

KIC 006927556

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})
006927556-01	OBS	No	9.654649	137.015876	255.7	26.471	10.6	17.8	1.14	6150	2.46	200.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006927556-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

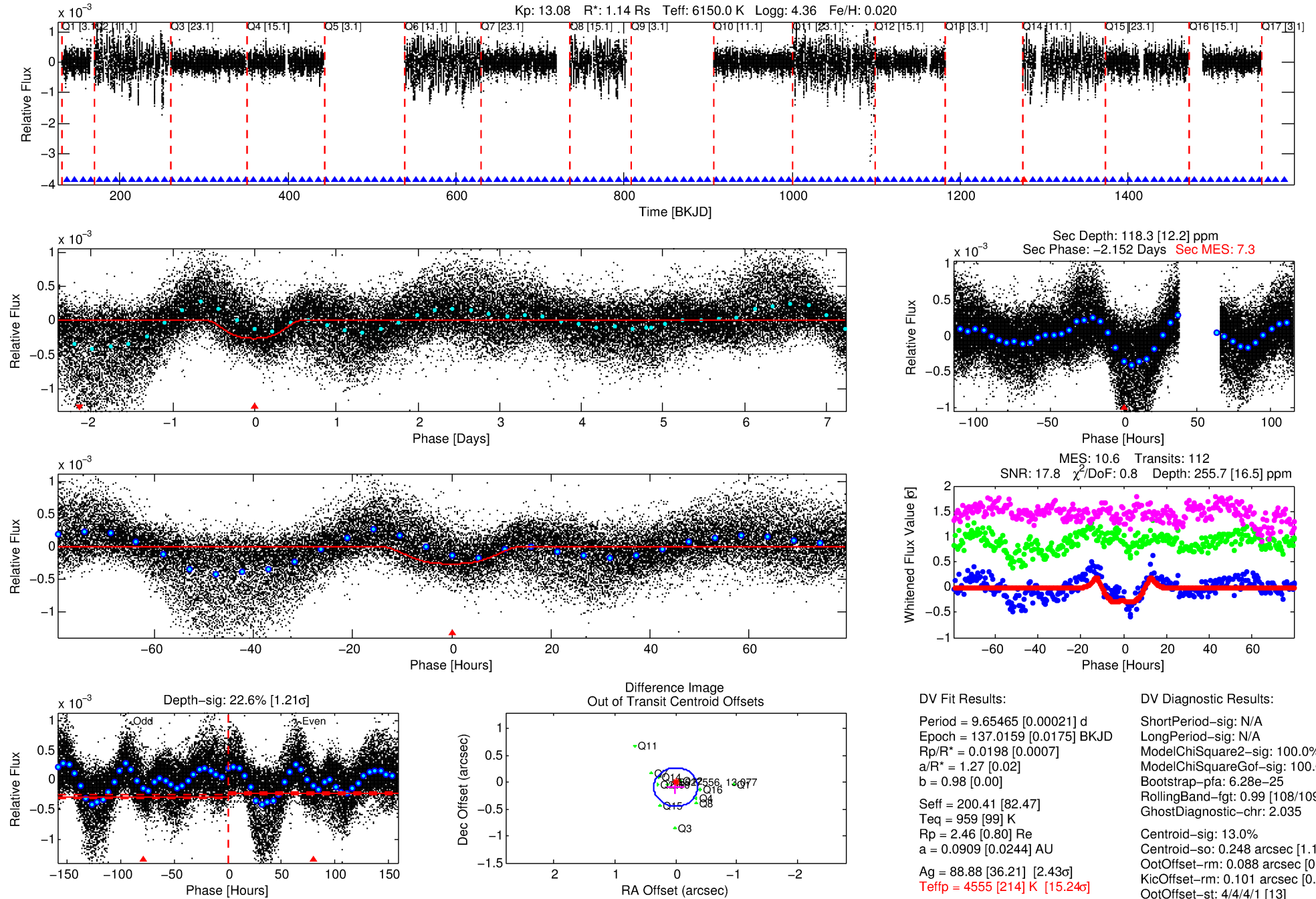
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006927556-01

No Significant Match Found

DV One-Page Summary

KIC: 6927556 Candidate: 1 of 1 Period: 9.655 d



DV Fit Results:

Period = 9.65465 [0.00021] d
Epoch = 137.0159 [0.0175] BKJD
Rp/R* = 0.0198 [0.0007]
a/R* = 1.27 [0.02]
b = 0.98 [0.00]
Seff = 200.41 [82.47]
Teq = 959 [99] K
Rp = 2.46 [0.80] Re
a = 0.0909 [0.0244] AU
Ag = 88.88 [36.21] [2.43σ]
Teffp = 4555 [214] K [15.24σ]

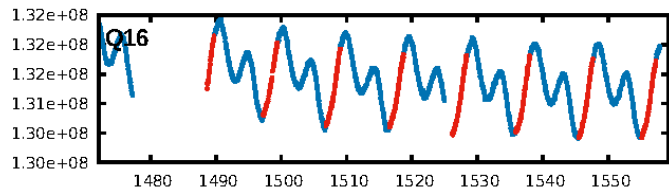
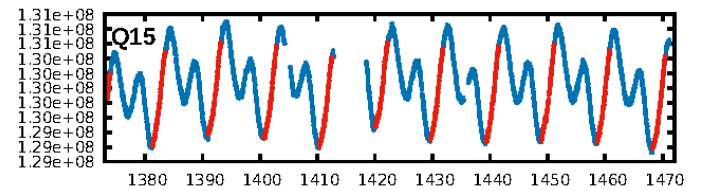
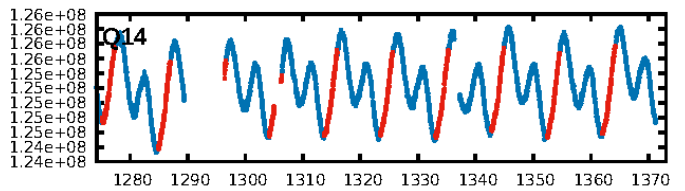
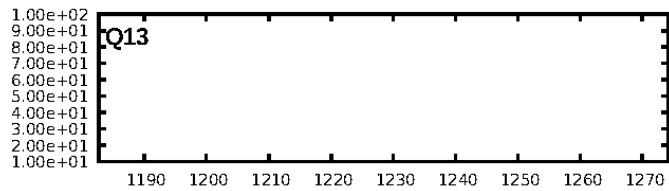
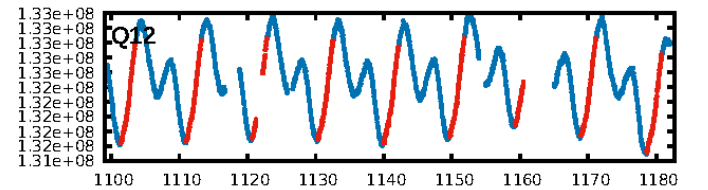
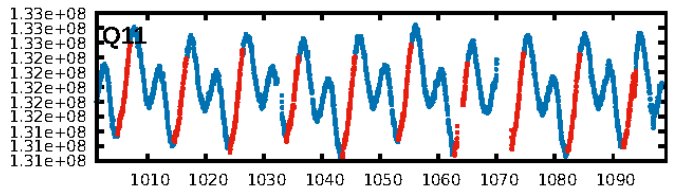
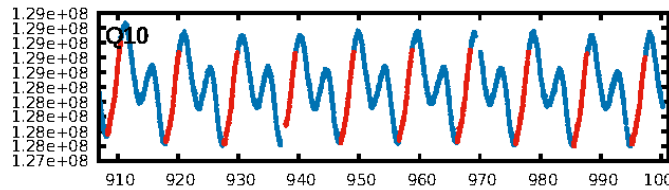
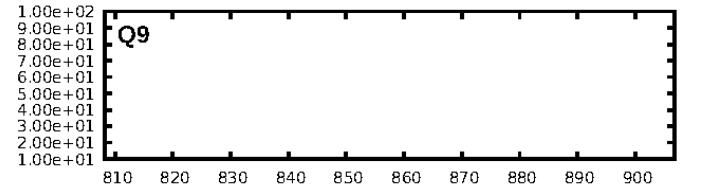
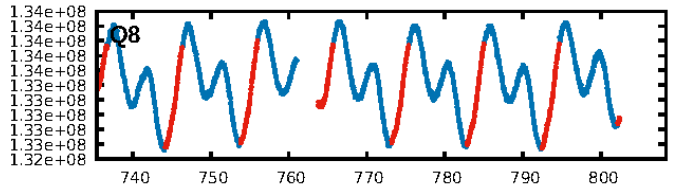
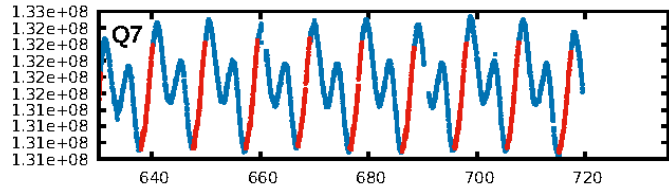
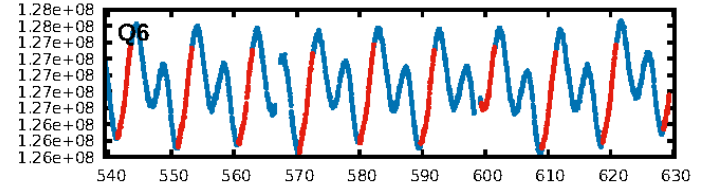
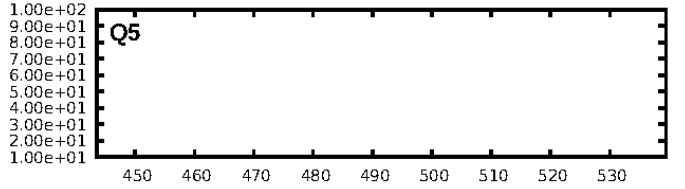
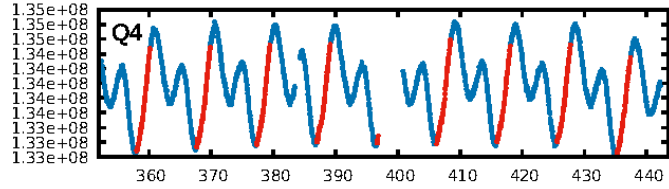
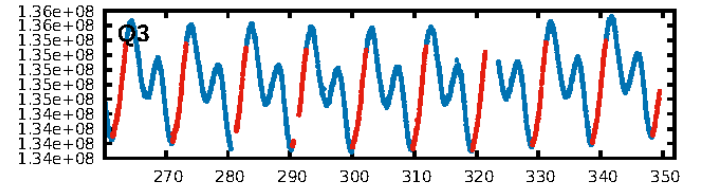
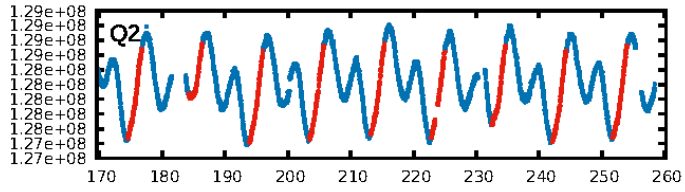
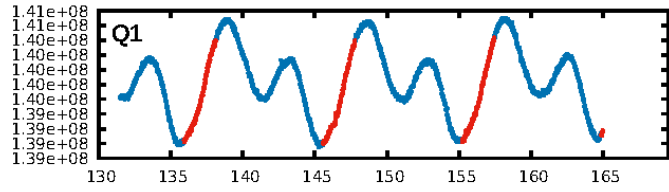
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.28e-25
RollingBand-fgt: 0.99 [108/109]
GhostDiagnostic-chr: 2.035
Centroid-sig: 13.0%
Centroid-so: 0.248 arcsec [1.10σ]
OotOffset-rm: 0.088 arcsec [0.73σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-rm: 0.101 arcsec [0.79σ]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

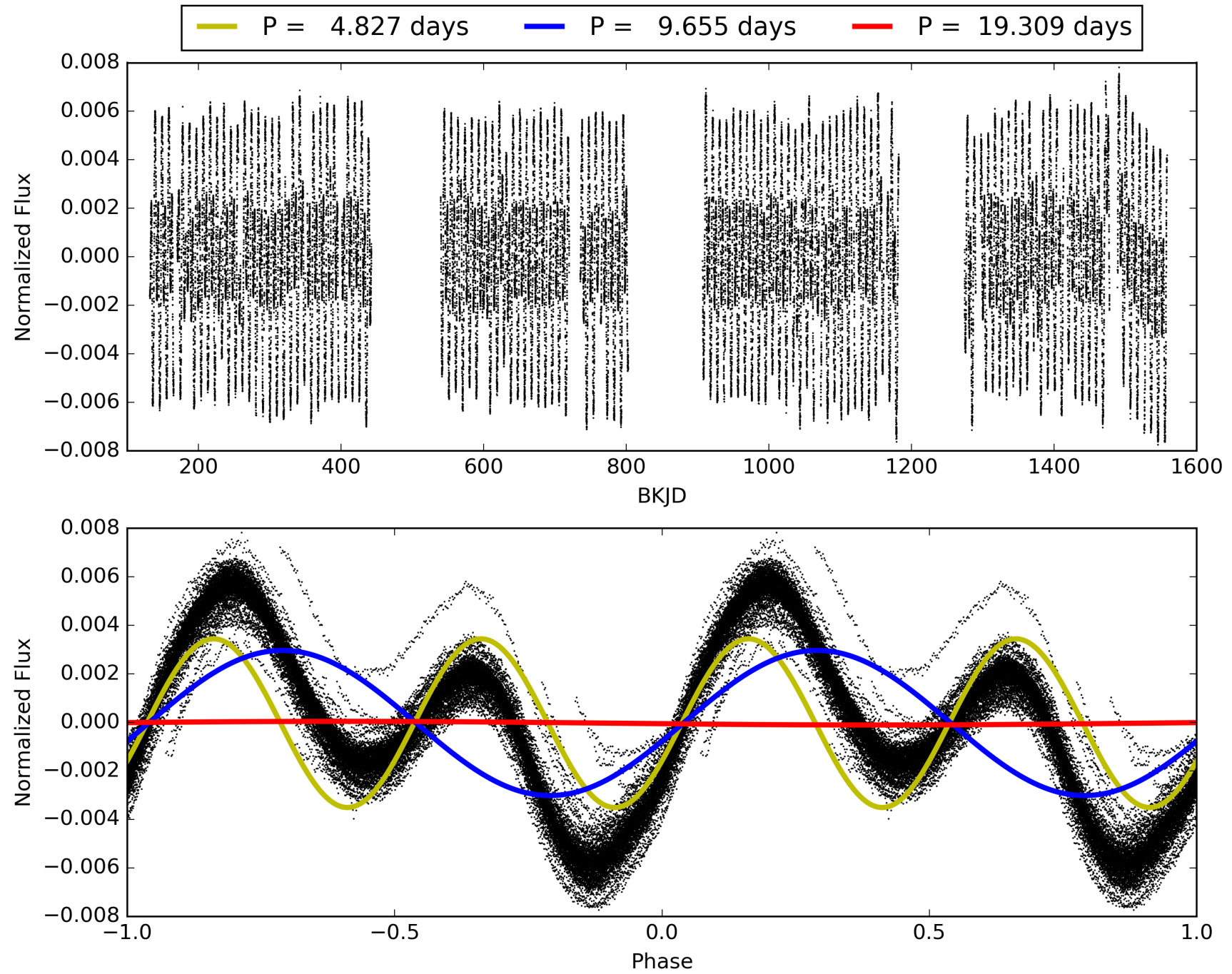
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:15:34 Z

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

TCE 006927556-01, PDC Light Curves

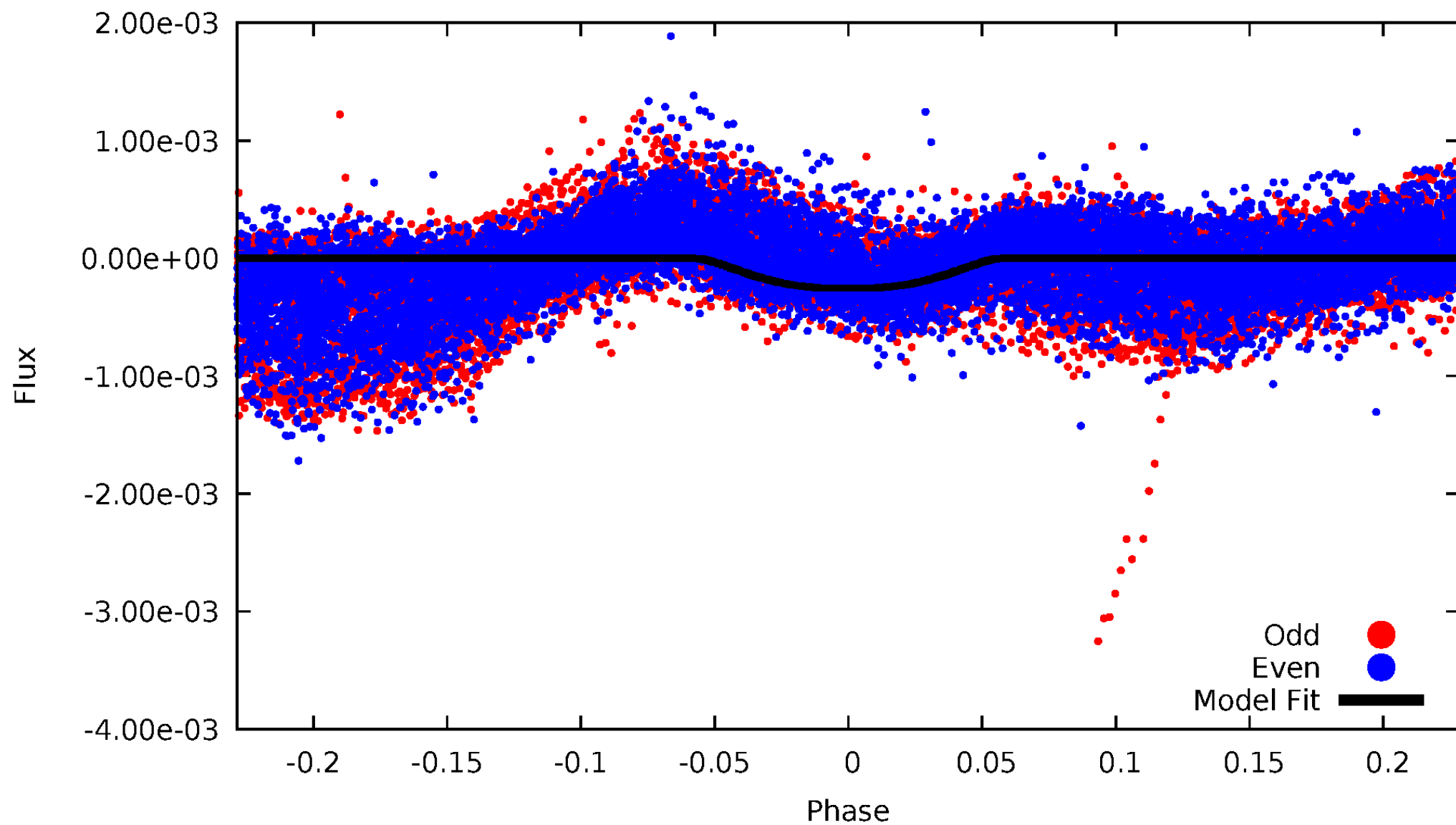


TCE 006927556-01



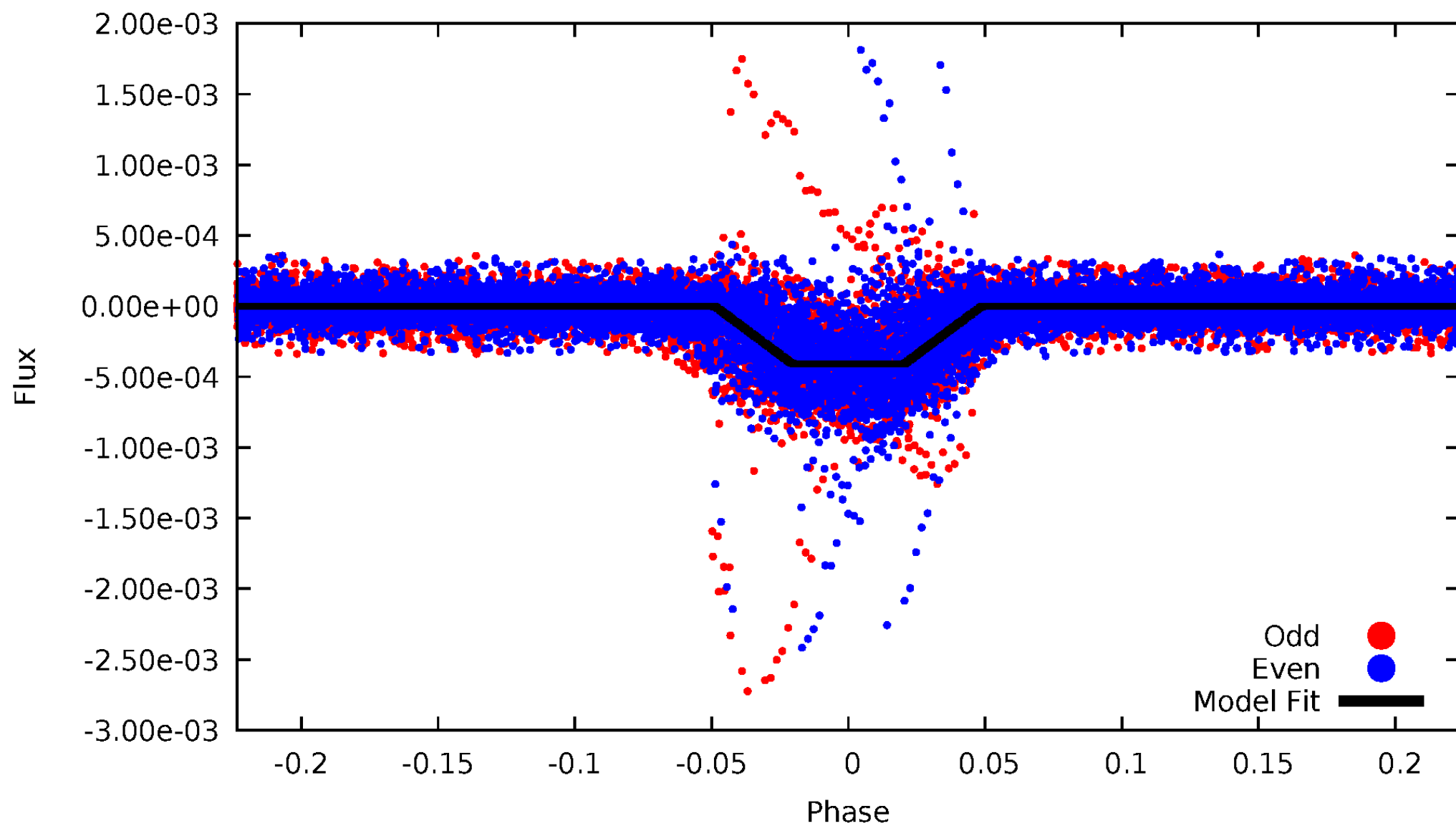
DV Odd/Even

TCE 006927556-01

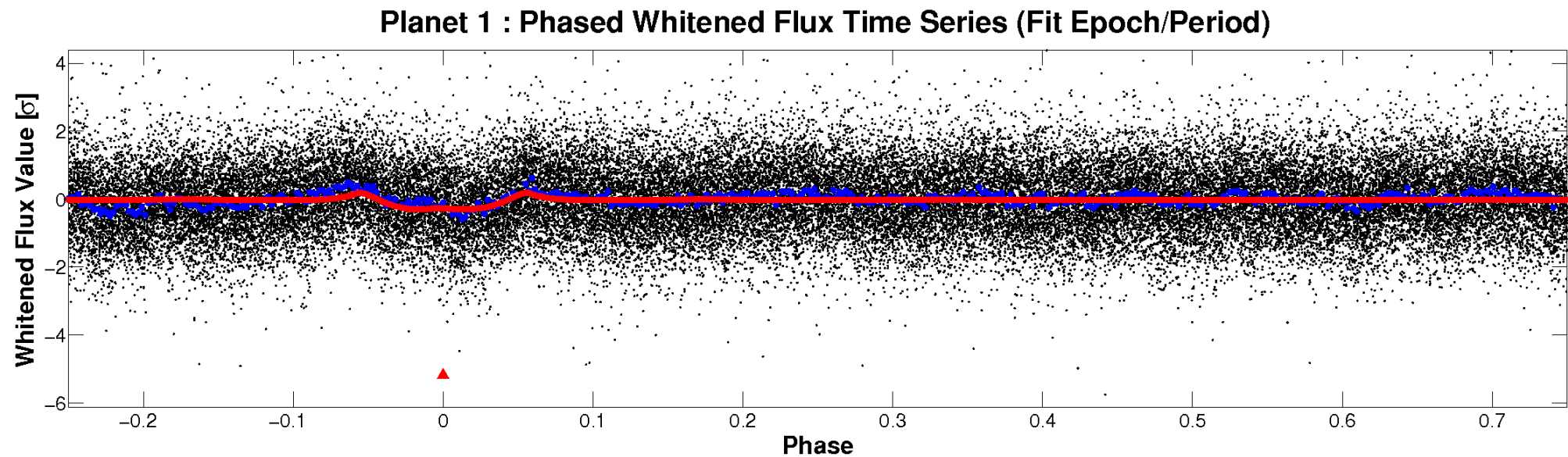
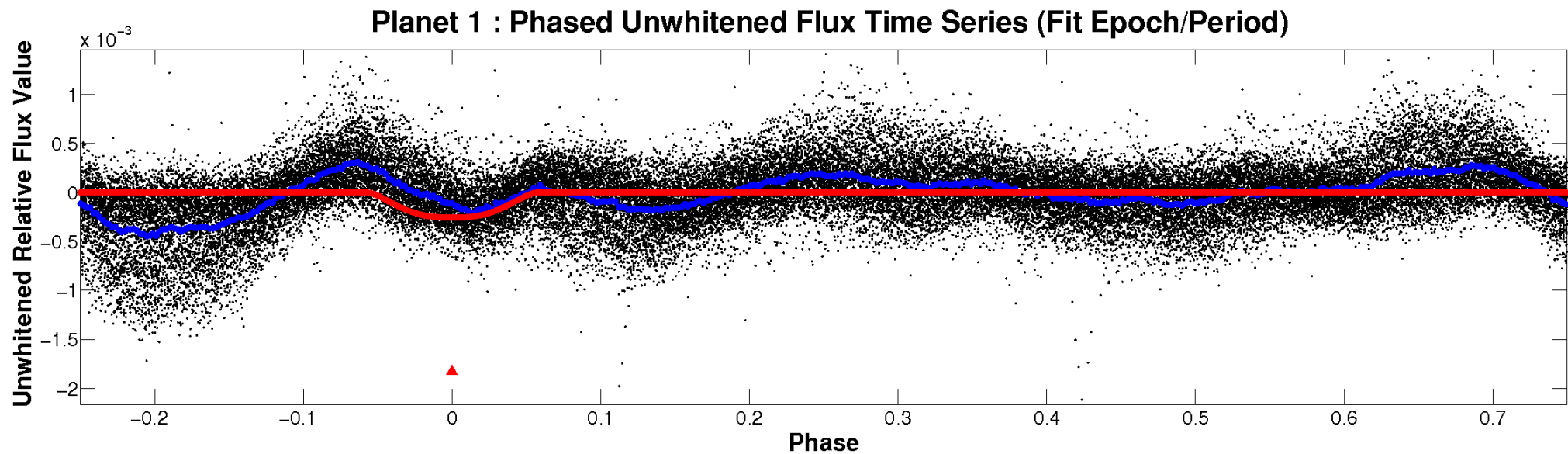


ALT Odd/Even

TCE 006927556-01

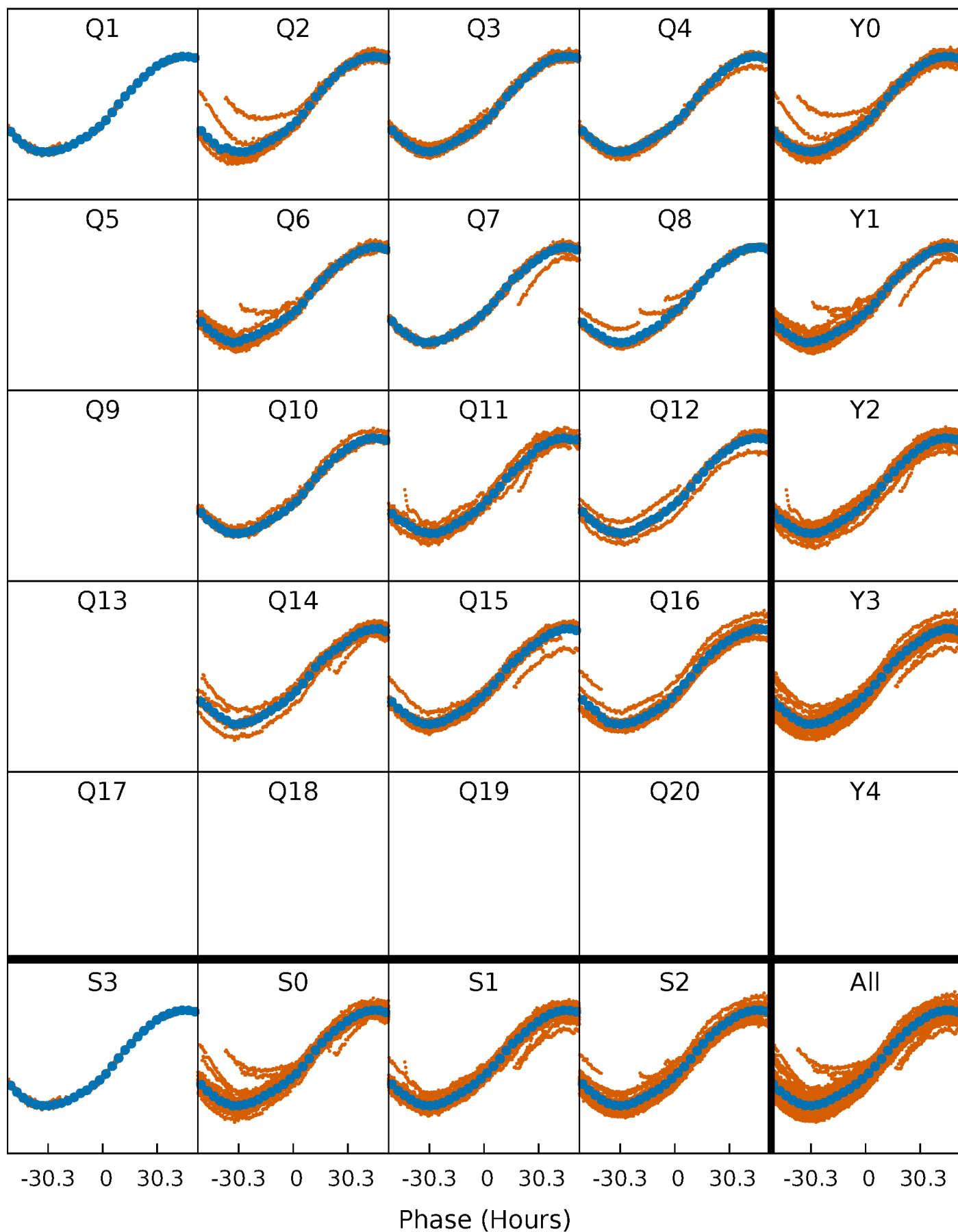


Non-Whitened Vs. Whitened Light Curve



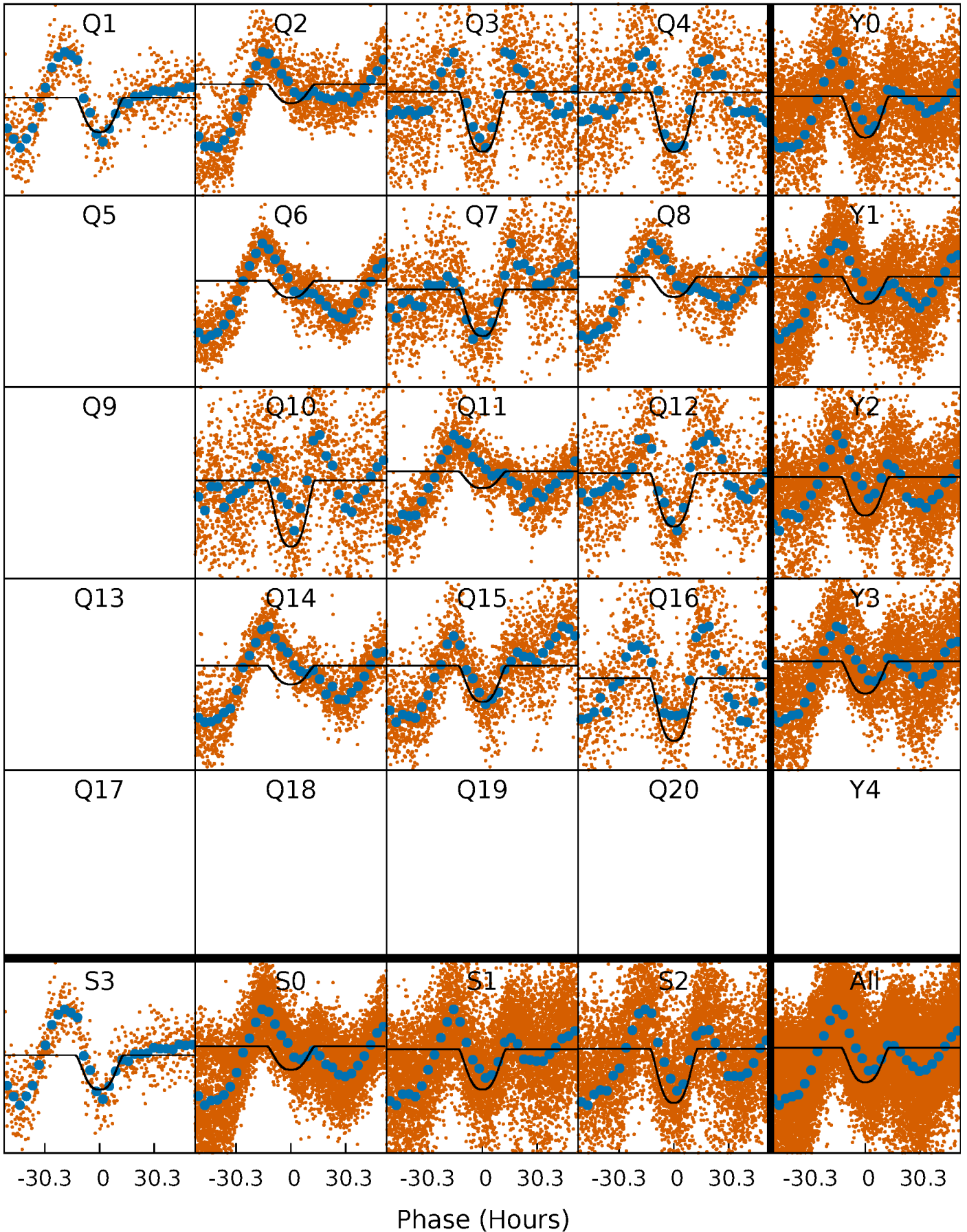
PDC Quarter-Phased Transit Curves

TCE 006927556-01 P= 9.654649 Days $T_0=137.015876$ (BKJD)



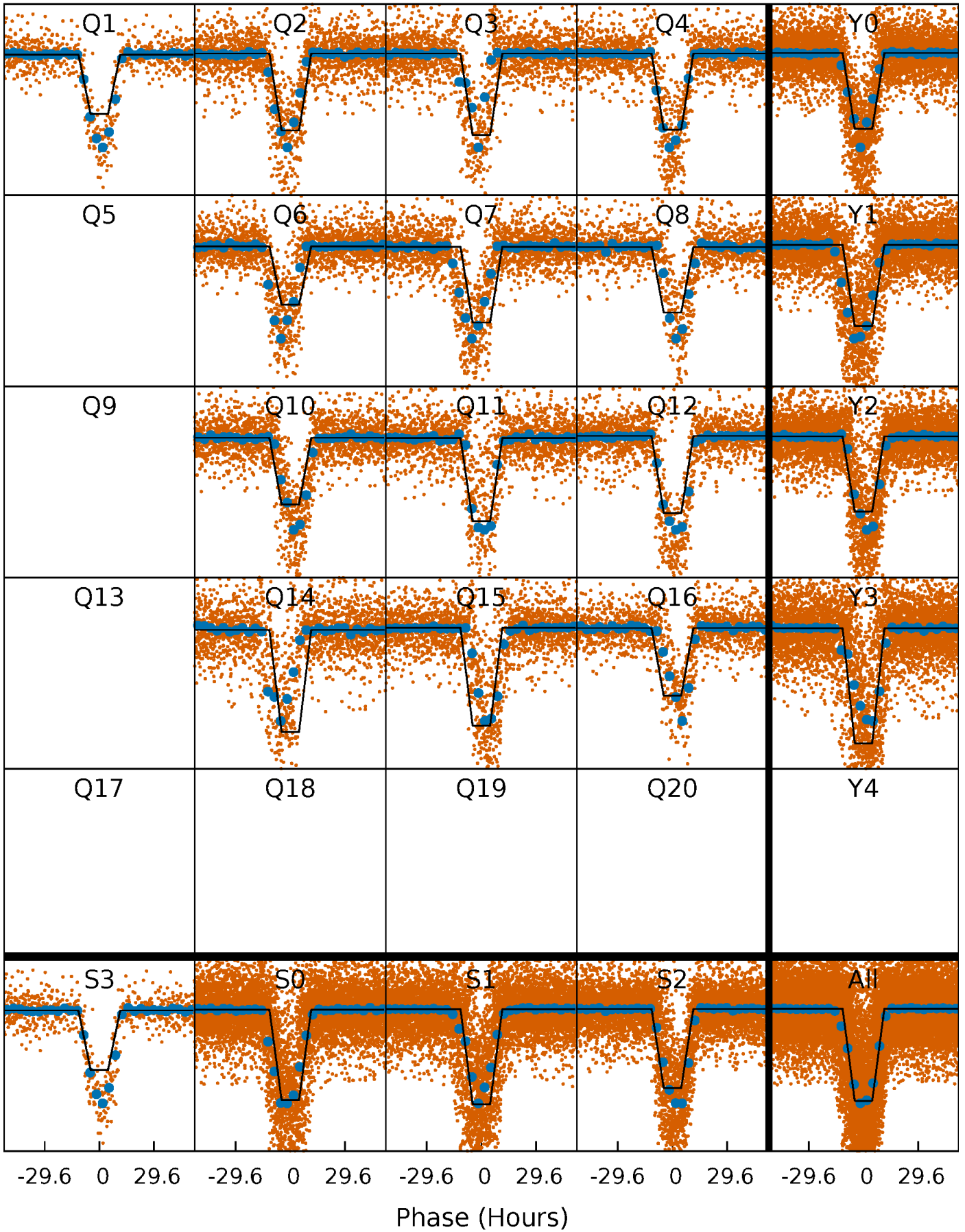
DV Quarter-Phased Transit Curves

TCE 006927556-01 P= 9.654649 Days $T_0=137.015876$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

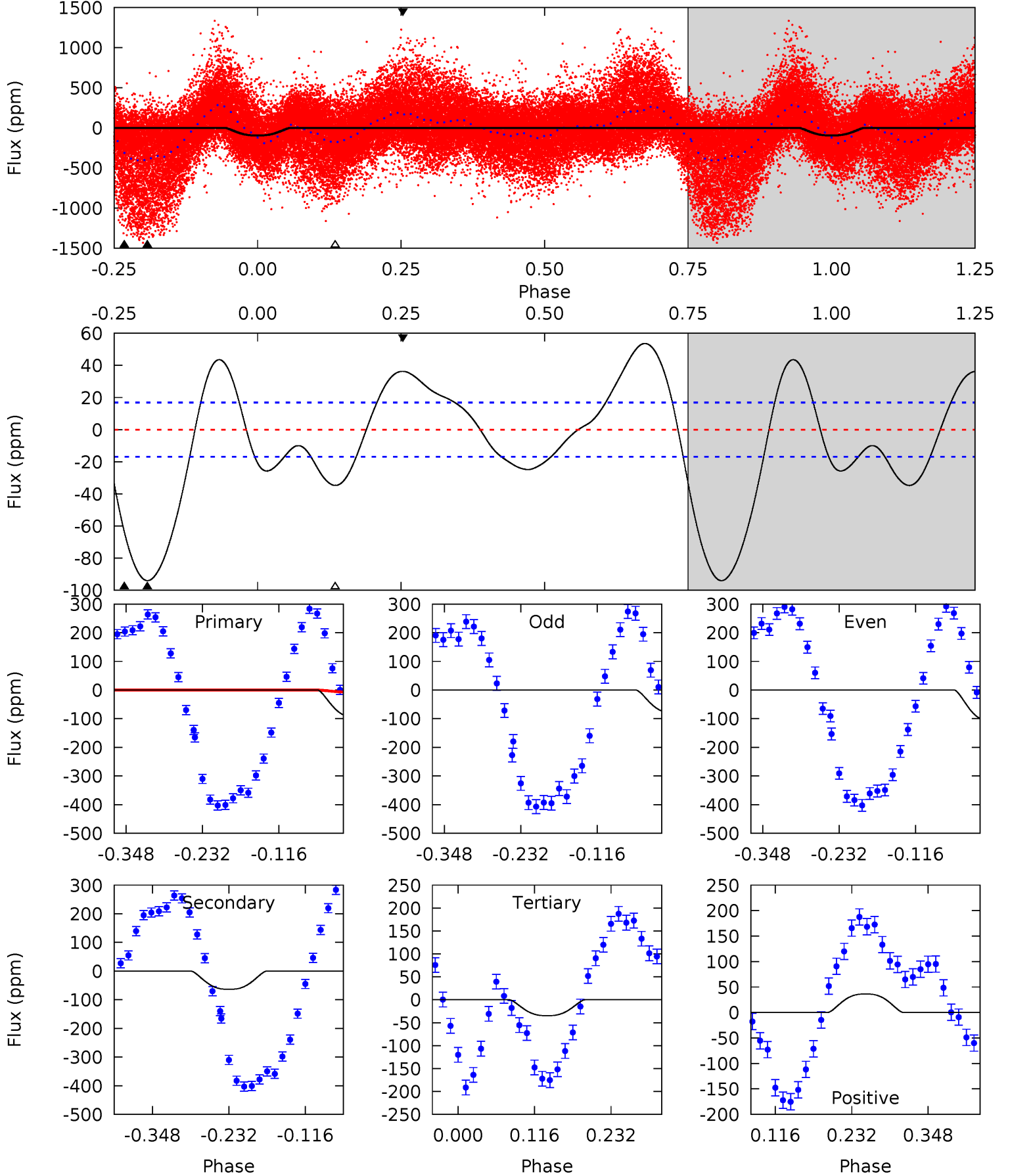
TCE 006927556-01 P= 9.654928 Days $T_0=136.943591$ (BKJD)



DV Model-Shift Uniqueness Test

006927556-01, P = 9.654649 Days, E = 127.361227 Days

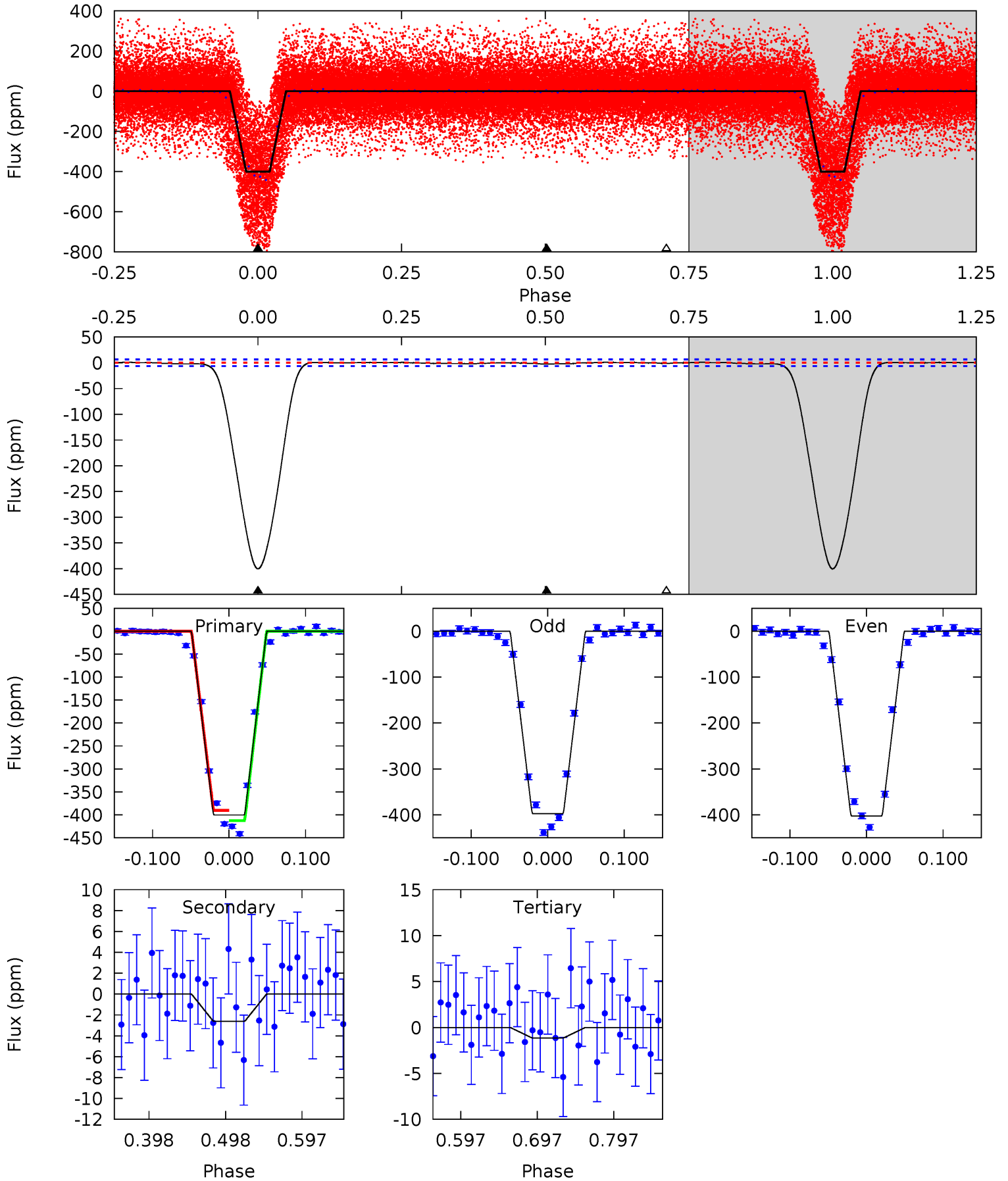
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	17.1	9.34	9.77	4.53	1.57	6.70	16.0	15.5	7.75	7.32	3.93	0.67	0.36	22.3



Alt Model-Shift Uniqueness Test

006927556-01, P = 9.654928 Days, E = 127.288663 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
284.4	1.85	0.81	0	4.57	1.65	0.66	283.5	284.4	1.04	1.85	1.78	1.21	0.00	7.89



Stellar Parameters For KIC 006927556

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6150^{+171}_{-214}	$4.358^{+0.090}_{-0.210}$	$0.020^{+0.250}_{-0.300}$	$1.137^{+0.366}_{-0.157}$	$1.070^{+0.181}_{-0.120}$	$1.026^{+0.422}_{-0.544}$
	+3%/-3%	+2%/-5%	+1250%/-1500%	+32%/-14%	+17%/-11%	+41%/-53%
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 006927556-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-64 ± 4	$2.52^{+0.45}_{-0.26}$	1353^{+102}_{-70}	4162^{+112}_{-134}	45^{+11}_{-12}
Alt.	-3 ± 1	$2.56^{+0.44}_{-0.23}$	1357^{+100}_{-73}	2512^{+163}_{-303}	$1.706^{+1.074}_{-0.928}$

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 $A_{obs} \gg 1.0$

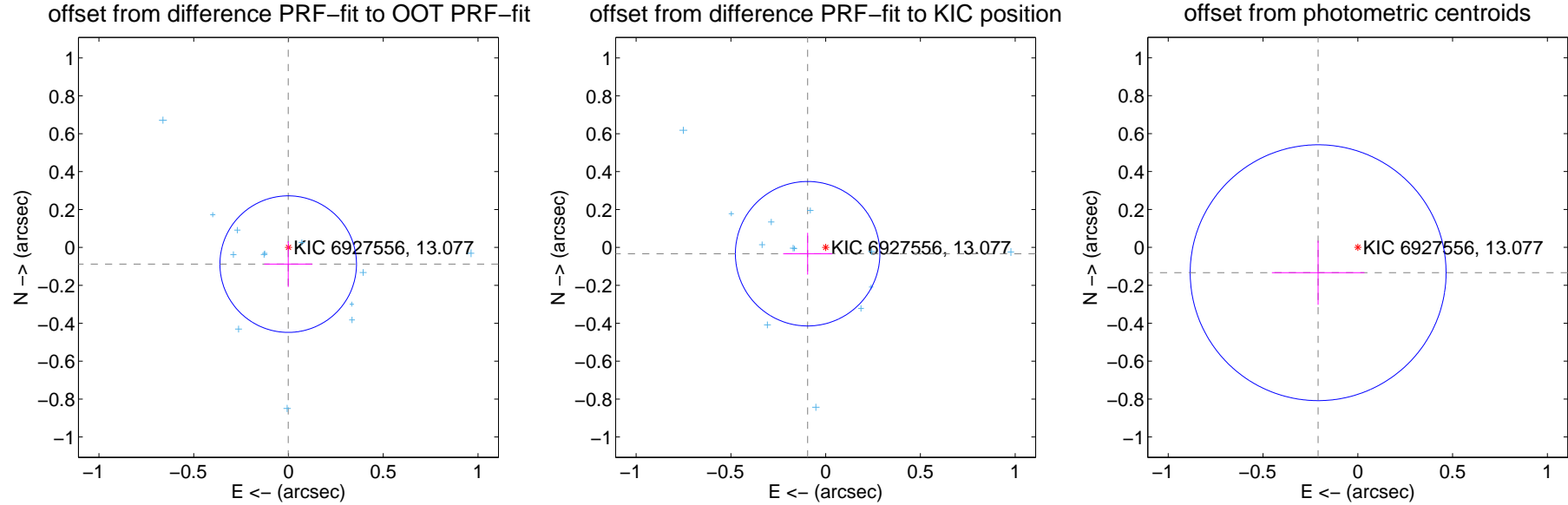
DV Centroid Data

Supplemental centroid analysis for 006927556-01. Kepler magnitude: 13.08. Transit SNR 17.80

There are 13 quarters with good PRF difference image offsets

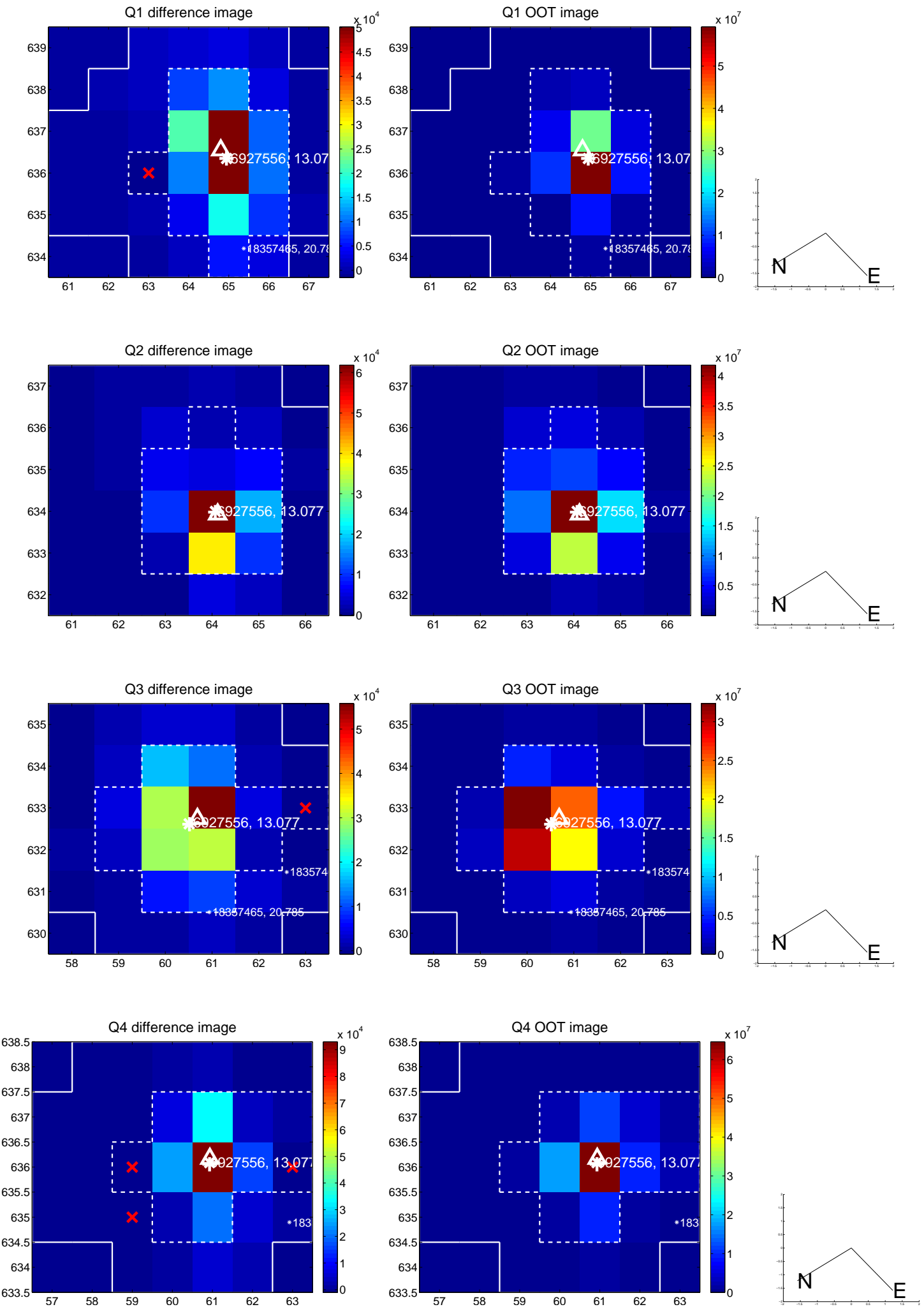
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.088 ± 0.120	0.73	0.002 ± 0.127	-0.088 ± 0.121
PRF-fit source offset from KIC position	0.101 ± 0.127	0.79	0.095 ± 0.129	-0.033 ± 0.110
photometric centroid source offset	0.25 ± 0.22	1.10	0.21 ± 0.24	-0.13 ± 0.17



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.

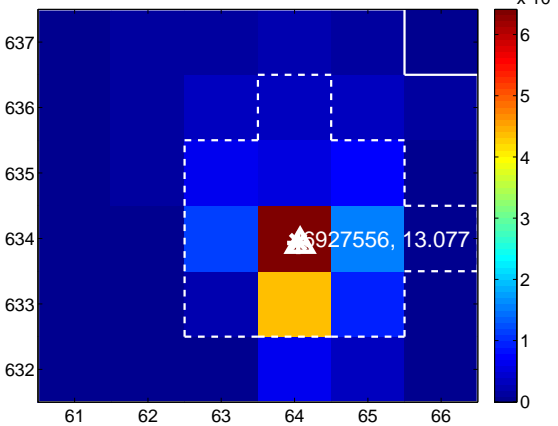
Q5 no difference image



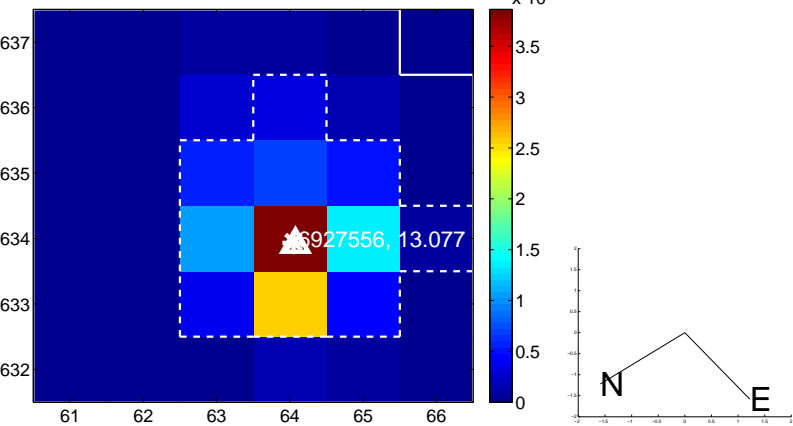
Q5 no OOT image



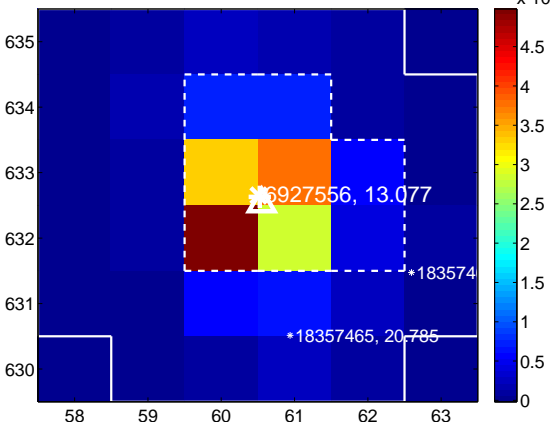
Q6 difference image



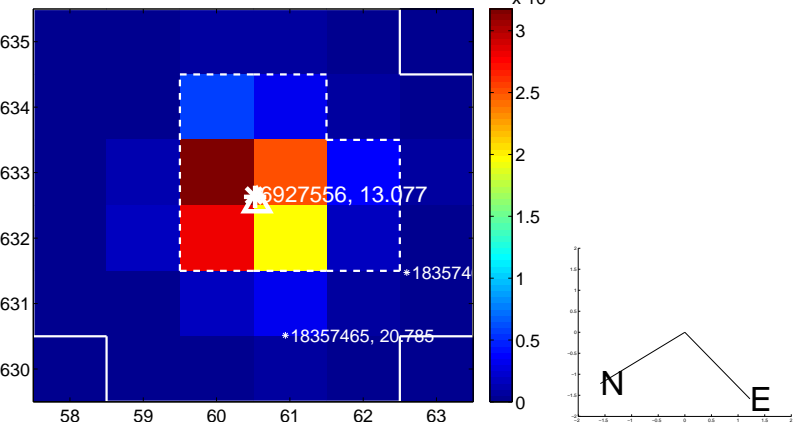
Q6 OOT image



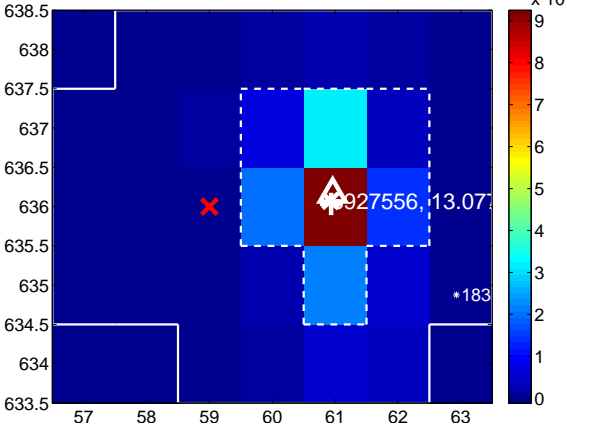
Q7 difference image



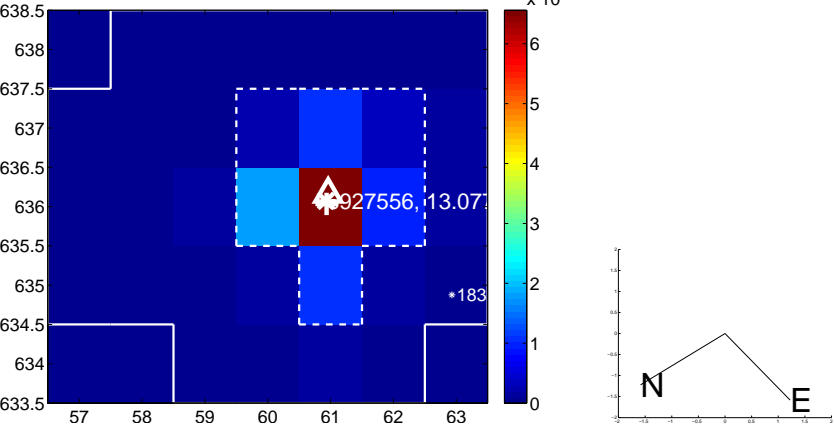
Q7 OOT image



Q8 difference image



Q8 OOT image



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

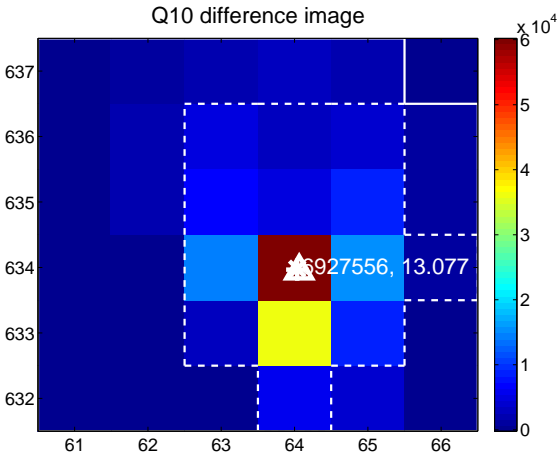
Q9 no difference image



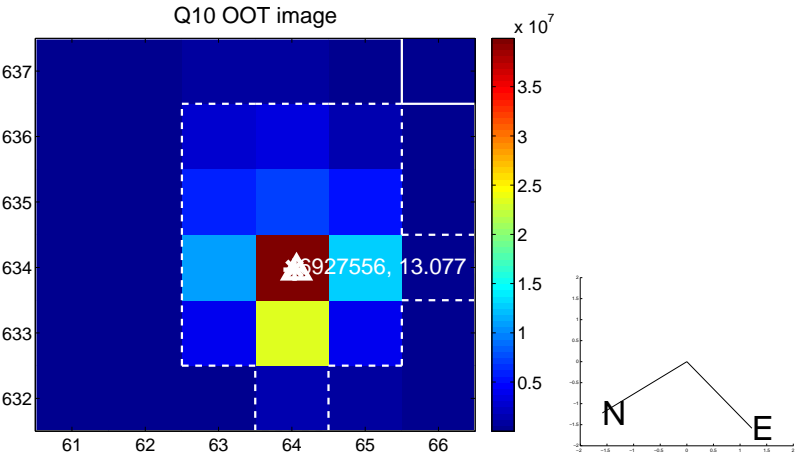
Q9 no OOT image



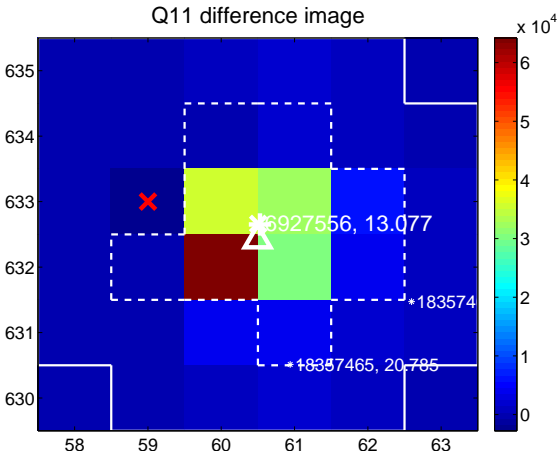
Q10 difference image



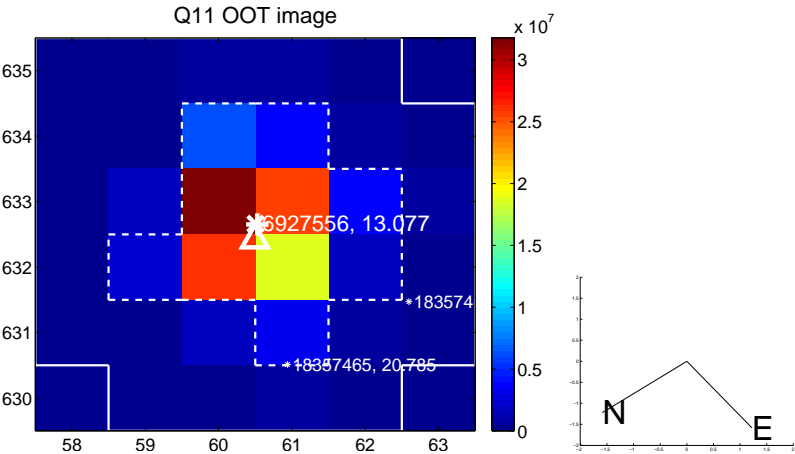
Q10 OOT image



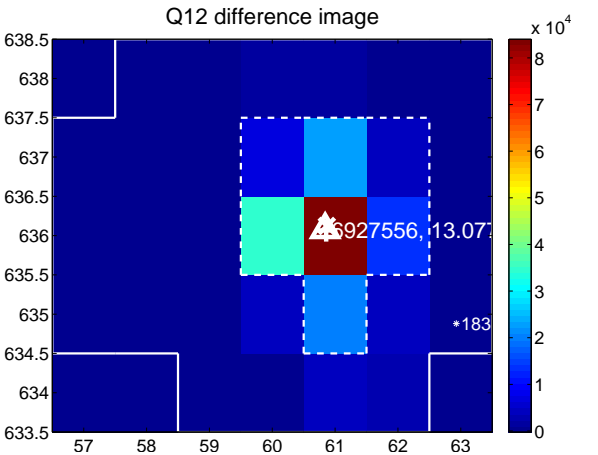
Q11 difference image



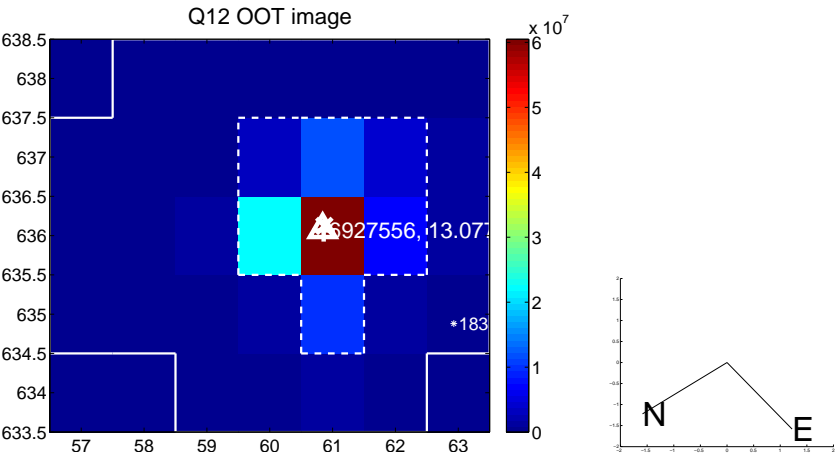
Q11 OOT image



Q12 difference image



Q12 OOT image



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

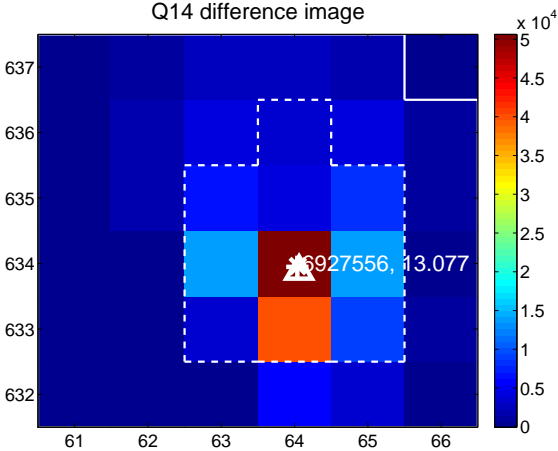
Q13 no difference image



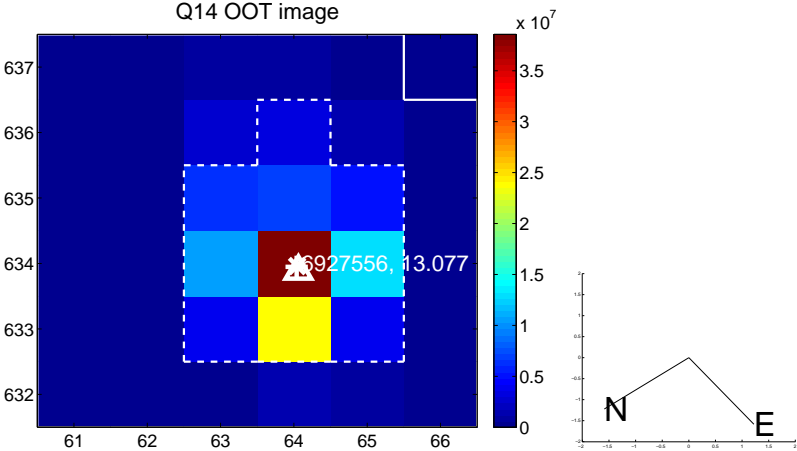
Q13 no OOT image



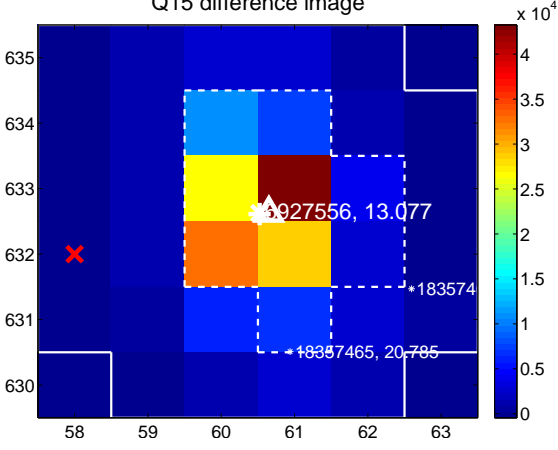
Q14 difference image



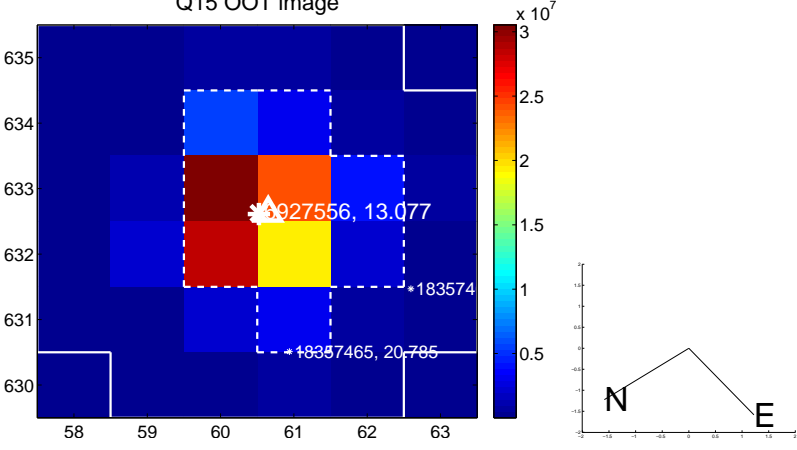
Q14 OOT image



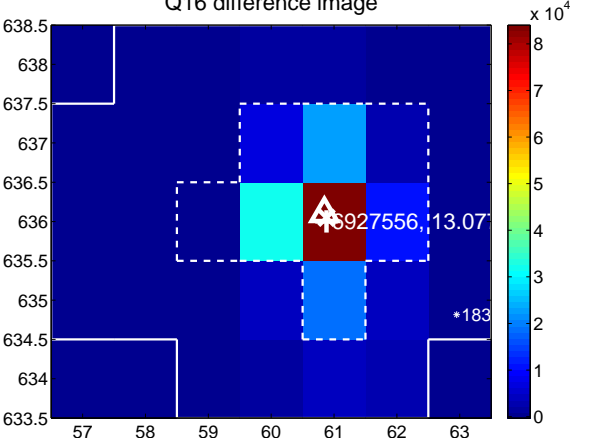
Q15 difference image



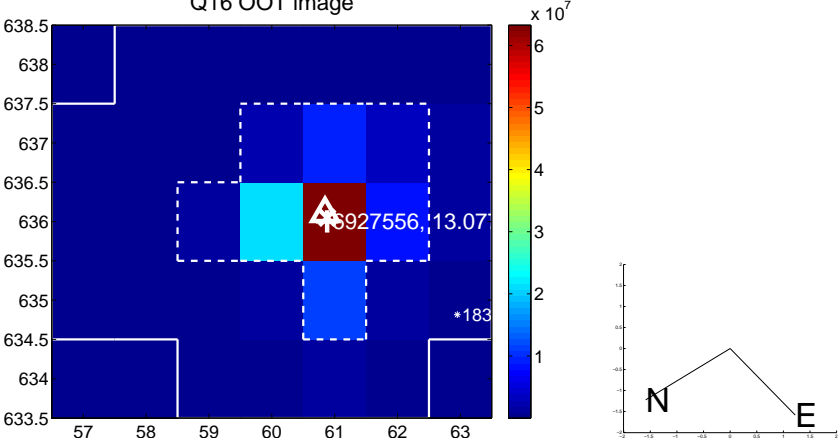
Q15 OOT image



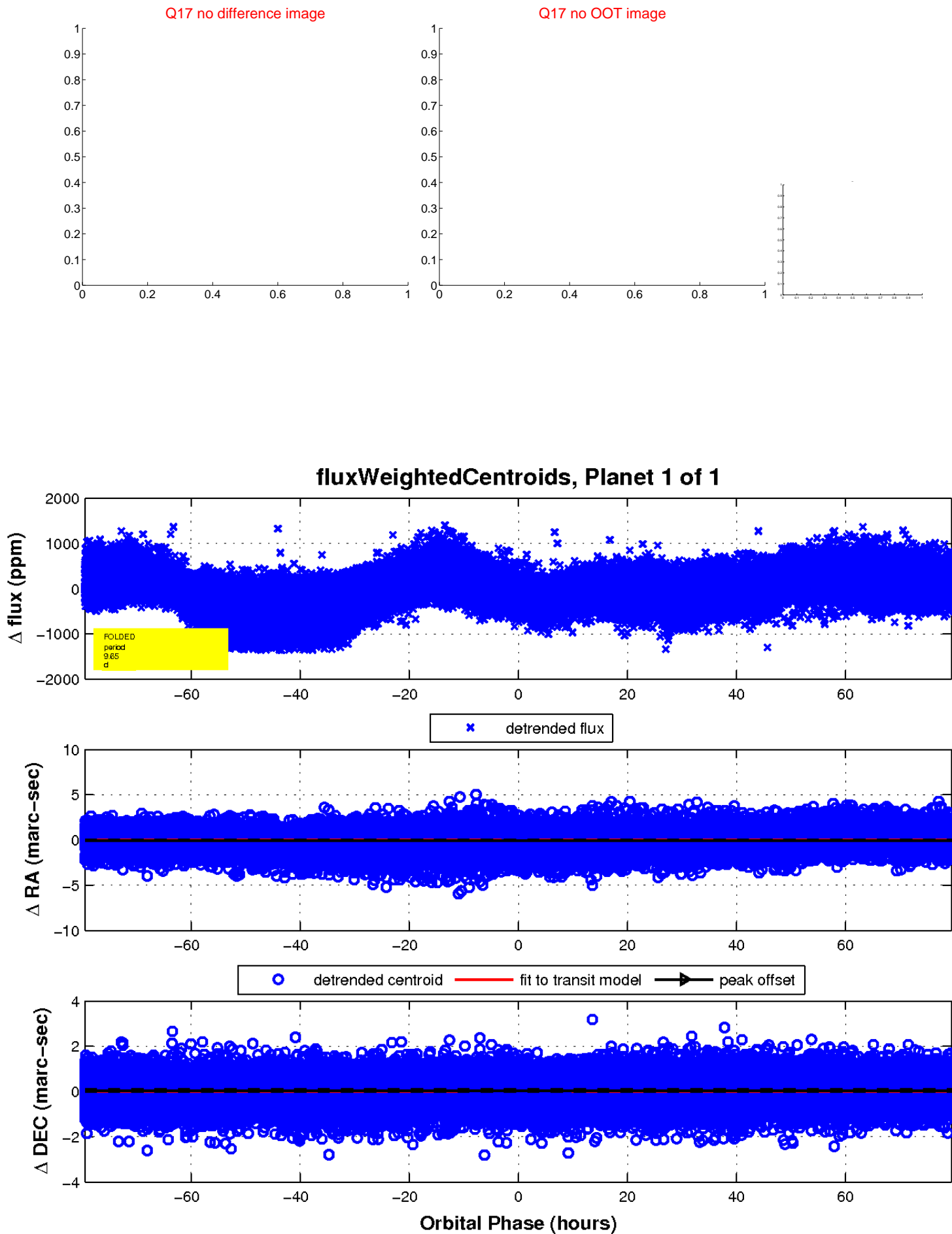
Q16 difference image



Q16 OOT image



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



UKIRT Image

Declination

