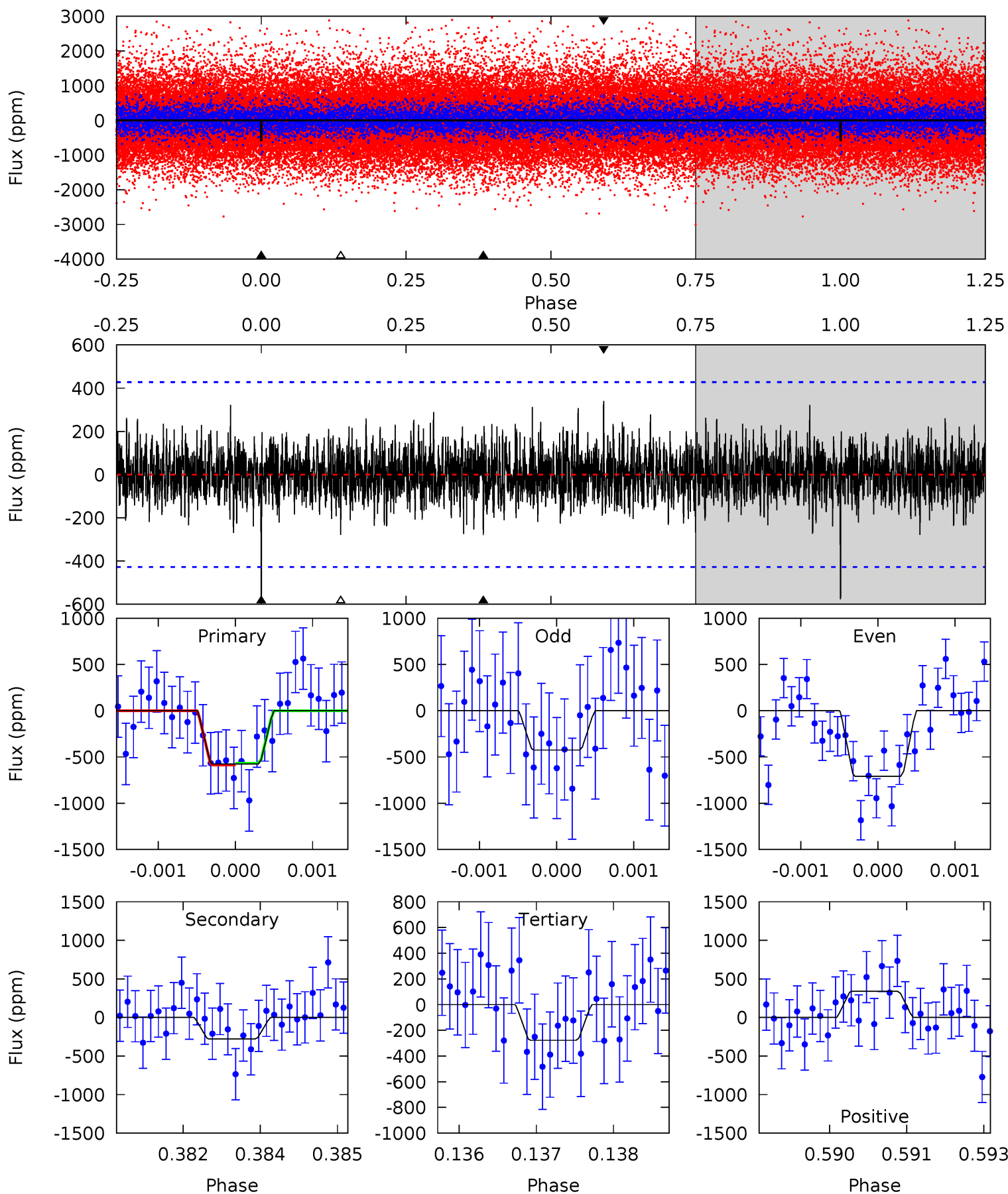
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.78	3.80	3.33	4.23	5.36	3.15	1.13	5.45	4.55	0.48	-0.43	1.52	0.89	0.33	0.90



Alt Model-Shift Uniqueness Test

006665570-01, P = 100.321058 Days, E = 117.882556 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.30	3.55	3.52	4.30	5.42	3.23	1.09	3.78	3.00	0.03	-0.75	1.79	1.00	0.37	0.11



Stellar Parameters For KIC 006665570

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5949^{+160}_{-177}	$4.493^{+0.046}_{-0.184}$	$0.000^{+0.250}_{-0.350}$	$0.962^{+0.251}_{-0.090}$	$1.050^{+0.118}_{-0.142}$	$1.663^{+0.404}_{-0.795}$
	+3%/-3%	+1%/-4%	+inf%/-inf%	+26%/-9%	+11%/-14%	+24%/-48%
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 006665570-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-257 ± 68	$3.75^{+3.11}_{-2.32}$	561^{+35}_{-24}	4313^{+2373}_{-850}	1745^{+11864}_{-1235}
Alt.	-280 ± 79	$3.76^{+3.19}_{-2.44}$	560^{+33}_{-25}	4352^{+2508}_{-848}	1890^{+12691}_{-1349}

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 $A_{obs} \gg 1.0$

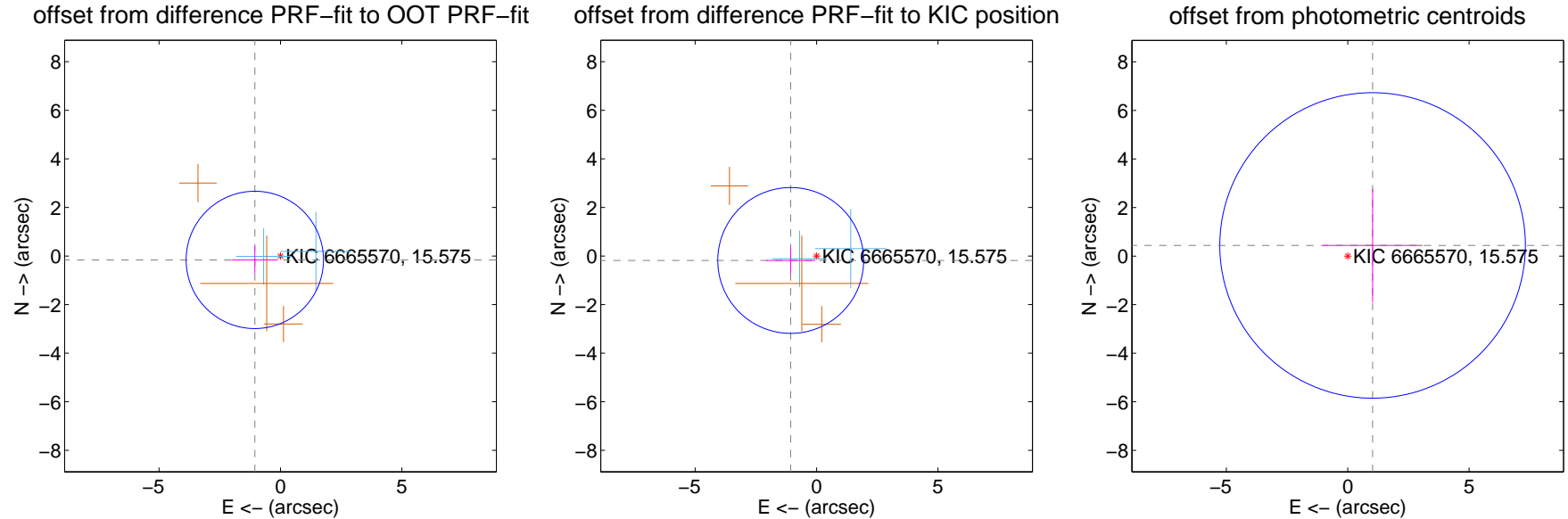
DV Centroid Data

Supplemental centroid analysis for 006665570-01. Kepler magnitude: 15.57. Transit SNR 7.52

There are 2 quarters with good PRF difference image offsets

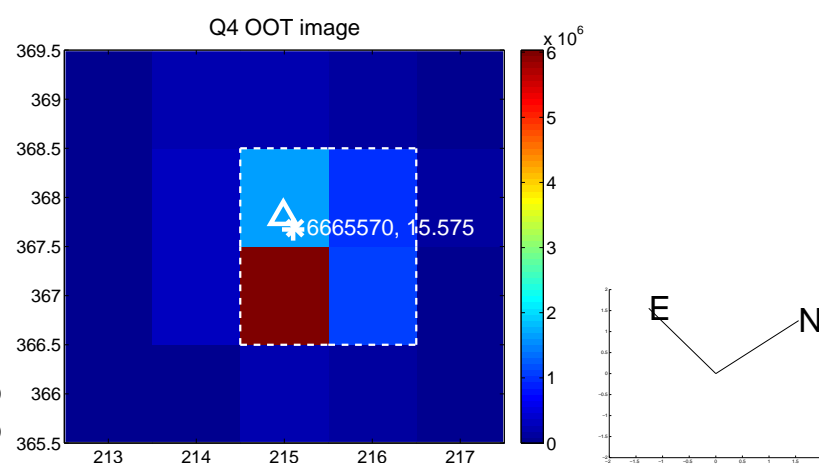
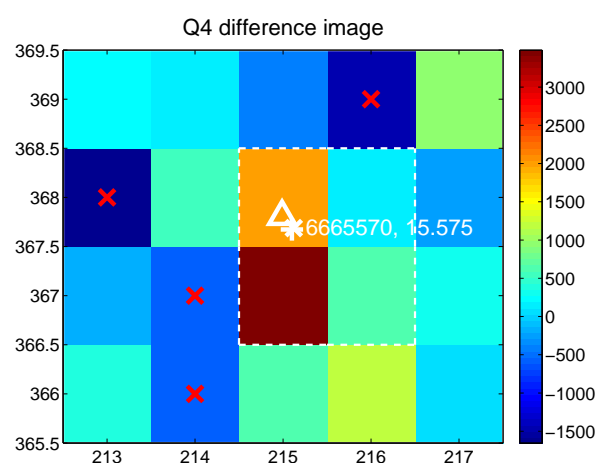
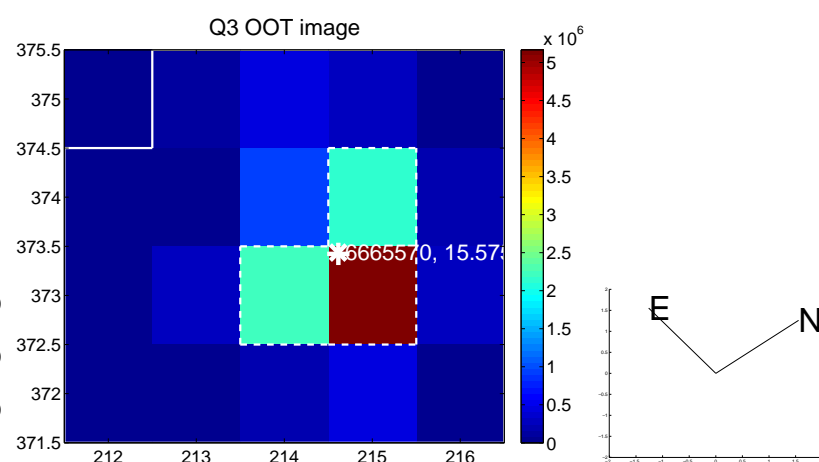
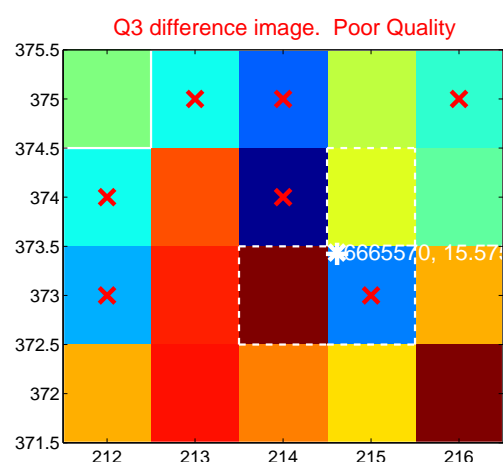
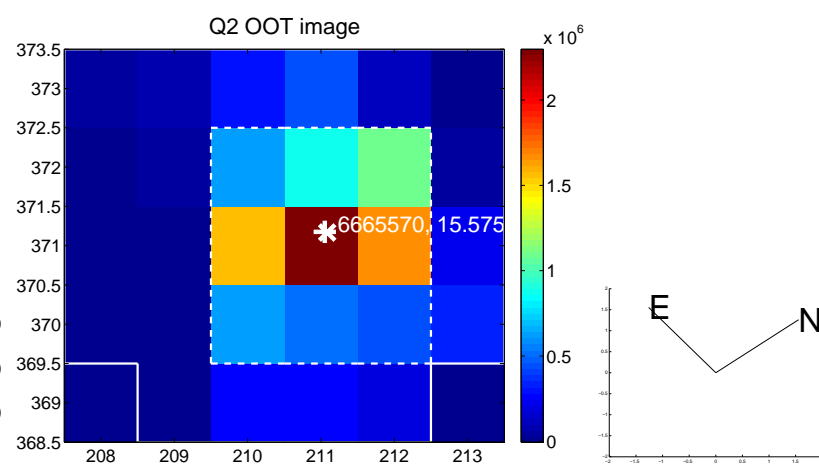
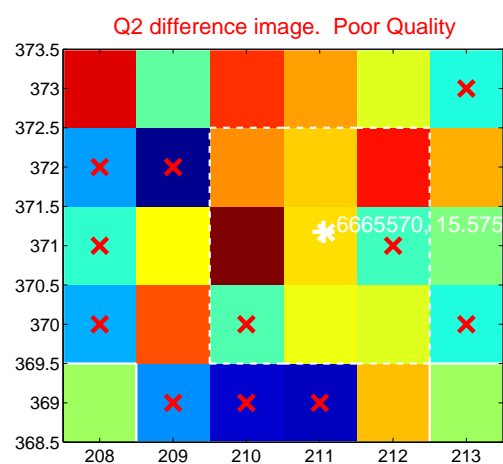
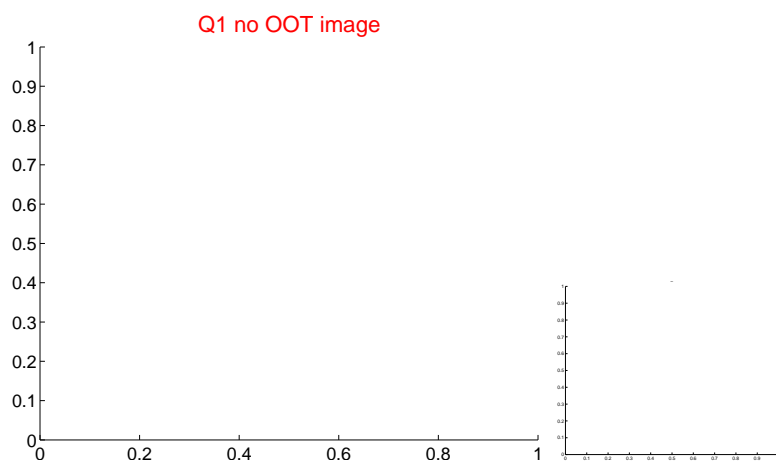
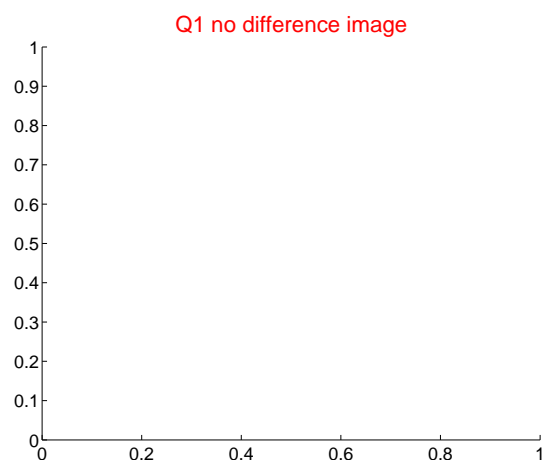
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.068 ± 0.942	1.13	1.056 ± 0.949	-0.160 ± 0.554
PRF-fit source offset from KIC position	1.081 ± 1.001	1.08	1.065 ± 1.011	-0.183 ± 0.550
photometric centroid source offset	1.11 ± 2.10	0.53	-1.02 ± 2.05	0.44 ± 2.34

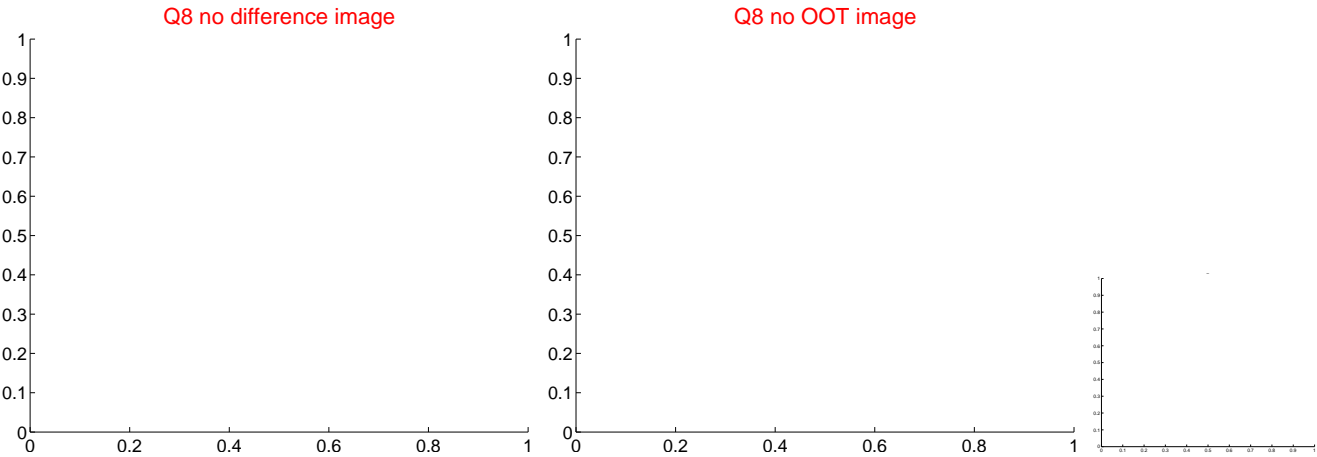
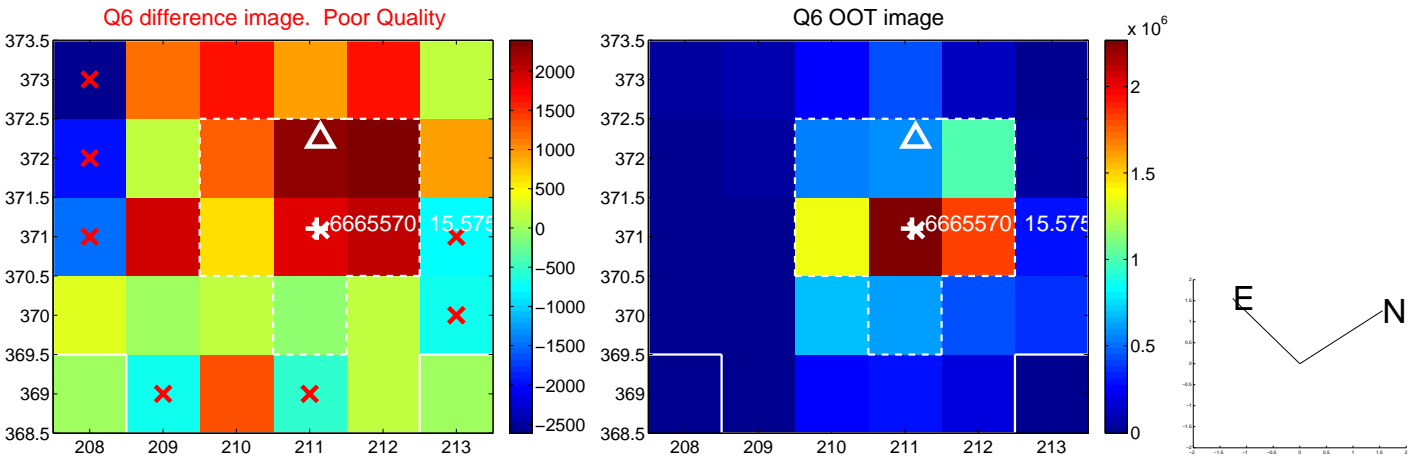
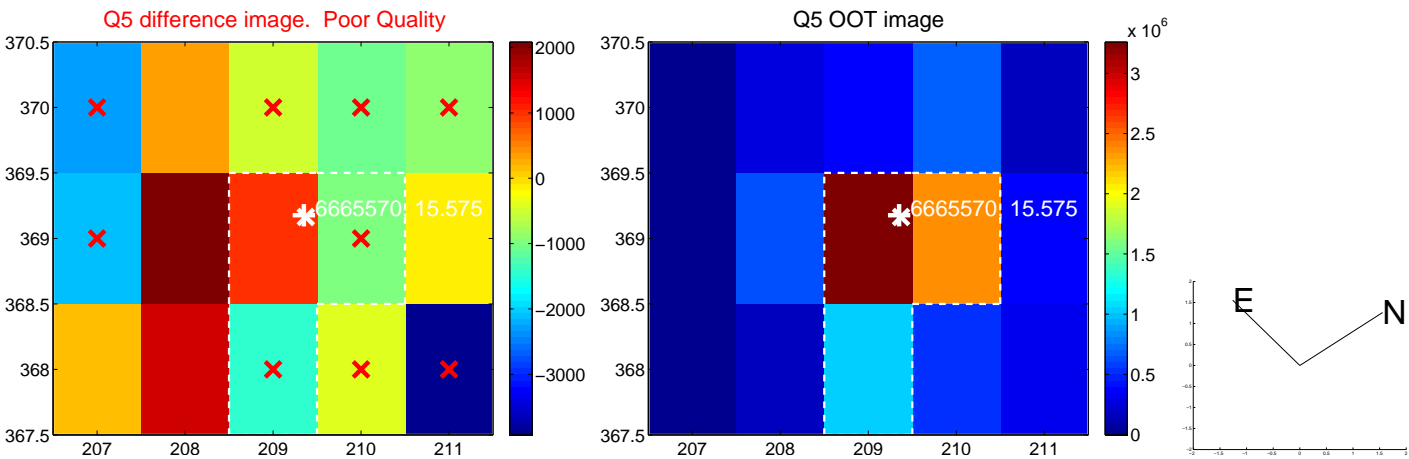


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

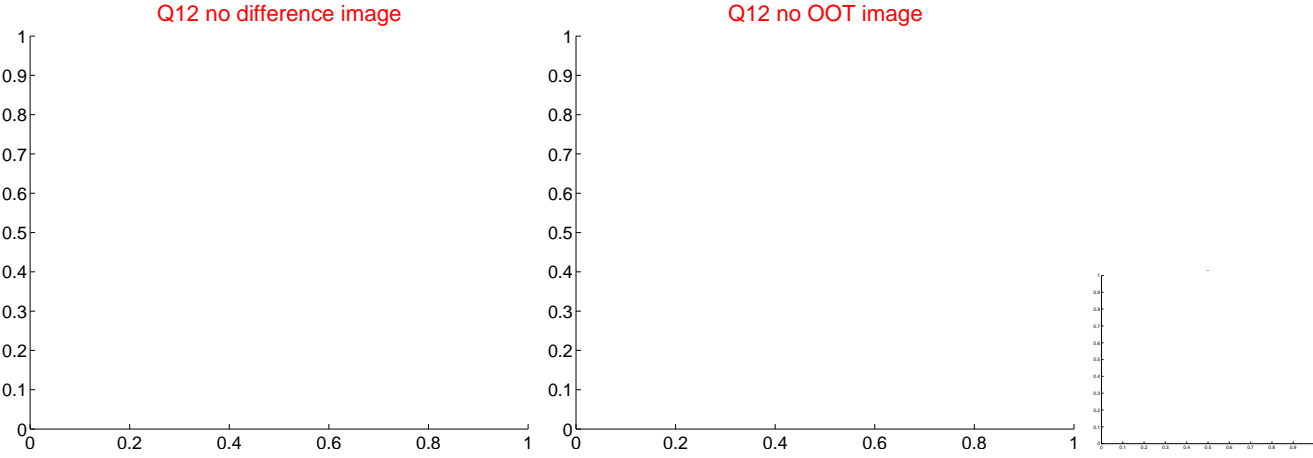
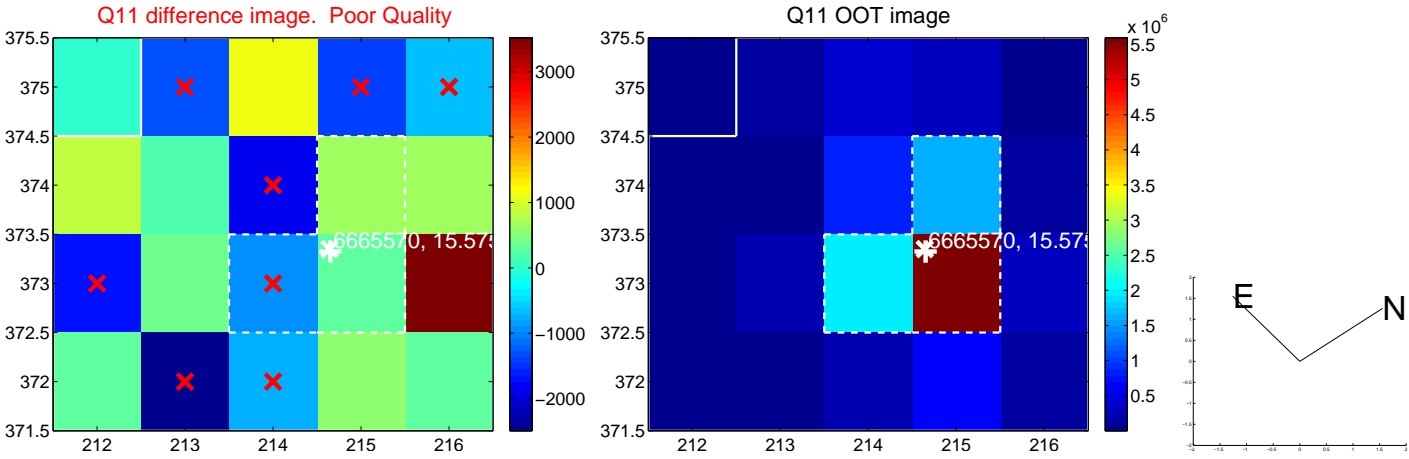
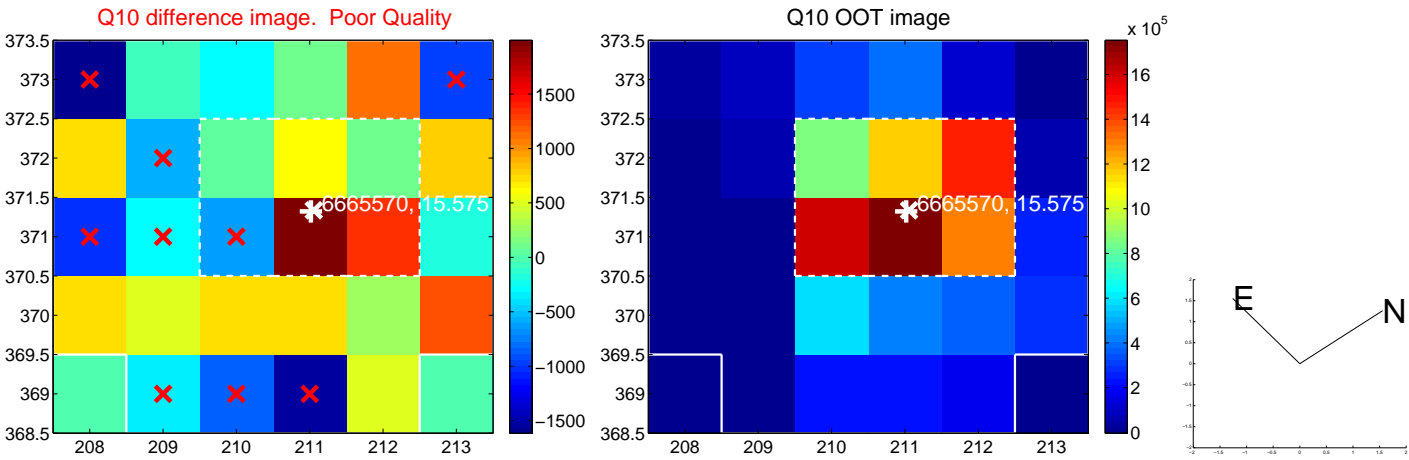
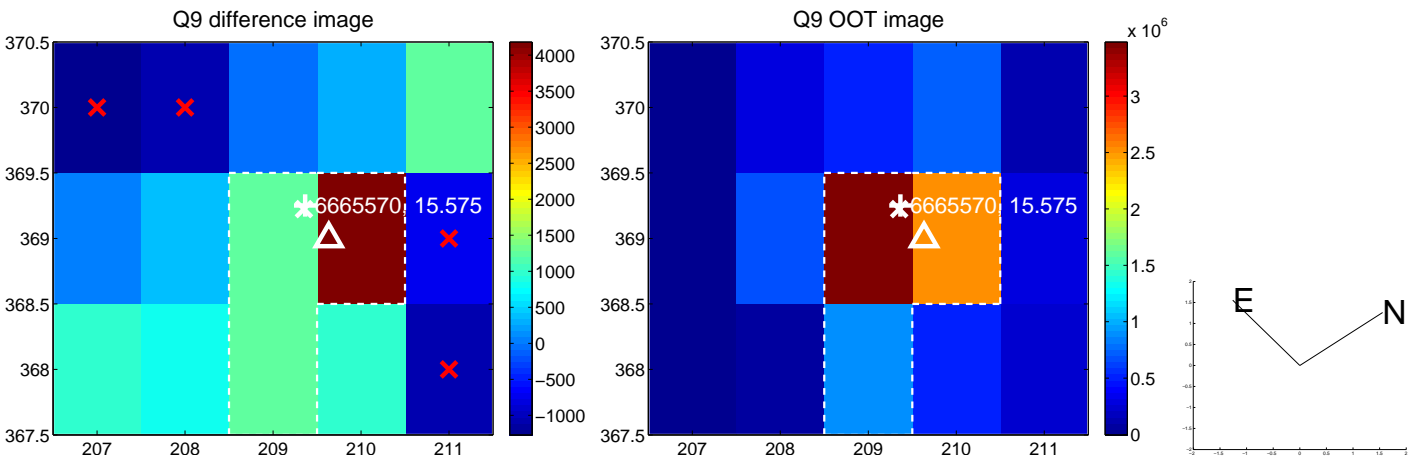
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



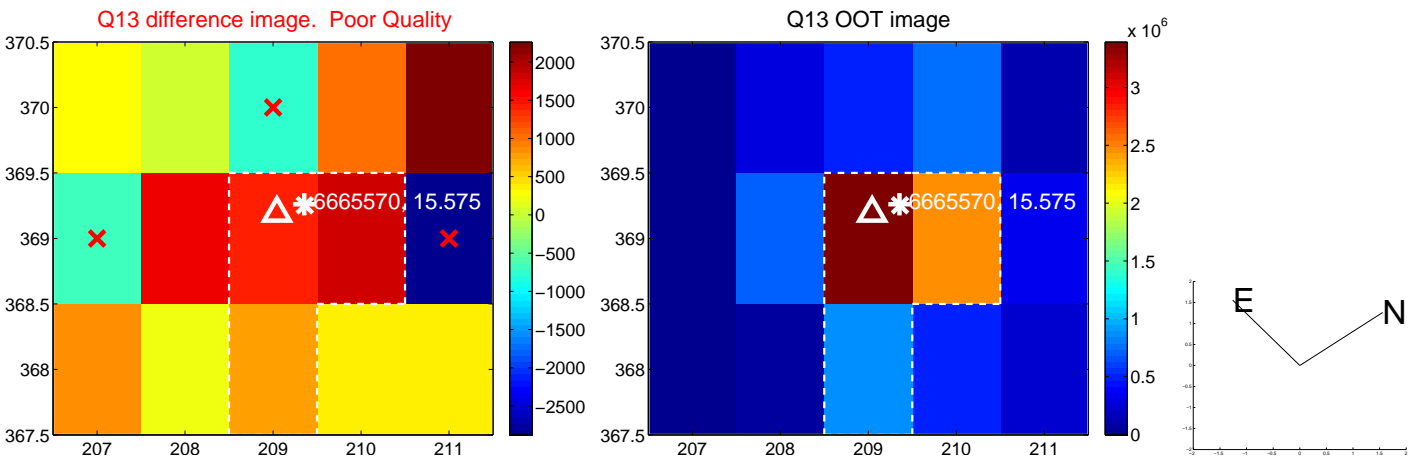
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



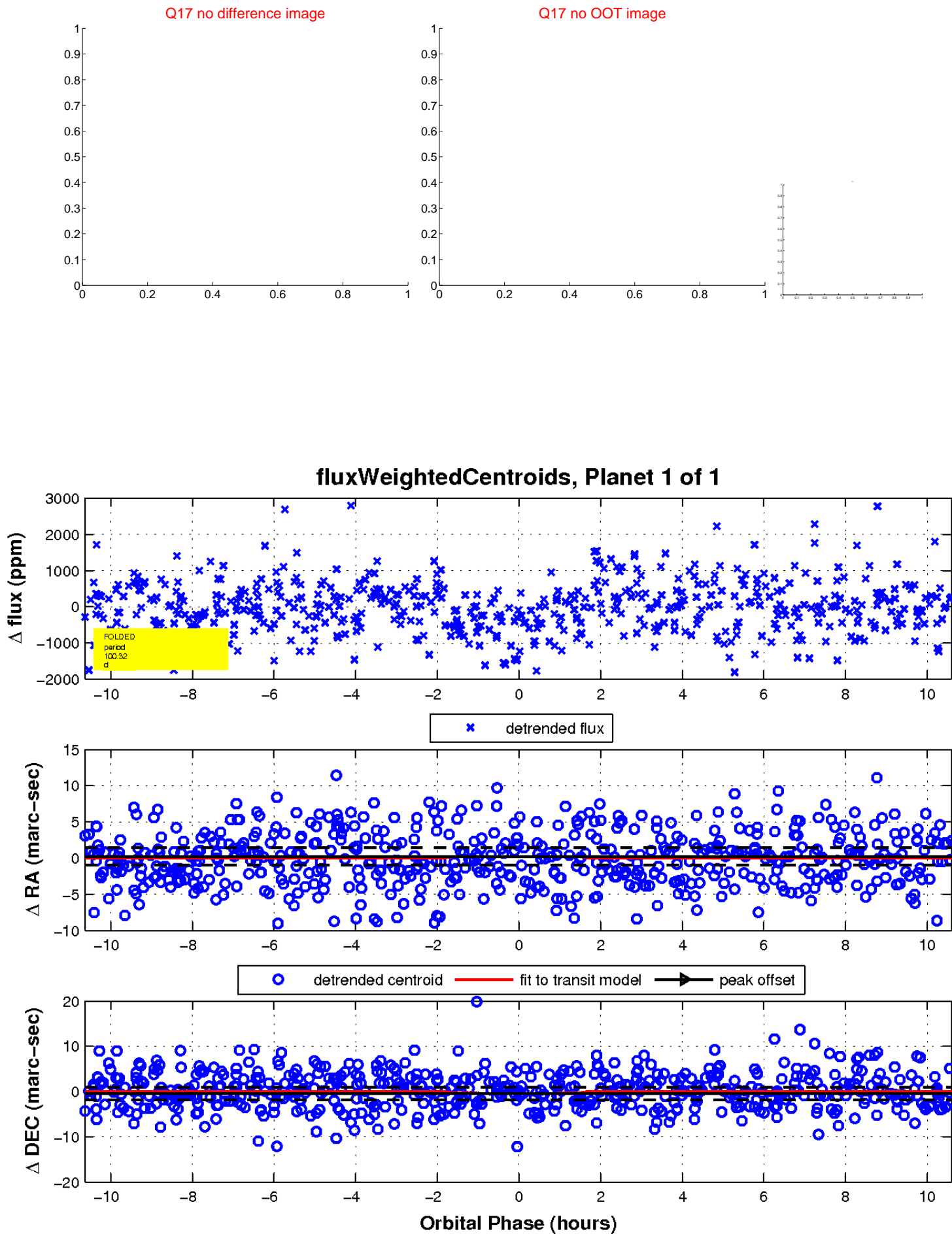
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UKIRT Image

Declination

